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Table of Contents

| | |
|---|----|
| Introduction..... | 4 |
| Methodology | 7 |
| EPC Facilitation | 8 |
| 1. A. Impact on market development..... | 8 |
| 1. B. Accelerating development of energy services..... | 9 |
| 1. C. Prerequisites to successfully influence the market..... | 9 |
| 1. D. Recommendations for regulatory/policy framework | 10 |
| 2. Success of facilitator pool..... | 11 |

Executive Summary

The role of the EPC facilitator is to act as a mediator between the client and ESCo and to manage the project from the early stages of its development right through to the project conclusion. EPC Facilitators give substantiated and reliable information to building owners, helping them to understand the possibilities, benefits and risks of EPC and thus paving the way for energy-efficiency projects to be undertaken. They play a key role in overcoming clients' lack of trust in the EPC model and ESCo industry, complex book-keeping rules and other administrative barriers. Ideally, the facilitators can become project initiators, searching for potential projects in the market.

This report examines the role EPC facilitators have had on the development of the EPC market in the partner countries.

- Almost all respondents commented that EPC facilitators have had a big impact on the development of the EPC market in their country.
- Many countries have reported significant growth in the number of active EPC facilitators even over the course of the guarantEE project, however the reference point has in many cases been very low to begin with.
- Facilitators have played a key role in overcoming clients' lack of trust in the EPC model and ESCo industry, complex book-keeping rules and other administrative barriers.
- The EPC facilitators have also generated pipelines of EPC projects.
- In the public sector in particular, the role of EPC facilitator has been seen to significantly accelerate the timeline of project development, as well as leading to an increase in the number of projects being undertaken.
- The support of "market facilitators" provides national approaches and development programmes for EPC and can be a significant aid to project facilitators.
- Advice provided by project facilitators must be impartial and geared towards the owner of the building.
- EPC facilitators deal with three different interconnected areas – legislative, technical and financial. Quite often, the facilitation is provided by a consultancy team rather than a single individual.
- The availability of best-practice case studies and the sharing of success stories through various media is key to instilling confidence in both building owners and ESCos in the EPC concept.
- Explicit support from the national and/or regional governments into performance-based contract models, such as EPC and ESC, would help in the further growth of the market.
- The introduction of national EPC project facilitator qualification or certification schemes and provision of EPC project development support and technical assistance would greatly assist the development of EPC markets.
- Where national subsidies are provided towards the preparation of documentation for EPC projects, these should include activities carried out by facilitators.
- Where implemented, facilitator pools have been very successful. However, many national pools are still quite small in size.
- The existence of nationally recognised and accredited pools has resulted in many public bodies in particular reconsidering the topic of EPC. Through the lists, they have had the opportunity to quickly make contact with qualified and thus reliable EPC project facilitators.

Introduction

The European climate and energy efficiency targets can only be achieved if private capital is mobilised for the implementation sustainable energy projects. Energy service contracts, such as Energy Performance Contracting (EPC), could be instrumental in bridging the gap between the energy efficiency and financial markets. Energy services such as EPC help building owners in the modernisation of their facilities. The planning, financing, implementation and maintenance of a set of technical measures are outsourced to an experienced energy service company (ESCO). Through the provision of a performance guarantee the ESCo can finance the energy conservation measures through future energy savings. This guarantees energy and cost savings to the client while the ESCo takes on the technical and performance risks. It is this performance guarantee mechanism that opens energy efficiency projects to private finance.

The guarantEE project continues to fosters the use of Energy Performance Contracting in the public and private sector across Europe especially through the developing of innovative EPC solutions for rented facilities and by making EPC more flexible to better serve private sector clients. Guarantee continues to support the delivery of EPC projects across Europe along with the promotion and development of the role of the EPC project facilitator. To date GuarantEE has supported the delivery of 35 EPC projects across the partnership.

The main concept of guarantEE is to address two of the most relevant barriers to EPC in order to significantly enlarge the potential for new projects and boost the EPC demand side:

1. **The split incentives dilemma:** The split incentives dilemma typically occurs in rented facilities where the main beneficiary of energy saving measures is the user / tenant, while the responsibility for energy efficiency related investments is with the owner. To encourage the building owner to invest (or let an ESCo invest) in energy efficiency measures, (part-)financing of the measures through the beneficiary (the user/tenant) can be a key to make the investments happen, thus creating a triple-win situation, in which the tenant enjoys lower energy costs while the owner or the ESCO gain access to a share of the savings achieved to allow for the necessary investments.
2. **Limited flexibility:** The limited flexibility of the EPC contract models can restrain market growth especially among private building owners. Critical issues are project duration (preference for shorter contracts of 5 years rather than 10 years), termination for convenience, simplified M&V, using synergies with energy management requirements (for SMEs). Furthermore, specific aspects such as load management in EPC and EPC with multiple building owners (quarters, business parks) will be addressed to make EPC fit for the energy challenges of the future.

In addressing these barriers, the guarantEE project has developed multiple solutions which are captured in a number of project outputs and which can be found in the knowledge portal on the project website¹. A number of these proposed solutions were tested by the project partners in the pilot projects delivered during the course of this project. The aim of this report is to evaluate the role that the EPC project facilitators have played in developing the EPC market in each of the partner countries, and to describe what is needed to increase their influence on the market in the future.

¹ <https://guarantee-project.eu/knowledgebase/>

The guarantEE project is funded by the European Union's Horizon 2020 research and innovation programme and involves 13 partners from across Europe.



| | | | | | |
|---|----------------|---|---|-------------|---|
|  | Germany | Berliner Energieagentur (lead partner) |  | Lithuania | Public Investment Development Agency |
|  | Austria | Grazer Energieagentur |  | Netherlands | Rijksdienst voor Ondernemend Nederland |
|  | Belgium | Factor4 |  | Norway | <i>Norsk Enøk og Energi AS</i> (partner until 05/2018) |
|  | Czech Republic | ENVIROS |  | Romania | TUD Financial Solutions SRL |
|  | France | Île-de-France Énergies |  | Slovakia | Energy Centre Bratislava |
|  | Ireland | Codema – Dublin's Energy Agency |  | Slovenia | Institut "Jožef Stefan" |
|  | Italy | Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico Sostenibile |  | Spain | Institut Catala d'Energia |



Figure 1: GuarantEE partnership

Methodology

The information in this report was collected using a simple questionnaire. This questionnaire contained two sections. The first section had four questions relating to the status of EPC project facilitators in the partner's own country, while the second section only had one question concerning the setup and operation of national EPC facilitator pools. The responses to these questions from each of the project partners are summarised and commented on in the following section.

|   | |
|--|---------------------------|
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Question 1: Overview of the status of EPC project facilitators in your country

Note: Those project partners, who are national (energy) agencies and who conducted the pilot projects in WP4 through a mini funding scheme addressed at building owners to support the involvement of a project facilitator, will make an appraisal of their respective experiences.

Please be descriptive in your answer, do not use bullet points only as this make it very difficult to summarise and compile into a larger report. Approximately 500 words.

A. What impact do project facilitators have on market development in your country?
They have a big impact, as they indicate to building owners the possibilities and chances to implement measures by using EPC.
The precondition is that he has contacts to building owners and can explain to them the advantages, but also the requirements for EPC.
At the same time it is important that he also knows the legitimate interests of the contractors and in projects in order to consider the possibilities in the tender and project implementation.
This avoids conflicts between the client and the contractor during the contract period and bad feedback.

B. What role do project facilitators play in accelerating the development of energy services in your country?
The project developers usually support the national approaches and development programs for EPC through presentations on EPC / contracting, feedback on supporting / hindering elements in the area of EPC and best practice examples.

C. What are the prerequisites required for the facilitator to influence the market successfully?
He must ensure that the advice given is unselish and geared to the owner of the building. First, the suitability must be determined together with the customer as to whether an EPC is technically, economically and organizationally sensible for a building or a building pool and where the focus should be: economic advantage for the building owner, CO2 savings, technical modernization, know-how transfer, energy management or similar. The timeline must be coordinated and the award procedure selected. The project developer should not pursue any self-interested goals. ESC projects in which the building owner is dissatisfied after conclusion of the contract can damage the EPC model as a whole due to poor response. At the same time it is important that he also knows the legitimate interests of the contractors and in projects in order to consider the possibilities in the tender and project implementation.
This avoids conflicts between the client and the contractor during the contract period and bad feedback.


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Figure 2: Example of Pilot Diary and Procurement and Contract Questionnaire

EPC Facilitation

The role of the EPC facilitator is to act as a mediator between the client and ESCo and to manage the project from the early stages of its development right through to the project conclusion. EPC Facilitators give substantiated and reliable information to building owners, helping them to understand the possibilities, benefits and risks of EPC and thus paving the way for energy-efficiency projects to be undertaken. They play a key role in overcoming clients' lack of trust in the EPC model and ESCo industry, complex book-keeping rules and other administrative barriers. Ideally, the facilitators can become project initiators, searching for potential projects in the market.

This report examines the role EPC facilitators have had on the development of the EPC market in the partner countries, and what regulatory measures may allow them to further influence the development of the market in future.

1. A. Impact on market development

Overall, almost all respondents commented that EPC facilitators have had a big impact on the development of the EPC market in their country. Facilitators give substantiated and reliable information to building owners, helping them to understand the possibilities, benefits and risks of EPC and thus paving the way for energy-efficiency projects to be undertaken. Ideally, the facilitators can become project initiators, searching for potential projects in the market.

Many countries have reported significant growth in the number of active EPC facilitators even over the course of the guarantEE project, however the reference point has in many cases been very low to begin with. In a number of countries, the majority of building owners are still not familiar with the term "EPC facilitator". In fact, in the early stages of certain ESCo pilot projects, there were no such energy experts who would be qualified as EPC consultants or EPC facilitators, and who could act as a mediator between the client and ESCo.

In spite of the low numbers of EPC facilitators, those active have managed to bring about both quantitative and qualitative development of the EPC market in many countries, especially in terms of project identification (investment grade audits), timely project implementation (procurement support) and the successful operation of projects (M&V support). They have played a key role in overcoming clients' lack of trust in the EPC model and ESCo industry, complex book-keeping rules and other administrative barriers. The EPC facilitators have also generated pipelines of EPC projects via other funding mechanisms, such as ELENA.

Membership and close co-operation with an umbrella/lobbying body for energy service providers, including both ESCos and EPC facilitators, is very useful for developing standardised processes and documents for the procurement of services in the field of EPC, but also for dissemination and promotion activities. These "market facilitators" are especially beneficial in markets where there is only a limited number of active EPC facilitators. In many countries, such energy service associations have been working closely with the relevant government ministries in order to define, promote and harmonise quality standards, including codes of conduct. In certain jurisdictions, such as in Slovakia, the Government has made it mandatory for an EPC facilitator to be engaged in the development of any public sector EPC projects.

In many countries, the development of the EPC market is most active in the public sector, as municipalities want to lead by example and are more open to trying to incorporate the EPC facilitators. This is especially the case as municipalities look towards renovating their entire building stock rather than just one or two large buildings. Due to the success of initial projects, the municipalities involved are now very interested in developing multiple, larger EPC projects. Furthermore, this success is being seen by other municipalities and interest is quickly growing amongst them, creating further demand for EPC facilitators. In time, this public sector demand will also drive private sector demand.

1. B. Accelerating development of energy services

In the public sector in particular, the role of EPC facilitator has been seen to significantly accelerate the timeline of project development, as well as leading to an increase in the number of projects being undertaken. Often, municipalities lack the capacity and the knowledge to organise these contracts themselves and the support through facilitators is certainly beneficial. Facilitators can ensure that through better contracts, better results can be achieved and sustainability boosted.

Project facilitators have to invest plenty of time in explaining the rather innovative concept of performance contracting, and removing the habitual resistance to exploring this novel realm in building performance management. Over time, and in line with market development, this aspect of the facilitator's role should diminish. Facilitators should then be able to concentrate more fully on their core tasks of identifying projects, tendering and contracting ESCOs and managing the ongoing M&V activities and client-ESCO relationships over the course of the projects.

In a small number of countries, the support of "market facilitators" provides national approaches and development programmes for EPC and can be a significant aid to project facilitators. These bodies typically deliver public awareness campaigns for both the EPC/ESC concepts and funding opportunities. They also provide training and guidance on policy development, including model contracts. They can be useful in sharing market data, best-practice examples and lists of ESCOs.

1. C. Prerequisites to successfully influence the market

Advice provided by project facilitators must be impartial and geared towards the owner of the building. Projects in which the building owner is dissatisfied after the conclusion of the contract can do serious reputational damage to the EPC model as a whole. At the same time, it is important that the legitimate interests of the ESCOs are understood and taken into account in EPC contracts. There must be a good working relationship between all parties based on mutual trust. The facilitator needs to be highly experienced in the field of EPCs. On top of this, the EPC facilitator needs to know the market in terms of players and prices to be expected. EPC facilitators should understand the factors involved when ESCOs weigh up whether or not to bid for a given project and should design their projects and contracts accordingly. It is also very important that the client is aware that the involvement of the facilitator provides an added value well above the extra cost that comes with it.

EPC facilitators deal with three different interconnected areas – legislative, technical and financial. Quite often, the facilitation is provided by a consultancy team rather than a single individual. This team typically consists of a certified energy specialist or specialists (technicians) and a person specialized in

financing and procurement. They can often also be supported by a specialised lawyer, particularly in the case of larger projects.

The existence of highly visible official agencies acting as both market facilitator and project facilitator can be instrumental in establishing trust in the EPC concept, as this then presents EPCs as being implicitly endorsed by an official entity. Listing all certified project facilitators in a national ESCo pool helps to further build trust in building owners. The availability of best-practice case studies and the sharing of success stories through various media is key to instilling confidence in both building owners and ESCOs in the EPC concept.

Although the number of EPC facilitators is growing in many countries, few of them can be considered highly qualified and experienced. Preliminary technical-economic analysis and investment grade audits, including life-cycle cost analysis, are among the areas most in need of improvement. Some project partners have noted the lack of EPC facilitator certification or accreditation schemes in their countries, as well as suitable training programmes, which could help to ensure technical competence, objectivity and reliability of all EPC facilitators. Public administration bodies often select the EPC facilitator through a public procurement process. The awarding criteria tend to be service price and technical qualification, which typically only includes a list of reference projects and a description of the EPC facilitator's experience. Certification or accreditation of facilitators would significantly improve this tendering process and filter out any less qualified applicants.

1. D. Recommendations for regulatory/policy framework

In countries such as Germany, Lithuania and Czechia, EPC facilitators are well supported by the relevant ministries and energy agencies and several legal acts have been enacted. Others countries, such as Belgium, have no legal framework in place, either at national or regional level, to stimulate the EPC market. The current support mainly comes from EU level, through participation in H2020 projects. Explicit support from the national and/or regional governments into performance-based contract models, such as EPC and ESC, would help in the further growth of the market. This could be achieved by promoting and endorsing the EPC concept, providing a subsidy scheme for facilitators or by subsidising innovative pilot projects and applied research.

While regional subsidies are sometimes available to finance the work of the facilitator, these need to be expanded to national subsidy systems. Subsidising the cost of, for example, energy audits or feasibility studies, can significantly speed up preparation of EPC/ESC project pipelines in the public sector, as well as in other sectors. In other countries there are subsidies in place for the preparation of documentation for EPC projects, however, these do not always cover activities carried out by facilitators.

In certain regions the main obstacles aren't due to the regulatory framework, but rather the perceived value of energy efficiency, restrictions on financing and the lack of visibility of successful projects. Public officials are typically busy with day-to-day activities and rarely participate in workshops or seminars or read technical journals. Facilitators can have a proactive role in preparing recommendations that the Ministry could disseminate at regional and local level. Recommendations for considering EPC facilitators need to come from the highest level in order for public officials to take note. Other countries do not allow ESCOs to fund public projects, so EPC is used as more of an energy management and maintenance contract.

The introduction of national EPC project facilitator qualification or certification schemes and provision of EPC project development support and technical assistance would greatly assist the development of EPC markets. Similarly, the establishment of national EPC quality assurance schemes for facilitators, based on technical and financial quality criteria would greatly assist in the procurement of facilitators.

For public bodies in some jurisdictions, the use of facilitators is mandatory and so they have to be tendered as well. This means that public clients need to be equipped with the knowledge and skills to appoint facilitators in the first place. This turns out to be one of the barriers towards further EPC-development in many emerging EPC-markets. In the Belgian Province of Flemish Brabant, a 'pre-facilitation' coaching process was successfully carried out, where so called 'jam-sessions' were organized for the decision makers and technical staff in the municipalities of this Province. During these sessions, the concepts of EPC and EPC-facilitation were explained in a very interactive format, which allowed participants express their concerns and have any queries answered.

All states should currently be working on sectoral roadmaps towards their 2050 Climate goals. It would be good if facilitators were mentioned in these roadmaps and advertised in a way that individual companies and organisations would feel compelled to use them. The role which can be played by EPC facilitators should be stressed in the policy framework for the energy transition in the built environment. This applies equally to the concept of EPC and not just to EPC facilitators.

2. Success of facilitator pool

In Germany, the facilitator pool has been very successful. Through the list of project facilitators created using federal funding, small municipalities in particular have reconsidered the topic of EPC and, through the list, have had the opportunity to quickly make contact with qualified and thus reliable EPC project facilitators.

In Austria, the guarantEE project has allowed for the facilitators role to be set out and agreed upon. Resulting from this, the facilitator's pool has been set up and is managed by DECA, a lobby group for energy service providers. At present there are only three EPC facilitators listed, however the list is only in existence since Summer 2018. A detailed performance specification paper has been developed in parallel to assist clients in the procurement of experienced project facilitators.

Similarly, in the Netherlands, the EPC facilitator criteria developed through the guarantEE project have been used to establish a pool of EPC facilitators which is managed by QBISnl, the national quality register for qualified professionals and specialists in sustainable building and installation technology. After negotiations resulting from the guarantEE project, this module has been expanded to also take into account the Belgian facilitators. The pool started with just three facilitators but now lists 14 Dutch professionals and 4 Belgian professionals.

The facilitator pool in Czechia has been successful so far, with the public sector being the most active area for registered facilitators. The facilitator's pool has been added to the website of APES (the Association of Energy Service Providers), as well as already being listed on the Ministry of Industry and Trade's website. There are currently 9 consulting organisations listed.

Due to the relatively small number of EPC project facilitators in Slovenia, the operation of the facilitators pool is managed by the association of the local energy agencies. The local energy agencies, established by the local governments, are the most qualified and active EPC project facilitators in the country, generating the majority of EPC projects nationwide. This pool operation approach incurs minimal costs

and allows for the pool to be maintained after the conclusion of the guarantEE project. All relevant EPC and ESC providers and facilitators in Slovenia have signed the European Code of Conduct for Energy Performance Contracting, which defines key quality benchmarks and provides valuable information for clients. As there are no national qualification criteria for the EPC facilitators, the qualification criteria as developed in WP3 were used. Upgrading of the Facilitators Pool to the national level is planned and has been discussed with the ministry in charge of energy. The need for a national qualification scheme, including training programmes, has also been discussed in line with the 2020 – 2050 national energy efficiency policy to further develop EPC in the public sector and broadly introduce EPC in the residential sector.

The Lithuanian national facilitator pool has been set up by VIPA during the guarantEE project. Consultants from various sectors (law, finance, energy efficiency) participated in training, workshops and webinars on national and EU levels. These activities provided great opportunities to deepen the consultants' knowledge on EPC projects, national regulations and basic principles, while also providing a chance for experts from various sectors to discuss their experiences, common barriers in the development of the ESCo market and learn from other, more developed, countries' experience. Experts can be grouped by their competences in three main categories: energy consultants; public procurement experts; and cost-benefit and PPP process experts. None of the experts listed in the facilitator pool has combined expertise in all these areas. It is hoped that companies with expertise in all these areas may be included in the pool in the future, rather than just individual consultants.

The pool of EPC facilitators established in Slovakia was also supported by the national Association of Energy Services Providers (APES), as well as the Ministry of Finance. The EPC facilitators pool is organized as a working group under the Association of Energy Service Providers. At present there are 14 members listed in the pool as providing EPC facilitation services in Slovakia. Qualification criteria developed by the guarantEE project were used when creating the pool. However, during the operation of the pool and resulting from work with EPC facilitators, the need to develop further criteria for the common understanding of robust EPC facilitation work has arisen. Draft standards were presented by Marcel Lauko during the second guarantEE training meeting for EPC facilitators in November 2018 and these are now the subject of ongoing discussion in the APES working group of EPC facilitators.

The Italian facilitators pool was established in October 2018 in line with the guarantEE project guidelines. The list of 15 facilitators is published on the project website and linked to the ENEA energy efficiency page. The future of these professionals will depend mainly on the public sector demand. This demand will grow very slowly as the public administration, especially at local level, is very difficult to reach.

No pool of EPC facilitators has yet been established in Ireland, due to the almost non-existent market at present. It is planned, however, that such a pool will soon be set up and will be maintained by the AIEA, the Association of Ireland's Energy Agencies, in co-operation with the Sustainable Energy Authority of Ireland (SEAI).