Energy Performance Contracting Plus

Final status report of the establishing of SPINs

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Public report

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Stefan Amann

e7 Energie Markt Analyse GmbH
Walcherstraße 11/43
A-1020 Vienna
T: +43 1 907 80 26
E: stefan.amann@e-sieben.at

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www.epcplus.org

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Content

1. Summary

The EPC+ project aims at developing and promoting new business models for the implementation of innovative energy efficiency services through cooperation of Small and Medium-sized Enterprises (SMEs). Such innovative energy efficiency services (EES) can be offered in form of energy performance contracts (EPC).

Within the frame of the EPC+ project, the cooperation of SMEs, with the aim to offer joint EES to the market, is called a *SPIN*. Such *SME Partnerships for Innovative Energy Services* are organized clusters of independent companies that jointly supply novel energy efficiency services to existing or new customers. Today, conventional collaboration is mainly carried out in form of subcontracting. However, the collaboration within a SPIN forces to think partners outside of the box. A SPIN goes clearly beyond the scope of subcontracting as a common package, an innovative energy service, is offered.

As the concept of a SPIN – SME partnership for innovative energy services – is quite unique, the establishment process is crucial. This report documents the SPIN establishment process of EPC+ partners. However, this report provides only limited information on the established SPIN (D2.8).

A first outcome of the SPIN development process is that the establishment of a SPIN is of strategic matter to the respective SME and therefore internal strategic meetings and decisions of most of the SPIN principles are required.

Until the start-up phase 9 *simple* SPINs, 5 *complicated* SPINs and 3 *complex* SPINs were successfully developed by EPC+ partners. The next phase will be the implementation of pilot projects by SPINs across Europe.

2. Background information

2.1. About the EPC+ project

Usually energy efficiency services are offered by one provider. However, energy efficiency services (EES) can be offered through cooperation as well. The EPC+ project aims at developing and promoting new business models for the implementation of innovative energy efficiency services through cooperation of Small and Medium-sized Enterprises (SMEs).

Such innovative energy efficiency services (EES) can be offered in form of energy performance contracts (EPC). According to Energy Efficiency Directive (2012/27/EU) EPC means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings. The European standard EN 15900 about energy efficiency services (EES) defines an EES as an agreed task or tasks designed to lead to an energy efficiency improvement and other agreed performance criteria.

Cooperation enables SMEs to provide novel and high quality energy efficiency services, which could not be provided by a stand-alone company. Such innovative services are serious alternatives to standard services provided by a single energy service providers (ESPs) and may provide promising opportunities. An 'energy service provider' (EED 2012/27/EU) means a natural or legal person who delivers energy services or other energy efficiency improvement measures in a final customer's facility or premises. Within this report we use the terms energy service provider and energy service company (ESCO) interchangeable.

On the hand the EPC+ approach will create more competition among ESPs, especially among the ones which provide energy efficiency services, whilst on the other hand it leads to new market demand and additional money flows. Through cooperation of SMEs a certain new market potential arises. Advantage can be taken of this business opportunity.

Within the frame of the EPC+ project the cooperation of SMEs with the aim to offer joint EES to the market is called a *SPIN*. Such *SME Partnerships for Innovative Energy Services* are organized clusters of independent companies that jointly supply novel energy efficiency services to existing or new customers. The most important feature of these SPINs is that they are composed of market actors that offer complementary services to each other. Therefore, they are not competitors with conflicts of interest. The partnership sets commonly agreed objectives, valid for a structured and long-term cooperation.

Consulting companies, ESCOs, technology suppliers, HVAC engineers, etc. are the enterprises that will establish the SPINs and apply various technical, organizational and financial packages developed within the EPC+ project.

As the concept of a SPIN – SME partnership for innovative energy services – is quite unique, the establishment process is crucial. A first outcome of the SPIN development process is that the establishment of a SPIN is of strategic matter to the respective SME and therefore internal strategic meetings and decisions of most of the SPIN principles are required. The development of, and entry to, a SPIN forces enterprises to think outside of the box, as the collaborative supply of energy efficiency services is not trivial and widely spread. Conventional collaboration is mainly carried out in form of subcontracting. However, the collaboration within a SPIN opens the focus of all of its members and brings rights and duties to them. Hence, a SPIN goes beyond the scope of subcontracting as a common package, an innovative energy service, is offered.

This report aims at the final documentation of the SPIN establishment process of EPC+ partners. The interim report served as a risk management report in order to identify serious risks in the early phase of the EPC+ project. In contrast, D2.8., *Description of the established SPINs as good-practice examples for further dissemination*, presents the national SPINs in detail (SPIN types, partners, roles and the innovative energy services).

Until the start-up phase 9 *simple* SPINs, 5 *complicated* SPINs and 3 *complex* SPINs were successfully developed by EPC+ partners. The next phase will be the implementation of pilot projects by SPINs across Europe.

Please visit www.epcplus.org to learn more about the project and results.

2.2. Market backgrounds on existing SPINs in partner countries

In the following Table 1, a list with EPC+ partner institution can be found, their EPC market development level as well as the presence of a SPIN on their markets.

Table 1: EPC+ project partners, development level of national EPC markets and market presence of SPINs and innovative networks in the energy efficiency or construction sector.

Country	Company name	Market level	Already SPINs existing or networks on market

Austria	e7 and GEA	Advanced	▪ No SPINs in the energy efficiency services market.
			▪ SME cooperation in various sectors exists mainly on subcontracting basis or on an informal basis.
			▪ National association of energy efficiency: www.deca.at
			▪ Networks of SMEs in the construction sector
			  ▪ "Partnerbetriebe Traumhaus Althaus" http://tinyurl.com/h8bb68o
			  ▪ www.enerquent.at
			▪ Networks of big companies
			  ▪ Learning energy efficiency network Vorarlberg: www.energieeffizienznetzwerk.at/;
			  ▪ Learning energy efficiency network Oberösterreich: http://leen.de/projects/leen-enamo-ooe/;
			  ▪ Learning energy efficiency network Styria: http://leen.de/projects/leen-e-leen-i/
			▪ National funding scheme COIN “networks” for SMEs

			▪ https://www.ffg.at/coinnet
Belgium[1]	Factor4	Intermediate	▪ Factor4 is Principal of a Simple SPIN. ▪ EPC service providers in the public sector are working with subcontractors or partners but 'partnerships' are created mostly per project. ▪ The Flemish energy company (regional authority) has signed EPC contracts for public offices and has involved other partners www.vlaamsenergiebedrijf.eu. ▪ The national authority for EPC services Fedesco has been discontinued. ▪ National EPC association www.belesco.be provides networking opportunities. ▪ Regional (innovation) authorities are supporting EPC services. Although the EPC concept is known in particular in the public sector the level of EPC contracts signed is still limited.
Bulgaria	BSERC	Beginner	▪ No SPINs in the energy efficiency services market.
Czech Republic	SEVEn	Advanced	▪ No SPINs in the energy efficiency services market.
Germany	ASEW	Advanced	▪ No SPINs in the energy efficiency sector available in order to provide a new and innovative energy service. ▪ SME cooperation exists mainly on subcontracting basis in order to offer a broader range of energy consulting services but exchange of information/experiences is limited. ▪ Learning energy efficiency network in Germany: http://leen.de/projekte/.
Greece	CRES	Beginner	▪ No SPINs in the energy efficiency services market. ▪ The EPC market is in an infant stage. Although there are 29 energy service companies registered in the Hellenic Energy Service Company Register, very few of these companies have implemented EPC projects. ▪ There are SPIN configurations in the energy efficiency consulting sector. However, these are usually short-term and on a subcontracting basis. ▪ There is considerable experience of SPIN configurations in the construction industry, in which different companies work together on a long-term basis particularly for tendering procedures for public building projects.
Ireland	TEA	Beginner	▪ No SPINs in the energy efficiency services market. ▪ Some companies offer EPC and have subcontracting relationships with others as needs be.
Italy	ESCOIT	Intermediate	▪ Yes, there is one SPIN available. This SPIN will be part of the upcoming SPIN within the frame of the EPC+ project, since we will define the contractual terms which must not be in contrast with the existing ones.
Portugal	ISR-UC	Intermediate	▪ No SPINs in the energy efficiency services market. ▪ Some companies already work in collaboration (joint ventures, etc.), especially in the construction industry and also in the renewable energy sector. ▪ The concept of supplying services to specific clients by a consortium of companies already exists.

[1] The EPC market development level in the Netherlands was indicated as Beginner by Factor4.

			▪ APESEnergia (Portuguese ESCO Association: http://www.apese.pt/) ▪ APREN (Associação Portuguesa das Energias Renováveis; http://www.apren.pt/pt) ▪ AIP (Associação industrial portuguesa; http://www.aip.pt) ▪ ADENE (National Energy Agency; www.adene.pt) ▪ APMI (Associação Portuguesa de manutenção Industrial; http://www.apmi.pt/) ▪ AIPI (Portuguese Lighting Association; www.aipi.pt) ▪ AGEFE (Associação Empresarial dos Sectores Eléctrico, Electrodoméstico, Fotográfico e Electrónico; www.agefe.pt) ▪ ANPME (Associação nacional das Pequenas e Médias Empresas; www.anpme.pt) ▪ Energy Efficiency Public Facebook Group (https://www.facebook.com/groups/104387519592533/)
Slovenia	JSI	Intermediate	▪ No SPINs in the energy efficiency services market. ▪ Some cooperation between SMEs exists mainly on subcontracting basis in order to offer a broader range of energy services.
Spain	Escan	Intermediate	▪ No SPINs in the energy efficiency services market. ▪ National Associations of small ESEs, engineering companies and manufacturers, with about 100 companies. ▪ The SMEs are usually subcontracted. ▪ Some companies work in collaboration for maintenance, equipment supplies, etc.

The market development level of the participating partner countries varies. A qualitative assessment shows that 3 out of 11 countries describe their EPC market as “advanced”. 5 out of 11 countries describe their EPC market as “intermediate” and 3 out of 11 describe their market as a “beginner” market.

Only in Belgium and Italy it was highlighted that certain forms of SPINs already exist. In all other countries no SPINs were present prior the EPC+ project started. In most of the cases collaboration is limited to bilateral agreements on a subcontracting basis or in form of joint-ventures. In some countries (e.g. Austria) formal networks exist, but do not specifically support the development of SPINs.

With respect to market presence of SPINs Belgium and Italy are pioneers. In Belgium already three designated SPINs are present:

- SPIN 1 is an existing simple SPIN. Factor4 is the principal with more than 5 associates. The focus is mainly on EPC services. Factor4 is responsible for marketing, sales and contract with clients, project management while the associates are experts in specific fields such as lighting, heating, cooling etc. and work as subcontractors for Factor4. Factor4 has a master service contract with each of the associate and concrete transactions are based on service level agreements based on deal specific terms.
- SPIN 2 is an existing Complicated SPIN with Factor4 in Belgium and Boot Advocaten in the Netherlands that has resulted in a joint venture (Factor4 Netherlands) since May 2015. The focus is

on EPC services for the public and private sector in the Netherlands. Factor4 brings in the expertise related to EPC contracting and technical expertise (including SPIN 1 associates) while the other partner brings in legal expertise and local networking.

- SPIN 3 is a Complicated SPIN under development with Factor4 and two non-disclosed other partners. This complicated SPIN is to provide EPC services including third party financing in the market of initially multi-unit residential buildings in Belgium.

In Italy the existing SPIN is Federesco Servizi srl, created by some components of Federesco – the Italian Association of Escos, aiming to foster cooperation of SMEs in order offer innovative and wide EE services. Federesco Servizi is a SME and its corporate ownership is composed by an Association and 8 different Escos, principally SMEs, located in Piemonte, Sicily, Lombardia, Tuscany and Abruzzo Regions. Moreover, among Federesco's members there are also a few Escos (especially operating in the North of Italy) having a sound link in terms of cooperation. These companies are part of the Italian SPIN bringing their know how even in terms of SME cooperation.

In countries like Greece, Austria, Ireland and Slovenia a couple of ESCOs are already on the market. In Greece for instance, the EPC market is in an infant stage. Although there are 29 energy service companies registered in the Hellenic Energy Service Company Register, very few of these companies have implemented EPC projects. In contrast, the Austrian market comprises about 25 EPC suppliers, but "the Austrian ESCO market, in particular the EPC market, is considered a highly developed market" (Bayer, G. and Auer, M., 2013). A sound EPC market overview on 20 European countries can be found at www.transparense.eu.

2.3. Categorization of SPINs

Within D2.2, *Organisational tools for the SPIN*, a categorization of SPINs has been undertaken, which can be grouped as follows:

- Simple SPINs,
- Complex SPINs,
- Complicated SPINs.

In Figure 1 different SPIN types and connection strengths of a SPIN can be found. Type A refers to a Simple SPIN, type B to a Complex SPIN and type C to a Complicated SPIN. Details on the organizational structures as well as roles of participants can be found here http://epcplus.org/upload/ue/wp2/D2.2_Development-of-organisational-tools_2015-08-14.pdf (Van Agtmaal, E. and Coolen, J.,2015).

Interrelations and connection strengths

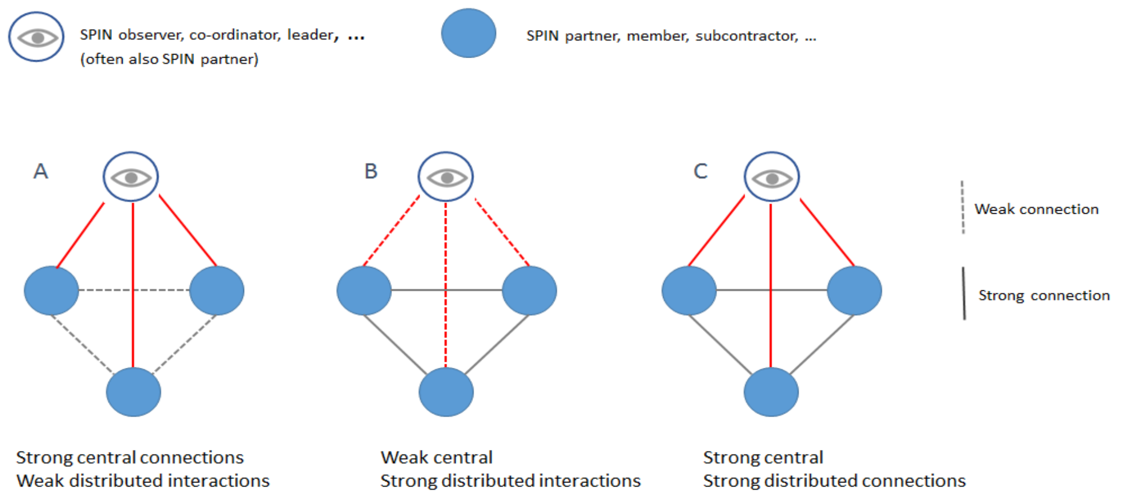

Figure 1: Different SPIN types and connection strengths of a SPIN (Source: Van Agtmaal, E. and Coolen, J., 2015).

According to Van Agtmaal (2015) "a Simple SPIN is a formal organization with one leading partner, referred to as the 'principal' and partners, referred to as the 'associates', but without (much) interactions between these associates. An example is an ESCO working with, often smaller, subcontractors. The number of associates depends on the expertise or domains covered by the SPIN and the total amount of work. (…) A Complex SPIN is a complex adaptive structure. It is a more informal, self-organising, network of several SMEs, referred to as the 'members'. One or more partners, referred to as the 'coordinator' in the SPIN can take the initiative to facilitate and strengthen interactions in the network. Outcomes are the result of dynamic emergent patterns of interaction between all partners willing to exchange knowledge and share (future) business opportunities but the exact outcomes of the interactions are not known beforehand. (…) A Complicated SPIN is a formal collaborative network of SME's with strong connection strengths between all partners, referred to as 'partners', and a collective central control. Responsibilities and tasks are split and allocated to the different partners in the SPIN. A more leading role could be assigned to one partner, referred to as 'leading partner'. The decision making process and how transactions are executed have to be defined before the creation of the SPIN. Complicated SPINs are difficult to create because of the large number of aspects to agree on between all partners. Collaboration can be based on a contract between all partners or within a new legal entity (e.g. a joint venture). Partners in a Complicated SPIN could be Simple SPINS itself."

More information on the established SPINs in each partner country, its associates, roles and innovative energy service can be found here: http://epcplus.org/sme-partnerships-spins/.

3. Establishment process of national SPINs

3.1. Overview on SPIN development phases

The identification phase of potential SPIN members, the optional strategy workshop phase, the informal contact phase with potential SPIN members and the official workshop phase are successfully completed by all partners. This means that national SPINs are officially established, as commitment could be obtained by various associates, roles are defined and innovative energy services are at hand. Figure 1 shows the various phases during the SPIN establishment process.

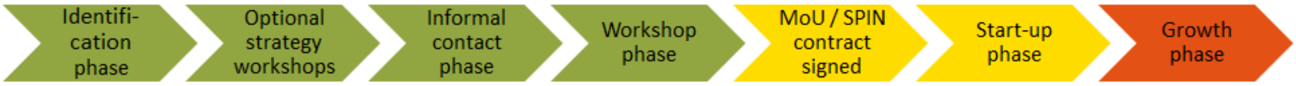

Figure 2: Phases of current SPIN development (green colour: phase completed; yellow colour: phase ongoing; red colour: phase (predominantly) not started) (Source and illustration: e7).

3.2. Identification phase of potential SPIN partners

The collection of *Letters of Support* (LOS) was a first attempt of EPC+ partners to get in touch with potential SPIN members prior to the project start. More than 50 LOS – mainly other energy service companies and technology suppliers – were collected in 11 partner countries with their intention for participation in SPINs and pilot projects. EPC+ partners selected potential SPIN members on the basis of a preliminary market assessment in order to detect first business opportunities and directions of organisational structures. Therefore, LOS represented a solid starting basis for the development of national SPINs. Furthermore, potential SPIN partners were identified during optional strategy workshops.

Even the identification phase of potential SPIN partners is officially closed, new SPIN partners may join a SPIN to a later stage of the EPC+ project. New SPIN partners, depending on the final demand of the client, will be needed potentially.

3.3. Optional strategy workshop phase

During the beginning phase of EPC+ project it turned out that a conduction of a company internal strategy workshop is much of help. The strategy workshops are on a voluntary basis and are not foreseen in the action plan. However, the WP leader strongly suggested holding such workshop in order to go deeper into the issue of SME partnerships and definition of common innovative energy services. Furthermore, such strategy workshops provide the opportunity to clarify questions, e.g.:

- what is the general line on cooperation;
- where does your company wants to be in 5 or 10 years (staff members; return; etc.);
- how to approach potential SPIN members best;
- how to approach potential clients;
- which field of expertise complements the services of the principle, but also of the associate;
- what services are demanded on the market;

Preliminary talks and market assessment were conducted by partners, prior EPC+ project start. Therefore, some partners have had a sufficient definition of their cooperation strategy.

Table 2: Optional strategy workshops by EPC+ partners

Country	Partner	Optional strategy workshop
Austria	e7	2 day strategy workshop with all e7 staff members (22-23 October 2015).
Austria	GEA	23 June 2015
Belgium	Factor4	Several internal workshops conducted prior EPC+ project start.
Bulgaria	BSERC	N/A (BSERC is only facilitator of SPINs)
Czech Republic	SEVEn	2 strategy workshops (24 June and 26 July 2015).
Germany	ASEW	16 June 2015
Greece	CRES	Not envisaged.
Ireland	TEA	The training workshop on the 14th March 2016 in Cahir will be an opportunity for our members to develop working relationships.
Italy	ESCOIT	Various moments of exchange of information and points of view taking advantage of Federesco's meetings and events but no dedicated workshops have been organised.
Portugal	ISR-UC	Several internal meetings to define the company-internal strategy during July-September 2015. Moreover, on 6 November 2014 meeting with a Professor of the law faculty to figure out about the national legislation regarding the establishment of SPINs in Portugal.
Slovenia	JSI	Not envisaged.
Spain	Escan	Internal meeting with 3 experts of Escan was hold in September 2015.

3.4. Informal contact phase

After the optional internal strategy workshop phase and prior to the official workshops with potential SPIN members, an informal contact phase of potential cooperation partners was conducted. The informal contact phase comprises phone calls and ad hoc personal meetings with potential SPIN members in order to describe the goals and targets of the EPC+ project and the idea of the collaborative provision of innovative energy efficiency services.

All of the EPC+ partners have carried out informal recruitment activities, which were seen as very beneficial. Especially the informal contact phase requires more attention than initially estimated. On overview on informal contact activities is given in Table 3.

Table 3: Overview on informal contact phase.

Country	Partner	Who has been contacted?	Why these companies (selection criteria)?	Are you still looking for further SPIN members?
Austria	e7	e7 wants to cooperate with companies along the value added chain, not only on a vertical basis. Therefore other experts, which do not directly offer EES are invited as well, but offer key elements in the whole value added chain. Bilateral meetings were hold with 2 monitoring suppliers (hard- and software), 1 cooling engineering company, 1 light and heat metering expert and 1 energy savings trading company.	We already have excellent business relations (research projects) with most of them. Trust and compliance with our values are key elements for cooperation. Otherwise subcontract will be offered only.	The more we get into the product development, we may find that we need further partners. Also, we will rely on the suggestions by other SPIN members.
Austria	GEA	companies for hydraulic adjustments, HVAC installers, providers of LED-lighting, solar thermal collector companies (for optional applications)	These technologies correlate with the demand of the market	Not at the moment.
Belgium	Factor 4	SPIN 1: Relighting, HVAC control, energy monitoring, green ICT, energy supply contracting	SPIN 1: Specialisation, product independent consultants, good reputation	SPIN 1: potentially yes.
		SPIN 2: Combination of technical and legal expertise and networking in the Neth.	SPIN 2: Good fit between a Dutch and Belgian company (knowledge and customer base).	SPIN 2: Yes, associates, not partners.
		SPIN 3: Factor4, HVAC maintenance and installation company (Confidential); Energy utility company/ESCO(Confidential).	SPIN 3: HVAC maintenance and installation company because of good reputations and services) Idem for Energy utility company. Network and previous business contacts.	SPIN 3: One or more additional associates or/and partners are not necessary at this moment but could add value in the (near) future.
Czech Repulic	SEVEn	ITES Ltd. C.E.I.S. CZ, Ltd. SYSTHERM, Ltd. REPOS plus, a.s.	These companies aim to enter EPC market and are interested in broadening their EPC know-how.	The SPIN-partnership is open to new interested partners, but SPIN members are not actively looking for new partners as it is not seen as necessary.
Germany	ASEW	Many municipal utilities have been contacted from the ASEW, especially those that had expressed their interest for participation in the project through Letters of Support during the very beginning project proposal	These companies have been chosen because they are all members of ASEW. ASEW has already excellent business relations with them. In this way a successful implementation of pilot projects can be better	The SPIN-partnership is always open to new interested partners, but ASEW is not actively looking for new SPIN-members. Nevertheless, during bilateral meetings with other ASEW-members

		phase. The contact took place via confidential phone calls.	guaranteed.	one new SPIN-partner could have been won.
Greece	CRES	HELESCO S.A, STILVI Ltd, ENERGINEERING Ltd, were companies that had expressed their interest for participation in the project through Letters of Support during the very beginning project proposal phase. SPIN consisting of the following members: HELESCO S.A, STILVI Ltd ENERGINEERING Ltd and FACETS S.A. CRES and HCCE are supporters of the newly established SPIN. ETVA-VIPE, a bank subsidiaryis currently contemplating joining the consortium.	HELESCO, STILVI and Energineering are pioneers in the energy performance contracting sector and they have been very active in the past few years, attempting to open the EPC market in Greece. Furthermore, they have cooperated ad-hoc many times in the past and there is therefore significant trust between them. From the proposal phase of the project they were very keen to participate and cooperate. FACETS S.A. is also a company who has collaborated in the past with the aforementioned companies. They mainly deal with environmental aspects of energy efficiency (e.g. carbon footprints) but they are very business savvy and may prove to be a valuable asset to the SPIN. HCCE is the confederation of SME commercial enterprises. They currently have no access to EPC services and are very interested to open this market to their members. ETVA-VIPE is an ESCO and bank subsidiary of the Piraeus Bank. Although it has had no ESCO activity, it is keen to cooperate in order to develop this market. It must be noted that the Bank of Piraeus is the only bank in Greece that is currently truly and honestly attempting to enter the EPC market.	The SPIN partnership is open to new, interested partners. Furthermore, CRES has had numerous bilateral meetings with other companies that have expressed their interest to establish another SPIN and has brought them into contact with each other. Until today, there has be no progress, although the attempts still continue and will, continue throughout the duration of the project. The companies with which bilateral meeting have been held (CRES has kept a logbook of all meetings) are: (1) DELTA TECHNIKI S.A. – a HVAC supplier, (2) ACTIVUS S.A. – a PV supplier and energy consultant, (3) ALTEREN S.A. – an energy efficiency consultant and ESCO specialising in industrial energy efficiency, (4) ISTOS S.A. – a small wind turbine supplier and energy consultant, (5) Sustchem S.A. - an energy efficiency consultant specialising in industrial process engineering, (6) Innoven S.A. – a data analytics and energy metering company, (7) I. Ziakis Ltd. – an energy efficiency consultant, (8) Cofely Suez S.A. – who currently deal with facility management in Greece, (9) ZEB S.A. – an ESCO and (10) P. Tsekouras Ltd – a RES expert specialising in solar thermal systems.
Spain	ESCAN	SPIN 1: Spatial approach, focus on two different cities of SPIN; many companies were contacted that are specialist on carrying out energy efficiency services mainly for SMEs.	Some universities and4 companies are interested in EPC+;after contacts with them only two provide efficient lighting, HVAC and meters in Sevilla. The universities receive the leaflets, brochure and are	

			informed by Escan of the activities.	
		SPIN 2: Escan contacted and invited SMEs, firstly those that participated with LoI in the proposal and others with different backgrounds	They are in the official list of energy services companies, reliable companies and some of them did work in the past with Escan	The SPIN-partnership is always open to new interested partners. But also this will be adjusted if project require it.
Portugal	ISR-UC	ISR-UC has contacted the companies that we select in an internal meeting. Our strategy is to have on board companies (SMEs-engineering companies, equipment suppliers, energy consultants, energy audit companies and few ESCOs) that we have already collaborated in the past, both in European and National projects. Most of the invited companies already knew the project because of the bilateral contacts we had made during the first six months. We tried to approach companies within several different areas and that do not compete each other.	We already have good relations in previous research activities/projects, reliable companies in the market, with capability to reply to specific demands. Also companies that signed the CoC (IEE Transparense project).	If a SPIN partner suggests a trustworthy expert or SME, this will be considered. Moreover, if a potential customer has a preference for a particular brand or company, and if this company fulfils the requirements of EPC+, it will also be invited to be part of the Consortium/SPIN.
Slovenia	JSI	JSI wants to cooperate and collaborate with companies that supply various set of energy services. Before the has contacted companies (ESCOs) and other facilitators, especially those A database of energy services providers and producers of energy efficient products was made. An invitation join the project initiative was sent to all of the companies from the database. Some of the invited companies were already aware of the EPC+ project from bilateral meetings or letter of support.	All companies (12) that respond to the invitation had shown interest in participation to the EPC consortium/SPIN.	The consortium/SPIN does not need additional members. However, we are open to additional associates and partners for possible SPIN 2.
Bulgaria	BSERC	SPIN 1: An engineering company, acting as SPIN principal	SPIN 1: We know this company well and they want to lead a partnership offering EPC and need our support.	No.
		SPIN 2: EES & Ecotechproduct (partners in the complicated SPIN)	SPIN 2: No other SPIN members have been recruited so far.	SPIN 2 is still looking for members.
Ireland	TEA	Our bilateral meetings		

		discussed potential relationships between members and likely projects. The role of TEA will be important in acting as facilitator between clients and the team members. The training event on the 14th March in Cahir will also be important in making progress.		
Italy	ESCO ITALIA	We selected some of the members of Federesco (the Italian association of ESCOs) choosing the most active and the ones which were interested in the topics.	These companies are the most active in the Association's initiatives and projects and they demonstrated great cooperation will and potential or competence.	No: We have many members covering all the Italian territory and we think that increasing the number could burden the SPIN.

3.5. Workshop phase

In Table 4 an overview on SPIN workshop activities is provided. All partners completed the workshop phase, which is essential to establish SPINs.

The overall aims of the workshops are:

- Explanation of the EPC+ project, SPINs and its overall idea.
- Establishment of a national SPIN.
- Carrying out a market assessment of potential cooperation fields.
- Development of your business model.
- Development of the organisation of the SPIN.

It must be stressed that some partners (e.g. e7, GEA, Factor 4, etc.) decided to go for various bilateral workshops instead of two workshops with all potential SPIN partners. With respect to the establishment of a simple SPIN (strong connection between principle and its associates, but no/weak connection among associates) it turned out to be more suitable to conduct bilateral meetings. A simple SPIN is very close to subcontracting and the offered innovative energy service is either developed by two partners or the principal alone develops the business model. Then the principle negotiates separately with each individual associate (subcontractor) the particular role of the associate. In case one service requires three companies, a common meeting can be hold. Therefore, there was no need to go for workshops with all potential members of the simple SPIN.

It needs to be highlighted that the conduction of bilateral meetings had at least the same workload, but the impact might be higher. Reasons for bilateral meetings instead of common workshops are:

- The market is already competitive. Sharing know-how and access to clients has to be treated cautiously.
- Bilateral meetings avoid competition among SPIN members.

- Safeguarding position of Principal: bilateral meetings are more competitive and the best offer can be chosen.
- Potential SPIN partners asked for bilateral meetings instead of one big workshop. This means that each of the SPIN members had different concerns and confidentiality issues.
- Due to spatial constraints, bilateral meetings can be considered also.

Some companies argued the other way round:

- Potential SPIN members asked for common workshops as they preferred to lay all the cards on the table and to withhold no secrets from each other (e.g. Greece).

All workshops are documented separately (D2.6 and D2.7) and can be found at the national partner sections at http://epcplus.org/sme-partnerships-spins/. The documentations provide insights on the partners, topics and outcomes.

Table 4: Overview on SPIN development workshops.

Country	Partner	Bilateral meetings	1st workshop	2nd workshop
Austria	e7	Bilateral meetings on ▪ 24 November 2015 ▪ 24 November 2015 ▪ 09 December 2015 ▪ 11 December 2015 ▪ 14 December 2015 ▪ Further to be followed		
Austria	GEA	Bilateral meetings on ▪ 28 August 2015 ▪ 15 September 2015 ▪ 7 October 2015 ▪ 21 January 2016 ▪ 2 February 2016		
Belgium	Factor4	Several bilateral meetings prior to workshops.	First workshop on 9 December 2015 with SPIN 3 partners.	Second workshop on the 15 December 2015 with SPIN 3 partners.
Czech Repbulic	SEVEn	Bilateral meetings on ▪ 19 November 2015 ▪ 10 December 2015 ▪ 16 December 2015 ▪ 14 January 2016	10/08/2015	
Germany	ASEW	Bilateral meetings on ▪ 15.12.2015 ▪ 07.01.2016 ▪ 15.01.2016 ▪ 20.01.2016 ▪ 22.01.2016	20 July 2015	3 March 2016
Greece	CRES	Bilateral meetings on	17 September 2015	4 November 2015. A 3rd

		▪ 24 June 2015 with Delta Techniki S.A, HVAC engineering experts and equipment suppliers. ▪ 8 July 2015 with ACTIVUS S.A., Photovoltaic engineering experts. ▪ 5 August 2015 with ALTEREN S.A., an Energy Services Company. ▪ 28 September 2015 with Sustchem Engineering Ltd., chemical engineering ▪ 29 September 2015 with Istos Ananeosimes Ltd, micro wind-tubine ▪ 30 September 2015 with Ioannis Ziakis Ltd, energy efficiency consulting ▪ 2 October 2015 with INNOVEN S.A., IT energy systems experts. ▪ 8 October 2015 with Cofely Suez, FM company. ▪ 14 October 2015 with ZEB S.A., an Energy Services Company. ▪ 10 November 2015 - with Mr. S. Katoumas, investor		workshop will also be held on the 17th February to introduce the new member, FACETS S.A, who will sign the MoU, to discuss the progress over the last two months (particularly regarding the attempts to sign a contract for the implementation of the two pilot projects currently being attempted) and also to discuss the future business strategy regarding the recruitment of clients for the pilot project and the potential implementation of the projects.
Spain	ESCAN		SPIN 1 24 September 2015	SPIN 1 26 November 2015
		SPIN2, bilateral meetings on ▪ 21 September 2015 ▪ 29 October 2015 ▪ 06 November 2015 ▪ 24 November 2015		
Portugal	ISR-UC	Bilateral meetings on ▪ 26 November 2015 ▪ 23 December 2015	30 September 2015	17 February 2016
Slovenia	JSI	Bilateral meetings on ▪ GGE on 22th of September 2015 ▪ Petrol on 23th of September 2015 ▪ Borzen on 14th of October 2015 ▪ The Chamber of Craft and Small Business of Slovenia on 18th of December 2015 ▪ Eco fund on 21th of December 2015	1st of October 2015	March 2016
Bulgaria	BSERC	Bilateral meetings with SPIN 1 Principle on 18.09.2015 and 30.09.2015.	SPIN 1 29 October 2015	SPIN 1 14 January 2016

		Bilateral meetings with SPIN 2 coordinator on 10.06.2015 and 25.06.2015.		
			SPIN 2 6 November 2015	SPIN 2 Not held yet.
Ireland	TEA	Bilateral meetings on January, February 2016 with all members.	23 September 2015	
Italy	ESCO ITALIA	Bilateral calls – frequently	14 October 2015	19 November 2015

3.6. Memorandum of Understanding and contracting signing phase

In order to complete the SPIN establishment phase (Task 2.3) at least two common workshops with potential SPIN partners have to be conducted and serious interest for cooperation needs to be expressed. Minutes of the workshops (D2.6 and D2.7) clearly proof such an interest and can be seen as sufficient for the completion of this task.

According to the grant agreement, there is no need to sign a Memorandum of Understanding (MoU) or a SPIN contract in order to finalize the Task 2.3. However, it is suggested that a MoU or the SPIN contract will be signed shortly after finalisation of the workshops (or signed in the initial phase of the pilot projects), because a SPIN is "a nationally-organized cluster of independent energy efficiency service providers, mainly SMEs, that jointly supply energy efficiency services and have a structured, long-term collaboration with commonly agreed objectives". Therefore any form of document that can certify this sort of collaboration is sufficient. An update on signing a MoU or a SPIN contract is given in Table 5.

Table 5: Progress update on the optional signing of a Memorandum of Understanding or SPIN contract.

Country	Partner	Type of SPIN	Has the MoU or SPIN contract already been signed?	When are you going to sign the MoU/contract?
Austria	e7	Simple	Nothing has been signed yet.	Further bilateral meetings will be hold in March 2016 and the SPIN framework contract will be discussed. A modified framework contract will be signed later on.
Austria	GEA	Simple	Nothing has been signed yet.	Potential SPIN-partners are quite reluctant to sign MoU without a pilot project at hand. Thereby such a document will be signed in the initial phase of the pilot projects.
Belgium	Factor 4	SPIN 1: Simple	SPIN 1: Formal Principal - Associate contracts	SPIN 1: Contracts signed between Factor4 and associates
		SPIN 2: Complicated	SPIN 2: Formal Joint Venture Contract between Factor4 bvba (Simple SPIN) and Boot Advocaten bv	SPIN 2: Contract signed in May 2015
		SPIN 3: Complicated	SPIN 3: Contract signed with	SPIN 3: Common SPIN

			Partner 2; NDA signed with Partner 1	MoU/contract not yet signed.
Czech Republic	SEVEn	Simple	Nothing has been signed yet.	By the end of February.
Germany	ASEW	Simple and complex	Nothing has been signed yet.	During meeting on 3 March 2016 the SPIN framework contract will be discussed. Nevertheless, the SPIN-partners are quite reluctant to sign MoU without a pilot project at hand. Thereby such a document will be signed in the initial phase of the pilot projects.
Greece	CRES	Simple	MoU singed on 4 November 2015 by all SPIN members.	FACETS S.A., the new member of the SPIN, will also sign the MOU on the 17th February 2016 at the SPIN 3rd workshop.
Spain	ESCAN	SPIN 1: Complicated	MoU signed by all partners.	
		SPIN 2: Complicated	MoU signed by Aura Solar, E-building, Ingenere, Comeval in 2015.	
Portugal	ISR-UC	Complex	Nothing has been signed yet.	MoU will be presented during the 2nd workshop and signed, if agreed, later on.
Slovenia	JSI	Complex	Nothing has been signed yet.	MoU or a framework contract will be presented and discussed during the 2nd workshop. If agreed it will be signed later on.
Bulgaria	BSERC	SPIN 1: simple	Nothing has been signed yet.	Probably in March - April 2016
		SPIN 2: complicated	Nothing has been signed yet.	Probably in March - April 2016
Ireland	TEA	Complex	Nothing has been signed yet.	When there is a suitable project.
Italy	ESCO ITALIA	Simple	During the workshops the SPIN decided to put a specific phrase in the minutes' document that would intend such an agreement.	The SPIN is discussing about the need to sign a real agreement. In case, the MoU will be signed during the training, meanwhile sharing real business opportunities and strategy.

3.7. Start-up phase and growth phase

After establishment of the various national SME partnerships the start-up and growth phase starts. These phases lead over to the pilot project implementation phase (WP5). So far, only a few partners have started with first common activities, e.g. marketing and sales. However, already a couple of partners have identified potential pilot projects. An overview on the start-up phase as well as growth phase is given in Table 6.

Table 6: Overview on start-up phase and growth phase.

Country	Partner	Start-up phase / common activities	Growth phase / pilot projects identified
Austria	e7	No common activities yet. Preparing a product information sheet, etc. will be started in March 2016. During bilateral meetings a potential SPIN partner suggested other trustworthy experts who could be included in the SPIN. One of them will be contacted.	No pilot project could be identified yet. e7 had contact to various clients (SMEs and big enterprises).
Austria	GEA	No common activities yet.	A group of objects has been identified. All of them are in custody of one facility manager.
Belgium	Factor 4	SPIN 1: Activities via Principal (Factor4) various private clients (mostly SMEs)	SPIN 1: several pilot projects identified and signed; (outside EPC+ project budget)
		SPIN 2: Marketing and sales starting with energy audits and comfort survey).	SPIN 2: Potential pilot projects are identified.
		SPIN 3: Sales including commercial project proposals started.	SPIN 3: Several potential pilot projects are identified.
Czech Republic	SEVEn	Presentation of EPC for the technical director of the client.	Three projects in the pipeline are considered if will be won by ITES.
Germany	ASEW	No, there were no common activities yet. Starts in March 2016. Individual SPIN members try to integrate other members.	The ASEW SPIN members had already contact to various clients (SMEs and big enterprises).
Greece	CRES	Initial contacts with a financial institution, ETVA-VIPE, which is registered in the Hellenic Energy Service Company Register; Involved as third-Party financer, but also as an official SPIN member. Informal and formal meetings held.	Formal meeting with Notos Gallery Department Store in Athens about a lighting refurbishment pilot project. Agreement on: ▪ A demonstration project, to be self-financed by the SPIN, has already be implemented on one of the stalls of the Department Store. ▪ Following the demonstration project, Notos Gallery and the SPIN discussed the possibility of of providing its services for the refurbishment of the Ground Floor of the Department Store. This is already underway and is being undertaken by the SPIN member specialising in

			lighting. However, this will only consist of an energy service (i.e. energy efficiency consultancy) and will not consist of an EPC service. ▪ Following the refurbishment of the Ground Floor, Notos Gallery and the SPIN will discuss the possibility of implementing an EPC pilot project for the remaining floors of the Department Store with Third Party Financing and an EPC contract Discussions with ETVA for its financing have already started and there were initially very positive signs. However, at the moment, ETVA has informed the SPIN that all investments and loans have been put on hold until the political (i.e. refugee crisis) and economic situation stabilizes. A pre-feasibility study for the implementation of a waste heat recovery project in a food and drinks industry has also been submitted to ETVA and is currently being considered.
Spain	ESCAN	SPIN 1: Escan and the other members did a leaflet for marketing activities in December 2015 as starting activity with good cooperation.	It is planned to identify several possible pilot projects in 2016.
		SPIN 2: The first activities started in December 2015. Escan elaborated the design of a leaflet with the main services that offer the companies. New partner will sign MoU in March and a meeting with all partners will be celebrated after that.	Some ideas for possible projects/clients March -April. Marketing activities for potential clients starting in May 2016.
Portugal	ISR-UC	A potential customer was already identified. This customer had contacted ISR-UC some time ago, for carrying out an energy audit. Other common activities are foreseen, since other potential customers request us a visit to evaluate potential projects.	Already contacted some potential clients. One member of the SPIN also identified one interesting area: health sector; small clinics. A first pilot is identified and is being evaluated for consideration of a potential

		Collaboration with other H2020 Projects related to EPCs (Investor Confidence Project and TRUST South).	EPC: EMS + lighting in hotel.
Slovenia	JSI	No, there were no common activities yet. Starts in March 2016.	No pilot project could be identified yet.
Bulgaria	BSERC	SPIN 1: Started its marketing activities by engaging agents who would act on their behalf. The agents have marketing role and would get percentage of their sells.	Not a particular project found yet, but hopefully SPIN 1 would identify it in next 1-2 months, while for SPIN 2 it may take longer.
		SPIN 2: didn't start anything (still their business model is not finalized), start in March - April 2016.	
Ireland	TEA	No common activities yet, other than scanning for suitable projects on e-tenders website. It is hoped also that projects will arise from group collaboration.	It is hoped to identify suitable projects in the near future.
Italy	ESCO ITALIA	Esco Italia, on behalf/as a leader of the SPIN, is contacting a significant number of SMEs all over Italy which had the audit obligation according to art.8 giving continuity to the audit activities and proposing energy efficiency interventions in EPC. The SPIN will give a start to concrete common activities in the moment it will need to start a pilot project.	None pilot projects started nor identified. The SPIN found some clients and start some activities within the SPIN's cooperation, but they are not targeting SMEs (P.A. and L.E. clients).

4. Risk management

No urgent risks could be detected during the final status report on the establishing of SPINs, as all partners achieved the successful establishment of SME partnerships. Nevertheless, following two points have to considered:

- The development of a suitable company strategy turned out to be important, but more difficult than initially expected. A corporate strategy workshop is therefore recommended for partners, who are involved in the SPIN as (leading) partner. Strategy workshops are less important for SPIN facilitators. There is a risk that the followed strategy does not pay off, or rather is not followed accordingly.
- Due to limited financial capacity in some partner countries it will be very challenging to initiate pilot projects. Due to the current severe financial crisis in various European countries finding a source of financing for the pilot projects will be the greatest difficulty. Access to finance for SMEs depicts a severe risk.

During the next months, and especially during the monthly Project Steering Committee meetings, awareness of partners has to be kept high in order to keep the commitment of SPIN members for collaboration (singing of MoU) and to accelerate the search of pilot projects.

5. References

Bayer, G. and Auer, M., 2013 (2013): Country Report on Identified Barriers and Success Factors for EPC Project Implementation. Austria. Deliverable 2.4. Developed within the frame of the IEE project Transparense.www.transparense.eu.

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