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ASSOCIATION AGREEMENT: FROM PARTNERSHIP TO COOPERATION

collective monograph

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greater project degree is, the greater share of external resources is in financing structure. This is due to the feature of the development project and its risky nature of the initial stages of implementation. .

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4.9. STRATEGIC DIRECTIONS OF THE ESCO MARKET DEVELOPMENT IN UKRAINE AND THE EU

According to earlier studies [1], it has been proved that ESCOs develop, implement and provide or arrange financing for upfront EE investments for its clients. Repayments from savings allow clients to compensate ESCO’s ongoing savings monitoring, Measurement & Verification (M&V) costs and assumption of risk through EPC or Third-Party Financing (TPF). The fundamental concept of the ESCO business model is that the client does not have to come up with any upfront capital investment and is only responsible for repaying the investment made or arranged by the ESCO. The two dominant EPC models in the world are shared savings and guaranteed savings. In Europe, a third approach is used called “chauffage”. In a shared-savings EPC, the ESCO finances the total upfront capital cost of the project and is totally responsible for repaying the lender. The client pays the ESCO a percentage (or it can be a fixed amount) of its achieved savings from the project, large enough for the ESCO to repay the project investment to its lenders, cover M&V costs and any other associated costs. The energy-end user assumes no direct contractual obligation to repay the lender, only the ESCO has this obligation. In a guaranteed savings EPC, the client essentially applies for a loan, finances the project and makes periodic debt service payments to a financial institution. The ESCO bears no direct contractual obligation to repay the lender, only the energy end-user assumes this obligation. The ESCO’s guarantee is not a guarantee of payment to the lender but rather a guarantee of savings performance to the energy end-user that is usually equal to its repayments to the lender. “Chauffage” or integrated solutions generally refer to a greater value-added approach. The concept offers conditioned space at a specified price per energy unit to be consumed or per some measurable criteria (square footage, production unit, etc.) through a supply and demand contract offered by the ESCO. The ESCO manages all supply and demand efficiencies. This concept derives from a previous contractual French approach of energy services delivered by a private company to a public authority or to another private body (e.g., owner of aggregate properties) called “contrat d’exploitation de chauffage” leading to the wording “chauffage” to qualify this form of EPC. In the former French approach, the contract used to contain up to three elements designated under energy supply cost; maintenance cost, total guarantee cost (replacement cost of the equipment at the end of its life).

In the course of the research, differentiation of ESCOs on the basis of their marketing approach was presented on figure 1. Separate ESCOs characteristics are given in the table 2, according to the source [1].

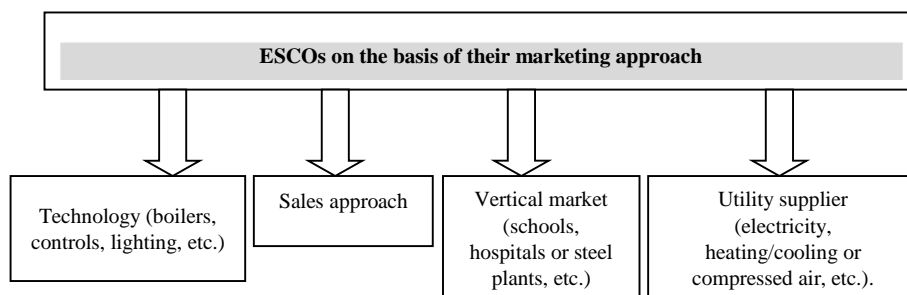


Fig. 1 – Differentiation of ESCOs on the basis of their marketing approach

Table 1 – ESCOs classification and characteristics

№	CATEGORIES	CHARACTERISTICS
1	Independent ESCOs	ESCOs that are “independent” in the sense that they are not owned by an electric or gas utility, an equipment/controls manufacturer or an energy supply company. Many “independent” ESCOs concentrate on a few geographic markets and/or target specific client market segments.
2	Building equipment manufacturers	ESCOs owned by building equipment or controls manufacturers. Many of these ESCOs have an extensive network of branch offices that provides a national (and international) footprint, with sales forces and specialized national staff providing packages of EE, renewables and distributed generation “solutions” to client market segments.
3	Utility companies	ESCOs owned by regulated or state-owned electric or gas utilities. Many utility-owned ESCOs currently concentrate on regional markets or focus on the service territories of their parent utilities.
4	Other energy/engineering companies	ESCOs owned by international oil/gas companies, non-regulated energy suppliers or large engineering firms.

The next part of our work summarizes the trends identified in the market and draws conclusions about common barriers that hurdle ESCO market development [2]. Success factors that facilitate the uptake of the ESCO business model have also been identified. Finally, a set of recommendations is provided for a further ESCO market development.

Table 2 – Trends of functioning ESCO market in European Member States and Ukraine

№	TRENDS OF FUNCTIONING	CHARACTERISTICS
1	Increasing awareness	The awareness and understanding of energy efficiency services has increased and providers are met with a lower degree of mistrust compared to previous years. The rise in energy prices (increasing the importance of energy consumption in cost efficiency) and a shift in mindsets related to defining energy efficiency as both a competitive advantage, tool to improve the green image of an organization and moral obligation related to environmental awareness are all factors for the raised awareness. The knowledge of the ESCO concept has also increased, creating more confidence in the market, where potential clients start to consider energy efficiency services more business-as-usual than as a specialty. In some countries, financial institutions have acquired more experience in financing energy efficiency projects and in taking into consideration the guaranteed savings offered by some ESCOs and energy performance contracting. For instance in France, finance institutions can cover the risk of the guaranteed savings by insuring the savings. Yet, low awareness of the specifics of the ESCO model and skepticism towards its advantages among both clients and financiers remains one of the most commonly reported barriers to the deployment of ESCO projects in the large majority of countries surveyed.
2	Enabling public procurement rules	Public procurement rules and evaluation criteria in the public tendering process remain the main barrier for ESCO project development in the public sector. However, significant improvements have been achieved in some countries in removing these barriers and/or by establishing procedures that favor ESCOs. For instance in Spain, until October 2007 when the new national procurement law was approved, procedures were not adapted to long term service contracts. With the entry into force of this law, public contract are limited to 20 years. The new Energy Efficiency agreements 2008-2016 in Finland aim at ensuring that the Municipalities are able to use ESCO services when implementing energy efficiency investments. In an increasing number of countries local authorities can retain the financial savings generated from energy saving projects, which has a crucial impact on their ability to enter into contractual arrangements with ESCOs.
3	Active public support	Public authorities have been increasingly active in supporting the development of an ESCO market in some countries by preparing ESCO model contracts, opening credit lines, working with public banks and preparing calls for tender to implement energy services in public buildings. In Sweden, to spur EPC projects, the Swedish Energy Agency is pursuing a "portfolio of flexible mechanisms" which include the formation of an ESCO network, customer oriented information, guidelines for the procurement process, model contracts, and project evaluation. The role of public support is to enhance both the demand for energy services and the supply of services, including by establishing appropriate framework conditions that channel private financing.
4	Economic downturn	The financial crisis and economic downturn have had important impacts, both positive and negative, on the initiation and development of ESCO projects. The economic downturn made ESCO clients more unstable, reducing their activity, increasing the difficulty in ensuring energy savings and raising the risk of insolvency. The economic downturn has also raised the importance of contractual flexibility. On the other hand, the financial crisis and economic restrictions have focussed the attention on achieving cost reductions through energy efficiency measures and taking advantage of the flexible financing mechanisms offered by ESCOs. In order to counterbalance the economic downturn, many projects have been initiated in the public sector with financial incentives for projects in the private market (especially related to building refurbishment). The shift in new projects from the industrial sector to public buildings has been related to the tightened access to finance in the private sector and higher investment risks.
5	Diverse market trends across national markets	Problems related to the stalling of the ESCO market often depend on the problematic access to finance, cross-subsidised energy prices and the unavailability of energy consumption data to construct baselines. In other states (such as Finland, the United Kingdom and Norway) the awareness and understanding of the ESCO market has increased, but without experiencing any rise in project implementation or market volume. In Norway, the number of ESCO has actually decreased during the past years with a shrinking ESCO market. The main barrier in these markets is the access to finance, which can be partly related to the economic downturn and financial crisis. By 2009 Ukraine have established a market with a high number of active market actors. In these countries the market transformation is related to changes in the legal framework and the availability of grants for project financing. Some European member states, such as Sweden, Italy, Spain and Denmark, have undergone a significant growth over the past years.

The study analyzed the existing barriers that hamper the deployment of the ESCO concept and EPC are identified (Fig. 2).

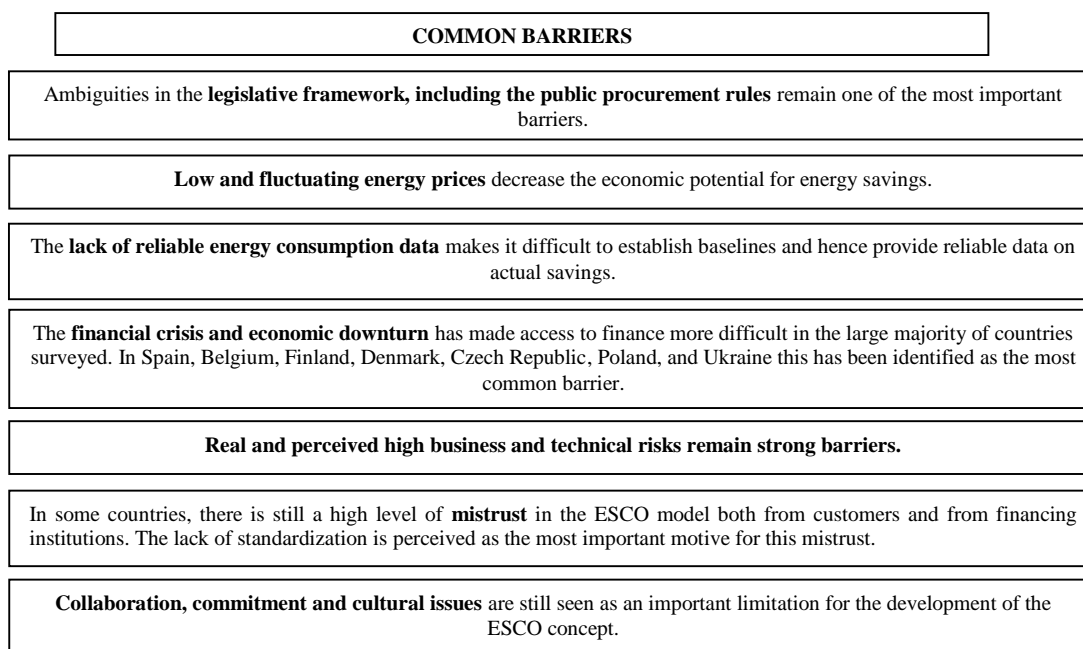


Fig. 2 – Common barriers in European Member States and Ukraine

Next in this work examines market conditions and emerging opportunities related to energy efficiency for buildings in Europe and Ukraine.

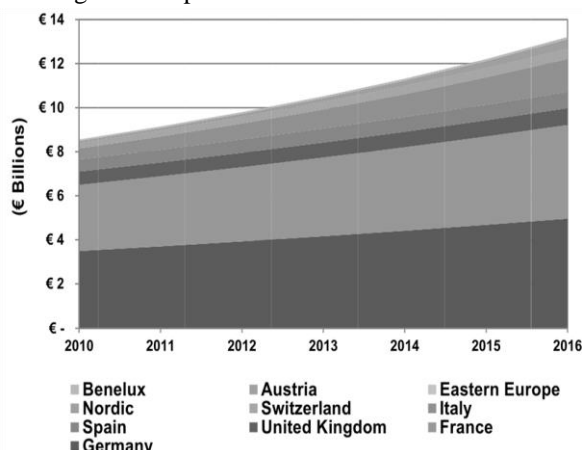


Fig. 3 – ESCO Revenue by Region, Baseline Scenario, Europe: 2010-2016 [3]

Analyzing ESCO Market in buildings we note that new buildings and major renovation in the European Union will be “nearly zero energy“ by 2021, through the phrase’s definition will vary significantly by country. Regulatory support has begun and will increase with the 2011 and 2014 updates of National Energy Efficiency Action Plans. Less than 1% of existing space is nearly zero energy at present, primarily Passive Houses. Of the 30 billion square meters of floor space in Western and Eastern Europe, 74 % is residential, and 2 % is affected annually by new construction or major renovation. Certified green building space will increase from less than 1% in 2010, to more than 2% in 2016, and is already 2% in France. Most energy efficiency promotions have focused on residential and public buildings. The largest energy efficiency markets are in Germany and France (fig. 3), comparable to the combined market of the rest of

Europe. In Germany, half of the cities require Passive House construction in new public buildings. Although most ESCO activity is in public buildings, large ESCOs and construction companies have barely started adopting Passive House methodology. In France, the Grenelle plan for the environment stipulates that new construction will produce net positive energy by 2020 [3].

Corresponding to [4] were identified influencing factors on ESCOs (table 3) in particular we consider an European Experience.

Table 3 – Influencing factors on ESCOs : European Experience [4]

№	MAIN SPECIFIC BARRIERS	POSSIBLE SOLUTIONS
1	Lack or mismatch of appropriate financing: high transaction costs; high perceived risk of ESCO investment; lack of expertise/ experience on financial market; lack of “off-balance sheet” solutions, more commercial banks financing needed; accounting problems (investment vs. operating costs).	Favorable policy framework to shorten payback times (energy saving obligations, tax schemes, feed-in tariffs, building certifications). Pooling strategies to reduce transaction costs. Lower investment risks through financial instruments (funds, guarantee schemes + ESCO assurance).
2	In relevance of residential buildings sector, incl. social housing: split incentives or landlord/ tenant dilemma; decision making process in multifamily properties; social housing: legal issues to increase rent.	Removing legal barriers

On the basis of existing studies directions [2] are systematized in the table below (table 4).

Table 4 – Directions for a further market development [2]

№	DIRECTIONS	CHARACTERISTICS
1	Focused policy support and supportive policy frameworks	It is essential to have a sound legislative framework that enables ESCO type projects and policies and measures that promote energy efficiency investments. In order to promote ESCO projects in the public sector a number of important steps are necessary. Firstly, adaptation of the public procurement laws in order to facilitate the evaluation of EPC providers and adapting the project cost evaluations in order to take into consideration lifecycle costs, including maintenance and energy costs. Secondly, update the procurement regulations by allowing group tendering by consortia and EPC providers to be evaluated on other grounds than previous EPC projects would facilitate the entrance of new and smaller actors in the market. Third, allow the inclusion of energy efficiency in technical tender specifications and use of lifecycle costing in public tender specifications. Clear, practical and ready-to-use guidelines on how to apply energy efficiency criteria in public procurement procedures are needed in order to improve the practical implementation of energy efficient public procurement.
2	Project bundling	Successful project bundling strategies can help overcome many of the key barriers to financing of ESCO projects. To achieve sufficient scale, a strategy is required that allows for the aggregation of individual projects, technologies, service offers, and investments into a larger and more comprehensive lots.
3	Accreditation and standardization for confidence	The establishment of a national legal framework for the identification and the establishment of quality standards and certification schemes for ESCOS is essential in order to boost the ESCO markets and maintain confidence in them.
4	Facilitating the access to appropriate forms of financing	The engagement of financial institutions is crucial for the establishment of a successful ESCO market. In immature ESCO markets public authorities or development financing institutions (DFIs) – including public banks – may need to promote customised financing products to respond to the specific barriers to energy efficiency financing present in each national market.
5	Establishing bankable ESCO project pipelines	Ensuring mechanisms for project development and delivery is instrumental in generating a steady flow of investment ready projects. The range of further tools available for ensuring bankable ESCO project pipelines includes: targeted communication about the profitability of energy efficiency investments; programmer and technical assistance facilities that build the capacities of market participants to develop and structure finance for projects, most notably providing training for feasibility study and business plan preparation across a range of possible project proponents.
6	Establishment of an ESCO association and the collaboration with national energy agencies	An ESCO association can act as a reference point for ESCOs customers and suppliers and, by grouping and concentration of ESCO professionals, can represent the point of view of the industry with a unified voice. In addition, the establishment of an association or a similar platform or forum could concentrate resources in information dissemination and capacity building. The association can create a support network for potential clients with capacity building, give direct advice, and access to information. The association could organize workshops and knowledge sharing events with ESCOs, potential clients and financial institutions in order to increase the knowledge of how ESCOs engage in projects and what benefits can ESCOs bring to project management from a perspective.

The study was started in [5] where the features of financing of energy service companies were found. In this study, the main objective was to reveal the peculiarities of the functioning of the ESCO Market in Ukraine and the EU, to identify the barriers and prospects for the development of this direction.

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