Strengthening energy services via the European Code of Conduct & ESCO certification

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Transparense project to increase transparency and trust in EPC markets

- aimed to increase the **transparency & trust** in European EPC markets:
  - EPC markets survey & analysis and results dissemination
  - **European Code of Conduct for EPC**
  - International transfer of know-how, capacity building
- Partners: 20 European countries
- Coordinator – SEVEn (CZ)
- Co-financed by Intelligent Energy Europe Programme (EASME)

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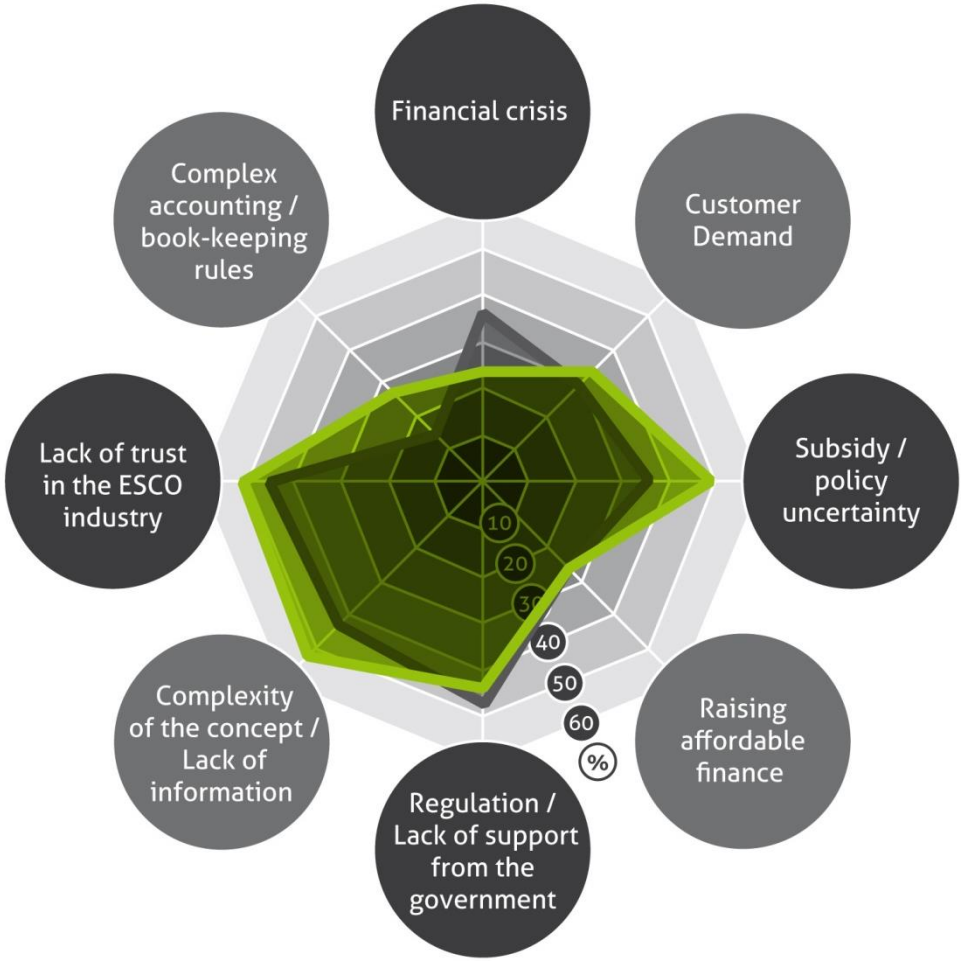
Main barriers to EPC business reported by providers and facilitators

- **Transparense EPC market survey 2013**
  - 144 EPC providers

- **Transparense EPC market survey 2015**
  - **81 providers**
  - **60 facilitators**



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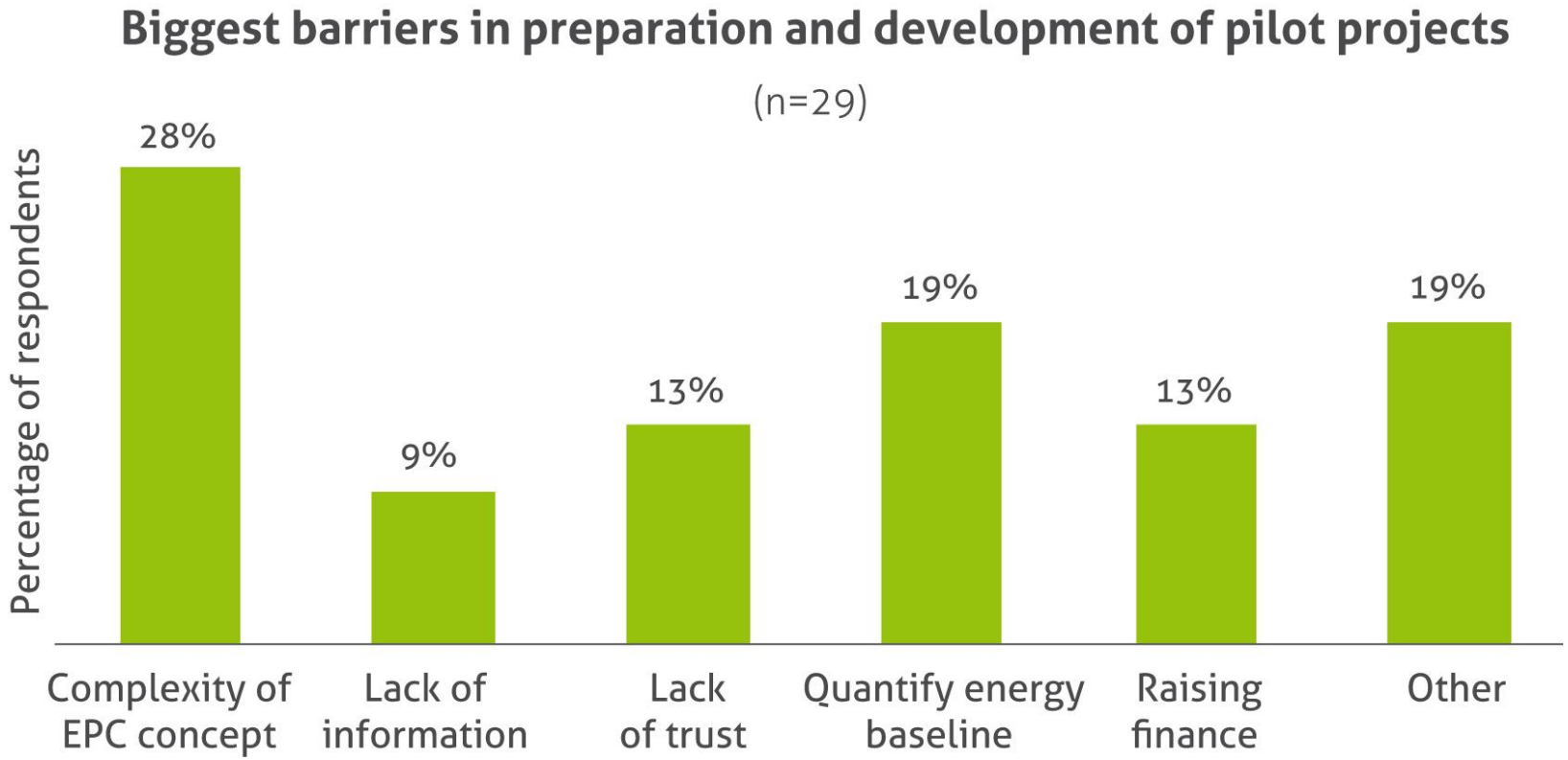
Main barriers to EPC reported by the clients – concept complexity



- **Reported in Transparense survey among 29 clients of pilot projects**

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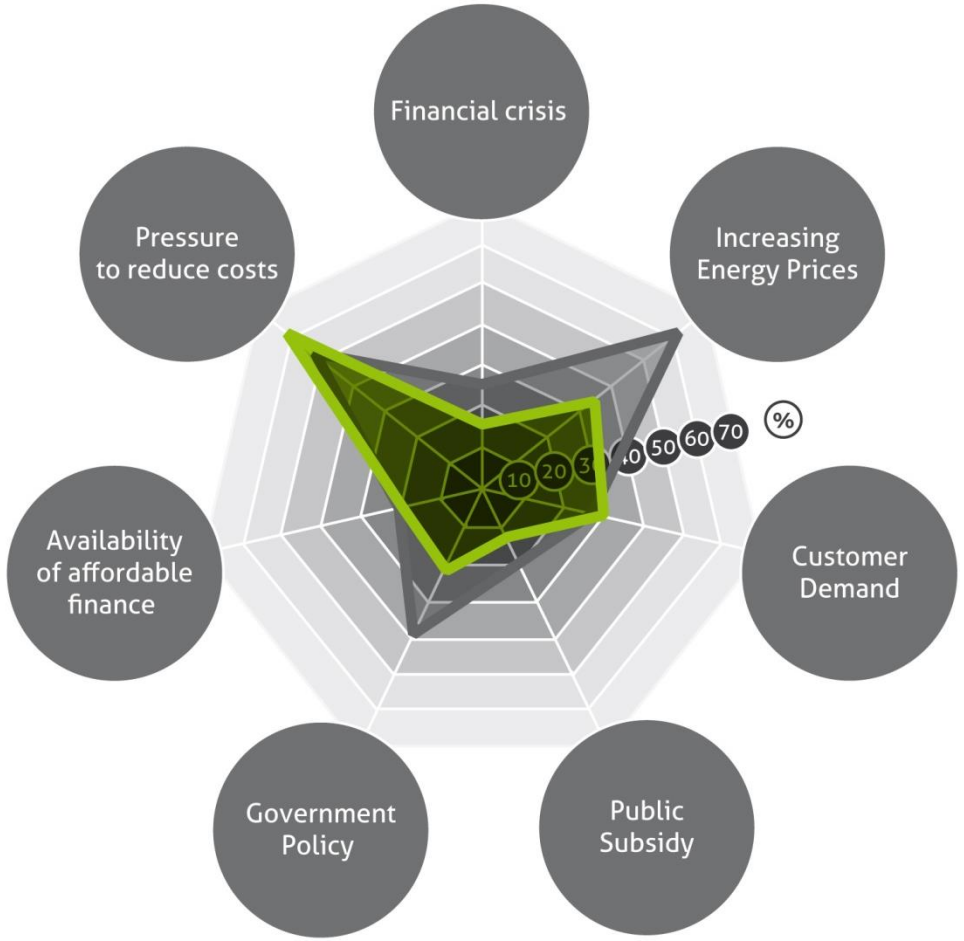
Main drivers to EPC business – cost reduction and customer demand

- **Transparense EPC market survey 2013**
  - 144 EPC providers



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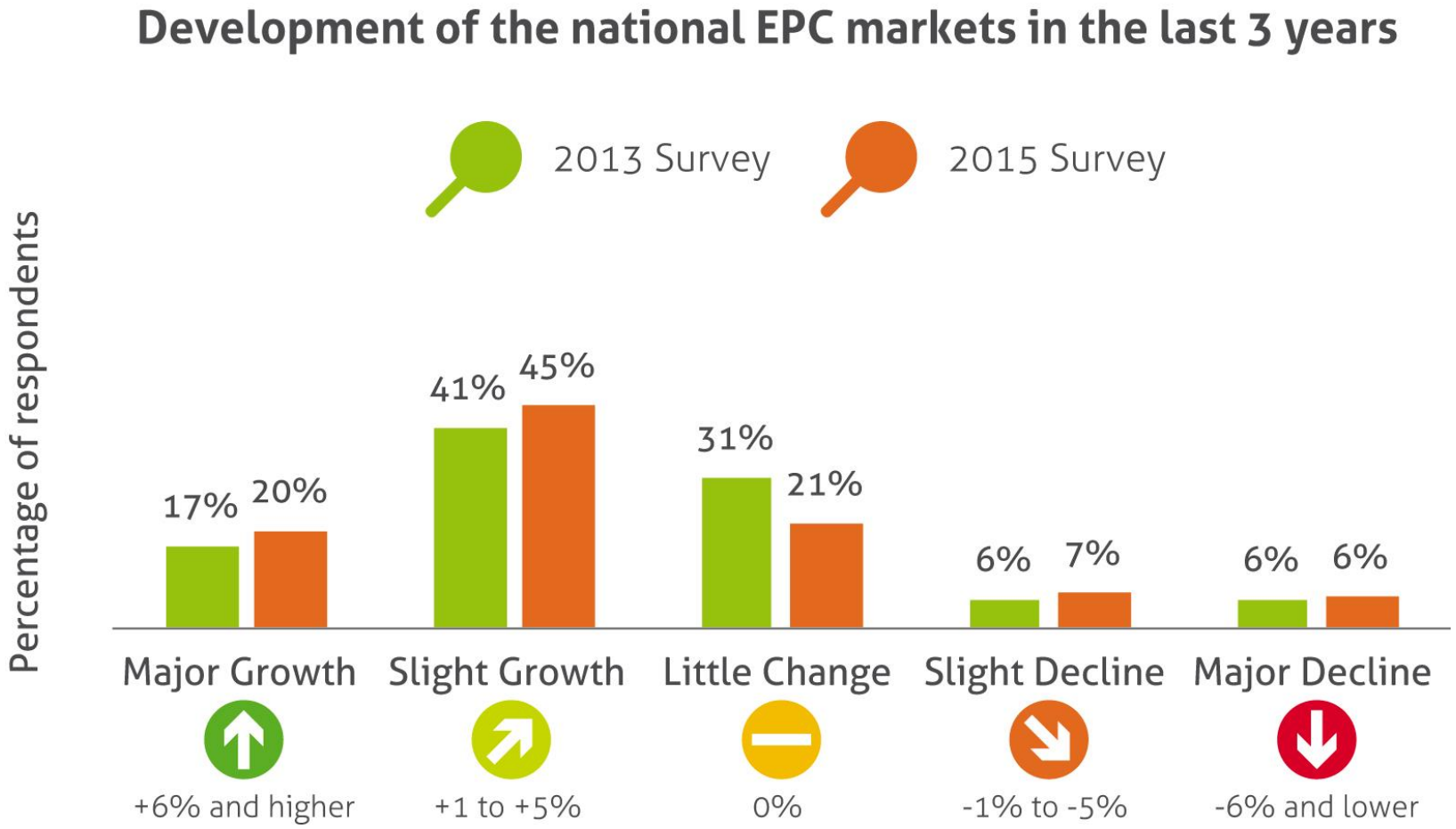
European EPC markets growing slightly in 2013-2015



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European Code of Conduct for EPC discussed with stakeholders & finalised

- The Code of Conduct for EPC defines the **basic values and principles** that are considered fundamental for the successful preparation and implementation of EPC projects
- Single common **European Code of Conduct for EPC** finalised in 2014 to support transparent and trustworthy high quality EPC markets
- Discussed with stakeholders:
  - European level: eu.ESCO, EFIEES, EASME (EC), SC members
  - National level (national workshops): ESCOs, ESCO associations, policy makers, EPC clients and facilitators from 20 countries

European Code of Conduct for EPC
Nine principles

1. The EPC provider delivers **economically efficient savings**
2. The EPC provider takes over the **performance risks**
3. **Savings are guaranteed** by the EPC provider and determined by M&V
4. The EPC provider supports long-term use of **energy management**
5. The relationship between the EPC provider and the Client is long-term, fair and transparent
6. All steps in the process of the EPC project are conducted lawfully and with integrity
7. The EPC provider supports the Client in financing of EPC project
8. The EPC provider ensures qualified staff for EPC project implementation
9. The EPC provider focuses on high quality and care in all phases of project implementation

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European Code of Conduct administered by National Code Administrators

- European Code Co-administrators EFIEES and eu.esco
  - appoints National Code Administrator in each country (currently in 21 countries)
- Simple signatory procedure:
  - Download signing form, sign and submit to the relevant National Code Administrator
  - National Lists of Signatories online
- Code of Conduct is a **voluntary agreement**
- No quality control
- Signatories use the signatory logo

EPC Signatory

EUROPEAN CODE OF CONDUCT FOR ENERGY PERFORMANCE CONTRACTING

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Success story from Netherlands: 33 signatories in 1 day

- 31 March 2015 Code of conduct presented by Dutch partner ECN during the National ESCO Conference in Amsterdam for an audience of 275 people
- Code was signed by 33 new stakeholders publicly at the stage:
  - 21 ESCO's active on the Dutch market
  - other signatories: EPC facilitators and clients
  - ASN Bank

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European Code of Conduct for EPC – Experience from implementation (1)

- Code welcomed by market players – general agreement with the Code of Conduct among the market players in 20 countries
- September 2015: 193 signatories (NL: 37, ES: 19, UK:14)
  - 135 EPC providers (NL: 29, ES: 12, PT: 10)
  - 14 associations of EPC providers
  - 44 EPC facilitator & other entities
- **In the beginners markets Code seen of the highest value**:

– „New ESCOs very interested to sign to increase their reliability, reputation and use it in the work with potential clients“ (LV)

– transfer of know-how from advanced markets

– Ministries plan to implement the Code in official model tender dossiers (BG, PL)

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European Code of Conduct for EPC – Experience from implementation (2)

- **EPC providers:**
  - Definition and harmonisation of EPC within Europe
  - transfer know-how to clients - marketing tool in selling EPC (e.g. in NL this supported acceptance of the Code by market players)
  - referring to Code by ESCO within procurement process is seen as „unique selling proposition“ (AT)
  - access to the Code logo and increased visibility
- **Barriers in getting signatories:**
  - **„Code already in practice“** (DE, DK, NO, SE)
  - reluctant to be on **the list next to the „no name“ ESCOs**
  - ESCOs prefer the **Code is signed by the associations**

    (AT, CZ, DE, ES)

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European Code of Conduct for EPC – Experience from implementation (3)

- **EPC clients:**
  - Code is a guidance for clients to distinguish good quality services
  - Code principles required by the client in tender dossier & contract (AT, BE, GR, NL, PT)
- **Associations of EPC providers (260 members):**
  - European Associations eu.ESCO and EFIEES
  - 12 national associations: AT, CZ, DE, ES (3), IT, SK, UK (2), RO, SE
  - 11 National Code Administrators (currently in AT, CZ, DE, ES, IT, NL, RO, SE, SI, SK, UK)
  - support members to sign the Code (CZ, ES, NL, UK, SE)
  - serve as distribution channel (all signatory associations + associations in PT)

Practical use of Code of Conduct
Pilot projects

- Implementing Code of conduct in 37 pilot project
  - Different strategies applied:

ESCO signed Code	Code included in tender dossier	Code included in contract
25	9	13

- Code is not legally binding
  - Control mechanism through inclusion in contracts and tender dossiers
  - long-term strategy is to include Code in model documents

- Pilot projects both in public sector (61%) and private sector (36%)

Overview of energy service certification in Europe - implemented

	System	Description	Scope	Year
DE	Blue Angel - certificate for ES under guaranteed ES Contracts	Contract **required guaranteed cost savings or maximum energy consumption** with compensations for non-achievement. Application after 1st annual report proving achievement of guaranteed savings. Main criteria: CO2-eq savings of >=30%, Primary Energy savings of >=25%	EPC	2012
NO	National standard for EPC contracts (NS 6430:2014)	- **regulations for contractual guaranteed energy savings in buildings** between a client and an ESCO (general rules, templates for various forms and agreements necessary to ensure economic and legal security, ethical issues). Official recommendation for all phases of EPC (incl. tender).	EPC	2015
PT	Qualification System of Energy Services Companies (Eco.AP)	There is an approval system with **strict financial and technical requirements**. There are two different layers of projects according to the annual energy consumption.	ES	2011

Source: Amann S., Leutgöb K. et al.: Quality Certification for EPC Services, Transparense project, 2015

Overview of energy service certification in Europe – under devleopment

	System	Description	Scope	Status	Year
AT	DECA – quality criteria for energy efficiency services	A **quality assurance system, criteria, evaulation method and tool** for ES developed. The **criteria are operationalised** in order to apply them in a transparent and traceable way.	ES	testing	2016
UK	EPC UK Code of Practice & Guidance	**EPC Code of Practice** for the UK expected to reference the EU CoC for EPC. Much longer at 32 pages. Seeks agreement from all parties involved in EPC in the UK.	EPC	testing	2016?
CZ	Certification of ESCOs	**Minimum requirements for ESCOs** (and potentially facilitators) prepared. Different variants of the certification system institutionalisation discussed.	EPC	development	2016?
DK	Danish Standards for ESCO (S-432)	Committee to develop standards withn energy management, ESCO and energy efficiency. Several standards/guides are being developed for M&V of energy savings, baseline establishment etc.	ES	development	2015-16

Source: Amann S., Leutgöb K. et al.: Quality Certification for EPC Services, Transparense project, 2015

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Czech Republic: Quality certification for EPC under development

- Certification for EPC discussed in CZ since 2013
- Main stakeholders:
  - Ministry of Industry and Trade (MIT)
  - Association of energy service providers - APES
- Ministry of Industry expects implementation by 2016
- Scope of certification:
  - energy services companies – a priority
  - consulting companies – EPC facilitators – considered
- Czech proposal sumarised in Transparense case study:
  - *Sochor V., Szomolanyiova J.: Quality certification fo EPC services – Czech case, Transparense project, Prague July 2015*

Quality certification for EPC under development in the Czech Republic

- Legislative changes required:
  - First step conducted - new legislation governing energy services in the new Energy Management Act
  - other legislation may follow, which, among other things, will institutionalise the system
- To be defined: certification body and administrator

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Multiple goals of certifying energy services

- to support and develop **qualified energy services companies**
- to **standardise the quality level** of provided energy services
- to combine the certification system with statutory regulations governing public procurement in order to **support the increase of energy efficiency in the public sector**

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Czech system to fulfil EED requirements on certification system

- Under the provisions of Directive of the European Parliament and the Council 2012/27/EU on energy efficiency, it is at the discretion of the Member States whether
  - to introduce an accreditation and certification system
  - or an equivalent **qualification system in the area of the provision of energy services**, energy audits, energy management and in the area of the installation of building elements related to energy.
- The deadline for introducing such a system: December 2014

New Energy Management Act establishing legislative background

- New Energy Management Act came into effect on 1 July 2015 including clauses on energy services:
  - **a definition** of energy services
  - **requirements** for energy services contracts
  - the Ministry of Industry and Trade will maintain a **list of energy services providers** and will lay down basic conditions for registration and deletion from this list

Requirement for obtaining certification by ESCOs (1)

- at least **3-year history** of the company
- implementation of **at least 3 projects** in the field of energy services provision **in the last 3 years**
  - existing ESCOs: EPC projects each with a total investment of **more than CZK 5 million (EUR 180 000)** without VAT or with guaranteed energy savings already assessed on an annual basis
  - "new" energy services companies - projects with at least three years of experience in the area of provision of similar energy services or **energy system renovation, energy management for existing customers**

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Requirement for obtaining certification by ESCOs (2)

- composition of the team: authorised engineers, project and realisation manager, energy specialist, energy manager
  - Persons educated in courses specialised in energy services
  - 3 year experience in EPC or energy system renovation
- M&V methodology applied in contracts including proof of consistency with IPMVP
- quality management system (e.g. ISO 9001:2008)

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Certification process

1. **Submitting electronic application for awarding or renewal**
   i. includes documentation of fulfilling the criteria
   ii. references, team composition, education
   iii. energy management, methodologies etc.
2. **Approval of application for certification**
   i. Commission studies the application and invites applicant for an assessment interview (studies formal requirements and completeness of information)
   ii. Commission recommends (not) awarding the certification
3. **Certificate issued by the Guarantor**
   i. ESCO is listed in Register of certified ESCOs

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Institutionalisation of certification process under discussion

- Guarantor of the certification system - MIT
  - Highest body
  - Issues a certificate
  - Names the commission
- Executive body - independent commission established by MIT
  - Representative of Guarantor
  - Technical experts (energy savings, energy services)
  - Law experts (procurement processes)
- Administrator of the process – Association of ES providers
  - education of ESCOs
  - administration of the certification process

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Loss of certification

- Revocation of the certificate in case of serious breach of certification conditions
- Damage to the customer
- Provision of false information in the application
- Failure to comply with the EPC Code of Conduct

More information?

- **Visit Transparense website:** www.transparense.eu

- **Contact co-ordinator: SEVEn – The Energy Efficiency Center**

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  Americka 17, Prague, Czech Republic, www.svn.cz

- **Contact national partners:**
  www.transparense.eu/eu/contacts/

National Partners

EEVS	EEVS Insight	United Kingdom
IJS	Jozef Stefan Institute	Slovenia
BEA	Berliner Energieagentur GmbH	Germany
IVL	IVL Swedish Environmental Research Institute Ltd.	Sweden
Factor4	Factor4	Belgium
e7	e7 Energie Markt Analyse GmbH	Austria
BSERC	Black Sea Energy Research Center	Bulgaria
DTTN	Trentino Technological Cluster S.c.ar.l.	Italy
LEI	Lithuanian Energy Institute	Lithuania
ECN	Energy research Centre of the Netherlands	Netherlands
KAPE	The Polish National Energy Conservation Agency	Poland
ISR-UC	ISR - University of Coimbra	Portugal
ECB	Energy Centre Bratislava	Slovakia
ESCAN	Escan s.l.	Spain
REACM	Anatoliki Development Agency of Eastern Thessaloniki's Local Authorities S.A	Greece
GDI	GreenDependent Institute Nonprofit Ltd	Hungary
Ekodoma	Ekodoma	Latvia
ECNet	Energy Consulting Network	Denmark
NEE	Norsk Enøk og Energi AS	Norway

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Backup

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Key elements of EPC model reflected in Code of Conduct principles (1)

1. The EPC provider delivers economically efficient savings

- The EPC provider aims at an economically **efficient combination of energy efficiency improvement measures**. This combination maximises the net present value of an EPC project for the Client defined as the sum of all the discounted costs and benefits (especially operational cost savings) associated with implementing the project.

2. The EPC provider takes over the performance risks

- The EPC provider assumes the **contractually agreed performance risks** of the project during the whole duration of the EPC contract (the "contract"). These include the risks of not achieving contractually agreed savings as described below as well as design risks, implementation risks and risks related to the operation of installed measures.

Key elements of EPC model reflected in Code of Conduct principles (2)

3. Savings are guaranteed by the EPC provider and determined by M&V

- **The EPC provider guarantees that the contractually agreed level of savings will be achieved**. If an EPC project fails to achieve performance specified in the contract, the EPC provider is obligated by the contract to **compensate savings shortfalls** that occurred over the life of the contract. The excess savings should be shared in a fair manner according to the methodology defined in the contract.
- Contractually agreed savings as well as **achieved savings are determined in a fair and transparent manner by Measurement and Verification** (M&V) using appropriate methodology (such as IPMVP) as defined in the contract. The contractually agreed savings are determined based on data provided by the Client and realistic assumptions. The achieved savings are calculated as the difference between energy consumption and/or related costs before and after the implementation of energy efficiency improvement measures.

Key elements of EPC model reflected in Code of Conduct principles (3)

4. The EPC provider supports long-term use of energy management

- The EPC provider actively supports the Client in the implementation of an energy management system during the contract period and eventually after the contract period by agreement. This helps sustain the benefits from the project even after the contract period.