



connecting energies
raising efficiency

National Federation of Italian ESCos

Federesco

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Federesco

Federesco is a National Federation representing and promoting the energy efficiency industry in Italy, it has been created in 2006 and it includes around 50 ESCOs.



ESCo - definition

An Energy Service Company' (ESCo) is « *a natural or legal person that delivers energy services and/or other energy efficiency improvement measures in a user's facility or premises, and accepts some degree of financial risk in so doing. The payment for the services delivered is based (either wholly or in part) on the achievement of energy efficiency improvements and on the meeting of the other agreed performance criteria* ».

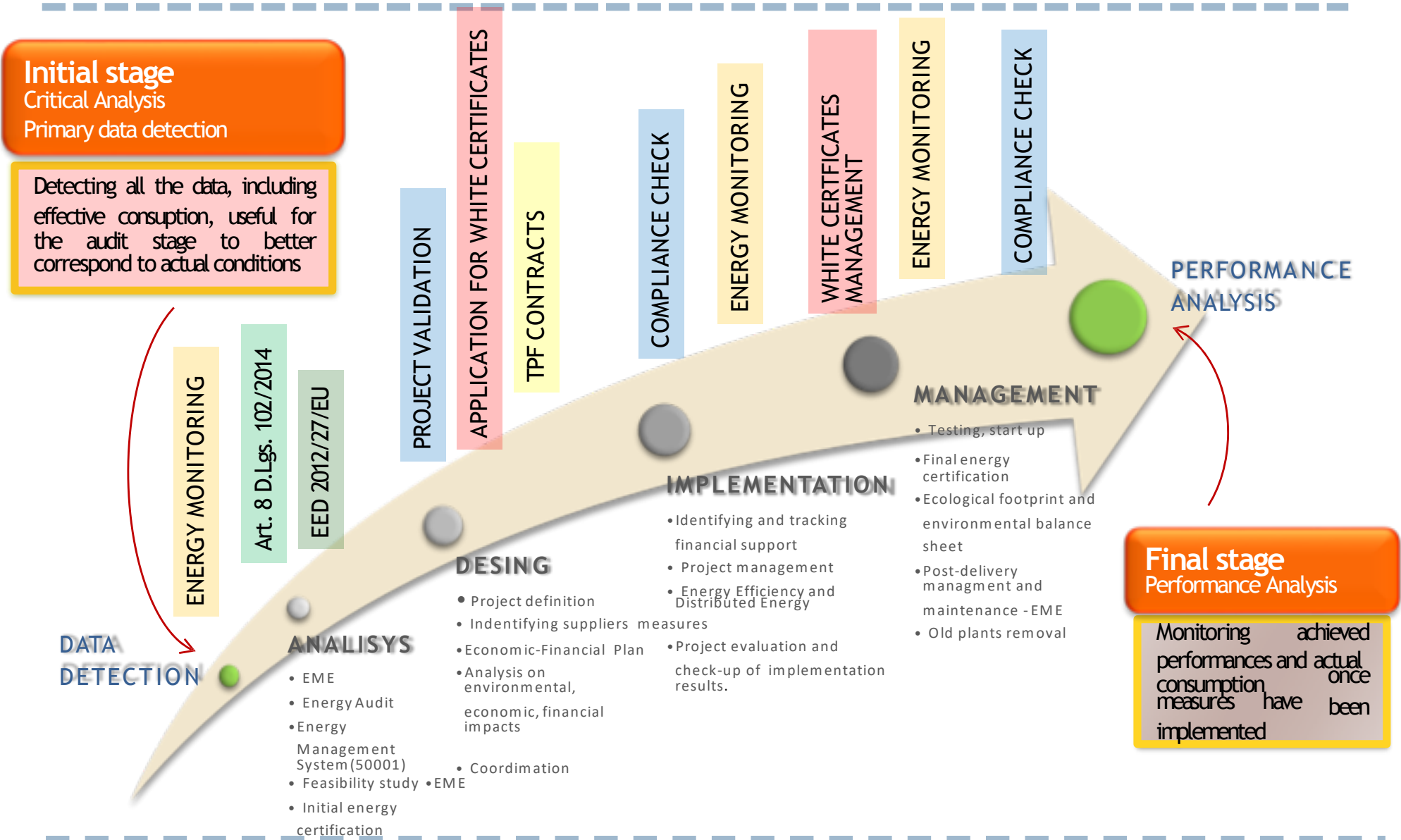
- Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC

Activities of ESCOs



ESCOs support and give tailored, overall solutions to professionals and operators in performing Energy efficiency measures.

ESCo Process Flow chart



The role of ESCos

- Strategic and operational approach on the entire energy chain in order to achieve maximum energy savings
- Cost recovery through energy savings
- Financial support –direct or indirect - for EE projects: Third-Party Financing (TPF)
- Guaranteed energy savings for the client
- EE interventions using few capital assets
- Design, realization and maintenance by qualified technical experts
- Consumption and management costs reduction
- Energy Management System development (ISO 50001)



Benefits



- Qualified technical competences



- Integrated proposals and management



- Reduced capital lock-up



- Lower consumption and charges



- Access to state incentives



- Monitoring and Energy Management System



Energy savings: the best energy source

Cost effectiveness

Emission reduction

Financial incentives

Reputation enhancement



Monitoring

The **monitoring system** has a fundamental role in the implementation of energy efficiency projects, especially on industry production cycle.

Control and Management

- Energy consumption control and management
- Services and supply contracts check
- Lump sum projects

Compliance check

- Compliance check of services and supply contracts

Optimization

- Identification and implementation of optimization projects.

Monitoring project

Collecting data related to electrical and thermal measurements

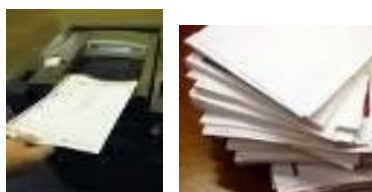


Analysis of consumption data



- Collection and display of consumption data through the creation of a historical database

Receiving bills and storage



- Receiving contracts, bills, etc..
- Reading and data interpretation (OCR)
- Archiving data with their metadata

Dashboards reporting and analysis



- Visualization, navigation and alert on data consumption and expenditures
- Simulation of scenarios tariff plans, unit cost

Support guidelines for optimization



- Analysis and predictive reports
- Optimization measured/ calculated consumption in case of abnormal consumption

Energy management

The main objective is to support companies and organizations in realizing processes and systems useful to **improve energy efficiency**.

→ **Monitoring and managing energy costs**

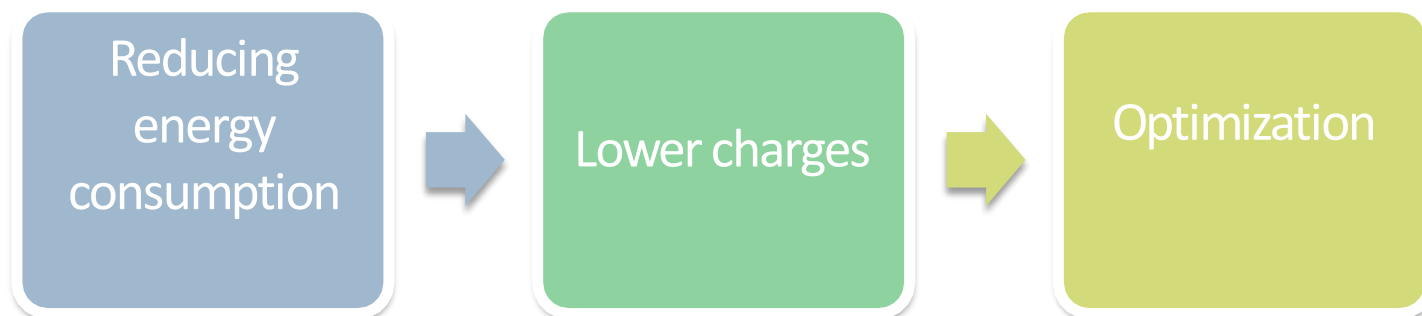


→ **Gaining higher income by technical solutions**



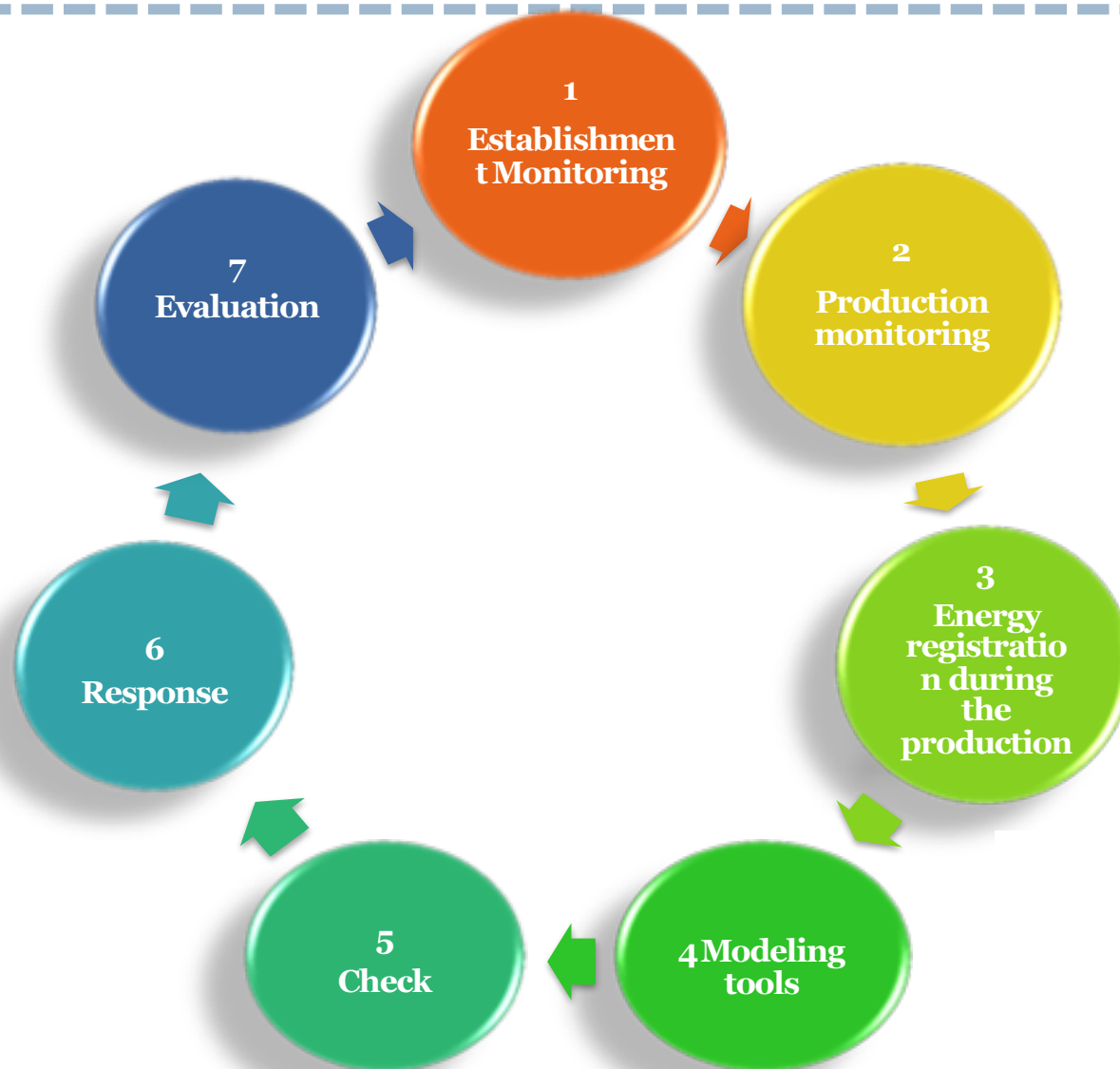
Energy Management System

ISO 50001 specifies requirements for establishing, improving and maintaining an **Energy Management System**.



Once assessed energy loss and waist, an EMS identifies eligible solutions to optimize energy use and to **transform energy costs in energy savings**.

Energy Management System



Evaluations and checks of energy management can be helpful for companies for the identification of the changes to implement in order to reduce energy costs and consumption.

Esco model and EPC

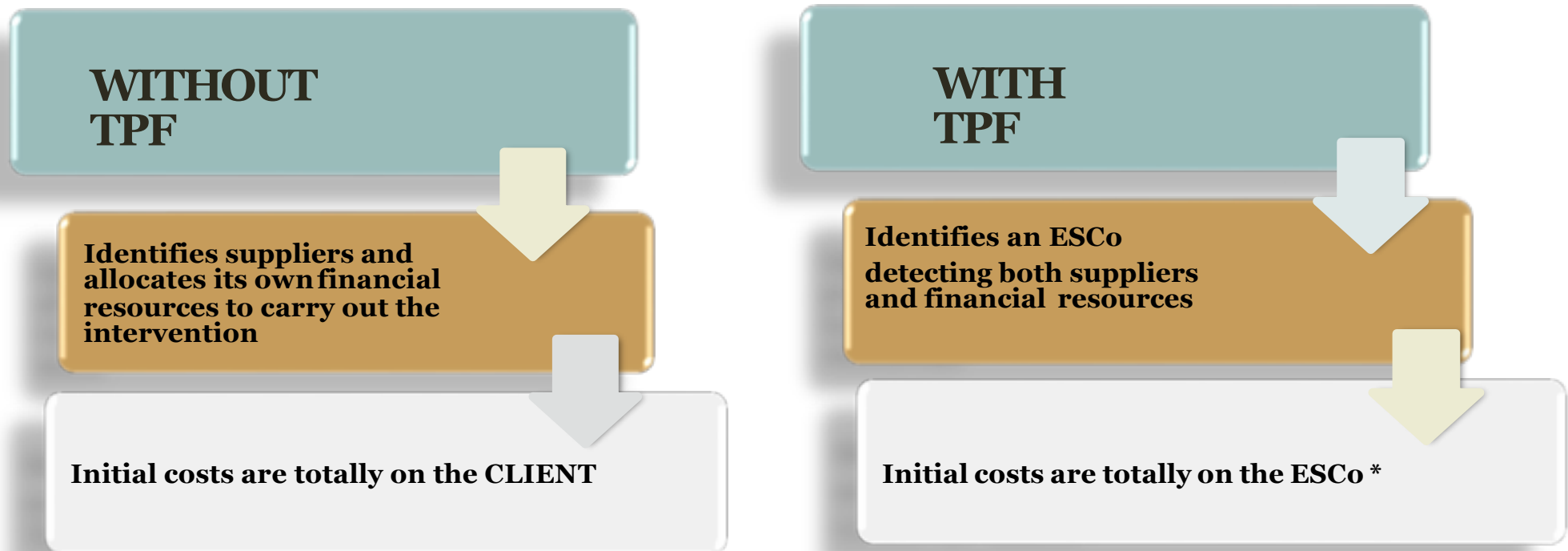
According to the Energy Efficiency Directive 2012/27/EU (EED), Energy Performance Contracting *"means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, 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."* EPC projects may also include additional services related to efficient energy supply.



Third-Party Financing (TPF)

For the purpose of the Council Directive 93/76/EEC 'third-party financing' *“means the overall provision of auditing, installation, operation, maintenance and financing services for an energy efficiency investment, with recovery of the cost of these services being contingent, either wholly or in part, on the level of energy savings.”*

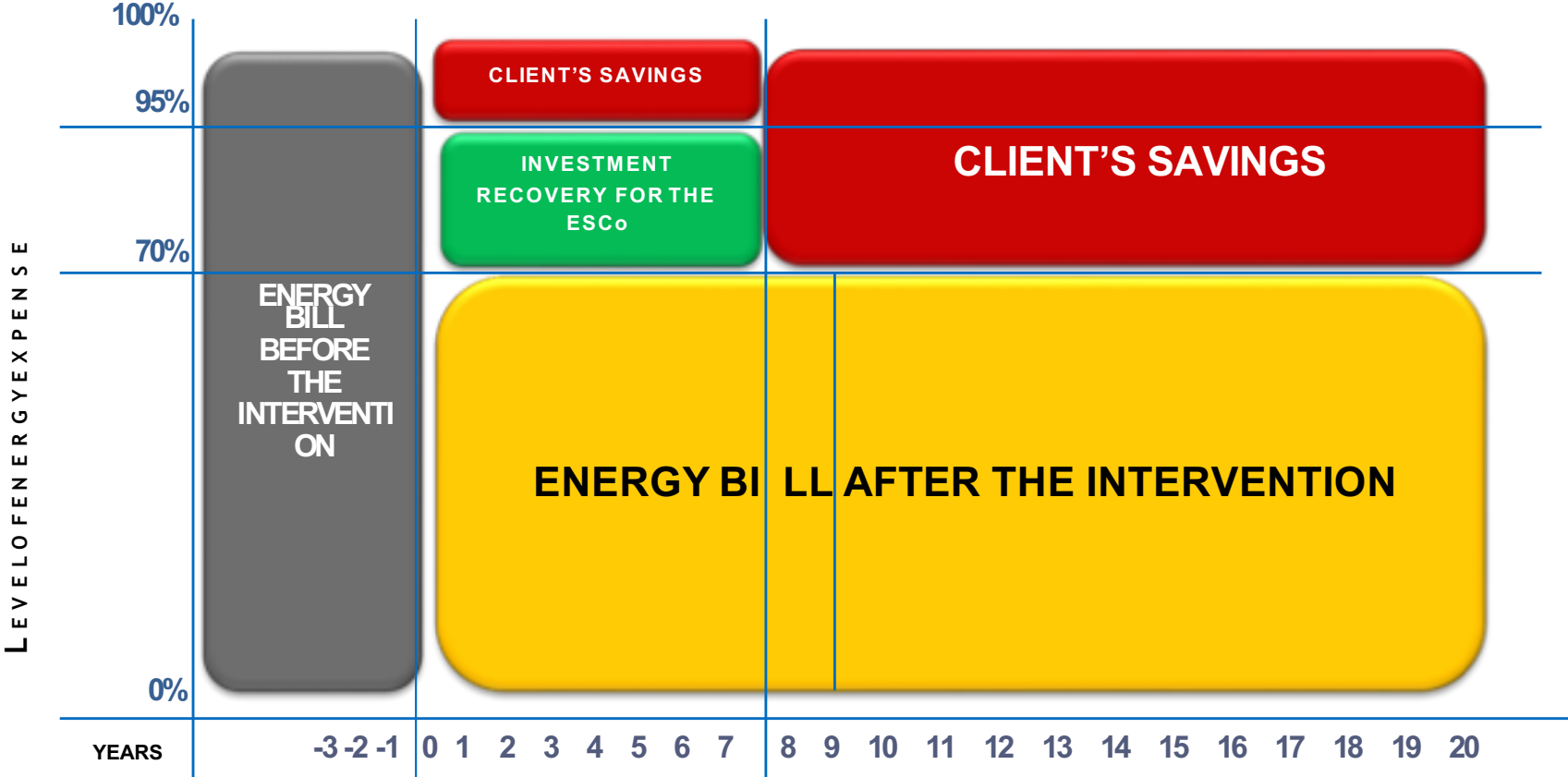
A public or private subject willing to reduce energy consumption has thus to choose between the following two options:



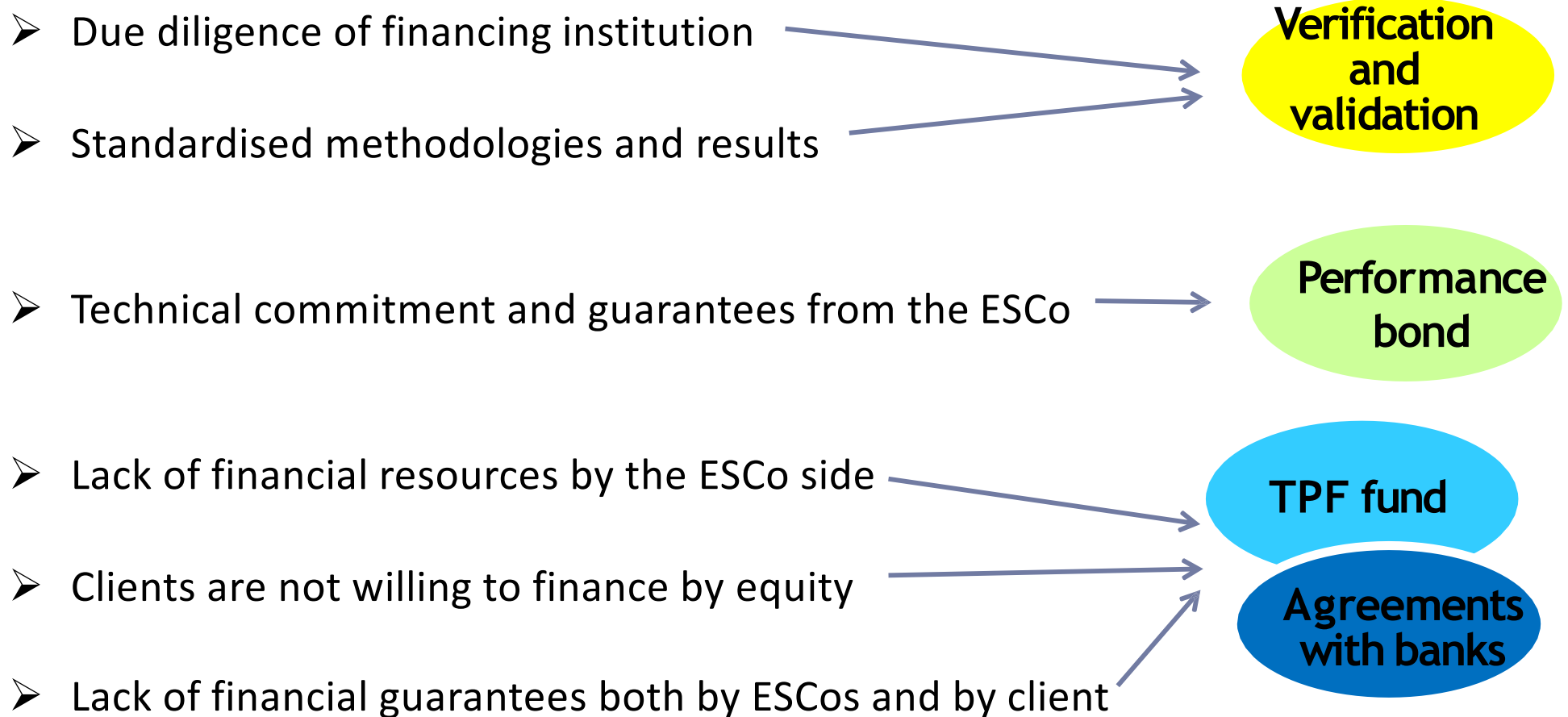
* depending on the availability banking

Third-party Financing (TPF)

TPF EXAMPLE



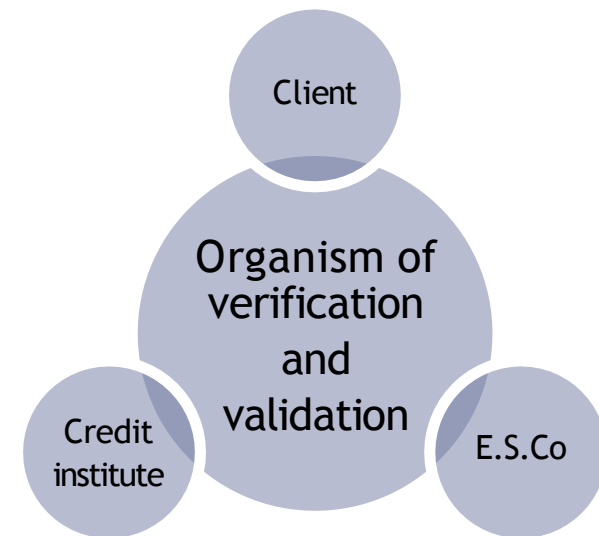
Risk management



Verification and validation of EE projects

Minimizing risks of failure of an intervention for a EE project intervention:

- Incorrect goals
- Design lacking
- Incorrect assessment of incentives
- Inadequate contractual schemes
- Risk management not provided
- Incorrect evaluation of possible future scenarios



In order to support the stakeholders of an energy efficiency intervention, it is necessary to have a third party having the following features:

- ✓ Independency and impartiality
- ✓ ISO/IEC 17020 certification
- ✓ Standard check list for each stage of the project

Federesco - EU Projects



- **EPC+ (Energy performance Contracting Plus)** Small Medium Enterprises cooperation in order to optimize and simplify the supply of energy efficiency interventions through Energy Performance Contracting within the Small Medium Enterprise market.



- **Trust EPC South (Building Trust in Energy Performance Contracting in Southern European Countries)** Raising interest and trust of financial institutions for supporting EPC within the tertiary sector in the Southern European Countries.



- **TransparEnSe (Increasing Transparency of Energy Service Markets)** Improving the transparency and the reliability of the EPC market in Europe through the implementation of a European Code of Conduct for EPC.

Federesco - EU Projects



- **Board Energy H2020 e SET Plan** – Regulatory framework support and advocacy.



- **Energy Efficiency Network Europe** – Marketplace platform for international business opportunity exchange and cooperation.



- **European Utility Week** – Yearly EU event for qualified operators and best practices.



- **EU MERCI** – Escro Stakeholders' representation.

EU guidelines: EC «Winter package»



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Putting **energy efficiency first**

- A binding 30% EU-wide target for energy efficiency by 2030 aiming to reduce our dependency on energy imports, boost economy and create jobs, cut more emissions (cut CO₂ emissions by at least 40% by 2030)
- Efficient buildings, clarified ecodesign framework and measures, smarter finance.
- Extension beyond 2020 of the energy savings requirement to 2030 (specified in Article 7).



Federesco Partners

Federesco has a wide range of partnerships with institutional bodies, banks and R&D institutes.

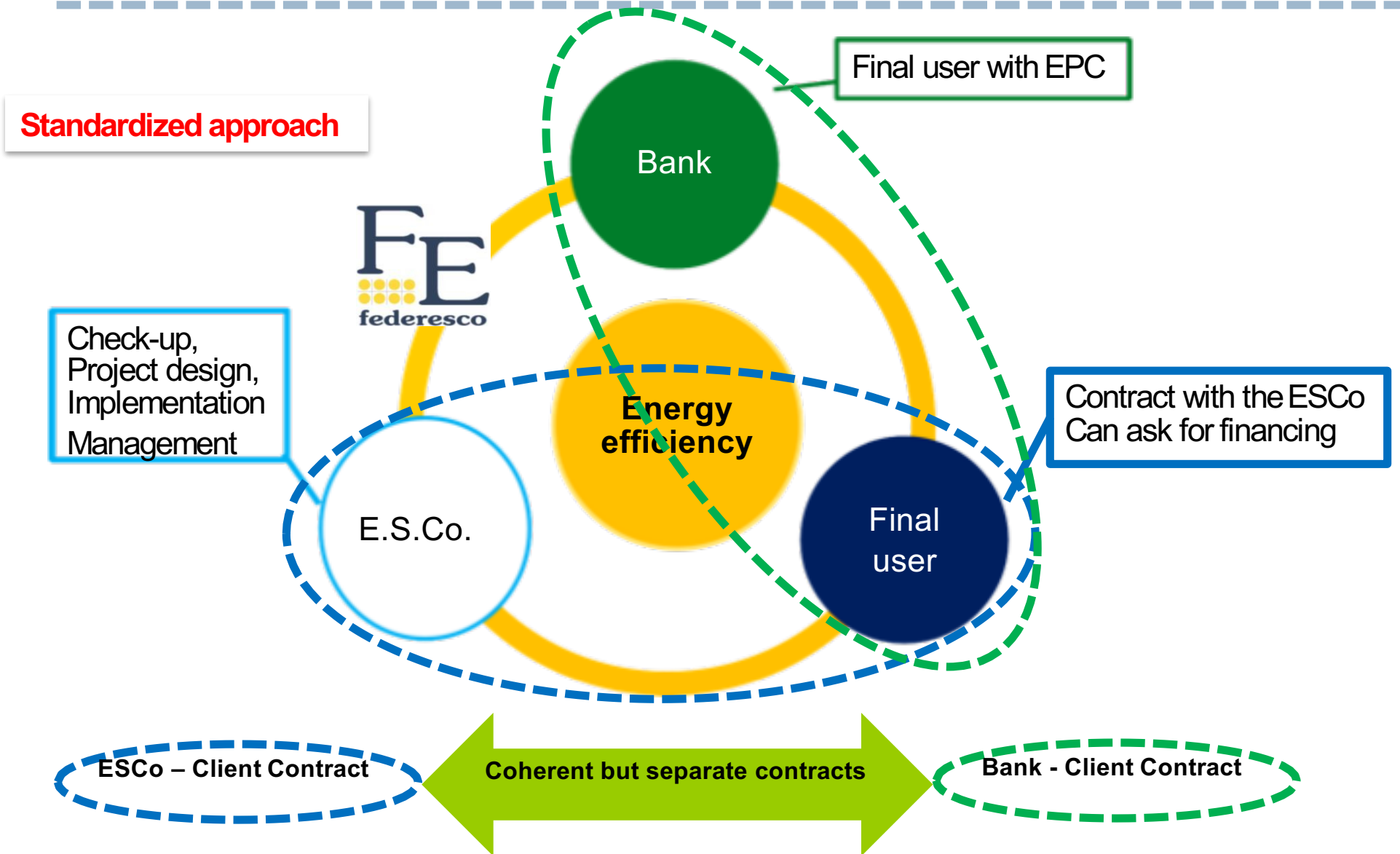
Among the most renowned :



- The National Agency for New Technologies (ENEA)
- GSE), state-owned company for RES promotion and support
- Intesa Sanpaolo
- Banca Prossima
- WWF Italia Onlus



Banking Scheme Agreement



Thank you for kind your attention



The Italian ESCo Association

Piazza della Libertà, 9 - 50129 Florence - Italy

Tel: +39 055 2344262 - Fax: +39 055 2639736

presidenza@federesco.org - [www@federesco.org](http://www.federesco.org)

