

# Fedesco

## Belgium

<b>OWNERSHIP</b>	<b>PUBLIC</b>
<b>Program authority</b>	Belgian Federal State
<b>Program Delivery unit</b>	Fedesco
<b>Implementation Model</b>	Separate Contractor based (SCB) Energy Performance Contracting (EPC)
<b>Operating Services</b>	Marketing Aggregation Facilitation Integration Financial advice Financing Assessment
<b>Type of projects</b>	Energy Efficiency (building retrofits) Renewable energy
<b>Ambition/targets</b>	Market based Energy retrofit of federal public buildings with an objective of 22% CO2 savings
<b>Beneficiaries</b>	Federal public administrations Other federal public organisations Regional, provincial and local authorities (through the Knowledgecenter)
<b>Funding Vehicle</b>	Property Owners (Federal state)
<b>Financial Instruments</b>	Equity/Own funds

## Summary

Fedesco was created in 2005 as a public ESCO to study and implement energy efficiency projects in 1.800 Belgian federal public buildings, of which about 2/3 is owned by the Belgian federal state and 1/3 is being rented from private building owners. The company started with a capital of 1,5 million €, later extended to 6,5 million €. At its creation, Fedesco had a financing capacity as third party investor of 5 million €, quickly increased to 10 million € and (in 2009) to 100 million €. As from 2007, Fedesco was given an exclusive right to work for the federal administrations. A strong collaboration was initiated with the federal Building Agency that acts as building owner and manager.

As from 2007 Fedesco first implemented a “separate contractor” based model, implementing so-called “transversal measures” with a strong focus on HVAC (mainly boiler replacement and boiler room renovation), HVAC regulation, relamping and relighting, co-generation and roof insulation. Fedesco thus acted as an “integrator” to become one of the first public ESCOs in Europe. Additionally,

Fedesco launched a campaign for behaviour change targeting building occupants. In 2008, the government gave Fedesco a secondary mission to install PV solar panels on roofs of certain buildings and to negotiate concessions with private installers of PV solar panels on other buildings, for a budget of 1,5 million €.

From 2005 to 2014, Fedesco invested 27,4 million € using the separate contractor based model, including 2 million € in studies and engineering.

From 2011, Fedesco started implementing an alternative parallel model, using EPC contracting, using an innovative methodology called smartEPC, co-developed with a private facilitator (Energinvest). SmartEPC is effectively a model for Maintenance, Energy and Comfort Performance Contracting. The difference between smartEPC and more traditional EPC, is the fact that the contract also includes a full maintenance of all the technical installations in the building and that this maintenance is performance-based. It uses the Dutch standard for “condition scoring”, called NEN2767. SmartEPC also uses a performance based methodology for measuring the “comfort” in the building, as perceived by the occupants, that uses comfort surveys of those occupants. Finally, smartEPC uses a whole array of tools and a streamlined process to manage the “facilitation” of the project. A first pilot project was initiated, for 13 federal public buildings that are rented from a private real estate company, for an investment of 1,4 million €. In 2014, a second project was initiated in 9 other federal public buildings. For these smartEPC projects, Fedesco acts as facilitator, with the Building Agency as public tendering body.

In 2011, Fedesco created a “Knowledgecenter” department to provide EPC facilitation services to non-federal public authorities, i.e. regions, provinces, cities and municipalities. Fedesco tendered for several consecutive framework contracts to be assisted by a private EPC facilitator. Several EPC projects were initiated (e.g. Province of Walloon Brabant, GRE Liège...).

In 2015, Fedesco was integrated into the Building Agency.

## How does it work?

### **Separate contractor based model (transversal measures)**

- Federal public administrations seeking to reduce their energy consumption contract with Fedesco for an initial quick scan of their buildings
- Fedesco subcontracts the realization of the quickscan to a private auditor with whom it has concluded a framework contract
- The resulting measures are discussed and budgeted and a contract is drafted between Fedesco and the customer
- Fedesco outsources the detailed study and technical specifications to private engineering companies. Results are discussed with the Building Agency.
- After approval Fedesco organizes a tender to private installers and contractors for the implementation of the works and coordinates the planning and implementation. On site works are coordinated by the Building Agency.
- Fedesco pre-finances the works, out of annual federal public budgets, and customers reimburse Fedesco, either directly or spread over several years.

- Fedesco has invested in energy monitoring and bookkeeping and tracks the performance of the energy efficiency measures.

## EPC Contracting

- Fedesco identifies opportunities for EPC projects with federal administrations and initiates the project based on requirements (energy saving, maintenance contract)
- Fedesco subcontracts facilitation activities to a private facilitator/consultant that accompanies Fedesco and the federal Building Agency.
- Savings potential is (optionally) being pre-evaluated through quick scans and detailed technical inventories of buildings are being realized. These technical inventories include condition scores of all technical elements in the building according to the Dutch NEN2767 standard for performance-based maintenance. More info (in Dutch) on NEN2767 can be found at [https://nl.wikipedia.org/wiki/Conditiemeting\\_\(gebouw\)](https://nl.wikipedia.org/wiki/Conditiemeting_(gebouw)) and <https://www.nen.nl/NEN-Shop/Conditiemeting/Introductie-NEN-2767.htm>. An English description can be found at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.502.8574&rep=rep1&type=pdf>
- Fedesco, assisted by the private facilitator, has developed standard smartEPC tendering documents
- The Building Agency tenders for EPC projects assisted by Fedesco and the private facilitator.
- M&V services are delivered by Fedesco and the private facilitator to the Building Agency

Fig 1. Operational and financial model – Separate Contractor based model

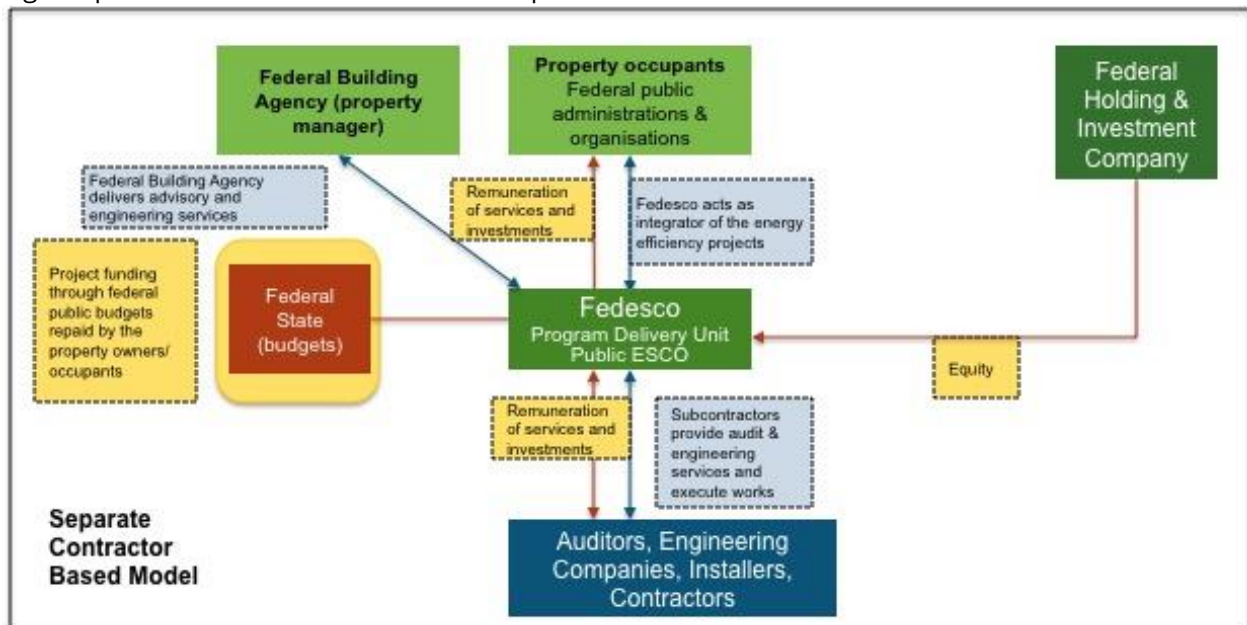
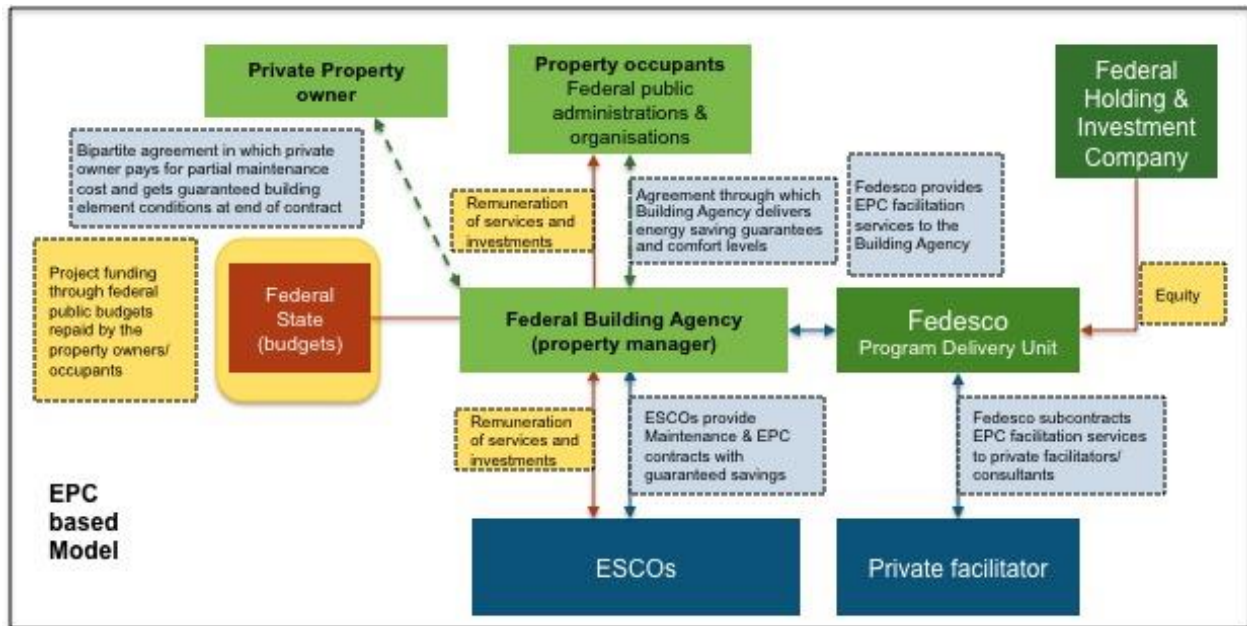


Fig 2. Operational and financial model – EPC based model



## The program delivery unit

Fedesco is the program delivery unit of the Belgian Government.

The unit operates as programme marketer, project integrator (in case of the separate contractor based model), project facilitator (in case of EPC), financial advisor, financier and assessor.

Its core activities include:

- Identification of buildings
- Identification of energy savings potential
- Outsourcing to and integration of auditors, engineering companies, installers and contractors
- EPC project facilitation
- Financial advice and financing (through federal public budgets)
- Communication, capacity building and networking

Although originally planned, through the use of the 100 million € financing capacity with state guarantee, Fedesco never acted as third party investor to provide loans to its customers. Financing comes from federal public budgets and there is no debt deconsolidation. This means that the financing does not meet the ESR-neutrality criteria for being qualified as being "off-balance". In other words, the loans are being considered as public debt. The main reason is that the financing is provided by the public authority itself, as Fedesco is 100% owned by the government, through its shareholder, the Federal Holding and Investment company, which is also 100% owned by the federal state.

Fedesco employs a staff of 11 people, including 3 project managers.

<b>Legal structure</b>	Public Limited Liability Company by public law
<b>Shareholder description</b>	Public company

<b>Equity</b>	6,5 million
<b>Shareholders</b>	Federal Holding and Investment Company (100% state owned)
<b>Program dedicated staff</b>	High
<b>Program operational costs</b>	Moderate

## Organization and partnerships

**Federal Building Agency:** the federal Building Agency assists Fedesco in the separate contractor based model through engineering advices, approved projects for implementation and provides staff for on-site works coordination and acceptance.

## Beneficiaries

<b>Beneficiaries</b>	Federal public administrations (ministries) Other federal public organisations
<b>Type of projects</b>	Energy Efficiency (building retrofits)
<b>Operational support</b>	Projects facilitation through the project delivery unit
<b>Financial support</b>	Projects facilitation costs free of charge

## Funding mechanism

<b>Program delivery unit funding</b>	Fedesco has been funded by the Federal Holding and Investment Company (6,5 M€)
<b>Projects Funding</b>	Projects are funded out of the Federal governments own budgets, through a budget distribution mechanism. 1,5 M€ of Fedesco's equity was used for separate PV solar panel projects.
<b>Funding Vehicle</b>	Property Owners (Federal state)
<b>Fund size</b>	Not applicable
<b>Fund type</b>	Not applicable
<b>Fund sources</b>	Not applicable
<b>Financial Instruments</b>	Equity/Own funds

## Results

In the period 2005-2013 Fedesco achieved the following investments

Engineering: 2.000.000 euro

- 450 energy audits
- 23 CHP technical specifications
- 75 Relighting Specs
- 70 Insulation Specs
- 150 HVAC Specs

Works: 20.500.000 euro

- 6 CHP projects
- 45 relighting projects
- 32 insulation projects
- 43 HVAC projects (boiler replacement)

- 8 solar panels projects (4000 m2)
- 35 HVAC optimisation projects
- 600 complete energy monitored buildings

Fedesco and the federal Building Agency have initiated 2 EPC projects in federal public buildings.

Through its Knowledgecenter, Fedesco has initiated 4 EPC projects

## Contact details

### Fedesco

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## Factsheet

### General Info

Country	Belgium
Model Name	Fedesco
Date of creation	2005

### Model Description

Ownership	Public
Program authority	Belgian Federal State
Program delivery unit	Fedesco
Operating services	Marketing Aggregation Facilitation Financial advice Financing Assessment
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Geographical coverage	National (federal) Regional/Provincial/Local (through the Knowledgecenter)

### Financial Mode Description

Project funding	Public
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Project funding vehicle	Property Owners (Federal state)
Financial instruments	Equity/Own funds
Repayment model	N/A

### Project risk Profile

Performance risk	Property owners (Separate contractor based) ESCOs (EPC)
Recourse	Not applicable
Financial risk	Property owners

### Model Requirements

Staff Requirements	High More than 10 FTE
Equity or funding requirements	Moderate Less than 10 million €

### Model Key indicators

Investment volume since creation	27,4 millions €
Size of project (or project portfolio)	10.000 € – 500.000 € (separate contractor based) 1,4 million € - 7 millions € (Energy Performance Contracting)
Level of average energy savings	15% – 35%

### Development maturity

Development/implementation stage	Growth
Operational development maturity	Growth
Financial development maturity	Growth

### Model Qualification

Level of establishment	Few examples
Growth of potential	Large
Scalability of the model	Moderate
Replicability of the model	Moderate
Impact on public balance sheet	High

## Sources

<http://www.fedesco.be> (offline since August 2015)

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Christophe Madam, Gestion de l'efficacité énergétique dans un contexte public multi-sites, 8 November 2012

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