

ESCOLIMBURG2020 (Infrac ESCO)

Province of Limburg - Belgium

OWNERSHIP	PUBLIC
Program authority	Province of Limbug/Infrac
Program Delivery unit	Infrac ESCO
Implementation Model	Separate Contractor based (SCB)
Operating Services	Marketing Integration Financial advice Financing Assessment
Type of projects	Energy Efficiency (building retrofits) Energy Efficiency (public lighting) Renewable energy
Ambition/targets	Market based
Beneficiaries	Cities, municipalities, Provinces
Funding Vehicle	Utility funds Financial institutions Property Owners Investment funds
Financial Instruments	Equity/Own funds Loans Grants Utility incentives

Summary

ESCOLIMBURG2020 is a joint project of the Province of Limburg, Infrac (the provincial energy grid operator) and Dubolimburg, a provincial consultancy institute specialized in sustainable buildings. ESCO Limburg 2020 aims to accelerate the energy renovation of municipal properties in order to reach faster the Near Zero Energy (NZE) standard in the Province and to contribute to the achievement of the Province and 44 Municipalities' climate objectives.

Through the involvement of Infrac's existing public Energy Service Company (ESCO), created in 2010, a package of energy services to enhance the energy efficiency of buildings is offered to Limburg municipalities, which include free services (telemetry and monitoring, a feasibility study and an energy register for the properties) as well as a series of consulting services (including dynamic simulations and measurement campaigns), and eventually a fully implemented project. The ESCOLIMBURG2020 project aims to support, optimise and expand these ESCO activities. Proposed interventions can regard all aspects of energy consumption: heating, ventilation, air conditioning,

lighting, renewable energy, insulation, and they are characterized by high ambitions (savings > 30%, average 40%). The ESCO identifies the most optimal solution for the building, taking into account payback periods, available budgets and the requirements and needs of the administration.

To help local authorities gain an insight into their energy consumption, ESCOLIMBURG2020 provides – via Dubolimburg and during the course of personal discussions with policy makers – a Sustainable Energy Action Plan (SEAP) for the various municipalities in Limburg. This report contains figures that are suitable for use for the follow-up measurement under the Covenant of Mayors. With the help of this follow-up measurement, the municipality can view, assess and verify CO2 emissions within its territory in relation to the impact of actions based on the municipal climate action plan.

The ESCO division of Infrac acts as the programme delivery unit for the ESCOLIMBURG2020 programme.

ESCOLIMBURG2020 is supported by the Intelligent Energy Europe programme through the MLEI-PDA assistance (Mobilizing Local Energy Investments). In 3 years the project is expected to mobilize EUR 19.8 million investments in sustainable energy.

Financing of energy renovation measures is a key aspect of the project. Municipalities can choose a pre-financing by the Infrac ESCO, in which the investment is repaid through savings in energy costs, or an own financing or bank loan via Infrac. ESCOLIMBURG2020 can also identify other possible financing options and techniques through a financial study, e.g. leasing, investment support, grants, or also the Limburg Climate Fund, which is supported by citizens and businesses. The Limburg Climate Fund (Limburgs Klimaatfonds) is a cooperative capital fund created on January 30, 2012 by the LRM investment fund, the Limburg climate company NUHMA and the cooperative company LIMCOOP, to invest in climate friendly projects. Both citizens, organisations and companies can buy shares, that are used to provide loans to project developers. The profits from the fund are redistributed to the fund's shareholders. The goal is to provide a return of 1% above the one of a classical savings account.

How does it work?

Together with the local government, Infrac examines how municipal or provincial buildings can be made more energy efficient. Infrac looks for an optimal solution and works from the perspective of profit maximisation for the client.

Infrac follows an integrated approach and looks at the building as a total concept. It proposes the most optimal solution, taking into account payback periods, available budgets and the requirements and needs of the administration and the people on the work floor.

Infrac uses its in-house knowledge in the field of engineering, law, administration, monitoring of savings, coordination of projects, etc. This knowledge, which has become a field of specialisation for Infrac, is not always available at the local level, often because of the time required for acquiring such knowledge. Infrac prepares all the necessary works in-house– from the fine-tuning of the existing heating systems to a thorough and total renovation of the building.

All aspects of energy consumption are examined: heating, ventilation, air conditioning, lighting, renewable energy and insulation. Infrac provides a total solution: information, advice, coordination, monitoring, implementation as well as financing.

In case of an ESCO pre-financing, the local government repays its investment in energy efficiency measures with what they save on energy costs.

Infrac uses framework contracts with specialized engineering companies and contractors in each of the relevant domains.

The goals of ESCOLIMBURG are in practical terms:

- € 19,837,230 in energy investments
- A minimum of 30% energy savings per building with an average of 40% of the total project
- The reduction of GHG emissions of 50,000 tons and at least 11,000 MWh / year of energy savings
- 44 local authorities receive a custom retrofitting & Sustainable Energy Action Plan (SEAP) for their heritage sites
- Analyze, improve, and unroll the public ESCO model throughout the province of Limburg

Infrac ESCO follows a 7-step approach:

1. Feasibility study
Based on a questionnaire and a visit to the building, a feasibility study is prepared, which includes an estimate of the costs and final savings. This feasibility study is conducted free of costs for the public administration.
2. Detailed study
After approval by the municipal council, all the techniques contained in the feasibility study are discussed during a scope-setting meeting, so that any necessary adjustments can be made. Once the scope is approved, the engineering consultants start drafting the detailed study. For each technique, the necessary specifications, plans and lists of measurements are prepared. This phase is paid for by the municipality.
3. Call for tenders
Tenders are invited on the basis of a list of qualified contractors. This also allows local contractors to send a price quotation. These contractors have to be pre-selected and shortlisted, based on a technical tendering process, with technical, operational and financial criteria. Infrac has selected contractors for each of the techniques that are typically encountered in the projects.
4. Award
After approval of the award report by the management committee of Infrac and the public administration, a kick-off meeting is held with all the parties involved.
5. Implementation
The kick-off meeting decides on the start date and implementation period for the works. During the implementation phase, Infrac is also responsible for monitoring the work site.
6. Final acceptance
Infrac is responsible for inspecting the implemented works, so that a provisional acceptance of the works can take place. Any problems that may be present are identified in cooperation

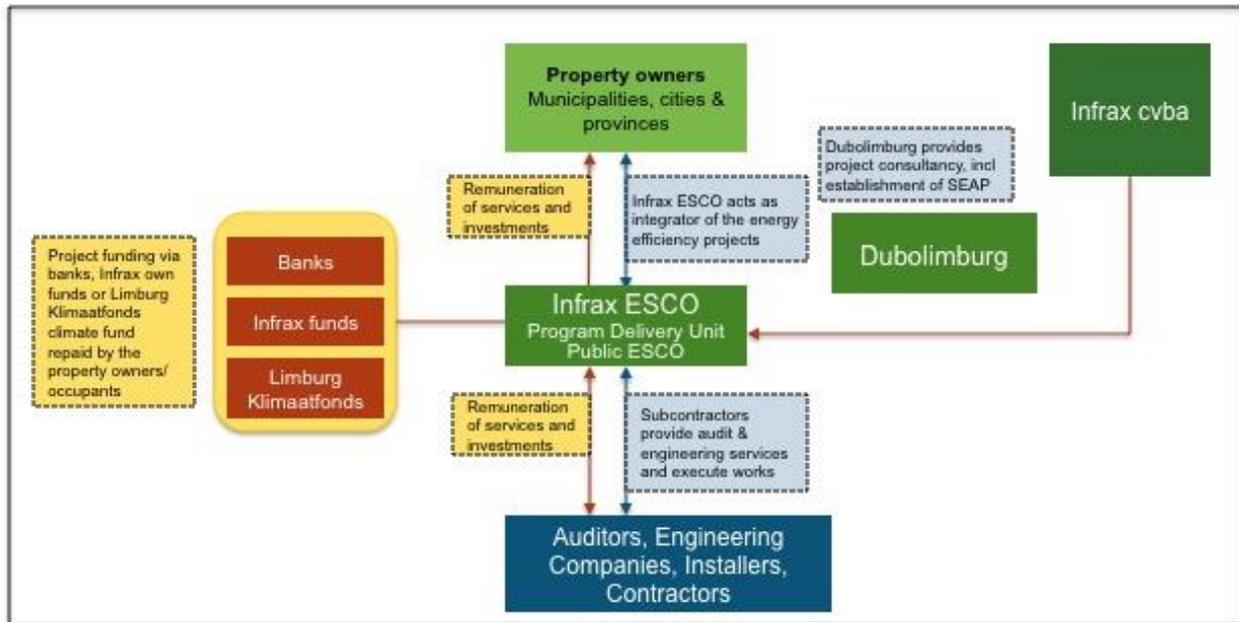
with the implementing parties and resolved. The final acceptance takes place after one year, following inspection.

7. Financial settlement

The municipality or the province pays for the investment based on its chosen financial option. The investment can be made from the municipal or provincial budget, a standard loan or through pre-financing via Infrac (loan for a maximum period of 20 years).

Additionally, Infrac offers new financing options, which will emerge from the financial study.

Fig 1. Operational and financial model



The program delivery unit

Infrac ESCO (which is not a separate legal entity but an internal department), created in 2010, is the program delivery unit of the ESCOLIMBURG2020 programme,.

The unit operates as programme marketer, project integrator, financial advisor, financier and assessor.

Its core activities include:

- Establishment of the global ambition of the customer (through the SEAP), identification of the buildings, proposal of the ESCO contract
- (Free) feasibility studies to determine the energy savings potential
- Detailed studies
- Tendering for works, works supervision
- Pre-financing or arrangement of financing via banks
- Transfer of works and management of the repayment schedule
- Follow-up and monitoring

Infrac ESCO offers 4 types of financing options:

- Pre-financing by Infrac
- Own financing by the customer
- Bank loan
- Limburgs Klimaatfonds (climate fund)

In 2013, Infrac ESCO had realized the following investments:

- Number of feasibility studies: 217
- Amount for feasibility studies: 6.006.000 €
- Number of detailed studies: 76
- Amount for detailed studies: 400.000 €
- Works in progress: 4.417.659 €
- Works executed: 329.535 €
- TOTAL: 11.257.194
- Program goal: 19 M€

In 2014, it reported 2 M€ of executed projects, in 9 municipalities, for 345 MWh energy savings and avoiding 72 tons of CO2.

By 2015 this has increased to 10 projects, 985 MWh saved and 207 tons of CO2 avoided.

Infrac ESCO employs a staff of about 8 people.

Legal structure	CVBA (Cooperative Company with Limited Liability)
Shareholder description	Public company
Equity	N/A
Shareholders	Infrac Limburg, Iveg, Infrac West, PBE, Riobra
Program dedicated staff	Moderate
Program operational costs	Moderate

Organization and partnerships

Province of Limburg

The Province of Limburg, located in Belgium, has 835,505 inhabitants (as per the count on 1 January 2010) and 44 municipalities. The provincial administration has set itself the ambitious goal of becoming climate neutral. The municipalities are important partners for achieving this goal and hence the province, as the assisting authority, has been designated as the 'Covenant Coordinator' under the Covenant of Mayors in 2010.

Limburg was the first province in Europe to succeed in getting all its municipalities to sign the Covenant Of Mayors on 30 November 2011.

Dubolimburg

Since 2009, Dubolimburg has been providing objective and independent (tailor-made) advice on sustainable building and living to the construction sector, local authorities and private individuals. Dubolimburg, as a provincial support centre, initiates awareness-raising and information campaigns, based on the instructions of the Province of Limburg.

Dubolimburg assists cities and municipalities in preparing and implementing their own, tailor-made climate action plans, e.g. by helping them perform CO2 baseline measurements. Key actions are the empowerment of innovative demonstration projects and providing guidance and advice for specific urban projects and construction projects, both with respect to renovation as well as new construction. The services provided by Dubolimburg act as a powerful driving force for leading cities and municipalities to the ESCO service of Infrac.

Beneficiaries

Beneficiaries	Municipalities, Cities and Provinces
Type of projects	Energy Efficiency (building retrofits) Energy Efficiency (public lighting) Renewable energy
Operational support	Projects integration through the project delivery unit
Financial support	Free energy bookkeeping, measurement campaigns (incl. Infrared Imagery scans of the building envelope) and audits

Funding mechanism

Program delivery unit funding	Unkown
Projects Funding	Projects are funded by Infrac, through own funds or through bank loans
Funding Vehicle	Utility funds Financial institutions Property Owners Investment funds
Fund size	Not applicable
Fund type	Not applicable
Fund sources	Not applicable
Financial Instruments	Equity/Own funds Loans Grants Utility incentives

Results

In 2015, Infrac reported 2 M€ of realized energy saving investments, 985 MWh saved and 207 tons of CO2 avoided.

There is no data available on a global percentage of energy savings, but projects typically reach 15% to 40%. Payback times typically range from 2 to 15 years.

Contact details

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Fact sheet

General Info

Country	Belgium
Model Name	ESCOLIMBURG2020
Date of creation	2012

Model Description

Ownership	Public
Program authority	Province of Limburg/Infrax
Program delivery unit	Infrax ESCO
Operating services	Marketing Integration Financial advice Financing Assessment
Implementation model	Separate Contractor based
Type of projects	Energy Efficiency (building retrofits) Energy Efficiency (public lighting) Renewable energy
Beneficiaries	Municipalities, Cities and Provinces
Geographical coverage	Regional/Provincial/Local

Financial Mode Description

Project funding	Public
Project funding vehicle	Utility funds Financial institutions Property Owners Investment funds
Financial instruments	Equity/Own funds Loans Grants Utility incentives
Repayment model	N/A

Project risk Profile

Performance risk	Property owners
Recourse	Not applicable
Financial risk	Property owners

Model Requirements

Staff Requirements	Moderate Less than 10 FTE
Equity or funding requirements	Unknown

Model Key indicators

Investment volume since creation	2 M€
Size of project (or project portfolio)	Unknown
Level of average energy savings	15% - 40%

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	Low
Replicability of the model	Moderate
Impact on public balance sheet	High

Sources

<http://www.infrax.be>

Coopenergy, Province of Limburg, BE - "ESCOLIMBURG2020"

ESCOLIMBURG2020 brochure, BUILDING A SUSTAINABLE FUTURE TOGETHER

Patrick Boucneau & Nele Vandenreyt, ESCOLimburg2020 & Limburg Climate Fund, Limburg CLIMATE NEUTRAL, Training & Networking Event NETCOM – Managenery, 10 oktober 2013

Dirk Schreurs & Patrick Boucneau, Cooperation for refurbishment of municipal buildings in Limburg (B), Brussels, 08 October 2014 & 28 April 2015

Patrick Boucneau & Nele Vandenreyt, from SEAP to... real investments in municipal buildings

Public ESCO schemes: POSIT'IF (FR), ESCOLIMBURG (BE), ESCOSC (NL)