

HORIZON 2020 “ENERSHIFT” – INNOVATIVE FINANCING FOR THE ENERGY RETROFITTING OF SOCIAL HOUSING

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IRE spa – Energy Department

IRE – who we are

IRE is the regional agency for **Infrastructure**, **Urban Renovation** and **Energy** in Liguria.
The company was founded in 2014 by merging three regional companies:



FIELDS OF ACTION:

- ➔ development of new **strategic infrastructures** (roads, hospitals, bridges, etc.)
- ➔ elaboration of **urban regeneration** programmes , planning and implementation of refurbishment in urban centres
- ➔ **Energy planning, certification** of buildings and energy from renewable sources

STAFF:

over 30 employees with technical skills in the fields of engineering, design and planning, energy, public procurement and European projects

IRE – The Energy Department



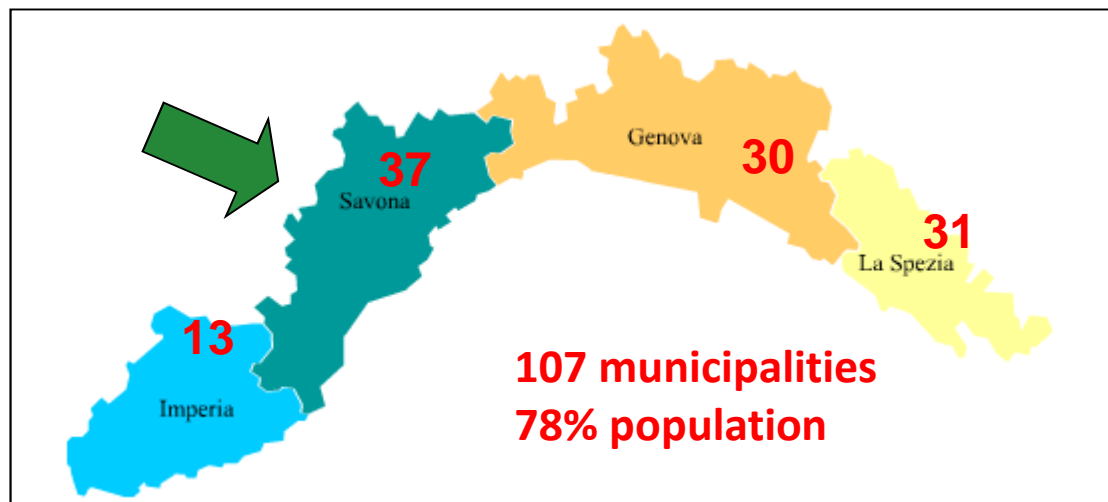
ACTIVITIES

- elaborating and implementing **energy plans** as well as energy balances both at a local, regional, provincial and municipal level.
- management of **energy data** in the regional database
- management of the **Energy Consortium for Liguria** for the purchase of electricity and natural gas on the free market
- management of the **global service contract** for energy efficiency in all hospitals in Liguria.
- management of the whole process of **energy certification of buildings**
- elaboration of feasibility studies and an analysis of the investments required for the use of **energy from renewable sources**
- elaboration of **innovative financial schemes** for energy efficiency
- Support to the Municipalities to commit to the **The Covenant of Mayors** and become a **Smart City**
- Preliminary examination of tenders as part of the **Regional Operative Programme** – for energy measures
- **European** projects







The Energy Department of IRE is a member and Vice President of **FEDARENE** (European Federation of Agencies and Regions for Energy and the Environment) and a member of **RENAEL** (The Italian network of Local Energy Agencies)

The Covenant of Mayors in Liguria



4 Structures to Support and coordinate the Covenant of Mayors

	Province of Savona
	Province of La Spezia
	Province of Genova
	Province of Imperia

+ IRE SpA Regional Energy Agency

«The local and regional Energy Agencies are the main driving force behind the growth and promotion of the Covenant of Mayors. The technical expertise of Local and Regional Energy Agencies (LAREAs) is often crucial to ensure the delivery of good quality SEAPs and their implementation.»



The role of IRE in the Covenant of Mayors

SUPPORT to help draw up the SEAP/SECAP

- 36 SEAP Provinces of Savona
- SEAP Municipality of Genova and Monitoring Reports
- 6 SEAP Provinces in Imperia
- SECAP Montalto Ligure (1° SECAP in Liguria) – in progress

SUPPORT to implement the actions



ELENA – European Local ENergy Assistance

ELENA is run by the European Bank of Investment and supports local and regional authorities in the development /start up of energy efficiency projects on a large scale. ELENA covers up to 90% of the technical assistance costs.



Horizon 2020 PDA – Project Development Assistance

As part of the Horizon 2020 Programme it supports public and private stakeholders in the development of investment projects in energy efficiency for a total value ranging between 7.5 and 50 million euro.



ELENA – description and objectives

ELENA provides technical and financial assistance for investments in energy efficiency projects to the Municipalities that have adhered to the Covenant of Mayors.

Facilitates the use of **investment funds in sustainable energy** at a local level

Supports the realisation of projects to **upgrade energy efficiency** in both private and public **buildings**

Reaching the **objectives of 20-20-20** by taking advantage of the potential that urban areas offer in the following areas: energy efficiency, rational use of electricity, energy savings in buildings and public lighting

Supports local authorities to overcome the technical and financial barriers that often arise when drawing up **integrated energy projects**

Supports the applications for **innovative financial assistance (i.e. ESCO)** to overcome limits imposed by balance sheets (Stability and Growth Pact).

ELENA "Prosper" – The Project

Province of Savona Pact for Energy Efficiency and Renewables

Carries out actions of energy requalification for Municipalities in the Province of Savona by involving ESCOs, that will see a pay back of the interventions in the savings that are generated over time.

European Programme: EIB - ELENA

Duration: January 2015-December 2017

Total investment: € 42 million

Cost of Project Development Services (PDS): € 1.46 million

Contribution from ELENA: € 1.34 million

Leverage Factor: 1:32

Partnership:

Province of Savona + 33 Municipalities

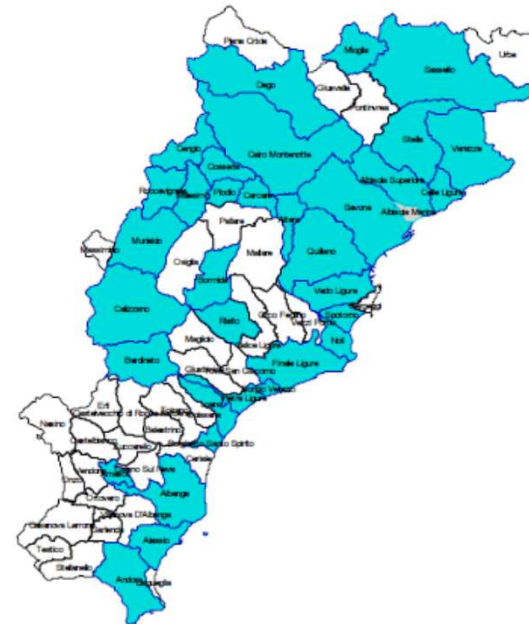


Use of Funds:

For technical assistance and all the procedures that are required so that the Province of Savona can prepare projects and issue tenders for sustainable energy

IRE assisted the Province of Savona in drawing up the investment project and signing the contract with the EIB

ELENA "Prosper" – the Municipalities



33 Municipalities in the Province of Savona:

- inland: Altare, Arnasco, Bardinetto, Bormida, Cairo Montenotte, Calizzano, Carcare, Cengio, Cosseria, Dego, Millesimo, Mioglia, Murialdo, Plodio, Quiliano, Roccavignale, Sassello, Stella
- along the coast: Andora, Alassio, Albenga, Albisola Superiore, Borghetto Santo Spirito, Borgio Verezzi, Celle Ligure, Finale Ligure, Loano, Noli, Pietra Ligure, Savona, Spotorno, Vado Ligure, Varazze



A total of 242,135 inhabitants are involved which amounts to 83% of the total inhabitants of the Province of Savona (280,800)

ELENA “Prosper” - a focus on investments

PART A – € 31.4 million

- Energy efficiency on **PUBLIC LIGHTING**: 20,918 lamps in 19 municipalities + street lighting in the Province (total 21,886);
- **ENERGY EFFICIENCY** in **151 buildings** (municipal offices, old peoples’ homes, sport facilities and 73 schools): insulation for the facades and retrofitting building envelopes, heating...
- **14 BIOMASS BOILERS** to serve **24 public buildings** in 9 different municipalities;
- **SOLAR THERMAL PLANTS** in **18 buildings** (sports facilities or homes for the aged) for a total of 250 m² panels;
- **14 biomass boilers** are also foreseen in **GREENHOUSES**, to replace the current diesel heaters.
- **3 MINI-HYDRO PLANTS** to be installed on the aqueduct pipelines for a total of 690 kW.

PART B – € 10.6 million

Part B of the investment programme includes interventions with a longer payback time, that will be implemented by the municipalities with the aid of European Structural Funds:

- **ENERGY EFFICIENCY** (window substitution, insulation, housing envelopes) in 44 buildings;
- **PHOTOVOLTAIC** and **SOLAR THERMAL** plants.



Horizon 2020 PDA – description and objectives

PDA – Project Development Assistance supports investments in energy efficiency by financing various activities ranging from feasibility studies to defining investment programmes with the aim of bringing together the project developers and potential investors.

promote the **implementation of investment projects** in energy efficiency

promote the **development** of technical, economic and legislative **abilities**

FOCUS on investments in energy efficiency:

- existing public and private buildings
 - street lighting;
- upgrading existing heating and air conditioning systems
 - energy efficiency in urban transport
- energy efficiency in industry and the service sector

enerSHIFT – the Project

enerSHIFT - Social Housing Innovative Financing Tender for Energy

Promotes retrofitting of public social housing buildings in Liguria using a self-financing mechanism that involves **ESCOs** and where pay back of the interventions will be generated in savings over time.

European Project: Horizon 2020 PDA - Project Development Assistance

Duration: February 2016 – January 2019

Budget: € 967,687.50

Partnership 7 stakeholders in Liguria



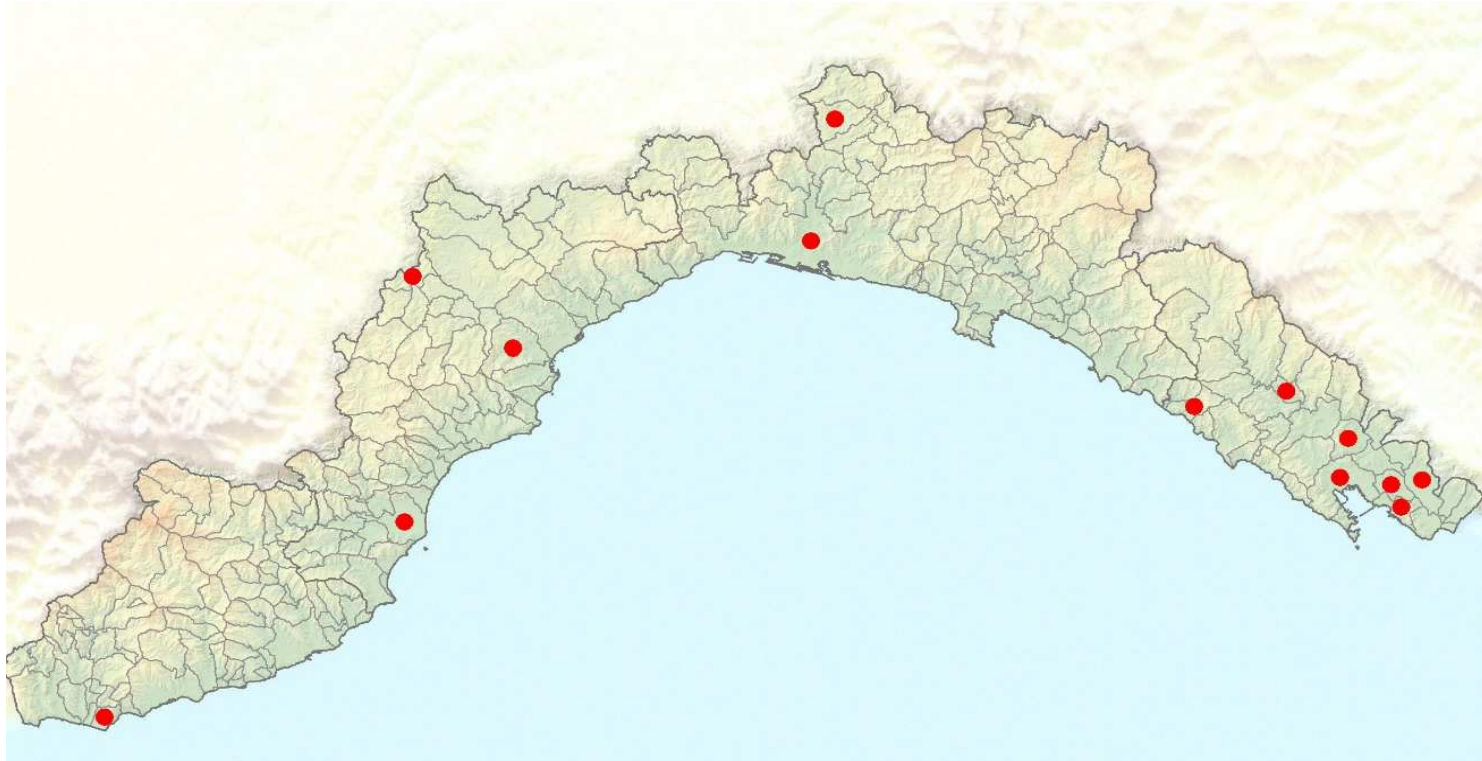
1. Regione Liguria (lead partner)
2. **IRE SpA – Energy Department**
3. ARTE Genova
4. ARTE La Spezia
5. ARTE Savona
6. ARTE Imperia
7. Tenants' associations (Sunia, Sict, Uniat) – have a key role acting as a go between in every step of the project

The role of IRE:

IRE drew up the project proposal and is the technical partner in charge of preparing the baseline, evaluating energy consumption as well as elaborating and planning sustainable energy investment schemes



enerSHIFT – the Municipalities



13 Municipalities in the 4 Provinces in Liguria:

Genova, La Spezia, Arcola, Brugnato, Follo, Framura, Lerici, Sarzana, Ronco Scrivia, Albenga, Cengio, Quiliano and Bordighera

enerSHIFT - Activities

- **diagnosis** of current energy consumption in 43 public social housing buildings that are owned by ARTE in Liguria,
- highlighting **interventions** that will **improve** technology and buildings,
- **financial engineering** to cover the investments required,
- issuing a **tender** intended solely for ESCOs for the energy performance of buildings.

The project will generate investments of €15 million, thanks to which interventions on 44 buildings can be carried out (235,000 m²) that house 3,300 families



EXPECTED RESULTS: annual savings of 14.5 GWh of primary energy (-55%) which amounts to €1.4 million yearly and a reduction of 3,492 tCO₂ emissions, not to mention an increase in the use of renewable energy sources (biomass and solar energy)

enerSHIFT – so far

During the first year of the project the following **technical activities** have taken place:

- **training** technicians from ARTE so that they can carry out an **energy diagnosis** on the buildings
- **baseline** of current energy consumption in buildings
- **Key Performance Indicators (KPIs)** to monitor the interventions through time and to evaluate investments

Furthermore:

- selecting legal consultants and communication agencies
- actively informing tenants and organising meetings for house owners
- Regione will make ERDF available
- formation of a **national platform for the stakeholders**



The platform intends to bring together technical, financial, legal and administrative competences of all those involved. The aim is to create an innovative operational tool that will become common practice and have lasting positive effects on the territory. Members: the partners of the project, Ministry for the Environment, GSE, AESS Modena, Assoesco, Federcasa, bankers, Filse, ANCE Liguria, CNA Liguria

enerSHIFT – in progress

The following **technical activities** are currently underway:

- **inventory of the interventions** to be included in the tender
- definition of the **investment programme**
- **programme** to elaborate the **documentation for the tender**, solely for ESCOs, for energy efficiency in buildings

Furthermore:

- setting up a **regional task force** for innovative financial projects in the energy efficiency sector
- **involving tenants** through their associations



The tenants living in buildings owned by ARTE are involved from the start through their associations (Sunia, Sicut e Uniat), who are partners in the project and carry out an important role of support, mediation and communication.

enerSHIFT – Advantages

FINANCIAL: planning and carrying out retrofitting at no cost (public bodies must do so by law on property owned by them), done by ARTE and Regione. Reduced administrative costs.

ENVIRONMENTAL: energy savings, fewer resources consumed and reduced emissions.

SOCIAL: raising awareness in those involved through their associations. Better living conditions.

INNOVATIVE: innovative financial solutions (ESCo contracts), that the EU considers highly. Synergy with ERDF (European Regional Development Funds). The tender will be handled by the SUAR (the regional central purchasing body).

OCCUPATIONAL: Carrying out work on 43 buildings located in different areas of Liguria means creating work for local businesses and artisans.

Thank you for your attention!

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