

PadovaFIT Expanded!

The activation of the One Stop Shop of the City of Padova

Engaging Homeowners in the Home Renovation
Process: a road for local authorities
Results of three years of activity

Laura Bano - SOGESCA



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847143.

The One Stop Shop of the city Padova

AN OPERATIONAL ARM OF THE MUNICIPALITY

The Sustainable Energy and Climate Action Plan of Padova, approved in June 2021, is the programmatic tool that outlines the municipality's sustainability strategy with a 2030 horizon. It addresses both mitigation and adaptation. It has been developed into 6 macro-areas, grouping homogeneous actions by focus area.

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The activation of the One Stop Shop was included in Chapter 2. "Actions to promote energy efficiency in public and private buildings."



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THE ONE STOP SHOP CONCEPT

- ✓ This is a recent concept with no single definition
- ✓ All OSS provide services to citizens aimed at energy refurbishment and combining supply and demand
- ✓ They differ in nature, services provided, resources available



Energy Performance of Buildings Directive: One-stop-shop (OSS) concept introduced

Funding opportunities for OSS: Home renovation services (LIFE+, H2020), PDA, ELENA, ...

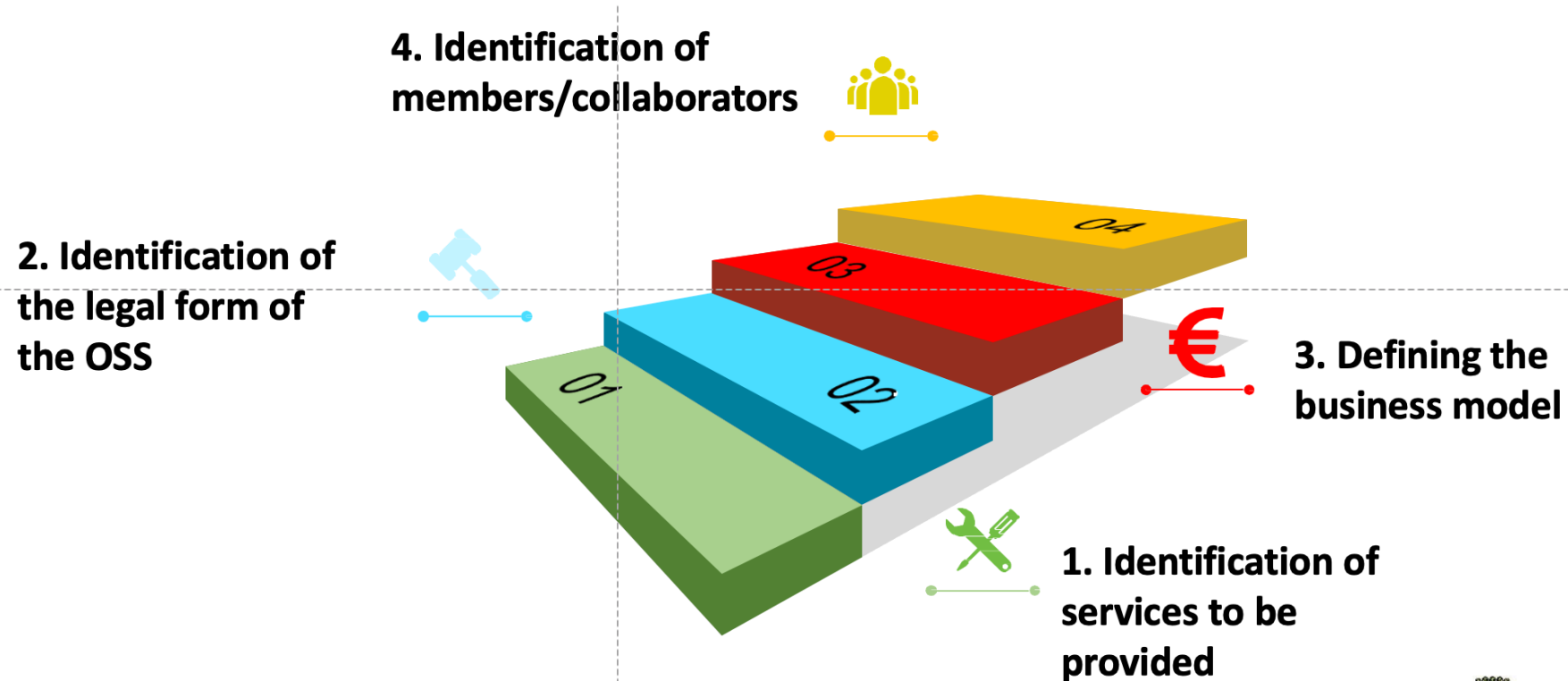


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THE PATH: PadovaFIT Expanded! Project

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THE SERVICES OFFERED

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Main topics

1. Energy communities
2. Energy poverty

Type of services

INFORMATION AND AWARENESS ACTIVITIES

Beneficiaries: all
Type of service: information and contacts

TECHNICAL SERVICES ON REQUEST

Beneficiaries: at the request of end users (individual users) or at the initiative of the OSS for specific categories
Type of service: pre-feasibility studies, third-party evaluations

MAJOR RENOVATION PROGRAMS

Beneficiaries: mainly for energy communities (multi-user)
Service type: prefeasibility, technical and financial assessments, energy monitoring



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THE ENERGY DESK

**ACTIVATED IN
FEBRUARY 2021, THE
SERVICE PROVIDES:**



**Technical advice by
telephone from
qualified personnel**



**Advice and insights
via e-mail**



Informational materials
(fact sheets, newsletters,
posts and publications)



**Stands during
local fairs and
information
evenings**



Communication
(website, social,
newsletters)



**«Termotour» for the
assessment of
buildings energy
efficiency**



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THE ENERGY DESK – The results after three years of activity

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312 days
Of OSS
operation

664 users
Advised by the OSS

856 calls
Total phone calls

**Information
material
produced**

- Information factsheets
- FAQ
- newsletter
- publications
- social posts
- Marketing material (roll-up, public billboard)

≈ **428 hours**

Total phone calls
Hours

70% private | 30% technicians

20 users/month

Average monthly
Phone contacts

98 e-mail

Total follow-up e-mail sent
to citizens



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USER REQUESTS

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ACCESS TO DOCUMENTATION:

- Waiting times and progress of requests for access to documents;
- Method FOR requesting access to documents.

SUPERBONUS 110:

- Combination of leading and trailing interventions
- Difference between direct deduction, invoice discount and credit assignment
- Responsibilities of different parties
- Amnesties for the purpose of obtaining 110%
- Definition of building type
- Simplifications Decree
- Use of price lists
- Calculation of expenditure cap
- Completion of the CILA-Superbonus and any other construction paperwork
- New deadlines and management of state of progress of works

SISMABONUS:

- Differences between sismabonus and supersismabonus
- Cumulability with other building bonuses
- Ways and procedures for accessing Sismabonus
- Submission of building documentation

«FACADE» BONUS:

- Immediate verification of the homogeneous territorial area (A or B) by consulting the portal: Cartography of the Municipality of Padua;
- Practices and procedures for obtaining the tax bonus.

ARCHITECTURAL BARRIERS BONUS:

- Practices and procedures for obtaining the tax bonus.

OTHER TOPICS:

- Ecobonus 65% (how to submit documentation ENEA)
- Renovation bonus 50%
- Furniture bonus
- Architectural barriers bonus
- Submission of building practices for the different types of intervention
- Methods, procedures and deductions photovoltaic system installation (on-site exchange and practices with the GSE)
- Methods of payment of works (the "talking money transfers")
- First home purchase bonus
- Help in reading energy bills and methods to reduce consumption



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USER REQUESTS IN THE LAST 6 MONTHS

Nearly 50% of info request:

**-PV SYSTEMS and
-ENERGY STORAGE**

- Tax deductions (post Superbonus 110%)
- Regulatory limitations (e.g. Building Regulations)
- Possibility of establishing an energy community
- Sizing of storage systems

**COLLABORATION WITH THE
MUNICIPALITY PRIVATE
BUILDINGS DEPARTMENT**

MARKET LIBERALISATION

Support for reading bills energy in view of the end of the protected market and of increases in energy costs

ENERGY COMMUNITIES AND SELF-CONSUMPTION

Information on regulatory developments, incentives, feasibility

Names/references of companies and technicians

A particular request received from users is the availability of a list of:

- construction companies,
- companies supplying construction and technological materials
- professionals (surveyors, engineers and architects)
- credit transfer institutions (banks, Poste Italiane and insurance companies)



PADOVA TERMOTOUR

NEWS November 2023 – March 2024

From November 2023 to March 2024 the Energy Desk has activated **A NEW SERVICE: THERMOTOURS**, to offer citizens advice on the energy efficiency of buildings.

The service, managed by specialized technicians, includes **thermographic diagnostics**, carried out with a thermal imager that allows the surface temperature of the building envelope to be detected. Overall, the investigation allows to:

- Check the good execution of the thermal insulation;
- Detect punctual or linear thermal bridges;
- Find discontinuities in wall and window components;
- Highlight any water infiltrations;
- Check the correct installation of the underfloor heating system and the geometric distribution of the pipes;
- Understand the effective yield and correct distribution of surface temperature on the radiant flooring or in the radiators.

At the end of the meeting/survey, a personalized report is released containing advice and assessments to improve the energy performance of the property.



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12 days
dedicated to Termotour

32 TERMOTOUR



60%
in condominiums



40%
in single houses



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TERMOTOUR

At the end of the Termotour, each citizen was given a **SUMMARY REPORT** showing the images taken and recommendations to improve the energy performance of the property

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REPORT DI INDAGINE TERMOGRAFICA

Utente	
Giorno sopralluogo	
Indirizzo	
Operatori	

La termografia è un metodo di **determinazione e rappresentazione della temperatura superficiale** tramite misurazione della densità di radiazione infrarossa radiante da una superficie. Essa è regolata dalla norma UNI EN 13187, specifica per la rivelazione qualitativa dell'involucro termico con metodo termografico, e consente la rilevazione della temperatura superficiale dell'involucro edilizio.

L'indagine termografica permette quindi di:

- verificare la buona esecuzione dell'**isolamento termico**;
- rilevare i **ponti termici** puntuali o diffusi;
- trovare **discontinuità nei componenti murari e finestrati**;
- mettere in luce eventuali **infiltrazioni di acqua**;
- verificare la corretta posa in opera dell'**impianto radiante a pavimento** e la distribuzione geometrica delle tubazioni;
- capire la resa effettiva e la corretta **distribuzione della temperatura superficiale** sulla pavimentazione radiante o nei radiatori;
- (solo accessibili in sicurezza) capire il corretto funzionamento dei **pannelli fotovoltaici**.




STRUMENTAZIONE UTILIZZATA	
Marca e modello	FLIR E8
Risoluzione IR e MSX	320 x 240
Sensore	Microbolometro non raffreddato
Intervallo temperatura	da -20 °C a 250 °C
Accuratezza	±2% o 2 °C

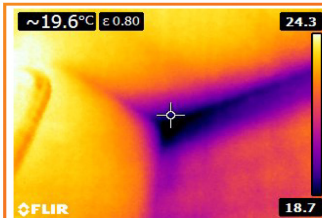
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 Sportello Energia Padova | Report di indagine termografica
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TEMPERATURA RILEVATA

Temperatura esterna	12,7 °C
Temperatura interna	19 °C

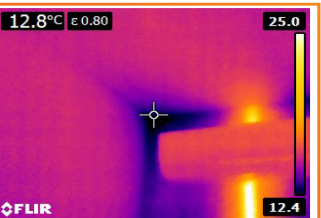


~19.6°C ± 0.80 24.3



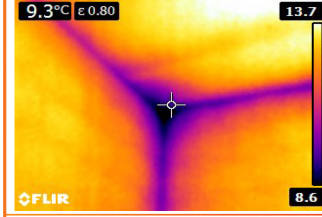
FLIR 18.7

12.8°C ± 0.80 25.0



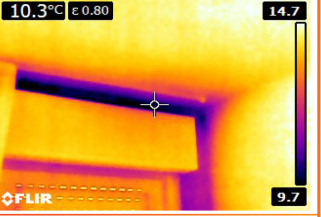
FLIR 12.4

9.3°C ± 0.80 13.7



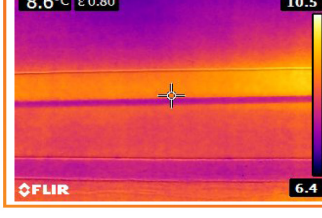
FLIR 8.6

10.3°C ± 0.80 14.7





FLIR 9.7

8.6°C ± 0.80 10.5



FLIR 6.4

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RACCOMANDAZIONI PER MIGLIORARE LA PRESTAZIONE ENERGETICA DELL'IMMOBILE

<ul style="list-style-type: none"> ■ Isolamento termico pareti esterne a cappotto di tutto l'involucro edilizio ■ Correzione nel montaggio dei pannelli isolanti per distacco o errore di posa ■ Isolamento termico interno solo della parete con applicazione di una controparete con barriera al vapore ■ Isolamento termico interno del solaio ultimo piano tramite controsoffittatura ■ Isolamento termico del sottotetto tramite insufflaggio di cellulosa o materassini di lana di roccia ■ Isolamento termico del sottoportico o solaio confinante con garage ■ Sostituzione degli infissi con infissi a doppio vetro e taglio termico, trasmittanza minima 1,30 W/m²K ■ Installazione di tapparelle scuri coibentati ■ Coibentazione dei cassonetti delle tapparelle 	<ul style="list-style-type: none"> ■ Installazione di basculante garage coibentato ■ Installazione di valvole termostatiche su radiatori ■ Risoluzione di ponti termici puntuali ■ Risoluzione di infiltrazione d'acqua tramite impermeabilizzazione ■ Revisione del sistema a pannelli radianti o di radiatore per una non corretta distribuzione della temperatura ■ Installazione di impianto fotovoltaico (con o senza batterie di accumulo) ■ Sostituzione del generatore di calore (caldaia a condensazione, pompa di calore o sistemi ibridi) ■ Sostituzione di climatizzatore per il raffrescamento estivo con inverter ■ Installazione di sistemi domotici per il controllo da remoto degli impianti
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Le analisi termografiche effettuate hanno permesso di rilevare in maniera efficace le dispersioni termiche associate all'involucro edilizio e sulla base di quest'ultima si indicano le seguenti raccomandazioni:



Ulteriori note: L'appartamento ha un buon grado di efficienza. Attraverso l'installazione di un sistema di isolamento termico a cappotto e l'installazione di un impianto fotovoltaico da almeno 3 kW si raggiungerebbe un livello ottimale. Si evidenzia che gli interventi elencati sono da realizzare a livello condominiale con il coinvolgimento di tutti gli inquilini.

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Per approfondire utilizza il servizio gratuito dello Sportello per il Risparmio Energetico, prenotando un appuntamento telefonico con i nostri tecnici (attraverso il portale **ICUP**) o consultando il sito internet dedicato www.sportelloenergia.padova.it

The One Stop Shop of Padova

COLLABORATION

Importance of stakeholder engagement

Understand local market dynamics

Verify existence of similar services (alternative or complementary to OSS)

Assess potential synergies

Technical Stakeholders
Trade associations & businesses
Professional Associations &
Professionals
Industry associations
University of Padua
Chamber of Commerce



Financial Stakeholders
Credit institutions
Insurance institutions
ESCo



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LONG TERM SUSTAINABILITY

COSTS

- >Staff costs [facilitators, experts]
- >Space rental
- >Communication and marketing campaigns
- >Technical tools
- >Dedicated website and maintenance
- >Administrative costs

BALANCE

REVENUES

CUSTOMER SERVICES

Applying a fee for technical services

OTHER FUNDS

Sponsorships
EU projects
EIB funds/technical assistance
ERDF funds
NRP Funds



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The One Stop Shop of Padova

WHERE ARE WE GOING

Approval of the SECAP. One Stop Shop as a pillar of chapter 2.

The One Stop Shop evolves: a new operational branch of the in-house company APS Holding

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2021
February

2021
June

2022
April

2022
November

2022-
2030

Launch of the One Stop Shop

Padova is among the 100 cities in the Climate Neutral Cities Mission

The One Stop Shop as an operational arm for climate neutrality

Ongoing relationships with stakeholders



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PADOVA FIT EXPANDED!

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