



# **Padova FIT Expanded: One-stop-shop for the energy refurbishment of condominiums in the Padova metropolitan area**

**GIOVANNI VICENTINI, Municipality of Padova  
15/06/2021**



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

# THE SECAP OF THE MUNICIPALITY



The Action Plan for Sustainable Energy and Climate is the strategic tool that outlines the municipality's sustainability strategy with a horizon to 2030. It deals with both mitigation and adaptation. It has been developed in 6 macro-areas, which group homogeneous actions by scope of intervention.



The activation of the One-Stop-Shop is one of the key actions of pillar 2 “A more efficient city”



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# THE STARTING POINT



## The building stock

- A lot of condominiums with bad energy performances
- High energy consumptions in the residential sector: 180 kWh/m<sup>2</sup>/year
- Buildings built between the 60s and 70s to respond to the housing demand: no attention to energy; no existing rules in the Italian regulatory framework



## The social conditions

- High number of families in energy poverty condition (this situation has worsened after the Covid-19 epidemic)
- Elderly people are increasing (one third of the total population)
- General difficulty in taking out loans/mortgages



# A MORE EFFICIENT CITY



Thanks to the participation and coordination of some EU projects, the City of Padova is activating a new model for supporting the energy refurbishment of private residential buildings

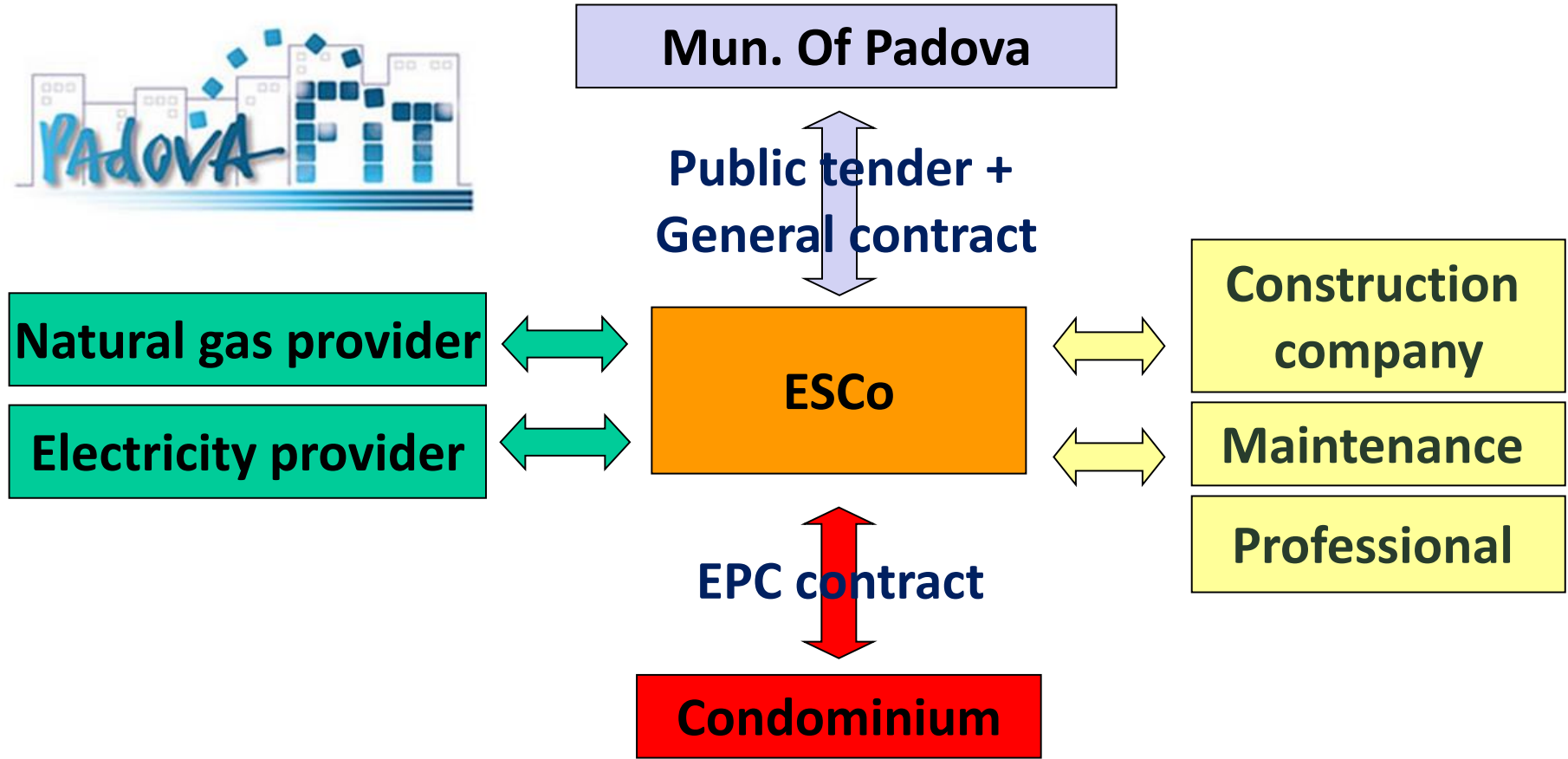


<p>Padova FIT 2013-2017 Financed by IEE MLEI. Leverage factor &gt;15</p>	<ul style="list-style-type: none"><li>✓ Only for condominiums</li><li>✓ Focused on the Municipality of Padova</li><li>✓ Project Development Assistance project to prepare the ground for the activation of private investments (ESCo model)</li><li>✓ Based on the EPC contracts and third party financing</li></ul>
<p>Padova FIT Expanded 2019-2022 100% financed by H2020</p>	<ul style="list-style-type: none"><li>✓ Extended to other building typologies</li><li>✓ Replicated in other EU cities (Timisoara in Romania, Smolyan and Vidin in Bulgaria)</li><li>✓ Based on the new One-Stop-Shop model, to overcome the weaknesses of the PadovaFIT project</li></ul>



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# THE FIRST PADOVA\_FIT MODEL



## Key points of the EPC contract

Investment performed by the ESCo

Condominium-ESCO contract template validated by the Municipality

Energy saving % (guaranteed) to be achieved

Quality assurance and performance monitoring methodology

Management and maintenance of installed systems

Energy service provider (heating, cooling, lighting)



# TOWARDS THE OSS MODEL



## The benefits of an EPC contract

- ❖ Free energy audit carried out by energy experts
- ❖ Simplification for the citizen, since the selected company deals with all organizational, technical and financial aspects
- ❖ Improving living comfort
- ❖ Increase in the value of real estate



Some categories of buildings, however, could not benefit from the project, as the EPC model tends to work well only in specific cases (e.g. old buildings, with central heating, with big investments, etc.)

Towards the  
new concept of  
One Stop Shop



# PADOVA\_FIT EXPANDED



Started in June 2019  
Ending in November 2022



An overall budget of **1.5 mln €**  
[www.padovafit.eu](http://www.padovafit.eu)

Project Partners:



**Università  
Bocconi**  
GREEN  
Centre for Geography,  
Resources, Environment,  
Energy and Networks



**SINLOC**  
Sistema Iniziative Locali



Forum per la  
Finanza Sostenibile



Climate Alliance

ЕНЕРГИЙНА  
АГЕНЦИЯ  
ПЛОВДИВ



ENERGY  
AGENCY OF  
PLOVDIV



Timisoara 2021  
European Capital of Culture

## Expected results

The OSS of Padova and Timisoara should:

- Mobilize at least 5.5 million € of investments,
- Save about 1.7 GWh of primary energy consumptions,
- Increase of 1.3 GWh the RES production,
- Reduce of at least 850 tons the CO<sub>2</sub> emissions

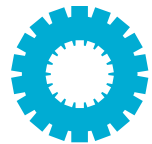


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# THE NEW CONCEPT OF ONE-STOP-SHOP



The existing OSS can vary on:



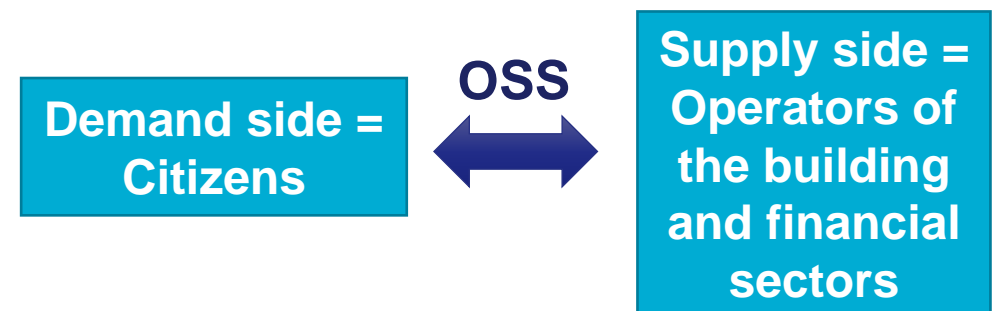
**The legal basis (public-private partnership, total public body, energy agencies, ESCOs, etc.)**



**The available resources (human, economic, own resources, external financing, fee for beneficiaries, white certificates, etc.)**

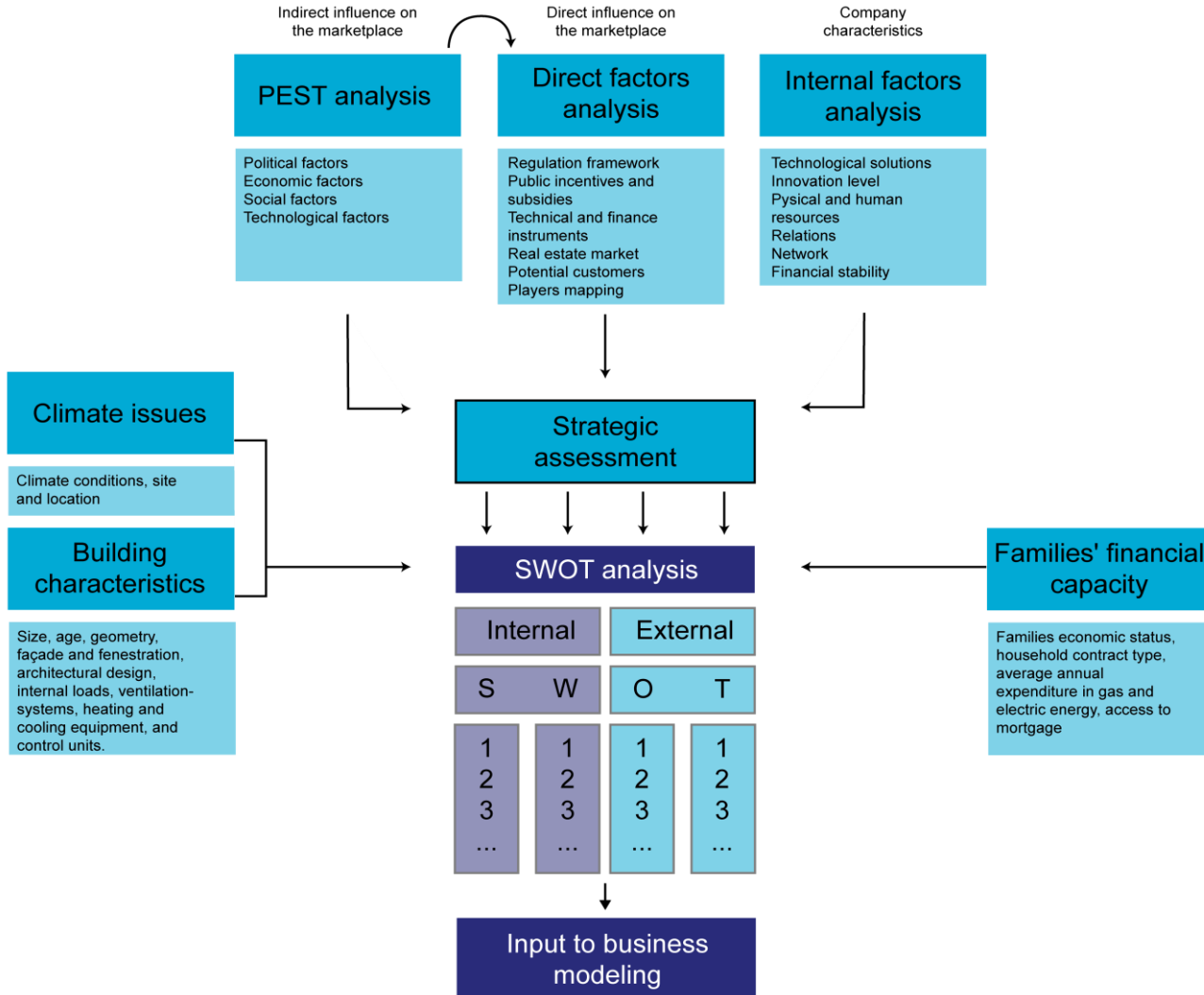


**The services provided by the OSS (only information, technical & financial services, purchasing groups, etc.)**





# HOW TO DEFINE YOUR OSS REFERENCE MODEL



## SWOT and STAKEHOLDER ANALYSIS AIM:

- Identify specific barriers (weakness, threats) which should be overcome by the OSS – The OSS business model is designed to overcome contextual barriers
- Identify favorable territorial conditions (strengths, opportunities) which can support the OSS and guarantee the success – The OSS business model is designed to take advantage of them.

# FACILITATION MODEL

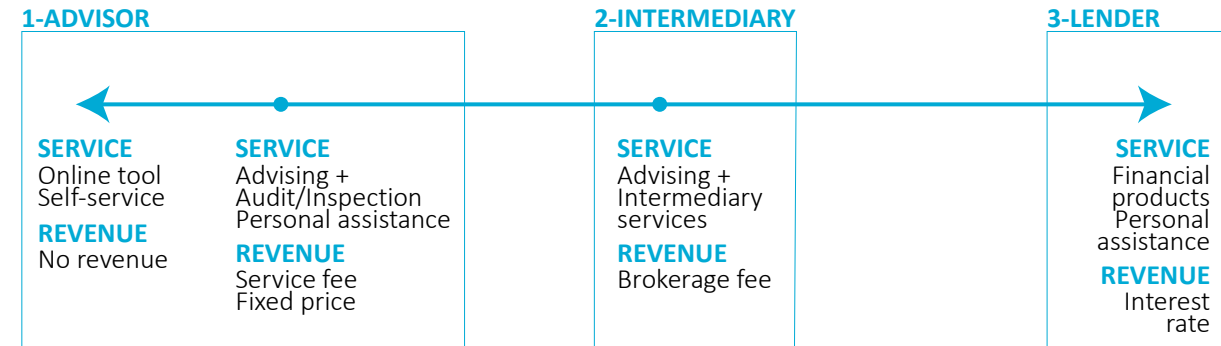


## FACILITATION MODEL

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
<p>NO FIXED PARTNERS</p> <ul style="list-style-type: none"> <li>• Network of suppliers (in the case of intermediary services)</li> <li>• Energy audit providers</li> <li>• Financial institutions</li> </ul>	<p>INFORMING - SUPPORTING</p> <p>Technical-Financial advising/assistance Energy audit (optional) Intermediary services (optional) Financial products (optional)</p>	<p>MAKE THE HOME RENOVATION EASIER- SEMPLIFICATION</p> <p>AWARENESS RAISING</p> <ul style="list-style-type: none"> <li>• Provide non-partial, neutral advice</li> <li>• Technical/ financial support</li> <li>• Reduce information/knowledge gap</li> <li>• Intermediary point of contact for suppliers (home renovation chain)</li> <li>• Easy access to financing (optional)</li> </ul>	<p>Online (mostly)- Selfservice relationship (online Tool)</p> <p>Personal assistance (optional, mainly provided by second line suppliers)</p>	<p>Multi-sided market</p> <ul style="list-style-type: none"> <li>• Homeowners (users)</li> <li>• Suppliers (intermediary services)</li> </ul>
	<p><b>Key Resources</b></p> <ul style="list-style-type: none"> <li>• Human</li> <li>• Physical (equipment, offices)</li> <li>• Online platform- software</li> <li>• Financial (for the financial products provider option)</li> </ul>		<p><b>Distribution Channels</b></p> <p>Online (website) Help desk Local events</p>	
<b>Cost Structure</b>		<b>Revenue Streams</b>		
<p>VALUE-DRIVEN</p> <ul style="list-style-type: none"> <li>• Development of online platform + maintenance</li> <li>• Employees</li> <li>• Physical Office (optional)</li> <li>• High initial costs (budget) for the financial products provider type</li> </ul>		<p>There are many options:</p> <ol style="list-style-type: none"> <li>1) No revenues (only online tool)</li> <li>2) Service fee (for energy audits and advices- fixed price)</li> <li>3) Brokerage fee (for intermediary services)</li> <li>4) Recurring revenue (interest rate) for financial products provider type</li> </ol>		

## FACILITATION MODEL

- Advisory
- Intermediary
- Lender



# COORDINATION MODEL



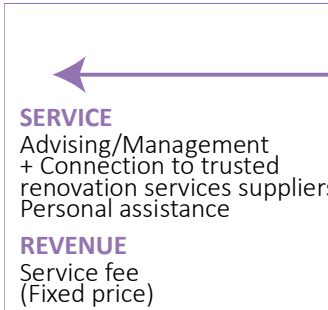
## COORDINATION MODEL

Key Partners	Key Activities	Value Proposition	Customer Relationship	Customer Segments
<p>FIXED/TRUSTED PARTNERS</p> <p>MULTIDISCIPLINARY NETWORK OF PARTNERS</p> <p>Many coordination models:</p> <ul style="list-style-type: none"> <li>• Clusters</li> <li>• Strategic alliance</li> <li>• Joint venture</li> </ul> <ul style="list-style-type: none"> <li>• Financial institutions</li> <li>• Local contractors</li> <li>• Manufactures</li> <li>• Technical experts</li> <li>• Energy utilities</li> <li>• Local authorities</li> </ul>	<p>COORDINATION-MANAGEMENT</p> <p>Technical-Financial advising/assistance Project management Quality control Multi-stakeholder coordination Financial products (optional)</p> <p><b>Key Resources</b></p> <ul style="list-style-type: none"> <li>• Human</li> <li>• Physical (equipment, offices)</li> <li>• Trusted (qualified) partners network</li> <li>• Financial</li> </ul>	<p>COORDINATION OF HOME RENOVATION PROJECT AND PARTNERS</p> <p>QUALITY GUARANTEE/CONTROL</p> <ul style="list-style-type: none"> <li>• Technical/financial support</li> <li>• Project management (single point of contact)</li> <li>• Multidisciplinary, cooperative-based solutions</li> <li>• Pre-defined packages</li> <li>• Monitoring/follow-up</li> <li>• Stakeholders training (trustworthy partnerships)</li> </ul>	<p>Personal (direct) assistance</p> <p><b>Distribution Channels</b></p> <p>Online (website) Partners websites Help desk On-site visits Local events</p>	<p>Segmented</p> <ul style="list-style-type: none"> <li>• Homeowners (single home)</li> <li>• Block of flats</li> <li>• Local authorities (public buildings-SH)</li> </ul>
Cost Structure		Revenue Streams		
<p>VALUE/QUALITY-DRIVEN</p> <ul style="list-style-type: none"> <li>• Multidisciplinary Employees</li> <li>• Partners relationship maintenance (training courses-certification)</li> <li>• Physical Office (optional)</li> </ul> <ul style="list-style-type: none"> <li>• High initial costs (budget) for the financial products provider type</li> </ul>		<ol style="list-style-type: none"> <li>1) Service fee - Fixed fee for the coordination / management services</li> <li>2) Fixed fee for training courses</li> <li>3) Recurring revenue (interest rate) for financial products provider type</li> </ol>		

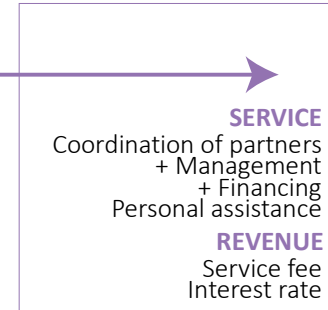
## COORDINATION MODEL

- Connection
- Cooperation

### 1-CONNECTION



### 2-COOPERATION



# WHICH FORM FOR OUR ONE-STOP-SHOP



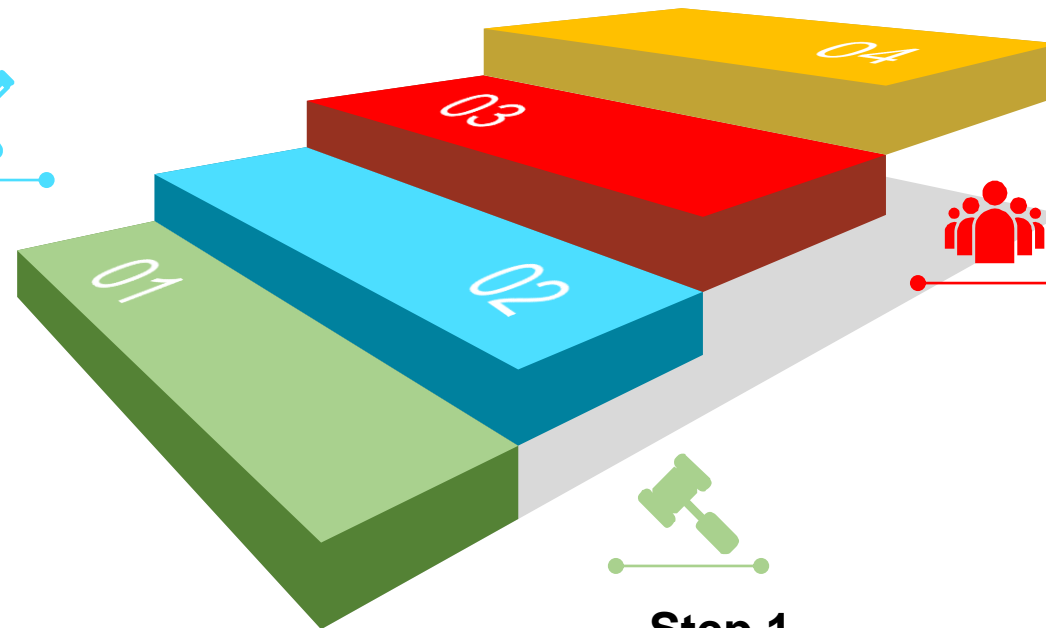
**Step 4**  
What resources will support the OSS?



**Step 2**  
What corporate form will the OSS have?



**Step 3**  
Which services will the OSS provide?

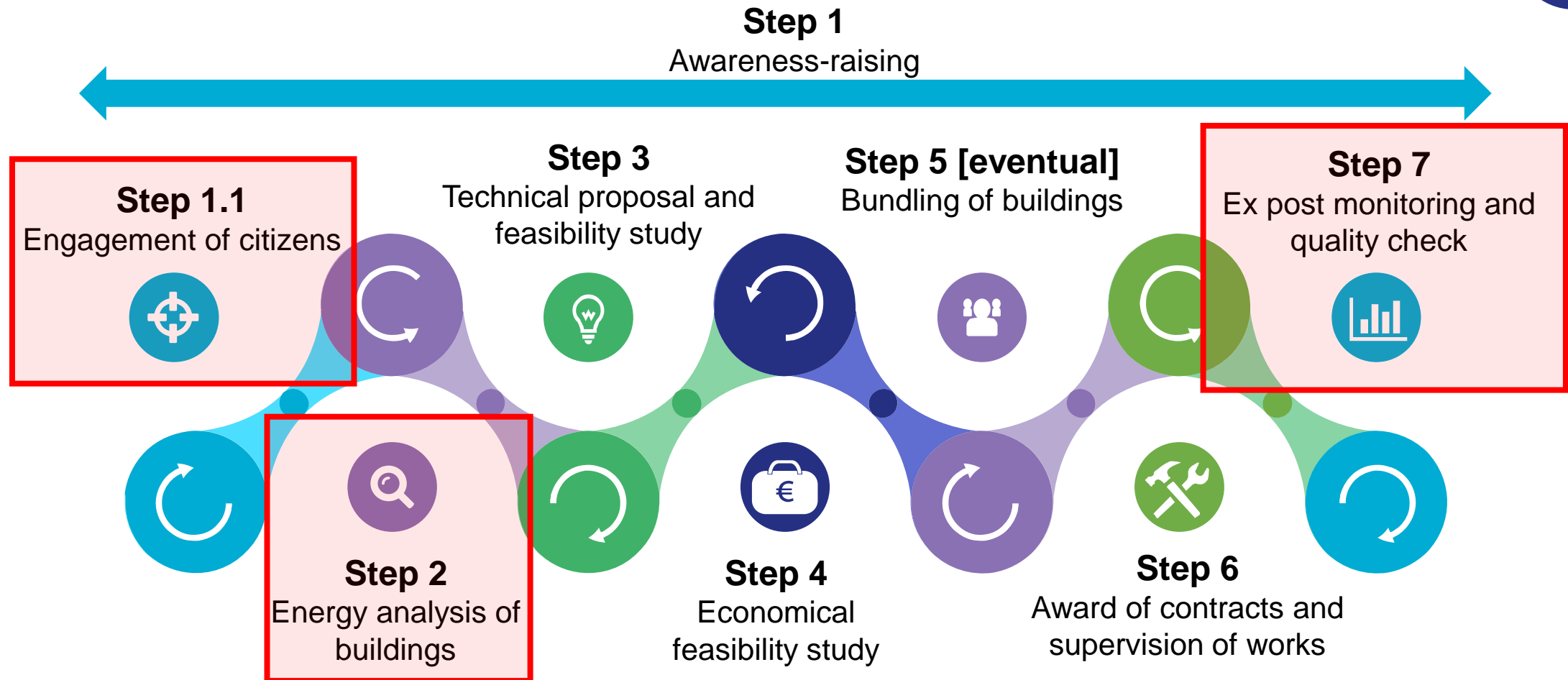


**Step 1**  
Who will be part of it?



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# WHICH SERVICES FOR OUR ONE-STOP-SHOP



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We are adopting a direct implementation approach concerning steps 1, 2 and 7 and an indirect approach concerning the others, where third-parties are involved within the OSS framework.

# THE ONE-STOP-SHOP IN PADOVA



- Internal Working Group coordinated by the Environmental Department and involving the IT Department, the Advocacy Department and the Private Buildings Department
  - To discuss about the legal and operational form of the OSS
  - Decision-making control room
- Interaction with other national OSS
  - To share our experience and to better define our OSS
  - To create a National Advisory Board
  - To lay the ground for a future cooperation
- Identification of the technical and financial stakeholders to be involved in the OSS
  - 15 technical stakeholders / 10 financial stakeholders



# ENGAGEMENT OF STAKEHOLDERS



## Technical stakeholders

- Existing similar technical services on the market?
- Complementary solutions
  - Aspects to be considered in the OSS definition
- Building associations, university, professional bodies, building managers association



## Financial stakeholders

- Existing similar financial products on the market?
- Interest in being part of the OSS to provide ad hoc solutions
- Banks, ESCOs, regional and national institutions providing fiscal support







# ENGAGEMENT OF CITIZENS



Main tools:

## Creation of a dedicated website

<https://www.padovanet.it/informazione/progetto-europeo-padovafit-expanded>

- To provide info on the project and the Italian Superbonus 110%
- Some material has been prepared and published on how to refurbish the building with the existing fiscal mechanism
- The citizens can schedule a phone-call with some experts (at the beginning the Energy Desk will be focused on the Superbonus 110%)

## Social media channels – Municipal newsletter – Local media

<http://newsletter.padovanet.it/archivio/31/> (2,600 recipients)

<https://it-it.facebook.com/Comune.Padova/> (35,000 followers)

- In this first phase, to provide info on the launch of the Energy Desk in Padova and the events that will be organized by the Municipality
- In a second phase to provide info on the OSS



# ENGAGEMENT OF CITIZENS



## Come prendere appuntamento

Per fissare un appuntamento con il personale dello Sportello **servizio iCUP del Comune di Padova** e cliccare su "Sportello" successivamente sul tasto "Prenota". L'utente potrà scegliere di cliccare su "+" per finalizzare la registrazione.

In seguito alla prenotazione si riceverà conferma dell'appuntamento via email.

L'appuntamento sarà telefonico; l'utente sarà contattato direttamente dallo Sportello al numero indicato in fase di registrazione.

Per annullare o spostare l'appuntamento è possibile scrivere a [risparmio.energetico@comune.padova.it](mailto:risparmio.energetico@comune.padova.it).

### Giorni e orari per l'appuntamento telefonico

- martedì: dalle 9.00 alle 14.00
- giovedì: dalle 12.00 alle 17.00

L'appuntamento telefonico ha una durata massima di 30 r

### IN EVIDENZA:

- **domande frequenti (Faq) per l'accesso al Superbonus nel Comune di Padova,**
- **interventi nel centro storico.**
- Bonus facciate: **individuazione della Zona Territoriale Omogenea (ZTO)**

Il servizio è erogato nell'ambito del progetto europeo **PadovaFIT Expanded**, che intende fornire ai cittadini informazioni, assistenza tecnica, giuridica e finanziaria, nonché strumenti contrattuali e decisionali per la realizzazione ed il monitoraggio degli interventi di risparmio energetico.



## 1. You search for information of the website

## 2. If you don't find what you are searching for you can reserve an appointment with the technicians of the energy desk

## Sportello per il Risparmio Energetico

Gli appuntamenti possono essere prenotati il **martedì** (9.00-14.00) ed il **giovedì** (12.00-17.00). La durata massima dell'appuntamento è di **30 minuti**. Per prenotare, scegliere la data e l'ora e cliccare su "+".

◀ Settimana precedente		maggio 2021	Settimana successiva ▶
		martedì 11	giovedì 13
09:00			12:00 +
10:00 +			13:00 +
11:00 +			14:00 +
12:00 +			15:00 +
13:00			16:00 +

## 3. You select the day and the time. The reservation is open and free.



## 4. You will receive a phone call from the technician at the time of the reservation. The phone call will last up to 30 minutes.



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# ENGAGEMENT OF CITIZENS



Main tools:

## **Flyer/leaflet distribution – Putting up a poster**

- The service provider has been identified
- The service consists of the design and printing of the communication material
- The service started at the beginning of 2021 and will take place in several moments during the project lifespan (in a first phase to promote the Energy Desk; in a second phase to promote the OSS)

## **Creating some information points – Information evenings**

- In this first phase, the information point will consist of an online Energy Desk
- The physical information points (in local markets/information evenings in municipal premises) will start as soon as the Covid-19 epidemic restrictions will guarantee a safe interaction



# ENGAGEMENT OF CITIZENS



The roll-up



Advertising of the Energy desk on the city tram



The poster in 6m\*3m format



The A5 flyer



The poster in 33cm\*48cm format



The poster in 70cm\*100cm format



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# ENGAGEMENT OF CITIZENS



Main tools:

## **Distribution of promotional products**

- Strongly related to the activation of the physical information points

## **Testimonials**

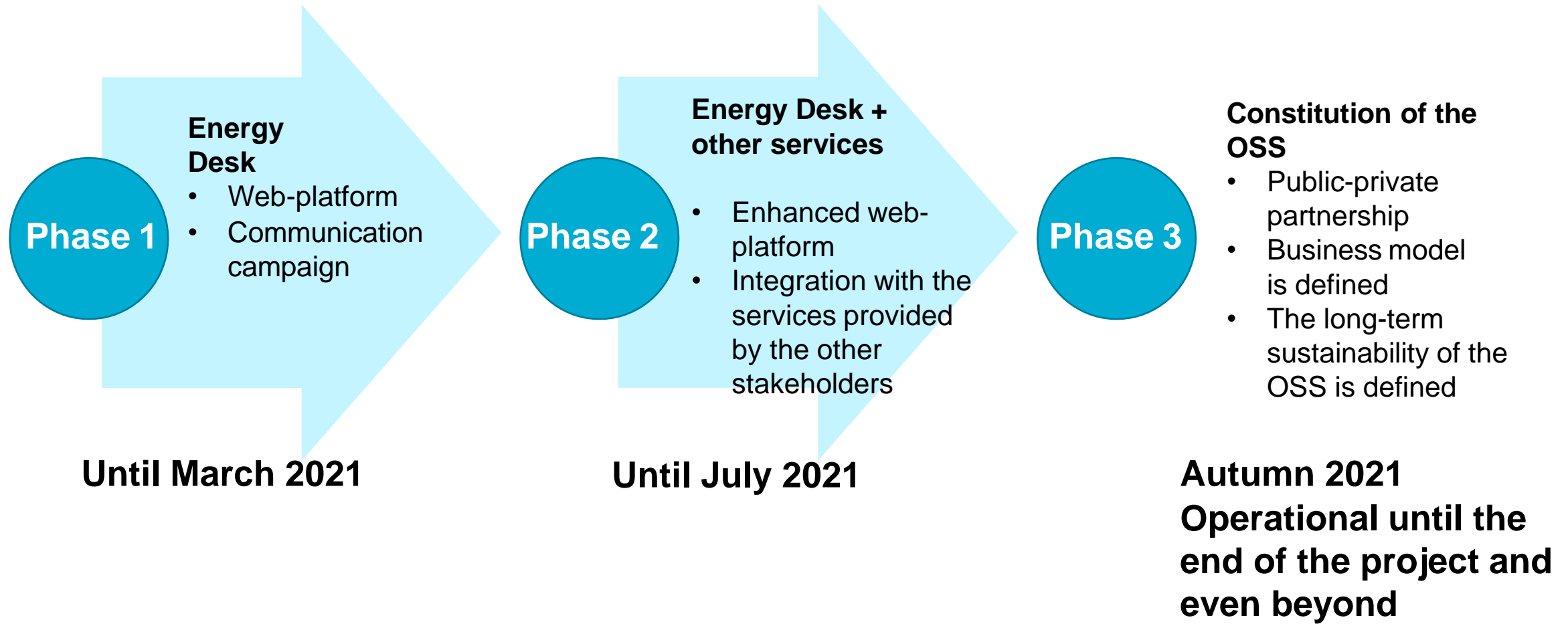
- Identification of the VIP or other key relevant stakeholders to be involved in the communication campaign
- Interviews will be published before the launch of the OSS in Padova (Autumn 2021)

## **Condominium/community facilitators**

- A certain number of experienced and less experienced people (around 20) will be involved in the training process. The training activity will be online with sync and a-sync lessons.
- This activity will be performed with the external support of communication. Trained people should be able to link technical skills with communication techniques.
- At the end of the course, 1-2 people will be selected to work in the pilot area



# THE MAIN STEPS TOWARDS



# SUPERBONUS 110%



## Beneficiaries

- ✓ Building owners and tenants
- ✓ For each type of residential building
- ✓ Including the social housing



## Fiscal rebates (tax deduction)

- ✓ 110% of the costs occurred for the energy refurbishment of the building
- ✓ Costs reported by the end of 2021
- ✓ 5 annual instalments of the same amount
- ✓ *E.g. Total costs = 80,000€  
Fiscal rebate of 88,000€ (17,600€ per year)*



## Which interventions?

- ✓ Building insulation (driving)
- ✓ Refurbishment of heating systems (driving)
- ✓ Windows replacement (driven)
- ✓ Photovoltaic systems and storages (driven)
- ✓ Solar thermal systems (driven)
- ✓ Solar shading systems (driven)
- ✓ Building automation (driven)



## Requirements.

- A. The fiscal rebate is available only if at least one driving intervention is realized.
- B. The interventions should guarantee a certain increase in the energy performance of the building (at least 2 classes in the energy certificate).
- C. Each intervention has 2 thresholds: 1 concerning the maximum cost, 1 concerning the maximum deductible amount
- D. Each intervention has some technical requirements which should be certified by professionals.



# SUPERBONUS 110%



## Low cost interventions

In alternative to the direct use of the fiscal rebate (tax deduction), those entitled may opt for a tax credit or a discount in the invoice

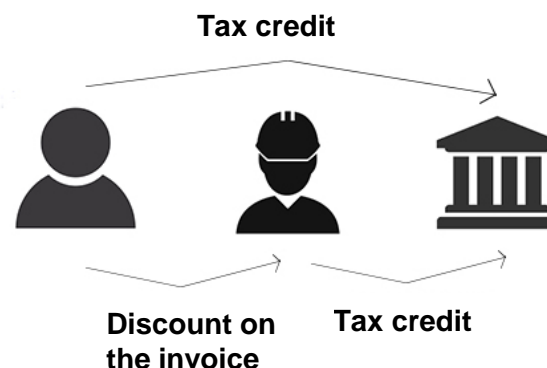
### Contribution in the form of direct discount.

Contribution, in the form of a discount on the invoice, anticipated by the suppliers who carried out the interventions (in agreement with the suppliers).

*E.g. Total costs = 80,000€*

*Fiscal rebate = 88,000€*

*Discount = from 0% to 100% of total costs*



### Transferring the tax credit.

The tax credit can be transferred to other technical or financial operators (e.g. banks) in return for other services (e.g. a bank loan). Part of the tax deduction is used to pay the service.

*E.g. Total costs = 80,000€*

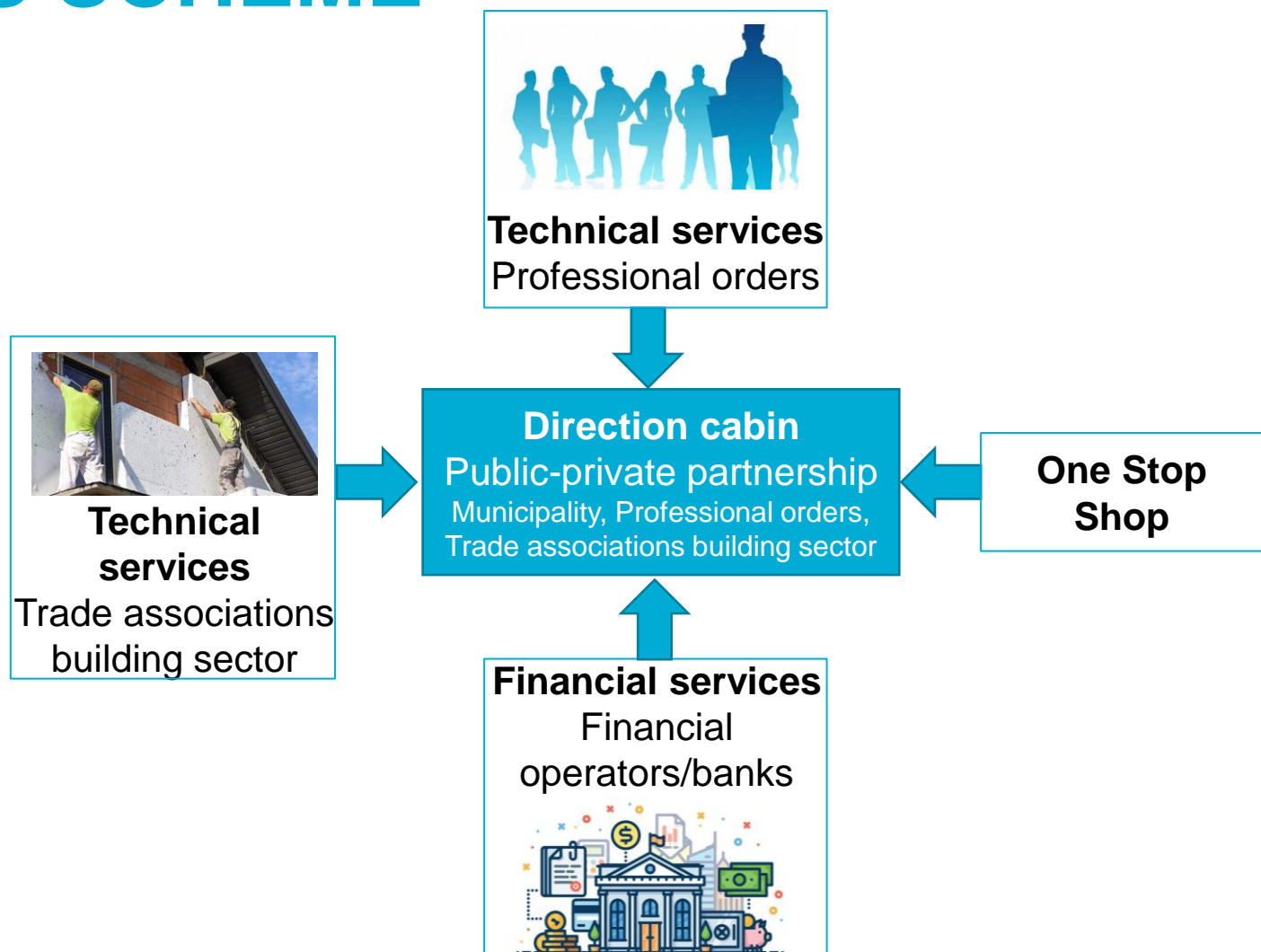
*Fiscal rebate = 88,000€*

*Bank loan with tax credit = about the 8-9% of costs goes to the bank*





# THE OSS SCHEME




- Engagement of citizens
- **OSS entry point**
- First information and first data collection
- Prefeasibility studies in the form of energy audits
- Clustering of citizens
- Guidance on technical and financial services
- Ex post monitoring



# THE OSS SCHEME



**Technical services**  
Professional orders



**Technical services**  
Trade associations  
building sector

**Financial services**  
Financial operators/banks



**One Stop Shop**



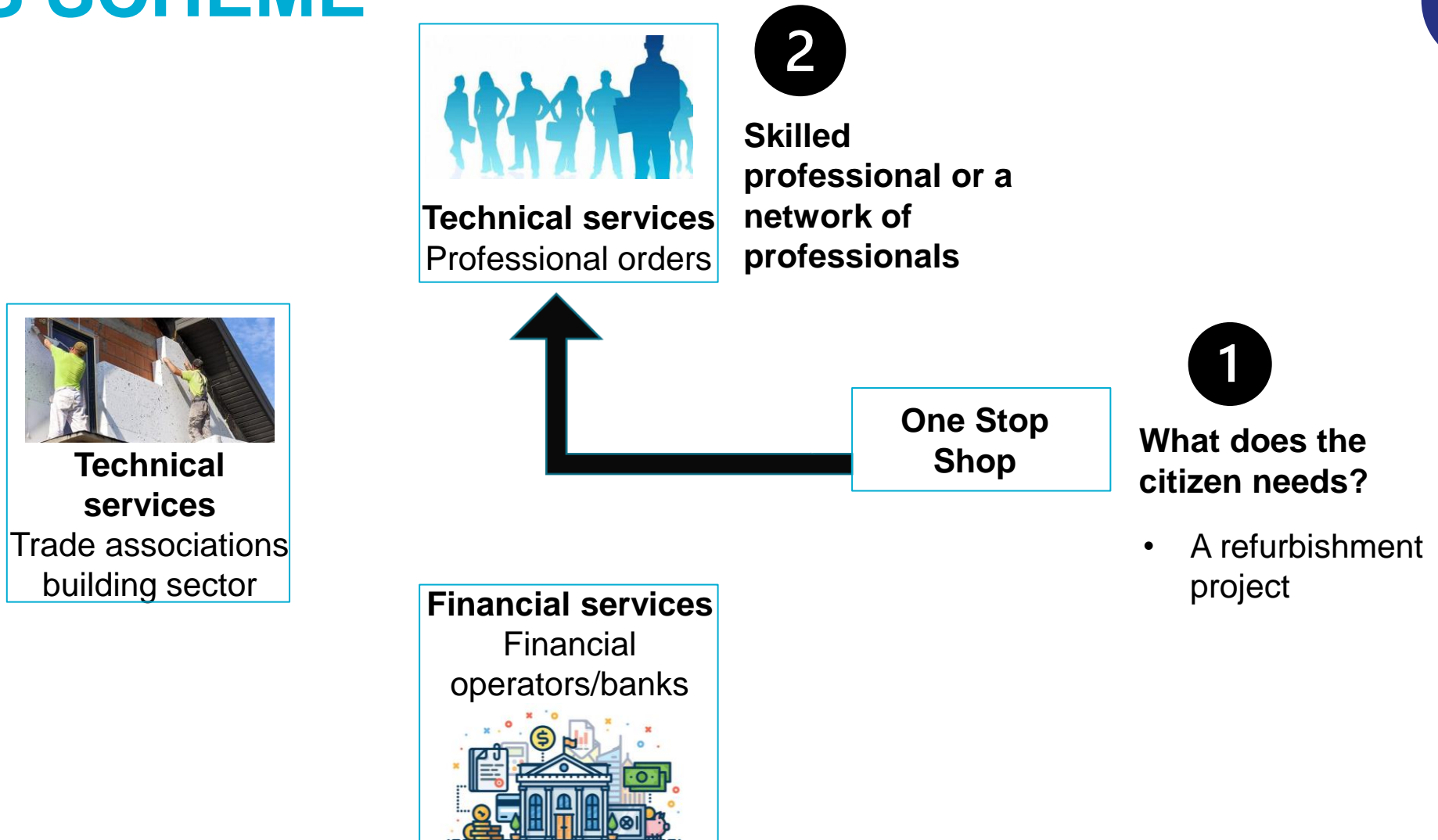
**1**

**What does the citizen needs?**

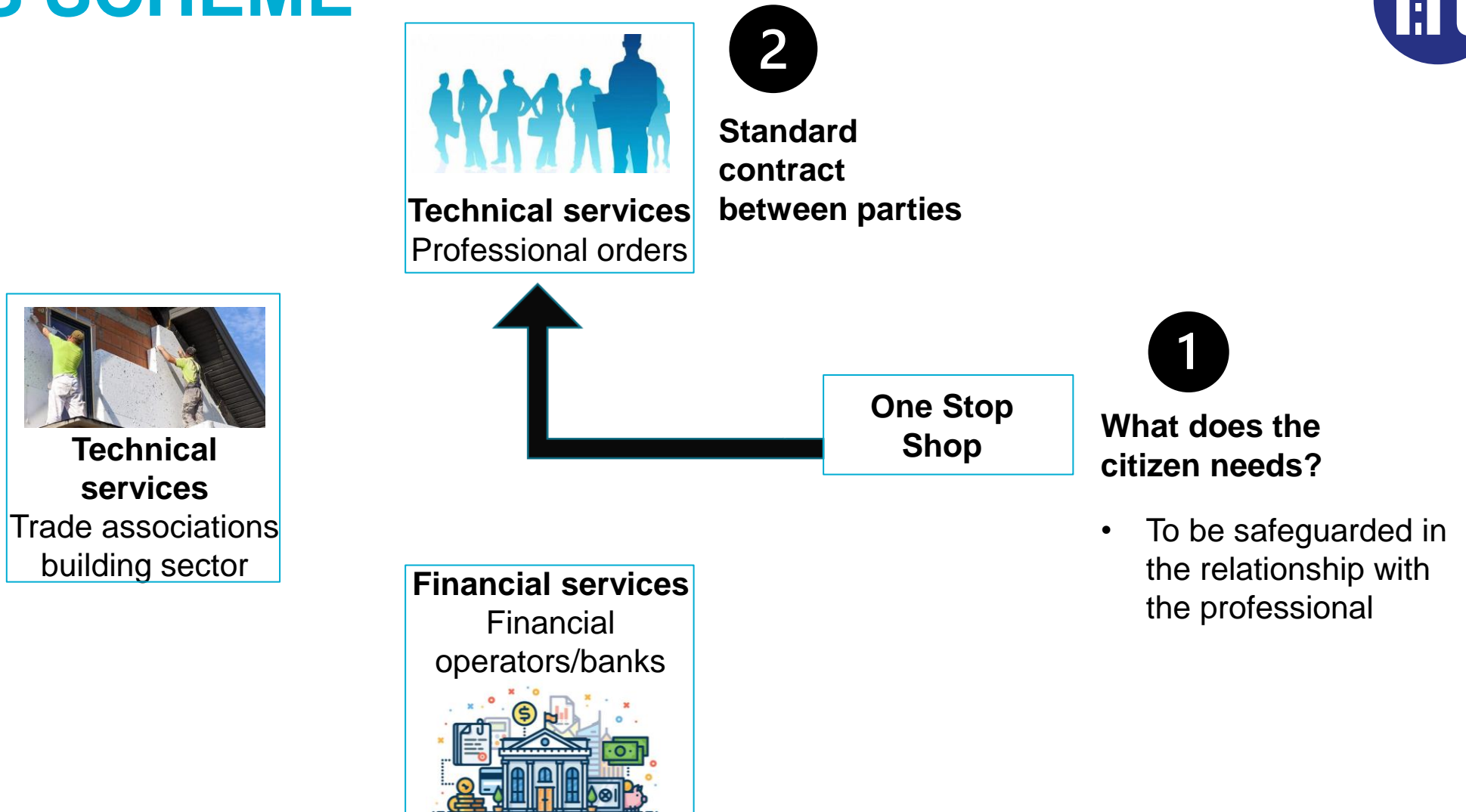
- An energy diagnosis
- A pre-feasibility study



# THE OSS SCHEME



# THE OSS SCHEME






# THE OSS SCHEME



**3**  
Certified  
companies/ESCOs  
/installers

**EDILIZIA+**  
*piùqualità | piùetica | piùgreen*

<https://ediliziapiu.cnapadova.it/aziende-aderenti/>

**3**  
  
**Technical services**  
Trade associations  
building sector

  
**Technical services**  
Professional orders

**One Stop Shop**

**1**  
What does the  
citizen needs?

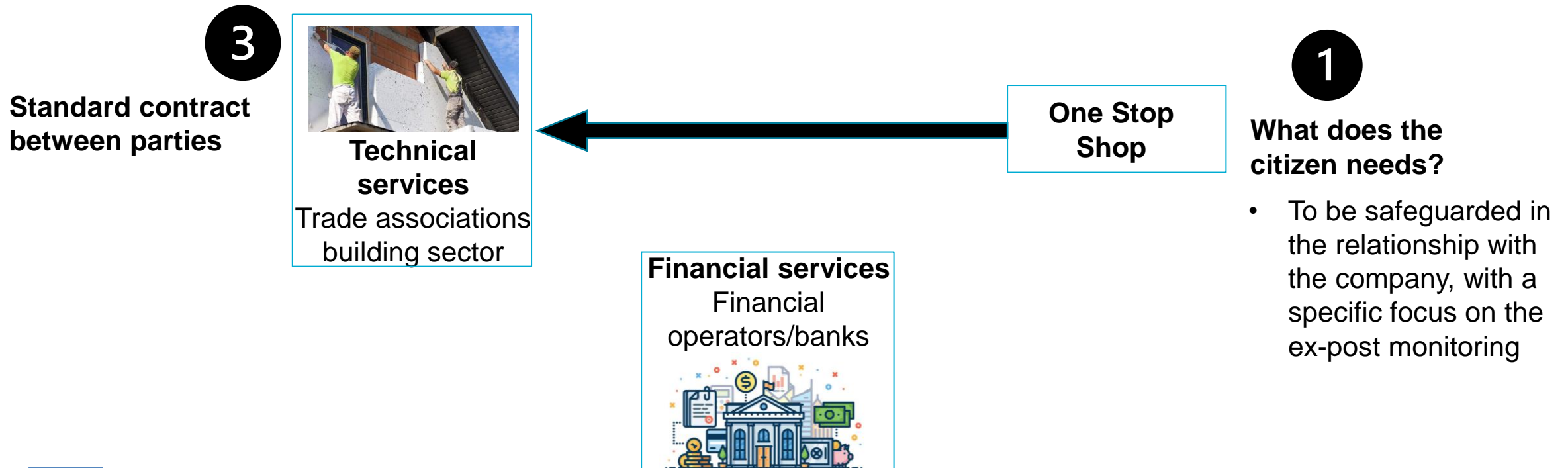
- To find a company or a group of companies to refurbish the building

**Financial services**  
Financial operators/banks  




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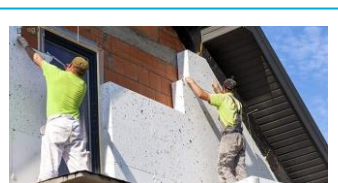
# THE OSS SCHEME



# THE OSS SCHEME



**Technical services**  
Professional orders



**Technical services**  
Trade associations  
building sector

**One Stop Shop**



**Financial services**  
Financial operators/banks

**3**

List of companies applying the invoice discount

**SiBonus**

Vendi e compri in sicurezza

**1**

What does the citizen needs?

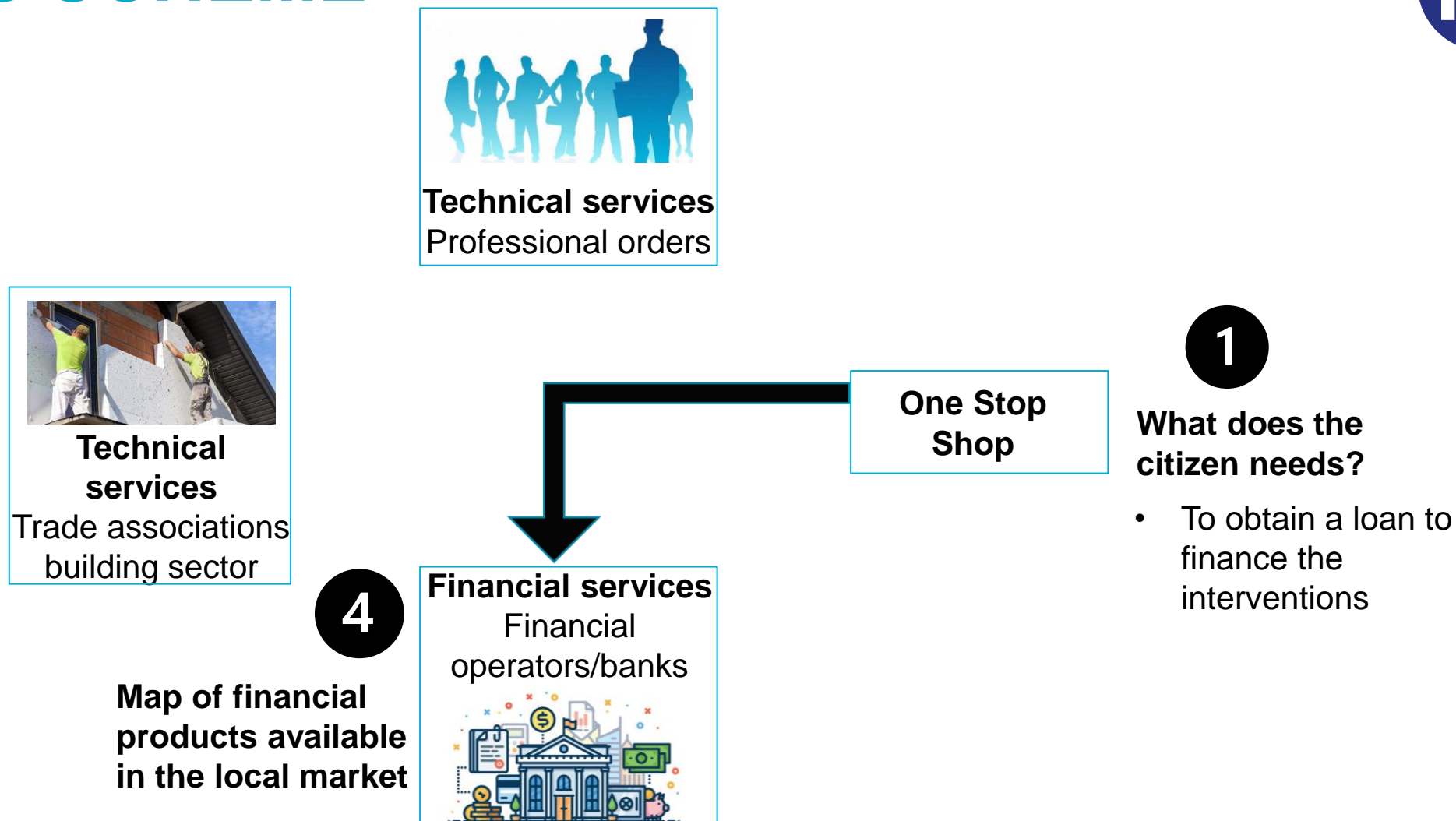
- To obtain a 100% invoice discount, because in energy poverty condition (→ Italian law allows the discount up to the value of the tax deduction)



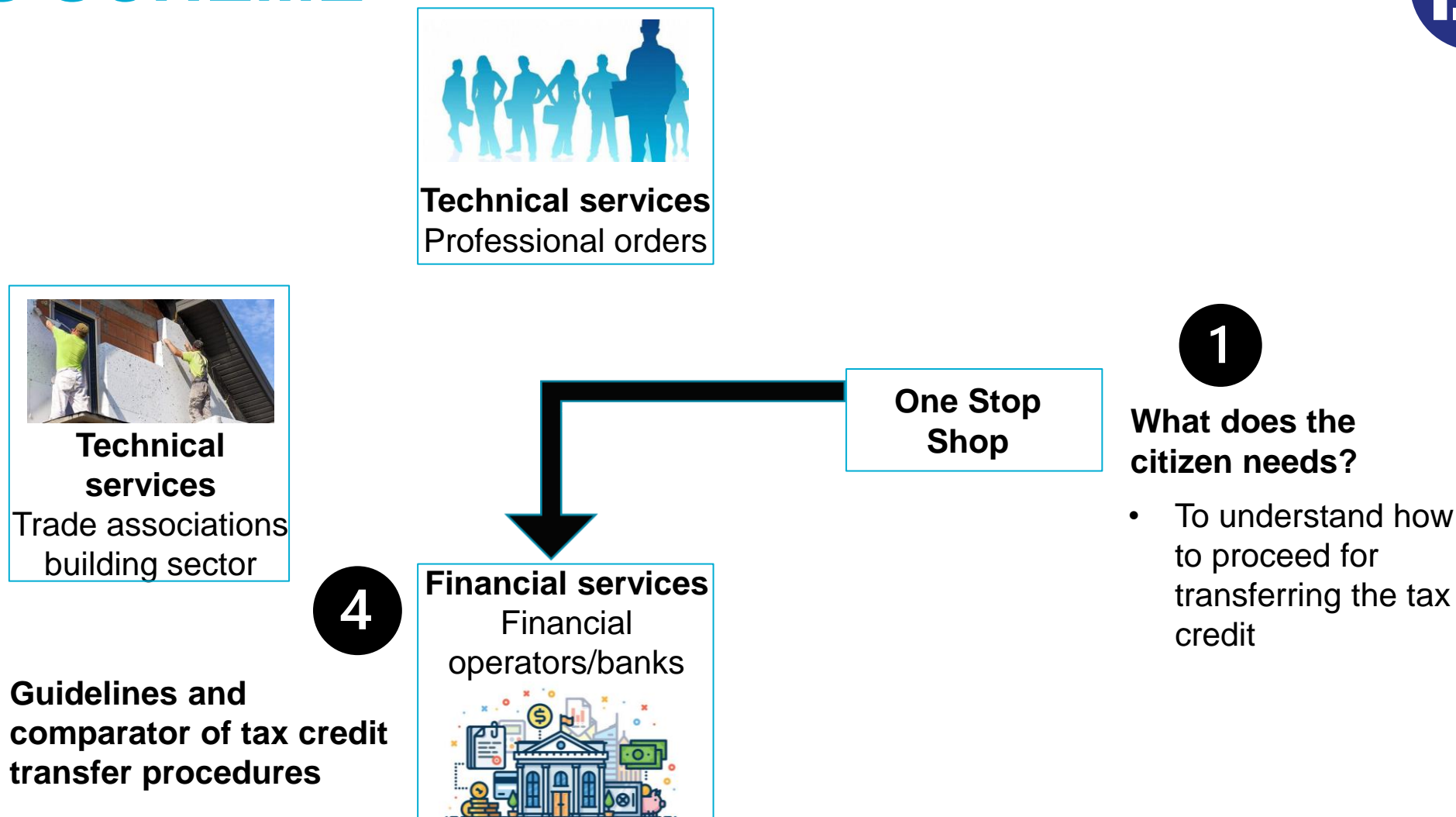
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# THE OSS SCHEME



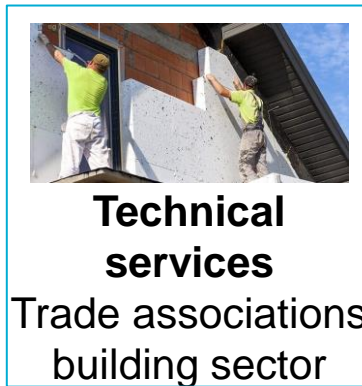
# THE OSS SCHEME



# THE OSS SCHEME



**Technical services**  
Professional orders



**Technical services**  
Trade associations  
building sector



**Financial services**  
Financial operators/banks

**One Stop Shop**



**1**

**What does the citizen needs?**

- To monitor the results in terms of energy savings and internal comfort
- To be guaranteed on the results achieved (bonus/malus)



# THE OSS KEY POINTS



- **Indirect approach involving trade associations and professional orders, which represent the local operators**
  - Not overlapping the existing refurbishment market (enlarging it, not limiting it)
  - Giving a central role to local operators and to small-medium companies
  - Giving a central role to professionals as third-party guarantor
  - Introducing the energy saving as key parameter of the renovation journey
- **Highly replicable**
  - Based on protocols and standards
  - Based on a smoother relationship between the different stages of the value chain
  - Low cost (main costs are initial, to set-up the scheme and the contracts; in a second phase, the costs are only related to the engagement of citizens)
- **Best performance if applied at provincial level**
  - Economies of scale sharing costs between LAs
  - Enlarging the market for local operators



## MAIN CONTACTS



**Settore Ambiente e Territorio - Comune di Padova**  
***Ufficio Informambiente***  
**via di Salici n. 35**  
**35124 Padova**  
**T. 049 8205021**  
**[padovafit@comune.padova.it](mailto:padovafit@comune.padova.it)**  
**[www.padovafit.eu](http://www.padovafit.eu)**

