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One-Stop-Shop for Deep Renovation: Examples of Local Interventions in residential sector in achieving SDG 7.3,

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# One-Stop-Shop for Energy Renovation: Examples of Local Interventions in Residential Sector in Achieving SDG 7.3

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#### **Abstract**

This paper presents the challenges and possibilities in the journey of establishing One-Stop-Shop (OSS) for energy renovation with three case examples. The paper compares three models; municipality owned (Cyprus), private and public-private partnership with operational support from municipalities (Netherlands), and privately owned and market based (Sweden) OSS models. The study is based on the situational analysis with market gap identification for the energy renovation of the dwellings and CANVAS analysis of the studied OSS models. The commonalities and peculiarities of different OSS models have been closely observed and the strength and weaknesses within these models are critically discussed. The analysis has shown that lack of awareness, inconvenience and cumbersome renovation process and lack of access to finance are the common challenges of energy renovation market. The study has also shown that the OSS model and its setting up journey may vary depending upon the market conditions, readiness, existing level of government support, and nature of the organization willing to initiate the OSS.

#### Keywords:

One-Stop-Shop; Energy renovation, Energy efficiency, Business model

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#### 1.0 Introduction

In the EU 40% of energy consumption, 36% of CO<sub>2</sub> emissions and 55% of electricity consumption is associated with the building sector. Furthermore, 40% of the residential building stock is built before 1960s, which typically have higher energy use than new buildings. However, the current pace of energy renovation of residential buildings is quite slow (1.2% each year) (Economidou et al, 2019). European Union (EU) Directives urge member states to develop long-term strategies for investments in building renovations with a goal to decarbonise the building stock by 2050. The revised Energy performance of buildings directive (EPBD-2018/844/EU) requires the member states to facilitate appropriate mechanisms for accessible and transparent advisory tools, such as "one-stop-shops" (OSS) and energy advisory services to speed up energy renovations of buildings. OSS is a concept of having a single actor (contact point), perhaps in collaboration with other actors, offering full renovation services including tailor-made solutions for energy renovation. The energy renovation or deep renovation of houses not only contribute to realize the target associated with energy efficiency goal (SDG 7) and climate goal (SDG 13) but will be instrumental in meeting targets associated with employment (SDG 8) and in addressing poverty issues (SDG 1).

Various research and development projects on OSS for energy renovation of dwellings, viz. ERACOBUILD, REFURB, COHERENO, INNOVATE have either been implemented or are ongoing in the EU. There are also several national and cross-national projects on this topic.

ERACOBUILD project (2008-2012) aimed for enhancing strategic networking of research, development and innovation programmes in construction and operation of buildings among EU member states (DE,EN,ES,FR,IT,PL). The project developed guidelines to facilitate the process for companies intending to establish an OSS for holistic renovation of single-family homes (Haavik et al, 2012). Collaboration for Housing nearly zero-energy Renovation (COHERENO) is another project (2013-2016) which has explored how effective cooperation can address the existing market barriers and provide better services for homeowners seeking renovation within its partnering countries (AT,BE,DE,LN,NO) (Straub, 2016; Grynning et al., 2017). Country specific set of criteria were developed for near zero energy buildings' (nZEB) so called nZEB radar. This radar covers different types of renovations including deep renovation of building components (e.g., walls, windows, roofs insulation), passive energy houses and the renovations leading to nearly zero energy (Atanasiu et al, 2013). The project has organized couple of business collaboration events providing an opportunity to develop B2B network that is a crucial for developing OSS.

REFURB project (2015-2018), with partners from BE, DK, EE, DE, NL countries, intended to increase the renovation rate by bridging the gap between the supply side and demand side actors. This project designed customized renovation packages that could theoretically save the primary energy in between 30 to 80% with the investment ranging in between 7500 and 62000 € (Pomianowski et al, 2019). The project also developed a user-friendly online tool "My Energy Compass" for the homeowners, which could help them to check the energy performance of their dwelling, identify how they can improve the energy performance and assist with the renovation measures (Oñate, 2018).

INNOVATE (Integrated solutioNs for ambitiOus energy refurbishment of priVATE housing) project (2017-2020) aimed at motivating homeowners to carry out deep energy renovations. In order to facilitate the deep energy renovation process, the project partners from different European countries BE,CY,CZ,DK,ES,FR,IT,LV,NL,SE and UK have developed and roll out attractive energy retrofit packages through OSS.







This paper analyses the possible challenges and opportunities in the journey of establishing OSS with case examples from INNOVATE project under Horizon 2020. The paper compares the Municipality owned (Case example from Cyprus); a public-private partnership with operational support from Municipality (case example from Netherlands); privately owned and market based (case example from Sweden) OSS models and analyses the cross-model learnings.

#### 2.0 Methodology

In this paper the situational analysis with market gaps identification for energy renovation and experience from OSS establishment journey in three case studies in Cyprus, UK and Sweden are analysed. The business model Canvas framework (Osterwalder and Pigneur, 2010) is used to analyse and compare the OSS models. The Canvas framework provides a common basis for comparison of the various business models answering a series of questions essential to analyse the businesses – who are the clients, what do they value, how can the customer be provided with such value at an appropriate cost, and how the business organises its resources (Osterwalder and Pigneur, 2010). The descriptive analysis has been cross-validated with interviews with the respective OSS developer/coordinators, who shared their perception on existing challenges and opportunities for OSS development.

#### 2.1 Types of OSS Business models:

OSS for energy renovation that are emerging in various EU countries could be broadly divided into three categories (i) Facilitation Model, (ii) Coordination model and (iii) Developed model, depending upon the actual level of engagement and level of risk accepted by the OSS itself.

#### Facilitation Model:

A facilitation model of OSS is the simplest in its form and is basically aimed at informing, advising and motivating homeowners to make the decision on energy renovation. It may also assist them to certain extent by providing potential list of energy renovators. Facilitation is about serving customers in group or individually by understanding the real problem, clarifying their doubts, assisting them in identifying new solutions, and motivating them for the implementation (Kiser, 1998). It is important to note here that within facilitation model, OSS do not lead the renovation work but rather provides limited guidance in the customer journey. This kind of model might be suitable for homeowners seeking for a single contact point for information/advice and those who are self-driven to the renovation job. There could be several issues unanswered within this model when it comes to the actual renovation.

Schwarz (2017) describes that the role of the facilitation could vary ranging from providing basic awareness/advises to the complex role of facilitative mediator role which could be resolving conflict or dispute between two parties. In the case of OSS, it could be the mediation between the customer and the renovation company. However, due to the limited mandates within the public authorities like municipality, most of the time, the role of facilitation are limited to a focal or contact point for providing information and advices for the energy renovation. Many European municipalities already have such kind of services at local, regional level but impact of such services have not been so effective especially when it comes to energy







renovation of private residential buildings. It will be difficult to reach ambitious energy and climate goals set by the European Union with this kind of OSS.

#### Coordination Model:

In the coordination model of OSS, single actor coordinates several other actors to optimize their resources and to reach each other's customer base. However, it is operated and managed as a unique business unit aiming to a common goal of enhancing each other's businesses. Marketing strategy of OSS should focus on appropriate marketing actions and suitable allocation of resources to reach such a common goal (Sadouni et al, 2013).

In a Coordination model the OSS should provide structural, motivating and enabling guidance to the customer though out the renovation journey. Such OSS could operate as a private, public, or private-public partnership entity and can have autonomous management and control over its business process. For example: The OSS operated and managed by Reimarkt in Netherlands has two privately owned OSS and three of their OSS are operating in public private partnership modality. On the other hand, there are some good examples of publicly owned coordination model OSS operated by Aradippou municipality in Cyprus and Frederikshavn municipality in Denmark. The range of the services provided and operation modality within these OSS are different. They will be discussed in the next section in details. In these existing coordination models, except for the ones owned by the municipality, the OSS help homeowners in coordinating with the suppliers and installers. However, none of the coordination models take the full responsibility of the whole customer journey and the quality assurance of the performed work. All of them makes sure that the quality of the work and the products are according to the assurance given by the suppliers/installation companies.

#### Development Model:

The development model is also characterized by shared customer and products among the market actors having their own business operation and management procedures, but with the common goal of enhancing each other's businesses. Homeowners are fully guided in their customer journey. The key difference of development model in comparison to coordination model is that it provides single contract and offer renovation package based on homeowners' demands assuring the quality of the delivered work. Though the quality of the work is assured by the OSS, but not necessarily guarantee the amount of the energy savings. This could be operated as a private entity or in private public partnership. The OSS operated and managed by Parity Projects in The United Kingdom and by "Klimatfastigheter Småland AB" in Kronoberg region, Sweden are examples of development model OSS.

In addition to aforementioned OSS models, there could be OSS operated and managed in association with Energy Service Companies (ESCOs) which could be named as ESCO type OSS which could offer a full renovation package as needed by their clients taking all the responsibility of quality of the renovation and guarantee the energy savings for the contract duration (Benigna and Paolo, 2018). This is a hybrid model including Energy Performance Contracting (EPC) offered by ESCOs with the energy efficiency measures offered by the OSS in the houses. This model is not yet fully explored but could be an interesting research area for further exploration.







#### 4.0 One-Stop-Shop (OSS) Journey: Some Typical Examples

Depending on the type of institutional set up for the establishment of OSS, market maturity, availability of support in terms of human and financial resources, OSS journey and level of services offered to homeowners may differ. In this section we will be discussing about journey and level of service offered by 3 different OSS operating in Netherlands, Cyprus and Sweden respectively.

#### 4.1 OSS-in Aradippou, Cyprus

The establishment of OSS for energy renovation in Aradippou is mainly an initiation motivated by the vision of the political leadership for the town to become a Net-Zero Energy Smart City. This also aligned with the EU directives for a Climate Neutral society by 2050. Market gap analysis has shown that there has been 6511 dwelling out of which 79% of them are single or duplex houses. Most of these dwelling are built in 80s and 90s and with poor energy efficiency and heated with heating oils and LPGs. This shows a great potential of emission reduction with energy renovation. The municipality felt that there is a need of awareness through a single contact point and easy access to finance to accelerate in energy efficiency actions in these dwellings (Michael, 2018). To address this market gap, Aradippou municipality has established an OSS coordination model for Energy renovation. The OSS provides information and advices on energy renovation and support the acceleration of investments in energy efficiency actions and photovoltaics installation in the dwellings. The OSS is not engaged in actual implementation so as not to interfere the renovation market. However, the OSS has been offering the innovative financing scheme "Citizen Rewards Card". This reward card basically incentivised the homeowners based on the amount of CO<sub>2</sub> mitigated due to energy efficiency actions and photovoltaics installation. (Michael, 2020).

An interviewed expert on OSS from the municipality highlighted that securing higher level political support and embedding OSS within the municipality's long term vision is a milestone in the OSS journey. Utilization of existing municipal institutional framework and capacitating the available human resources within the framework has believed to be cost effective and a strength of the OSS model. Initially the OSS was planning to provide soft loan for the renovation, but immediately when they called for interest for such loans, the banks were also interested to provide such loans and come up with attractive loan schemes to the homeowners. Municipality then decided not to interfere the financing/investment sector. OSS rather limited the support in the form of subsidy to some pilot projects and creating innovative financing scheme named "Citizen Rewards Card" as mentioned earlier. Since the model is in the trial phase, it is difficult to conclude if the financing schemes and OSS will be successful to motivate the homeowners to go for actual energy renovation.

#### 4.2 OSS-Reimarkt in Netherlands

In 2015, KAW Architects & Advisors (private company) initiated Reimarkt realizing the need for upscaling and accelerating the refurbishment of the existing housing stock. Reimarkt-OSS started a physical shop in Enschede collaborating with the local government and housing associations. Before the establishment of OSS by Reimarkt, homeowners used to get advice







about refurbishment from the Dutch government initiative called 'Energieloketten (INNOVATE-Netherlands 2020). These advices were helpful in creating awareness among house owners but were not sufficient to realize the actual energy transition. The coordination model OSS has developed with a guided customer journey maintaining efficient and transparent relation between demand and supply side actors. The OSS has been quite successful in utilizing the locally and nationally available finance for energy refurbishment and integrating with its service packages. Reimarkt has started their renovation business with individual houses and later entered in the business with condominium. In the market gap analysis, market for condominium were segmented mainly based on the size of the condominium, as the market approach and the resources differs by this attribute. Though the OSS has been building strategies for all market segments, it was much easier to renovate small sized condominium with fewer apartment where the OSS can used the previous experiences from single house (INNOVATE-Netherlands, 2019).

There are five physical shops and an online shop within Netherlands. Two of the shops were established as private venture and three were under private public partnership. However, only a specific and rather small target viz. elderly homeowners are visiting these physical shops (INNOVATE-Netherlands, 2020). OSS has set its marketing strategy such that each homeowners should feel their engagement in the refurbishment decision process without feeling it cumbersome.

In the conventional way of providing advice/information about the energy renovation, one out of four that comes for advice actually does the renovation work. With OSS intervention, the conversion increases to two out of three, making the refurbishment of existing houses more attractive for all stakeholders (Mainali et al, 2019).

We asked one of the experts of Reimarkt about their experiences with both private and private public partnership OSS. Public private partnership modality with municipality collaboration has been a huge support in the development of OSS and building trust about the OSS in the region. There has been an initial understanding to gradually decrease the public share and increase the private share. However, the OSS could not operate in breakeven without additional financial support from municipalities where they were located. As a consequences, municipalities wanted to pull out their engagement and Reimarkt has closed down these three shops whereas rest two private owned physical shops and online shop are still operational. Online quotation tools has increased the interest in the customer.

It has been identified that the actual amount of renovation work agreed by the customer was always less than the recommended /expected level of renovation by OSS. As the fee of Reimarkt is based on the percentage of the total cost for renovation carried out, there was less revenue from the renovation work despite of their same level of coordination efforts.

When asked to reflect back on the OSS journey and what could have been done differently using the learning gained so far, it has been pointed out that the expansion of shops in various regions could have been done slow pace after testing the maturity of business model in one specific location.







#### 4.3 OSS-Kronoberg, Sweden

Unlike two other cases, the OSS journey in Kronoberg county was initially started as an academic research at Linnaeus University (LNU). At the inception, LNU conducted market gap analysis to understand the market status of Kronoberg County for starting OSS business for deep renovation of detached houses. The market gap analysis was conducted with questionnaire survey with demand side actors (Homeowners) as well as interview with supply side actors (SMEs, Bankers and Insurance companies). The analysis show that there is a large potential market (Mahapatra et al. 2019). However, lack of proper awareness about the benefits of energy renovation, inconvenience, cumbersome renovation process with multiple contracts and lack of access to finance were identified as some of the key barriers from customers' side (Bravo et al, 2019; Pardalis et al, 2019a). The deep renovation market on the supply side is fragmented and dominated by a craftsman-based approach promoting their individual solutions (Pardalis et al, 2019b). The support from the municipality has been limited to information and advisory services on energy renovation through energy and climate adviser. The regulatory framework of the local municipality does not allow them to actively engage in deep renovation of private buildings and there has been no government policy or incentive to promote deep renovation so far.

LNU organized several awareness meetings for the homeowners, workshops, seminars, and one-to-one meetings with supply-side actors to make them aware of the market potential and the emerging OSS models in different parts of Europe. LNU proposed a market based OSS business model that suits in the local context and discussed the feasibility of this model with those stakeholders. It was challenge to find an actor who could formally start an OSS business, as they perceived several risks and limitations, despite their interest in the OSS concept. After several months of discussion with various SMEs, One start-up company Klimatfastigheter Småland AB decided to start up an OSS for serving the energy renovation market at Kroneberg, Sweden late 2019. This OSS is a development model with private ownership.

The OSS has set up various MoUs and partnership contracts with companies within the supply chain for providing all kind of renovation services with single contract. Unlike aforementioned other two OSS, the OSS is starting the business using the personal network to demonstrate the OSS concept and then slowly expand the business. The OSS assure the customers the quality of the energy renovation on the behalf of all the partners in the supply chain while also get assured from the installer and suppliers for their work and materials.

When interviewed with owner of the OSS at Kronoberg, he opinioned that large number of detached houses needs renovation in the region showing a big potential business for their OSS. There is always more renovation work that needs to be done in a house than the homeowners knows or thinks when initially approaching the OSS. Homeowners can be motivated and convinced to do more including energy renovation, but it all depends on how OSS communicate with the homeowners and what kind of package is offered.

The OSS perceived that its interpersonal communication using its own network has been effective so far but there is a challenge to reach out more homeowners since they do not have aggressive marketing campaign and the company is a small startup. The OSS also perceives supply side constraints to scale up due to limited number of interested and skilled subcontractors that want to be part of this OSS-consortium. The OSS also perceives recovering their full payment from the homeowners as a challenge especially when the homeowners pay







for the renovation from their own savings. This could possibly increase the OSS's amount of bad debt in the market.

All the three variants of OSS mentioned above were found deeply concerned about their future business as a serious economic crisis is predicted post Covid-19. It is likely to increase unemployment and loss of income for homeowners restricting them to invest their own savings or take loans to renovate their homes. Besides, if the COvid-19 goes longer, there might be a need to refine the business model. The renovation work need to be executed respecting social distancing and assuring the homeowners' safety. These issues need further exploration.

The three different business model has been analyzed further within CANVAS framework in Table 1.

Table 1. CANVAS Analysis of three business models

	Table 1. CANVAS Analysis of three business models			
Description	OSS in Cyprus	OSS in Netherland	OSS in Sweden	
OSS	Aradippou	Enschede, Den Bosch	Kronoberg	
location		Zoetermeer, Hoogeveen		
Ownership	Public (Municipality)	Private & PPP (KAW and Municipalities	Private (Klimatfastigheter Småland AB)	
Business	Co-ordination	Co-ordination	Development	
Model				
CANVAS ANALYSIS				
Description	OSS in Cyprus	OSS in Netherlands	OSS in Sweden	
Customer Segments	Middle to higher income households	Direct: Owner-occupants of series-produced Apartments (Owners'	high-income single family in Urban/semi-urban areas Later mid-income	
	(Detached houses)	Association Boards) Renters of series- produced apartments	households when soft loan for energy renovation are available	
		Indirect: Social housing Corporations	(Detached houses)	
Key		unication & marketing, advice	e/information	
activities	Tailor-made energy renovation and financial plan			
	Coordination of the renovation process			
	Own long term and affordable financing	Not available	Not available	
	No interference in the contract process	Co-ordinate contract between homeowners and suppliers/installers	Single contract with OSS with sub-contracting suppliers/installers	
	Post-work monitoring	OSS itself is not responsible for the quality of work but it assures the quality of the work through	Guaranteed quality & Postwork monitoring	







		suppliers/installers, Post- work monitoring	
Value proposition s	Integration of OSS services within municipal existing instructional frame and providing them free advice information to the citizens     Innovative financing scheme named "Citizen Rewards Card"	Standard ready-made renovation solutions for apartment residents.     Choices among the available standard solutions based on their need and affordability of the homeowners.	<ol> <li>High quality renovated house, guarantees improvement in their aesthetic values and thermal comforts to the homeowners.</li> <li>OSS offers the opportunity to broaden customer base and enhance the service quality to the partners collaborating with OSS</li> </ol>
Cost and resource structure	Municipality staffs, physical infrastructure assigned for OSS are key resources.	Equipment, appliances and materials for the renovations are key resources to implement the OSS activities.	
	Cost associated with are staff for advisory services, coordination, promotion and the OSS activities has been integrated within municipal regular activities and infrastructure to minimize the operational cost.	Physical shop, relatively larger cost for marketing sales personnel.	No physical shops, Online quotation, cost associated are mainly promotional cost, coordination and advisory.
Revenue streams	Since this is Municipality owned, services during the start-up period will be provided free. Fees to be charged on the offered services in a later stage (no clear plan at this stage)	Main revenue is the sales margin from the renovation work (10% of the total renovation cost) and fees from advisory services.  Besides, it also depends on municipality subsidy for its operation.	Homeowner in principle pays the bill for the renovation. OSS covers its coordination and management cost mostly by special discounts that OSS gets on the goods and materials from its consortium partners.
Key Partners	House owners associations, omaterial suppliers, Banks	Concern departments of munic	cipalities*, service providers,
Customer relations & Channels	OSS Website Partners Direct mail One Stop Shop / Pop-up Building visits	OSS Website Partners Direct mail One Stop Shop / Pop-up Building visits	OSS Website Partners Direct mail Door-to Door campaign Building visits

<sup>\*</sup>Except OSS in Kronoberg, Sweden

#### **5.0** Conclusions and way forward:

The challenges and possibilities in the journey of establishing and operating OSS for energy renovation has been presented in this paper with three case examples (Cyprus, Netherlands and







Sweden) from INNOVATE project under Horizon 2020. We have compared different OSS business models based on the situational analysis with market gap identification for the renovation of the residential dwellings and CANVAS analysis of the proposed business models. The analysis with these case studies have shown that lack of proper awareness about the benefits of energy renovation, inconvenience, cumbersome renovation process with multiple contracts and lack of access to finance are the common challenges for the energy renovation in all cases.

Since the OSS concept itself is relatively new and most of them are recently established, it is too early to say which model is more effective or successful. But in any case, one model could not fit in all conditions. The study has shown that the OSS model and its development journey may vary depending upon the market conditions, readiness, existing level of government support, and nature of the organization willing to initiate the OSS.

Privately owned business model has a big challenge at the initial phase especially when there is no conducive environment in terms of governmental support and market expansion might be further challenging in such context (Example from Sweden). Public-private partnership model could be a good starting point with municipality support in its establishment. This also provides trustworthiness to the customers. However, such partnership might need a clear plan for the sustainable expansion of the business on its own in a long run. This has remained as a major challenge with the case of Reimarkt model in Netherlands. Once there is a political consensus, public owned OSS business model could be very effective for advising and motivating the homeowners for energy renovation. The availability of innovative financing within Cyprus model is a strength for implementing energy renovation. However, the scope of such OSS is very limited as a municipality may not engage in business activities for renovation of private dwellings. Also, providing free services from the municipality owned OSS could be a challenging for its long term sustainability. The findings of this paper provides some valuable information about business models for energy renovation for the construction/renovation companies, policymakers, investors, and analysts.

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Conference on Aligning local interventions

with the UN SDGs







#### Introduction

- In the EU 40% of energy, 55% of electricity consumption and 36% of CO<sub>2</sub> emissions is associated with the building sector.
- 40% of the residential buildings in EU are built before 1960s (higher energy demand)
- ❖ Av pace of energy renovation is 1.2% per year (quite slow ) (Economidou et al, 2019).
- The revised Energy performance of buildings directive (EPBD-2018/844/EU) urges the member states to facilitate OSS and provide energy advisory services to speed up energy renovations of buildings.
- OSS is an emerging concept and various research and development work is ongoing in different countries.
- The energy renovation or deep renovation of houses not only contribute to realize the target associated with energy efficiency goal (SDG 7) and climate goal (SDG 13) but will be instrumental in meeting targets associated with employment (SDG 8) and in addressing poverty issues (SDG 1).







#### Objective and methodology

#### Objective:

- Analyse the possible challenges and opportunities in OSS establishment journey with case examples from Public owned (Cyprus); public-private partnership with Municipal support (Netherlands); privately owned (Sweden) OSS models
- Compares and analyze cross-model learnings from these OSS.

#### Methodology:

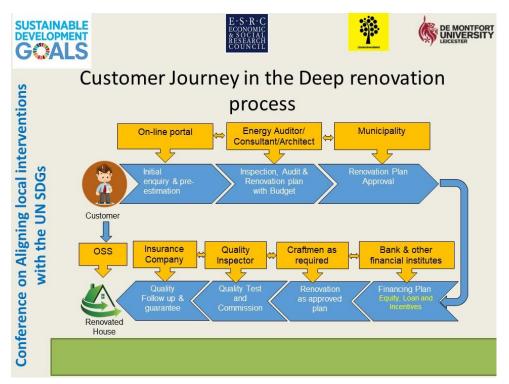
- Situational analysis with market gaps identification for energy renovation and experience of OSS establishment journey with three case studies
- Canvas framework has been applied to analyze and compare the OSS models (Osterwalder and Pigneur, 2010)
- The analysis has been cross-validated via interviews with experts from respective OSS

# Conference on Aligning local interventions with the UN SDGs







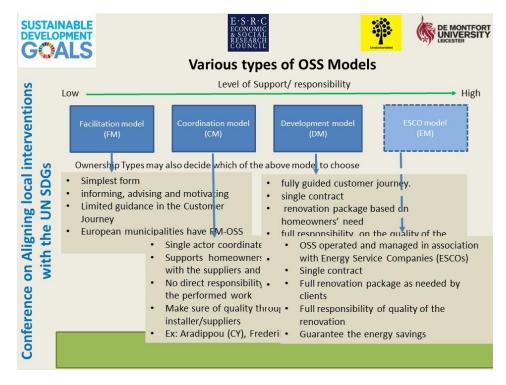




















	Description	OSS in Cyprus	OSS in Netherlands (Reimarkt)	OSS in Sweden
	OSS location	Aradippou,	Enschede, Den Bosch Zoetermeer, Hoogeveen	Kronoberg
on Aligning local interventions with the UN SDGs	Ownership	Public (Municipality)	Private & PPP (KAW and Municipalities	Private (Klimatfastigheter Småland AB)
)Gs	Business Model	Co-ordination	Co-ordination	Development
S	•			
Z	OSS in Cyprus			
	OSS in Netherlands (Reimarkt)			
h the	OSS in Sweden (Kronoberg) Initiated as an academic research at Linnaeus University (LNU) Conducted market gap analysis (Supply and demand side actors) Huge market but Renovation market is fragmented and dominated by SMEs Limited support from municipality (Energy renovation advices) but no direct support for OSS establishment LNU proposed Market based OSS One start-up company Klimatfastigheter Småland AB has launched OSS in the Kronoberg			
with	LNU proposed M		d AB has launched OSS in the Kro	onoberg







DEVEL	INABLE OPMENT ALS	E & R C	SS-R-C SSCANDIC SSCAN	DE MONTFORT UNIVERSITY  Andel-I
ns	Description	OSS in Cyprus	OSS in Netherlands	OSS in Sweden
on Aligning local interventions with the UN SDGs	Customer Segments	Middle to higher income households (Detached houses)	Direct: Owner-occupants of series-produced Apartments (Owners' Association Boards) Renters of series-produced apartments Indirect: Social housing Corporations	high-income single family in Urban/semi-urban areas Later mid-income households when soft loan for energy renovation are available (Detached houses)
Key activities Engagement process, Communication & marketing, advice/info  Tailor-made energy renovation and financial plan				tion
Coordination of the renovation process				
on All		Own long term and affordable financing	Not available	Not available
		No interference in the contract process	Co-ordinate contract between homeowners and suppliers/installers	Single contract with OSS with sub-contracting suppliers/installers
Conference		Post-work monitoring	OSS itself is not responsible for the quality of work but it assures the quality of the work through suppliers/installers, Post-work monitoring	Guaranteed quality & Post-work monitoring

G	INABLE DPMENT ALS	EC & C	ysis-Business M	DE MONTFORT UNIVERSITY  Odel-II
on	Description	OSS in Cyprus	OSS in Netherlands	OSS in Sweden
Conference on Aligning local interventions with the UN SDGs	Value propositions  Cost and resource structure	services within municipal existing	Standard ready-made renovation solutions for apartment residents.     Choices among the available standard solutions based on their need and affordability of the homeowners.  Equipment, appliances and mater resources to implement the OSS act Cost associated with OSS are mainly various services charges to perfor materials & installation, sales persupon the type and scale of renovatic Physical shop, relatively larger cost for marketing sales personnel.	to broaden customer base and enhance the service quality to the partners collaborating with OSS als for the renovations are key ivities.  y marketing, coordination cost and in the renovation viz. purchasing onnel, Automation/IT (Depending on this may vary)
Confe		integrated within municipal regular activities and infrastructure to minimize the operational cost.		









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#### **CANVAS Analysis-Business Model-III**

	Description	OSS in Cyprus	OSS in Netherlands	OSS in Sweden
<b>ON SDGs</b>	Revenue streams	Since this is Municipality owned, services during the start-up period will be provided free. Fees to be charged on the offered services in a later stage (no clear plan at this stage)	from the renovation work (10% of the total renovation cost) and fees from advisory services. Besides, it also depends on municipality subsidy for its	
the	Key Partners	House owners associations, suppliers, Banks	Concern departments of municipalit	ties*, service providers, material
with	Customer	OSS Website	OSS Website	OSS Website
3		Partners	Partners	Partners
	Channels	Direct mail	Direct mail	Direct mail
		One Stop Shop / Pop-up	One Stop Shop / Pop-up	Door-to Door campaign
		Building visits	Building visits	Building visits

\*Except OSS in Kronoberg, Sweden









#### Conclusions and way forward-I

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- $\hfill \square$  OSS is relatively new concept, too early to say which model is more effective
- Privately owned business model has a big challenge at the initial phase and market expansion especially when there is no conducive environment (Ex from Sweden).
- PPP model could be a good starting point with municipality support in OSS establishment.
- ☐ PPP needs a clear plan for the sustainable business expansion phasing-out municipal support (Ex from Netherlands)
- Public owned OSS business model is effective for advising and motivating homeowners but its role is limited
- ☐ Innovative financing schemes "Citizen Rewards Card" is a strength
- ☐ Free services for citizen is a challenging for its long term sustainability (Ex from Cyprus)









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#### Conclusions and way forward-II

- ☐ OSS journey/model may vary depending upon
  - the market conditions, readiness,
    - · existing level of government support, and
    - · nature of the organization willing to initiate the OSS
- $\square$  In any case, one model could not fit in all conditions.
- lue All OSS concern on impact of COvid-19 on their business
- $\square$  If stays longer, there might be a need to refine the business model.

