

Deliverable D6.7

Policy Brief

Recommendations from the ProRetro project



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Content

1	Introduction.....	2
1.1	Background.....	2
1.2	Policy context: One-Stop-Shops in the EU legislation.....	2
1.3	The ProRetro project.....	3
1.4	Purpose of the policy brief.....	5
2	Challenges and recommendations.....	5
2.1	The scope of One-Stop-Shop services.....	5
2.2	Selecting and reaching the target groups.....	7
2.3	Target group homeowners' associations.....	9
2.4	Cooperation with qualified contractors.....	9
2.5	Digitisation.....	11
2.6	Monitoring.....	12
2.7	Financing.....	13
2.7.1	Financing energy renovations.....	13
2.7.2	Sustained financing of One-Stop-Shops.....	14
3	Conclusion.....	16
	References.....	18

List of figures

Figure 1:	Structure of the ProRetro project.....	4
Figure 2:	Typology of One-Stop-Shop business models according to Milin & Bullier (2021).....	6

Executive Summary

Policy Brief Recommendations from the ProRetro project

This policy brief gives recommendations to policymakers on all governance levels wanting to establish new One-Stop-Shops in the European Member States, with a focus on Germany. These recommendations have been derived from the experience made by the ProRetro partners and outcomes from other projects we have learned about during project events and related research. The main take aways can be summarised as follows:

- 1) In selecting the One-Stop-Shop's **scope**, policymakers should gather data on which steps in the renovation journey most homeowners need support with.
- 2) The choice of **target groups** should be tailored to local housing markets.
- 3) The support of **homeowners' associations** is a worthwhile approach to further the renovation wave as it is often difficult for homeowners' association to decide on an energy renovation.
- 4) Mutually beneficial cooperations with local **contractors** are an important prerequisite for an impactful One-Stop-Shop.
- 5) **Digital tools** can help both One-Stop-Shops and homeowners and a standardised tool would both save costs and prevent that individual One-Stop-Shops are reinventing the wheel.
- 6) Each One-Stop-Shop should have a comprehensive approach to **monitor** its impacts.
- 7) One-Stop-Shops are useful for policymakers to learn what homeowners need when it comes to **financing** their renovation and to promote their funding schemes.

1 Introduction

1.1 Background

Buildings account for about 40 % of the energy consumption and for 36 % of energy-related greenhouse gas emissions in Europe (European Commission, 2020). This is due to the fact that the majority of all existing buildings are inefficient, i.e. 65 % of all buildings have an Energy Performance Certificate (EPC) rating of D or worse (Kockat & Zuhaib, 2022). In order to achieve the target of a climate neutral building sector in Europe by 2050, both renovation rates and the depth of renovations must therefore increase significantly. For this reason, the European Commission launched the Renovation Wave Initiative in the framework of the EU Green Deal (European Commission, 2019) with the objective to at least double current renovation rates of public and private buildings by 2030 and foster deep energy renovations (European Commission, 2020).

However, the building sector is highly fragmented and homeowners and tenants are faced with a multitude of barriers that prevent them from renovating their buildings. They often lack the knowledge, skills and capacity to set up, implement and finance ambitious building renovation projects, shun the effort involved or feel unable to organise such a complex undertaking. In addition, it is often a challenge to raise the necessary up-front costs or to finance them through a bank. In rental markets, the investor-user-dilemma also hinders landlords' investments. These challenges are particularly high for non-professional property owners such as owner-occupiers, small private landlords, etc. (März, 2018).

A hypothesis is that the number of energy renovations can be significantly increased if the renovation process can be simplified and transaction costs are lowered. There is therefore great hope in innovative business models supporting and accompanying building owners through every step of the refurbishment process. Such One-Stop-Shops (OSS) ideally cover the whole customer journey of a building renovation from audit/advice, planning, technical/financial offer, finding qualified professionals, contracting, financing and providing access to subsidies, to the monitoring and quality assurance of the works.¹

In various EU countries, such as France, Sweden and the Netherlands, ambitious One-Stop-Shop models have already been established successfully and have accompanied a large number of refurbishment projects. However, One-Stop-Shop models can differ significantly depending on the customer group addressed, the type of services offered and the provider of the IHRS.² There are also several offers with One-Stop-Shop services in Germany, but these can mainly be categorised under the basic advice model.

1.2 Policy context: One-Stop-Shops in the EU legislation

The One-Stop-Shop concept is also being promoted by the European Commission and has also been highlighted in 2021 in the proposed revision of the Energy Performance of Buildings

¹ The services offered by OSS are also referred to in the literature as Integrated Home Renovation Services (IHRS).

² A classification of different OSS models is made, for example, in Cicmanova et al. (2020) and Milin & Bullier (2021).

Directive (EPBD). In December 2023, the Council of the European Union and the European Parliament have reached a provisional agreement of the recast of the EPBD, which they aim to pass in early 2024. This provisional agreement contains its own article on One-Stop-Shops, which requires member states arrange for the establishment of regional One-Stop-Shops for energy renovation (cf. Article 15a in Council of the European Union, 2023). The One-Stop-Shop's services should not only target the demand side (i.e., homeowners), but also administrative, financial and economic actors. This shall be achieved by:

- Offering streamlined information on technical and financial possibilities to all building owners (residential and non-residential), and
- providing holistic support throughout all stages of a renovation project to households and companies implementing renovations.

The European Commission intends to provide guidelines on the development of One-Stop-Shops.

Against this background, it can be assumed that One-Stop-Shops will play an increasingly important role at Member State level in the future – especially in those countries that have not yet implemented One-Stop-Shops with a comprehensive set of services.

1.3 The ProRetro project

The objective of the ProRetro project was to develop, implement and monitor/evaluate One-Stop-Shops for energy renovations in five cities/regions in Germany: Berlin, Böblingen, Bottrop, Hanover region, and Wuppertal. While the first project period served to further develop the business models and to build up the necessary networks, in the second half of the project the first customers have taken advantage of the new One-Stop-Shop services. Organisations from other European countries that are already operating successful One-Stop-Shop business models have supported the German implementing partners with continuous advice.



Figure 1: Structure of the ProRetro project

The German project partners are regional energy agencies and small and medium enterprises. They have developed and implemented individual One-Stop-Shop models based on their existing experience, target groups and networks, i.e., the aim of ProRetro was not to develop a one-size-fits-it-all model.

- **Berlin:** The activities of the Berlin energy agency (Berliner Energieagentur) as part of the ProRetro project are integrated into the advice services offered by BAUInfo Berlin. The advice provided as part of ProRetro is focussed on homeowners' associations. In addition to individual advice, information events specifically aimed at homeowners' associations and visits of completed good practice renovation projects are also organised.
- **Böblingen district:** The services offered by the Böblingen Energy Agency are aimed at homeowners' associations and enable long-term support for homeowners' associations through the renovation process. This also includes, for example, the participation of an energy adviser from the energy agency in meetings of the homeowners' association.
- **Bottrop:** As part of ProRetro, Innovation City Management offers energy advice that can be carried out at an advice centre or on site. In line with the One-Stop-Shop concept, it is also possible to receive support over a longer period of time after the initial advice.
- **Hanover region:** The One-Stop-Shop for the Hanover region is offered in cooperation with the 'Netzwerk Modernisierungspartner' (translates to 'network modernisation partners'). The 'Netzwerk Modernisierungspartner' brings together companies from various trades in the field of energy renovation – from energy advisers and architects to contractors. In the future, coordinated deep renovations can be organised by the 'Netzwerk Modernisierungspartner'.

- **Wuppertal:** Raumfabrik from Wuppertal developed its offer from a slightly different starting point than the other implementation partners. The Raumfabrik has already been a cooperation of contractors from various construction trades. It offers coordinated renovations from a single source. Within ProRetro, this offer has been expanded to include energy advice as default and additional support in the area of financing.

1.4 Purpose of the policy brief

The aim of this policy brief is to summarise the challenges, key lessons learnt and recommendations from the ProRetro project that may be relevant for scaling-up One-Stop-Shops in the European Member States, with a focus on Germany. These findings are based on the experiences of the five implementing partners in developing and offering their One-Stop-Shop services in Germany, the discussions with a large number of stakeholders, who took part in the final replication workshop, and the experiences of the ProRetro peer partners, who have implemented successful One-Stop-Shop models in other European countries (Sweden, France, the Netherlands, Austria). The challenges and recommendations are described within seven different topics:

- The scope of One-Stop-Shop services
- Selecting and reaching the target groups
- Target group homeowners' associations
- Cooperation with qualified contractors
- Digitisation
- Monitoring
- Financing

More detailed information on the project results can be found on the [ProRetro website](#) and in our [publications](#).

2 Challenges and recommendations

2.1 The scope of One-Stop-Shop services

The One-Stop-Shop models offered in EU countries differ significantly depending on the customer group addressed, the type of services offered and the provider of the IHRS. Cicmanova et al. (2020) and Milin & Bullier (2021) developed various typologies to systematise these models. According to Milin & Bullier (2021), three types of One-Stop Shops can be distinguished (Figure 2).

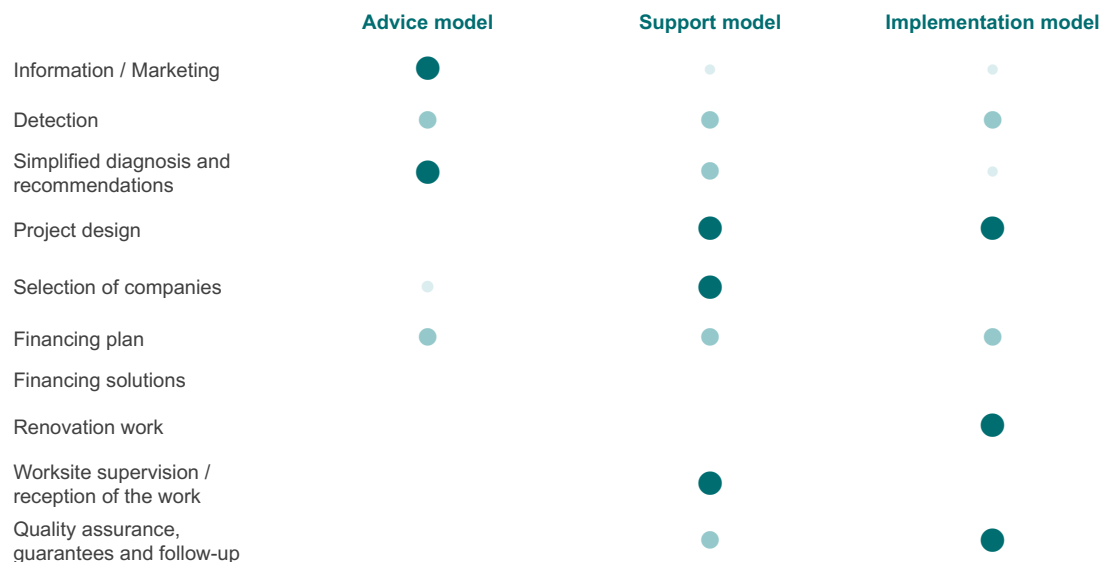


Figure 2: Typology of One-Stop-Shop business models according to Milin & Bullier (2021)

- **Advice model:** In this model, the One-Stop-Shop focuses on providing general information on energy building renovation and initial advice, including recommendations for measures. Other activities include the identification of potential improvements and support in drawing up a financing plan and selecting contractors. In this case, the question of whether the support and guidance are provided continuously over a longer period of time during the renovation process is a suitable criterion for distinguishing it from classic initial energy advice.
- **Support model:** The detailed technical planning of measures, the selection and commissioning of contractors and construction supervision or support during these steps are at the core of the business model. However, many other steps in the refurbishment process can also be supported or taken over by the One-Stop-Shop.
- **Implementation model:** In the implementation model, the One-Stop-Shop is also responsible for the implementation of the renovation works including worksite supervision/reception (for example by commissioning contractors) and quality assurance/follow-up.

Policymakers in Germany, but also other EU member states, wanting to establish a (public) One-Stop-Shop thus have to find a compromise between very ambitious models, like the implementation model, and a more neutral role that limits the interference in private markets, i.e., the advice model. While the more ambitious models for sure address the needs of many homeowners, especially with regard to the selection and coordination of contractors, they also are more difficult to establish, taking a longer time to set up and raise the questions of market interference and how to award contracts.

The One-Stop-Shops offered in Germany can mainly be categorised under the basic advice model. They offer their services primarily to private owners of residential buildings and homeowners' associations. These services typically include initial advice in the orientation phase, the provision of general information and recommendations of suitable energy efficiency

measures, technologies and materials. In addition, some One-Stop-Shops provide a list of qualified contractors and offer advice on financing and funding options as well as support in applying for funding programmes. These services are primarily provided by energy and climate protection agencies, although public authorities, chambers of crafts or municipal energy companies are often involved. In addition, the One-Stop-Shops often cooperate with further stakeholders such as consumer centres, chambers of industry and commerce and banks.

Many German One-Stop Shops offer their services not only to the target group of property owners, but also to planning and construction professionals, for whom there are free training and networking events. The establishment of a network of professionals or cooperation with an existing network is essential for setting up a One-Stop-Shop in Germany. Such a network enables the One-Stop-Shop to exchange information with professionals, such as energy advisers, architecture firms or contractors, and recommend qualified firms to the homeowners who will implement the renovation. In this way, the One-Stop-Shop helps to ensure that there are qualified companies on the customer journey that can carry out the work according to sustainability aspects (Oltmanns & Zander, n.d.).

Services that go beyond this, such as the coordination of installation contractors, accompanying the construction work or quality assurance, or providing financial solutions, have so far hardly been offered by independent/neutral and often publicly funded One-Stop-Shops in Germany, if at all. In the future, however, an expansion of the services to these areas appears to be necessary in order to adequately address the existing barriers for building owners (and to fulfil the requirements included in the draft EPBD). The results of an online survey from ProRetro have also shown that the coordination of construction work, quality control and taking over and support in the search for qualified contractors would be most important in the offer of a One-Stop-Shop for building owners (Suerkemper et al., 2021).

A further development in the direction of more comprehensive business models is also conceivable for many of the existing One-Stop-Shops. However, the ProRetro project has demonstrated that these are not easy to realise for a variety of reasons. These include, for example, the shortage of qualified workforce, the continuous provision of funding for the operation of the One-Stop-Shops, the differentiation from services that are already offered on the market and regulatory requirements. This is also confirmed by the results of a survey conducted by ZEBAU (Rebbin et al., 2022).

2.2 Selecting and reaching the target groups

One-Stop-Shop services can be tailored to the needs of different target groups, such as owners of detached and semi-detached houses, condominium owners' associations, housing co-operatives, social or private professional housing companies with a focus on rental housing, energy poor households, or public building owners (e.g., municipalities or public entities). While there are obviously similarities, the challenges to implementing energy renovation projects and resulting support needs can differ significantly between the various target groups. When supporting the establishment of One-Stop-Shops, policymakers should take characteristics of local housing markets into account. Lagging renovation activities of certain owner groups or the share of housing units owned by the various target groups can be criteria in developing One-Stop-Shop services.

In general, the need for One-Stop-Shop services can be expected to be highest among non-professionals who own just one or a limited number of residential buildings and thus have no or little experience in organising energy renovations. A second group which can profit profoundly from One-Stop-Shop support are condominium owners' associations due to the One-Stop-Shop's ability to accompany the complex and protracted decision-making processes that characterise condominium owners' associations. To maximise the impact of One-Stop-Shops, policymakers should ensure that the (public) services complement offers by private market actors. Wealthy homeowners who can afford to commission market actors (e.g., architects) to undertake One-Stop-Shop services are probably not those with the gravest need for a public service.

Among the most important problems in most target groups are the complexity of energy renovations of buildings, ignorance and false myths. In order to counteract these concerns and reservations, it is therefore very important for One-Stop-Shops to address the target group appropriately. While a few years ago it was more important to provide general information about the benefits of an energy renovation, today it is more important to provide information about the technical details (e.g., does a heat pump also work in an inefficient building?), as most homeowners are forced by the new legal regulations to consider changing the heating system to renewable sources. This trigger point can be used to initiate a deep renovation through energy advice offered by the One-Stop-Shop instead of simply replacing the heating system.

The ways to reach the target groups range from very traditional approaches (e.g., posters in places where many people come together) to digital platforms. Simple language and understandable explanations are extremely important for reaching the target group. Actors with whom people are already in dialogue on the subject of buildings are particularly suitable as a bridge to the target group. These can be, for example, owners' associations or chimney sweeps. Real estate agents or financial institutions can also draw attention to the One-Stop-Shop offers at the time of property purchase. In addition, clubs (e.g., sports clubs) or weekly markets or fairs can also provide a suitable forum for addressing the target group.

Based on experience in ProRetro and related projects, the following approaches can be considered to reach the target group effectively:

- Identify owners of buildings with a high refurbishment potential through a market analysis and contact them proactively. This approach allows the One-Stop-Shop to effectively inform potential clients about its service and invite them to partake in an energy advice. This approach has been tried by Toulouse Métropole (Marot, 2022).
- Using audiovisual media: An example for this is the video³ "Get out of oil and gas! When, if not now?" from the Austrian Ministry of Climate Protection.
- The energy mobile from Zukunft Altbau⁴, which is a mobile pavilion providing advice on all aspects of energy renovation of buildings. The most important aspects of building renovations are clearly visualised at various stations in Baden-Württemberg and neutral information and free initial advice are offered.

³ See <https://www.youtube.com/watch?v=FFgpHj3pwg8>

⁴ See <https://www.zukunftaltbau.de/fachleute/werkzeuge/sanierungsmobil>

2.3 Target group homeowners' associations

Due to the high energy savings potential in multi-family buildings and the currently low renovation rate, homeowners' associations are an important target group for One-Stop-Shops. However, there are numerous specific challenges in homeowners' associations that make the implementation of a building energy renovation difficult. These range from different interests between owners who live in the building themselves and those who own one or more rented apartments in the building, to legal framework conditions, a lack of financial reserves and lengthy decision-making processes, to property managers who have no additional capacity to deal with the topic of "energy renovation of buildings".

By providing tailored advice as well as close and continuous support throughout the entire refurbishment process, a One-Stop-Shop can help homeowners' associations to address these challenges. For example, step-by-step support can be offered, first to the property management company, which is often responsible for the administration of the condominium, then to the homeowner association council and then to the entire group of owners. Information events that are integrated into a homeowners' meeting and offer initial advice and guidance through the participation of an energy advisor from the One-Stop-Shop have been identified as helpful. In addition, training programmes for property managers, which help to reach a large number of homeowners' associations, has proven to be successful. Visits of real buildings that have undergone successful energy renovations can also help to convince homeowners' associations to implement refurbishment in their own properties.

The ProRetro One-Stop-Shops of Berlin Energy Agency (BEA)⁵ and Energy Agency Böblingen (EA-BB)⁶ explicitly address the target group of homeowners' associations. Their experiences are described in detail in D4.1 and D4.4 (design phase) and D5.1 and D5.4 (implementation phase).

2.4 Cooperation with qualified contractors

The results of the ProRetro online survey indicate that taking over and supporting the search for qualified contractors belongs to the most important services in the offer of a One-Stop-Shop for building owners (Suerkemper et al., 2021).⁷ The need for support is particularly needed due to the highly fragmented market for contractors and because many different construction trades have to be involved in a renovation project – at least if a deep renovation is to be carried out. Furthermore, contractors have proven to be important intermediaries in the decision-making processes of owners (Mogensen & Gram-Hanssen, 2023). This is especially important with respect to the current substantial changes in the regulatory environment (e.g., carbon prices) that makes recommending and choosing which measure(s) to implement more difficult than in the past.

Keeping up with developments in the regulatory environment often constitutes an additional task for contractors. A cooperation between contractors and (public) One-Stop-Shops can thus be

⁵ See https://proretro.eu/one-stop-shops/berlin_en

⁶ See https://proretro.eu/one-stop-shops/boeblingen_en

⁷ According to the survey 85% of respondents presume finding reliable contractors to be very or rather hard (Suerkemper et al., 2021).

mutually beneficial. One-Stop-Shops cooperating closely with contractors have a direct channel to them and keep them informed. On the other hand, this can also be advantageous to contractors if the One-Stop-Shop's information and qualification events are tailored to the contractors' needs. A close cooperation with contractors is therefore key for One-Stop-Shops.

Two important strands can be highlighted in the challenges that arise when contractors cooperate with One-Stop-Shops or are to be integrated into them: Firstly, it is difficult to create commitment in a form that guarantees that the cooperation between the One-Stop-Shop, several crafts companies and other stakeholders functions reliably. Secondly, the current shortage of qualified labour is leading to significant capacity bottlenecks at many craft companies (Malin & Köppen, 2023), which in turn makes it more difficult to create the aforementioned commitment.

Networks with different trades and professions with common quality criteria can be seen as approaches for good cooperation with contractors. In order to attract qualified partners to such cooperative networks, the advantages of such cooperations must be emphasised and communicated clearly to companies. These range from synergy effects (less effort in customer acquisition, less time-consuming talks with customers, more time to focus on the actual own work) to marketing support, for example through labels, to help in the search for young talent.

There are already some examples of functioning approaches for good cooperation among qualified contractors:

- The network of partners for renovation (Netzwerk Modernisierungspartner – NeMo)⁸ in the Hanover region (Germany) is an interdisciplinary alliance of contractors, architects, and engineers as well as other service providers in the fields of quality assurance, trade, financing, and contracting with a focus on energy renovation of buildings. Thereby, most services needed during an energy renovation can be offered. Currently, the network consists of around 45 partner companies in the Hanover Region. To join, potential network members have to agree to quality criteria and criteria for energy efficiency and green planning and construction. An internal advisory council deals with quality management and control, external evaluations are possible.
- The quality platform 'Sanierungspartner' from Vienna⁹ complements the offerings of the Vienna One-Stop-Shop, HAUSKUNFT. Signing a charter with six overarching themes to which the partners commit themselves (future-proof solutions, partnership-based construction and renovation, customer orientation, quality, feedback management, transparency) is a prerequisite for membership in the quality platform.
- The One-Stop-Shop in Toulouse "Maison de L'Énergie"¹⁰, which offers a comprehensive service for homeowners in the renovation process. With the help of a "charter of commitments", qualified local construction companies are to be engaged to support the One-Stop-Shop. This charter contains obligations for the cooperation between the One-Stop-Shop and the local construction companies on the one hand. On

⁸ See <https://www.modernisierungspartner-hannover.de/>

⁹ See <https://www.qualitätsplattform-sanierungspartner.wien/>

¹⁰ See <https://proretro.eu/a-one-stop-shop-for-toulouse-the-maison-de-lenergie-opens-its-doors>

the other hand, it helps to build up a list of trustworthy professionals, that is accessible via the website of the One-Stop-Shop and is handed out during advice.

- The ProRetro implementing partner Raumfabrik from Wuppertal (Germany)¹¹ is a cooperation of contractors from various construction trades offering coordinated renovations from a single source. Within ProRetro, this offer has been expanded to include energy advice as default and additional support in the area of financing.

2.5 Digitisation

Digital tools can be helpful for the fulfilment of a variety of One-Stop-Shop tasks. They can reduce the personnel costs of the One-Stop-Shop, for example by providing interested building owners or homeowners' associations with general information or even a rough estimate of the investment costs, but also by referring customers to contractors. In order to reduce the effort for advice needed, central data collection via the digital tool and provision of basic information, which can then be used as a basis for advice, is particularly important. However, the development of suitable online tools is not trivial. The challenges range from the complexity and availability of the necessary data, the input of which must not overburden the building owners, to data protection issues. For this reason, the development of a basic digital tool, which can then be used by all One-Stop-Shops nationwide, should be examined by policymakers. A standard digital tool will also help One-Stop-Shops collect data on exemplary energy efficiency projects, one of the tasks foreseen for One-Stop-Shops in the draft recast of the EPBD. Nevertheless, the development of a digital tool should be primarily based on the needs of interested One-Stop-Shops and necessitates a process to gather data that allows for a prioritization of functionalities.

There are already some good practice examples of online tools developed and used by One-Stop-Shops, which are listed below:

- **The CoachCopro¹² online database of successful energy renovation projects in France:** The platform was developed as a specific business tool for property managers responsible for housing projects. There are functions for managing a housing portfolio, archiving information, organising notifications, storing documents, extracting data and working on a renovation project together with energy advisors from the One-Stop-Shop. All this data is made available to other homeowners via the website as a kind of good-practice library. It presents successfully implemented renovation projects in the Toulouse metropolitan region. The information in the project profiles also includes the investment costs, energy savings achieved and the names of the companies that implemented the project.
- **The digital online shop and tools of the Dutch One-Stop-Shop Reimarkt¹³:** Reimarkt accompanies building owners from the beginning to the end of the renovation process applying digital and standardised processes and products. The online shop allows homeowners to compose their own renovation package online. The online

¹¹ See <https://www.raumfabrik-wuppertal.de/>

¹² See <https://www.coachcopro.com/>

¹³ See <https://reimarkt.nl/>

solution was essential for creating a scalable offer as the time spent and costs before the actual renovation could be reduced substantially, which in turn made renovations of individually owned houses attractive for all parties involved. In order to standardise renovation offers in the "sales strategy", Reimarkt uses algorithms to group similar houses in the Netherlands.

- **The online booking for the ‘Bremer Klima Bau Zentrum’¹⁴**, where central data is already requested in the course of booking appointments and appointments can be made for different partners of the OSS (e.g., financial advice, energy advice). The tool is also used in initial consultations to arrange follow-up appointments with other institutions in order to make the further course of the customer journey more binding than just recommending a contact.
- **The refurbishment navigation app (Sanierungsnavi-App)¹⁵ from Zukunft Altbau of the Baden-Württemberg Climate Protection Agency (KEA)**: Customers use the app to enter the most important requests and questions relating to their renovation project. Authorised energy advisers have access to the submitted projects via an exclusive digital portal and can get in touch directly with those interested in renovating a building.

2.6 Monitoring

A reliable monitoring system is important for every One-Stop-Shop in order to be able to make internal adjustments to the business model on the one hand and to be able to present the success and impacts achieved to the outside on the other.

Externally, the legitimisation of work towards public authorities, management boards, shareholders and stakeholders is a key objective, particularly for One-Stop-Shops that depend on public funding. The success can be documented with a variety of Key Performance Indicators (KPIs) such as the number of building owners advised/supported, types of energy efficiency measures implemented, and reductions in energy consumption and CO₂ emissions achieved.

Internally, monitoring should primarily serve to improve the business model of the One-Stop-Shop, for example by assessing the extent to which the intended target group is being reached and whether customers are satisfied with the services offered and find out at which point in the customer journey more support is needed. Important data for achieving this objective include the number of contacts, type of energy efficiency measures implemented, energy consumption before and after refurbishment, duration between initial advice and commissioning of renovation works, time needed for the realisation of refurbishment measures, and identification of customers' barriers and satisfaction.

One of the most important challenges in connection with monitoring is the issue of data protection. Customers therefore need to sign a data protection declaration right at the start and agree to participate in monitoring by providing (anonymised) data. Another major challenge for One-Stop-Shops is the effort for performing a serious monitoring, i.e., the time and capacities required as well as the resulting costs for the development/implementation of a monitoring

¹⁴ See <https://klimabauzentrum.de/beratung>.

¹⁵ See <https://www.zukunftaltbau.de/fachleute/werkzeuge/sanierungsnavi>

system and for data collection, particularly for follow-up with customers after an initial advice has taken place. The development of a standardised, digital and easy-to-use monitoring tool that ideally also automatically queries the status of the projects in order to reduce personnel costs would therefore be very helpful for One-Stop-Shops to address this challenge and carry out an effective and target-oriented monitoring.

2.7 Financing

A distinction must be made between two different aspects of financing: supporting building owners in financing energy renovations and financing the work of the One-Stop-Shop.

2.7.1 Financing energy renovations

When it comes to financing the actual energy renovation, the One-Stop-Shop's task can include supporting customers in applying for financing and funding. According to the results of the ProRetro survey among building owners, advice regarding subsidies is very important to 58 % of respondents and quite important to an additional 31 %. That the One-Stop-Shop takes over the application for subsidies is very important to 53 % and quite important to 31 % (Suerkemper et al., 2021). According to the experience of the ProRetro implementation partners, this need arises in particular due to the complexity of the application process for funding, the frequent adjustments to the funding conditions as well as the regulatory framework and the fact that funding instruments have been temporarily discontinued and restructured in Germany in recent years. This has created a great deal of uncertainty among homeowners with regard to the right choice of technology and renovation depth and the best possible time to implement an energy renovation. Independent and neutral advice from One-Stop-Shops in this regard can build trust among building owners, but more stable and long-term funding programmes and conditions would be needed to improve long-term planning security.

The ProRetro survey also revealed that potential customers of One-Stop-Shops require less support when it comes to financing of the investments into energy renovation measures (Suerkemper et al., 2021). However, this result can be attributed to the very good financing conditions with low interest rates at the time of the survey in 2021. At the present time, the financing of energy renovations of buildings and thus the need for advice to building owners has once again increased in importance due to the significant rise in renovation costs and interest rates last year. In order to meet this need, One-Stop-Shops can seek cooperations with banks and include financing experts in their network.

There are also good examples in Europe where One-Stop-Shops offer the financing of renovation measures themselves as a service. The Regional Public Service for Energy Efficiency of Hauts-de-France ("Régie du SPEE") is particularly worth mentioning here. The One-Stop-Shop offers a complete service to owners of detached and semi-detached houses, homeowners' associations, landlords and tenants to massively increase energy renovation in private housing. The service is based on third-party financing to guarantee that everyone, regardless of resources and age, can save energy and reduce energy expenses. The idea is that the monthly energy cost savings can be partially used to repay the loan. "Régie du SPEE" directly provides zero-interest loans or long-term loans and applies for subsidies and presents the total costs of the project to the owners. The financial control of the project by the One-Stop-

Shop means a significant relief for the households and at the same time ensures that sufficient funds are available for the entire renovation and that it can be completed.

From the perspective of policymakers, One-Stop-Shops can have various advantages when supporting homeowners in financing energy renovations. On the one hand, One-Stop-Shops have a more direct access to their target groups and can therefore gather a better picture what characteristics a programme should have to effectively support homeowners finance their energy renovation. On the other hand, One-Stop-Shops can promote new subsidy or loan schemes and thereby increase their success. Both can help member states to fulfil the demands of the recast EPBD, which also asks member states to make use of a wide array of financial tools. These includes pay-as-you-save schemes, in which annualised repayments do not exceed energy cost savings.

2.7.2 Sustained financing of One-Stop-Shops

The experiences of the ProRetro partners have shown that owners of residential buildings and homeowners' associations have a great need for independent, neutral energy advice before they initiate a renovation project in order to be able to make an informed decision regarding the choice of the measures to be implemented. At the same time, the One-Stop-Shops in Germany which operate independently and neutrally, are currently largely dependent on project-related funding from various donors, which is not stable over a long period of time and therefore does not provide any planning security. This raises the question of the long-term viability of the services offered and whether there is a place in Germany for publicly supported integrated home renovation services via basic funding from the federal states or the federal government next to commercial market actors. If the recast of the EPBD passes with the provisions for the establishment of One-Stop-Shops as in the compromise agreed by the Council of the European Union and European Parliament, policymakers will have to find a lasting source of funding that enables One-Stop-Shops to offer their services free of charge.

The focus of these publicly-funded services would be on independent and neutral support and advice throughout the entire renovation process including a review of the offers received by contractors.

These services should not be seen as an alternative, but complementary to the services offered by independent energy advisers on the market. Most of the energy advice, in particular the preparation of individual renovation roadmaps (Individueller Sanierungsfahrplan (iSFP)), will in any case remain with the independent energy advisers, planning with architects and engineering offices, and the renovation itself will remain the task of the installation contractors as well as architects' firms to coordinate the companies involved in the construction.

These public One-Stop-Shops can of course be complemented by private market actors offering more comprehensive One-Stop-Shop services via a (cost-covering) fee paid by the customer. In this case, it is of less importance that the payment of a fee represents a major barrier to the utilisation of the services as some customer segments are not willing or able to pay for support during the renovation process.

Policymakers should develop a framework that allows private companies to operate as an all-inclusive One-Stop-Shop on suitable markets. In this model, the One-Stop-Shop assumes overall responsibility for all tasks associated with energy renovation (possibly including financing

and guaranteed energy savings), i.e., the building owners only have to conclude a single contract with the One-Stop-Shop and can delegate all other tasks to the One-Stop-Shop (Cicmanova et al., 2020; Milin & Bullier, 2021). Such private all-inclusive offers can supplement the free and neutral energy advice provided by non-profit One-Stop-Shops and additionally reduce the costs associated with energy renovation for building owners.

3 Conclusion

If the recast of the EPBD passes as currently planned, it is to be expected that policymakers on all levels of the European political system will have to deal with instituting One-Stop-Shop services in the future. Based on the experience made in the ProRetro project, we recommend policymakers to consider the following points:

- 1) **Choosing the scope:** Existing One-Stop-Shops in Europe have different scopes, ranging from advice models to implementation models. Each model has its specific advantages and disadvantages. While an implementation model promises the most comprehensive support, an advice model is easier and faster to set up and has advantages when it comes to giving advice seen as neutral and impartial. Policymakers wanting to facilitate the establishment of a One-Stop-Shop or One-Stop-Shops for energy renovation should familiarise themselves with the different types of One-Stop-Shops and consider the needs in local housing markets when choosing a scope. At the same time, the recast of the EPBD contains provisions for the European Commission to develop guidelines for the development of One-Stop-Shops in member states, which promises to both ease and constrain the choice of a scope.
- 2) **Selecting and reaching target groups:** One-Stop-Shop services can be tailored to the needs of different target groups. In selecting the One-Stop-Shops' target groups, policymakers should take characteristics of the local housing markets into account. In general, the One-Stop-Shop should primarily target owner groups that have little to no experience with energy renovations and insufficient willingness or ability to pay market actors for such services. The choice of communication and advertising instruments should then be adapted to this target group..
- 3) **Offering services to homeowners' associations:** In German housing markets, homeowners' associations are an important target group due to the particularly high transaction costs of energy renovations caused by complex decision-making processes. In this regard, a One-Stop-Shop can be of great help. Policymakers should therefore consider instituting services tailored to the needs of homeowners' associations if this group owns a considerable share of the building stock.
- 4) **Cooperation with contractors:** Cooperating with contractors belongs to the most important tasks for One-Stop-Shops as these are the market actors implementing most of the renovation measures and very important intermediaries for motivating building owners to start an energy renovation. Therefore, policymakers should ensure that the cooperation with contractors is mutually beneficial. From the perspective of contractors, One-Stop-Shops can reduce their burden with informing customers and also support contractors in keeping up with the substantial changes in the regulatory environment. Integrating contractors into networks with other market actors that demand all members to adhere to certain quality standards, seems to be an especially worthwhile approach.
- 5) **Digitisation:** While in our experience digitisation will not solve every problem a One-Stop-Shop encounters and in person meetings remain important to a substantial share of clients, online tools can perform valuable functions that reduce the time One-Stop-Shops, contractors and other market actors need to support customers. This is demonstrated by experience in other European countries with, for example, the online

platform developed by Reimarkt or CoachCopro in France. To best leverage the potentials of digitisation, a process to develop a standard tool on a national level that can then be used by local One-Stop-Shop seems to be the most efficient use of resources. We therefore recommend to start such a process before or together with a large-scale roll-out of One-Stop-Shops.

- 6) **Monitoring:** Based on our experience in ProRetro, we recommend that policymakers from the start also think about monitoring when establishing One-Stop-Shops. While the resource needs for monitoring should of course be kept as small as possible, the information gathered through a sound monitoring system will both allow to constantly improve the One-Stop-Shop's services and collect data on the renovation wave's progress in the One-Stop-Shop's region.
 - 7) **Financing:** Policymakers should consider how One-Stop-Shops can help to get public subsidies to homeowners when developing business models. This support can be twofold: Easing the process for homeowners by supporting applications as well as making available funding better known by making information about public sources of funding an integral part of the One-Stop-Shop's support.
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