

Task 4.5

One-Stop-Shop Concept – Bottrop

Independent, vendor neutral and low-threshold: Special services for building owners in Bottrop.

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Executive summary

The Bottrop One-Stop-Shop

The model project *InnovationCity Ruhr | Modellstadt Bottrop* comprised free vendor neutral energy consulting for building owners at the *Zentrum für Information und Beratung (ZIB)* within the period from 2011 to 2020. Since 2014, this has been supplemented by on-site energy advice at the property. Vendor neutral advice creates great confidence since the customers decide on measures themselves and select companies on their own. There are no provisions for the ICM. Since the basic energy advice is free of charge for the customers there is a low hurdle to use the service. Therefore, within a period of ten years our energy advisers gave their assessment and recommendations for 4000 residential buildings in the city of Bottrop. The service was funded by the city of Bottrop.

The aim for 2021 is to reissue and expand this service using the existing service infrastructure. Thus, it will be possible to support energy renovation measures in a more comprehensive way while keeping the service free and vendor neutral. Furthermore, the energy advice will be more detailed and in addition the service will cover issues dealing with subsidies. ICM analyses which subsidy is suitable and supports customers through the application process. New modules within the service are support for finding contractors and on financing issues. To meet the aforementioned goals, there will be no contractual cooperation with specialized companies for implementation of energy modernization measures or construction supervision of those. ICM disclaims the liability for mistakes of the contractors.

1 Introduction

The following sections explain the concept for the One-Stop-Shop in more detail. In Section 2 the initial situation of ICM and activities of ICM at the beginning of the project are described. Section 3 to 7 deal with the process and activities during the phase of planning/design (work package 4). Furthermore, decisions made during the phase of planning are explained. Subsequently, the results achieved during the planning phase are summarized in a business model canvas within Section 8. Ideas and plans for marketing and customer experience are part of section 9 and 10.

2 Self-description (state of the art before the project)

The Innovation City Management GmbH (ICM) was founded in 2010. It is a project management company, which was launched within the model project InnovationCity Ruhr | Modellstadt Bottrop by the Initiativkreis Ruhr e. V., the city of Bottrop and other shareholders. Goal of the model project was to halve the greenhouse gas emissions of an area with a population of 70,000 inhabitants until 2020. The whole city of Bottrop has a population of about 117,000 inhabitants.

The triad of activation, advice and promotion was an important part of the numerous climate protection activities within the model project. This set important impulses for the energy renovation of residential buildings in the region.

Intensive marketing through various channels was carried out. Part of the communication strategy were regular press work, networking, websites, advertising material, social media, information booths, neighbourhood offices, creative campaigns, theme nights and other events. Many partners supported the project with their commitment.

An advice service was created in 2011 for those interested in energy modernization. For customers the energy advice within the Zentrum für Information und Beratung (ZIB), which was set up in the office of the ICM, was free of charge. In 2014 the service was upgraded with an additional on-site energy advice at the property. The energy adviser came to the property in question upon request. Thus, for the energy adviser it was possible to get an idea of the situation at the property. In return there was a reduced effort for the customers. Until 2020, we conducted over 4000 energy advices for residential buildings in the whole city of Bottrop. Amongst those were over 3000 advices in the model project area.

In 2014, the city council of Bottrop adopted a municipal funding guideline to provide financial support for the energy renovation of residential buildings. This funding is additional to other subsidies available from North Rhine-Westphalia or the federal state. It was based on the savings that could be achieved through the respective measure. In contrast to other funding guidelines, the application process was kept as simple as possible. The application form consisted of three pages. The report on the energy advice served as a proof of the usefulness of the measure. Thus, there was no need for detailed energy audits. Individual measures were also subsidized if only a part of the construction was modernized (e.g., roof, windows, facade, basement ceiling, heating). In 2019, a funding guideline for photovoltaic systems on roofs in Bottrop was added. Furthermore in 2021, the funding guideline was supplemented by subsidies for plug-in solar devices that can be installed on balconies in apartment buildings, for example.

The model project ended at the end of 2020. Only the subsidies for photovoltaic systems are still available. The evaluation of the model project published in June 2021 shows that the ambitious targets were achieved, and greenhouse gas emissions were halved. Substantial savings were also achieved in the sector of private residential buildings. During the project period, the annual modernization rate in the sector of private residential buildings in the model area was on average higher than three percent.

There were no further offers such as construction supervision, cooperation with specialized companies for implementation of energy modernization measures or financial engineering.

Table 1: OSS-tasks performed before the project

Scope	Tasks performed before the project
Marketing	In house
Preliminary proposal	In house
Building inspection and energy analysis	In house
Renovation planning	Not offered
Financing	Not offered
Renovation	Not offered
Quality assurance	Not offered
Commissioning and follow-up	Not offered

3 Service configurations and target groups

Within the ProRetro project, the existing services are to be relaunched and continuously developed. The focus of ICM's OSS is on owners of single-family homes and townhouses. There are also special offers for homeowners' associations. To reach this target group a high level of consulting effort is necessary.

Building owners in Bottrop receive an advisory service on all aspects of an energy renovation of a building (photovoltaics, roof/top floor ceiling, facade insulation, windows, basement ceiling, heating, ventilation), whereby the service involves technical and economic aspects. The ICM accompanies advice seekers from the initial advice, through energy audit, to financial engineering (estimation of costs and energy savings, renovation roadmap, help to get loan, discuss a quality assurance) and the search for suitable contractors for implementation. Provided that the advice seekers have chosen a contractor, the ICM can support the communication on technical details if advice seekers cannot or do not want to describe them themselves. In case of questions, problems and defects, ICM can communicate with the installation contractors. But ICM will not approve any measures to avoid risks.

4 Basic OSS concept

The ICM was established as a project management company by the *Initiativkreis Ruhr*, the city of Bottrop and other stakeholders. The overarching goal is climate protection. The retrofit of the existing building stock is important to achieve this goal. During the largescale model project InnovationCity Ruhr | Modellstadt Bottrop, advice seekers were given free energy advice to increase the retrofit rate of residential buildings. Important in the process is the trust of those seeking advice. Without receiving commissions from contractors, ICM works independently and vendor-neutrally. The energy consultations in the period of the model project were financed by the city of Bottrop until the end of 2020, partly from other project funds. The city of Bottrop has supported measures for retrofit, whereby one of the requirements for support was a prior energy advice. The free offer makes access as low-threshold as possible, which meant that many property owners could be reached.

ProRetro builds on this infrastructure and experience. The project allows to find options for expanding and improving the service, while maintaining the fundamental character of the advice: free of charge, independent and provider-neutral – with all its advantages and disadvantages.

Energy advice on technical and economic aspects is provided by in-house energy advisers. Those energy advisers, who are registered at BAFA, also advise on subsidies from the federal government (especially subsidies provided by BAFA in the programme *Bundesförderung für effiziente Gebäude* (BEG), KfW offers), the state of NRW (especially *progres.nrw* and *RL Mod*) and the city of Bottrop (*Solaroffensive*) and support the application process by checking the documents and answering questions.

Other matters where the city must permit issues, for example, are coordinated by the consulting specialists. ICM checks documents and translates the academic language of the municipal staff. These can be issues relating to the protection of historical monuments, design statutes or road construction ban.

The savings bank Bottrop supports the project with financial engineering. A letter of support is available from the savings bank and there is direct contact with the savings bank's credit department. Concerning this, the ICM is coordinating the processes and gives support with appointment management. A credit expert can attend energy advice meetings or provide advice confidentially afterwards, depending on the customer's wishes. On the part of ICM, profitability calculations can be made based on the offers obtained.

For the search regarding specialized installation contractor companies there is support from the *Handwerkskammer Münster*. That is the Chamber of Crafts of the region that includes Bottrop. The online portal *LokalesHandwerk*¹ can be utilised to advertise requests. Requests will be entered by the customer or ICM. There is also a search engine for local specialized crafts companies with specific input options for a targeted business search. The *Regionalverband Ruhr* (RVR is an association of municipalities in the Ruhr area) also offers lists of specialized companies especially for the field of photovoltaics. This approach was chosen for reasons of provider neutrality. This is because no contracts are to be concluded with individual contractors

¹ <https://www.lokaleshandwerk.de/>

for commissions, for example, to maintain independence. The advice should clearly keep the interests of those seeking advice in focus. For quality assurance within the process, the ICM considers as a quality criterion that companies are owned by a master craftsman or employ a master craftsman. In addition, should quality deficiencies in the work of individual companies become known, ICM will pay increased attention to indications and will have a black list with those companies.

More extended service offerings such as construction supervision and acceptance of works are associated with liability risks. If there are any questions, ICM could just give a second opinion without liability risks. Since the services are free of charge, no reserves can be built up for these risks. Consequently, the services of ICM end at this point. In some districts, there are craft cooperations such as "Hand in Handwerk", which combine different trades to offer services from a single provider. ICM worked towards establishing this kind of cooperation with the Chamber of Crafts Münster and the District Chamber of Skilled Crafts Bottrop, but they did not implement it until now. However, specific providers cannot be recommended anyway (OSS is independent and, provider-neutral). ICM just gives the hint that there are such cooperations.

Overall, various services are thus bundled at the ICM, and the proven character of the advice is kept to maintain the trust of those seeking advice and to reduce hurdles to energy renovations.

5 Decision on “make-or-buy”

The reasons for the "make-or-buy" decision for the respective services are examined in more detail below. From the project's point of view, a One-Stop-Shop for the energy retrofit of private residential buildings includes:

- marketing
- building inspection and energy analysis
- advice on subsidies
- obtaining necessary permits
- cost planning, profitability calculation and financing
- implementation of energy efficiency measures by specialized installation contractor companies
- controlling and quality assurance

Regarding the given framework conditions, these services have been set up as far as possible so that they can be offered by the ICM itself.

ICM already has a wide range of experience in marketing activities, especially in activating private building owners. For this purpose, the company's own personnel can be called upon for specific projects.

For technical assessment and energy analysis, the ICM has architects and engineers who are trained energy advisers (some are registered at BAFA). This service is also offered in-house.

There are very good contacts with the city of Bottrop. The responsibilities within the administration are largely known or can be found out quickly. This makes it easy to clarify questions about approval processes. ICM knows the right contact persons or can easily find them.

The advisers are very familiar with the various funding programs for energy retrofit measures. There are various subsidies available at federal level, state level and from the city of Bottrop. Those seeking advice are guided through the funding conditions. ICM checks and transmits the documents.

As soon as the advice has revealed which retrofit measures are possible, the focus turns to costs, cost-effectiveness, and financing. The ICM does not have a banking license and it is not one of the company's objectives to offer loans to consumers. For this purpose, Sparkasse Bottrop supports the project with its credit department and is happy to accompany those seeking advice in their search for suitable financing. The ICM supports in regard of cost planning and profitability calculations. For multiple projects that cannot be started at the same time, the ICM develops a renovation roadmap with those seeking advice.

ICM does not employ any construction workers for the implementation of the energy retrofit measures. The One-Stop-Shop is deliberately designed to provide low-threshold, independent and provider-neutral advice. In commission models with, for example, heating installers, the advice could no longer be considered independent. This destroys trust in the quality of advice because the advice is based on the individual needs of those advise seekers, current circumstances, and the idea of climate protection. In the case of commission models, there is a risk that the focus will shift or that products with a high commission will tend to be recommended. The Münster Chamber of Crafts, which is also responsible for Bottrop, was involved as a neutral authority to ensure a supplier-neutral approach. If different companies are employed by an advice seeker, they coordinate the measures themselves. The ICM can support advise seekers in communicating with their chosen companies or contractors if they are unable or unwilling to explain technical details themselves.

For quality assurance, the Chamber of Crafts recommends paying attention to master craftsmen's businesses. Other criteria can be the voluntary membership of the specialized company in the respective guild. Furthermore, the guilds have extrajudicial arbitration possibilities. In addition, if quality deficiencies become known at companies, these are noted. In individual cases, companies can then be included on a list of companies that can no longer be recommended. ICM will mention the possibility of assurances.

Table 2: Fields and tasks of the ICM One-Stop-Shop

Field	Task	Make-or-buy
Marketing	Promotion of the advantages of energy retrofits to potential customers	Make: All
Basic concept	Outline of possible measures based on general information about the client's building, showcasing the benefits of the potential investment	Make: All

Field	Task	Make-or-buy
Building inspection and energy analysis	On-site inspections, identification of energy retrofit needs (with the goal of deep retrofits), development of a long-term, building-specific roadmap for energy retrofits to avoid lock-in effects (see, for example, the iBRoad project ²).	Make: All
Renovation planning	Planning of the concrete project, e.g., offers, permits, etc. ICM calculates plans which are geared to the financial possibilities of customers and their wishes. Legal aspects (information of tenants etc.)	Make: All
Financing	Investment cost calculation, subsidy applications, loan agreements, bid comparisons, estimation of allowable rent increase (for landlords).	Make: Calculations, subsidy applications Buy: Lending
Renovation/refurbishment	Coordination of contractors, resolution of unexpected problems, communication with building owners and tenants.	Make: Advise, assistance with communication Not part of the service: Advice seekers choose and coordinate companies themselves
Quality assurance	On-site visits, (if necessary) commissioning of experts, (if necessary) commissioning of rework.	Make: Coordination Buy: Arbitration via guild
Acceptance and follow-up	Training of residents or tenants, explaining use/operation Adjust contracts (gas supply contracts, service charges) Legal aspects (e.g., rent increase)	Not part of the service: Due to potential liability risks and provider neutrality, this is still the responsibility of the owners.

6 Legal form of OSS and contractual agreements

The following section describes the legal form of the OSS and the contractual arrangements with its cooperation partners, considering the steps of an energy retrofit listed in Table 2. This section also sets out the reasons for choosing a particular contractual arrangement.

6.1 Legal form of OSS

The services are offered by the Innovation City Management GmbH. The limited liability company is a form of company under private law that counts to type of corporations.

² <https://ibroad-project.eu/>

6.2 Contractual agreements

Issues relating particularly to data protection law are addressed with advice seekers. This involves consent to the storage and processing of personal and building-related data.

Letters of support have been received from the City of Bottrop, the Chamber of Crafts Münster and the Savings Bank Bottrop.

There is a service contract with the City of Bottrop to finance just the standard energy advice. It is valid for 2021 and 2022 at the moment.

There are employment contracts with own employees and in exceptional cases service contracts are concluded with architects.

7 Setting up the OSS's network

The partners and supporters of the project include the City of Bottrop, the EnergyAgency.NRW and the Chamber of Crafts Münster. All have signed a letter of support. The local energy suppliers are the Emscher-Lippe-Energie GmbH and the Steag Fernwärme GmbH. Both have intensively accompanied and supported the large scale project InnovationCity Ruhr | Modellstadt Bottrop.

For activation, there are also contacts with Haus&Grund, property management companies, press and other media.

8 OSS business model

In the design phase at the beginning of the project (project month 1 to 15), a detailed business model was developed, which will be implemented in the second phase of the project (project month 15 to 36). The business model is specified using the Business Model Canvas (Osterwalder, Pigneur, & Clark, 2010³), which consists of nine elements.

1. customer segments
2. value proposition
3. channels
4. customer relationships
5. revenue streams
6. key resources
7. key activities
8. partner network
9. cost structure

³ Osterwalder, A., Pigneur, Y., Clark, T. (2010): Business model generation: A handbook for visionaries, game changers, and challengers, Hoboken: Wiley.

The Business Model Canvas is shown in Figure 1 and explained below.

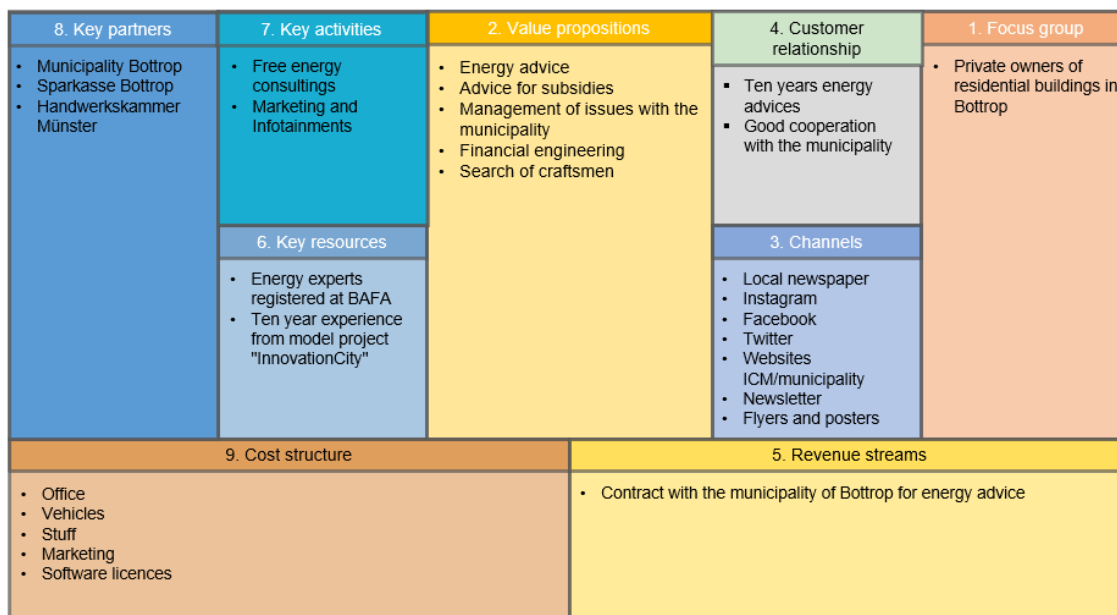


Figure 1: Business model canvas for the Bottrop One-Stop-Shop

8.1 Customer segment

The ProRetro OSS Bottrop is aimed at owners of residential buildings. This includes homeowners, owners' associations, small housing cooperatives and, due to the high proportion of rental apartments, landlords who rent out a small number of apartments (private small landlords). The focus is on owner-occupied properties because short decision-making paths favour implementation there. Homeowners' associations require more advice and coordination, but are also supported.

8.2 Value propositions

By bundling and improving services, the cost of an energy retrofit is significantly reduced, because owners know how to get subsidies, the advice and support is free. In addition, the OSS should ensure that a retrofit is carried out professionally and that existing funding programs are used optimally.

8.3 Channels

On the one hand, the ICM with the *Zentrum für Beratung und Information* is still very well-known among the building owners in Bottrop from the model project *InnovationCity Ruhr | Modellstadt Bottrop* that ran until the end of 2020. On the other hand, various channels are now used for ProRetro. These include press releases (to local newspapers, radio and Bottrop internet media), social media (Instagram, Twitter, Facebook), websites (own, City of Bottrop), the ICM newsletter, presence at events, networking and, in particular, event-related supplementary communication tools such as flyers and posters. The ICM also has offices in various parts of the city because neighbourhood managers do district work there and have a direct contact with the population.

8.4 Customer relationship

Due to the long-standing project of the city Bottrop and the ICM, the relationship with the customers is already on a high-quality level. The development of the OSS will further improve the high level of quality by expanding ICM services. Advice seekers receive one-on-one services at the OSS, which means that project managers and energy advisers are available to answer any question that advice seekers may have. In addition, the contact to the competence team of the OSS is given from the beginning and is unlimited in time.

8.5 Revenue streams

The city of Bottrop supports the energy advice, which in a basic version is free of charge for advice seekers. This does not cover the additional services like financial engineering, support with subsidies and contractors and especially the guidance in the whole retrofit process. Additional revenue through contributions from advice seekers would drastically change the nature of energy advice. Thus, these are to remain free of charge and, consequently, low threshold. Commission models with installation contractors bear the risk that the advice is no longer perceived as neutral. For this reason, the decision was also made not to do so, i.e., to continue to provide independent advice oriented to the needs of the advice seekers. In this way, confidence in the advice remains high.

8.6 Key resources

The main resources of the OSS are expertise, existing networks, and experience acquired over the past decade. ICM also has the infrastructure for all services. During this time, the company has not only been able to build up these resources, but also to continuously improve them with the help of its in-house energy advisers. In-house city software has served as an important tool for data collection and subsequent evaluation in the past. This will continue to be used and further developed in the OSS, if the customers have any specific wishes.

8.7 Key activities

The main activities of the OSS are:

- communication/marketing/infotainment
- reliable, free and provider neutral energy advice (including funding advice)
- cultivation of the relationship with the advice seekers

With the help of communication channels, whether digital or analog, those seeking advice are made aware of the OSS. In addition, infotainment helps to generate incentives for energy efficiency in everyday life, for example through competitions, theme nights, information stands in marketplaces or courtyards, and much more. Activation therefore plays an essential role and should be seen as a major time component.

Another important key activity is energy advice. Here, not only the measures identified by advice seekers are discussed, but also, after a holistic view of the building, further measures that should/could be implemented promptly, but also later. All services provided by the OSS are supplier-neutral, thus creating room for different approaches.

Maintaining the relationship with advice seekers is at the same time the quality assurance of the OSS. It is important to support the advice seekers from the beginning and to offer the services of the OSS again and again. The OSS competence team accompanies the advice seeker in the form of an energy guide and thus always has an overview of the refurbishment path and the current state of the refurbishment. With the help of report generation and record keeping, a documentation is provided that additionally underlines the quality of the OSS.

8.8 Key partnerships

The City of Bottrop is a shareholder of the ICM and there are many joint activities. This is helpful for the project. Whether it is for municipal funding programs, issues of landmark status or contact persons, the city administration is often in demand or can provide support.

Sparkasse Bottrop is the local credit institution in Bottrop. When it comes to questions of financing and loan offers, a personal contact person is available in the credit department for ProRetro customers.

The Chamber of Crafts Münster provides support in finding skilled contractors. Precisely because of the independent and supplier-neutral character of the OSS Bottrop, this neutral instance is ideal for cooperation.

8.9 Cost structure

For the One-Stop-Shop, costs are essentially related to these five areas:

- office operations,
- personnel,
- vehicles,
- materials used for activation measures and
- software licenses.

9 Marketing concept

As already described in the previous chapters, activation is one of the important elements of the OSS. For this reason, the already existing marketing concept of ICM for the ZIB (abbreviation of the German words for “Centre for information and advice”) was applied and further elaborated. Many citizens are already familiar with ICM and the ZIB. So ICM will add hints like “Thanks to the ProRetro project and the EU funding more services can be offered”. ICM also explains the benefits for customers. The following points have already been defined in the concept and are already being applied: Press releases, postings on social media platforms such as Facebook, Instagram and Twitter, flyers, posters, theme nights, information booths at marketplaces, fairs and much more.

It is important that the activation measures must be carried out regularly in different variations. For example, information events about retrofitting the building envelope are offered in the spring so that potential retrofits can be carried out in the summer. In the fall, information events are

offered on the topics of heating replacement and optimization, proper heating, ventilation, and mould prevention. In this way, attention can be paid over the winter to adjusting usage behaviour and achieving the first savings.

Between these two "theme night" sessions, other activation activities take place, allowing further contact to be made. Each event of the OSS is published with the help of press releases.

10 Customer experience

With the help of posts on social media platforms or newspaper articles, for example, people seeking advice become aware of the OSS. They contact the secretariat. Here, the contact details of advice seekers are recorded, and an on-site advice appointment is arranged. This on-site appointment is scheduled usually one to two weeks after the contact is made. After the data has been recorded, an e-mail is sent with the appointment confirmation, the privacy policy and an overview of the services provided by the OSS. Each person seeking advice is given his or her own customer number, under which all important information about the order is stored.

During the on-site appointment, a general conversation is held with the advice seeker. In this way, initial impressions are gained for the concern: Which measures are of priority? Which measures are also of lower priority? Is there a roadmap for the retrofit measures? What is the financial situation? What budget is to be considered?

The energy adviser then examines the energy efficiency of the building components and systems. For example, the roof is inspected for insulation and its condition, the window seals for leaks, and the heating system for optimization needs.

During the appointment, the energy adviser already develops initial measure estimates, which he/she discusses with the advice seekers after examining the building components and systems. This results in a report that shows the retrofitting potential of the building. The possibility of subsidies is also part of the discussion. In this way, federal, state and local subsidies are discussed for each individual measure, making the measures more viable economically.

After the on-site advice, a summary of the meeting and an overview of all subsidies is sent to the person seeking advice in the form of an e-mail. This mail serves as a reminder and, in addition to the summary, contains links to websites of the subsidy opportunities and contractor search. The advice seekers can now review the conversation after the appointment and consider which measures need to be implemented. As soon as the decision has been made, the customer informs the OSS, and a second meeting is arranged. If necessary, offers can already be requested from craftsmen, which will be discussed at the next consultation.

The second meeting takes place by telephone, as a video conference or on site and serves to discuss all concrete measures. If offers are already available, they are checked for plausibility. If no offers are available, the portal that helps to find contractors is referred to once more (www.lokaleshandwerk.de). If measures on the building envelope are planned and federal subsidies are to be claimed, reference is also made to an energy efficiency expert and the corresponding website is introduced. If certain permits are to be obtained from the city, a contact person will also be named in the conversation to serve as a support in this process. If

financing is planned, the Sparkasse Bottrop is named here as a partner who can make a loan offer.

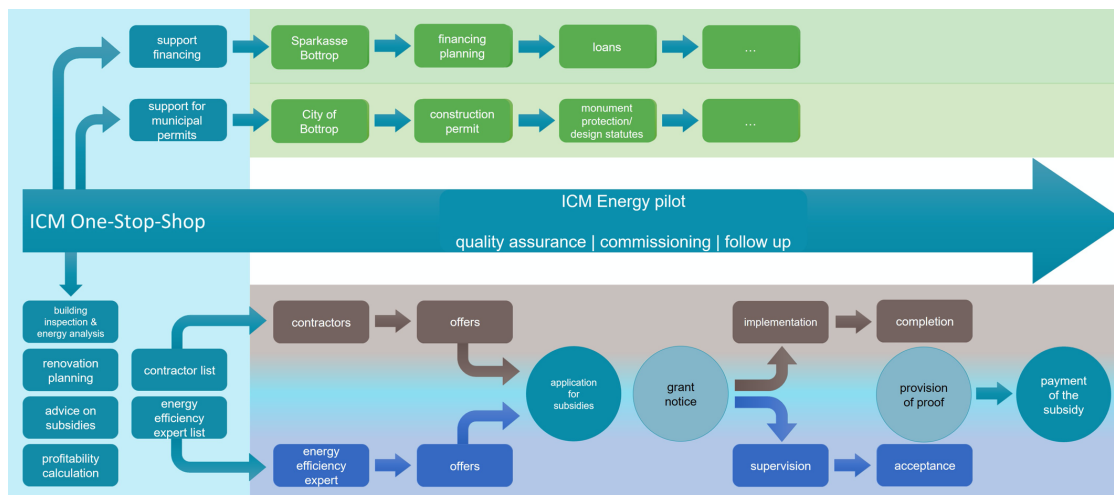


Figure 2: Workflow of the Bottrop OSS services

After the second meeting, the review of the offer and the commissioning of the retrofit, the next steps are followed. Here, the OSS serves as an energy guide and accompanies the advice seekers until the acceptance of the implementation. The energy adviser is present at the acceptance meeting and reports the results. Finally, after about four weeks, the advice seekers are contacted again, and the OSS process is reviewed. This results in a quality protocol, which is used to evaluate the individual services of the OSS.



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