SHELTER

Promoting Energy Renovation

RECOMMENDATIONS FOR PUBLIC AUTHORITIES

INTRODUCTION

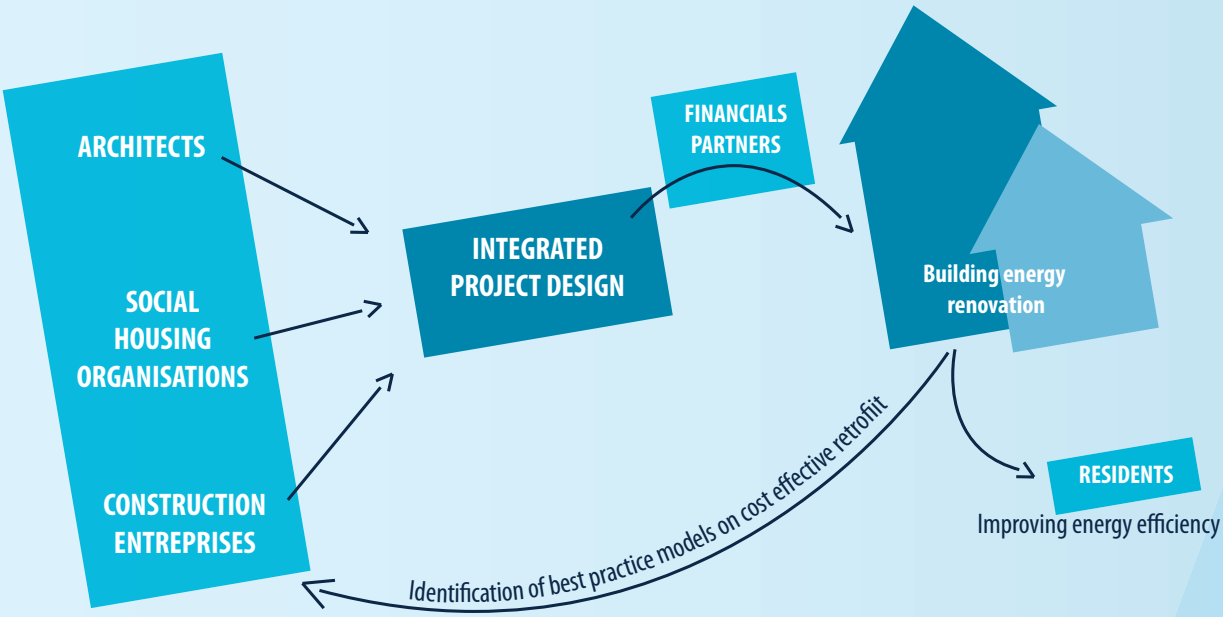
The purpose of this document is to provide public authorities with recommendations on how to improve the coordination of professionals in the energy renovation of social housing. Even if this document provides its reader with the identified needs and subsequent recommendations, it remains a summary of the Recommendations document. We invite the reader to consult the full version in order to have a more complete presentation. More detailed and concrete information on "how to implement" these recommendations can also be found in the *SHELTER guide – Innovate to renovate.*

WHAT IS THE GENERAL CONTEXT

Social housing plays a key role in the strategy to reach the ambitious energy objectives set in the EU agenda: 25 million social housing units account for 12% of the housing stock in the EU27 and these units are responsible for 18% of the total final energy consumption. The question is whether the currently implemented energy renovation coordination models can ensure a massive energy refurbishment of the social housing stock. In fact, the lack of adapted energy renovation models is very likely to impede this process. In many cases energy objectives are not even included in the agendas of renovation processes of Social Housing Organisations. Improving the cooperation among professionals involved in renovation of social housing will be a major step towards meeting the aims of the European Union regarding the energy performance of buildings.

WHAT CAN THE SHELTER PROJECT OFFER?

In the SHELTER project, Social Housing Organisations and academia have been working together with Small and Medium-sized Enterprises and European Federations to enable a wide scale market penetration of innovative professionals' coordination models.
www.shelterproject-iee.eu



Bring social housing organisations, architects and construction entreprises together at the earliest stage of energy renovation projects, so as to implement models of cooperation inspired by integrated design.

1 Definition of an effective renovation strategy

Any renovation strategy should aim for a final energy saving goal. Major Renovation should be promoted. Where major renovation cannot be carried out, Step-by-step renovations are recommended.

2 Optimisation of the procurement process and the project delivery methods and outcomes

- Encourage the use of objectively quantifiable and verifiable performance based criteria, rather than prescriptive criteria.
- Define functional requirements, outline incentives, remedies & penalties and develop a quality assurance plan to inform contractors how performance will be measured.
- When using a Design-Bid-Build project delivery method, encourage the selection of the economically most advantageous offer. Increase the cooperation among actors by involving people in charge of the maintenance/operation during the design phase and by establishing effective communication among all actors involved in renovation (subcontractors included) at the beginning of the works. Maintenance of the built facilities during a certain period should be part of the contract.
- When using the Design-Build-Maintain project delivery method designers (architects, engineers, and consultants), construction companies and maintenance companies are part of a construction team. Design-Build-Maintain is recommended for projects with high energy performance ambitions and a whole-building approach. The inclusion of the maintenance company in a single contract with the design and the construction offers the possibility to develop a guarantee of performance after the works.

  By providing the legal framework for Small and Medium Enterprises to aggregate/ form project teams, Small and Medium Enterprises can be involved directly in the renovation project.

3 Highlight the importance of the architects' role in energy renovations

- It is very important for the client to keep in mind that the project delivery method chosen should not compromise the design. This applies particularly in the case of step-by-step renovations, Design-Build and Design-Build-Maintain contracts. In fact, architects can successfully undertake the task of coordinating all project team members, incorporating a range of disciplines (e.g.: cost estimating, project scheduling, construction supervising and safety regulations).
- Quality control of the performed works can be effectively executed by architects. For this task the architects can be contracted directly by the client.
- An architect's report on the "cultural value" of a building to be renovated will give valuable guidance to the "client" before proceeding to any design or implementation of measures that can have a negative effect on patrimonial heritage buildings. Moreover, such a report can provide solutions in cases where there is a conflict between urban planning regulations and energy regulations.

NEEDS AND RECOMMENDATIONS

4 Awareness raising and training

Employ professionals with relevant expertise and skills for the preparation of calls to tender and ensure coherence with the energy saving strategy of the organisation.

5 Wider integration of all actors

- Modify the European and national public procurement framework, allowing the participation of Small and Medium Enterprises and consortia of Small and Medium Enterprises to public procurement tendering.
- Facilitate the creation at local level of consortia of Small and Medium Enterprises size working together in more adapted contract types.

6 An holistic approach is needed to scale up renovation of the social housing building stock

Local authorities and trade associations supported by Social Housing Organisations to launch campaigns addressed to craftsmen, stimulating mutual learning and sharing experiences

7 Adequate financing schemes

- Local authorities should ensure that in the legislative framework there are clear pathways for consortia.
- Local authorities should promote existing funding schemes (e.g European Regional Development Fund, European Energy Efficiency-Fund, Green Deal) by providing information and encouraging uptake.
- Coherent long-term financing schemes which provide guarantees to cover risk, in line with the EU energy policy goals. Encourage the use of European Regional Development Fund also in schemes with state banks and private banks and new financial streams resulting from energy supplier obligations and carbon trading.

8 Influencing tenant behaviour

- To optimise performance tenants should be engaged in the renovation process in advance of renovation and be informed of the consequences of their behaviour following the works. This consideration should be included in the procurement documents.
- Residents should have tools and knowledge to track their individual consumption. This consideration should be included in the procurement documents.

9 Coherent and Complete national transposition of EU procurement laws

Ensure that the national transposition of new EU procurement rules fully reflects the range of possibilities allowed and does not restrict choice to price criteria alone. Consultation with key stakeholders in this process can help to ensure adoption and use of new possibilities.

Step-by-step renovations (SbS): Step-by-step renovations can deliver major (energy) renovation when the replacement of a series of building components produces the same conditions as a major renovation. Step-by-step renovations differ from planned maintenance because the final status of the dwelling performs better than the initial one.

Design-Bid-Build (DBB): In Design- Bid- Build the different contracted parties (designers, construction companies, maintenance companies) are involved in the project the one after the other. The first step is for the Social Housing provider (the Client) to tender the design works. The appointed designer develops the technical specifications that will be used to tender construction works and the successful contractor will deliver the specified works, albeit under the supervision of the designer. Once the works are finished, responsibilities for maintaining the building are transferred to a maintenance team. Tendering procedures for maintenance are unlikely to have any impact on or connection to tenders for renovation projects.

Design- Build- Maintain (DBM): In Design- Build- Maintain, the Social Housing provider tenders the design, construction works and maintenance works in a single contract. The contracted entity could be a single company, with or without subcontractors, or a consortium including design, construction and maintenance companies. In any case, the people in charge of the design, construction and maintenance are involved in the project from the design phase onwards. The inclusion of the maintenance company in a single contract with the design and the construction, offers the possibility to develop a guarantee of performance after the works.

COMPARATIVE TABLE

	ADVANTAGES	DISADVANTAGES
DESIGN-BUILD-MAINTAIN	- Allows to divide the contracts into lots - Architects and/or engineers can act as referee between client and constructor.	- Forces the use of descriptive specifications. - Facilitates the use of lowest price tendering. - Precludes the communication between architects and/or engineers and constructors during design phase.
DESIGN-BID-BUILD	- Allows the cooperation between all the actors involved during design phase. - Facilitates the use of award criteria for the tendering. - Facilitates the use of performance-based specifications. - Facilitates the implementation of innovations.	- Single large contract. SMEs have fewer options to bid. - Dual relationship client-contractor, no referee role of architect and/or engineers. - Force actors involved in renovation to change their interaction with other actors.

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