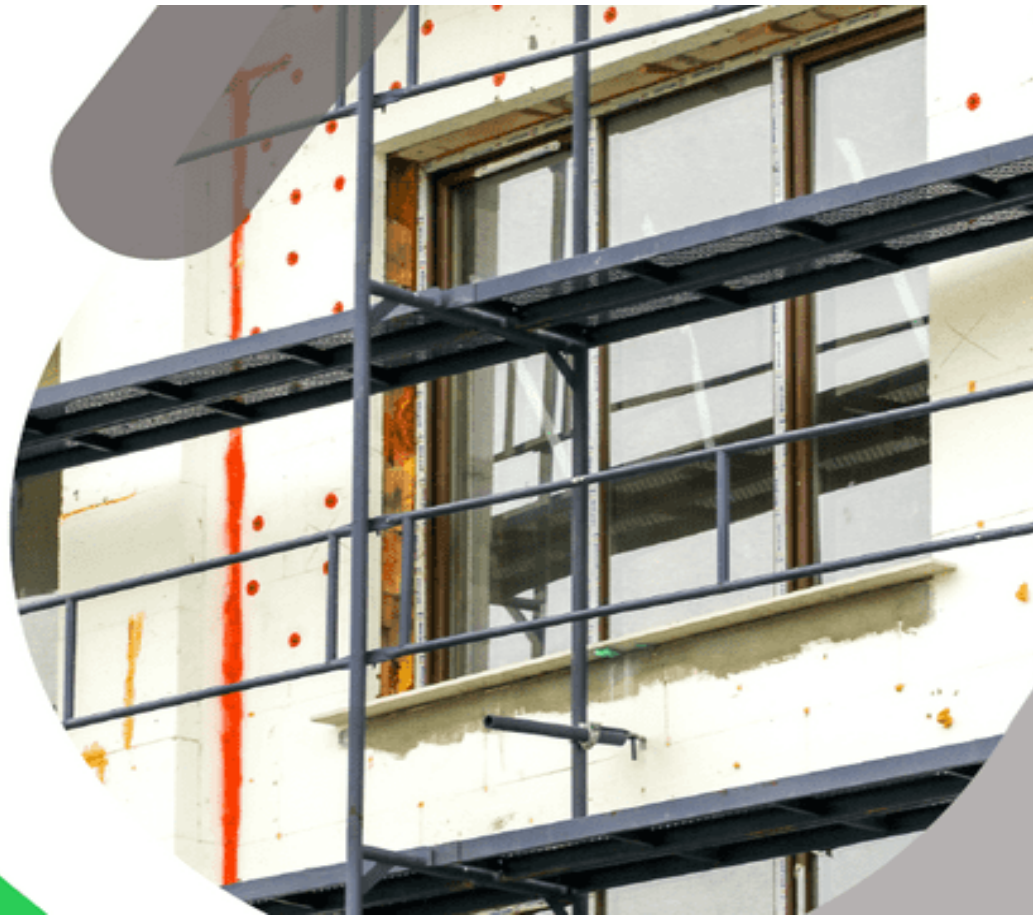



Stakeholders for the development of Integrated Home Renovation Services for Condominium Associations

D2.1 Declarations joint business model development - International



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Terminology list

This document uses the following definitions.

Business model: A "business model" is a conceptual framework that outlines the core aspects of how an organization operates, generates revenue, and sustains its operations. It typically delineates the key components of a company's strategy, including its value proposition, target market, revenue sources, cost structure, and distribution channels. This model serves as a blueprint for how a business intends to create and capture value in the market, guiding its overall approach to conducting activities and achieving long-term sustainability and profitability. (Osterwalder et al., 2005; Fielt, 2013; Laffont-Eloire et al., 2019)

Communication and IT intermediaries: These intermediaries play a role in facilitating the outreaching communication and implementation of information technology solutions to enhance energy renovation processes within condominium associations.

Consultants: Intermediary actors who provide expert advice and guidance to condominium associations on energy renovation strategies, often assisting in decision-making and planning.

Demand side: This term refers to the individuals or entities within condominium associations who trigger, represent, and encourage the demand for energy renovation services.

Finance and management: This encompasses the strategies and actions related to the allocation of financial resources for energy renovations within condominium associations, as well as the managerial aspects of overseeing such projects.

Integrated Home Renovation Services (IHRS): This concept encompasses a comprehensive approach that bundles diverse services for homeowners, emphasizing the will or need of energy-saving renovations. Those services include a series of action ranging from the design to the management phases.

Intermediaries: Actors, institutes, or organizations positioned between the supply and demand side, between the public and demand actors, and/or between the public sector and the supply side with a specific mission or activities to bridge gaps between these actors.

Public actors: This includes government agencies, public institutes and regulatory bodies that influence and regulate the energy renovation sector at the European, national, regional, and local level, using distinct types of policy instruments.

Stakeholder: Stakeholders in the context of energy renovations for condominiums refer to individuals or entities that have a vested interest in the process and outcomes of such renovations. This typically includes condominium/flats/building owners, building managers, renovation service providers, energy efficiency experts, local authorities, construction SMEs and any other parties directly or indirectly impacted by the renovation efforts. These stakeholders often play essential roles in decision-making, funding, planning, and implementation processes related to energy renovations within condominium associations. (Brown et al., 2018; Franklin, 2020; Estay et al., 2021; Milin & Bullier, 2021)

Supply side: This refers to actors, entities or businesses that offer products, systems, services, and solutions related to energy renovations, such as contractors, suppliers, and energy providers.

Condominium associations: The entity is represented by a General Assembly responsible for the maintenance and renovation of a building owned by various co-owners.

Integral approach for renovation: Renovation that considers individual preferences and societal perspectives, offered by professionals or teams that streamline the renovation process.

1. Introduction

1.1 Purpose of the report

The present report supports the identification and classification of international stakeholders in the value chain that may have an interest in the envisaged development of Integrated Home Renovation Services (IHRS) for Condominium Associations (CAs) in the Netherlands and Flanders and beyond the boundaries of the consortium of the project, as well as in its replication or international upscaling.

It provides a not yet exhaustive overview of the different international stakeholders involved in energy renovations for CAs, their possible roles, responsibilities and constraints regarding the creation, consolidation and scale-up of IHRS for CAs, their interest in the process, and their potential concerns. With this stakeholder analysis, we aim to lay the foundation for the successful implementation and spreading of services for CAs in terms of realising energy-efficient renovations.

This document serves as a concise starter document for the International Advisory Board to identify and map stakeholders at various scales (local/national/international). It also serves as a tool for improving communication, cooperation, and decision-making with relevant stakeholders, and lays a basis for the composition of the International Advisory Board.

1.2 The EU's ambitions on energy-efficient building renovations

The European Commission, under the Green Deal, aims for climate neutrality in Europe by 2050 (Fetting, 2020). To support the achievement of this goal, the Renovation Wave initiative intends to renovate 35 million buildings by 2030 and double the current renovation rate (EASME et al., 2023), considering that currently only 1% of buildings are renovated each year (Tsemekidi Tzeiranaki et al., 2022), and that 75% of the building stock in the European Union is considered energy inefficient (Directive EU, 2018). Legislative vehicles including the Energy Performance of Buildings Directive (EPBD), the Energy Efficiency Directive (EED), and the Renewable Energies Directive (RED) have been overhauled, seeking inter alia to accelerate energy efficient renovation and better integrate renewable energy in buildings. Notably, the introduction of multiple provisions pursuant to One-Stop-Shops for energy efficiency in the EPBD and EED indicates a European-wide willingness to support and mainstream those multifaceted allies of the building sector. Moreover, looking ahead, the European Commission, with its Transition Pathway for Construction, aspires for an even more resilient, green, and digital construction ecosystem.

In line with this ambition, the CondoReno project aims to contribute to the decarbonisation efforts towards a decarbonised and more resource-efficient building stock in Europe by developing IHRS for CAs to support energy-efficient renovations, while also addressing the complexity of renovations in multi-owner buildings. To this end, One-stop-shops (OSS) for energy efficiency are pivotal tools to facilitate renovations, that still require uniformity, funding, and standardised approaches across the EU. In addition to citizens well informed, suppliers, contractors, and technology providers also play a crucial role in driving innovation and providing energy-efficient products and services for renovation projects; their expertise ensures effective renovations and energy performance improvements, contributing to a low-carbon future for the built environment.

1.3 The LIFE-project CondoReno

The LIFE project [CondoReno](#) recognises the need of cooperation to achieve more energy renovations with better energy performance in buildings. From a CAs perspective, the project analyses the steps to take to engage in a renovation project and how stakeholders can contribute at each stage to unburden these CA and facilitate their decision-making. The aim is ultimately to offer exhaustive solutions that can help the CAs from the initiation phase through design and financial planning, to the operational, delivery, and maintenance phases. CondoReno will provide conceptual frameworks and knowledge on how an asset owner (municipality, company, institution, etc.) can develop customised renovation services for CAs through better collaboration. To this end, CondoReno will develop and present six business models for so-called IHRS for CAs in the Netherlands and in Flanders and support their multiplication in other European countries.

The project is supported by ten international partners, coordinated by the Dutch Technical University of Delft (TUD). The Dutch partners are Stichting Woonlastenneutraal Renoveren (WNR), a foundation specialised in offering Housing Cost Neutral Renovations for apartment complexes with a CA board, and Kennisinstituut (KERN), a knowledge institute specialised in practical training and certification for highly energy-efficient renovations. The project is co-sponsored by three Flemish municipalities (Antwerp, Mechelen and Ostend), a specialised energy agency from Paris, Agence Parisienne du Climat (APC), as well as interested construction employers' federations from the supply side, being the European Builders Confederation (EBC) and Embuild from Belgium, as well as property owners' representative from the demand side, being the International Union of Property Owners (UIPI). The project started on 1 October 2022 and will run for four years.

1.4 Project outputs

After the publication of this report (November 2023), the LIFE project provides deliverables and tools that can be consulted by participating stakeholders at an early stage before the end of the project, such as:

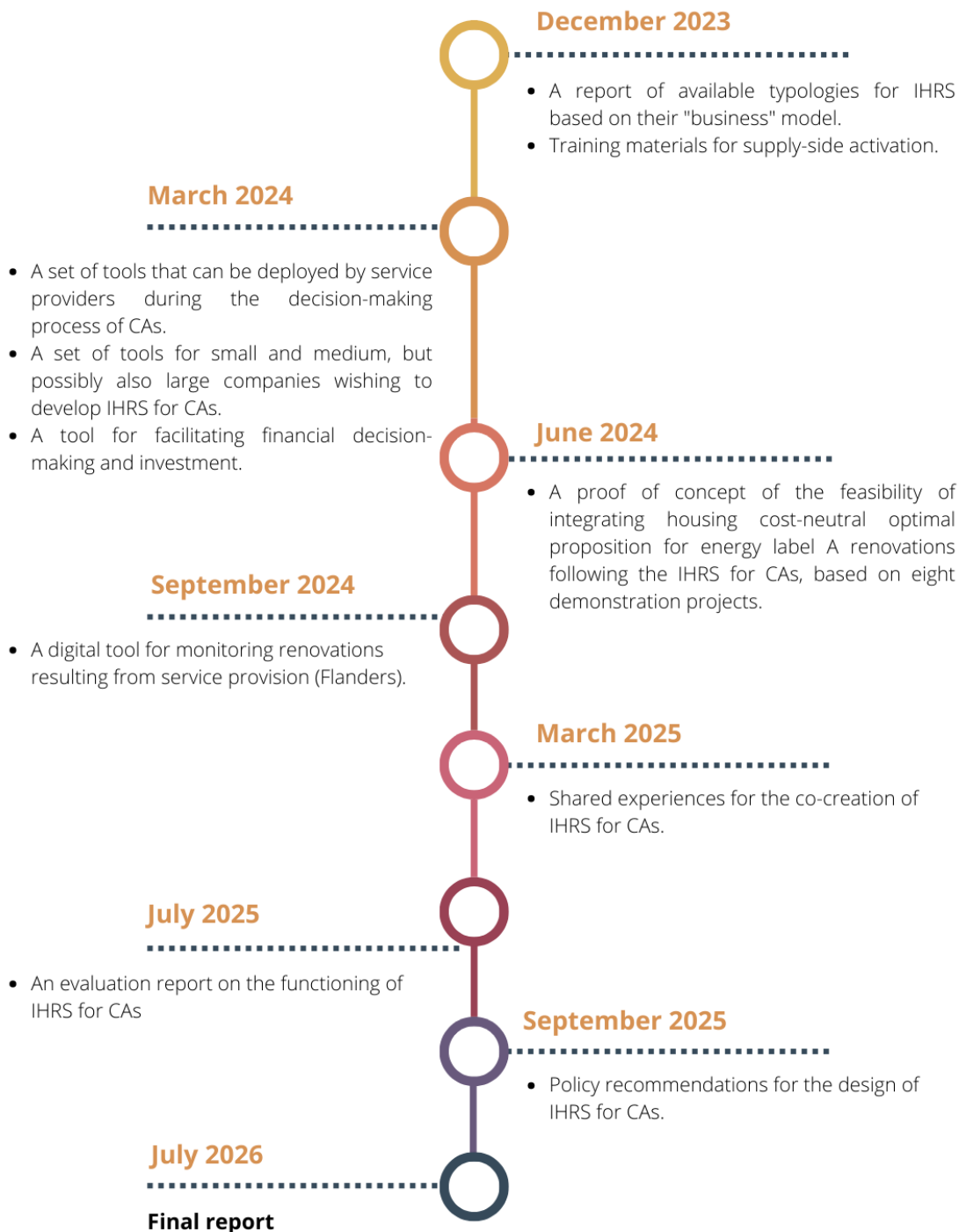


Figure 1: Roadmap of project outputs

1.5 The International Advisory Board

The project envisages that policymakers, actors from the supply and demand-side, but also other relevant stakeholders such as financial bodies can provide guidance to the project through advice and new joint initiatives. The International Advisory Board (IAB) will thus be composed of stakeholders

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who are not directly part of the CondoReno consortium, including European representatives of frontrunners developing IHRS for condominiums, public officials, construction stakeholders (contractors, but also other relevant actors in the IHRS supply chain), financial institutions, and building owners, which together will monitor and give feedback on the findings and developments of the project.

These advisers will voluntarily provide timely advice to steer the production of the outputs to be realised in the context of the project. Advice includes, for example, the development of business models, tools and methods, demonstration projects, local co-creation, national cooperation, financial schemes, and international dissemination. The IAB members will convene three times during the project span upon request from the project partners or the IAB itself, for expert exchanges to deepen thematic fields of activity.

In a nutshell, the IAB of the CondoReno project has special tasks, among which:

- Jointly promoting the development of IHRS for CAs as contributors to the energy efficiency efforts of the EU
- Facilitate the replication of CondoReno results beyond Belgium and the Netherlands
- Support the setting and communication around CondoReno workshops in multiple EU regions, also supporting with the identification of specific cities and regions with potential interest.
- Contribute to the formulation of recommendations for international policy development.
- Potentially seek for joint formal statement to support the scaling-up of IHRS for CAs.

In this content, all members will be asked to sign a consent and intention form, to show their committed approach to encouraging the actions of CondoReno.

2. Stakeholders concerned

2.1 Overview of international stakeholders

Several stakeholders have an interest in developing viable business models for IHRS for CAs (Elgendy et al., 2023). The CondoReno partners have explored the playing field through bilateral discussions and larger workshops. Broadly speaking, a distinction can be made between the demand side, the supply side, the public sector, finance and management, consulting, and intermediaries, as shown in the table below.

Table 1: Overview of international stakeholders interested in IHRS for CAs.

Stakeholders Categories	Description	Main stakeholders
Demand side	This is a collective group of international organizations and entities actively seeking energy-efficient renovations in buildings. They encompass a	<ul style="list-style-type: none">- UIPI (International Union for Property Owners)- ICLEI (Local Governments for Sustainability)- Housing Europe

	<p>wide array of interests, including property owners, local governments, housing associations, regional networks, and global alliances. They play pivotal roles in advocating for, participating in, and driving local and national efforts to meet energy efficiency targets, making a significant impact on the sustainable transformation of buildings and communities across Europe.</p>	<ul style="list-style-type: none"> - EnergyCities - EuroCities - AER (Assembly of European Regions) - Global Covenant of Mayors
<p>Supply side</p>	<p>This diverse group offers a wide range of services and solutions to support energy-efficient building renovations. These stakeholders, including producers, construction companies, energy cooperatives, electricity grid managers, and energy suppliers, play pivotal roles in providing products, expertise, and services essential for improving the energy efficiency of buildings and facilitating sustainable building renovations.</p>	<p>Producers:</p> <ul style="list-style-type: none"> - CPR (Construction Products Europe) - EURIMA (European Insulation Manufacturers Association) - SPE (Solar Power Europe) - EHI (European Heating Industry) <p>Construction companies:</p> <ul style="list-style-type: none"> - EBC (European Builders Confederation) - FIEC (European Construction Industry Federation) - EuropeOn (European Electric Contractors' Association) <p>Energy Cooperatives:</p> <ul style="list-style-type: none"> - REScoop (European Federation of Citizen Energy Cooperatives) <p>Electricity Grid Manager:</p> <ul style="list-style-type: none"> - CEDEC (European Federation of Local Energy Companies) - GEODE (The voice of local energy distributors across Europe) <p>Energy suppliers:</p> <ul style="list-style-type: none"> - Eurelectric - Eurogas - European Biogas Association
<p>Finance and management</p>	<p>This constitutes a diverse group of international organizations and programs actively engaged in the financial and administrative aspects of energy-efficient renovations. These stakeholders are vital in ensuring that the necessary financial resources and</p>	<ul style="list-style-type: none"> - EIB (European Investment Bank, including the - ELENA Program - EBF (European Banking Federation) - Insurance Europe - EFAA (European Federation of Accountants and Auditors for SMEs)

	management expertise are available to facilitate energy-efficient building renovations and achieve the clean energy goals within the condominium associations.	<ul style="list-style-type: none"> - EMF ECBC (European Mortgage Federation-European Covered Bond Council)
Communication and IT intermediaries	This group comprises a diverse array of both private and public entities that serve as essential connectors, facilitating the seamless delivery of services by fostering effective communication among various stakeholders. They play a crucial role in streamlining communication and information exchange, facilitating information sharing and collaboration, and ultimately contributing to the success of energy-efficient building renovation initiatives.	<ul style="list-style-type: none"> - EVBB (European Association of Institutes for Vocational Training) - EFVET (European Forum for Vocational Education & Training) - ETF (European Training Foundation) - CEDEFOP (European Centre for the Development of Vocational Training) - BUILD UP Skills - Built4People Public-Partnership
Public sector	This group represents a collection of government entities and agencies and regulatory bodies with significant influence over the energy renovation sector. These entities play an essential role in shaping the sector through the formulation and implementation of policies and incentives. Their efforts are focused on providing guidance and support to the demand side, often offering advice and subsidies to help stakeholders make informed decisions or launched energy-efficient renovations. Moreover, they actively facilitate connections between the demand and supply sides of the industry.	<ul style="list-style-type: none"> - European Commission DG GROW - European Commission DG ENER - European Commission DG ENV - CINEA - EISMEA - European Parliament ITRE - European Parliament ENVI - Council of the EU (Energy, Housing)
Consulting	This group constitutes a valuable assembly of experts and advisors who offer their specialized knowledge and guidance primarily in the initial	<ul style="list-style-type: none"> - EuroACE (European Alliance of Companies for Energy Efficiency in Buildings) - Renovate Europe Campaign

	<p>stages of the energy-efficient renovation process. Their key role is to assist and advise the demand side, supporting stakeholders as they embark on their journey toward sustainable building renovations, by providing critical insights and advice, and empowering stakeholders to make well-informed decisions and successfully navigate the complexities of energy-efficient building renovations.</p>	<ul style="list-style-type: none"> - REHVA (Federation of European Heating, Ventilation and Air Conditioning Associations) - EFCA (European Federation of Engineering Consultancy Associations)
<p>Research, innovation, and academics</p>	<p>This group is connected to all other stakeholders. Trying to deliver IHRS for the demand side</p>	<ul style="list-style-type: none"> - BPIE (Buildings Performance Institute Europe) - TECNALIA - CSTB (Centre Scientifique et Technique du Bâtiment) - TNO (Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek) - Universities - Nobatek - ECCREDI (The European Council for Construction Research, Development, and Innovation) - ENNBRI (European Network of Building Research and Institutes)

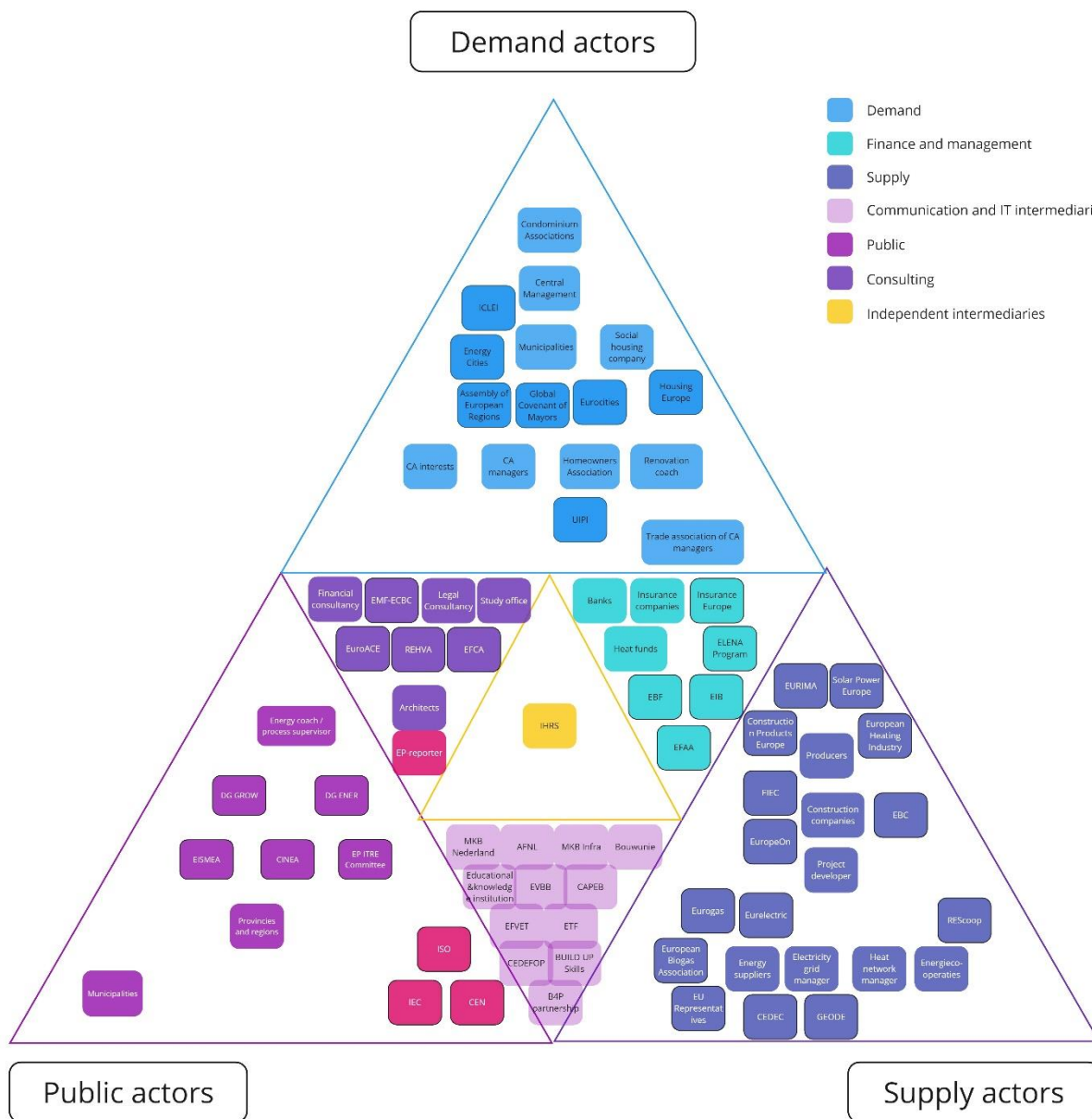


Figure 2: Stakeholder mapping for the development of IHRS for CAs (International mapping)

2.2 International stakeholder engagement

CondoReno's international engagement strategy is multifaceted, and strategically designed to foster interaction, alignment and collaboration that considers the diverse needs of stakeholders. Collaborative partnerships with international entities underscore the project's commitment to aligning efforts in the upscaling of IHRS on a European scale. This deliverable intends to provide a targeted mapping and identification of international stakeholders along the European value chain that are involved in energy-efficient building renovations, with the aim to enhance their engagement.

To effectively communicate CondoReno's objectives and gather insights, a combination of dedicated workshops, thematic webinars, advisory boards meetings, and informative events have been planned throughout the duration of the project. These platforms will serve as dynamic forums to actively involve international stakeholders, showcase project progress, and receive valuable feedback. In fact, the project will seek to actively engage the international stakeholders identified in the workshops that are planned to occur throughout the duration of the project, covering at least five European countries.

The activities foreseen in the project also include active participation in international networks, conferences, seminars, and forums, which will ensure CondoReno's presence in relevant debates for the ambition of improved IHRS for CAs; these activities are integral to the international strategy and upscaling of project outcomes. By engaging with a broad spectrum of stakeholders, CondoReno aims not only to contribute meaningfully to European discussions on energy-efficient building renovations but also to learn from and adapt to international best practices. This approach ensures that the project remains dynamic, responsive, and well-integrated into the evolving landscape of the European sustainability efforts under the Green Deal.

Finally, the project's consultative approach extends to interviews, allowing us to consider diverse perspectives and incorporate more specific feedback, especially by means of the IAB. Actually, policy recommendations are expected to be developed based on the CondoReno experiences, which will be consulted and reviewed by the IAB members. Furthermore, although this document represents the baseline to set up the IAB and the engagement of its members, further details and planned active contributions from IAB members will be added in consequent updates of the international replication and exploitation, as well as the international communication and dissemination plans. Also, information dissemination remains a priority, facilitated through online platforms, newsletters, and social media to keep international stakeholders informed about project developments and milestones.

2.3 Potential roles of stakeholders in the development of IHRS for CAs

Table 2 below summarises the possible roles of stakeholders in the development and upscaling of IHRS. Stakeholders who have submitted a Letter of Intent for cooperation with CondoReno in the recent period are listed here. The information is based on the information in their signed Letter of Intent.

Table 2: Overview of international stakeholders interested in working with CondoReno partners to develop and upscale IHRS for CAs

Stakeholders with already specifically formulated intentions	
Demand-side stakeholders	
Fastighetsägarna (Swedish property owner federation)	Support the development of local activities, such as workshops and interviews with their members; participate in local network meetings; disseminate project results amongst their network of members.
Haus & Grund Deutschland (German property owner federation)	Participate in local network meetings; join the project as an International Advisory Board member; contribute to workshops, platform development, or other initiatives upon request; provide expertise when possible; disseminate project results amongst their network of members.

Supply-side stakeholders (particularly relevant for the possible development of new IHRS service providers for CAs)	
FIEC (European Construction Industry Federation)	Disseminating the project activities and developments on their relevant social media channels, and directly to their member federations across the EU.
EuropeOn (European Electric Contractors' Association)	Stimulate their members to participate in webinars and events; join the project as an International Advisory Board member; participation in Local network meetings; support the organisation of a workshop in one of their members' countries; support the dissemination of the project through their network and channels.
European Insulation Manufacturers Association (EURIMA)	Stimulate their members to participate in webinars and events; join the project as an International Advisory Board member; jointly discuss, coordinate, and implement relevant dissemination and outreach activities; support the dissemination of the project through their network and channels.
European Heating Industry (EHI)	Stimulate their members to participate in webinars and events; join the project as an International Advisory Board member; participate in Local network meetings; support the dissemination of the project through their network and channels.
Eurogas	Support the development of local activities; stimulate our members to participate in webinars and events; join the project as an international Advisory Board member; participate in Local network meetings; support the organisation of a workshop in Belgium; jointly discuss, coordinate and implement relevant dissemination and outreach activities; support the dissemination of the project through our network and channels; create related impact on behalf of our organization, such as creating awareness of the benefits of the project with stakeholders.
Intermediaries (pivotal stakeholders with expertise in connecting supply and demand)	
Federation of European Heating, Ventilation and Air Conditioning Associations (REHVA)	Stimulate their members to participate in webinars and events; support the dissemination of the project through their networks and channels.
European Mortgage Federation - European Covered Bond Council (EMF-ECBC)	Join the project as an International Advisory Board member.

In our concerted efforts to establish collaboration with EU peer projects and initiatives, CondoReno faced challenges in securing commitments from certain international stakeholders. Despite extending invitations and actively seeking Letters of Intent (LoI), representatives from specific entities expressed reluctance to commit to the project at this time, especially from umbrella organizations representing the public sector, as well as from the demand side. Furthermore, other international stakeholders

could not provide an overview of their commitment prior to the deadline of submission of the present Deliverable.

Despite these initial setbacks, project partners remain committed to intensifying the outreach to these international stakeholders, making continued efforts to engage these organizations in meaningful dialogues and collaborations, and recognizing the significance of their contributions to the collective goals of energy-efficient building renovations for CAs.

2.4 Liaison with other EU peer projects and initiatives

CondoReno is committed to fostering a collaborative ecosystem by actively engaging with other EU peer projects and initiatives dedicated to energy-efficient building renovations. These efforts aim to create a synergistic exchange of knowledge, best practices, and innovative solutions, contributing to a collective impact on the challenges that CAs face in the energy-efficient renovation process.

In this sense, EBC, UIPI and other project partners have identified some EU peer projects and initiatives where synergies have been and will be continuously monitored in the future, with the aim to engage in conversations covering OSS and IHRS, therefore contributing to the Renovation Wave initiative. The EU project peers identified are the following:

Table 3: Overview of EU peer projects and initiatives

Project name	Project Acronym	Project coordinator
One Stop Shop, comprehensive service motivating owners towards renovations of their properties	One Stop Shop	CENTRUM PASIVNÍHO DOMU
CONCERTO RENOV, a holistic platform streamlining integrated home renovation services	CONCERTO RENOV	SONERGIA
One Stop Renovation Co-op	OSR-Coop	SNAP! SOLUTIONS
Flemish One-Stop-Shop Towards Energy-efficient Renovation	FOSSTER	VLAAMS ENERGIE- EN KLIMAAGENTSCHAP
Integrated Quality Services for Home Renovation Roadmap	EASIER	AGENZIA TERRITORIALE PER L'ENERGIAE LA SOSTENIBILITA DI PARMA
Local Energy Agencies for Peripheral Regions	LEAP	ATLANTIC TECHNOLOGICAL UNIVERSITY
Solutions and Technologies for deep Energy renovation Processes Uptake	StepUP	INTEGRATED ENVIRONMENTAL SOLUTIONS LIMITED
Plug-and-use renovation with adaptable lightweight systems	PLURAL	ETHNICON METSOVION POLYTECHNION
industrialised durable building envelope retrofitting by all-in-one interconnected technology solutions	INFINITE	ACCADEMIA EUROPEA DI BOLZANO
Promoting & implementing industrialized renovation solutions	BuildUPspeed	HUYGEN INGENIEURS & ADVISEURS

Market uptake and factory development for more affordable Net Zero-Energy renovations through industrialized solution packages	Giga Regio Factory	GREENFLEX
the Retrofitting Market Activation Platform based on the generation of standard modules for energy efficiency and clean energy solutions	re-MODULEES	HUYGEN INGENIEURS & ADVISEURS
One-Stop Shops as Citizens' Hubs to support the decision-making process for integrated renovations	Save the Homes	HUYGEN INGENIEURS & ADVISEURS

At the moment of submission of this Deliverable, CondoReno has already actively participated in workshops and events at EU level, together with some of the above-mentioned projects. These collaborative efforts have proven instrumental in fostering a dynamic exchange of ideas and expertise among CondoReno and its peer projects. Notably, these interactions have laid the foundation for a comprehensive network of international stakeholders actively involved in the shared mission of advancing energy-efficient building renovations within the CAs. As the project progresses, these existing connections are anticipated to deepen, ensuring a robust framework for sustained collaboration and impactful outcomes in the realm of energy-efficient building renovations.

3. Explanations for joint business development

3.1 Considerations regarding stakeholder cooperation for the development of IHRS for CAs

The CondoReno project partners and collaborating stakeholders are actively cooperating in an agile manner to tailor the previously mentioned project outcomes and to attempt to align seamlessly with the requirements of the demand side, supply side, financial sector, and policy sector. Notably, these stakeholders are jointly exploring opportunities to mutually strengthen their vision and network, as well as their roles in streamlining housing renovation services for CAs. They are also engaged in discussions about the long-term sustainability of IHRSs as a tool to boost energy efficiency efforts.

Indicatively, project partners at the European level UIPI and EBC have had an established cooperation regarding the development of OSSs for energy efficiency, notably through a common position paper issued in February 2021 (link to go in References: <https://www.ebc-construction.eu/wp-content/uploads/UIPI-EBC-Position-on-One-Stop-Shops.pdf>). The collaboration has been further developed with additional public joint advocacy through policy debates and awareness-raising public events in the course of the ongoing European legislature. This cooperation could take the form of further agreements going forward and the common pursuit of a more adapted and fertile European regulatory and funding framework for the roll-out, operation and long-term functioning and support of OSSs.

Any additional concerns or potential agreements are typically addressed during the International Advisory Board meetings or through one-on-one discussions with the relevant IAB members and the CondoReno project coordinator and partners. Furthermore, the committed external stakeholders, when their interest aligns with the project's objectives, may be invited to contribute their expertise and resources to specific working groups and targeted initiatives.

The cooperation between the CondoReno partners and other stakeholders will be formalised by completing a Letter of Intent. With this, the stakeholders commit to assist the CondoReno project in the implementation and success of the project, in particular advising on the project activities or participating in them, monitoring the project progress, valorising the results, and/or creating, consolidating, and disseminating the uptake of IHRS for CAs internationally.

3.2 Development of competences

By actively engaging with various partners and bringing in knowledge and expertise, the members of the international and national advisory boards can pioneer and foster the development of financially viable and self-reliant business models for IHRS for CAs. These joint efforts will contribute not only to better energy performance after renovation, but also to more renovations in line with European and national policy expectations, in the context of the Renovation wave and decarbonisation ambitions of the EU.

With the insights and results provided, European industry associations will be encouraged to further actively involve their national members in the development of new services and cooperation models. Also, a strong collaboration is solidified between the demand side, the supply side, financial bodies, and policymakers.

3.3 Stakeholder promotion

The signatories of a Letter of Intent acknowledge that their institution or company will be listed as a “supporter” of the CondoReno project. This is done by mentioning the name and logo of the institution or company on the project [website \(https://condoreno.org\)](https://condoreno.org/), and by publishing this document on the same website.

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