KNOW HOW HP

D1.1

Dedicated project page on the beneficiaries' websites

PU - Public Report

Co-funded by the European Union

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All project partners with the setup of the webpages

Document details

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Version	Date	Comments	Authors
1.0	30/04/2025		Tobias Hatt
1.1	30/09/2025	New Webpage THRo	Tobias Hatt

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Project information

Title: Upskilling for boosting heat pump installation in refurbishments

Project Number: 101166831

Duration: November 2024 until November 2027 (36 months)

Coordinator

Energieinstitut Vorarlberg

Project partner

Rosenheim Technical University of Applied Sciences

universität innsbruck

eza! Energie- und Umweltzentrum Allgäu

RENOWAVE.AT

Fraunhofer ITALIA

KlimaHaus CasaClima®

About the project

The objective of the three-year project KnowHowHP is to upskill installers and professionals with an integral planning process to increase the use of heat pumps (HP) in existing multi-story buildings. HP is increasingly used in single-family homes rather than in existing apartment buildings.

Increased use of HP in this field helps to fulfil the EU's climate and energy goals and the European Green Deal. The training and qualification of planners and installers are crucial to ensure that HP and refurbishment concepts are optimally aligned; otherwise, these refurbishments and the transition to HP are just not realised with the argument that it is not feasible.

The special KnowHowHP training and upskilling consists of a knowledge-based software-supported process. That means planners, energy consultants, and installers get upskilled with an integral planning and implementation process for climate-friendly and socially acceptable refurbishments of multi-family houses with HP.

Such planning offers the following advantages: better quality, simpler, faster, more robust planning, better planning documents, more planning reliability (lower risk, error prevention) and better scalability (higher renovation rate). The basis for these planning instruments is the latest research results deducted from various projects and through in-depth investigation. The project consortium consists of three scientific and four knowledge dissemination partners, all with many years of experience in training courses.

In this composition, the existing training offers and planning processes are first analysed (WP2), and then the new KnowHowHP training and digital toolbox are developed (WP3+4). The dissemination partners will then pass this knowledge to the target groups of installers and professionals (WP5). At the same time, strong communication with all stakeholders involved, including the owners of the buildings, will be ensured to disseminate the content beyond the project area and duration.

CONTENT

1. General description of the deliverable

The aim of this deliverable is for each partner to have a website for the KnowHowHP project. Interested parties can use this website to get initial information and find contacts. EU funding through the Life programme is also indicated. Detailed and updated information can be found on the KnowHowHP website. The general project website for KnowHowHP is currently under development and will serve as the central platform for project communication and dissemination. Once completed, a direct link to the project website will be integrated into the websites of all project partners to ensure maximum visibility and easy access to information for stakeholders and the public. This coordinated approach guarantees a consistent and professional online presence across the consortium.

The language of the partner website depends very much on the target audience. For the regional agencies, it is the language of the regional target audience, for the scientific partners it is English and the regional language. In South Tyrol, the regional language of the partners FHI and Klim is Italian and German.

Deliverable D1.1 – Dedicated project page on the beneficiaries' websites

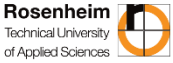
Deliverable Number	D1.1	**Lead Beneficiary**	1 - EIV
Deliverable Name	Dedicated project page on the beneficiaries' websites		
Type	DEC —Websites, patent filings, videos, etc	**Dissemination Level**	PU - Public
Due Date (month)	6	**Work Package No**	WP1

Description
Project page created on the partners' websites. Digital, German with a summary of the main points in English.

In order to standardise the content and speed up the process, our communication partner RENO provides the partners with material. This material consists of logos and graphics on the one hand and text modules on the other.

EU-Life logo and the KnowHowHP logo

Logo of the partners

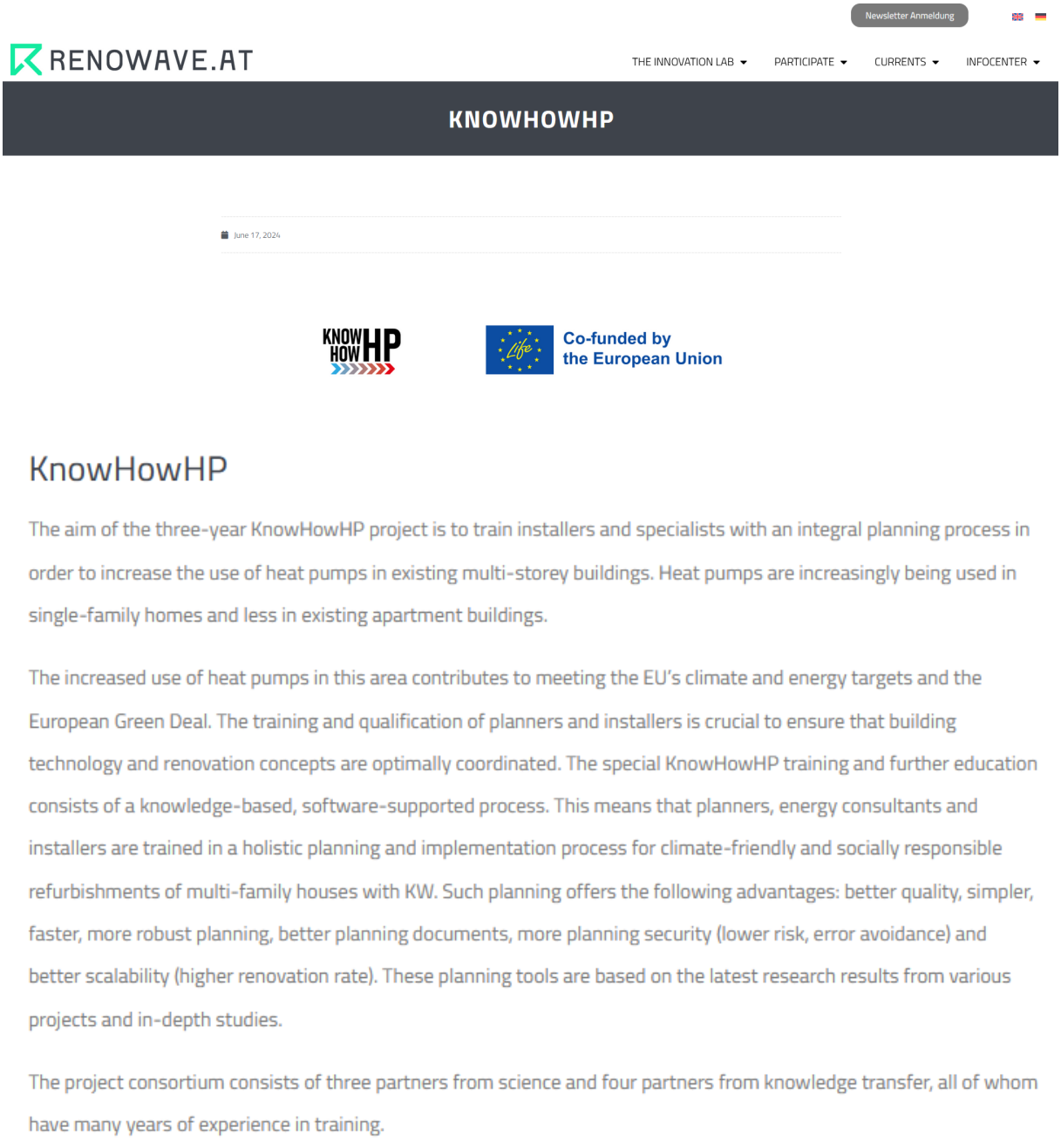


2. Partner webpages

2.1. RENOWAVE.AT

The webpage is in German and English. The screenshot in this document are from the English version.

https://www.renowave.at/en/knowhowhp/



Program / Call for Proposals:	LIFE-2023-CET- HEATPUMPS (LIFE Clean Energy Transition)
Type of project:	–
Project Duration:	01.11.2024 – 01.11.2027
Project Management:	Energieinstitut Vorarlberg Verein
Project Contact	Jens Leibold jens.leibold@renowave.at; Mobil: +43 664 1479427
Project partners:	• TECHNISCHE HOCHSCHULE ROSENHEIM • UNIVERSITÄT INNSBRUCK • eza! ENERGIE & UMWELTZENTRUM ALLGÄU • RENOWAVE.AT • FRAUNHOFER ITALIA • KLIMAHAUS CASACLIMA

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LINKEDIN

2.2. Energieinstitut Vorarlberg

The webpage is in German only, because the target group as a regional energy agency is in the region of Vorarlberg and German speaking. The screenshots reflect only a part of the webpage. With the following link, it is possible to go more in detail.

https://www.energieinstitut.at/forschung-und-projekte/knowhowhp

KnowHowHP

Im Projekt KnowHowHP soll das in den Forschungs- und Technologieeinrichtungen vorhandene Wissen durch Aus- und Weiterbildung in Form eines innovativen wissensbasierten und Software-unterstützten integralen Planungsprozesses an alle relevanten Stakeholder (von Planer*innen bis zu Installateur*innen) transferiert werden.

Kofinanziert von der Europäischen Union

Ziel

Im dreijährigen Projekt KnowHowHP (Know-how heat pump) wird Energieberater*innen, Planenden und Installateur*innen ein integraler Planungs- und Umsetzungsprozess vermittelt, in dem Wärmepumpen und Sanierungskonzepte optimal aufeinander abgestimmt werden. Ziel des Schulungs- und Weiterbildungsprogramms ist es, den Umstieg auf Wärmepumpen in bestehenden Mehrfamilienhäusern zu erleichtern und die Rate von energetischen Sanierungen zu erhöhen. Das Projekt versteht sich nicht als Maßnahme gegen den Fachkräftemangel in der Branche, sondern konzentriert sich auf die Qualifizierung der vorhandenen Fachkräfte.

Projektpartner

- Gesamtleitung: Energieinstitut Vorarlberg (A)
- Wissenschaftspartner: Universität Innsbruck (A) | Technische Hochschule Rosenheim (D) | Fraunhofer Italia (I)
- Wissensverbreitung: Renowave.at (A) | eza! Energie- und Umweltzentrum Allgäu (D) | Klimahaus Casaclima (I)

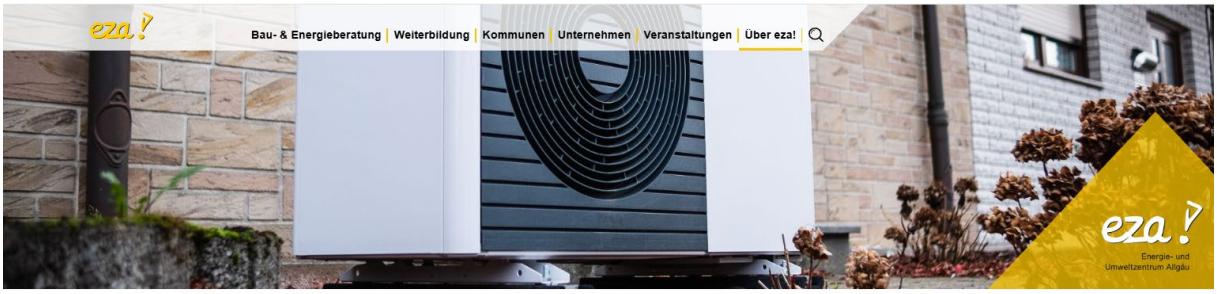
Projektdetails

- Projekt: KnowHowHP – Upskilling for boosting heat pump installation in refurbishments
- Projektleitung: Tobias Hatt, Energieinstitut Vorarlberg
- Projektzeitraum: 01.11.2024 bis 31.10.2027
- Projektreferenz: Project 101166831 – LIFE23-CET-KnowHowHP

2.3. eza!

The webpage is in German only, because the target group as a regional energy agency is in the region of Allgäu and German speaking.

https://www.eza-allgaeu.de/ueber-eza/projekte/knowhowhp/



KnowHowHP

Co-funded by the European Union

PROJEKTZIEL

Im dreijährigen Projekt KnowHowHP (Know-how Heat Pump) wird Energieberater*innen, Planenden und Installateur*innen ein integraler Planungs- und Umsetzungsprozess vermittelt, in dem Wärmepumpen und Sanierungskonzepte optimal aufeinander abgestimmt werden. Ziel des Schulungs- und Weiterbildungsprogramms ist es, den Umstieg auf Wärmepumpen in bestehenden Mehrfamilienhäusern zu erleichtern und die Rate von energetischen Sanierungen zu erhöhen. Das Projekt versteht sich nicht als Maßnahme gegen den Fachkräftemangel in der Branche, sondern konzentriert sich auf die Qualifizierung der vorhandenen Fachkräfte.

PROJEKTINHALT

Während im Bereich Neubau, besonders bei Einfamilienhäusern, der Einsatz von Wärmepumpen bereits weit verbreitet ist und den Stand der Technik darstellt, ist dies bei Sanierungen, speziell bei Geschosswohnbauten und anderen Gebäuden wie Bürogebäuden, noch nicht der Fall. Wärmepumpen werden für den mehrgeschossigen Bestand häufig nicht empfohlen. Grund dafür ist der Mangel an Fachwissen, wie sie sinnvoll in ein ganzheitliches Umbaukonzept integriert werden können. Das Zusammenspiel von Gebäudehülle, erneuerbarer Energie und Wärmepumpe erfordert einen integrativen Ansatz. Oft wird dieser zugunsten leicht erklärbarer und erprobter Konzepte (z.B. Hackschnitzelheizungen, Infrarotheizungen) vorschnell aufgegeben.

Dabei wurde in mehreren Forschungs- und Pilotprojekten durch Messergebnisse belegt, dass sozialverträgliche, klimafreundliche Sanierungen von Geschosswohnbauten mit Wärmepumpen möglich sind. Bei den gelungenen Leuchtturmprojekten zeichnet sich als erste Gemeinsamkeit ab, dass dort vor allem ein integraler Planungsprozess mit Einsatz digitaler Planungsinstrumente zum Erfolg führte. So eine hochwertige wissensbasierte und Software-unterstützte Planung bietet folgende Vorteile:

- bessere Qualität (bessere und günstigere Lösungen)
- einfachere, schnellere, robustere (Vor-)Planung
- bessere Planungsunterlagen, schnellere und einfachere Umsetzung -> höhere Umsetzungsrate
- bessere Planungssicherheit -> geringeres Risiko, Fehlervermeidung, weniger Nacharbeit, höhere Umsetzungsrate
- bessere Replizierbarkeit/Skalierbarkeit -> höhere Umsetzungsrate

Durch die Aus- und Weiterbildung der beratend, planend und ausführenden Beteiligten soll gewährleistet werden, dass die Kunden immer das ideale Ergebnis bekommen, egal, ob sie sich wegen des Einbaus einer Wärmepumpe zuerst an den Installateurbetrieb wendet oder wegen einer thermischen Sanierung an eine Energieberater:in oder Architekt*in. Da die Zielgruppen der Energieberater*innen, Planer*innen und Installateur*innen bei Sanierungsprojekten unterschiedliche Themenfelder und Tiefen bearbeiten, benötigen sie auch unterschiedlich aufbereitetes Schulungsmaterial. Deshalb verfolgt das Projekt einen Ansatz, der auf drei Säulen beruht. Der Planungsprozess und das Schulungsmaterial werden zielgruppenspezifisch angepasst. So wird die Haustechnikplanerin beispielsweise in der Handhabung und Anwendung der entwickelten Toolbox geschult, während der Energieberater eher für die Pre-design Phase ausgebildet wird.

Das angestrebte Resultat des dreijährigen Projektes ist ein breiter Einsatz von Wärmepumpen im mehrgeschossigen Bestand und eine Steigerung von hochwertigen thermischen Sanierungen. Die im Projekt erarbeiteten Schulungsunterlagen eines wissensbasierten und Software-unterstützten integralen Planungs- und Umsetzungsprozesses für klimafreundliche und sozialverträgliche Sanierungen von Geschosswohnbauten mit Wärmepumpen sind in der Aus- und Weiterbildung von Planenden, Energieberater*innen und Installateur*innen im Einsatz.

PROJEKTDETAILS

Projekt: KnowHowHP – Upskilling for boosting heat pump installation in refurbishments

Projektleitung: Tobias Hatt, Energieinstitut Vorarlberg

Projektzeitraum: 01.11.2024 bis 31.10.2027

Projektreferenz: Project 101166831 — LIFE23-CET-KnowHowHP

Dieses Projekt wird durch das LIFE-Programm der Europäischen Union unter der Fördernummer 101166831 — LIFE23-CET-KnowHowHP finanziert.

Projektwebsite: Noch im Aufbau

KONTAKT

Ansprechpartnerin bei eza! ist Isabel Wendl: ▶ **wendl(at)eza-allgaeu.de**, 0831-960286-40

Weitere Projektmitarbeitende bei eza! sind: Eva Knab, Martin Sambale, Andre Butz

PROJEKTPARTNER

- **Energieinstitut Vorarlberg** (Projektleitung)
- **Technische Hochschule Rosenheim**
- **Universität Innsbruck**
- **Energie- und Umweltzentrum Allgäu**
- **Renowave.at**
- **Fraunhofer Italia**
- **Klimahaus Casaclima**

2.4. University Innsbruck

The webpage is in German and English. The screenshot in this document are from the English version.

https://www.uibk.ac.at/en/energy-efficient-building/research/projects/knowhowhp/

Summary of the project

The aim of the three-year KnowHowHP project is to train installers and professionals with a holistic planning process to increase the use of heat pumps (HPs) in existing multi-storey buildings. Heat pumps are increasingly being used in single-family homes, but hardly ever in existing apartment blocks. The increased use of HPs in this area contributes to achieving the EU's climate and energy targets and the European Green Deal. The training and qualification of planners and installers is crucial to ensure optimal coordination of HP and refurbishment concepts; otherwise, these modernisations and the transition to HP will simply not be implemented, with the argument that it is not feasible.

The special KnowHowHP training and further education consists of a knowledge-based, software-supported process. This means that planners, energy consultants and installers are qualified through a holistic planning and implementation process for the climate-friendly and socially acceptable refurbishment of apartment blocks with HP. Such planning offers the following advantages: better quality, simpler, faster, more robust planning, better planning documents, more planning security (lower risk, error avoidance) and better scalability (higher refurbishment rate). These planning tools are based on current research results from various projects and fundamental investigations.

The project consortium consists of three scientific and four knowledge transfer partners, all of whom have many years of experience in training programmes. In this composition, the existing training courses and planning processes will first be analysed and then the new KnowHowHP training course and the digital toolbox will be developed. The dissemination partners will then pass this knowledge on to the target groups of installers and professionals. At the same time, strong communication with all stakeholders involved, including building owners, will be ensured in order to disseminate the content beyond the project scope and duration.

2.5. Technical University of applied sciences Rosenheim

The webpage is in German and English. The screenshot in this document are from the English version.

https://projekte.th-rosenheim.de/de/forschungsprojekt/1295-life23-cet-knowhowhp

Technische Hochschule Rosenheim

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RESEARCH PROJECTS

KnowHowHP - Upskilling for boosting heat pump installation in refurbishments

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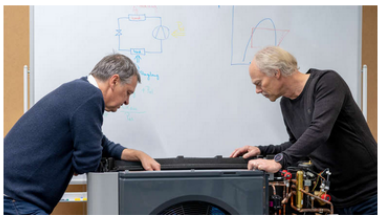

The three-year KnowHowHP (Know-how Heat Pump) project teaches an integral planning process in which heat pumps and renovation concepts are optimally coordinated.

Project background

While the use of heat pumps is already widespread and represents the state of the art in new builds, particularly for single-family homes, this is not yet the case for refurbishments, especially for multi-storey residential buildings and other buildings such as office buildings. Heat pumps are often not recommended for multi-storey buildings. The reason for this is the lack of specialist knowledge on how they can be sensibly integrated into a holistic renovation concept. The interaction between the building envelope, renewable energy and heat pumps requires an integrated approach. This is often hastily abandoned in favor of easily explained and proven concepts (e.g. wood chip heating, infrared heating).

However, several research and pilot projects have proven through measurement results that socially acceptable, climate-friendly renovations of multi-storey residential buildings with heat pumps are possible. The first common feature of the successful lighthouse projects is that an integrated planning process with the use of digital planning tools led to success. Such high-quality, knowledge-based and software-supported planning offers the following advantages:

better quality (better and cheaper solutions)Simpler, faster, more robust (preliminary) planning
- better planning documents, faster and simpler implementation -> higher implementation rate
- better planning reliability -> lower risk, error avoidance, less rework, higher implementation rate
- better replicability/scalability -> higher implementation rate

Project lead

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Project duration

2024-11-01 - 2027-10-31

Project partners

Energieinstitut Vorarlberg
Fraunhofer Italia
Renowave
Energie- und Umweltzentrum Allgäu gemeinnützige GmbH
Agentur für Energie Südtirol - Klimahaus
Universität Innsbruck

Project funding

Europäische Union

The training and further education of those involved in consulting, planning and implementation should ensure that customers always get the ideal result, regardless of whether they first turn to the installation company for the installation of a heat pump or to an energy consultant or architect for a thermal refurbishment. Since the target groups of energy consultants, planners and installers deal with different topics and depths in renovation projects, they also require differently prepared training material. The project therefore follows a three-pillar approach. The planning process and the training material are adapted to the specific target group. For example, the building services planner is trained in the handling and application of the developed toolbox, while the energy consultant is trained more for the pre-design phase.

The intended result of the three-year project is the widespread use of heat pumps in multi-storey buildings and an increase in high-quality thermal renovations. The training documents developed in the project for a knowledge-based and software-supported integral planning and implementation process for climate-friendly and socially acceptable renovations of multi-storey residential buildings with heat pumps are used in the training and further education of planners, energy consultants and installers.

Project objective

In the three-year KnowHowHP (Know-how Heat Pump) project, energy consultants, planners and installers are taught an integral planning and implementation process in which heat pumps and renovation concepts are optimally coordinated.

The aim of the training and further education program is to facilitate the switch to heat pumps in existing apartment buildings and increase the rate of energy-efficient renovations. The project is not intended as a measure against the shortage of skilled workers in the industry, but rather focuses on training existing skilled workers.

Project procedure

The project is structured in several stages. Following an analysis of existing training programs and training content, target group-specific training material will be developed. This training material will be communicated in the form of training courses, tools and course offerings and after the project period.

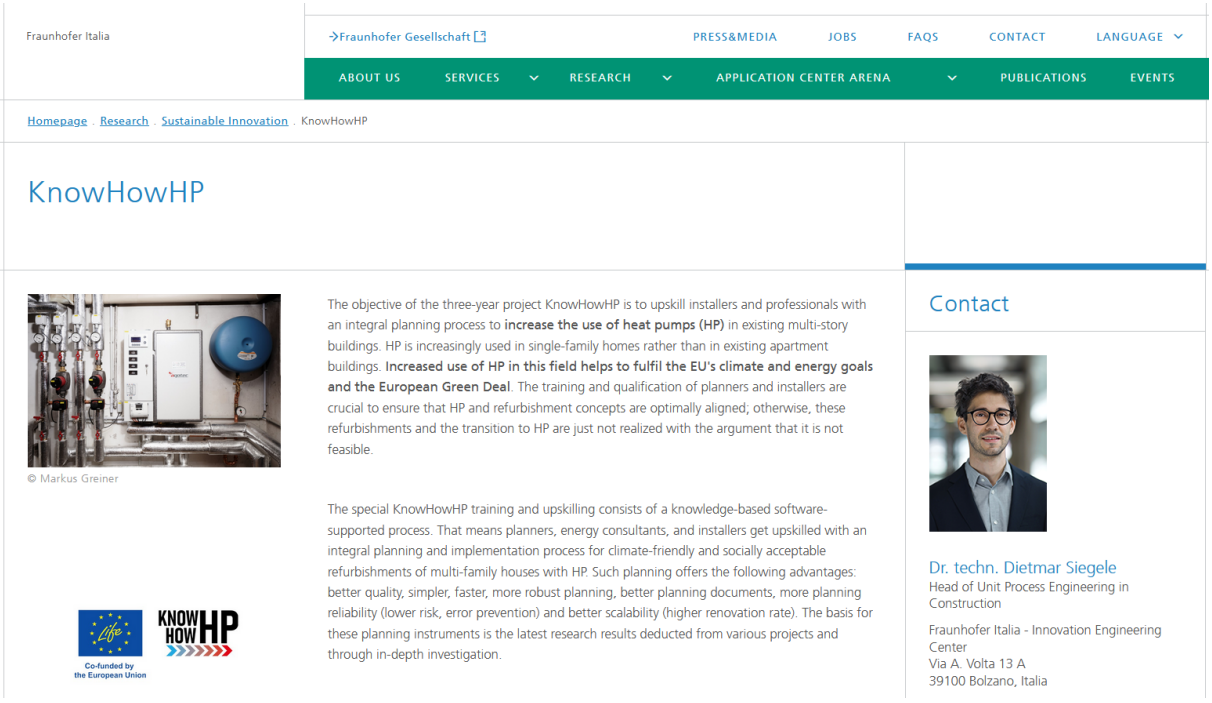
Innovation

The project is not intended as a measure to combat the shortage of skilled workers in the industry, but rather focuses on training existing specialists. The aim of the training and further education program is to facilitate the switch to heat pumps in existing apartment buildings and increase the rate of energy-efficient renovations.

2.6. Fraunhofer Italia Research

The webpage is in German, Italian and English. The screenshot in this document are from the English version.

https://www.fraunhofer.it/en/Research/sustainable-innovation/KnowHowHP.html



The project consortium consists of three scientific and four knowledge dissemination partners, all with many years of experience in training courses. In this composition, the existing training offers and planning processes are first analyzed, and then the new KnowHowHP training and digital toolbox are developed. The dissemination partners will then pass this knowledge to the target groups of installers and professionals. At the same time, strong communication with all stakeholders involved, including the owners of the buildings, will be ensured to disseminate the content beyond the project area and duration.

Project details

Name: KnowHowHP

Funding: LIFE-2023-CET- HEATPUMPS (LIFE Clean Energy Transition)

Budget: €1,282,314.76 (total), €133.000 (Fraunhofer Italia)

Project Coordinator: Energy Institute Vorarlberg

Project Partners: Innsbruck University, Renowave.at, CasaClima, EZA!, Hochschule Rosenheim

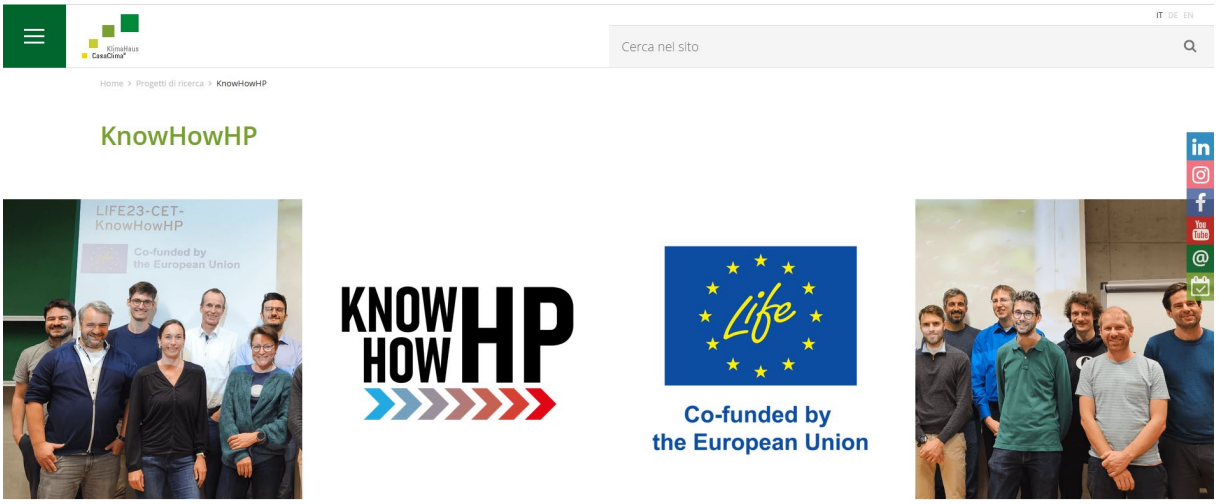
Duration: 1.11.2024 - 31.10.2027

101166831 — LIFE23-CET-KnowHowHP is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor CINEA can be held responsible for them.

2.7. Agenzia CasaClima

The webpage is in German and Italian, because the target group as a regional energy agency is in the region of south Tyrol with German and Italian speaking installers and planers.

https://www.agenziacasaclima.it/it/progetti-di-ricerca/knowhowhp-2427.html



Upskilling for boosting heat pump installation in refurbishments

Mentre le pompe di calore sono già diffuse o allo stato dell'arte nelle nuove costruzioni, in particolare nelle case unifamiliari, non è ancora così nelle ristrutturazioni, soprattutto negli edifici residenziali a più piani e in altri edifici come i palazzi di uffici. Spesso le pompe di calore non sono consigliate per gli edifici a più piani. Il motivo è la mancanza di competenze su come possono essere integrate in modo sensato in un concetto di ristrutturazione integrale. L'interazione tra involucro dell'edificio, energie rinnovabili e pompa di calore richiede un approccio comprensivo. Spesso questo approccio viene frettolosamente scartato a favore di concetti facilmente spiegabili e collaudati (ad esempio, sistemi a cippato, riscaldamento a infrarossi). Tuttavia, diverse ricerche e progetti pilota hanno dimostrato, attraverso i risultati del monitoraggio, che le ristrutturazioni socialmente accettabili e rispettose per il clima di edifici residenziali a più piani con pompe di calore siano possibili. Un processo di progettazione integrativa e supportata da software ha portato al successo di questi progetti di punta.

Si possono riassumere i seguenti vantaggi:

- migliore qualità (soluzioni migliori e più favorevoli)
- progettazione (pre-progetto) più semplice, più rapida e più solida
- migliori documenti di progettazione, realizzazione più rapida e semplice -> quota di realizzazione più elevata
- migliore affidabilità della progettazione -> riduzione dei rischi, prevenzione degli errori, riduzione delle rielaborazioni, aumento della quota di realizzazione
- migliore replicabilità/scalabilità -> quota più alta di realizzazione

La formazione di coloro che sono coinvolti nella consulenza, nella progettazione e nella esecuzione dovrebbe garantire che i clienti ottengano sempre il miglior risultato possibile, indipendentemente dal fatto che si rivolgano prima alla ditta di installazione per la pompa di calore o a un consulente energetico per il risanamento energetico. Poiché i gruppi target dei consulenti energetici, dei progettisti e degli installatori nei progetti di ristrutturazione coprono aree diverse e richiedono competenze diverse, necessitano anche di materiale formativo differenziato. Il progetto segue quindi un approccio a tre pilastri. Il processo di progettazione e il materiale formativo sono personalizzati per gruppi target specifici. Ad esempio, gli installatori vengono formati nell'uso della tool box sviluppata, mentre i consulenti energetici vengono formati maggiormente per la fase di progettazione.

Il risultato atteso del progetto triennale è la diffusione dell'uso delle pompe di calore negli edifici plurifamiliari e l'aumento dei risanamenti energetici.

I documenti didattici sviluppati nell'ambito del progetto per una progettazione e realizzazione integrale, basato sulla conoscenza e supportato da un software, per il risanamento di edifici residenziali a più piani con pompe di calore, sostenibili sia per il clima che socialmente, verranno utilizzati per la formazione di progettisti, consulenti energetici e installatori.

Gestione del progetto:
ENERGIEINSTITUT VORARLBERG

Partner del Progetto:
TECHNISCHE HOCHSCHULE ROSENHEIM
UNIVERSITÄT INNSBRUCK
eza! ENERGIE & UMWELTZENTRUM ALLGÄU
RENOWAVE.AT
FRAUNHOFER ITALIA
KLIMAHAUS CASACLIMA

Dettagli del progetto:
Management: Tobias Hatt, Energieinstitut Vorarlberg
Durata: 01.11.2024 bis 31.10.2027
Referenz: Project 101166831 — LIFE23-CET-KnowHowHP
Il progetto è completamente finanziato dall'Unione Europea.

Mirko Zancarli e Astrid Schartmüller sono a disposizione per fornire maggiori informazioni.