ISSN 2599-8293

European Commission

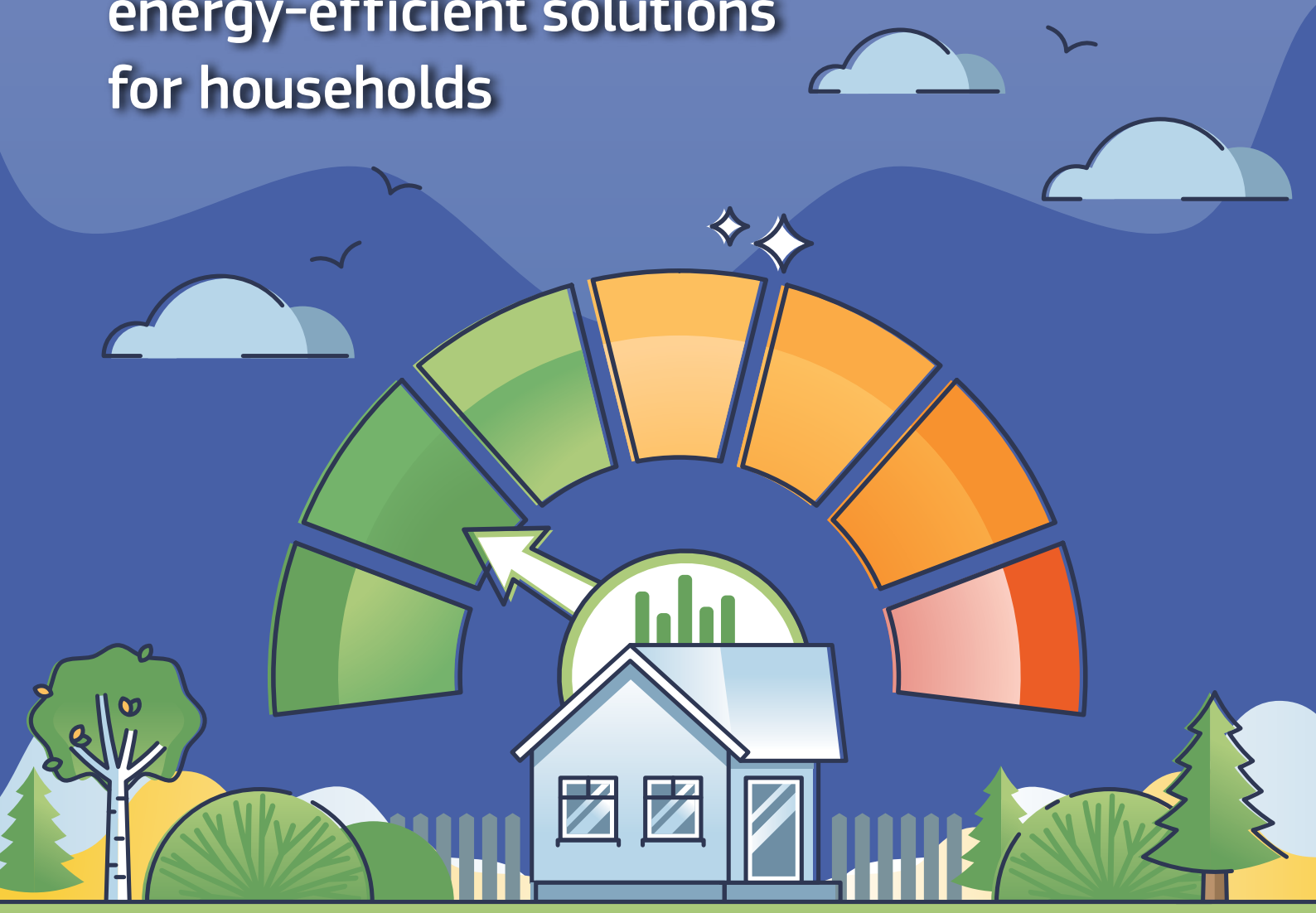
CORDIS Results Pack on

reducing energy bills

A thematic collection of innovative EU-funded research results

May 2023

Promoting clean and energy-efficient solutions for households



Research and Innovation

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Editorial

The rising cost of fuel and electricity has led to an increase in energy bills for households. EU-funded projects have addressed this challenge by exploring how consumers can reduce energy bills and tackle energy poverty.

The Clean energy for all Europeans package and the European Green Deal place consumers at the centre of EU's energy policy, calling to inform, involve and support them to take an active part in the clean energy transition, while addressing the risk of energy poverty.

Buildings are responsible for about 40 % of the EU's total energy consumption, and heating and cooling is responsible for 80 % of energy use in residential buildings. Amid the global energy market disruption caused by Russia's invasion of Ukraine in 2022, the need to save energy, also in households, is more urgent than ever. The European Commission's REPowerEU Plan, later reinforced by the "Save gas for a safe winter" plan, stressed the importance of reducing households' energy consumption. Both initiatives present opportunities for households to save energy and cut high energy bills, while urging all Member States to launch awareness campaigns and implement the "EU Save Energy" communication, which contains options for short-term energy savings.

Support for households

The Horizon 2020 Energy Efficiency programme (2014-2020) and its successor, the LIFE Clean Energy Transition programme (2021-2027), provide funding for a wide range of activities towards an energy-efficient, renewable energy-based, climate-neutral and resilient economy. This Results Pack on Reducing Energy Bills highlights eight EU-funded projects that help citizens lower their energy consumption and their bills by shifting to more efficient and sustainable choices. These include replacing old and inefficient appliances with more efficient ones, getting involved in collective purchase schemes and community energy actions, and supporting vulnerable households challenged by energy poverty.

Consumers, however, are not the only focus. Replacing outdated heating and cooling appliances with more efficient and greener alternatives will significantly reduce energy consumption, CO_2 emissions and consumer expenses. For this reason, the projects also engage on one hand with appliance manufacturers and retailers, to help them comply with EU energy labelling rules, and on the other with installers to ensure they are aware of the most efficient and sustainable options and can correctly convey this information to their customers.

Eight EU-funded projects contributing to lower energy bills

The REPLACE project offers residents tools to identify more efficient, renewables-based alternatives for upgrading their old heating systems. While energy labels enable consumers to understand how energy-efficient a new appliance is, labels and tools developed by the HARP project show how energy-inefficient their current space or water heater is. The HACKS project, meanwhile, seeks to transform the heating and cooling appliances market by streamlining searches for the most energy-efficient products, compiling easily accessible information for further comparisons.

Rescaled EU energy labels are expected to bring about further energy savings at home. New interactive tools developed by the LABEL 2020 project provide guidance to manufacturers, retailers and consumers on the newly rescaled A-G energy efficiency scale. The BELT project helped consumers identify the most energy efficient household products in order to cut their energy bills and reduce their carbon footprint.

Consumers hold the key to the EU's energy transition, so making efforts to increase consumer support is more important than ever. The CLEAR X project helps consumers improve the energy performance and comfort of their homes, benefitting from collective purchases of renewable and energy-efficient technology.

Heat pumps save energy and money and reduce emissions. Nearly 17 million heat pumps were installed in Europe by the end of 2021 because of the growing demand for energy-efficient technologies and the increasing awareness about environmental issues. The EU-funded HP4All project is working to improve consumers' knowledge of heat pumps so that they can invest wisely in them.

And those consumers in need of advice can turn to the SUITE project's network of Home Energy Advisors, which was established to help the most vulnerable households tackle energy poverty.

Europeans are replacing inefficient residential heating systems

Online tools integrating residence-specific heating system details with region-specific climate-friendly options are helping consumers make the switch.

Heating and cooling account for about half of the EU's total energy consumption. Approximately 80 % of the total energy use in residential buildings is for heating, cooling and domestic hot water and two thirds of this energy are supplied by ageing, inefficient, fossil-fuel-reliant systems.

The EU-funded REPLACE project set out to encourage and support people to replace their old heating systems with more environmentally friendly alternatives. Targeting residential space and domestic hot water heating, the project developed free tools and implemented activities on the local level, all tailored to the specific needs of residents in each target region in eight countries.

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Decision-making simplified: tools assist heating system replacement

Independent, high-quality information about heating systems and their potential replacements is often not easily accessible to consumers, installers/consultants, local authorities and investors. REPLACE has addressed this crucial barrier by enhancing proven and widely used Austrian tools and making them freely available in multiple languages.

"The REPLACE Heating Matrices rank renewable energy heating systems for various building types in a region. In most cases, the tool identifies one or two renewables-based heating solutions well positioned to replace an existing system," explains Herbert Tretter of the Austrian Energy Agency (website in German) and project coordinator.

In the next step, households can use the Replace Your Heating System Calculator to assess the economics of climate friendly heating replacement options over their operating lives.

"In the next step, households can use the Replace Your Heating System Calculator to assess the economics of climate friendly heating replacement options over their operating lives," adds Altan Sahin, also of the Austrian Energy Agency and project co-coordinator. Results integrate user input including dwelling-specific details and integrate it with locally available and envisaged energy supply options. The calculator helps consumers make decisions based on residence-specific and region-specific data: investment, maintenance and fuel costs; cost savings relative to their current system; and CO_2 emissions.

The REPLACE renewable heating and cooling replacement handbooks guide consumers through steps to take before and during replacement, help

installers become well-informed facilitators, and present investors with innovative business models and model contracts. REPLACE best practice examples highlight a variety of realised approaches from each of the eight countries.

Putting the heating system replacement campaign into action

Among the many project successes achieved in boiler replacement campaigns in nine pilot regions, a joint heat pump purchase action in Slovenia replaced nearly three times as many residential oil and gas boilers as initially envisioned, and Slovenia is now using the REPLACE calculator as an official public advisory tool. The CO_2 savings from residential replacements in Germany and Spain surpassed the targeted mitigation for the entire project during its lifetime.

A first-of-its-kind one-stop shop for replacing oil, gas, biomass and direct electric heating systems with climate-friendly ones was developed for the Salzburg province in Austria. On the public 'match-making' platform, households can easily find suppliers nearby that offer all services/specialities needed for a boiler exchange, and all managed by a single contact.

Addressing further needs

REPLACE has addressed the needs of stakeholders to access easy to understand, tailored information about replacing current heating systems with modern, climate-friendly and effective ones. Two additional challenges must be addressed. Tretter and Sahin emphasise that, as the renewables heating systems market grows, the dearth of professionals needed for replacements will be a major bottleneck – consumer action must be supported by a long-term training strategy. Further, particularly vulnerable groups such as energy-poor households must be included to ensure all of society benefits from the clean heat transition.

PROJECT
REPLACE - Making heating and cooling for European consumers efficient, economically resilient, clean and climate-friendly

COORDINATED BY
Austrian Energy Agency, Austria

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/847087

PROJECT WEBSITE
replace-project.eu/

Retrofit energy efficiency labels for old heating appliances

An energy-labelling tool calculates the indicative energy class of consumers' old, installed heating appliances for a direct comparison to newer eco-friendly alternatives.

About 35 % of the EU's buildings are more than 50 years old and almost 75 % are currently energy inefficient. Given that buildings are responsible for 40 % of the EU's total energy consumption, and 85 % of this is for heating and hot water, replacing outdated heating appliances with newer, more efficient models will have significant impact on energy consumption, emissions and consumer expenses.

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This requires that homeowners be able to identify the inefficiency of their current heating appliance and understand the saving opportunities of replacing it with a more energy-efficient alternative. "The EU's energy label has proved to be a great decision support tool that consumers depend on when evaluating the efficiency of a new appliance," explains project coordinator Joana Fernandes of the Agency for Energy (ADENE) (website in Portuguese). Not having these well-known labels on most of Europe's installed heating stock makes it harder for consumers to fully understand the benefits of transitioning to more efficient systems. The EU-funded HARP project has filled this critical gap.

Discover the energy efficiency of your old heating appliance

"Homeowners tend not to think about heating until their system breaks down," says Fernandes. When it does break down, replacing it is often a rushed process. "This urgency hinders the chance of looking for the best solutions and making smarter choices regarding a heating system that will likely be in operation for the next 20 years," adds Rui Fragoso, also an ADENE energy expert.

According to both Fernandes and Fragoso, smarter, more effective purchasing decisions start with having the right information.

"By creating a similar energy labelling method for existing heating appliances, the HARP project ensures homeowners understand the inefficiency of their current solution", remarks Fragoso.

These 'retrofit energy efficiency labels' are accompanied by an online application. "The tool was developed to assist the consumer

The tool was developed to accompany the consumer on their journey from the energy classification of the existing heating appliance to an overview of available replacement options and quantification of potential energy, economic and environmental savings.

in their journey from discovering the energy classification of the existing heating appliance to an overview of available replacement options and calculation of potential energy, economic and environmental savings", says Fernandes.

The web-based tool is available in multiple languages (DE, EN, ES, FR, IT, PT) and tailored to region-specific information. The only inputs required are the type, energy source and age of the existing heating appliance, the square metres of the residence and its number of inhabitants. In addition to energy class and replacement options, it even lists available subsidies and installer contact information. Users in countries not included can compare heating appliances using a country with similar climate.

Knowledge is power

The project website contains a vast collection of supporting material for consumers and professionals regarding installed and new eco-friendly heating solutions and labelling guidelines. In addition, there is a replacement guide for consumers and a toolbox for professionals.

The project's communication campaigns had a potential outreach of more than 9 million consumers and more than 150 000 professionals, tremendously more than targeted. Use of the online application generated more than 35 000 labels with 18 000 consumers evaluating replacement solutions. Further, the project trained 1 000 heating professionals, supporting their adoption of the retrofit energy label in their daily work.

Fernandes concludes: "Replacing ageing heating appliances will support the energy transition process and climate change mitigation while reducing consumer's energy bills, EU energy dependence and the heating sector carbon footprint."

PROJECT
HARP - Heating Appliances Retrofit Planning

COORDINATED BY
ADENE – The Agency for ENERGY, Portugal

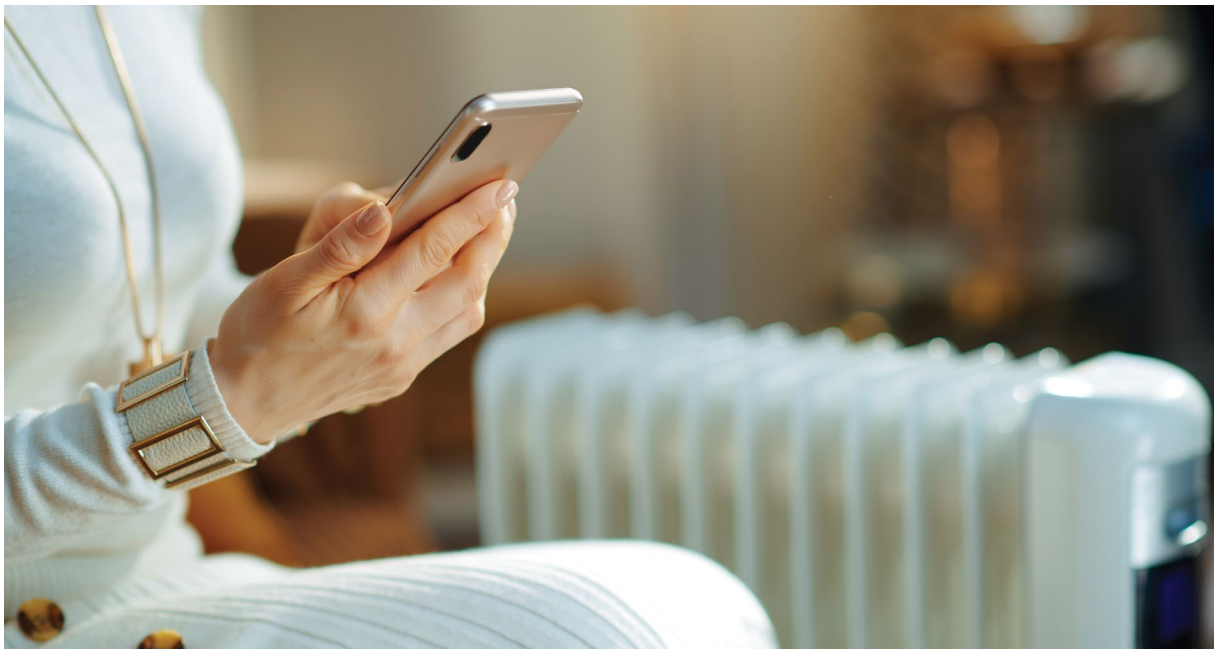
FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/847049

PROJECT WEBSITE
heating-retrofit.eu/

Country-specific, product-specific heating and cooling information

Tailored information on energy-efficient heating and cooling appliances will streamline consumers' selection process and help transform the market.



Decision-makers, from consumers to policymakers, face significant challenges in collecting, understanding and comparing data on a virtually limitless number of topics in the age of Big Data. Online tools and databases that harness existing data and streamline these processes – especially in a tailored way – are invaluable.

As the EU-funded HACKS project has demonstrated, innovation is not only new product creation but also better ways to showcase the best of existing products. HACKS' product experts have streamlined consumers' search for more energy-efficient heating and cooling appliances. They have objectively selected the top products on the market in each of 15 countries and compiled easily accessible information about them for further comparison.

A market transformation to accelerate the green energy transition

HACKS sought to transform the heating and cooling appliances market by encouraging manufacturers to produce more energy-efficient products, retailers to promote and consumers to buy them. As project coordinator Therese Kreitz of the French Agency for Ecological Transition explains: "This all starts with consumers. Engaging the public can illustrate the growing

consumer demand and preference for certain energy-efficient products, putting pressure on product manufacturers and retailers, driving a market transformation."

"HACKS' activities expanded the previously existing Topten national and EU websites guiding consumers to the most energy-efficient appliances in Europe to include vital heating and cooling appliances. This was quite complex and region specific and would not have been possible without EU funding. And these appliances are critical because they account for the greatest overall energy consumption – and energy bill – of households," states Sophie Attali of Guide Topten, and founder and manager of Topten in France.

Engaging the public can illustrate the growing consumer demand and preference for certain energy-efficient products, putting pressure on product manufacturers and retailers, driving a market transformation.

Tailored heating and cooling appliance comparisons by region

HACKS united the product-specific expertise of the project's 17 dynamic partners from 15 EU countries and assimilated general best practices. Then, partners identified the 'top ten' or best products available in each country.

On the HACKS project website, users select their country of interest. This takes them to country specific Topten websites with general and country specific information. For example, on the United Kingdom and Spanish websites (the latter in Spanish), users find information about several categories of heating and cooling appliances. Each category (e.g. biomass boilers) includes: a searchable list of top products with energy-related information; selection criteria and relevant regulations; and product (category) guides including recommendations to consider when installing.

Finally, the HACKS calculator asks a series of questions on a given residential heating and cooling installation and provides the best alternative solutions to make it more energy efficient.

Policy recommendations, sustainability business models and more

The European Climate, Infrastructure and Environment Executive Agency and the Directorate-General for Energy have highlighted the use of Topten market-based evidence in policy making, given its near-real-time benchmarks for energy labels and minimum performance standards. The project also devoted significant effort to disseminating low or even no-cost solutions such as placing foil on the wall behind a radiator. The latter became quite pressing due to the energy uncertainty and prices associated with the ongoing conflict in Ukraine. Information on HACKS' activities, policy recommendations and solutions for those seeking content to disseminate to their target audiences can be found in the HACKS interim report on case studies.

HACKS' contribution to the Topten website is tremendous, timely and engaging. There have already been 2.5 million views of HACKS webpages resulting in approximately 145 million interactions via online, printed and social media sites. Further, 223 partnerships have been established with stakeholders.

Motivating consumers to switch to more energy-efficient heating and cooling appliances will accelerate the market transformation, with immense energy and cost savings for consumers and a drastic reduction in emissions for all.

PROJECT
HACKS - Heating And Cooling Know-how and Solutions

COORDINATED BY
French Agency for Ecological Transition, France

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/845231

PROJECT WEBSITE
topten.eu/private/page/hacks

Handy new tools to help with the new EU energy labels

New interactive tools smoothen the transition towards the simpler A-G scale for both retailers and consumers.

Energy labels have been a great ally in our quest to cut household energy bills and carbon footprint – they have encouraged consumers to buy more efficient products for more than 20 years. However, the old generation of energy labels using an A+++ to G scale is no longer efficient.

As of March 2021, consumers find new, rescaled labels mainly on four product types: fridges, dishwashers, washing machines and televisions. Lamps also got new energy labels in September 2022, while other products will follow in the coming years.

The new energy labels now incorporate a scale from A to G. They also feature other pictograms that complement the information about the products, as well as a QR code allowing direct access to the European Product Registry for Energy Labelling (EPREL). With these changes, the consumer will be able to make more informed purchase decisions.

The EU-funded LABEL 2020 project supported a dynamic campaign of guidance and assistance, mainly for retailers and consumers, to improve understanding and implementation of the newly rescaled labels.

Supportive tools for retailers

A new e-learning tool explains basic information about the new labelling scheme and helps retailers to consider the label as an important tool for promoting efficient products. Involving a new interactive concept, the e-learning tool allows sales staff to easily take up all core information about the new labelling scheme and test their knowledge in a multiple-choice quiz. After successfully passing the test, salespersons can print a digital certificate.

"Importantly, the salespersons get advice on how to support consumers in product selection decisions," explains project coordinator Bernd Schaeppi. "Furthermore, they can interact with an artificial intelligence component that simulates real-life sales situations and two-way conversations. This feature enables them to adequately address any customer questions and offer concrete tips on energy-efficient products." The training concept was warmly embraced in many countries and extensively used by large retail chains.

By simply scanning the QR code on the product label or just using search criteria, consumers can easily compare various product features and get estimations on the expected operation costs for various domestic appliances.

Supportive tools for consumers

In addition to the information brochures released and the information campaigns organised in many EU countries, LABEL 2020 unveiled a web app tool for consumers using data from the EPREL.

"By simply scanning the QR code on the product label or just using search criteria, consumers can easily compare various product features and get estimations on the expected operation costs for various domestic appliances. By adding the purchase price, they also get an indication of the total cost," remarks Schaeppi. "The full version of the tool was released in 2022. However, further marketing activities are needed to make the tool more widely known."

Widgets implemented on retailers' websites in certain countries also proved a powerful method enabling consumers to calculate the total product costs, including the running and purchase costs.

A look into the future

New labels for air-conditioning, heating and other product groups will appear on the market in the coming years. "Certain tools from LABEL2020 can be further maintained and extended for these products," notes Schaeppi. "Despite the general success of the information campaigns and tools introduced by LABEL2020, we deemed that it is critical to adjust the labels to the market situation and technology development. Furthermore, the new labelling system will become more transparent for buyers as soon as all old labels, currently still used for several product groups, will be replaced," concludes Schaeppi.

PROJECT
LABEL 2020 – New Label driving supply and demand of energy efficient products

COORDINATED BY
Austrian Energy Agency, Austria

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/847062

PROJECT WEBSITE
label2020.eu/

Boosting uptake of new EU energy labels for more sustainable living

Rescaled energy labels are set to bring about considerable energy savings at homes. An EU-funded project sought to facilitate their progressive implementation by informing all stakeholders along the value chain, from manufacturers and retailers to consumers.

Energy labels are an important tool for helping consumers to better understand and choose more energy-efficient products. The old-generation scale included many '+' classes, while the majority of products were populating the two-to-three highest classes.

This classification gave consumers the wrong impression that, when buying an 'A+' product, they were opting for a top-rated appliance on the market, when in fact its rating was average or low. In addition, the overpopulation of the top classes did not provide manufacturers with the impetus to bring more efficient appliances on the market.

Our activities targeted retailer training, supported consumers in identifying the most energy-efficient household products and prompted manufacturers to improve their products.

The EU decided to rescale the outdated classes, initially for certain product groups. The new energy labels came into effect in 2021 to help consumers cut their energy bills and carbon footprint while paving the way for more innovative and energy-efficient products.

The EU-funded BELT project was established to smooth the transition to the new energy labels. "Thanks to the multidisciplinary expertise and geographical coverage of the consortium, BELT developed tailored communications and ran targeted campaigns for the different market actors. Our activities targeted retailer training, supported consumers in identifying the most energy-efficient household products and prompted manufacturers to improve their products," notes project coordinator Laura Polo.

Raising awareness for making better and more informed decisions

In collaboration and in constant dialogue with market actors, new and updated content was produced during the course of the project, addressing concerns associated with the progressive implementation of the new EU energy label.

Project activities sought to raise public attention and consumer interest on various aspects of the revised energy scale, such as energy savings, product efficiency and the presence of labels in the market. "We released videos, articles, leaflets, flyers, guidelines, publications, online news, posts and conducted training sessions and workshops, tailoring to the target group's needs and expectations. A large amount of material has been disseminated in 30 months, meaning that every day something was happening on the BELT side," remarks Polo.

Web tool to better compare household products

One of the most useful outputs of BELT was the release of a web tool available in nine languages, providing an indication of the energy efficiency of a product.

"Our innovative tool calculates the energy consumption of household products. The calculators allow consumers to assess the energy of their fridge, lamp, washer dryer, dishwasher, washing machine or TV. The calculators also provide an estimation of the associated CO_2 generated by these household products, as well as the number of trees required to absorb the corresponding amount of CO_2 and the energy equivalent in kilometres of driving," explains Polo.

The fundamental knowledge generated during BELT served as a basis for the development of policy recommendations by the project on EU energy labelling legislation. Furthermore, the experience and feedback gathered from market actors regarding the barriers and challenges on the uptake of the new energy labels have been collected to optimise future rescaling activities.

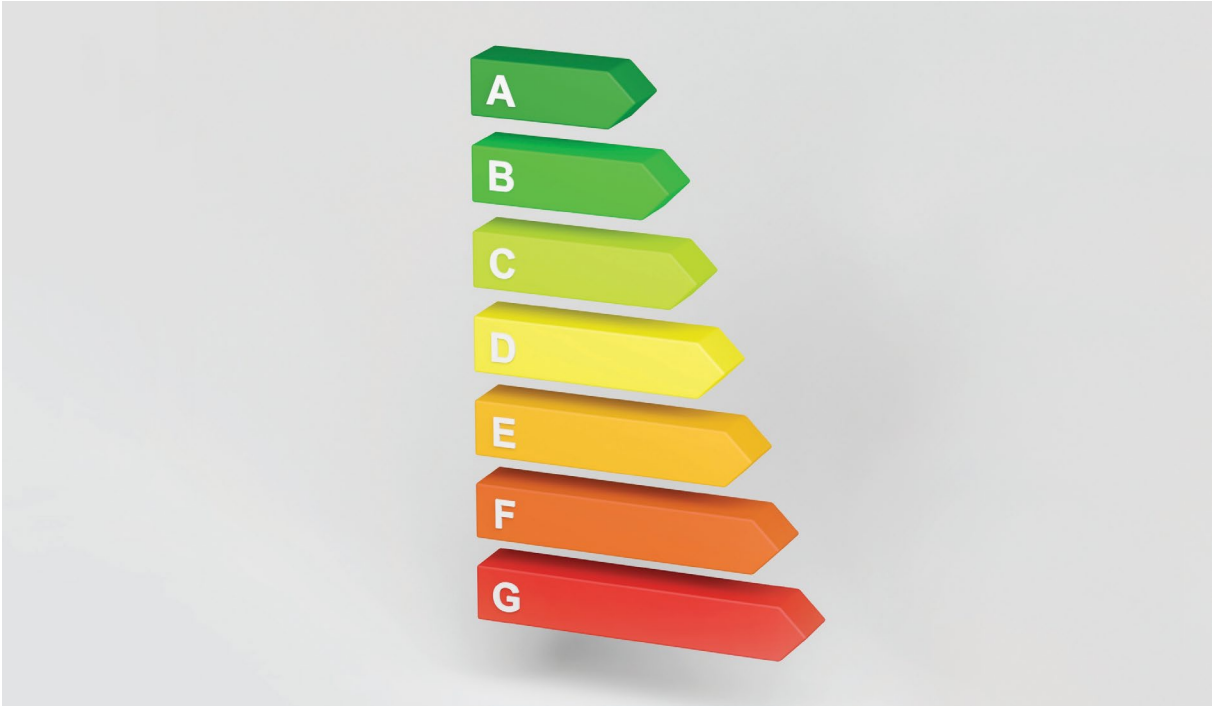
PROJECT
BELT – BOOST ENERGY LABEL TAKE UP

COORDINATED BY
Altroconsumo Edizioni Srl, Italy

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/847043

PROJECT WEBSITE
belt-project.eu/



Offering consumers the best deals on renewable technologies

Consumers are saving on energy bills by investing in renewable energy and energy-efficient technologies.

The EU is making it easier and more affordable for consumers to transition to renewable energy. One notable example is the Clean energy for all Europeans package adopted in 2019. Millions began installing photovoltaic (PV) panels and switching to more energy-efficient (EE) heating systems.

Many remain unaware of these advantageous opportunities.

"However, several barriers stand in the way of consumers benefitting from such technologies," comments Eoin Kelly, energy policy officer at the European Consumer Organisation (BEUC). "Many remain unaware of these advantageous opportunities."

Consumers leading the energy transition

To address the problem, the EU-funded CLEAR-X project is engaging 38 000 consumers in collective purchase campaigns in Bulgaria, Cyprus, Lithuania, North Macedonia, Slovakia and Slovenia. The widespread engagement will trigger over EUR 27 million total investments in renewable energy source (RES) technology installations by consumers. This should also result in an additional 40 GWh of renewable energy production and generate 2.15 GWh of primary energy savings.

The consortium is helping inform a significant number of consumers in the six countries about the potential benefits of EE and RES technologies. It aims to inspire an additional 17 000 consumers to act and save energy. To facilitate adoption of these technologies, CLEAR-X will also advocate for better regulation and incentives for consumers concerning RES technologies, products and services.

As of November 2022, six collective purchase campaigns have been launched, with over 5 700 consumers already registered. This has led to more than EUR 1.5 million in RES and EE technology investments and 1.23 GWh in primary energy savings. Seven additional campaigns will be launched by the time the project ends in 2024.

Policy improvements facilitate adoption of renewables

The CLEAR-X partners analysed the target countries' existing regulatory environment and funding schemes. They identified eight key barriers to RES installations and developed eight policy recommendations that have been put forward to the national governments.

For example, the Slovak consumer organisation Spoločnosti ochrany spotrebiteľov (S.O.S.) successfully advocated for improvements to state subsidies for EE and RES. The 'Renovate a House' scheme was reformulated so that 95 % of renovation costs would now be covered for vulnerable households unable to afford the financial costs. For non-vulnerable households, the budget was increased, and products such as PV panels and heat pumps were added to the list of products the state would reimburse. Funding for gas boiler installations was completely stopped. Because of S.O.S.'s advocacy work, the Slovak Environment Agency now provides advice and administrative support to applicants of the scheme.

S.O.S. also successfully lobbied for improvements to the Slovak Innovation and Energy Agency's 'Green to Households' scheme. The budget for RES installations was increased. Moreover, applications for the scheme are now open-ended rather than on a first come, first served basis that saw funding run out within a few hours and reach only the most informed consumers.

Supporting consumer organisations across Europe

Building on the experience gathered from CLEAR 2.0, CLEAR-X is expanding on the proven collective purchase campaign model. It is engaging and supporting consumer organisations in Central, Eastern and Southern Europe in the launch of schemes for consumers.

Upskilling these additional consumer organisations has been done through the creation of a manual on organising such collective actions. The efforts have been supported by workshops further explaining the processes behind organising a successful collective purchase campaign. BEUC, responsible for coordinating CLEAR-X, distributed the manual to its 46 members in 32 countries.

PROJECT
CLEAR-X – Consumers Leading the EU's Energy Ambition Response, Expansion

COORDINATED BY
The European Consumer Organisation, Belgium

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/101033682

PROJECT WEBSITE
clear-x.eu/

Strengthening confidence of end-users to accelerate heat pump deployment

Consumers and homeowners are using customised resources and tools to learn more about heat pumps and their many advantages.

Heat pumps are an environment-friendly way to save energy and money. Nearly 17 million heat pumps were installed in Europe by the end of 2021 because of the growing demand for energy-efficient technologies and the increasing awareness about environmental issues.

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The REPowerEU Plan envisions doubling the current deployment rate of individual heat pumps. The objective is to reach 10 million new hydronic heat pumps installed in the next 5 years.

Filling in the heat pump knowledge gap

To ensure that the energy efficiency gains afforded by heat pumps are achieved and to facilitate their massive rollout, the EU-funded HP4All project worked with the entire value chain, including end users such as consumers and owners of residential and non-residential buildings. The first step was to improve their overall knowledge of heat pumps so that they can invest wisely in the replacement of their heating system.

The HP4All team has developed a set of tailored materials for three pilot regions (Ireland, Spain and Austria) to take advantage of all the benefits this energy saving technology has to offer. Overall, the aim is to improve, develop and promote the skills required for high-quality, optimised heat pump installations in residential buildings to boost confidence of end-users.

Work began by delivering a report that assesses the heat pump market's barriers and drivers in the three pilot regions and the public's perception. Surveys and interviews involving 175 respondents identified 3 main areas of concern: high investment costs, lack of competency training for installers and quality information for end users.

Support, instructions and digital tools to boost market confidence in heat pumps

Using the report as a basis, the Knowledge Hub was created to provide a broad range of resources in English, German and Spanish. It includes a video introducing heat pumps and explaining how they reduce energy costs in homes, a guide for homeowners, information about financing schemes, as well as good practice case studies.

A benchmarking tool encourages consumers and homeowners to install heat pumps by providing them with an estimated running cost and energy usage figure after they submit various details. Users are better able to understand the electricity tariff that applies to their home, annual energy consumption and heating costs, as well as their home's building energy rating. The tool was developed and tested in Ireland and Spain.

Consumers and homeowners can access an extensive electronic media offering even more about heat pumps and their installation.

Consumers and homeowners can access an extensive electronic media offering even more about heat pumps and their installation. Around 30 recorded workshops and webinars are available.

In cooperation with local county councils, HP4All has prepared a guide to ensure Irish homeowners can operate a heat pump as efficiently as possible. The project is also introducing a one-stop shop to boost Spaniards' knowledge and developing resources and tools to make Austrians less hesitant in carrying out large-scale installations.

PROJECT
HP4All – HEAT PUMPS SKILLS FOR NZEB CONSTRUCTION

COORDINATED BY
Technological University of the Shannon: Midlands Midwest, Ireland

FUNDED UNDER
H2020

CORDIS FACTSHEET
cordis.europa.eu/project/id/891775

PROJECT WEBSITE
hp4all.eu/

Scaling up a proven social innovation concept to mitigate energy poverty in Europe

Scalability and delivery plans aim to protect citizens that are unable to access essential energy services and products in five EU Member States.

Energy poverty is a major challenge that needs urgent attention. About 35 million people, or 8 % of the EU population, could not keep their homes sufficiently warm in 2020. Soaring energy prices and the global pandemic have exacerbated the situation.

An effective solution is for local social services to assist vulnerable people in identifying and managing this problem. However, although able to offer general support, they often lack the specific knowledge and skills needed for dealing with energy poverty.

Taking a tried and tested social innovation concept one step further

In 2020, the EU-funded ASSIST project established a network of operators known as Home Energy Advisors (HEAs) to tackle

energy poverty. These unique contact points were trained to provide energy advice to vulnerable and energy-poor households that would not have been reached by any other means. They engaged over 5 200 European vulnerable consumers.

In 2021, the SUITE project produced comprehensive scalability plans that built on ASSIST's proven social innovation model. Overall, the goal was to effectively reduce energy poverty by training and supporting social operators who deal with vulnerable consumers in Spain, Italy, Hungary, Poland and Romania. SUITE expanded its activities to Hungary and Romania, which were not part of ASSIST.

Capacity building to combat energy poverty

Five ready-to-use plans presented concrete short- and long-term objectives, together with a detailed strategy on how to achieve them. They took into consideration the state of play of each country. The focus was on poverty and marginalisation, inequalities, as well as training and skills.

To ensure each plan's viability, end users, the public and private sectors, NGOs and HEAs were involved throughout the entire process, from design to evaluation. To implement the model, all countries formed alliances with key stakeholders, mainly national, regional and local governments, NGOs, professional organisations and private companies.

In addition to quality training, good support structures and a continuous progress review, each country accounted for the requirements needed to sustain and further scale the innovation. Indicators were defined to measure the effect of scaling, anticipating any possible deviations and correcting them in a timely manner. All countries created robust risk and mitigation strategies.

Social innovation plans go local, regional and national

For Italy and Hungary, the plans were scaled nationally. The former concentrated on a model that worked independently or in synergy with the public sector and funded by municipalities, and another model for operators on the ground financed by private actors. The latter brought together organisations from various sectors to set up a network of energy agents.

Spain's and Poland's plans were scaled regionally in the regions of Barcelona and Malopolska respectively. The first established a virtual Energy Poverty Office for telecare and home care professionals. The second expanded the existing HEA network by training more social operators.

Romania's local plan involved the municipality of Cluj-Napoca. It built a network of energy agents from different sectors and piloted a one-stop shop to deal with energy poverty cases.

SUITE was financed by the European Social Catalyst Fund, an initiative designed to scale up social innovations that address Europe's most pressing social challenges.

PROJECT
SUITE – Scaling Up Innovation Together for Energy Vulnerability

COORDINATED BY
Ecoserveis, Ireland

FUNDED UNDER
European Social Catalyst Fund (ESCF)

CORDIS Results Pack

Available online in six language versions: cordis.europa.eu/article/id/443210

Published
on behalf of the European Commission by CORDIS at the
Publications Office of the European Union
2, rue Mercier
2985 Luxembourg
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This Results Pack is a collaboration between CORDIS and the European Climate, Infrastructure and Environment Executive Agency (CINEA).

Print	ISBN 978-92-78-43412-0	ISSN 2599-8285	doi:10.2830/933202	ZZ-AK-23-001-EN-C
HTML	ISBN 978-92-78-43479-3	ISSN 2599-8293	doi:10.2830/421428	ZZ-AK-23-001-EN-Q
PDF	ISBN 978-92-78-43414-4	ISSN 2599-8293	doi:10.2830/316837	ZZ-AK-23-001-EN-N

Luxembourg: Publications Office of the European Union, 2023

CINEA

Seven of the eight projects featured in this Results Pack are managed by CINEA, the European Climate, Infrastructure and Environment Executive Agency, established by the European Commission under the motto 'Funding a Green Future for Europe'. The SUITE project was financed by the European Social Catalyst Fund. CINEA contributes to the European Green Deal by implementing parts of EU funding programmes for transport, energy, climate action, environment, and maritime fisheries and aquaculture. CINEA manages the Connecting Europe Facility 2 (Transport and Energy), the LIFE programme, the Innovation Fund, the European Maritime, Fisheries and Aquaculture Fund, the Renewable Energy Financing Mechanism and the Public Sector Loan Facility under the Just Transition Mechanism. CINEA is also managing and implementing the Climate, Energy and Mobility Cluster of Horizon Europe and three of the five missions under the Horizon Europe framework programme. These missions are: Adaptation to Climate Change, Restore our Ocean and Waters by 2030 and 100 Climate-Neutral and Smart cities by 2030.

CINEA also implements two societal challenges of the Horizon 2020 programme: Secure, clean and efficient energy, and Smart, green and integrated transport. CINEA provides technical and financial management services at all stages of the programme and project life cycle – from the calls for proposals, evaluation of projects and the award of financial support, to the follow-up of project implementation and control of the use of funds allocated.

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RESULTS PACK ON LOCAL CLEAN ENERGY TRANSITION

Helping cities reduce reliance on fossil fuels and become more energy efficient will curb harmful emissions, lead to cleaner air, safer transport and less congestion and noise for citizens. The 14 projects in this Results Pack support regions, cities and municipalities across Europe to develop and realise their clean energy transition goals.

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