HEATING AND COOLING
KNOWHOW AND SOLUTIONS

HACKS Final Event – 14 February 2023

HEATING AND COOLING
KNOWHOW AND SOLUTIONS

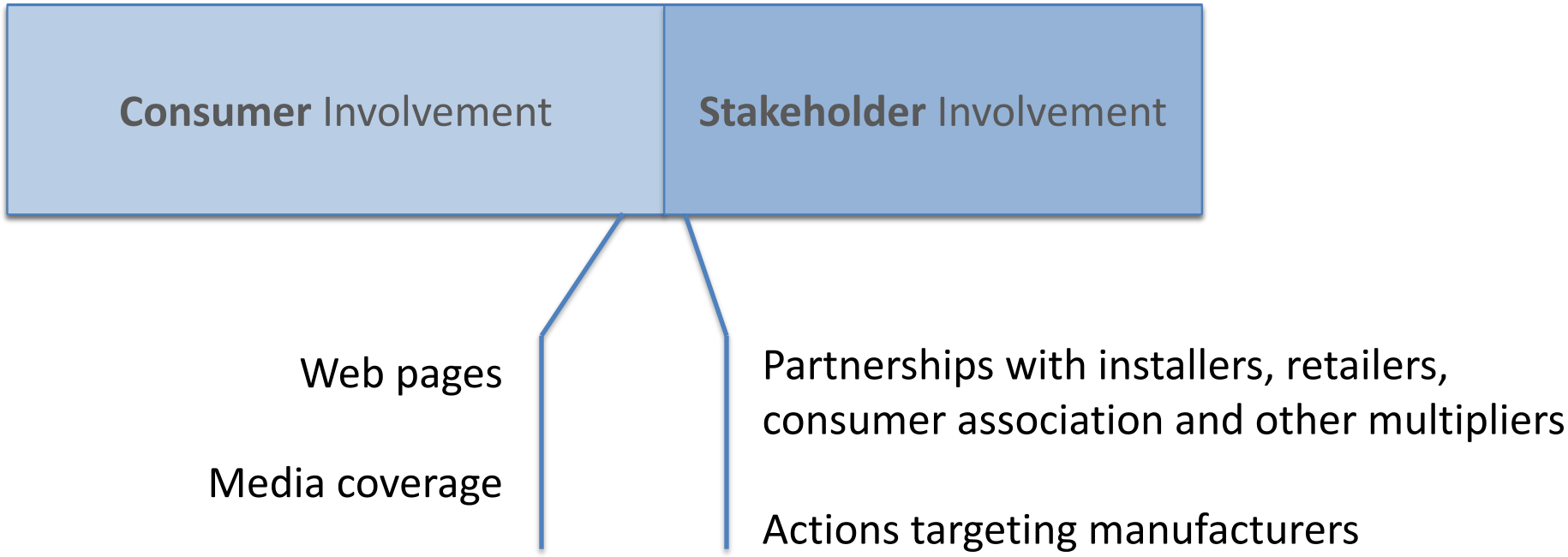
HACKS in practice

Reaching different target groups: citizens, manufacturers, installers, retailers, multipliers and the media

HACKS Final Event – 14 February 2023

AUSTRIAN ENERGY AGENCY

HACKS impact



Key figures

Page views on HACKS webpages*: **2,5 Million**

Media contacts (on-line, printed and social networks*: **approx. 145 Million**

Partnerships with stakeholders*: **223**

* Preliminary figures for the project period September 19 – December 2022, final numbers in the report will include January & February 2023

Assessment of accumulated energy savings

Savings generated in the area	Savings*
„Consumer“	445 GWh
„Stakeholders“	180 GWh
TOTAL Final Energy Savings	**625 GWh**

* Preliminary figures for the project period September 19 – December 2022, final numbers in the report will include January & February 2023

Selected best practice examples presented today

Winter energy saving campaign in Czech Republic
Promoting our products on Facebook in UK
Seminar for consumers: Heat pumps for energy independence in Germany
Awareness raising among teenagers in Sweden and Norway
Partnership with installers in Spain
Competition for efficient windows in Poland
Rebate programs in Luxemburg
Transforming the European comfort fan market

Thomas Bogner| thomas.bogner@energyagency.at

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845231.

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HEATING AND COOLING
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HACKS

Czech Republic

Final conference, 14 February 2023

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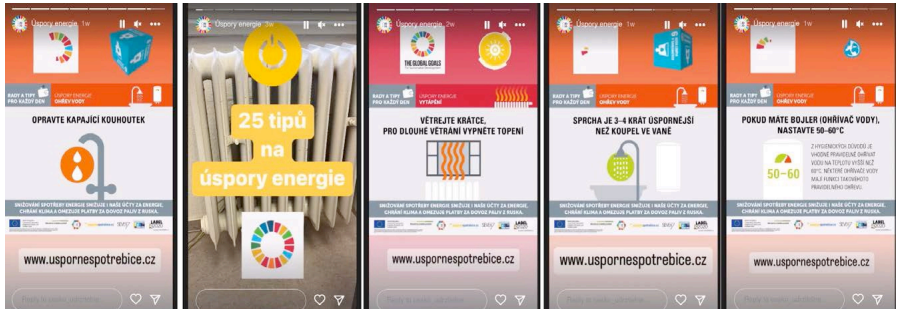
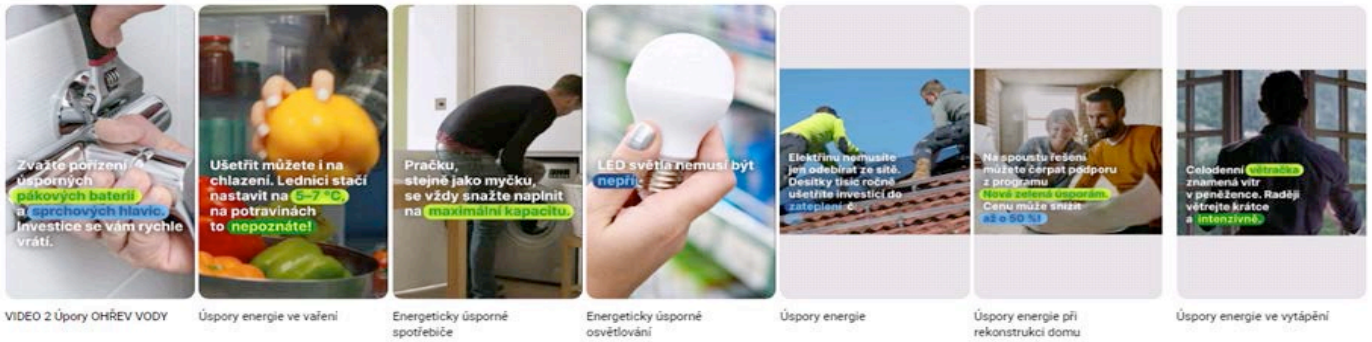
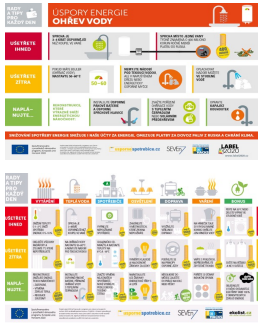
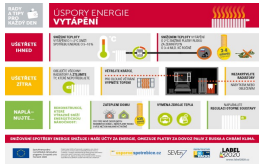
Extensive Energy Savings Campaign - Autumn 2022 / Winter 2023 (1/3)

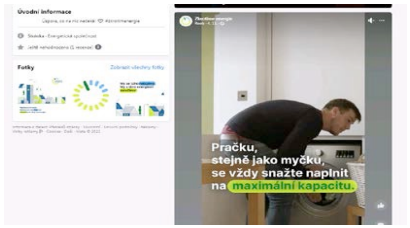


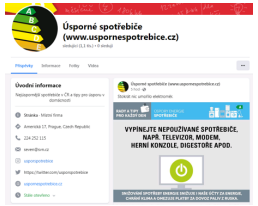


VIDEO 2 Úspory OHŘEV VODY | Úspory energie ve vaření | Energeticky úsporné spotřebiče | Energeticky úsporné osvětlování | Úspory energie | Úspory energie při rekonstrukci domu | Úspory energie ve vytápění









Variety of communication channels:

- Social media: Twitter, Facebook, Instagram, LinkedIn (posts/stories)
- Infographics

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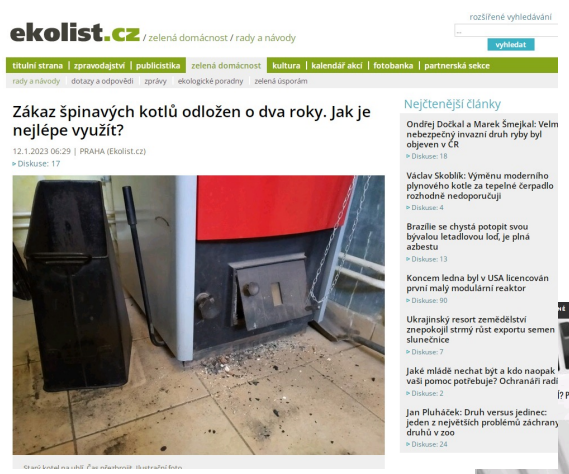
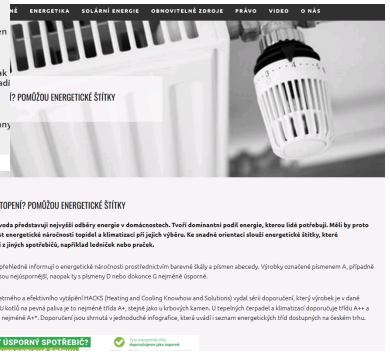
Extensive Energy Savings Campaign - Autumn 2022 / Winter 2023 (2/3)





98,7 FM

97,5 FM

Variety of communication channels:

- Podcasts
- Radio spots
- Media interviews

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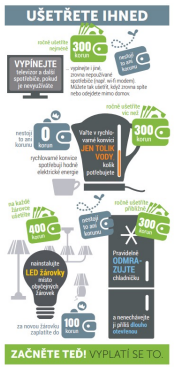
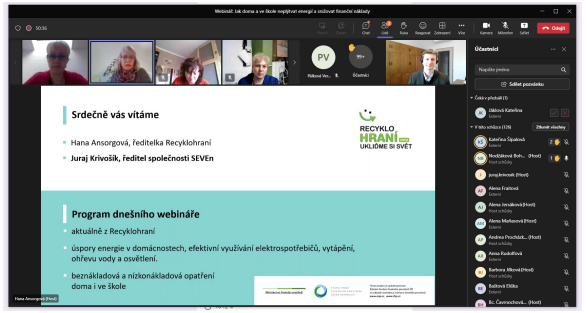
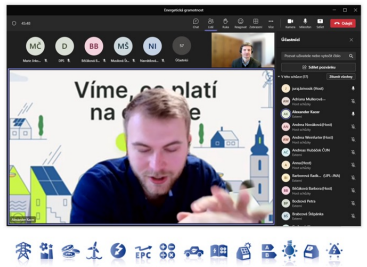
Extensive Energy Savings Campaign - Autumn 2022 / Winter 2023 (3/3)







Variety of communication channels:

- Events
- Leaflets / brochures
- Municipalities
- Train-the trainer webinars

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Arguments

Energy efficiency as a tool for reducing fuel imports from Russia, to limit our sponsoring of their army & ensure energy independence

Lower energy bills

Protect climate and clean air

Important dissemination partners

Ministries	Ministry of social affairs
	Ministry of environment
Public agencies	Labour offices
	State environment fund
NGOs	Food bank
	People in need, etc.
Municipalities	Kladno, Tábor, Pelhřimov, Bystřice, Velvary, Ždár nad Sázavou, Prague 7, Prague 10, etc.
Media partnerships	Obnovitelne.cz, ekolist.cz
Other institutions	Czech Railways, Charles University, schools, etc.

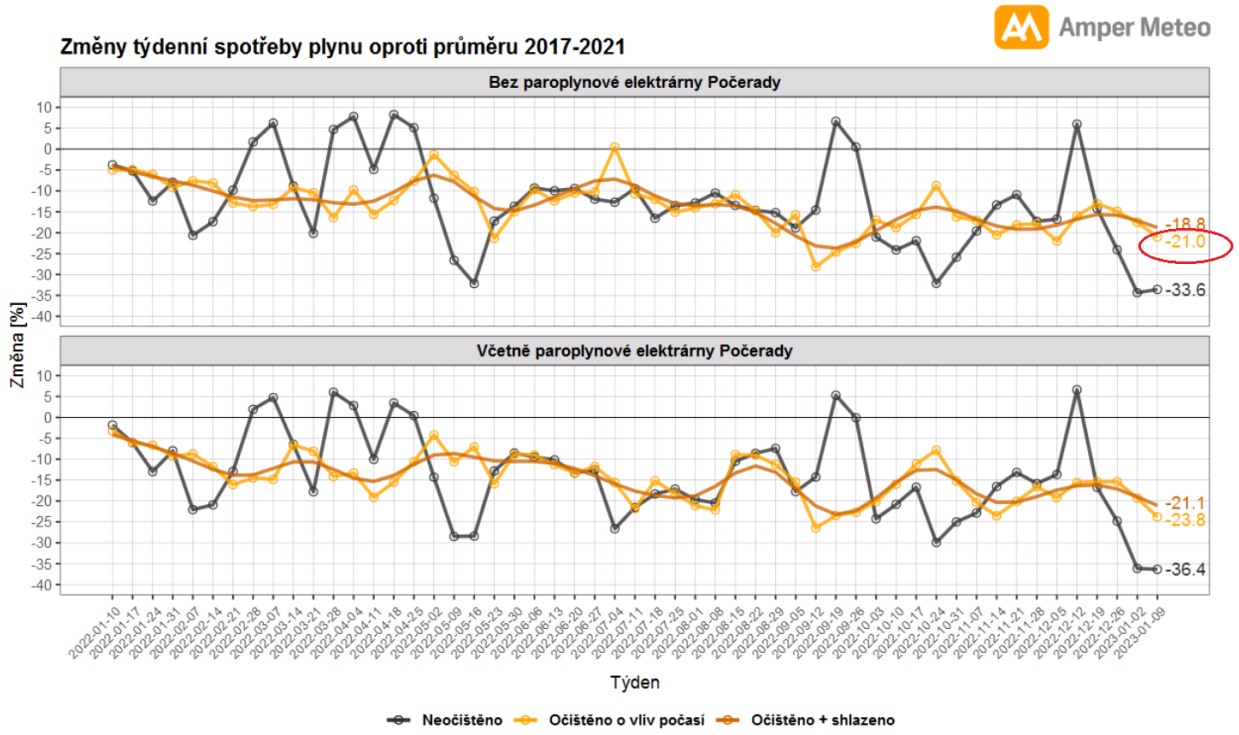
Reach

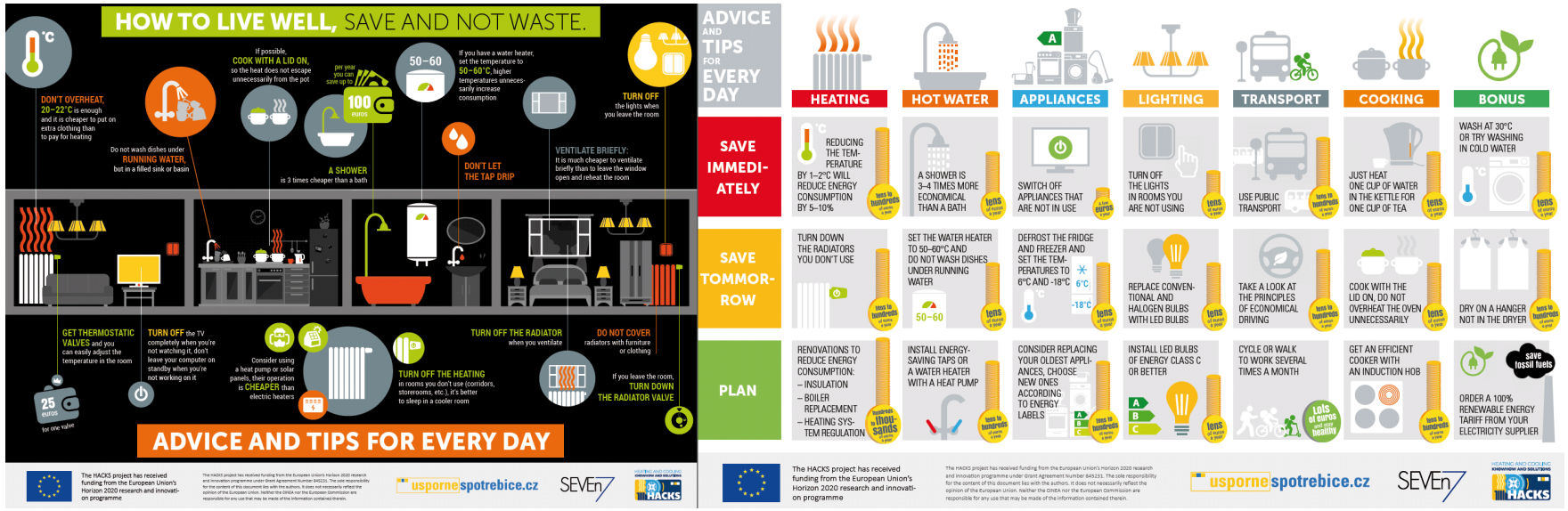
Objective	HACKS Year 3	Total
To engage consumers – page views	128k (so far)	330k
Media contacts/reach (listeners, readers, viewers)	677K	959K
Socail media reach (Facebook, Twitter, IG, LinkedIn)	665k	722k
Total reach	1.3M	1.7M
Articles	33	50
Infographics	30	51
Press releases	1	3
Social media posts	168	303
Leaflets / brochures	1800	2800
Train-the-trainers webinars	>770	>770

Over one million reached through the media campaign between Autumn 2022 – Winter 2023

Impact

- Natural gas consumption in the Czech Republic reduced by ~20% even with weather conditions counted





Michal Stasa: michal.stasa@svn.cz
Juraj Krivosik: juraj.krivosik@svn.cz

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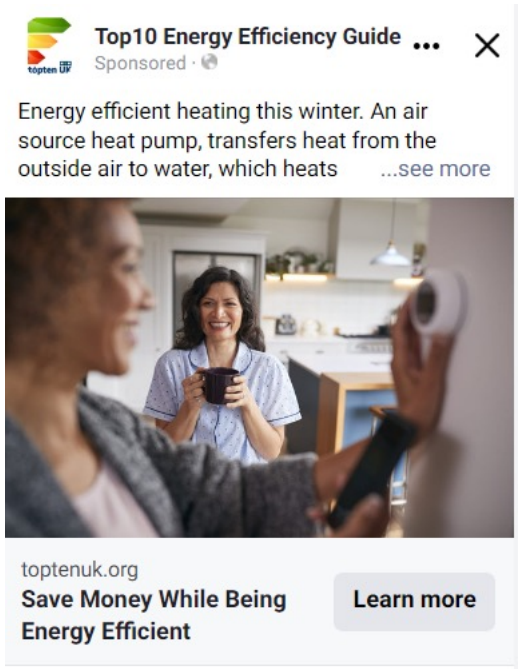
Promoting our products on Facebook

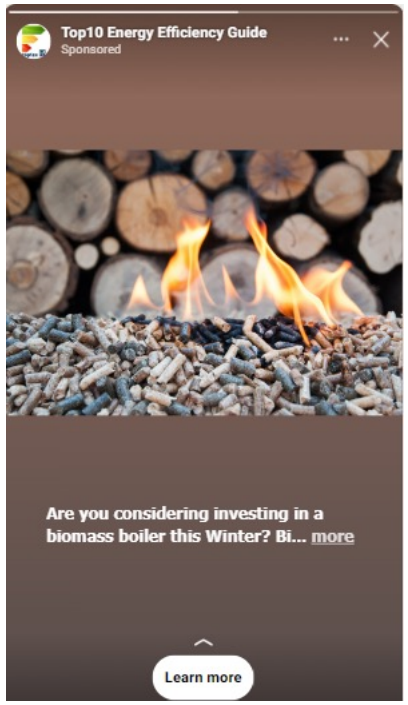
HACKS Final Event – 14 February 2023

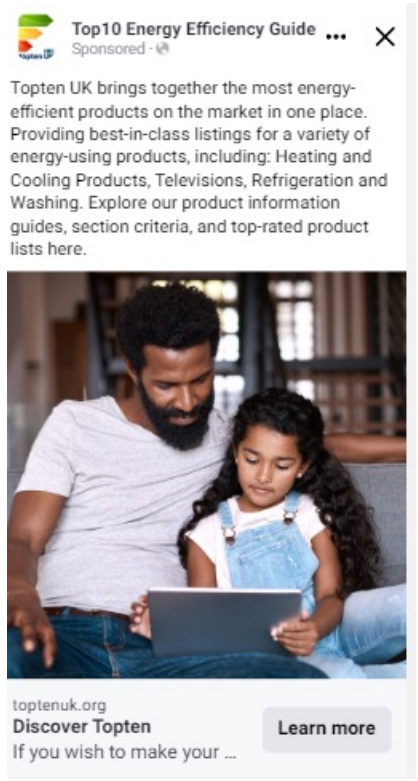
Our winter audiences

- Wood-fuelled Stoves Interests: Fireplace & Sustainable Energy
- Heat Pumps Interests
- Ground Source Interests: Heat Pumps & Environmental Technology
- Biomass Boilers Interests: Boilers & Biomass/Bioenergy
- Generic Interests: Home & Efficient Energy Use
- Generic Interests: Sustainable Energy & Home
- Generic Interests: Air Source Heat Pumps
- Generic Interests: Environmental Technology Interests
- Generic Interests: Home Appliances + Environmental Health

Our creatives







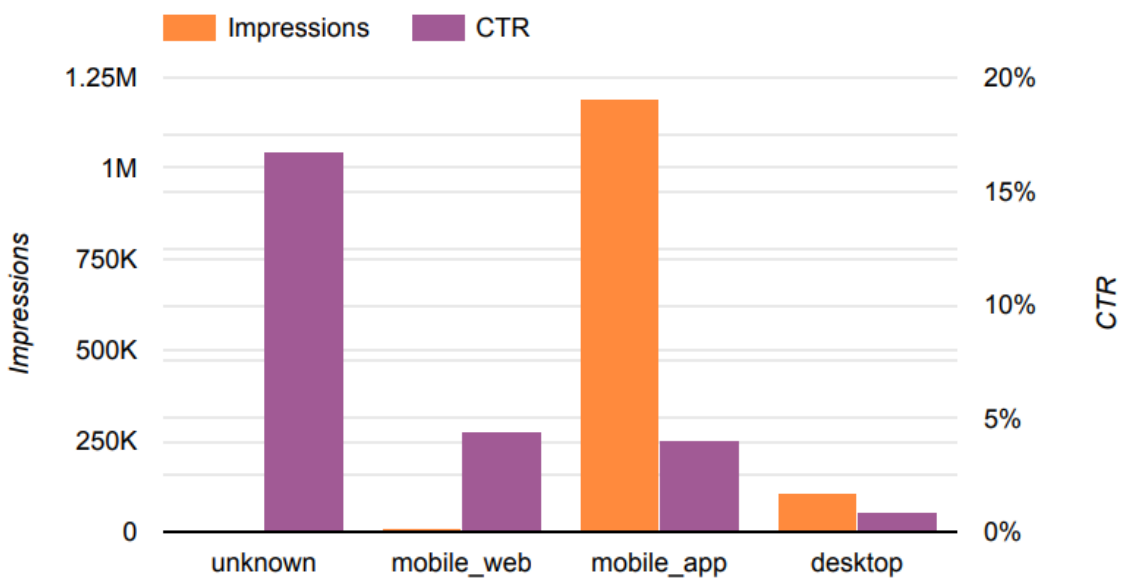
Our results: overall

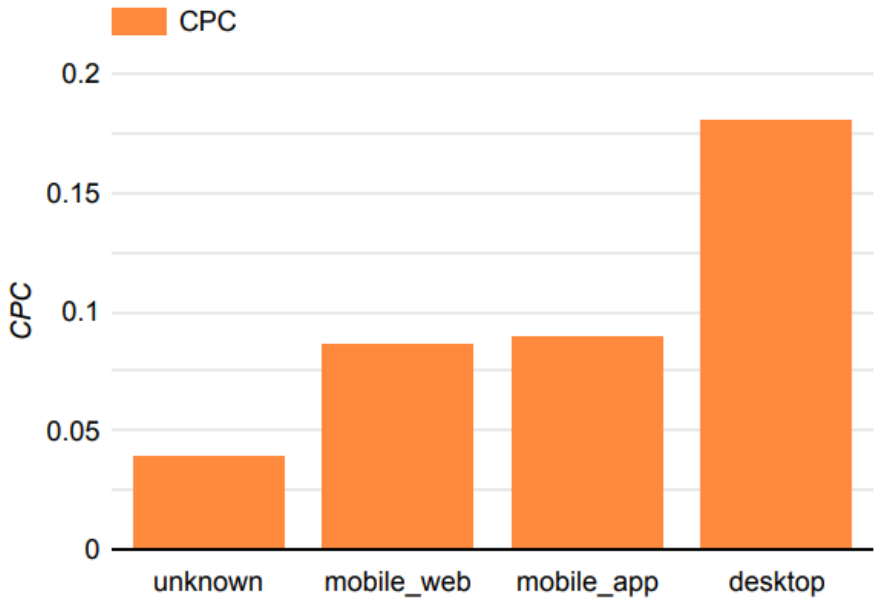
Cost per Link Click £0.20	
Link Clicks 23,288	Cost £4,600
Impressions 1,308,109	Frequency 4.4
CTR 1.8%	Clicks (all) 50,016

Our results: in detail

Ad name	Link clicks	Impressions	CTR	CPC
Fireplace - Single Image	18,761	968,233.0	4.14%	0.19
Ground Source Heat Pump - Single Image	2,915	236,299.0	2.57%	0.26
Water Source Heat Pump - Single Image	302	24,516.0	3.51%	0.21
Boiler - Single Image	222	12,745.0	5.64%	0.33
Biomass - Single Image	362	20,640.0	3.40%	0.21
Topten - Copy 1 - Single Image	348	25,770.0	2.63%	0.18
Hot Water Heat Pump - Single Image	164	9,724.0	4.94%	0.23
Topten - Copy 2 - Single Image	206	9,207.0	4.56%	0.22
Air Source Heat Pump - Single Image	8	975.0	1.44%	0.23

Our results: in detail





Michael Took | michael.took@est.org.uk

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845231.

HEATING AND COOLING
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Seminar for consumers:
Heat pumps for energy independence

HACKS Final Event – 14 February 2023

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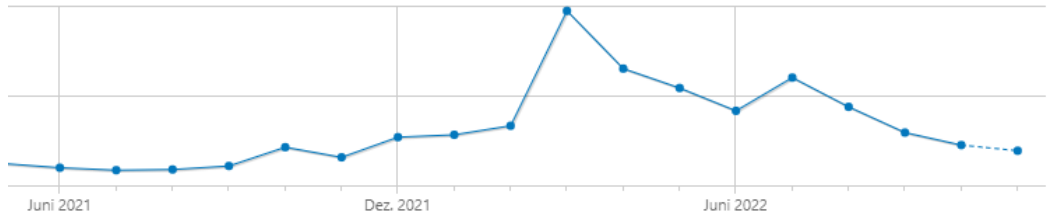
Klimaschutz, der wirkt.

topten.eu

Background

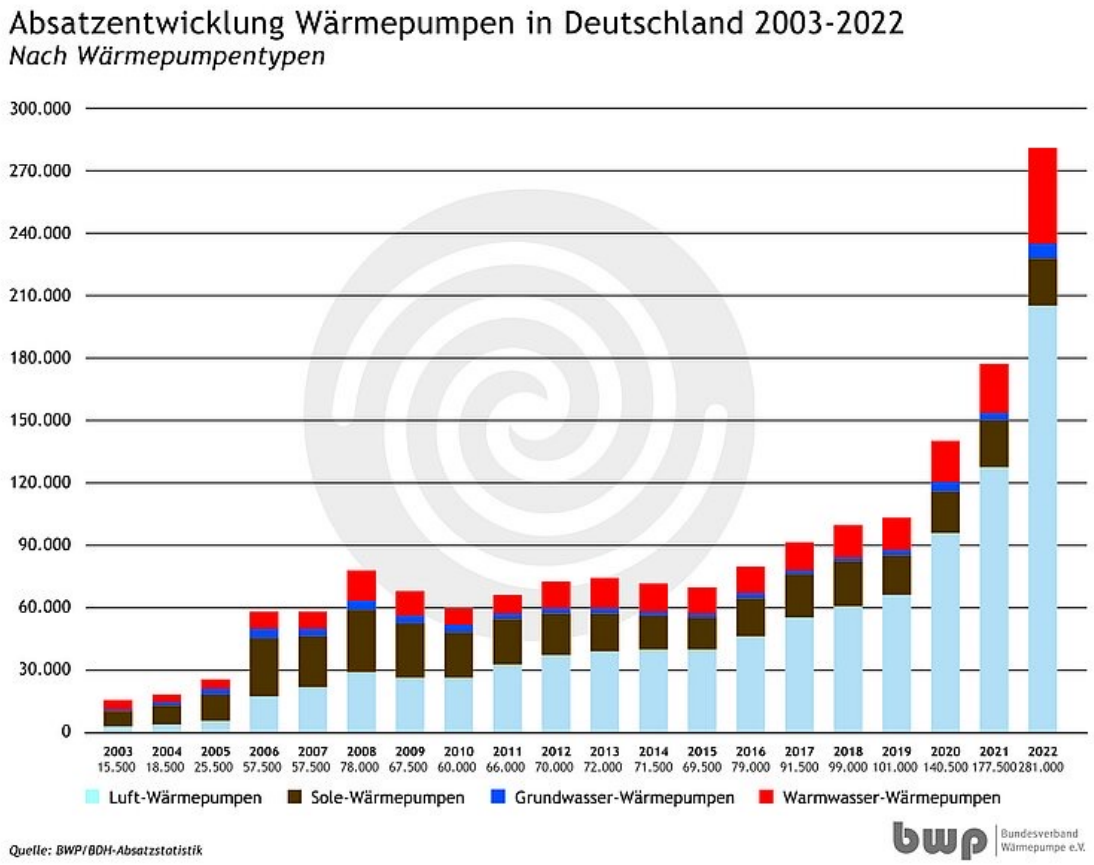
- High demand on information about heat pumps since war in Ukraine and energy crisis
- Consumer inform themselves on their own

Google Search Volume on heat pumps 2017 - 2022



Page views of heat pump content on co2online.de 2021 - 2022

Background



Number of sold heat pumps in Germany 2003 - 2022

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Our approach:
Supporting consumers and multipliers

- ✓ Online content for first information
- **Online seminar as a solution for first consultation**
- ✓ Online energy calculators for individual consultation
- ✓ Product lists for product decisions

The seminar:
What the consumers want to know

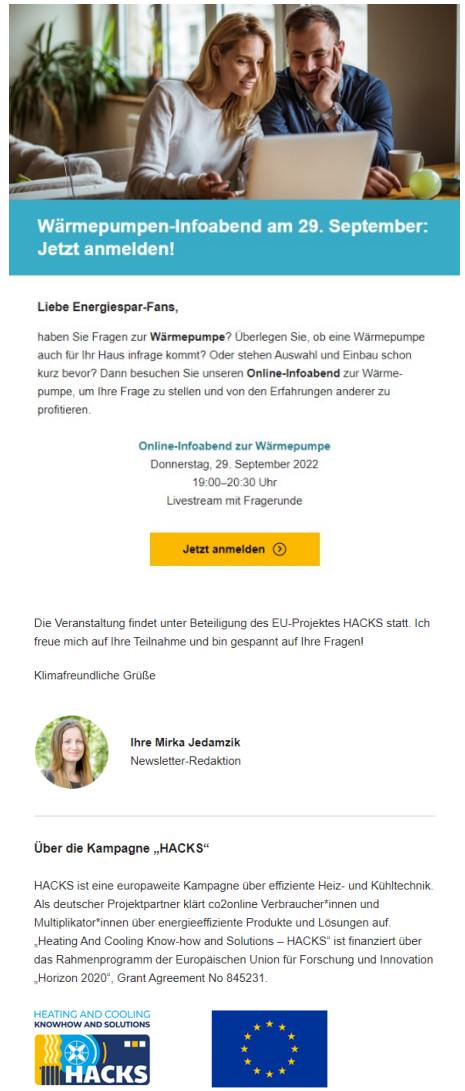
- Prerequisites for the installation
- Delivery times, brands, installation services
- Differences in the heat pump technology
- Combination with gas or solar heating technic
- Technical details and consumption values
- Economic efficiency and subsidy programmes

The seminar:
Our concept and experts

- Heating installer: expert on heat pumps, gives technical and practical information and also builds trust in the craftsmanship
- Energy consultant: the critical voice with focus on data and performance
- co2online on subsidy programmes and buying advice
- Two consumers: one installing, one using

The seminar

- Free registration
- 90 minutes on a Thursday evening (10/29/2022)
- Online via Zoom Webinar
- Interactive surveys and Q&A function



Wärmepumpen-Infoabend am 29. September: Jetzt anmelden!

Liebe Energiespar-Fans,

haben Sie Fragen zur **Wärmepumpe**? Überlegen Sie, ob eine Wärmepumpe auch für Ihr Haus infrage kommt? Oder stehen Auswahl und Einbau schon kurz bevor? Dann besuchen Sie unseren **Online-Infoabend** zur Wärmepumpe, um Ihre Frage zu stellen und von den Erfahrungen anderer zu profitieren.

Online-Infoabend zur Wärmepumpe
Donnerstag, 29. September 2022
19:00–20:30 Uhr
Livestream mit Fragerunde

Jetzt anmelden

Die Veranstaltung findet unter Beteiligung des EU-Projektes HACKS statt. Ich freue mich auf Ihre Teilnahme und bin gespannt auf Ihre Fragen!

Klimafreundliche Grüße

Ihre Mirka Jedamzik
Newsletter-Redaktion

Über die Kampagne „HACKS“

HACKS ist eine europaweite Kampagne über effiziente Heiz- und Kühltechnik. Als deutscher Projektpartner klärt co2online Verbraucher*innen und Multiplikator*innen über energieeffiziente Produkte und Lösungen auf. „Heating And Cooling Know-how and Solutions – HACKS“ ist finanziert über das Rahmenprogramm der Europäischen Union für Forschung und Innovation „Horizon 2020“, Grant Agreement No 845231.

HEATING AND COOLING KNOWHOW AND SOLUTIONS HACKS

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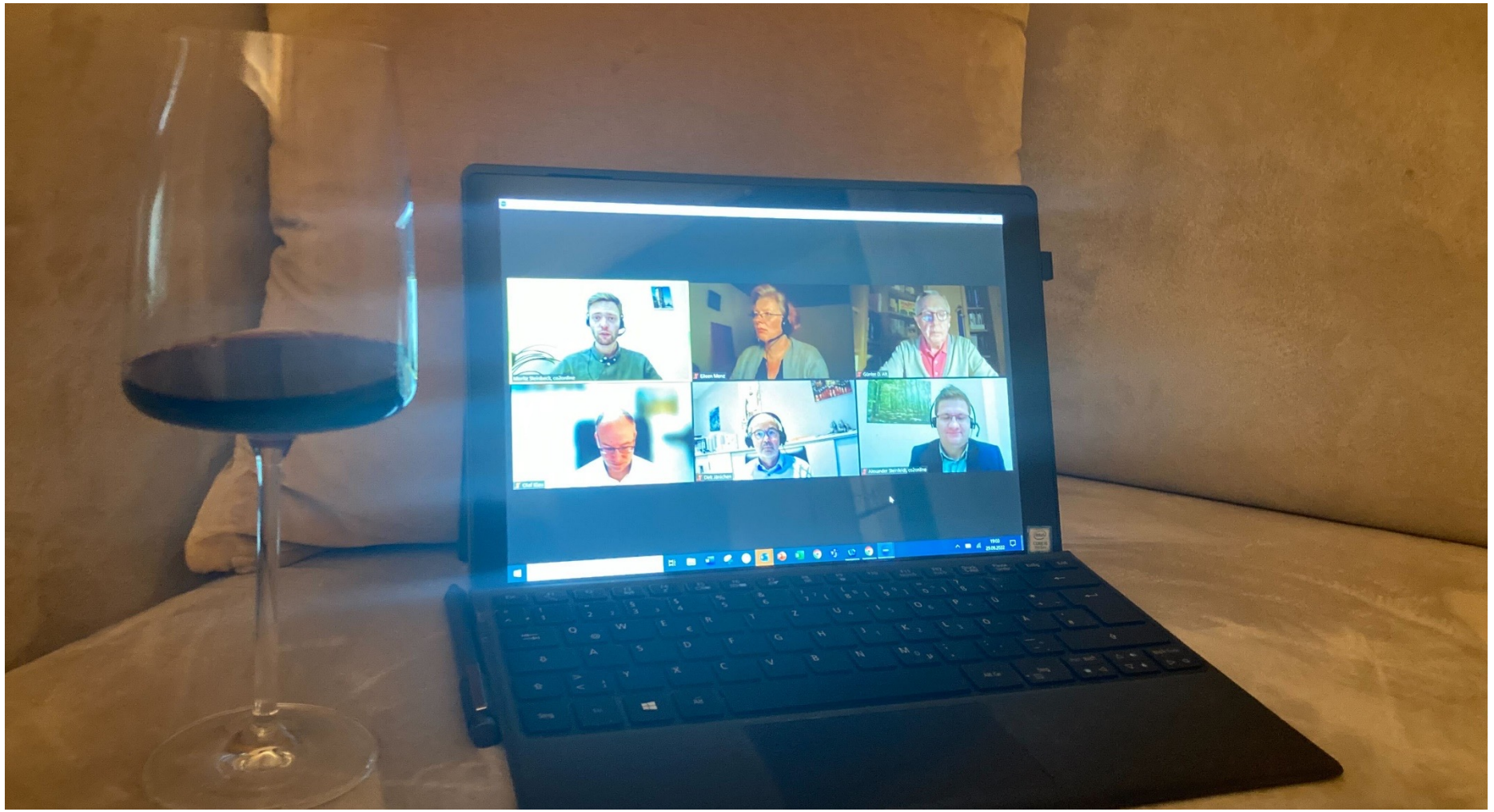
The seminar



The result

- 1.200 registrations, 560 participants

Post-survey:

- 77 % rated the seminar positive, 3% negative
- 96,5% want more online seminars
- Participants wished for more information on:
  - Basic information
  - Technical details
  - Overview of product costs and maintenance costs
  - Information on the products and manufacturers

Moritz Steinbeck
moritz.steinbeck@co2online.de

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845231.

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HEATING AND COOLING
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Teaching Materials for Schools and Quiz Competition Sweden vs Norway

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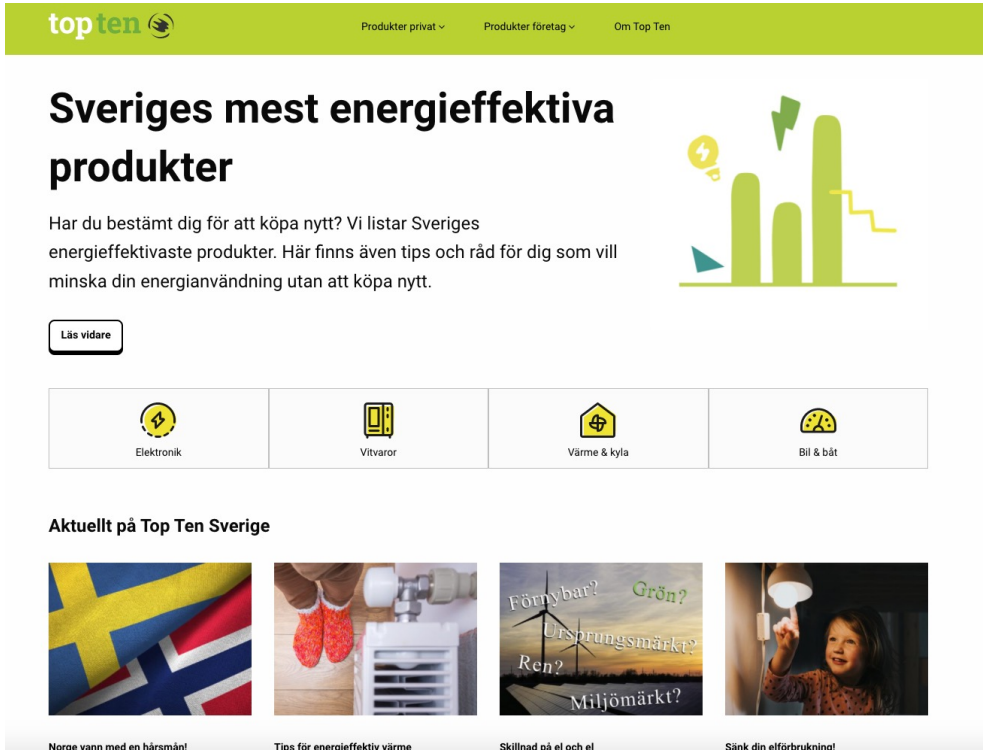
School Material - Purpose

- Spreading awareness regarding energy efficiency
  - Requested by The SSNC and teachers
- Spreading awareness regarding HACKS
  - The Topten Sweden website



School Material – what was included?

KWB

Easyfire 8-35

Easyfire är en serie pelletspannor från KWB. Pannan finns med effekterna 8 kW, 12 kW, 15 kW, 22 kW, 25 kW, 30 kW och 35 kW och passar därför i både små och stora hus. Den är byggd för att passa även i små utrymmen och kräver endast en golvyta på 0,75 kvadratmeter. Enkel konstruktion med askbehållare som mycket sällan behöver tömmas. Utrustad med styrsystemet Comfort 4 som även går att styra på distans. Svensk återförsäljare för pannan är GotFire.

Energiklass: A+

Effekt: 8 kW, 12 kW, 15 kW, 22 kW, 25 kW, 30 kW och 35 kW

Höjd/bredd/djup: 1260/880/930 mm (mindre modellerna)

Pelletsmatning: Lufttryck/skruv

Energieffektivitetsindex (EEI): 118

Läs mer och se återförsäljare

- Ages 13-15
- Two different webpages
  - Energy concepts
  - Exercises
    - Using information on the Top Ten product pages to calculate efficiency

School Material - Results

- Page views and sessions
  - SSNC pages and news letter for schools
    - 2325 page views
    - 2649 opened news letters March 2022
  - Topten Sweden
    - 18 076 page views March 2022
    - 12 439 page views January and February 2022

School Material - Conclusion

- Overall appreciated
- Increased awareness
- In the process of updating
- Aiming to retrieve more detailed feedback

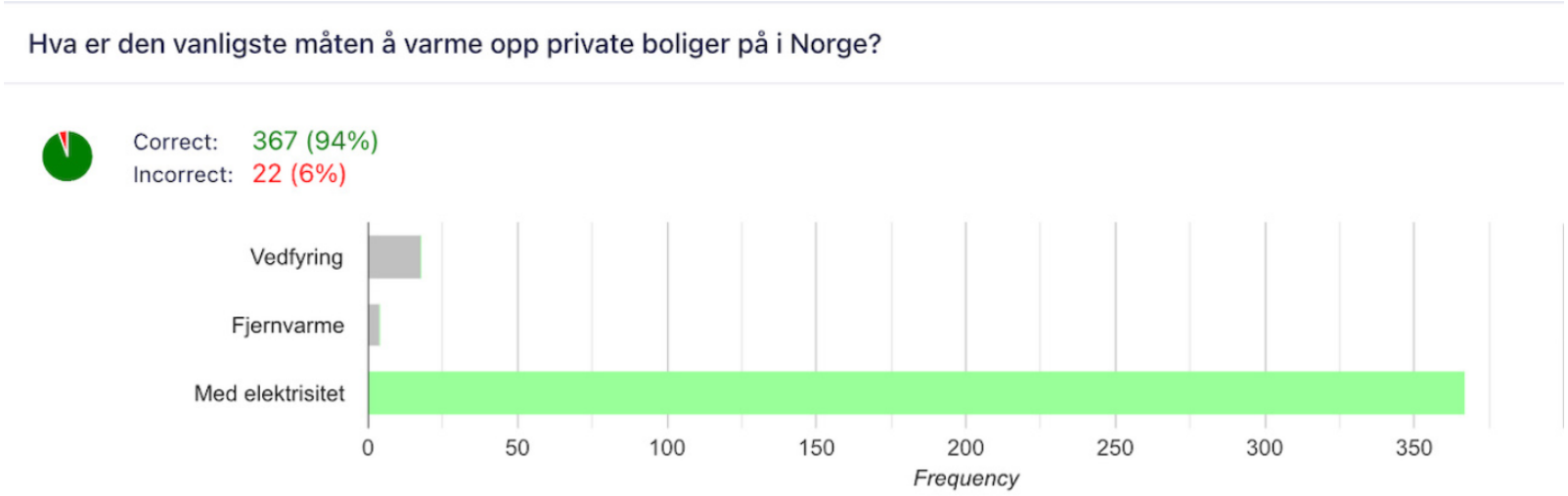
Quiz – Purpose

- SSNC and the Norwegian Society for the Conservation of Nature
  - Energismart.no
- Aimed at younger audiences
- Inform about energy, energy efficiency and HACKS in a fun way

Vilket är det vanligaste sättet att värma sin bostad i Sverige?

- Pellets
- Fjärrvärme ✓
- Värmepump

Rätt svar: Fjärrvärme Fjärrvärme är ett smidigt sätt att värma upp många bostäder samtidigt i en tätort. Men olika fjärrvärme kan vara olika hållbar och komma från olika källor som t ex sopförbränning, skogsråvaror eller restvärme från industri. På toptensverige.se finns en lista över miljömärkta fjärrvärmeavtal.



Which is the most common way to heat private housing in Norway?

a) Fire wood
b) District heating
c) With electricity

Quiz - Results

- Winner…. NORWAY!
  - Sweden: 6.22/10 average score
  - Norway: 6.67/10 average score
- Participants
  - Sweden: 190
  - Norway: 389
- Page views
  - Peak Topten Sweden: 1269 in one day
  - June: 26 973 page views

Clara Jonsson
The Swedish Society for Nature Conservation
clara.jonsson@naturskyddsforeningen.se

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845231.

HEATING AND COOLING
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The role of installers as multipliers to help their customers save on energy bills

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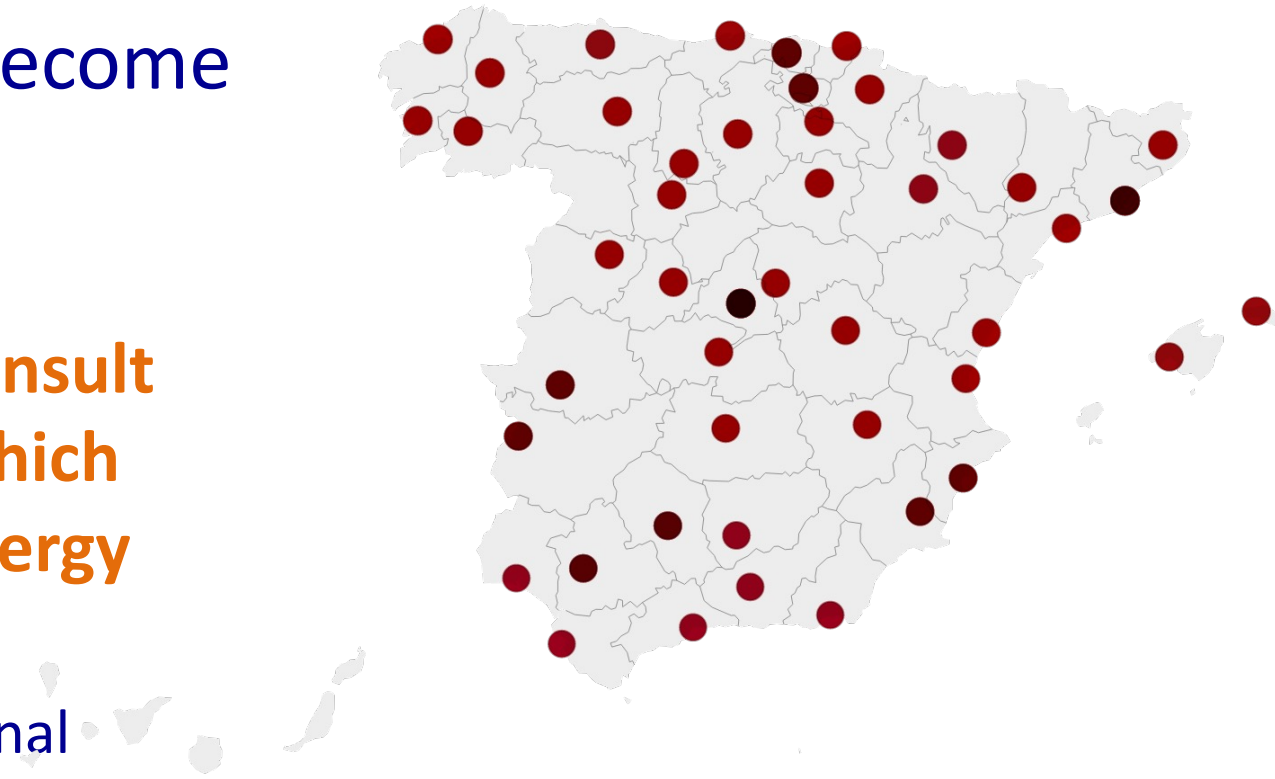
ecodes
tiempo de actuar

topten.eu

The role of installers as multipliers to help their customers save on energy bills

- Who is the stakeholder best positioned to advise consumers on how to become more efficient and save on bills?
  - In Spain the **installers** play a very important role, normally **people consult installers and technicians about which system to choose.** They are real **energy advisors.**

    We established a synergy with a National Confederation of Installers.



The role of installers as multipliers to help their customers save on energy bills

- **Give advice for everyday life and to explain technical issues in a simple and friendly way.**
  - VIDEO 1 **How to save** energy and money?
  - VIDEO 2. **Tips** to improve the temperature of your home and maintain comfort in winter.
  - VIDEO 3. What **types of heating systems** can we choose from?
  - VIDEO 4. **How to choose** the right heating equipment for your needs?

The aim was to create materials that can also be used by other stakeholders

1. send to their customers
2. social networks and websites
3. used in trainings

The role of installers as multipliers to help their customers save on energy bills

The role of installers as multipliers to help their customers save on energy bills

ECODES
@ecodes

A través de #Hacks, te traemos una serie de consejos sobre como ahorrar energía y💸en tu factura. Aplica estas prácticas que reducen el consumo de energía sin disminuir las prestaciones y el confort.
👇
youtube.com/watch?v=Zi0AMa...

Ecodes -Fundación Ecología y Desarrollo
Publicado por Hootsuite · 17 de enero a las 10:00 ·

¿Sabías que la aerotermia y la geotermia son dos excelentes opciones para producir calor sostenible y con el que podemos ahorrar energía y reducir nuestro impacto ambiental? Estas tecnologías usan la energía que se encuentra en el aire o en el suelo para calentar nuestras casas de forma eficiente. ¡Descubre todos los beneficios de estas técnicas sostenibles! #calorsostenible #energia

👀📹https://www.youtube.com/watch?v=-pkd77PCVL4
〰Vía #Hacks 〰

.COM
e equipos más sostenibles para la calefacción a través de #Hacks
que la aerotermia y la geotermia son dos excelentes opciones para producir calor sost...

ECODES
@ecodes

✔¿Qué debo de considerar a la hora de elegir un buen sistema de calefacción? Desde #Hacks te traemos una serie de consejos para que realices la compra más óptima de tus equipos de calefacción y climatización. 👇

👀📹youtube.com/watch?v=RvAQg7...

ECODES
@ecodes

Con la llegada del invierno buscamos que nuestros hogares se adecuen a estas temperaturas con ideas que mejoren el confort en su interior.
📌Aplica simples consejos para acondicionar la casa en invierno
📹youtube.com/watch?v=0FVB2I...

#HACKS #AhorroEnergético #EficienciaEnergética

youtube.com
¿Cómo seguir manteniendo el confort en el hogar maximiz...
¡A través de Hacks te damos la respuesta! Burletes, redistribución de muebles, reguladores... todo lo que ...

ECODES (Fundación Ecología y Desarrollo)
8.199 seguidores
1 mes •
+ Seguir

A través de #Hacks, te traemos una serie de consejos sobre como ahorrar energía y💸en tu factura. Aplica estas prácticas que reducen el consumo de energía sin disminuir las prestaciones y el confort.
👇
https://lnkd.in/dwwRTsvR

1:05
Recomendar
Comentar
Compartir
Enviar
Añadir un comentario...

Daniel Sanz - Jeannette Bain
Jeannette.bain@ecodes.org

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845231.

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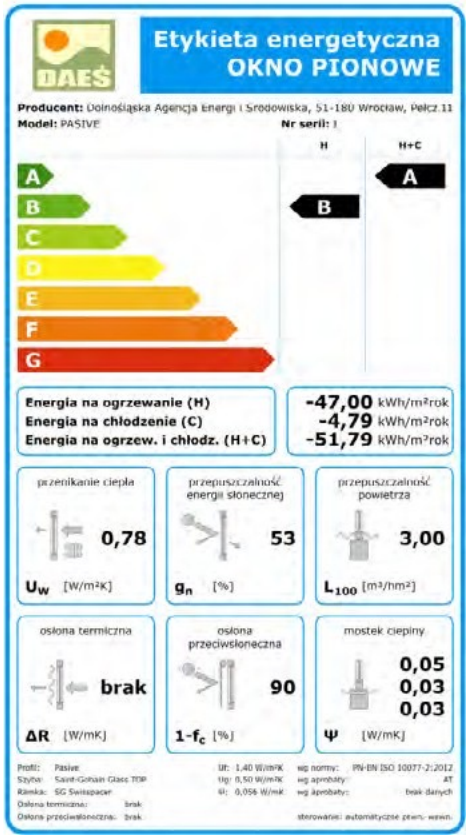
HEATING AND COOLING
KNOWHOW AND SOLUTIONS

Window Competition

HACKS Final Event – 14 February 2023

Short History of the TOPTEN Competition

Window energy label



The energy labels of the products were drawn up in the "Window Energy Label" programme, an in-house programme created by the DAEiŚ to calculate the energy efficiency of doors and windows.

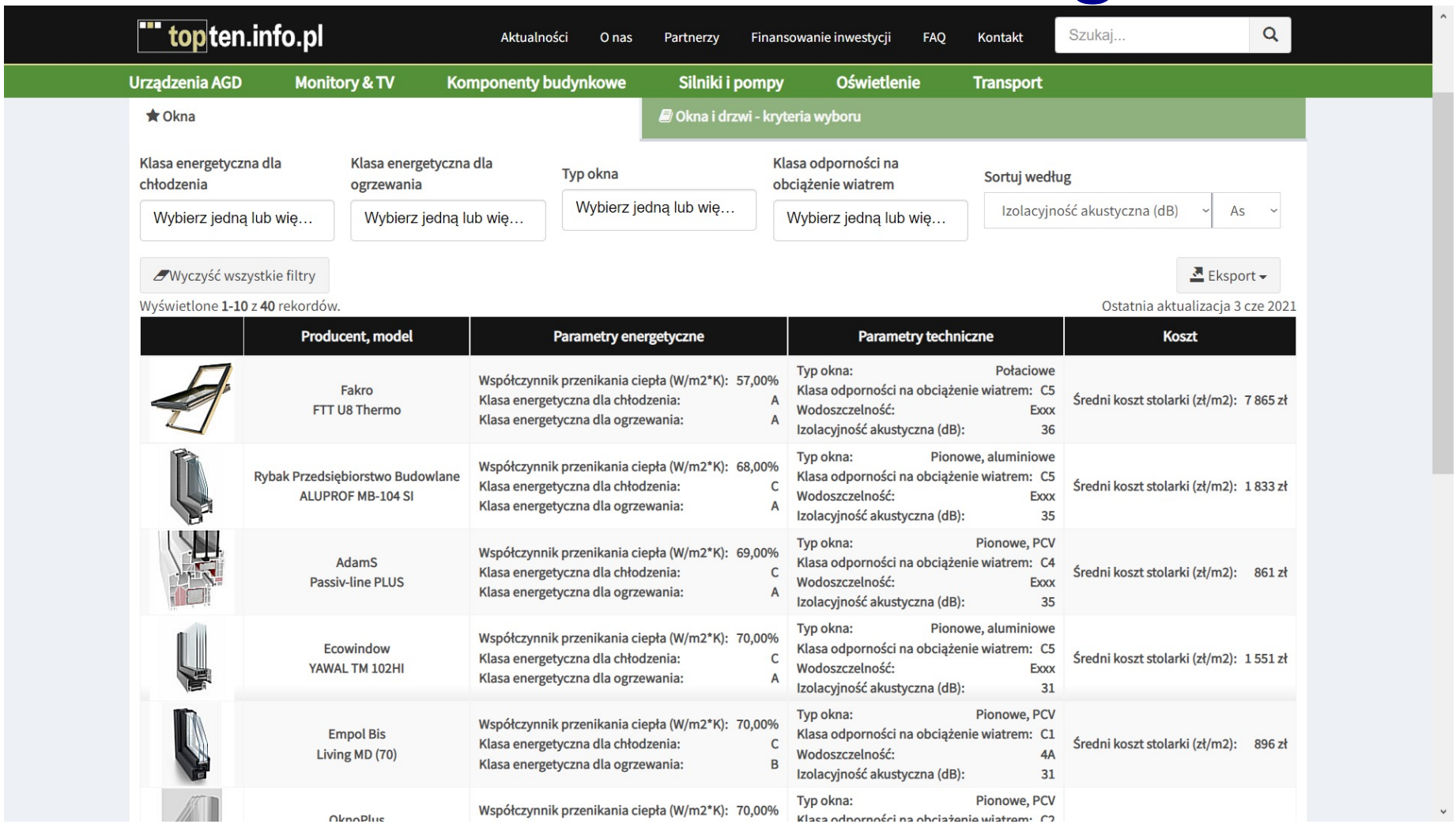
HEAT TRANSFER COEFFICIENT FOR WINDOWS AND DOORS - **UW**
The basic parameter most often used to characterise the thermal properties of windows and doors.

SOLAR ENERGY TRANSMITTANCE - **G**
When selecting the glazing, the g value should be as high as possible, but then provision should be made for the use of solar shading.

WINDOW AIR PERMEABILITY - **L100**
The air permeability of a window (infiltration) determines how airtight the joinery is.

https://topten.info.pl/private/selection-criteria/okna-drzwi

TOPTEN Web Page



Windows catalogue

Ogólnopolski Konkurs

NA NAJLEPSZĄ STOLARKĘ BUDOWLANĄ

euro top ten POLSKA

okna 2022

/ Historia Topten

Idea **Topten** powstała w 2000 r. w Szwajcarii. W 2004 i 2005 r. podobne inicjatywy z sukcesem powstały we Francji i Austrii, a od 2006 r. projekt jest realizowany w Polsce. Obecnie trwa jego czwarta edycja – TOPTEN ACT – w którą zaangażowanych jest 17 partnerów (z Austrii, Belgii, Czech, Francji, Hiszpanii, Szwecji, Litwy, Luksemburga, Niemiec, Norwegii, Polski, Portugalii, Rumunii, Szwajcarii, Wielkiej Brytanii i Włoch). Inicjatywa TopTen rozwija się także poza kontynentem europejskim – w Chinach, Chile oraz Argentynie.

Fundacja na rzecz Efektywnego Wykorzystania Energii
Polish Foundation for Energy Efficiency

Kontakt:

Fundacja na rzecz Efektywnego Wykorzystania Energii

ul. Rymera 3/4;
40-048 Katowice
tel./fax. +48 32 203 51 20
e-mail: office@fewe.pl

Kierownik projektu:
Anna Bogusz
(a.bogusz@fewe.pl)

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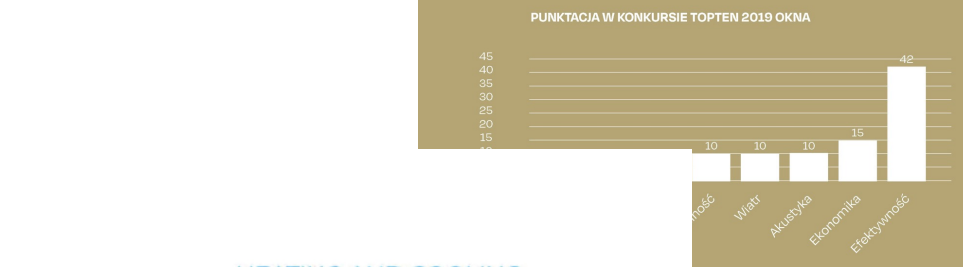
HEATING AND COOLING
KNOWHOW AND SOLUTIONS

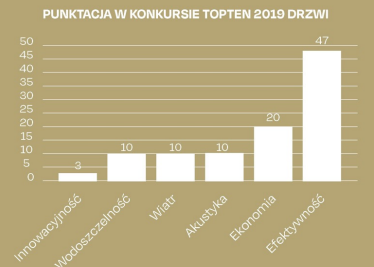
HACKS

Konkurs jest realizowany w ramach projektu **„HACKS – Heating And Cooling Know-how and Solutions"**. Projekt uzyskał finansowanie z unijnego programu badań i innowacji Horizon 2020 w ramach umowy dotacji nr 845231, którego celem jest zachęcać do wdrażania w domach rozwiązań, które zużywają mniej paliwa, obniżają rachunki za energię oraz poprawiają komfort życia, a także wsparcie konsumentów w wymianie nieefektywnych urządzeń grzewczych i chłodzących (HAC) na nowe, energooszczędne.

/ TOPTEN Okna 2019 - Kryteria oceny

W V edycji konkursu brano pod uwagę następujące parametry charakteryzujące stolarkę:





tawowe wynikające z Prawa budowlanego

stolarki budowlanej wbudowanej w budynek mają wpływ następujące parametry:

przenikania ciepła U [W/m² K]
przepuszczalności energii słonecznej – g
okna,
arki z konstrukcją budynku opisany za pomocą wartości mostka cieplnego połączenia,
ział powierzchni szyby do powierzchni całego okna,

HACKS

euro top ten POLSKA

topten.eu

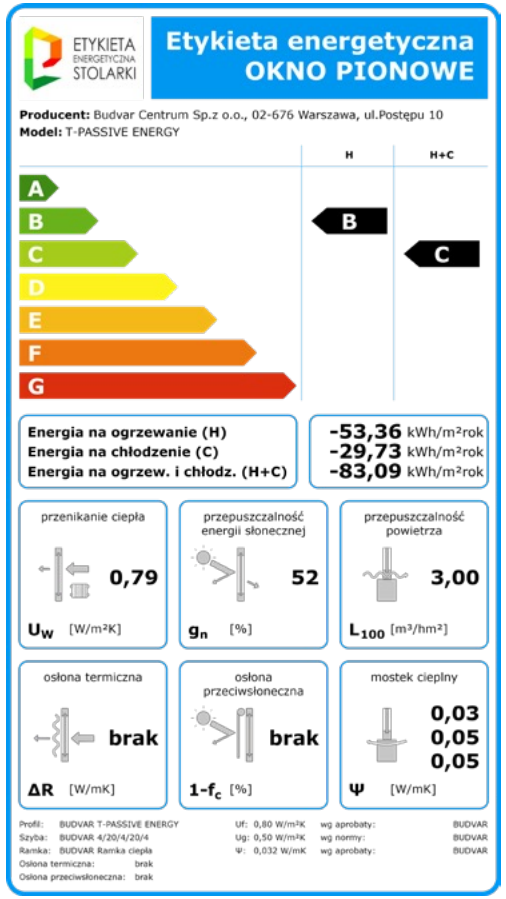
Windows catalogue

BUDVAR
okna trwalsze niż inne

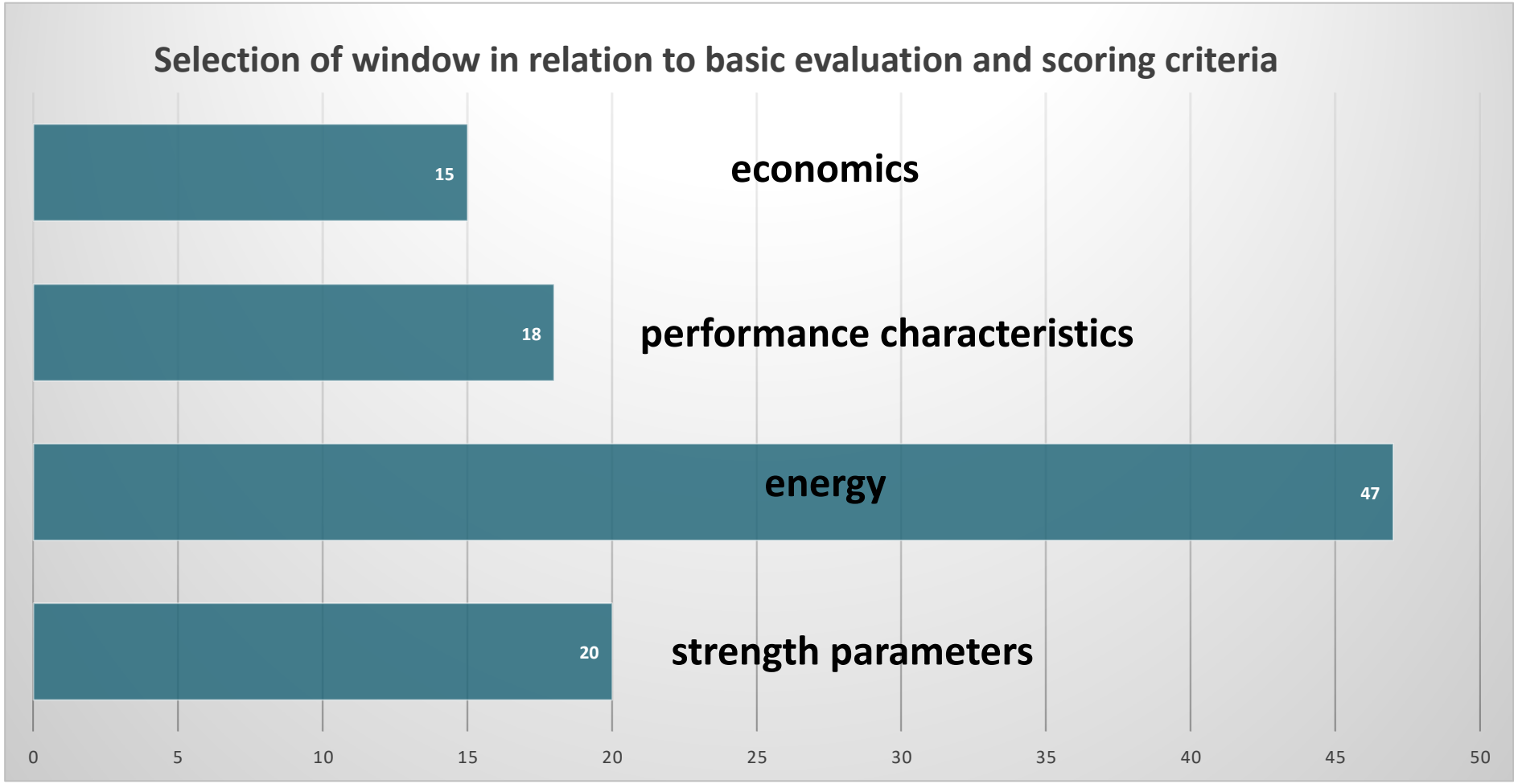
T-PASSIVE ENERGY

T Passive to nowoczesne okno PCV, które dzięki futurystycznemu kształtowi profilu doskonale wygląda, a dzięki trzem szybom, ośmiokomorowym profilom i uszczelce również doskonale izoluje termicznie i akustycznie. Okna T Passive sprawdzą się świetnie wszędzie tam, gdzie potrzebujesz energooszczędności i maksymalnej redukcji utraty ciepła. Okno wykonane jest w Tytanium Technology® z najwyższej jakości komponentów co daje gwarancję na długie lata. zwiększona ilość komór - 8 komorowy profil skrzydła o grubości 86 mm. Profil ma nowoczesny zaokrąglony wygląd projektowany pod kątem aktualnych trendów i oczekiwań klienta a gładka powierzchnia ułatwia czyszczenie.

RW	Wiatr	Woda	Światło
34 (-1,-5)	C4	8A	70%



Evaluation criteria



Participants

Product categories	Manufacturers	Products
exterior doors	19	23
roof windows	7	21
vertical aluminium windows	26	26
vertical wooden windows	15	15
vertical PVC windows	25	25
SUM	92 (unique 78)	89

PVC windows

		TOPTEN 2015	TOPTEN 2019	TOPTEN 2022
U [W/m2K]	maximum	0,81	0,86	0,9
	average	0,72	0,76	0,82
	minimum	0,50	0,69	0,74
		TOPTEN 2015	TOPTEN 2019	TOPTEN 2022
Average costs [EUR/m2] / %	maximum	200 / 100%	275 / 138%	353 / 177%
	average	124 / 100%	196 / 158%	200 / 162%
	minimum	71 / 100%	125 / 176%	151 / 213%
		TOPTEN 2015	TOPTEN 2019	TOPTEN 2022
energy efficiency index EE h [kWh/m2rok]	maximum	49,97	55,59	88,6
	average	43,36	47,54	56,7
	minimum	34,19	34,6	45,4

To be continued

s.liszka@fewe.pl

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HEATING AND COOLING
KNOWHOW AND SOLUTIONS

Rebate programmes in Luxembourg

HACKS Final Event – 14 February 2023

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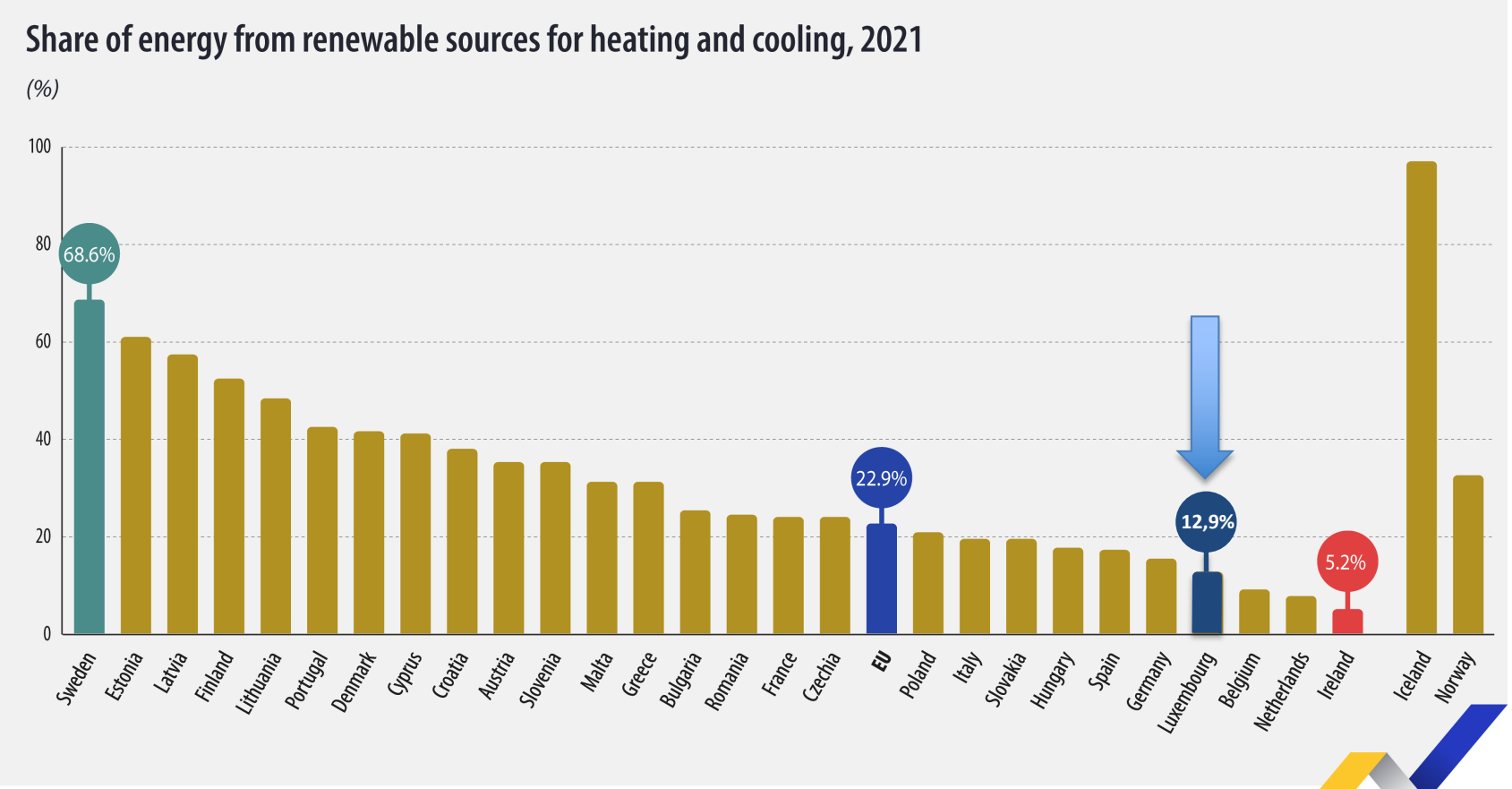
mouvement écologique

topten.eu

Heating and cooling from renewables

Fourth-last place for Luxembourg



According to Eurostat, Luxembourg scores particularly poorly in terms of energy efficiency in residential buildings.

Around **1.6 tonnes** of greenhouse gases were produced per capita in Luxembourg in 2021 to heat or cool private households.

eurostat

3 February 2023

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topten.eu

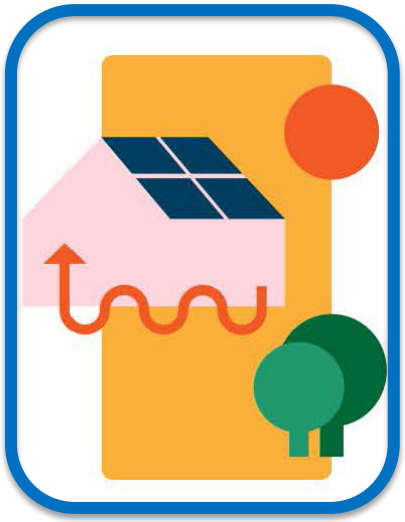
Klimabonus

Luxembourg's national grant scheme

Protection of biodiversity

Sustainable mobility

Sustainable housing



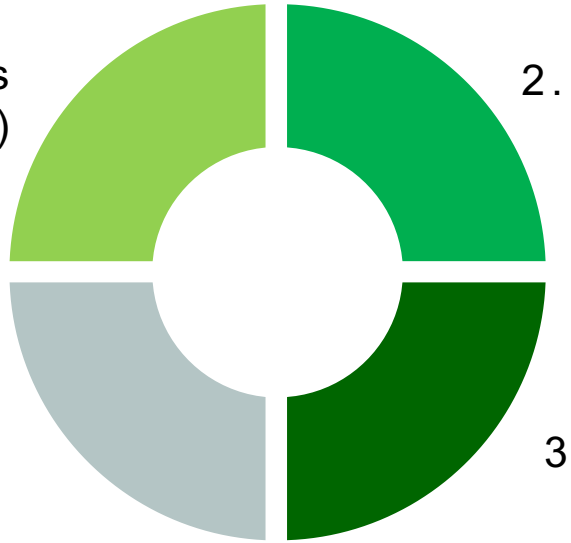
Renewable energy

Klimabonus

Financial support for heating systems based on renewable energies

The four alternatives to fossil fuels

1. Heating networks (based on renewable energy)



2. Geothermal heat pumps

4. Biomass boilers (increased requirements on fine particle emissions)

3. Air/water heat pump

Bonus

«Fuel replacement program» for all replacements from fossil to renewable!

Klimabonus

Heating pumps

Geothermal heating pumps	Single-family home	Building/apartments
Existing building & New building	**8.000 € - 12.000 €**	**7.500 € - 37.500 €**

Air/water heating pumps	Single-family home	Building/apartments
Existing building	**5.000 € - 12.000 €**	**5.000 € - 12.000 €**
New building	**3.000 €**	**2.000 € - 10.000 €**

Klimabonus

Wood-fired boiler

Pellets and wood chips	Single-family home	Building/apartments
Existing building	**max. 7.500 €**	**max. 30.000 €**

Wood logs	Single-family home	Building/apartments
Existing building	**max. 3.500 €**	

Pellet stove	Single-family home	Building/apartments
Existing building	**max. 2.500 €**	**-**

Klimabonus

Energy poverty

“Topup social 100% Klimabonus – Wunnen”

For whom:

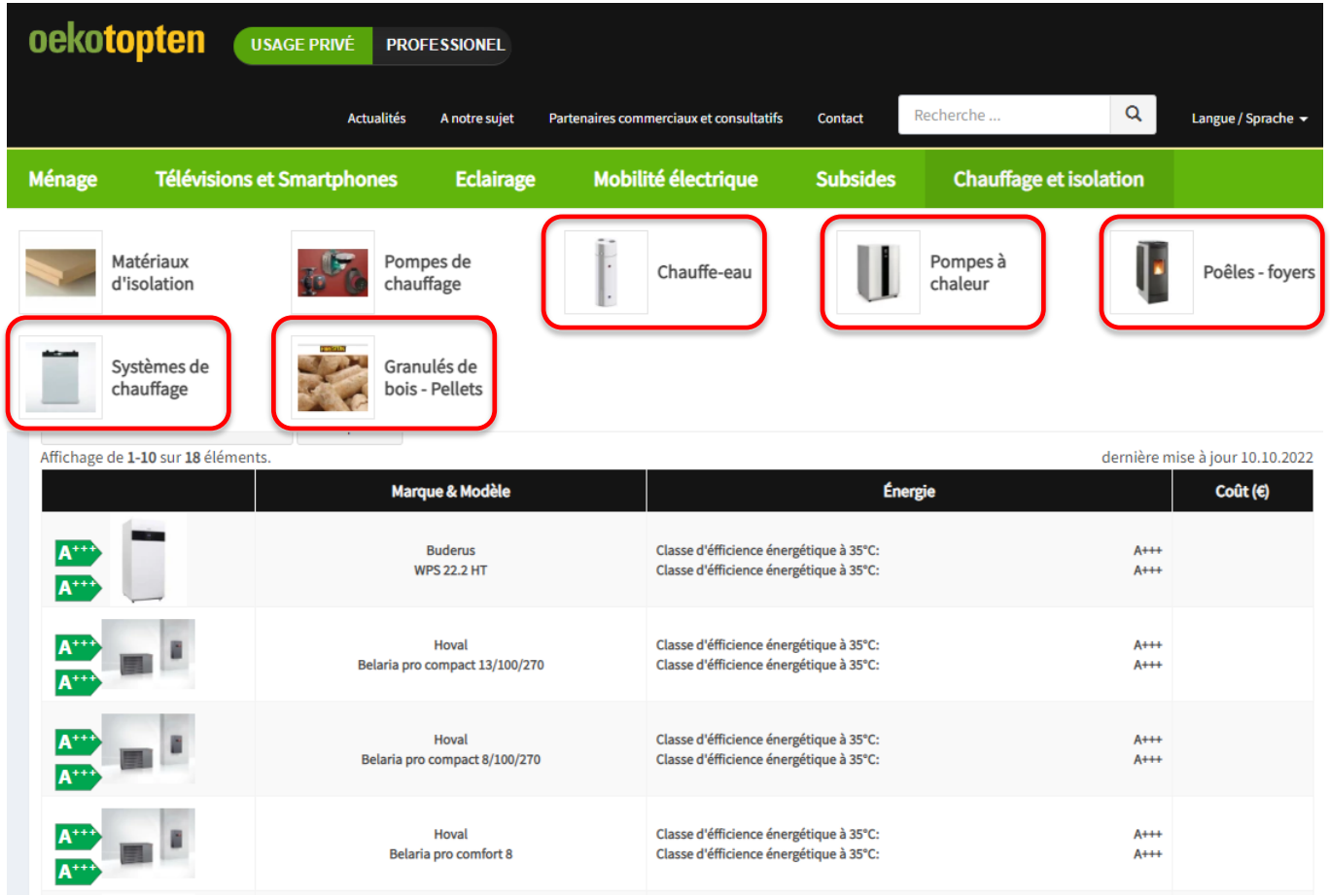
- ✓ Beneficiary of Klimabonus grants
- ✓ Income level: below the median

What:

- ✓ The “Topup social 100%” can result in a doubling of the aid
  - depending on the beneficiary's household income
  - tripartite: increase of the initial maximum amount from 40% to 100% of the financial support

Objective: **Avoid energy poverty!**

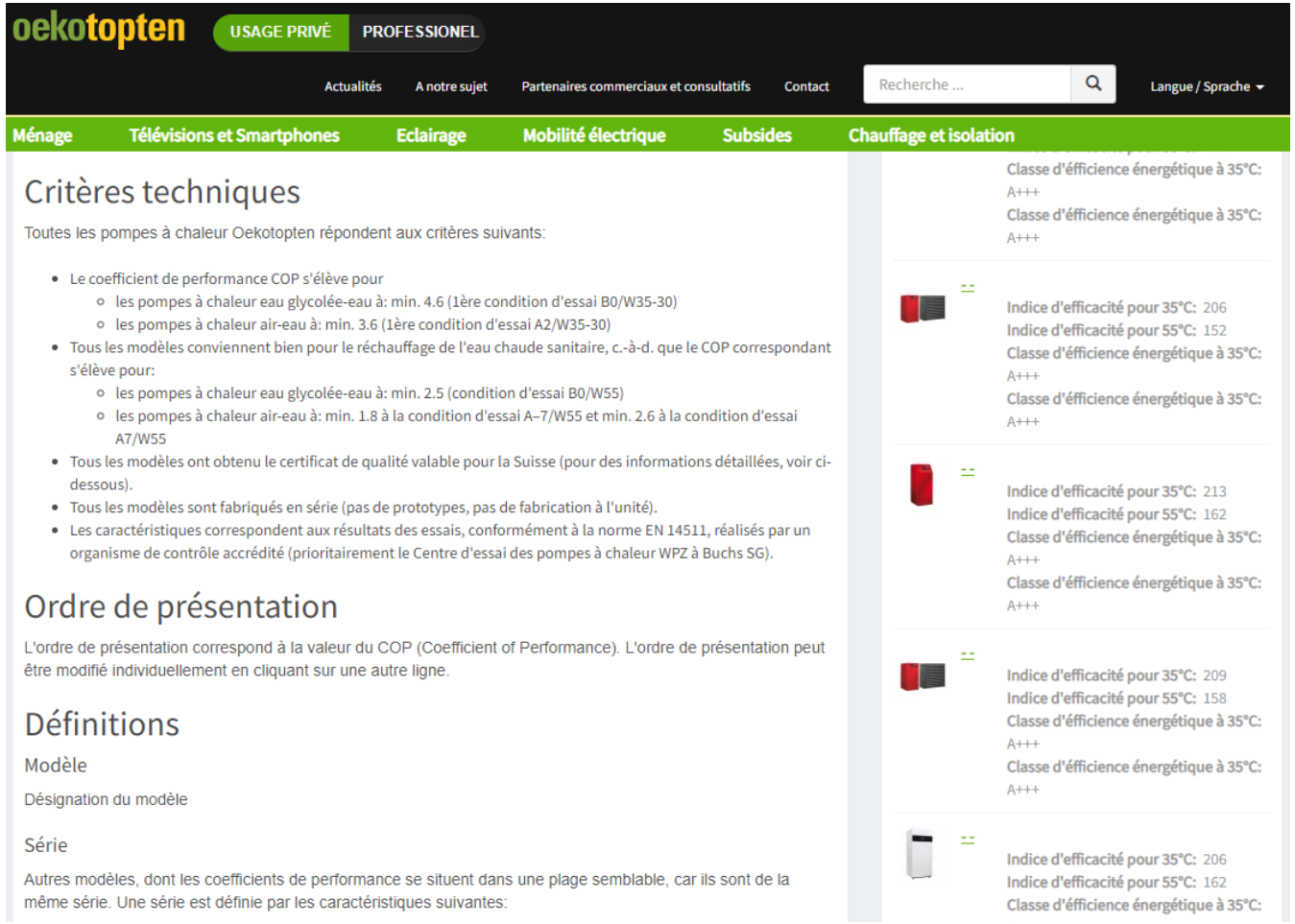
List of eligible products on oekotopten.lu



- With the exception of the heating networks, all eligible heating systems of the “Klimabonus" funding programme can be found on the Oektopten.lu website of the HACKS project.

- In the recommendation section on Oekotopten.lu there is a link to the simulator of the national funding programme "Klimabonus“ for more information.

HACKS criteria as basis for Klimabonus



- The criteria for HACKS products were used by the Luxembourg government as the basis for the criteria of its funding programme.

HACKS
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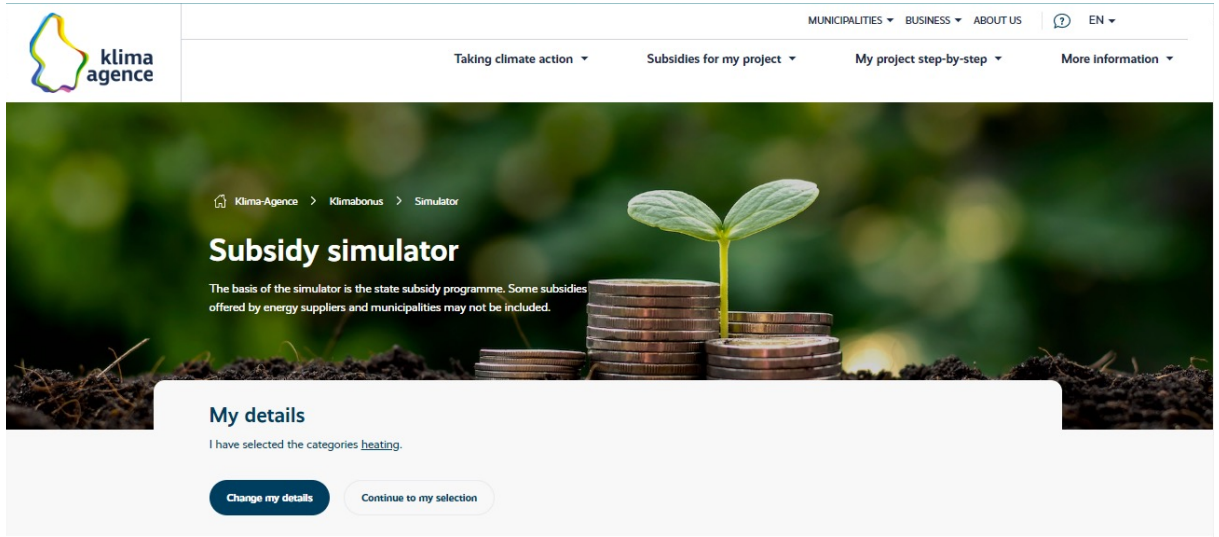
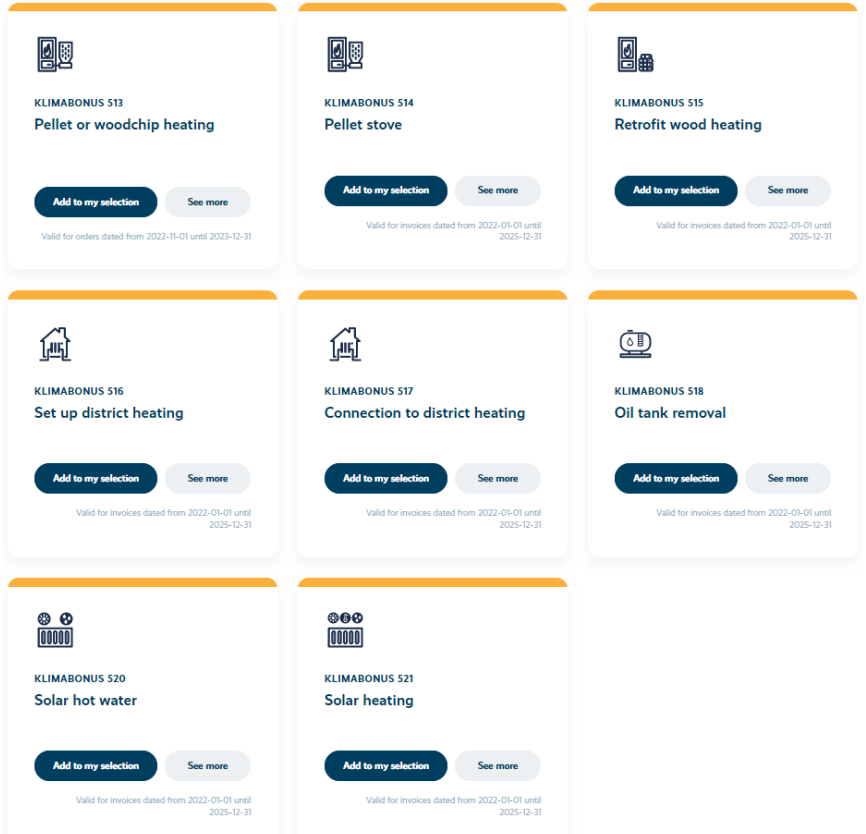
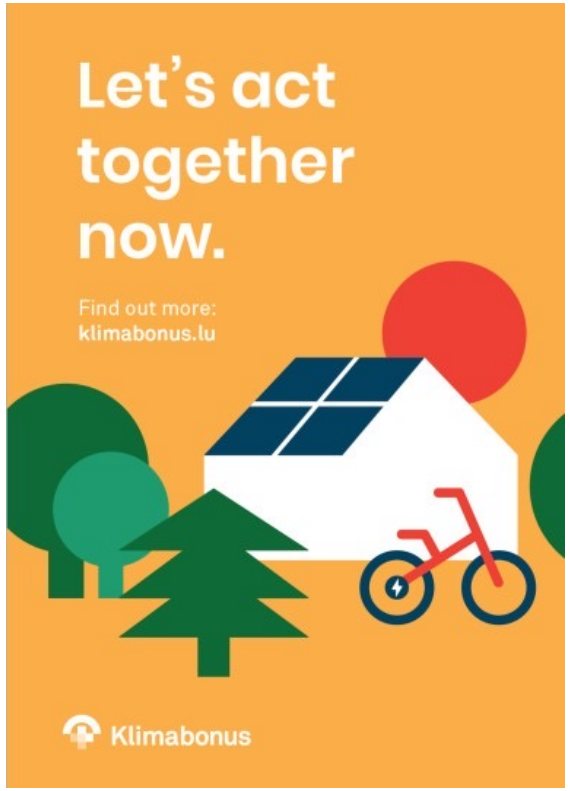
mouvement écologique
topten.eu

Subsidy simulator

A practical and customisable solution at the heart of the Klima-Agence website







Thierry LAGODA
thierry.lagoda@oeko.lu

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HEATING AND COOLING
KNOWHOW AND SOLUTIONS

Transforming the European Comfort Fan Market

HACKS Final Event – 14 February 2023

What is an efficient fan?

Pedestal fan

Ceiling fan

Floor standing fan

Table fan

Tower fan

- Appliances that are designed to create air movement around or on part of a human body for personal cooling comfort.
- Over 52 million units sold in the European Union in 2020. High correlation with heat waves. Potential savings: 1-2 TWh by 2030
- Fan efficiency is measured with the Service Value (the higher, the better)

$$- Service\ Value = \frac{\frac{m^3}{min}}{W}$$

How it started: Local Subsidy programme (2017)

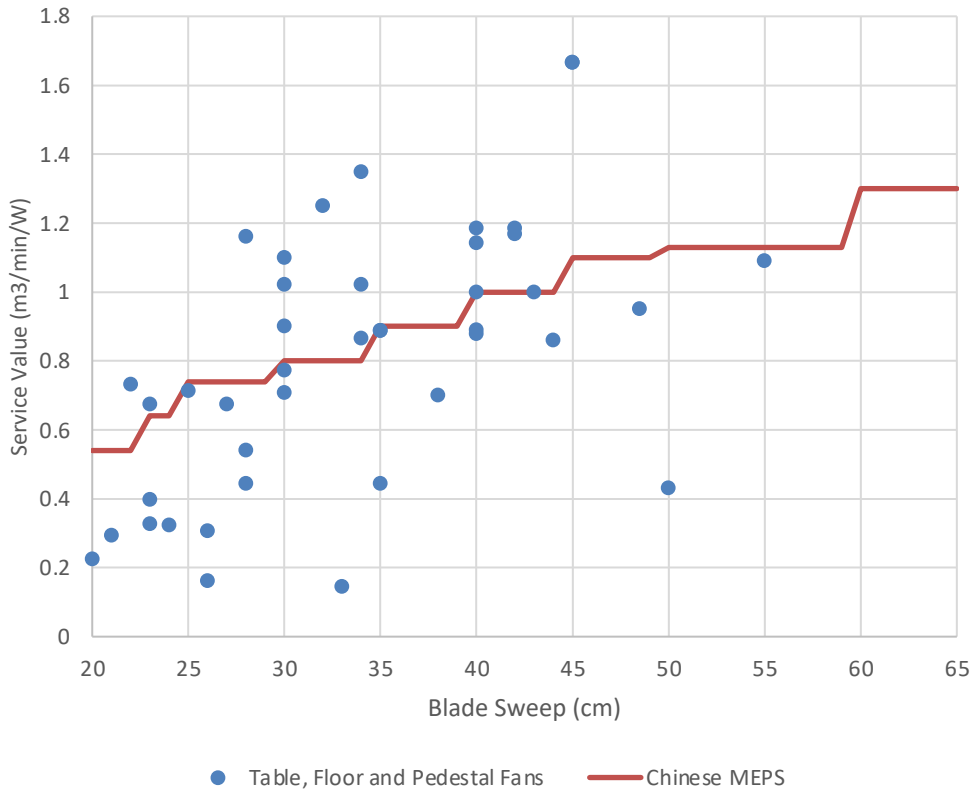
- Existing Commission Regulation (EU) No 206/2012 for air conditioners, where **comfort fans are only a minor part.** But it does include information requirements for comfort fans.
- To push for energy efficient comfort fans, a **Swiss subsidy programme** from EKZ (a Swiss cantonal electricity supplier) was started.
- To create a product list on Topten, a **market assessment** needed to be done.

Findings from the market assessment (2017)

- Products evaluated: **158**
- Products with complete information requirements: **8**
- Information requirements received upon request to the manufacturer or importer: **67**
- Total number of products used in the market assessment for the Topten list: **75**
- **89% of products did not comply with the current regulation that is in force!** (missing product information)

Environmental Dumping from China

- Since 95% of products are imported from China, the energy efficiency of the fans in the sample were **compared to the Chinese MEPS.**
- Out of the 75 models evaluated, 32 models **(42%) did not comply** with the Chinese MEPS.
- It is expected that the amount is even higher as there is a reporting bias where good performers tend to report more than bad performers.



Topten Product list with the best comfort fans

- The Topten product list went online with 41 models (2018).
- Topten defined selection criteria per fan type by selecting the 50% of most efficient products according to their Service Value.
- But even with the top efficient 50% of European products, **almost ¼ of the products did not comply with the Chinese MEPS** (in force since from 2008!).
- In 2021 the Topten list still contained products that do not comply with the Chinese MEPS (9%, 12 models of 123 models).

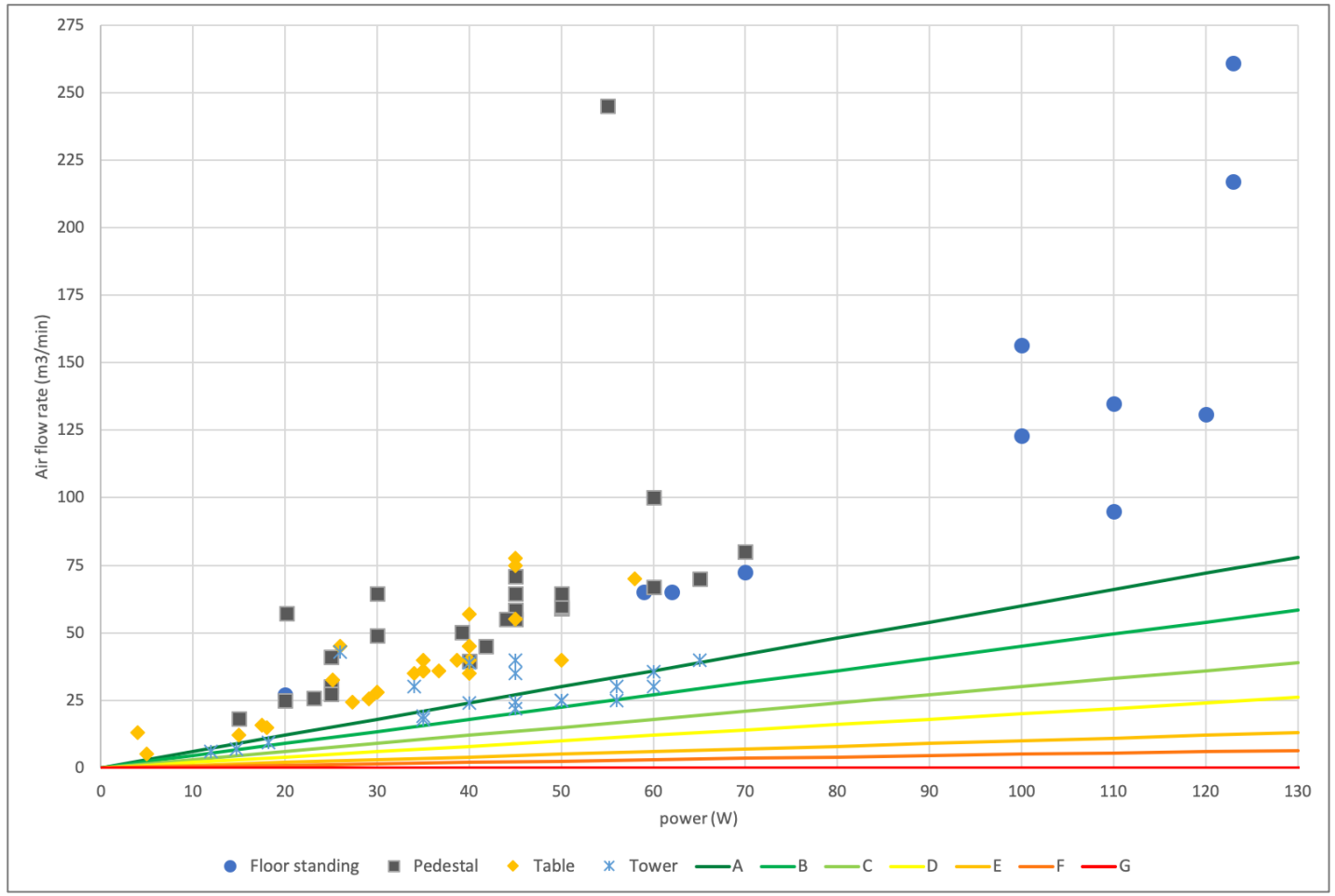
Policy Recommendations for the EU (2021)

- Environmental dumping can be easily avoided: **Align product requirements with those of exporting countries** (like China, who has much stricter MEPS, in force since 2008)
  → The EU should align or introduce more stringent requirements
- Comfort fans were neglected in the review study (2018)
  → **Strong MEPS and an ambitious Energy Label** should be included in the revision of Commission Regulation (EU) No 206/2012.
- 52 million units sold in 2020, 1-2 TWh of savings possible
  → These products should be seriously **addressed in their own regulation, not together with ACs and local space heaters**

Review process of EC No 206/2012 (2017 - ongoing)

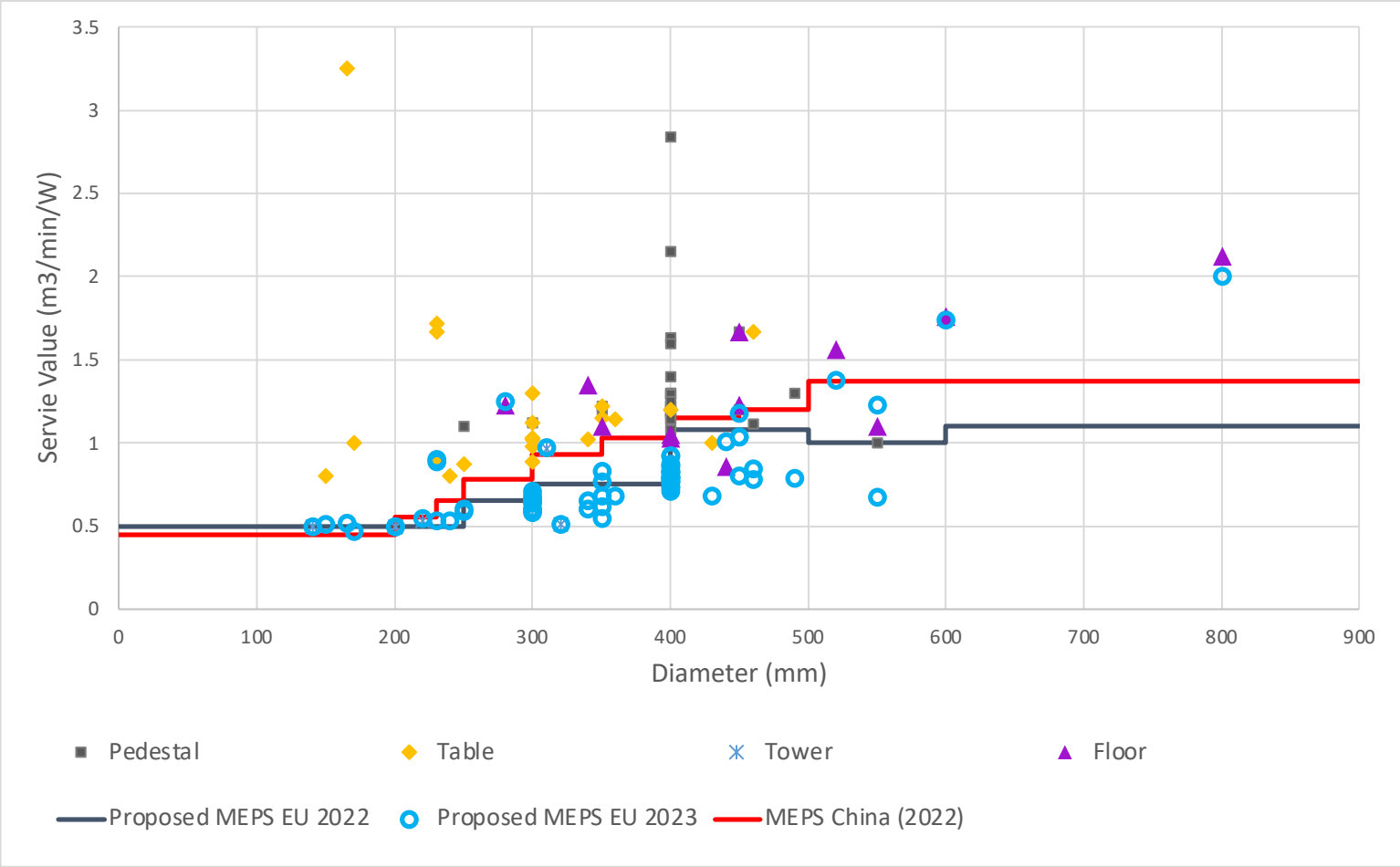
- The preparatory study (2018) did not contain relevant information regarding comfort fans (use of old data from 2008, old measuring standards). Topten provided **additional, updated information** during the Consultation Forum and to Policy stakeholders.
- Because of this new information, the Consultation Forum (2021) asked for **MEPS and Energy Labelling** for comfort fans.
- At the Consultation Forum (2022), a draft for MEPS and Energy labelling was presented.
- Based on market data, Topten was able to show that the **thresholds are too low already today** (see next slide) and proposed new, **more ambitious thresholds for the label** and asked for **alignment with Chinese MEPS.**

Proposed Energy Label for Comfort Fans (2022)



Most of the models on Topten already now are a lot better than the best class of the proposed Energy Label.
Class A should be empty when the label is introduced.

Newest draft EC No 206/2012 (2023)



Even after Topten's input in 2022, MEPS presented in the newest draft on Ecodesign (2023), only **43% of the best models** (Topten list) **would comply with Chinese MEPS.**

How it's going: Summary

- Local subsidy programme as a trigger

  → Motivation for producers to provide product information.

- Product information on Topten raises awareness in EU

  → Knowledge about markets, regulations & products allowed Topten to support the policy process

- HACKS enabled Topten to continue the research of market and products

  → Continuous support at the Consultation Forum with new thresholds and comparative studies (e.g. March 7th 2023)

THANK YOU FOR YOUR ATTENTION!

Nadja Gross, Bush Energie GmbH
nadja.gross@bush-energie.ch

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HEATING AND COOLING
KNOWHOW AND SOLUTIONS

Wrap-up and Conclusions

HACKS Final Event – 14 February 2023

- Although far too slow: market transformation *is* happening and energy consumption *starts* reducing
  → Topten is part of this process, supported by European funds within HACKS and national funds.

- Millions of energy consuming products are sold each year – HAC equipment, domestic appliances, professional products.
  → Their energy consumption must be courageously framed if Europe wants to fulfil its Paris agreement commitments, and maintain a livable climate.

- The HACKS project will finish soon, but Topten continues!
  - Check out the European platform Topten.eu
  - And the national websites

- Stay tuned for the HACKS report early May 2023 and check out the HACKS deliverables at: https://www.topten.eu/private/page/hacks-deliverables

THANK YOU FOR YOUR ATTENTION!

Sophie Attali, Guide Topten, sattali@guidetopten.fr
Therese Kreitz, ADEME, therese.kreitz@ademe.fr

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