The coolest heating:

19 companies leading the renewable heating transition in Europe

A Climate Analysis of the Domestic Heating Market – Second Edition

A Coolproducts report, by the European Environmental Bureau

coolproducts for a cool planet

EEB European Environmental Bureau

The EEB is Europe's largest network of environmental citizens' organisations. We bring together over 160 civil society organisations from more than 35 European countries. We stand for sustainable development, environmental justice & participatory democracy.

Led by the EEB and ECOS, Coolproducts is a coalition of NGOs working to ensure better products for consumers and the planet.

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Last but not least, we would like to thank the European Climate Foundation (ECF). Without their support, this report would not have been possible.

Executive Summary

For the second year, the European Environmental Bureau (EEB) audited the portfolios of 49 manufacturers of domestic heating products who sell their products in Europe. The authors examined publicly available data, as well as manufacturers' responses to a survey, to rank them according to the climate-friendliness of their portfolios.

The results are encouraging: 19 "leaders", of all sizes and based on 10 different European countries, only sell technologies, such as heat pumps and solar thermal systems, that are compatible with short- and long-term climate objectives. They are leading the clean heating transition, without waiting for legislation to prompt them.

Four "laggard" companies still sell technologies —such as fossil-fuel boilers— that would jeopardise Europe's decarbonisation plans. These companies did not share any plans to stop their sales of fossil fuel boilers; nor did they support legislation that would quickly phase out such technologies, as recommended by the International Energy Agency[1].

Despite public efforts to portray themselves as sustainable, and despite our repeated requests for input, about half the companies contacted decided not to reply to our survey. This lack of transparency deprives the public of valuable information about the all-important transition of the domestic heating sector. For that reason, such companies were allocated to "the dark side" category.

The report also shows that manufacturers overwhelmingly support legislation that would support the clean heating transition. For example:

- 91% of respondents (compared with 87% in last year's version of this report) support the end of subsidies for stand-alone boilers and water heaters that run on fossil fuels. What is more, 83% of all respondents (up from 53% last year) support an immediate introduction of such a measure.
- 83% of respondents support a ban on the sales of stand-alone boilers and water heaters that run on fossil fuels (up from 60% last year). Interestingly, 57% of all respondents (up from 40% last year) support a ban no later than 2025.
- 91% of respondents (up from 80% last year) support the end of subsidies for direct electric heating. Over two-thirds of respondents (70%, up from 53% last year) support an immediate introduction of such a measure.

These findings come at a crucial moment: the European Union (EU) is currently discussing legislation that aims at ensuring that European buildings play their part in decarbonising the economy: most notably, the Energy Performance of Buildings Directive (EPBD) recast; and the revision of the Ecodesign and Energy Labelling regulations for heating systems.

It is often assumed in these policy discussions that industry is not ready for decarbonisation, and that it will thus support fossil gas as a bridge fuel transition in the transition to renewables. This report shows however a very different picture: a clear message from companies that says: "the era of fossil heating is over, and we are ready for the transition". Policy-makers should be emboldened by such a message, and take legislative action over the next few months.

1. International Energy Agency. "Net-zero by 2050: A Roadmap for the Global Energy Sector". May 2021.

Introduction

Buildings are responsible for about 40% of the EU's total energy consumption, and for 36% of its greenhouse gas emissions[2]. More than 220 million building units, representing 85% of the EU's building stock, were built before 2001. And 85-95% of the buildings that exist today will still be standing in 2050. For the residential sector, more than 75% of the energy produced for heating currently comes from fossil fuels (gas, oil and coal)[3].

The EU plans to reduce its greenhouse gas emissions by at least 55% by 2030 compared to 1990[4], a first step towards achieving carbon neutrality by mid-century. To achieve that target, it is estimated that by 2030 the EU should reduce buildings' greenhouse gas emissions by at least 60%, their final energy consumption by at least 14%, and energy consumption for heating and cooling by at least 18%, all compared to 2015 levels[5].

BY 2030, THE EU SHOULD REDUCE BUILDINGS' GREENHOUSE GAS EMISSIONS BY AT LEAST

60%

The EU should first and foremost focus on increasing the rate and depth of building renovations. The EU's Renovation Wave aims to "at least double the annual energy renovation rate of residential and non-residential buildings by 2030 and to foster deep energy renovations" in order to "green buildings, create jobs and improve lives". These are laudable but likely insufficient objectives, according to expert estimates[6]. The recast of the European Performance of Buildings Directive, which will be discussed by legislators throughout 2022, brings a great opportunity to support or even improve the objectives of the Renovation Wave.

Beyond reducing energy demand through insulating buildings, there is a need to ensure that the remaining energy consumed in buildings is decarbonised. And that it is done really fast. A 2020 ECOS/Coolproducts report, alarmingly entitled "Five Years Left: How Ecodesign and Energy Labelling can Decarbonise Heating"[7], shows that for the EU to reach its own climate targets, the installation of fossil-fuel boilers and inefficient heating systems needs to stop no later than 2025. The rationale is simple: because fossil fuel boilers can last longer than 25 years, if their sale and installation continue beyond 2025, they will still be in place by 2050, when the EU should already be climate neutral. The International Energy Agency (IEA) made exactly the same statement in a 2021 Flagship Report[8], adding pressure for an end to fossil fuel heating.

The bill of the clean heating transition in Europe would not be exorbitant, either. Another recent Coolproducts report[9] shows that the additional amount of financial incentives needed to bring affordable clean heating to all Europeans stand at about €70bn, or about €4.5 bn per year on a 15 years decarbonisation plan. A sum compatible with the foreseen allocations of the Social Climate Funds, and funds for the Resilience and Recovery fund.

A straightforward way to ending fossil fuel heating would be via the Ecodesign and Energy Labelling regulations for heating systems, which are currently being revised: the energy label would need to allocate fossil fuel heating systems and direct electric systems to the lowest classes (F and G); and the Ecodesign regulation would ban the sales of these products by 2025. But current proposals from the European Commission are not in line with those needs, in particular regarding Ecodesign.

2. European Commission's Communication on "A Renovation Wave for Europe", page 2
3. European Commission's Communication on "A Renovation Wave for Europe", page 24
4. The European Commission has proposed in the Climate Target Plan 2030 to cut net greenhouse gas emissions in the EU by at least 55% by 2030 compared to 1990. The European Parliament suggests a 60% target.
5. European Commission's Communication on "A Renovation Wave for Europe", page 2.
6. BPIE. "On the way to a carbon-neutral Europe". December 2020
7. ECOS on behalf of the Coolproducts Campaign. "Five Years Left: How Ecodesign and Energy Labelling can decarbonise heating". December 2020.
8. International Energy Agency. "Net-zero by 2050: A Roadmap for the Global Energy Sector". May 2021
9. Coolproducts Campaign. "Green Heat for All". October 2021.

The 'Fit for 55' package of climate measures also holds immense potential to bring about the end of fossil heating. The proposal for a revised Renewable Energy Directive (RED) includes a sectorial target for renewable energy in the Heating and Cooling sector. And several provisions of the proposal of a recast Energy Performance of Buildings Directive (EPBD) take aim at fossil fuel heating, although they fail to provide a date for a EU-wide phase out. There are numerous other provisions in different parts of the 'Fit for 55' package that, if properly designed, would help align plans, objectives, financial incentives, training and restrictions towards a fossil-free heating future. Legislators have a golden opportunity over the next few months.

Legislators will however need to be wary of false solutions. Some in the heating sector argue that "decarbonised gases", such as hydrogen, will replace fossil gas in heating systems. There is, however, mounting evidence that the amounts of such gases will be limited, and that using them for heating would face a series of economic and technical challenges[10, 11, 12, 13, 14, 15, 16, 17, 18, 19] There are also doubts about the green credentials of so-called "low-carbon gases"[20]. They should therefore be used only in priority sectors that are hard to electrify. Which is not the case of domestic heating. The graphic below perfectly makes the point on the hierarchy of hydrogen use across the economy:

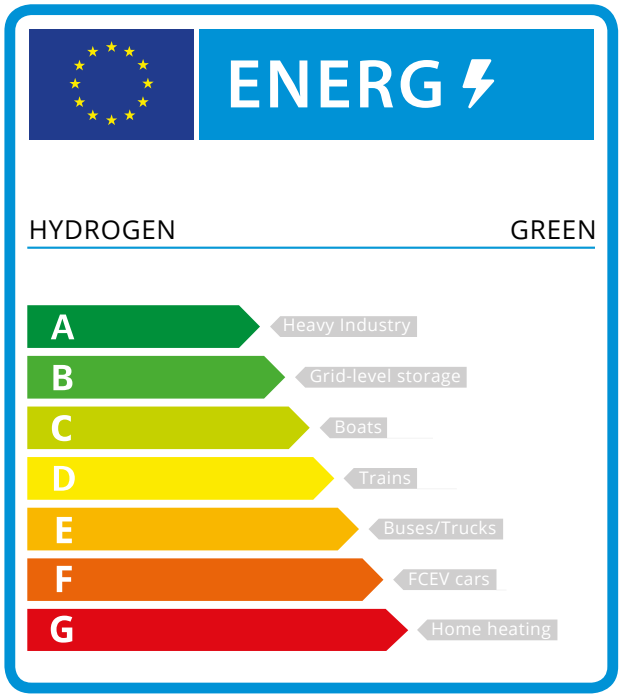


Figure 1: hierarchy of hydrogen uses. Source: Energy Cities.

In this legislative context, the European Environmental Bureau wanted to scrutinise what companies in the domestic heating sectors are already doing, and what they plan to do in the future, in terms of decarbonisation of their portfolios. To what extent are manufacturers already selling renewable heating technologies? Are they planning to drop sales of fossil fuel heating systems? Do they support legislative action in that direction? Answers to these and other questions are captured in this report, notably through a ranking exercise.

10. IRENA. "Geopolitics of the Energy Transformation: The Hydrogen Factor". January 2022.
11. Rosenow, J., and Lowes, R. (2020). Heating without the hot air: Principles for smart heat electrification. Brussels, Belgium: Regulatory Assistance Project. March 2020.
12. Carbonbrief. "In-depth Q&A: Does the world need hydrogen to solve climate change?". November 2020.
13. CAN Europe and EEB. "Building a Paris Agreement Compatible (PAC) energy scenario".
14. Michael Liebrich. "Separating Hype from Hydrogen – Part One: The Supply Side". Bloomberg NEF, October 2020.
15. Michael Liebrich. "Separating Hype from Hydrogen – Part Two: The Demand Side". Bloomberg NEF, October 2020.
16. Sunny, N., Mac Dowell, N., Shah, N. (2020). "What is needed to deliver carbon-neutral heat using hydrogen and CCS?"
17. Lowes, R., Woodman, B, and Speirs, J. (2020). "Heating in Great Britain: An incumbent discourse coalition resists an electrifying future". December 2020.
18. Jan Rosenow. "Heating homes with hydrogen: Are we being sold a pup?" Energy Monitor, 29 September 2020.
19. David Cebon. "Blog: Hydrogen for Heating". 28 September 2020.
20. How green is blue hydrogen? Robert W. Howarth, Mark Z. Jacobson. 12 August 2021.

Methodology

Scope

The 2022 Brand audit of European Heating Manufacturers covers companies that sell domestic heating systems (for space and/or water heating) in the European Economic Area (EEA). The analysis does not include companies that only sell commercial or industrial heating systems. Nor does it cover companies that sell only cooling systems or ventilation systems. It covers companies selling domestic heaters (the elements actually producing the heat, e.g. boilers, heat pumps, etc.), but not those companies that only sell emitters (e.g. radiators), or heating systems controls. The scope is therefore similar to the previous edition of this report.

Contacting companies

To identify companies that met such criteria, we first analysed publicly available information about the members of four European heating associations: the European Heating Industry (EHI), the European Heat Pump Association (EHPA), the European Partnership for Energy and the Environment (EPEE), and Solar Heat Europe. Of the 200+ combined members of these associations, we identified 49 companies as falling within the scope of our research. Admittedly, these 49 companies do not cover the entire domestic heating market in Europe, but they comprise a large, representative part of it.

We contacted each of these companies individually, and via their industry associations. We sent them a questionnaire (see *Annex 1*) with three broad sections:

1) Questions about their current activities and portfolios.
2) Questions about their future plans, and their position regarding possible future legislative changes.
3) Other broad questions about the decarbonisation of the heating sector in Europe.

We contacted companies starting in late October 2021. We gave them two weeks to reply to the survey. Over the following weeks, we sent reminders and used different means of contact (email, online contact forms, social networks, phone calls and videoconferences) to ensure that our request was clearly understood; we worked with the industry associations to ensure that our request reached the right person within each company. We extended deadlines —sometimes by several weeks— to ensure that high workloads were not an obstacle to replying to the questionnaire. In our last reminders, we informed companies that, even in the absence of a reply, they would be named in our report, under the category of companies that did not want to disclose information about the climate-friendliness of their portfolios. We made sure that all companies had a fair chance to reply to the survey.

OF THE 200+ COMBINED MEMBERS OF THESE ASSOCIATIONS, WE IDENTIFIED

49 COMPANIES

AS FALLING WITHIN THE SCOPE OF OUR RESEARCH.

Ranking companies

We then set off to rank companies according to their responses (or lack of them): leaders, followers, laggards, and the dark side. The following flowchart summarises the criteria used:

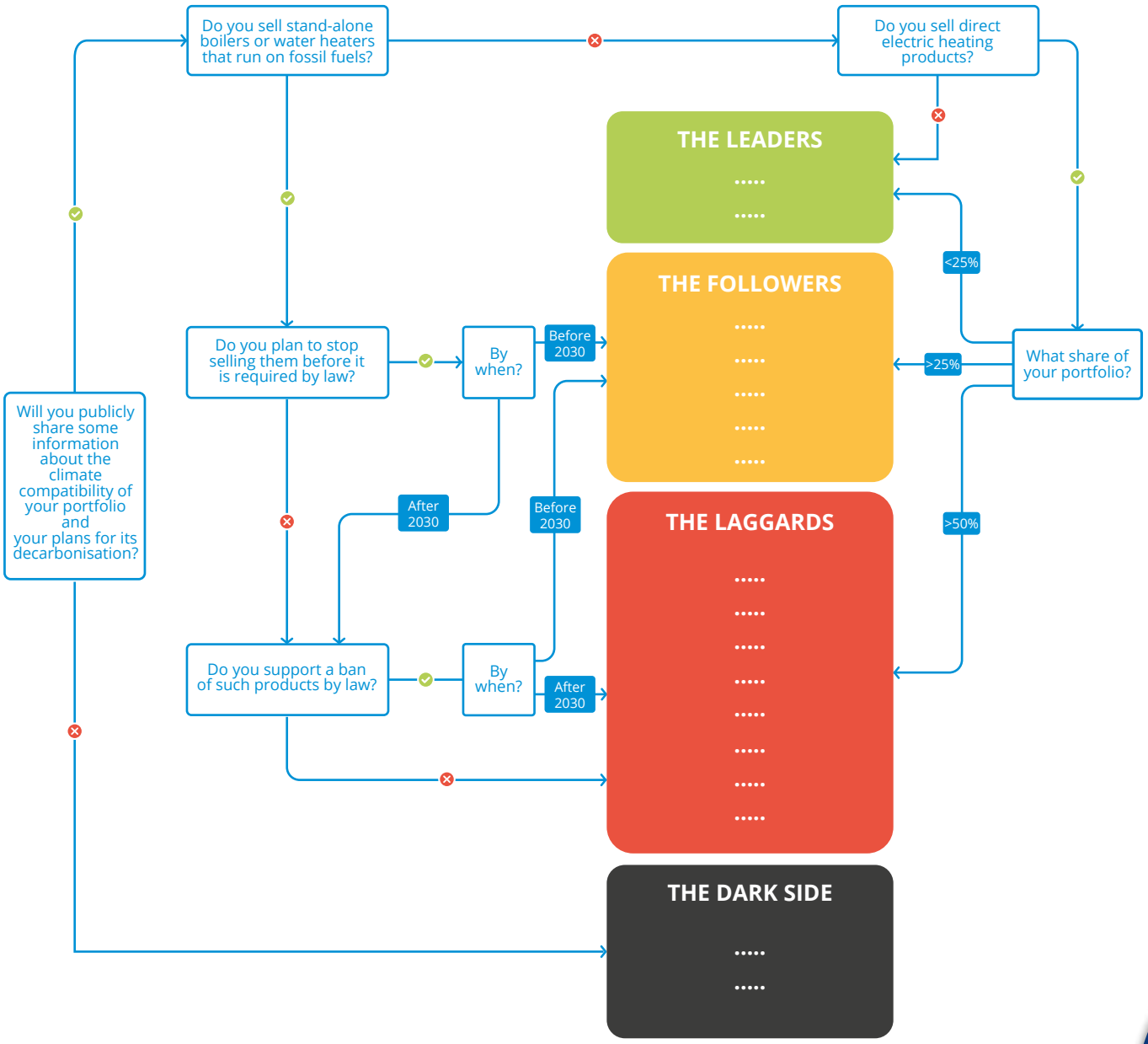


Figure 2: flowchart summarising criteria to rank companies[21]

21. This methodology only allows the ranking of companies according to their domestic heating portfolios. Neither the EEB nor the Coolproducts campaign endorse their overall environmental or social practices.

The main idea behind our ranking is the notion that ***"fossil fuel boilers"*** are not compatible with European climate objectives. Their sales and installation in European buildings would make it extremely challenging to reach EU and global climate goals. Fossil-fuel boilers is a broad term that encompasses all heating devices (for space and/or water) that use coal, oil or fossil gas. Some in the heating industry prefer the terms "liquid boilers" for oil boilers, and "gaseous boilers" for fossil gas boilers. While technically these may be more accurate terms, we avoid them because they hide a bleak reality: an overwhelming majority of such devices operate today with fossil fuels, and will continue to do so for years to come.

Another key ranking criteria refers to ***"direct electric heating systems"***, which include all electric devices other than electric heat pumps: electric boilers, radiators, water heaters and heat convectors. We acknowledge that some such products might be necessary for economic reasons, for example for small heating loads in seldom-used buildings; or to make use of surplus, on-site, photovoltaic electricity. However, these technologies are less climate-friendly than electric heat pumps. While it could be argued that the power mix is not yet fully decarbonised and therefore that electric heat pumps are not 100% renewable, we promote them for several reasons: 1) they make use of renewable ambient heat; 2) they are several times more efficient than direct electric heating; 3) there are clear objectives —unlike for the gas system— for full decarbonisation of the power system in the EU.

With that in mind, our methodology allocates companies to four different categories, depending on their responses to our questionnaire.

- **Leaders** are companies that do not sell stand-alone boilers or water heaters that run on fossil fuels. And whose sales of direct electric heating products is limited to 25% of their annual turnover. A company can therefore be a leader if they sell hybrids (boiler + heat pump, for example), as we acknowledge that it might be necessary, for some specific building typologies, and for cold-weather events, to count on such hybrid solutions while the European building stock gets properly renovated.
- **Followers** are companies that do sell some stand-alone boilers or water heaters that run on fossil fuels. But these companies:
  - Are committed to stopping such sales before 2030 (or earlier); or
  - Support a 2030 (or earlier) ban on the sale of such products.
- **Laggards** sell stand-alone boilers or water heaters; have no plans to stop doing so before it is required by law; and do not support a 2030 (or earlier) ban on sales of such products.
- Finally, **the dark side** covers companies that did not reply to our request for input, despite repeated reminders.

Results

Improved transparency

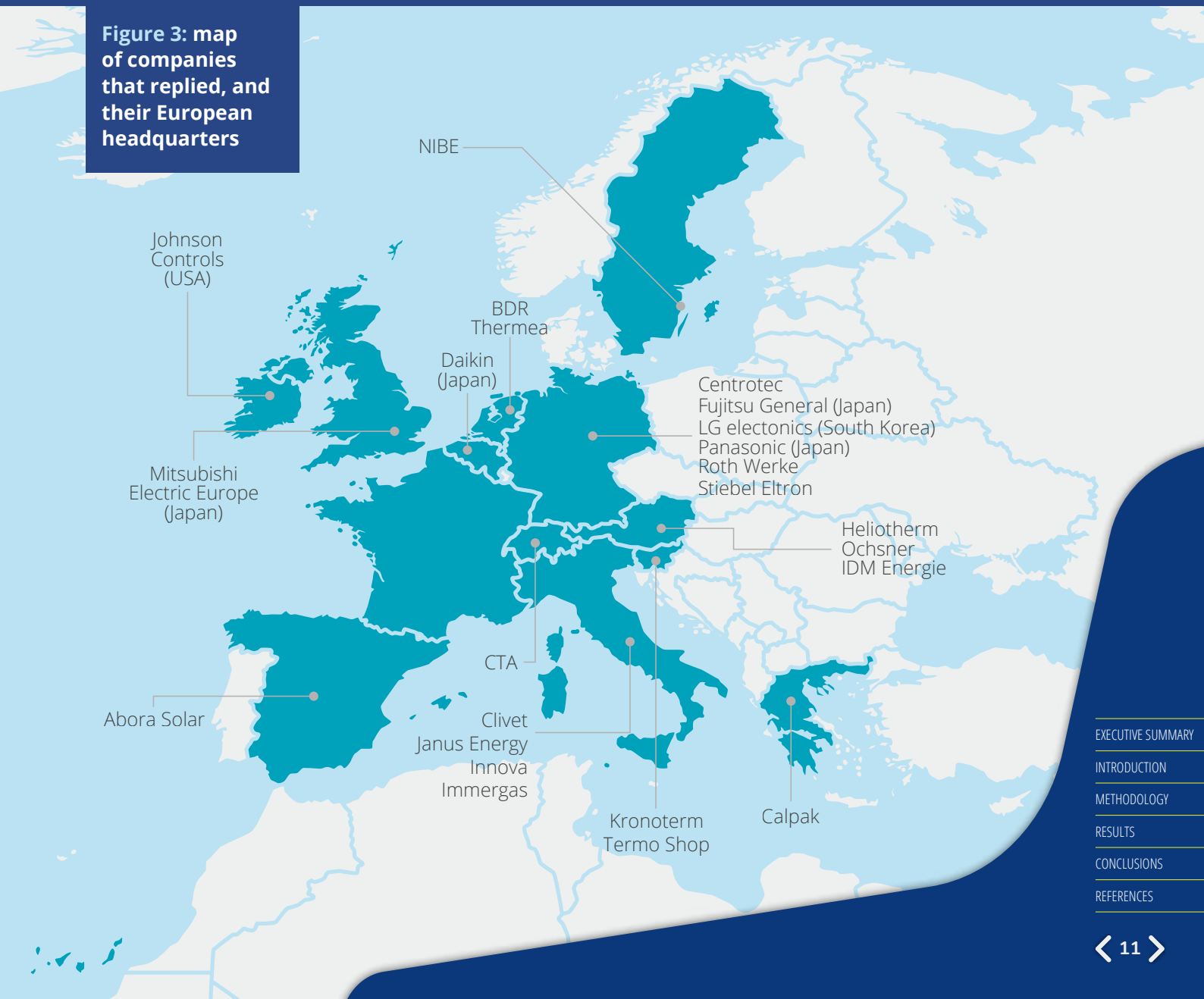
For this 2022 edition of the Brand Audit of the European Heating Industry, we obtained more answers from companies than last year. Twenty-three (23) companies of all sizes, and from 12 European countries, took the time to complete the questionnaire and send us the requested information. That is up from 15 answers last year.

Still, despite our repeated attempts to obtain information from companies, and despite widespread self-branding about sustainability that can be observed across the industry[22], over half of companies contacted (26 out of 49) did not reply to our requests for input. These companies belong to what we have dubbed "the dark side", for their lack of transparency. This includes mostly companies that would likely have been ranked in the laggards category. But not only: some would-be leaders did not take the time to be transparent.

Below is a map that shows the European headquarters of companies that did reply:

22. As an example, ARISTON's homepage (www.aristongroup.com/en/) reads: "Sustainable comfort for everyone". VIESSMANN's homepage (www.viessmann.de/) reads "Because only together can we shape the living spaces of future generations, from a comfortable home to a habitable planet." However, both of these companies sell fossil fuel boilers, which according to climate science are unsustainable, and incompatible with a habitable planet.

Figure 3: map of companies that replied, and their European headquarters



Overwhelming support for an immediate end to subsidies

Another interesting learning was that there is broad support, across all sizes and types of companies, for the end of subsidies to fossil fuel and direct electric heating.
A staggering majority of companies (91% of respondents, up from 87% last year) support the end of subsidies for stand-alone boilers and water heaters that run on fossil fuels.
What's more, 83% of all respondents (up from 53% last year) support such a measure immediately (no later than 2023)[23].

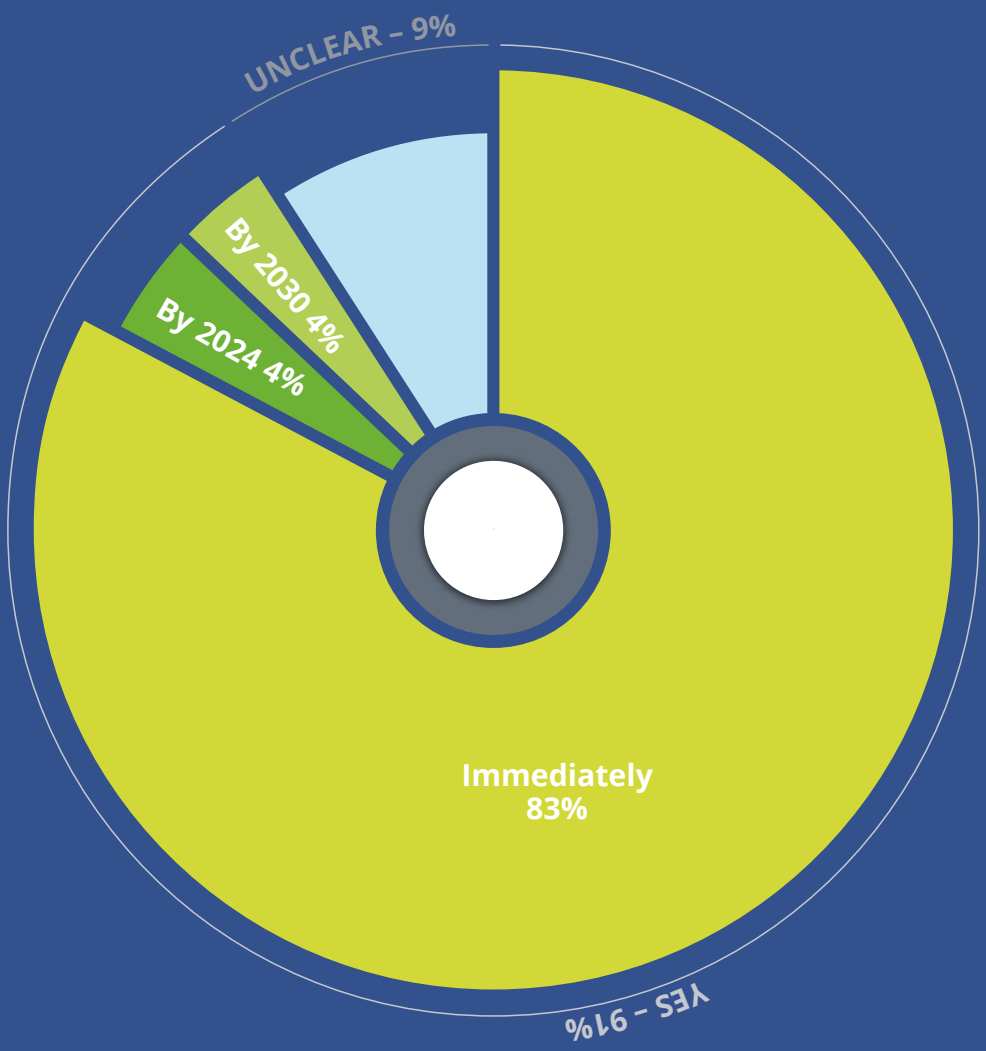


Figure 4: support for the end of subsidies for fossil-fuel boilers and water heaters.

23. All percentages in figures 4 to 6 have been rounded to zero decimals. In some instances, this results in totals not adding up to 100%.

A vast majority of companies (91% of respondents, up from 80% last year) support the end of subsidies for direct electric heating. Over two-thirds of respondents (70%, up from 53% last year) support such a measure immediately.

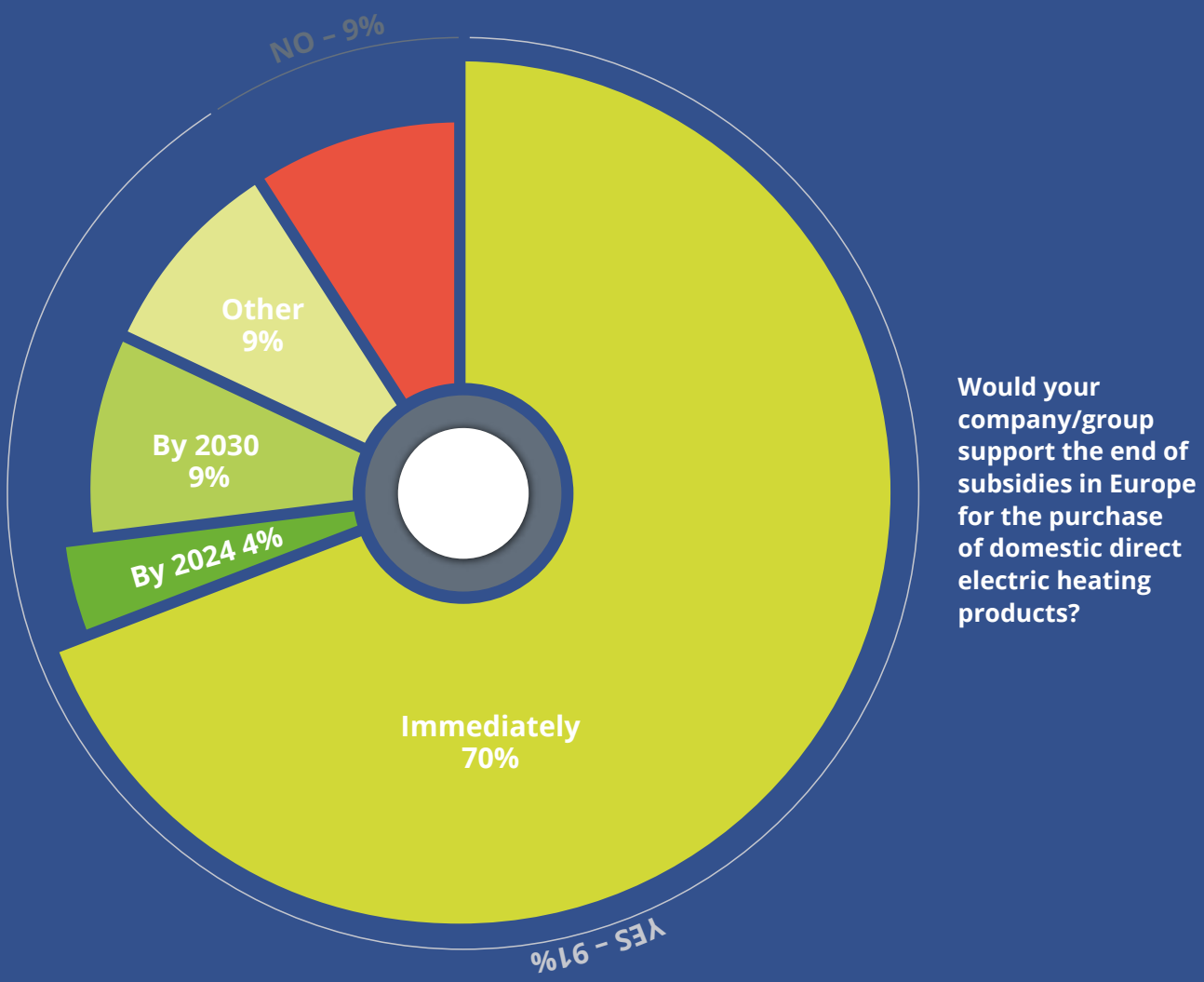


Figure 5: support for the end of subsidies for direct electric heating.

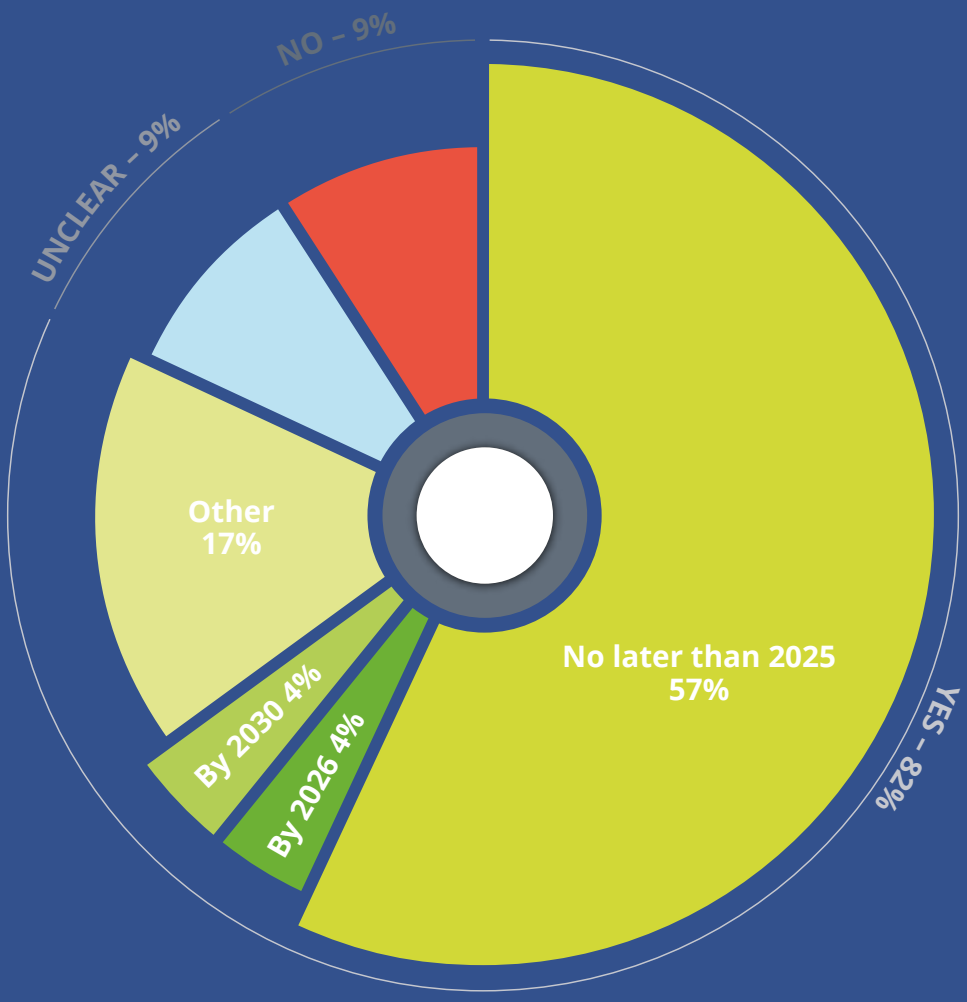
In other words, EU governments would have the support of a large part of the industry were they to shift subsidies away from fossil fuel and direct electric heating systems, and towards heat pumps and solar thermal systems. According to a recent mapping of Europe's subsidies for fossil fuel heating systems, "at least 19 out of 27 EU governments still incentivise the purchase and/or installation of new fossil gas boilers through various tax reductions, loans and grants, which range between €300 and €2,500"[24].

24. "Mapping Europe's subsidies for fossil fuel heating systems". Coolproducts Campaign, December 2020.

Clear and growing support for a ban on fossil fuel heating products

Around 83% of respondents support a ban on the sales of fossil fuel heating products. This is up from 60% in last year's edition of the audit, which may signal an increased sense of urgency for clear regulation among manufacturers. Interestingly, 57% of all respondents (up from 40% last year) support a ban no later than 2025, as requested by the Coolproducts coalition[25], and just backed by the International Energy Agency in a flagship report[26]. Some respondents also pointed out that a ban on the installation of fossil fuel heaters in new buildings could come even earlier than a complete ban on sales.

Among those that did not clearly support the ban, some suggest an alternative requirement that all boilers and water heaters can run on a 20% hydrogen blend. This requirement has several problems in our view: 1) it does nothing to ensure that hydrogen will actually flow through the gas network; 2) it does not ensure the level of decarbonisation needed in heating systems, creating instead a long-term lock-in to fossil fuels; 3) it risks making both boilers and gas bills more expensive for citizens.



Would your company/ group support a legal ban in Europe on the sale of new domestic boilers and water heathers that run on fossil fuels?

Figure 6: support for a ban on the sales of fossil-fuel boilers and water heaters.

25. *"Five Years Left: How Ecodesign and Energy Labelling can Decarbonise Heating"*, ECOS, in collaboration with the Coolproducts Campaign. December 2020.

26. *"Net Zero by 2050 – A Roadmap for the Global Energy Sector"*. International Energy Agency, May 2021.

Figure 7 takes a closer look at manufacturers' support for a ban on fossil fuel heating:

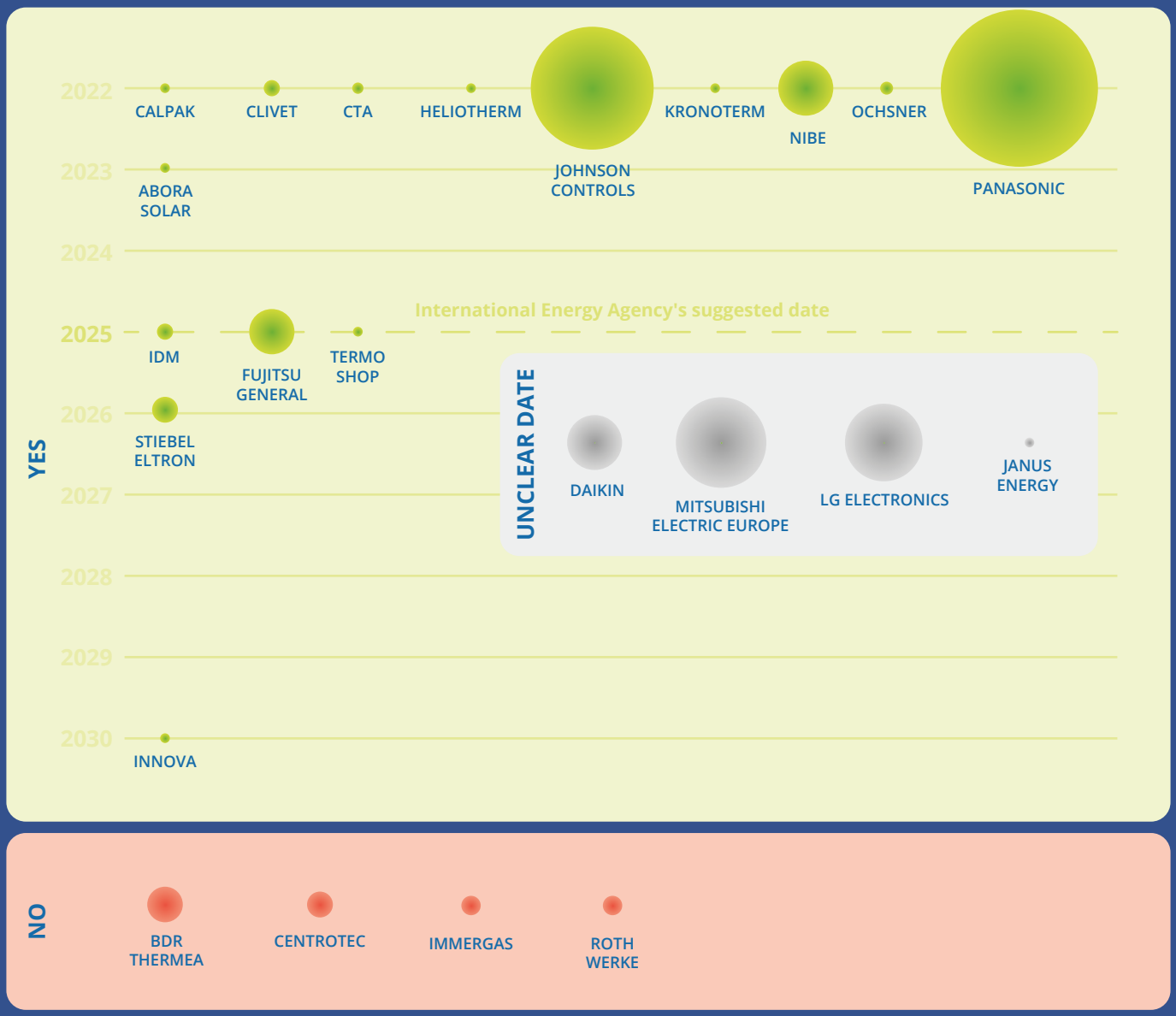


Figure 7: support for a ban on the sales of fossil-fuel boilers and water heaters, by year and company size

Heat pumps keep evolving

Most respondents confirmed that their products can provide demand-side flexibility and react to signals (e.g. grid load, price, CO_2 emissions). This is an important feature to balance the electricity grid, and to ensure the integration of a large number of heat pumps in the power system.

Many manufacturers already provide heat pumps that use natural refrigerants (e.g. CO_2, propane, ammonia). Others are planning to do so. This is important because refrigerant leakage is an important fraction of the greenhouse gas emissions associated with heat pumps. A fraction that is bound to increase as the power mix decarbonises.

"Tax the bads, support the goods"

Asked about the key measures needed to achieve climate-neutrality in the building sector by 2050, respondents asked for clearer financial support for renewable heating, in several forms:

- Some sort of CO2 pricing for fossil fuel heating.
- A tax shift away from electricity, and towards fossil gas.
- Subsidies and other financial support for the purchase of renewable heating systems.

Leaders, Followers and Laggards. And "The Dark Side".

From the responses received —and the lack thereof— we were able to allocate companies to four categories:

LEADERS

ABORA SOLAR | CALPAK | CLIVET | CTA | FUJITSU GENERAL
HELIOTHERM | IDM ENERGIE | INNOVA | JANUS ENERGY
JOHNSON CONTROLS | KRONOTERM | LG ELECTRONICS
MITSUBISHI ELECTRIC EUROPE | NIBE | OCHSNER | PANASONIC
ROTH WERKE | STIEBEL ELTRON | TERMO SHOP

CLICK FOR INDIVIDUAL FACTSHEETS

FOLLOWERS

CLICK FOR INDIVIDUAL FACTSHEETS

LAGGARDS

BDR THERMEA | CENTROTEC | DAIKIN | IMMERGAS

CLICK FOR INDIVIDUAL FACTSHEETS

THE DARK SIDE

ARBONIA, ARISTON, ATLANTIC, BOOSTHEAT, BOSCH
CARRIER, ENERTECH, FERROLI, FONDITAL, GLEN DIMPLEX
HOVAL, IRSAP, KORADO, MICHL TECHNIK, PURMO GROUP
ROBUR, SAMSUNG, SOLAHART, TESY, TNG-AIR
TOSHIBA, TOYOTA, VAILLANT, VIESSMANN, VIVRECO, WEISHAUPT

Figure 8: ranking of companies

The ranking above broadly shows a polarised domestic heating market: about half of the companies are market leaders, and willing to reply to our survey and share important information with the public. The other half of the market is not willing to drop its fossil fuel heating business, and decides not to participate in our survey for fear of being labelled a "laggard". A closer look at each of the categories reveals however some nuances:

- **Leaders:** 19 companies qualified as "leaders", as compared to six last year. The greater number of leaders responds to two reasons. One reason is an increased number of respondents, most of them with a climate-friendly portfolio. The other one is a slight change in our criteria with respect to last year: leaders may sell not only electric heat pumps and/or solar systems; but also hybrids, and a small percentage (lower than 25%) of direct electric heating systems. Indeed, we see hybrids as an inevitable part of the transition in the next few years; and a small fraction of direct electric heating as unavoidable to temporarily lower the cost of the transition for some citizens. We therefore aligned our criteria with our vision.
- **Followers:** no company qualified as a follower in this year's edition of the report. There were five last year, four of which moved to the "leaders" category. One did not reply to our survey this year. Followers sell stand-alone boilers or water heaters that run on fossil fuels. But they either are committed to stopping such sales before 2030 (or earlier); or support a 2030 (or earlier) ban on the sale of such products.
- **Laggards:** four companies fall in the laggards category this year. There were also four laggards last year. Two of them repeat. Two others are new. These companies sell stand-alone boilers or water heaters as part of their portfolio; have no plans to stop doing so before it is required by law; and do not support a 2030 (or earlier) ban on sales of such products. Our hope would be for these companies to commit to stopping sales of fossil-fuel boilers; or to support a ban of such products, so they can move to the "laggards" category. But that was not possible this year.[27]
- **The Dark Side:** twenty-six companies (down from 38 last year) did not reply to our repeated requests for input. Among these twenty-six companies, most of them would likely have been ranked in the laggards category had they replied to our survey. But not all of them: some would-be leaders decided not to take the time to reply to our survey, for reasons unknown to us.

The changes in the ranking between the 2021 and 2022 editions of our report are summarised in figure 9:

27. DAIKIN EUROPE stated that it would support a ban, but only under certain conditions not compatible with our vision of a future heating sector. See their company page for more detail.

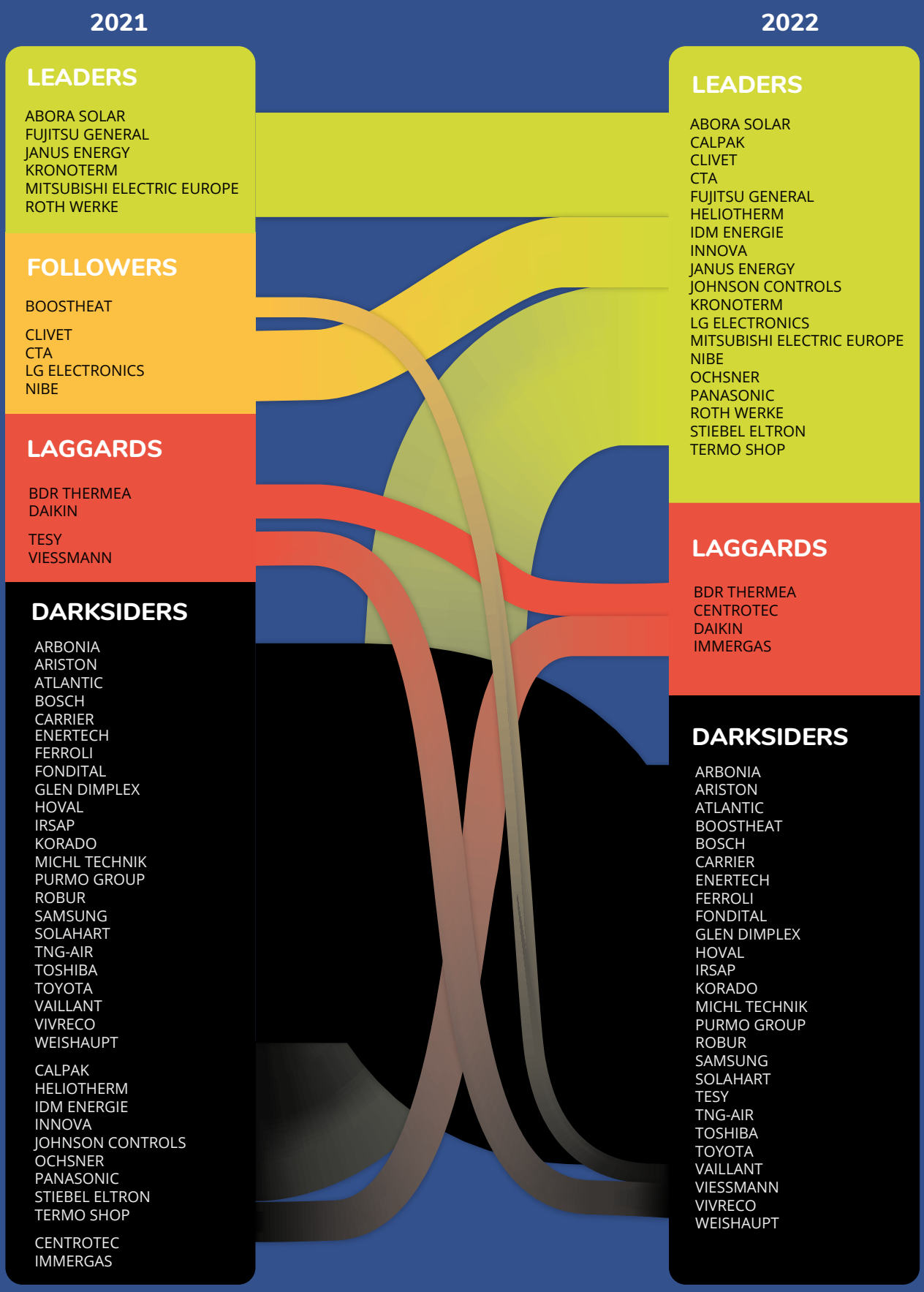
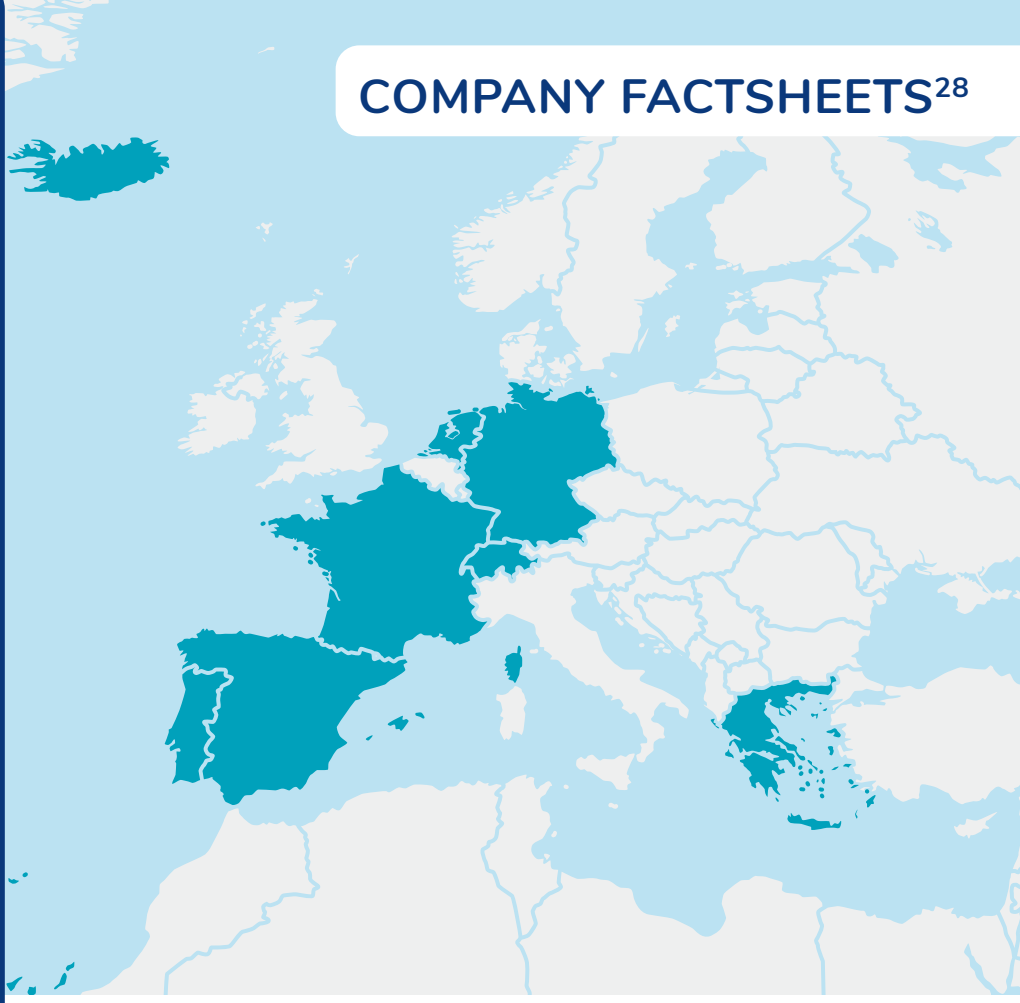


Figure 9: changes in the ranking of companies



ABORA SOLAR

Overview:

Based in Spain

30 employees

Operates in

CH DE ES FR GR IS NL PT

www.abora-solar.com

Products sold in Europe:

- ABORA SOLAR sells domestic hybrid solar panels (photovoltaic and thermal).
- ABORA SOLAR does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- ABORA SOLAR does not sell domestic direct electric heating systems.

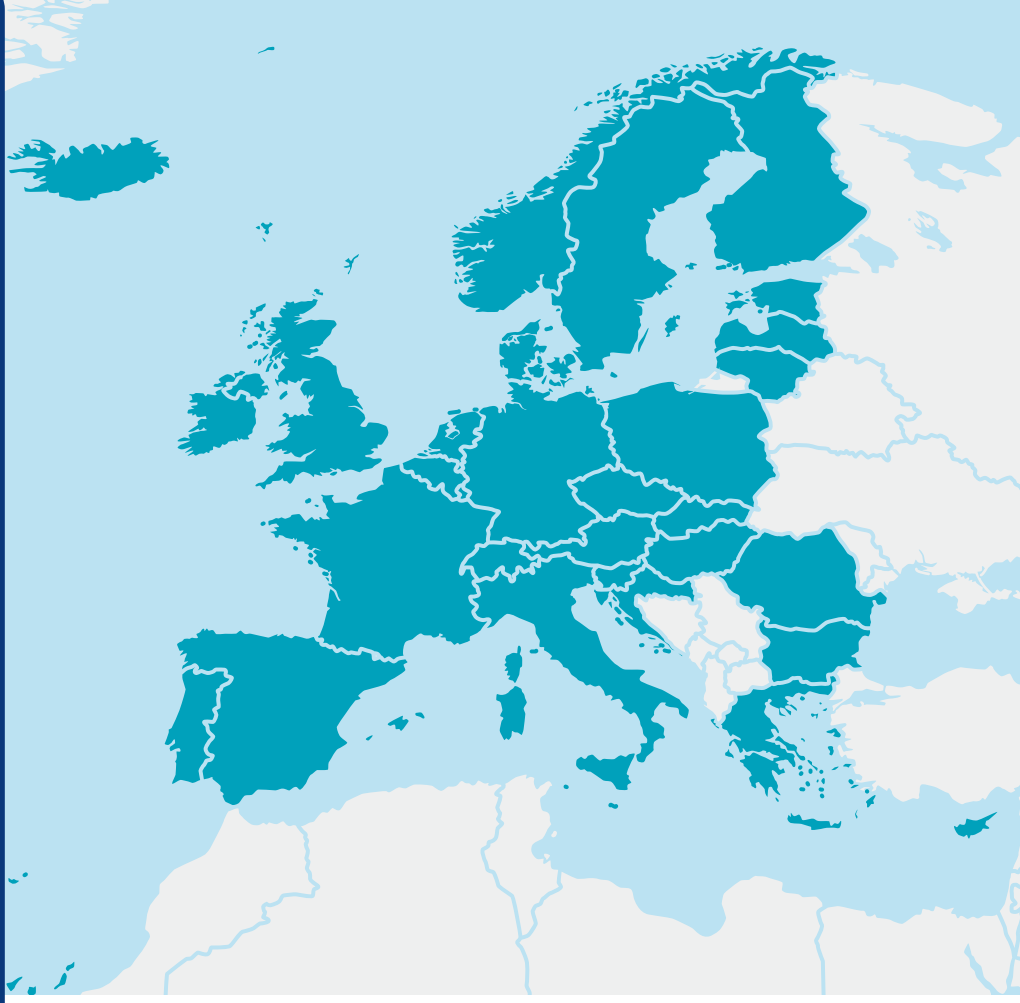
Positions on EU policy:

- ABORA SOLAR supports an immediate end of subsidies in Europe for boilers and water heaters that run on fossil fuels.
- ABORA SOLAR supports a 2023 ban on the sales of boilers and water heaters that run on fossil fuels.
- ABORA SOLAR supports an immediate end of subsidies for direct electric heating systems, provided that "any renewable system is installed to supply the consumption".

See *ABORA SOLAR's full answer* to our questionnaire

Back to ranking

28. This and the following pages summarise manufacturers' answers to our survey. They are therefore based on the information that companies have reported. We have done our best to counter-check such information with publicly available information, but cannot guarantee that all information is 100% accurate.



BDR THERMEA

Overview:

Based in the Netherlands

6,700 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.bdrthermeagroup.com

Products sold in Europe:

- BDR THERMEA sells a large range of domestic heating products in Europe, including climate-friendly technologies, but also heating systems that run on fossil fuels.

Positions on EU policy:

- BDR THERMEA does not support the end of subsidies for boilers and water heaters that run on fossil fuels.
- BDR THERMEA does not plan to stop selling boilers and water heaters that run on fossil fuels before it is required by law.
- BDR THERMEA does not support a ban on the sales of boilers and water heaters that run on fossil fuels[29].
- BDR THERMEA supports the immediate end of subsidies for direct electric heating systems.

See *BDR THERMEA's full answer* to our questionnaire

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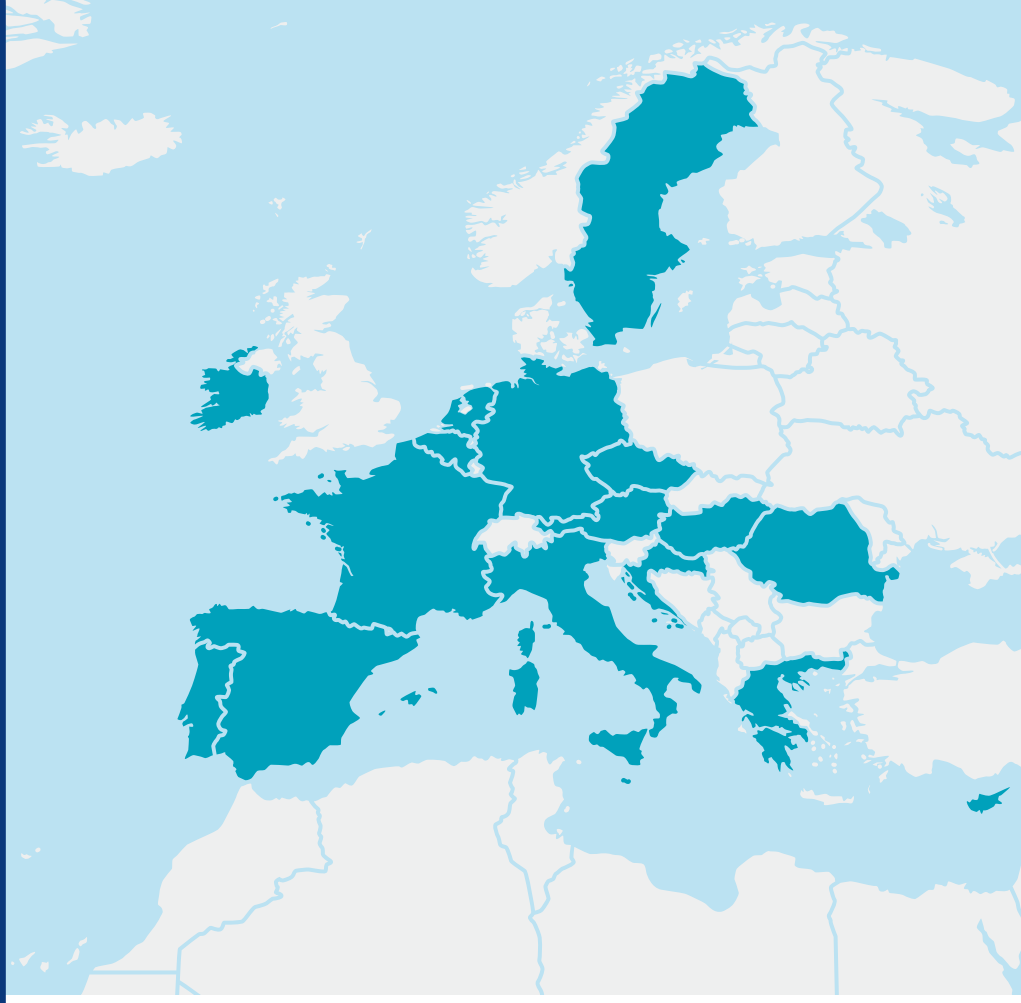
28. BDR THERMEA is instead "in favour of a mandatory requirement stipulating that the products placed on the market from 2026 are compatible with 20% hydrogen gas blends and those placed on the market from 2029 upgradable to 100% hydrogen"

CALPAK



Overview:

Based in Greece

70 employees

Operates in

AT BE BG CY CZ DE
ES FR GR HR HU IE
IT MT NL PT RO SE

www.calpak.gr

Products sold in Europe:

- CALPAK sells domestic solar thermal systems in Europe.
- CALPAK does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- CALPAK does not sell domestic direct electric heating products.

Positions on EU policy:

- CALPAK supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- CALPAK supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- CALPAK supports an immediate end of subsidies for direct electric heating systems.

See *CALPAK's full answer* to our questionnaire

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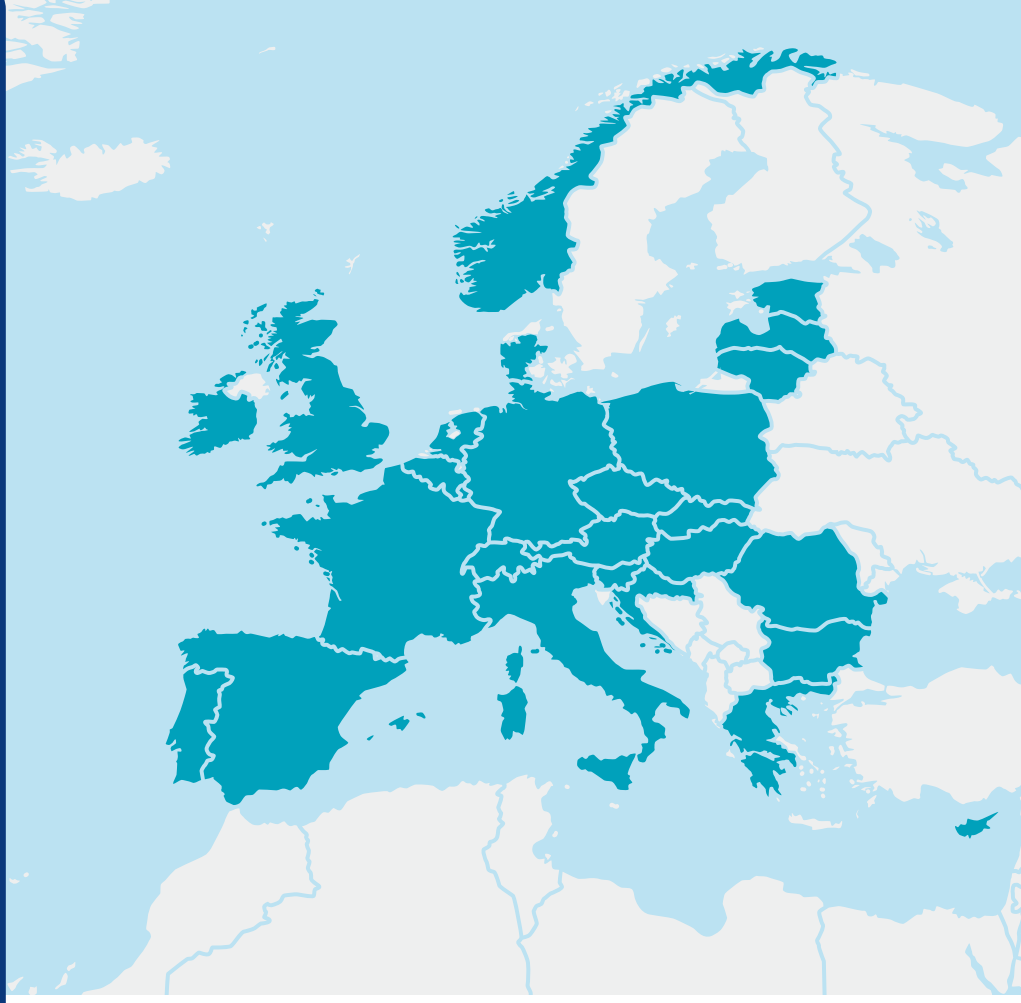
CENTROTEC



Overview:

Based in Germany

4,000 employees approx

Operates in

AT BE BG CH CY CZ
DE DK EE ES FR GR
HR HU IE IT LI LT
LU LV NL NO PL PT
RO SI SK UK

www.centrotec.de

Products sold in Europe:

- CENTROTEC sells in Europe: solar thermal systems; heating systems that run on fossil fuels; and packages of the above products.
- CENTROTEC does not sell domestic direct electric heating systems.

Positions on EU policy:

- CENTROTEC supports a 2025 end of subsidies for boilers and water heaters that run on fossil fuels.
- CENTROTEC does not plan to stop selling boilers and water heaters that run on fossil fuels before it is required by law.
- CENTROTEC does not support a ban on the sales of boilers and water heaters that run on fossil fuels.
- CENTROTEC does not support the immediate end of subsidies for direct electric heating systems.

See *CENTROTEC's full answer* to our questionnaire

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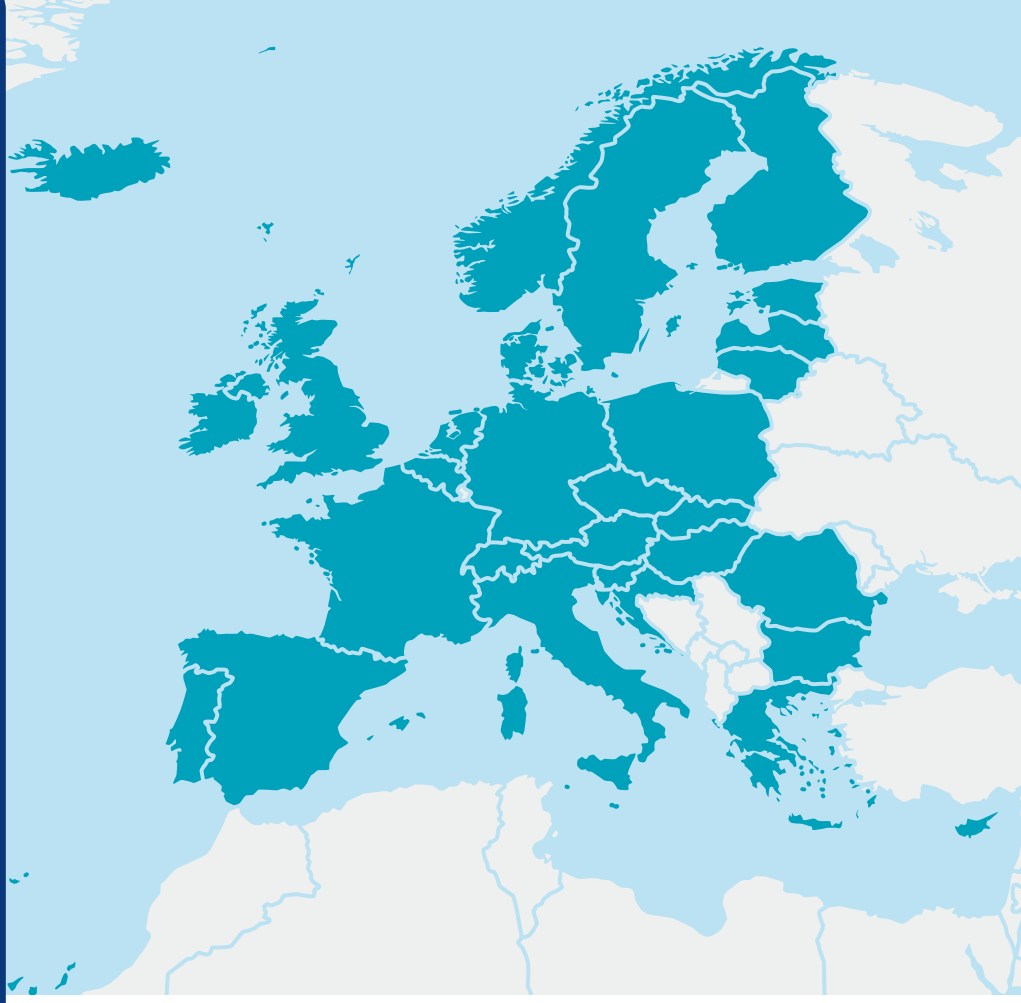
CLIVET



Overview:

Based in Italy

650 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IT LT
LV MT NL NO PL PT
RO SE SI SK UK

www.clivet.com

LEADER

Products sold in Europe:

- CLIVET sells in Europe: electric heat pumps; hybrids (heat pump+boilers); packages of electric heat pumps and solar; and solar thermal systems.
- CLIVET does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- CLIVET does not sell direct electric heating systems.

Positions on EU policy:

- CLIVET supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- CLIVET supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- CLIVET supports an immediate end of subsidies for direct electric heating systems.

See *CLIVET's full answer* to our questionnaire

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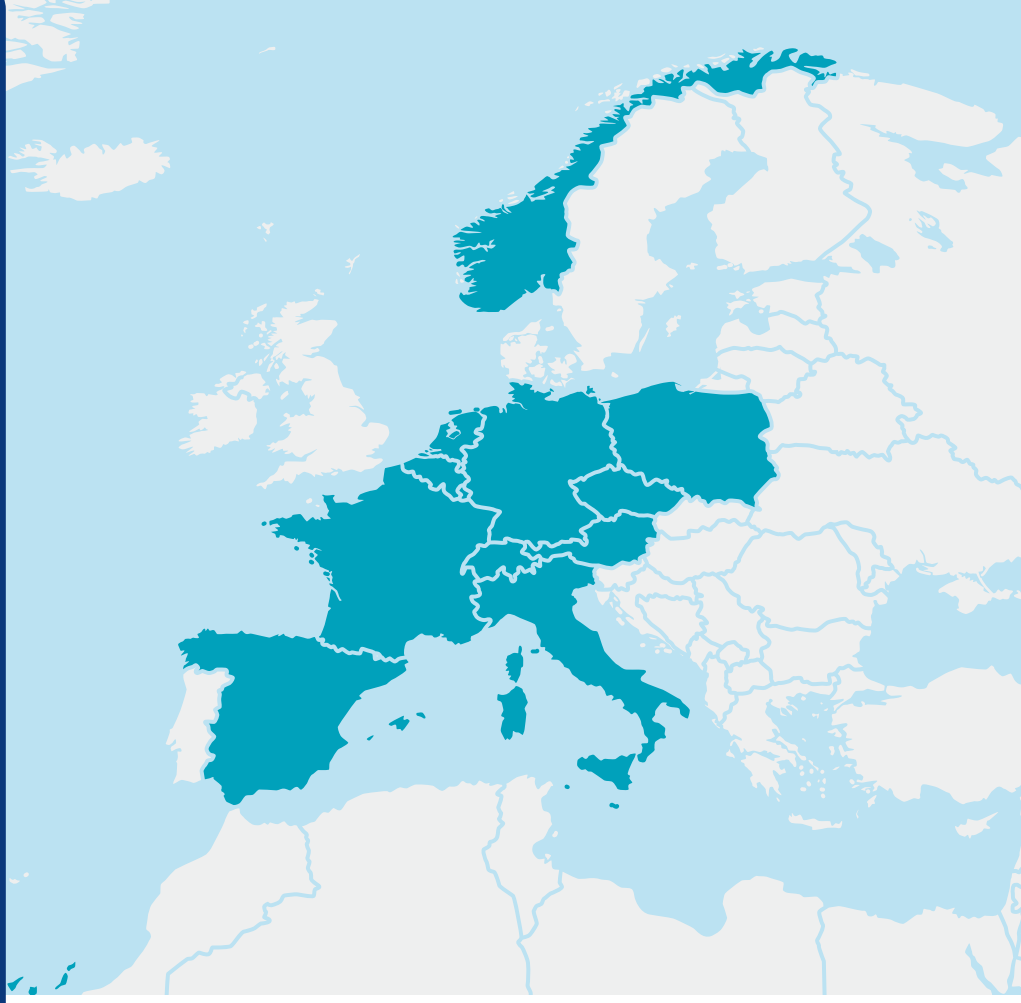
CTA



Overview:

Based in Switzerland

240 employees

Operates in

AT BE CH CZ DE ES FR IT LI LU NL NO PL

www.cta.ch

Products sold in Europe:

- CTA sells electric heat pumps and hybrids (heat pump + boiler) in Europe.
- CTA does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- CTA does not sell domestic direct electric heating products.

Positions on EU policy:

- CTA supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- CTA supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- CTA supports a 2024 end of subsidies for direct electric heating systems.

See *CTA's full answer* to our questionnaire

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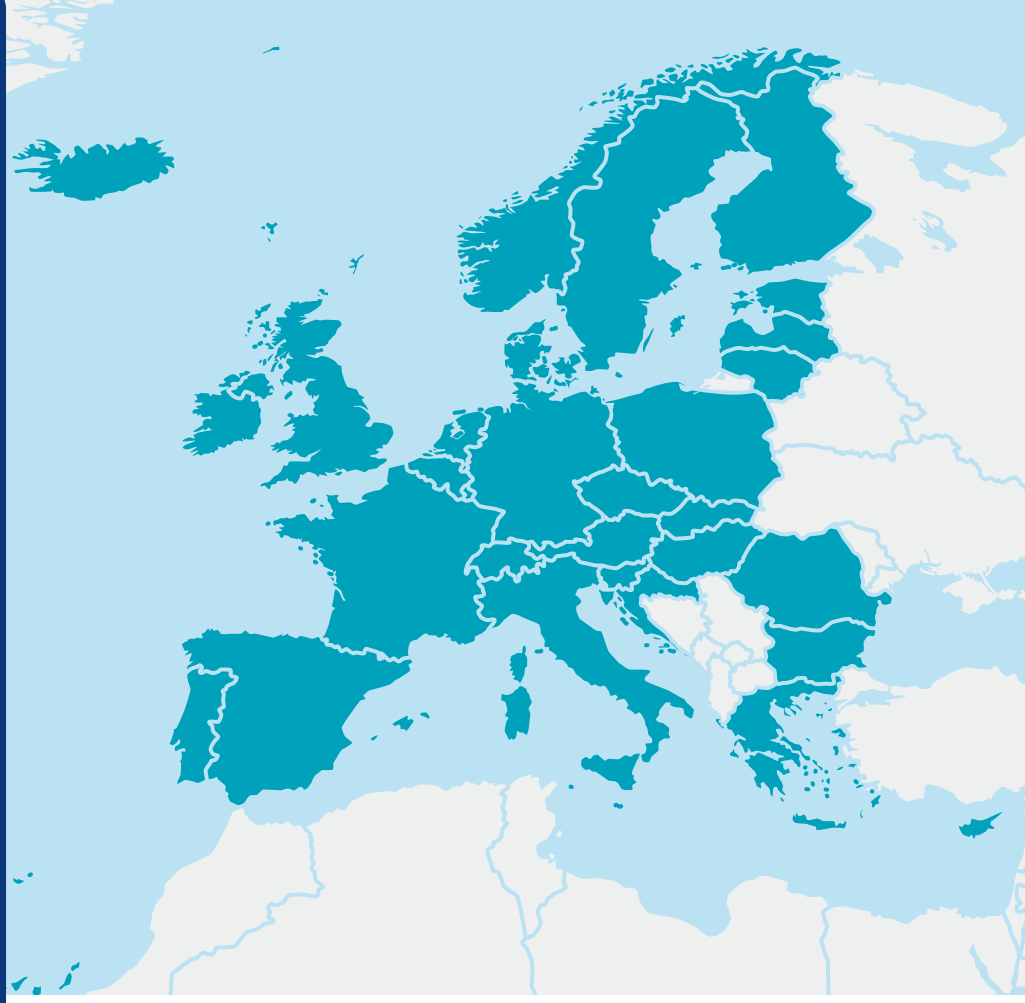
DAIKIN EUROPE
(Daikin Industries LTD)



Overview:

Based in Belgium

12,000 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.daikin.eu

Products sold in Europe:

- DAIKIN EUROPE sells a large range of domestic heating products in Europe, including climate-compatible technologies, but also boilers and water heaters that run on fossil fuels.
- DAIKIN EUROPE does not sell direct electric heating systems.

Positions on EU policy[30]:

- DAIKIN EUROPE supports an immediate end of subsidies for boilers and water heaters that run exclusively[31] on fossil fuels.
- DAIKIN EUROPE would support a ban on the sales of boilers and water heaters that run exclusively[32] on fossil fuels. It would do so only under the condition that "socio-economic impact / electricity-grid readiness should be taken into account before setting a deadline. And that differentiation is also needed between new-built and renovation market."
- DAIKIN EUROPE does not plan to stop selling boilers and water heaters that run on fossil fuels before it is required by law.

See *Daikin Europe's full answer* to our questionnaire

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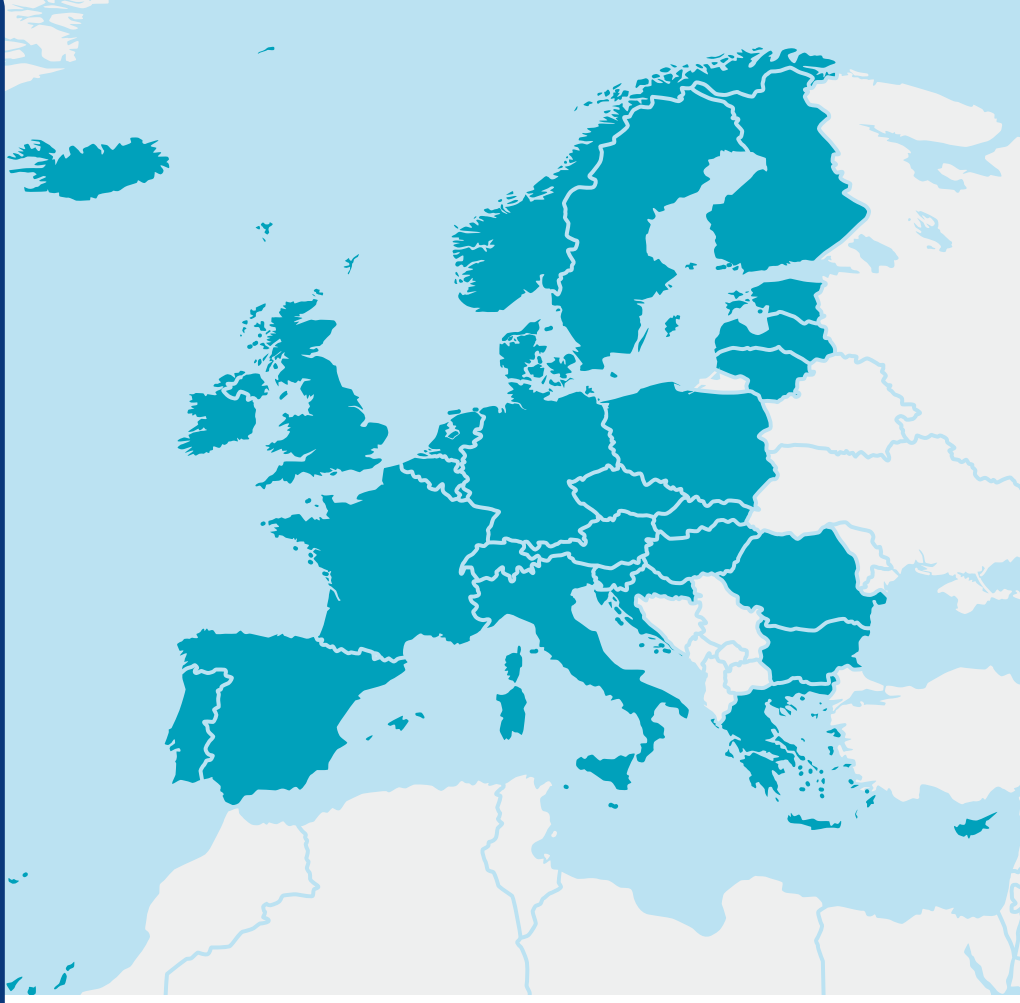
30. Although beyond the scope of our questionnaire, it is noteworthy that DAIKIN EUROPE has publicly supported a quick rescaling of the energy label for space heaters.
31. Hybrids (heat pump + boiler) are therefore excluded from this statement.
32. Hybrids (heat pump + boiler) are therefore excluded from this statement.

FUJITSU GENERAL
(Fujitsu General Limited Group)



Overview:

Based in Japan (Fujitsu General Limited Group)

8,042 employees (Fujitsu General Limited Group)

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.fujitsu-general.com

Products sold in Europe:

- FUJITSU GENERAL sells domestic electric heat pumps in Europe.
- FUJITSU GENERAL does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- FUJITSU GENERAL does not sell domestic direct electric heating systems.

Positions on EU policy:

- FUJITSU GENERAL supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- FUJITSU GENERAL supports a 2025 ban on the sales of boilers and water heaters that run on fossil fuels.
- FUJITSU GENERAL supports an immediate end of subsidies for direct electric heating systems.

See *FUJITSU GENERAL's full answer* to our questionnaire

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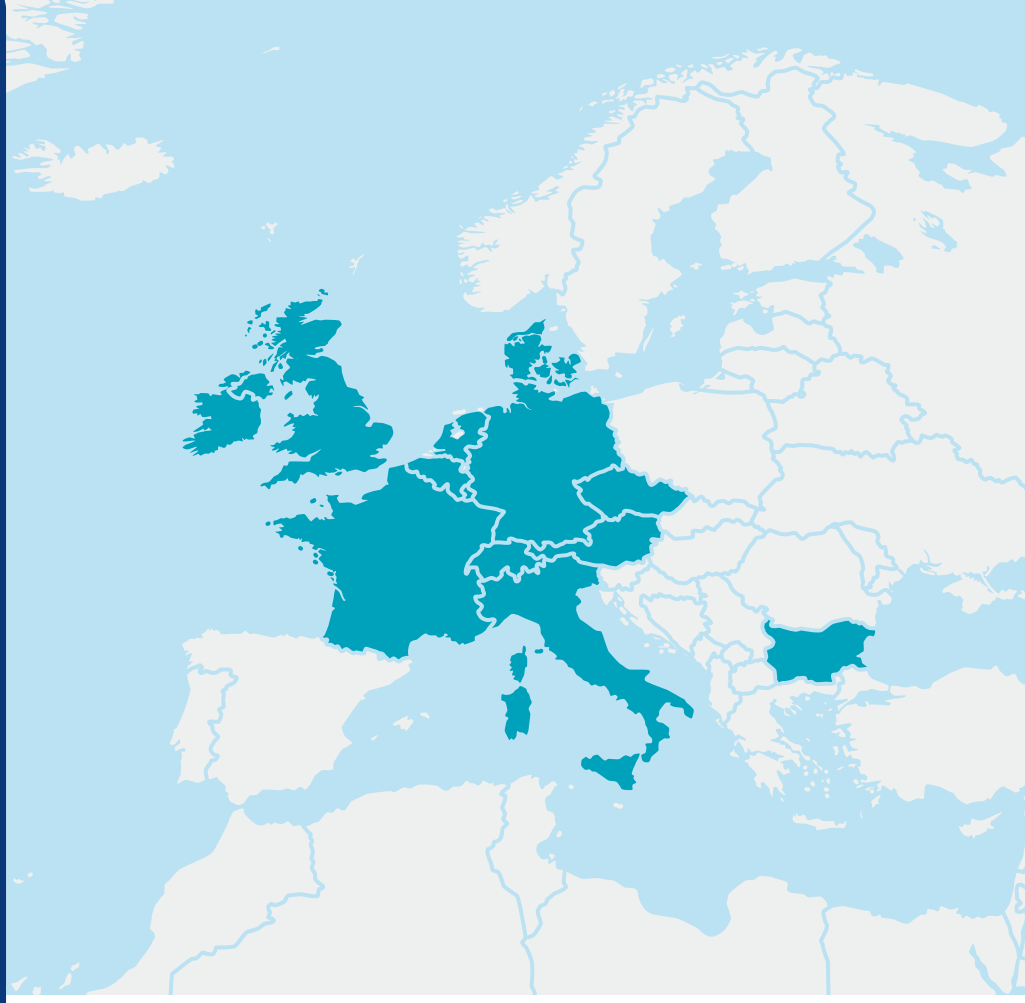
HELIOTHERM



Overview:

Based in Austria

102 employees

Operates in

AT BE BG CH CZ DE DK FR IE IT LI LU NL UK

www.heliotherm.com

Products sold in Europe:

- HELIOTHERM sells domestic heat pumps in Europe.
- HELIOTHERM does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- HELIOTHERM does not sell domestic direct electric heating systems.

Positions on EU policy:

- HELIOTHERM supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- HELIOTHERM supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- HELIOTHERM supports an immediate end of subsidies for direct electric heating systems.

See *HELIOTHERM's full answer* to our questionnaire

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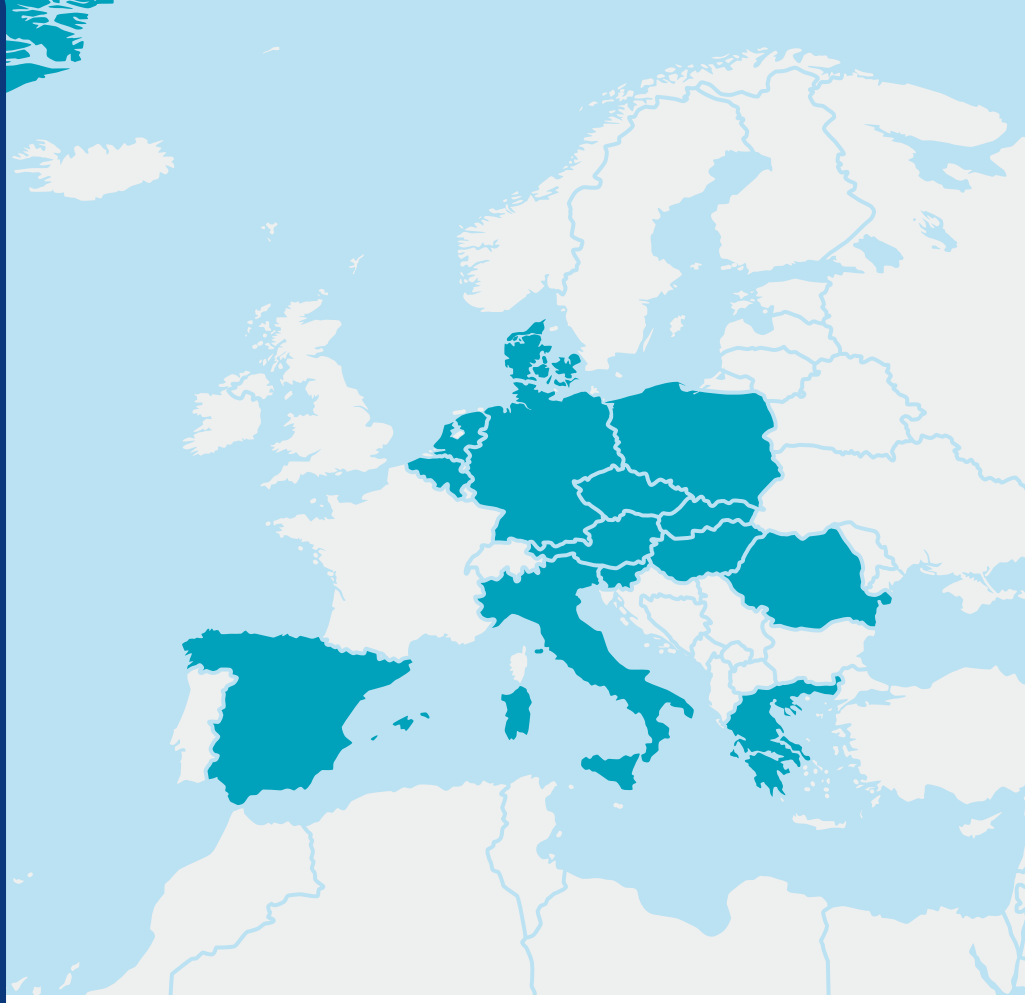
IDM ENERGIE



Overview:

Based in Austria

550 employees

Operates in

AT BE CZ DE DK ES GR HU IT NL PL RO SI SK

www.idm-energie.at

LEADER

Products sold in Europe:

- IDM ENERGIE sells domestic electric heat pumps in Europe.
- IDM ENERGIE does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- IDM ENERGIE does not sell domestic direct electric heating systems.

Positions on EU policy:

- IDM ENERGIE supports a 2023 end of subsidies for boilers and water heaters that run on fossil fuels.
- IDM ENERGIE supports a 2025 ban on the sales of boilers and water heaters that run on fossil fuels.
- IDM ENERGIE supports an end of subsidies for direct electric heating systems, but did not specify a date.

See *IDM ENERGIE's full answer* to our questionnaire

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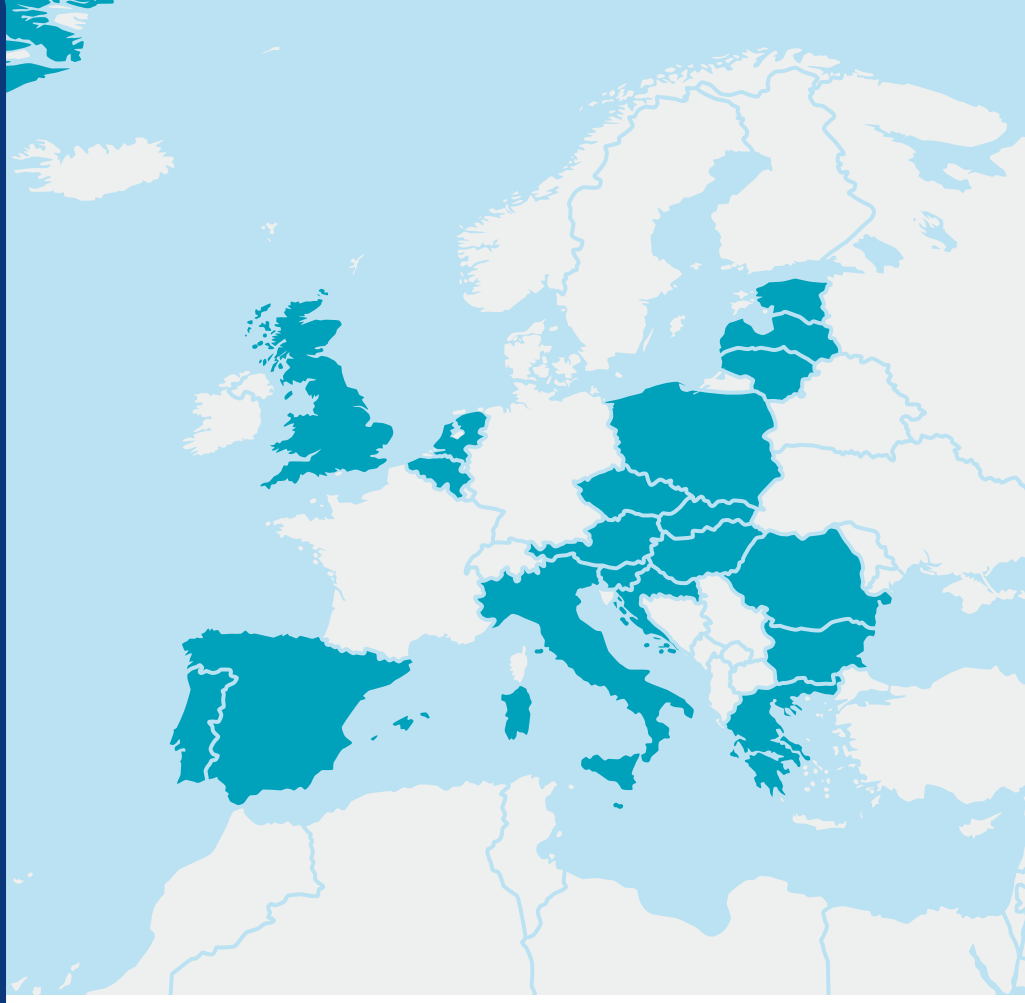
IMMERGAS



Overview:

Based in Italy

1,000 employees approx

Operates in

AT BE BG CZ EE ES
GR HR HU IS IT LT
LV MT NL PL PT RO
SI SK UK

www.immergas.com

Products sold in Europe:

- IMMERGAS sells a large range of domestic heating products in Europe, including climate-friendly technologies, but also heating systems that run on fossil fuels
- IMMERGAS does not sell domestic direct electric heating systems.

Positions on EU policy:

- IMMERGAS does not support the end of subsidies for boilers and water heaters that run on fossil fuels.
- IMMERGAS does not plan to stop selling boilers and water heaters that run on fossil fuels before it is required by law.
- IMMERGAS does not support a ban on the sales of boilers and water heaters that run on fossil fuels[33].
- IMMERGAS supports the immediate end of subsidies for direct electric heating systems.

See *IMMERGAS's full answer* to our questionnaire

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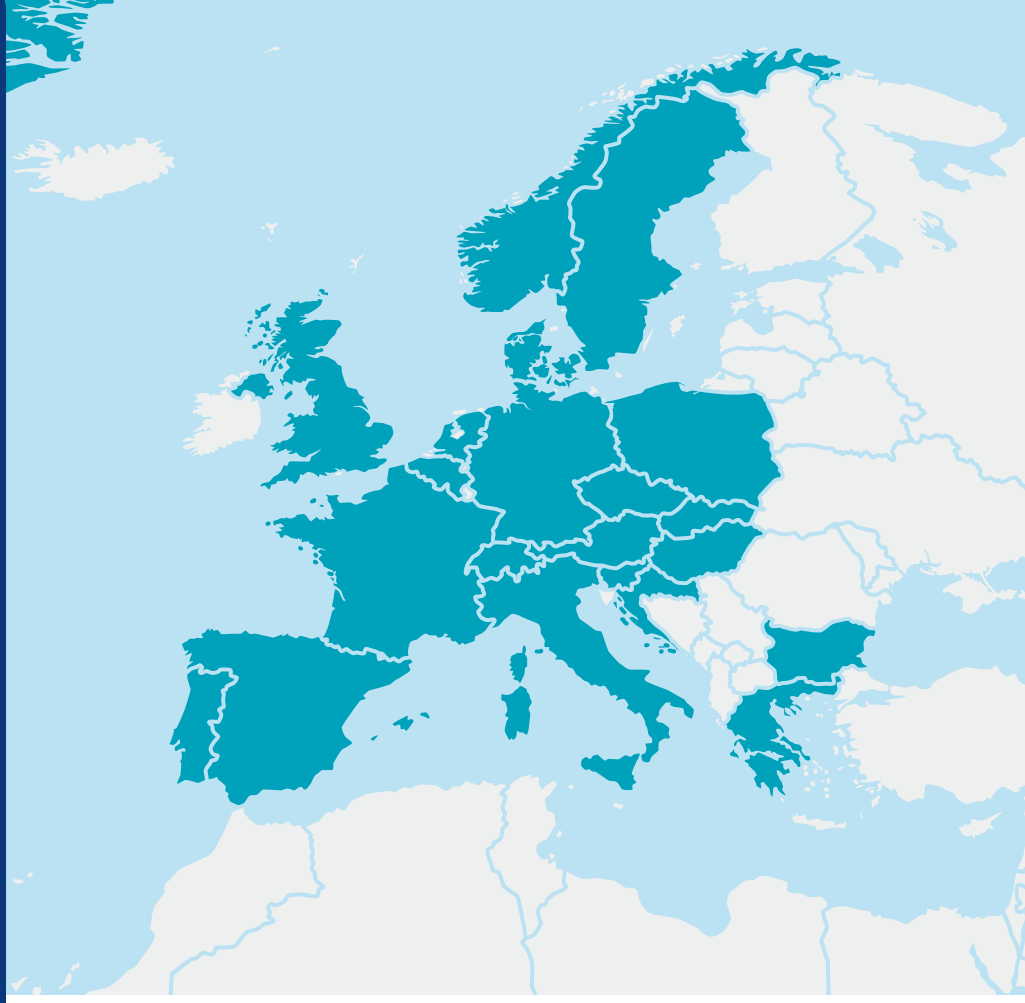
33. IMMERGAS instead supports "the introduction of an eco-design requirement for domestic gas appliances, which should be able to burn a blend of natural gas and 20% of hydrogen from 2025.".

INNOVA



Overview:

Based in Italy

194 employees

Operates in

AT BE BG CH CZ DE
DK ES FR GR HR HU
IT NL NO PL PT RP
SE SI SK UK

www.innovaenergie.com

Products sold in Europe:

- INNOVA sells domestic electric heat pumps in Europe.
- INNOVA does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- INNOVA does not sell domestic direct electric heating systems.

Positions on EU policy:

- INNOVA supports a 2023 end of subsidies for boilers and water heaters that run on fossil fuels.
- INNOVA supports a 2030 ban on the sales of boilers and water heaters that run on fossil fuels.
- INNOVA supports a 2030 end of subsidies for direct electric heating systems.

See *INNOVA's full answer* to our questionnaire

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JANUS ENERGY

Overview:

Based in Italy

3 employees

Operates in

ES FR IT

www.janusenergy.it

LEADER

Products sold in Europe:

- JANUS ENERGY sells domestic solar thermal systems in Europe.
- JANUS ENERGY does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- JANUS ENERGY does not sell domestic direct electric heating systems.

Positions on EU policy:

- JANUS ENERGY supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- JANUS ENERGY supports a ban on the sales of boilers and water heaters that run on fossil fuels, but did not specify a date.
- JANUS ENERGY supports an immediate end of subsidies for direct electric heating systems.

See *JANUS ENERGY's full answer* to our questionnaire

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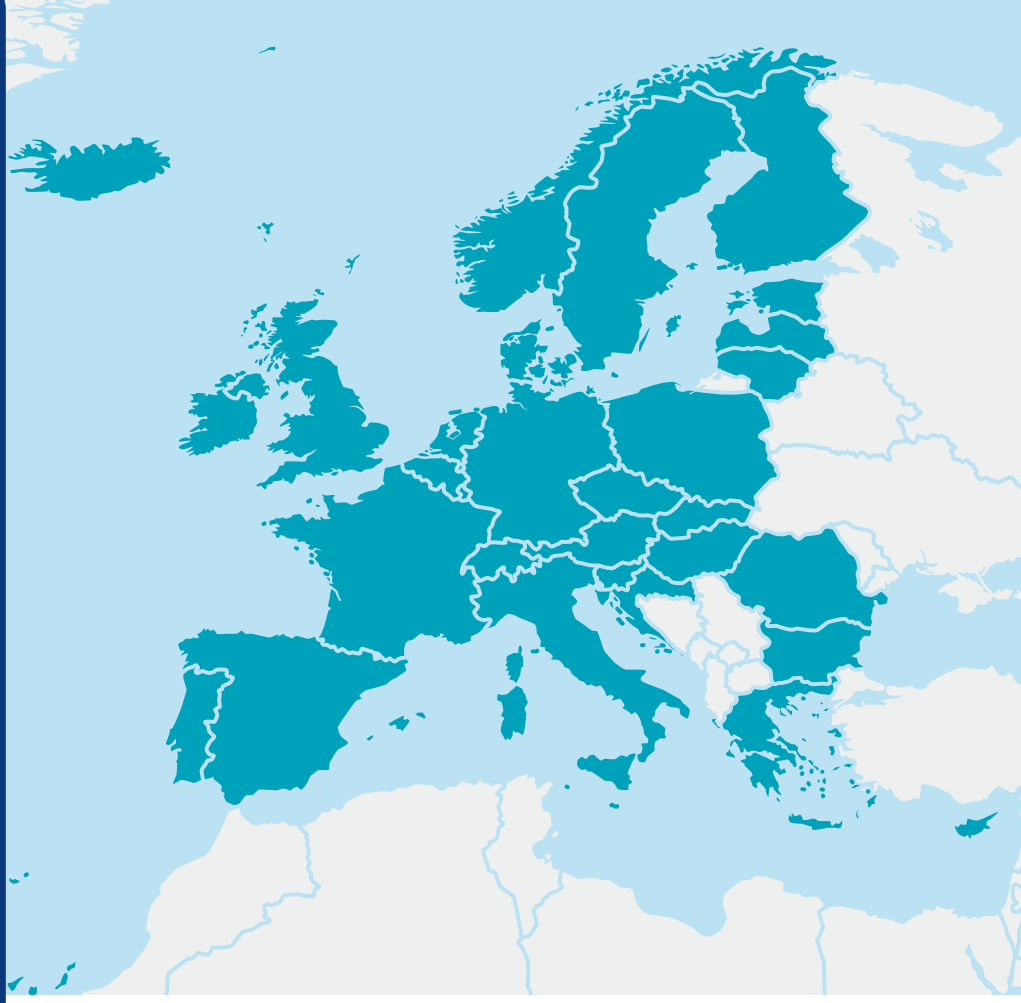
JOHNSON CONTROLS
(Johnson Controls International)



Overview:

Based in USA (Johnson Controls International)

100,000 employees approx. (Johnson Controls International)

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.johnsoncontrols.com

Products sold in Europe:

- JOHNSON CONTROLS sells domestic electric heat pumps in Europe.
- JOHNSON CONTROLS does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- JOHNSON CONTROLS does not sell domestic direct electric heating systems.

Positions on EU policy:

- JOHNSON CONTROLS supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- JOHNSON CONTROLS supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- JOHNSON CONTROLS supports an immediate end of subsidies for direct electric heating systems.

See *JOHNSON CONTROLS's full answer* to our questionnaire

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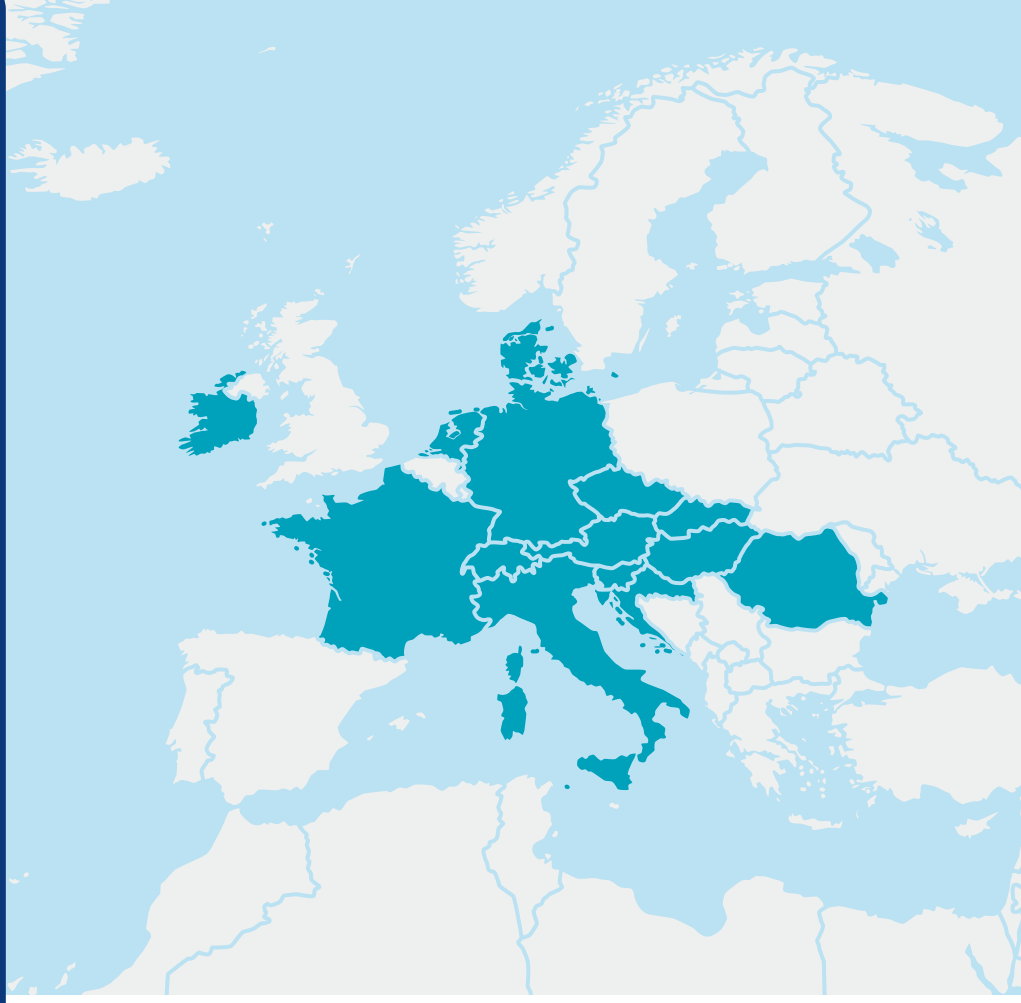
KRONOTERM



Overview:

Based in Slovenia

96 employees

Operates in

AT CH CZ DE DK FR HR HU IE IT NL RO SI SK

kronoterm.com

LEADER

Products sold in Europe:

- KRONOTERM sells domestic electric heat pumps in Europe.
- KRONOTERM does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- KRONOTERM does not sell domestic direct electric heating systems.

Positions on EU policy:

- KRONOTERM supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- KRONOTERM supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- KRONOTERM supports an immediate end of subsidies for direct electric heating systems.

See *KRONOTERMS'S full answer* to our questionnaire

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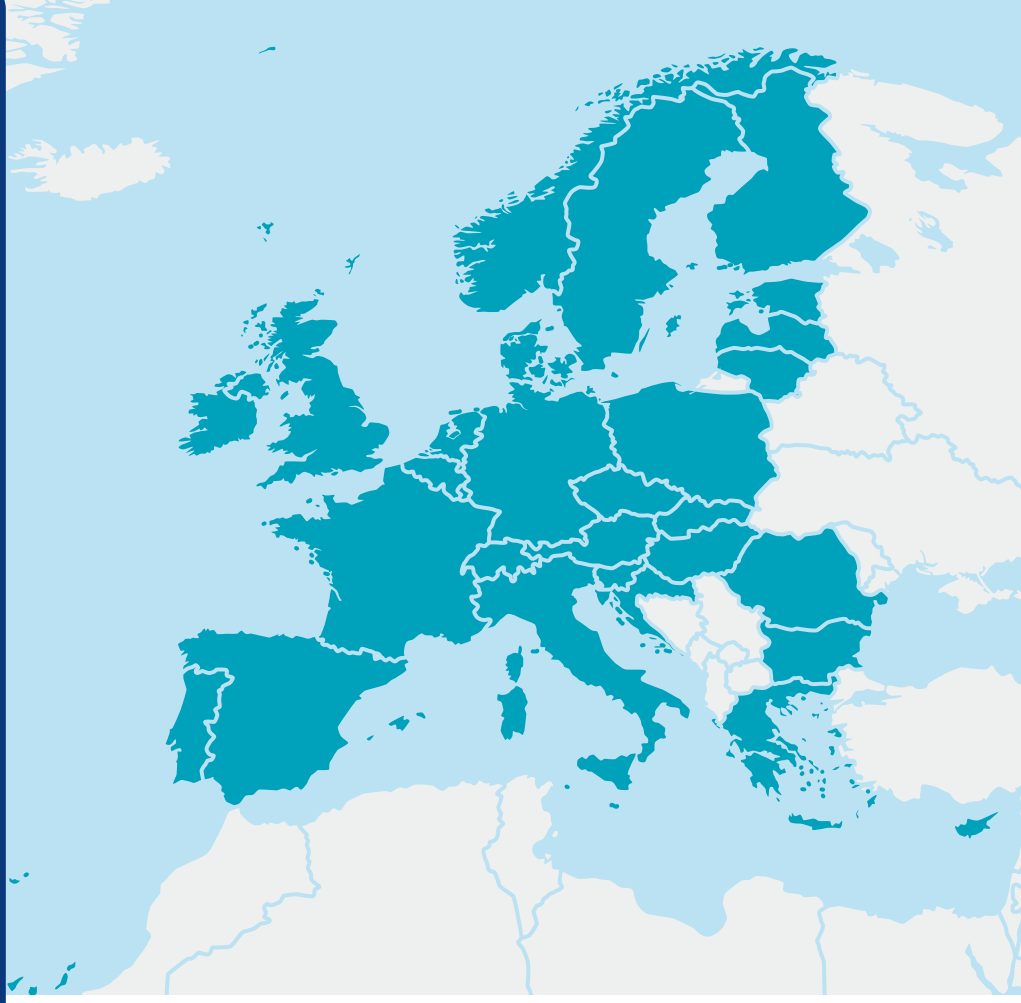
LG ELECTRONICS
(LG Corporation)



Overview:

Based in South Korea

50,000+ employees
(LG Corporation)

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.lg.com/global

Products sold in Europe:

- LG ELECTRONICS sells domestic electric heat pumps and packages of "electric heat pump + solar thermal/solar PV"
- LG ELECTRONICS does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- LG ELECTRONICS does not sell domestic direct electric heating systems.

Positions on EU policy:

- LG ELECTRONICS supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- LG ELECTRONICS supports a ban on the sales of boilers and water heaters that run on fossil fuels *"as early as it is determined to be feasible, provided that the socio-economic impacts on the EU population are properly evaluated and addressed"*.
- LG ELECTRONICS supports an immediate end of subsidies for direct electric heating systems.

See *LG ELECTRONICS'S full answer* to our questionnaire

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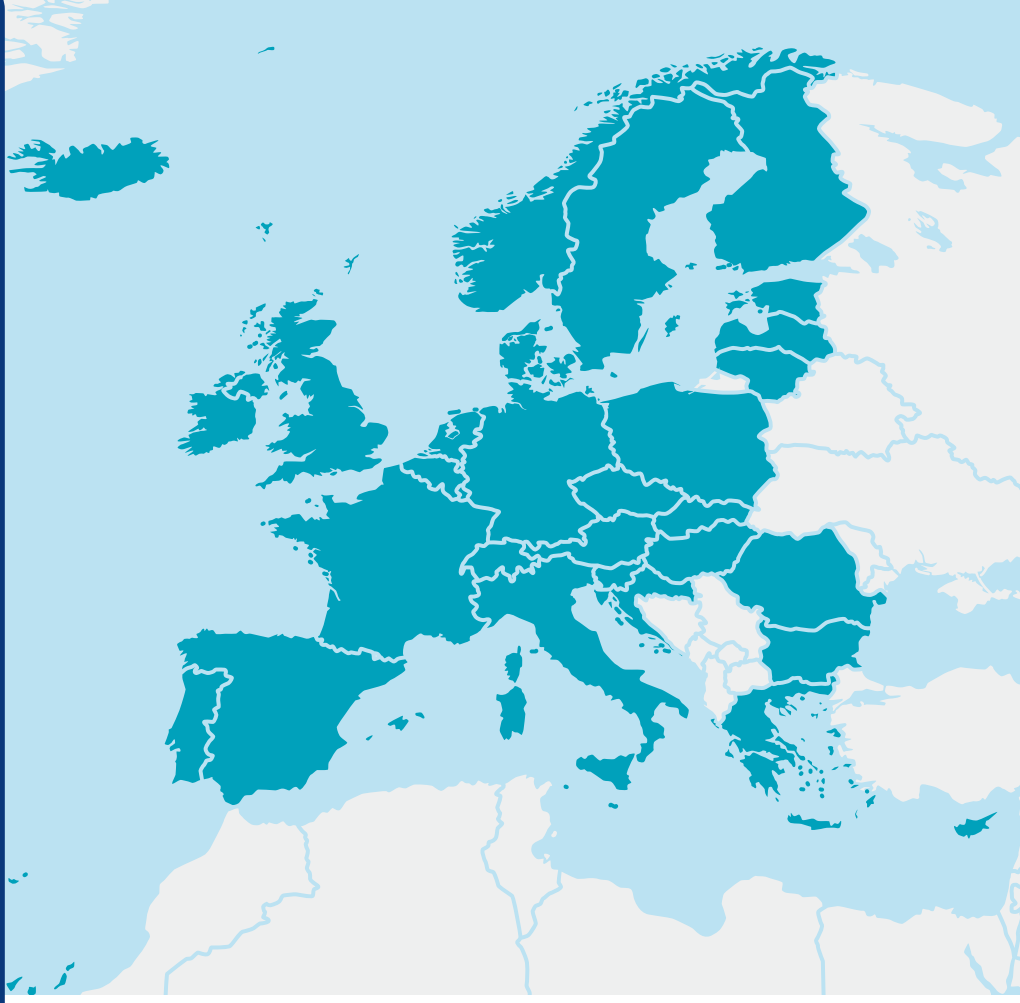
MITSUBISHI ELECTRIC EUROPE
(Mitsubishi Electric Corporation)



Overview:

Based in UK

138,700 employees (Mitsubishi Electric Corporation, 2020)

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

emea.mitsubishielectric.com

Products sold in Europe:

- MITSUBISHI ELECTRIC EUROPE sells domestic electric heat pumps in Europe.
- MITSUBISHI ELECTRIC EUROPE does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- MITSUBISHI ELECTRIC EUROPE does not sell domestic direct electric heating systems.

Positions on EU policy:

- MITSUBISHI ELECTRIC EUROPE supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- MITSUBISHI ELECTRIC EUROPE supports a ban on the sales of boilers and water heaters that run on fossil fuels, between now and 2030.
- MITSUBISHI ELECTRIC EUROPE supports an immediate end of subsidies for direct electric heating systems.

See *MITSUBISHI ELECTRIC EUROPE's full answer* to our questionnaire

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NIBE

Overview:

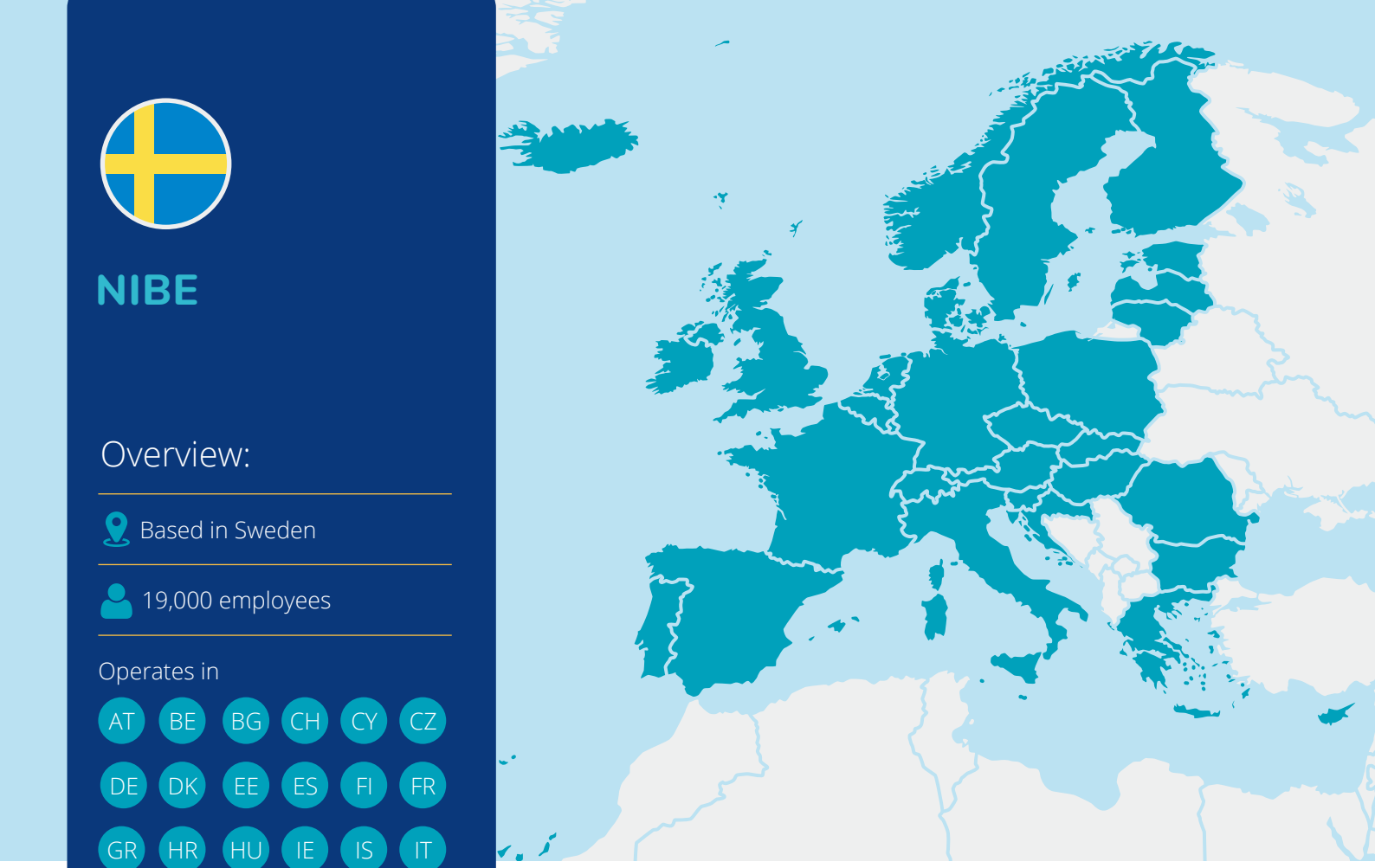
Based in Sweden

19,000 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.nibe.eu



Products sold in Europe:

- NIBE sells in Europe: domestic electric boilers and water heaters; electric heat pumps; packages of heat pump and solar; and biomass stoves.
- NIBE does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.

Positions on EU policy[34]:

- NIBE supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- NIBE supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- NIBE supports an immediate end of subsidies for direct electric heating systems.

See *NIBE's full answer* to our questionnaire

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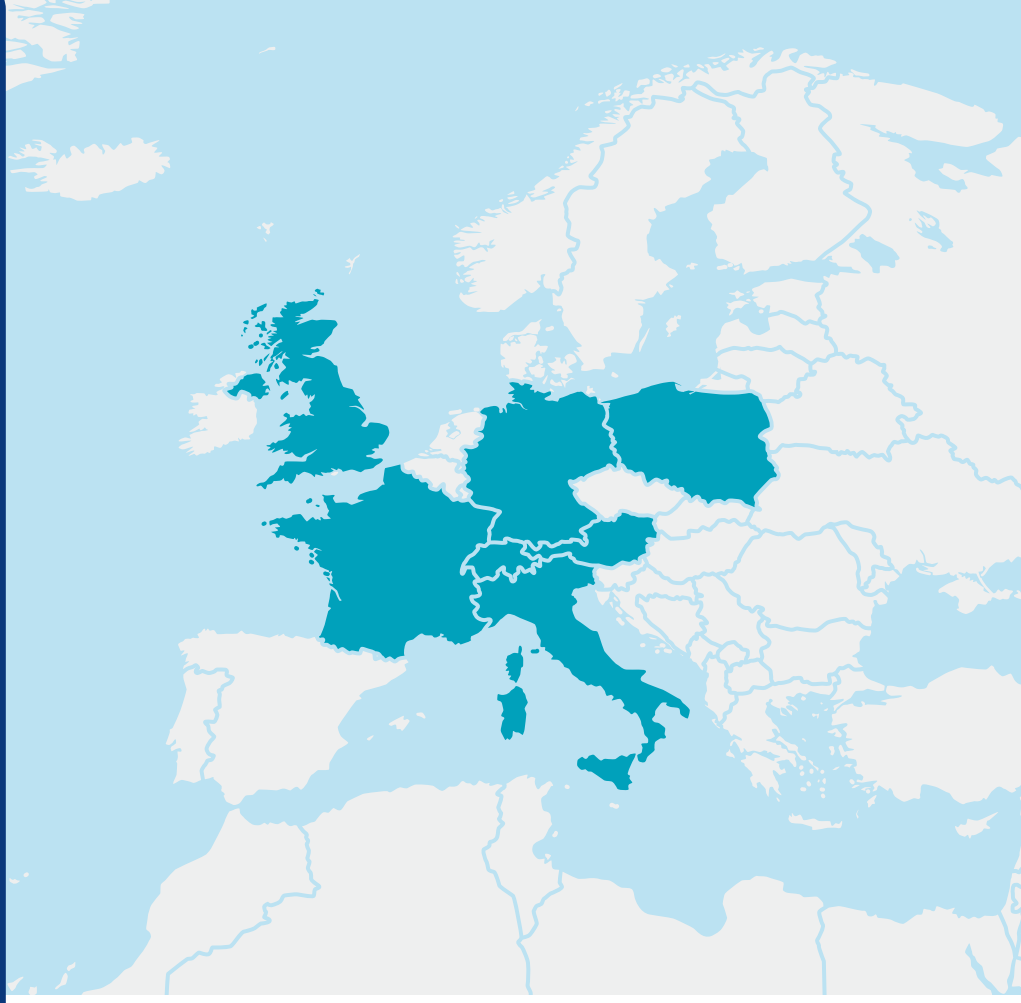
34. Although beyond the scope of our questionnaire, it is noteworthy that NIBE has publicly supported a quick rescaling of the energy label for space heaters.

OCHSNER



Overview:

Based in Austria

340 employees

Operates in

AT CH DE FR IE IT LI PL UK

www.ochsner.com/de-at

Products sold in Europe:

- OCHSNER sells domestic electric heat pumps in Europe.
- OCHSNER does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- OCHSNER does not sell domestic direct electric heating systems.

Positions on EU policy:

- OCHSNER supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- OCHSNER supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- OCHSNER supports an immediate end of subsidies for direct electric heating systems.

See *OCHSNER's full answer* to our questionnaire

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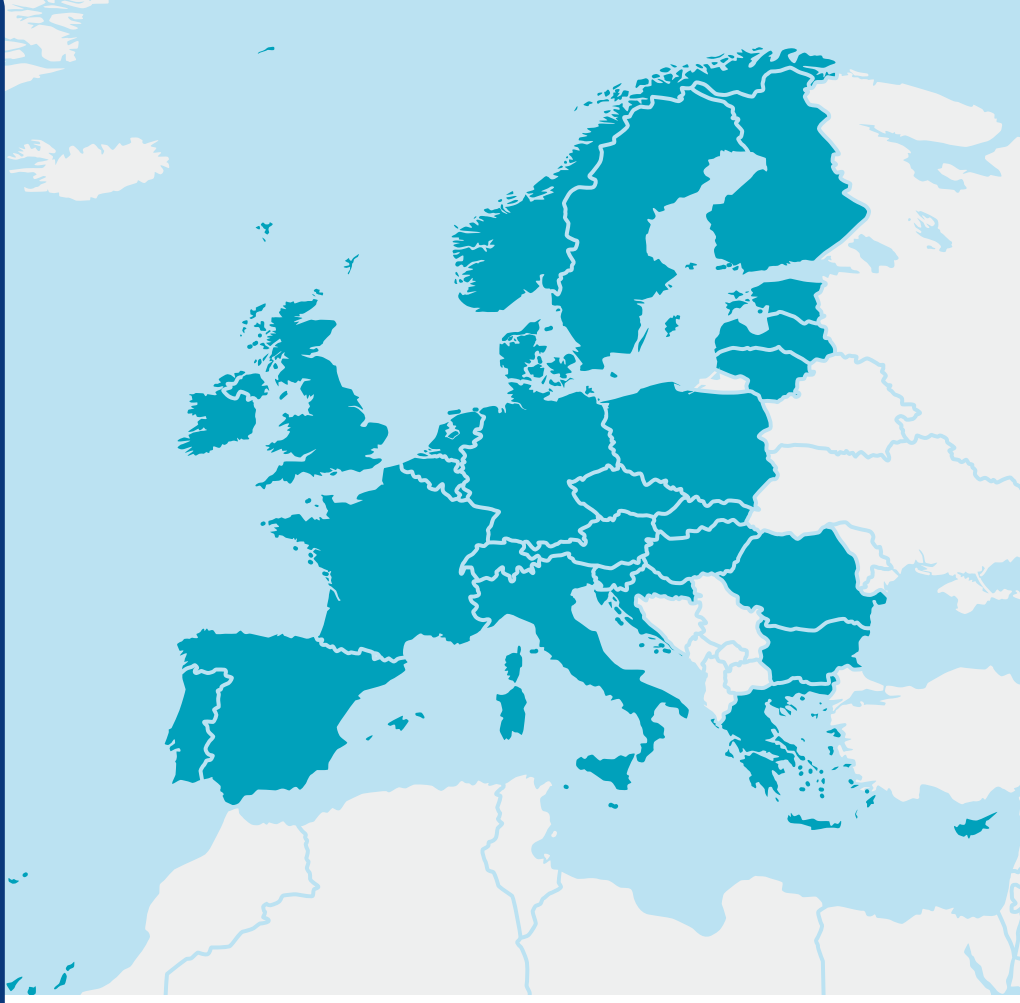
PANASONIC MARKETING EUROPE (PANASONIC Corporation)



Overview:

Based in Japan (PANASONIC Corporation)

243,540 employees (PANASONIC Corporation)

Operates in

AT BE BG CH CY CZ DE DK EE ES FI FR GR HR HU IE IT LI LT LU LV MT NL NO PL PT RO SE SI SK UK

www.panasonic.com/global

Products sold in Europe:

- PANASONIC sells domestic electric heat pumps in Europe.
- PANASONIC does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- PANASONIC does not sell domestic direct electric heating systems.

Positions on EU policy:

- PANASONIC supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- PANASONIC supports an immediate ban on the sales of boilers and water heaters that run on fossil fuels.
- PANASONIC supports an immediate end of subsidies for direct electric heating systems.

See *PANASONIC's full answer* to our questionnaire

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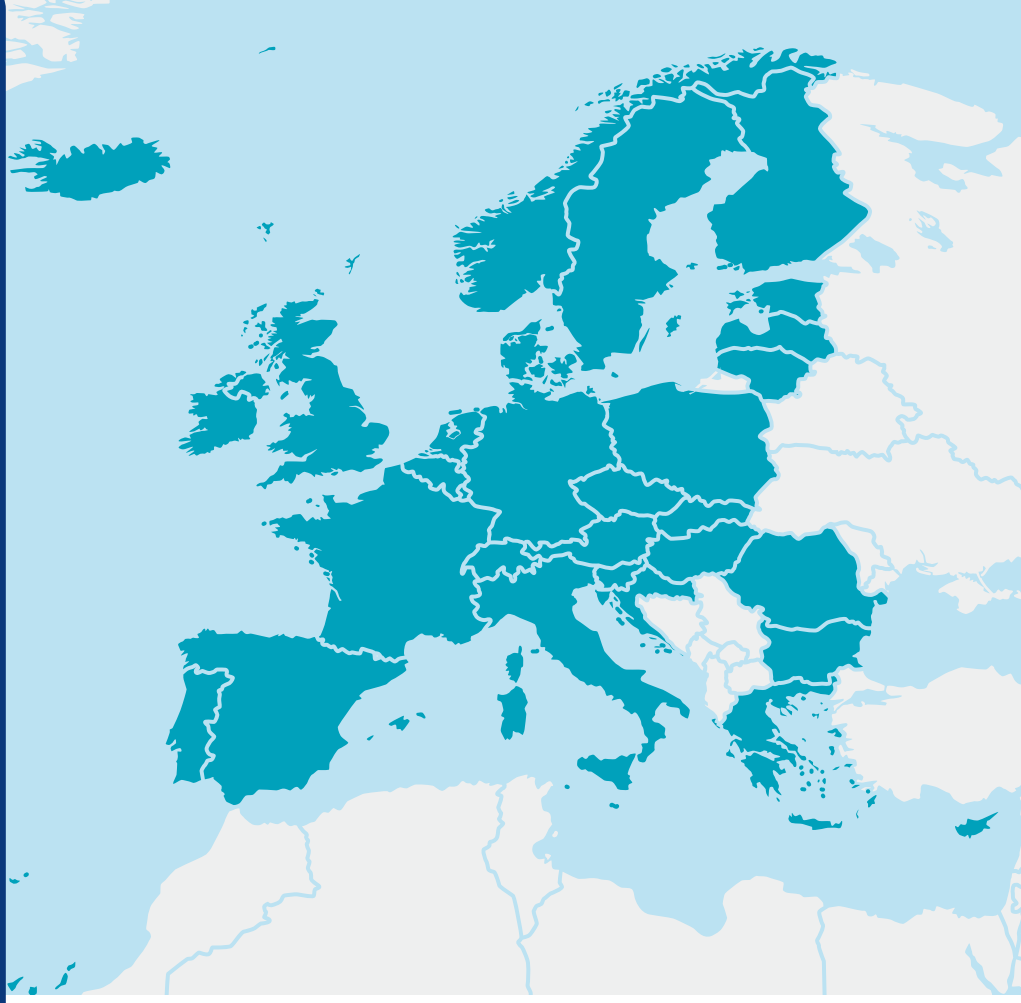
ROTH WERKE
(Roth Industries GmbH & Co. KG)



Overview:

Based in Germany

1,400 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LT LU LV MT NL NO
PL PT RO SE SI SK
UK

www.roth-industries.com/en

LEADER

Products sold in Europe:

- ROTH WERKE sells domestic electric heat pumps in Europe.
- ROTH WERKE does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- ROTH WERKE does not sell domestic direct electric heating systems.

Positions on EU policy:

- ROTH WERKE supports a 2030 end to subsidies for boilers and water heaters that run on fossil fuels.
- ROTH WERKE does not support a ban on the sales of boilers and water heaters that run on fossil fuels.
- ROTH WERKE supports a 2030 end to subsidies for direct electric heating systems.

See *ROTH WERKE'S full answer* to our questionnaire

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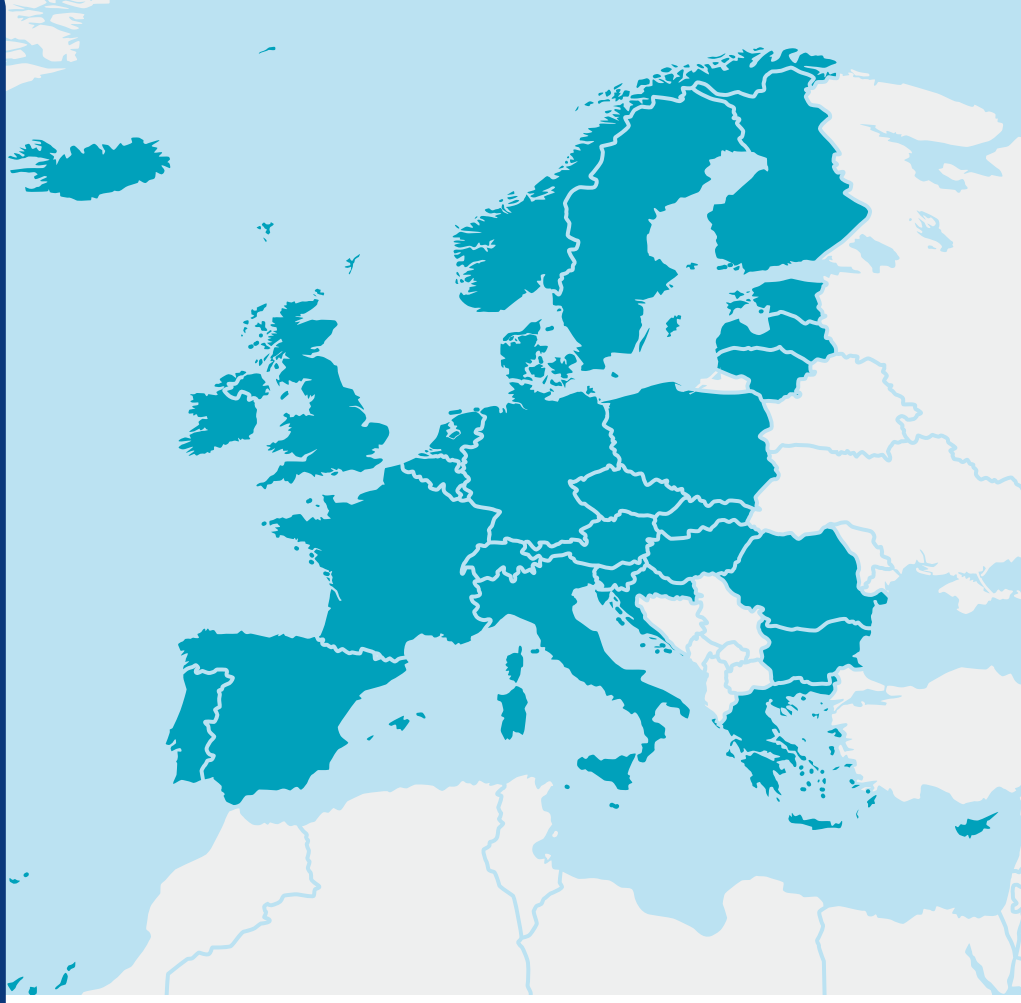
STIEBEL ELTRON



Overview:

Based in Germany

4,000 employees

Operates in

AT BE BG CH CY CZ
DE DK EE ES FI FR
GR HR HU IE IS IT
LI LT LU LV MT NL
NO PL PT RO SE SI
SK UK

www.stiebel-eltron.de

LEADER

Products sold in Europe:

- STIEBEL ELTRON sells in Europe: domestic electric radiators, boilers and water heaters; and electric heat pumps.
- STIEBEL ELTRON does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.

Positions on EU policy:

- STIEBEL ELTRON supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- STIEBEL ELTRON supports a 2026 ban on the sales of boilers and water heaters that run on fossil fuels.
- STIEBEL ELTRON does not support an end to subsidies for direct electric heating systems.

See *STIEBEL ELTRON's full answer* to our questionnaire

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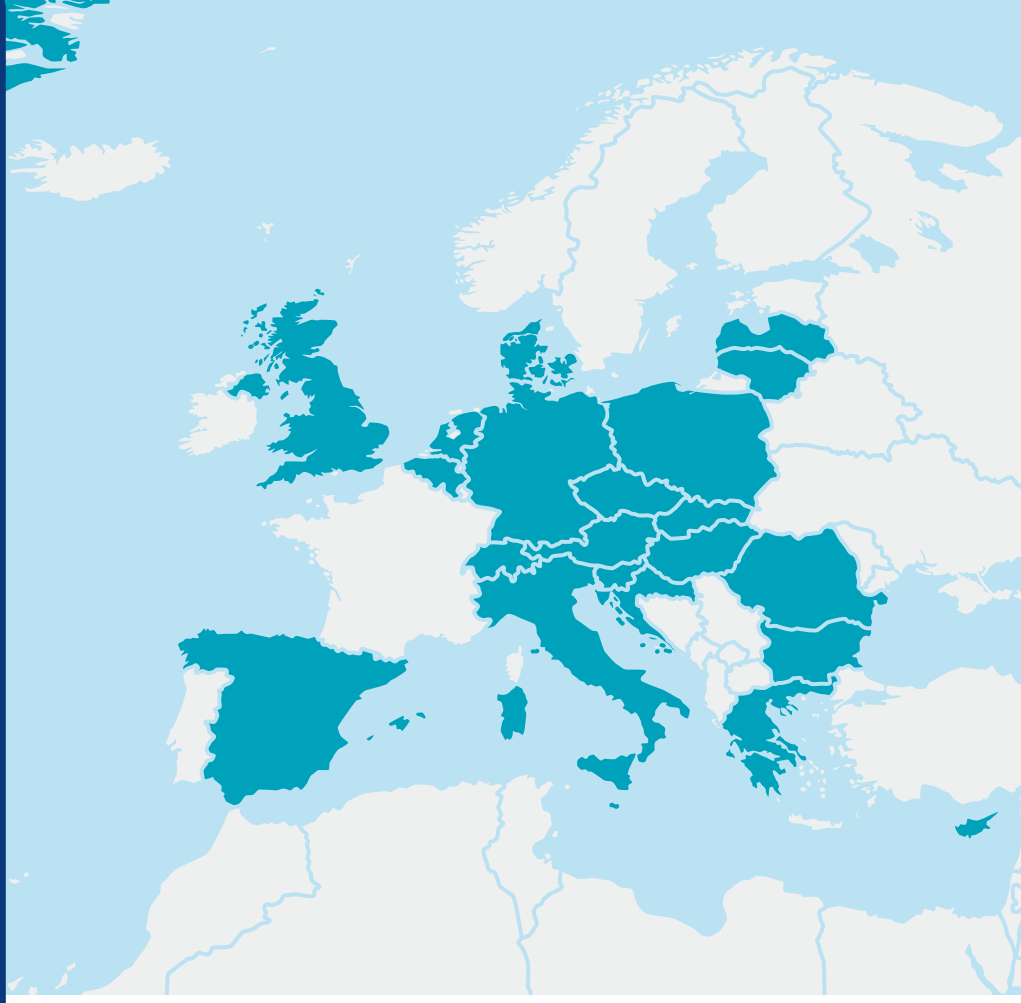
TERMO SHOP



Overview:

Based in Slovenia

60 employees

Operates in

AT BE BG CH CY CZ DE DK ES GR HR LT IT LV MT NL PL RO SI SK UK

www.termoshop.com

LEADER

Products sold in Europe:

- TERMO SHOP sells in Europe: domestic electric heat pumps; and packages of domestic electric heat pumps and solar.
- TERMO SHOP does not sell domestic, stand-alone boilers or water heaters that run on fossil fuels.
- TERMO SHOP does not sell domestic direct electric heating systems.

Positions on EU policy:

- TERMO SHOP supports an immediate end of subsidies for boilers and water heaters that run on fossil fuels.
- TERMO SHOP supports a 2025 ban on the sales of boilers and water heaters that run on fossil fuels.
- TERMO SHOP supports an immediate end of subsidies for direct electric heating systems.

See *TERMO SHOP's full answer* to our questionnaire

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Conclusions

Time is running out for the EU to decarbonise the heating sector. If fossil fuel boilers continue to be installed in European buildings beyond 2025, there is a risk that they will still be in place in 2050, when the EU should be climate-neutral.

Our report shows that there is broad and increasing support from heating companies for a rapid ban on fossil fuel boilers and water heaters, as recently recommended by the International Energy Agency[35].

Putting an end to subsidies for polluting and inefficient heating technologies is also uncontroversial, according to companies' input to the report. Shifting subsidies to climate-friendly technologies, such as electric heat pumps and solar thermal systems, would help Europe reduce their reliance on fossil fuel imports, and shield itself against their volatile prices.

The next few months provide plenty of legislative room for policy makers to move in that direction, with the discussions on the Fit-for-55 package of climate and energy measures, as well as the revisions of the Ecodesign and Energy Labelling regulations for heating products, taking place.

Our report also shows that 19 industry leaders —large and small companies from 10 different European countries— are already moving, ahead of legislation. Their portfolios boast climate-friendly products such as heat pumps and solar thermal systems, and are compatible with European climate objectives. These technologies can bring the same or higher comfort than gas in all climates, according to a recent major survey[36].

A large "dark side" of the industry (26 out of 49 companies) declined to reply to our questions about the climate friendliness of their current portfolio, and about their future plans. This lack of transparency is in contrast with all the communication and branding about sustainability that can be observed across the industry, and remarkably in many ads and websites. Some of these companies argue that "decarbonised gases" will make today's fossil fuel boilers decarbonised, despite mounting evidence of cost and technical issues that point in the opposite direction.

Overall, there is room for improvement in terms of decarbonisation of the domestic heating industry. That is why we plan to follow up in the coming years with updated editions of this report, to track how the heating industry is walking the decarbonisation talk; and to call on them for additional decarbonisation pledges.

Even if a large part of the industry continues to be opaque, we hope that in future editions we will be able to use data from the European Product Registery for Energy Labelling (EPREL), which should be fully operational and accessible to the public soon. EPREL should also allow us to better understand, and more comprehensively cover, the heating industry.

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36. EEB on behalf of Coolproducts. "The Comfort Zone. European Users' Perception Of Renewable Heating Performance" February 2022.

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https://www.coolproducts.eu/coolproducts-reports/heat-pumps-perform-successfully-across-europe-new-consumer-analysis/

Company associations websites

(visited between mid-October 2021 and mid-December 2021)

European Heating Industry – *www.ehi.eu*
European Heat Pump Association – *www.ehpa.org*
European Partnership for Energy and the Environment – *www.epeeglobal.org*
Solar Heat Europe – *http://solarheateurope.eu/*

Company websites

(visited between mid-October 2021 and mid-December 2021):

Companies that replied to our questionnaire:
ABORA SOLAR – *https://abora-solar.com/en*
BDR THERMEA – *https://www.bdrthermeagroup.com/*
CALPAK – *https://calpak.gr/*
CENTROTEC – *https://www.centrotec.de/*
CLIVET – *https://www.clivet.com/*
CTA – *https://www.cta.ch/*
DAIKIN EUROPE – *https://www.daikin.eu/*
FUJITSU GENERAL – *https://www.fujitsu-general.com/global*
HELIOTHERM – *https://www.heliotherm.com/en/*
IDM ENERGIE – *https://www.idm-energie.at/en*
IMMERGAS – *https://www.immergas.com/*
INNOVA – *http://www.innovaenergie.com/*
JANUS ENERGY – *http://www.janusenergy.it/*
JOHNSON CONTROLS – *https://www.johnsoncontrols.com*
KRONOTERM – *https://kronoterm.com/*
LG ELECTRONICS – *https://www.lg.com/global/*
MITSUBISHI ELECTRIC EUROPE (Mitsubishi) –
https://emea.mitsubishielectric.com/en/index.html
NIBE – *https://www.nibe.eu/*
OCHSNER – *https://www.ochsner.com/de-at*
ROTH WERKE – *https://www.roth-industries.com/en/default.htm*
PANASONIC – *https://www.panasonic.com/*
STIEBEL ELTRON – *https://www.stiebel-eltron.de/*
TERMO SHOP – *https://www.termoshop.si/*

Companies that did not reply to our questionnaire:
ARBONIA – *https://www.arbonia.com/*
KERMI (ARBONIA) – *https://www.kermi.com/*
VASCO GROUP (ARBONIA) – *https://vasco-group.eu/*
ARISTON THERMO GROUP – *https://www.aristonthermo.com/en/*
ATLANTIC – *https://groupe-atlantic.fr/en*
BOOSTHEAT – *https://www.boostheat.fr/*
BOSCH – *https://www.bosch-thermotechnology.com/corporate/en/startpage.html*
CARRIER – *http://www.carrier.fr/*
RIELLO (CARRIER) – *https://www.riello.com/corporate/it*
ENERTECH – *http://enertech.se/en/*
FERROLI – *https://www.ferroli.com/it*
FONDITAL – *https://www.fondital.com/it/it/*
GLEN DIMPLEX – *https://glendimplex.de/*
HOVAL – *https://fr.hoval.com/*

IRSAP – *https://www.irsap.com/*
KORADO – *https://www.korado.com/*
MICHL – *http://michl.com/*
PURMO GROUP – *https://www.purmogroup.com/*
ROBUR – *https://www.robur.com/*
SAMSUNG – *https://www.samsung.com/fr/*
SOLAHART – *https://www.solahart.com.au/*
TESY – *https://tesy.com/*
TNG-AIR – *https://www.zatopime.cz/en/*
TOSHIBA – *https://www.toshiba-airconditioning.eu/*
TOYOTA – *https://www.toyota-global.com/*
AISIN SEIKI (TOYOTA) – *https://aisin.com/product/energy/*
VAILLANT – *https://www.vaillant.com/home/europe/*
VIESSMANN – *https://www.viessmann.de/*
VIVRECO – *http://vivrecoheatpumps.com/*
WEISHAUPT – *https://www.weishaupt.de/*

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