

Deutsche Wärmekonferenz

23 March 2022

ehi
*association of the
European Heating Industry*

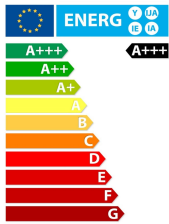
EHI brings together manufacturers of heating systems in Europe

SPACE HEATING	WATER HEATING	CONTROLS	EMITTERS	
			UNDERFLOOR HEATING	RADIATORS
<p>125 000 people employed directly by the industry</p>		<p>1 billion € yearly investments in RDI</p>		
<p>28.5 billion € turnover / year</p>				

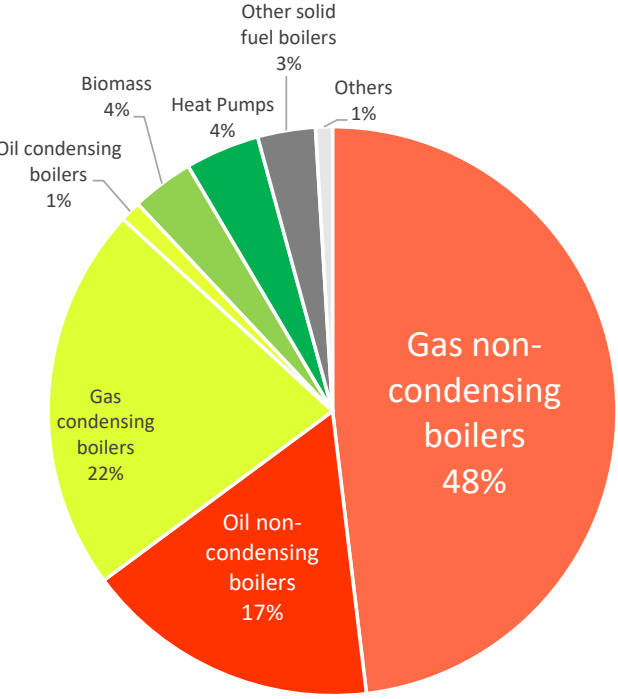


Our members represent 90% of EU market for heat & hot water generation, covering a wide range of technologies

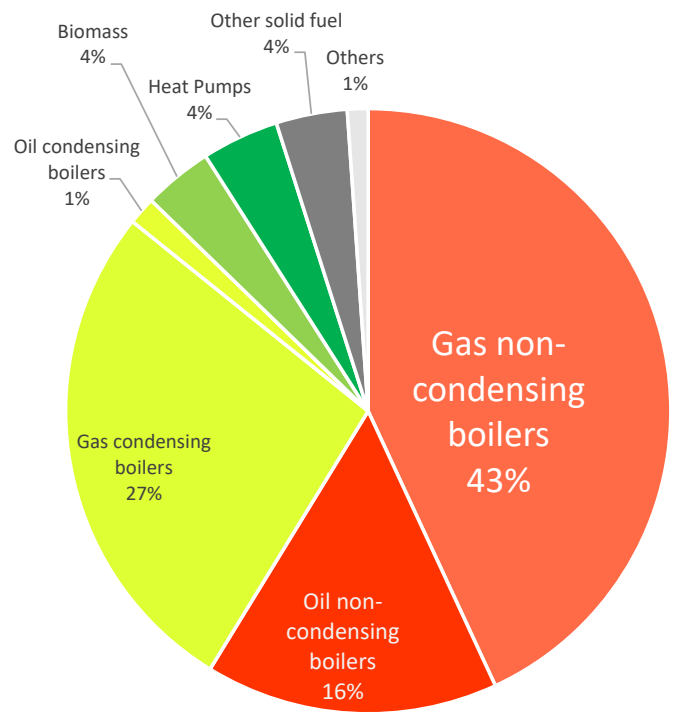
Installed stock of heaters in the EU 27 across the years



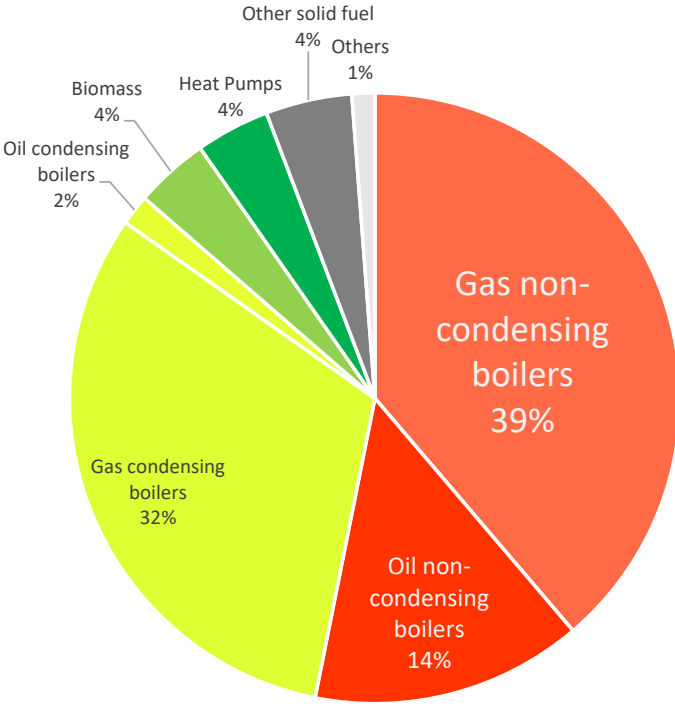
Source: EHI. Colours based on the energy label for new heaters.



Year 2015
101,5 Mio space heaters
69 % inefficient, > 70 mio



Year 2017
103,4 mio space heaters
63 % inefficient, > 65 mio



Year 2019
105,7 mio space heaters
58% old & inefficient, > 61 million

Replacement too slow (4%/year) → at least 6% needed for 2030

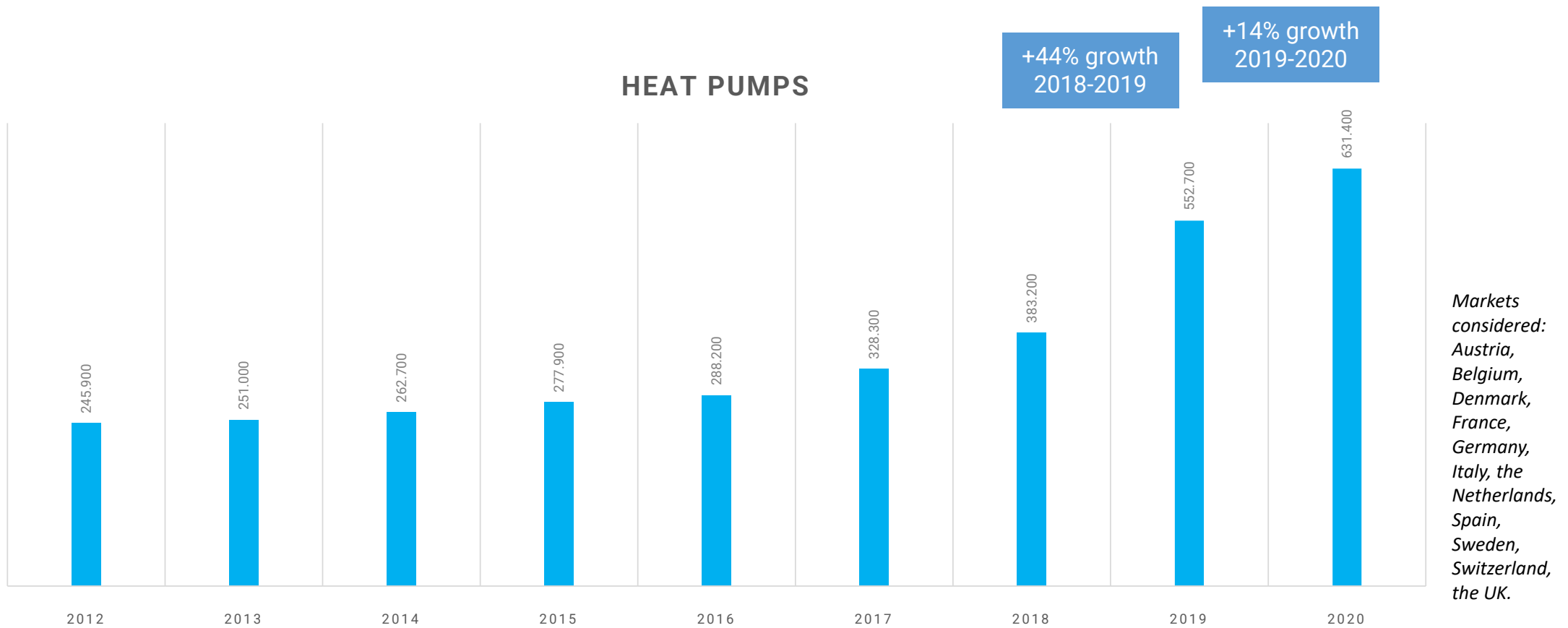
EHI Vision: to realise carbon-neutral buildings by 2050



All future-proof techs will play a role: **electric heat pumps, hybrids, green gas boilers, thermally-driven heat pumps, microCHP, fuel cells, solar thermal, biomass.**

Sales of heat pumps 2012-2020

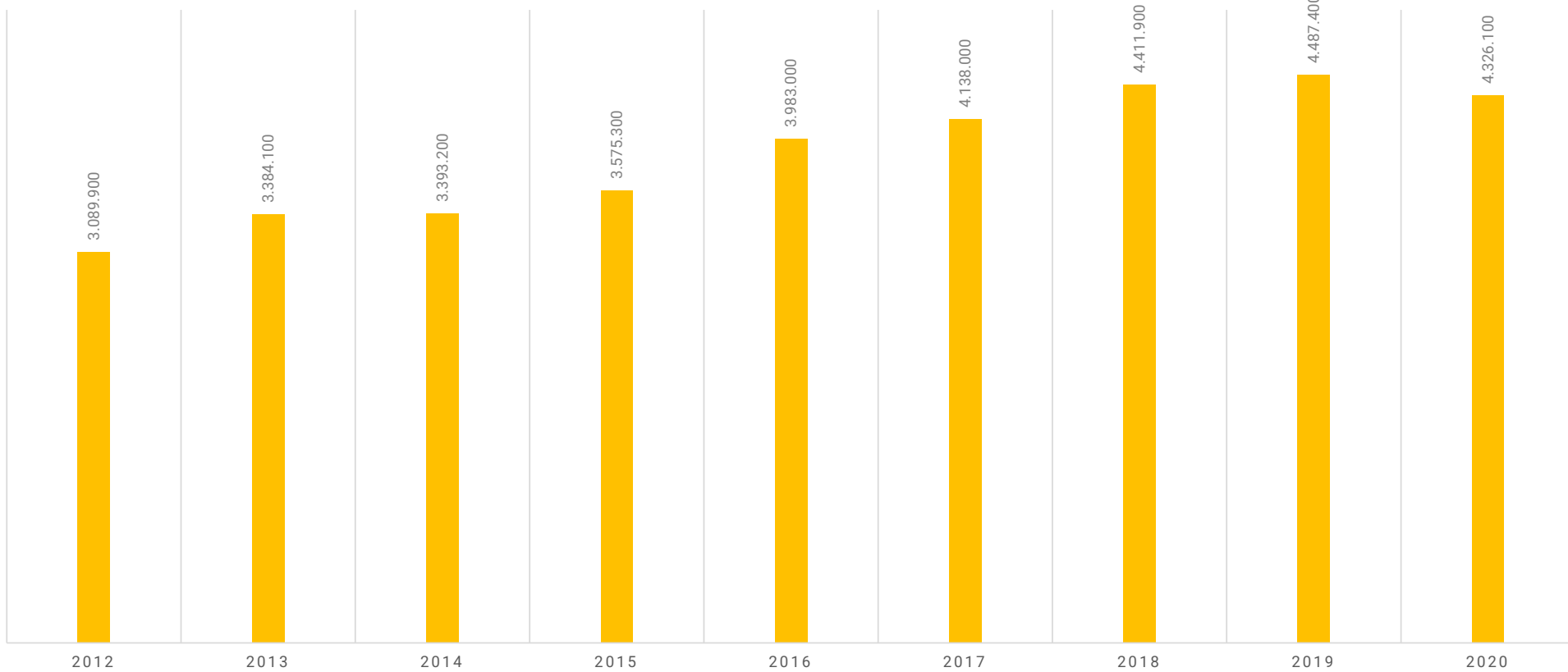
Today, heat pumps are the fastest growing technology, thanks to their efficiency, versatility and strong regulatory support.



Sales of gas condensing boilers 2012-2020

The market for boilers is mature and by and large stable.

GAS CONDENSING BOILERS



*Markets considered:
Austria,
Belgium,
Denmark,
France,
Germany,
Italy, the
Netherlands,
Spain,
Sweden,
Switzerland,
the UK.*

Latest trends: the heating market in 2021

Growth in all market segments due to favourable conditions post-COVID: regulatory environment, focus on homes and renovations.

- 1M sales in 2021
- +71.5% compared with 2019

Very strong growth

Heat pumps

- 5.4M sales in 2021
- +13% compared with 2019

Solid performance

Gas condensing boilers

*Markets considered:
Austria, Belgium, Denmark,
France, Germany, Italy, the
Netherlands, Poland, Spain,
Sweden, Switzerland, the
UK.*

Technological innovation trends

Heat Pumps

Electric

Hybrids

Thermally Driven



Hybrid Heat Pump

Green gas/Hydrogen

H₂-ready boilers

Hybrids

mCHP

Fuel cells



Hydrogen boiler

Heating technologies key to cut energy dependence

How much does Europe import?

- 155 bcm from Russia
- > 40% of gas consumption absorbed by residential & tertiary sector



Heating technologies are ready to slash gas consumption

- Electrification \Rightarrow heat pumps and hybrids
- Ready to use green gases now \Rightarrow hydrogen, biomethane
- Efficiency \Rightarrow at least 20% (switch to condensing), up to 100% with fuel switch.



Challenges

- **Capacity/capability** e.g.: installers
- **Financial** e.g.: upfront investments & energy prices

- **Diverse energy infrastructure:**

Germany electricity peak today: 80 GW

Gas infrastructure heating capacity: 230 GW

(source: [Frontier Economics](#))

- **Time**

- Industry investing in:

- **Heat pumps, hybrids** production
- **Ready for 100% H2** by end of 2020s



Thank you!

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