

Heat pump market: state of play and outlook in view of the « fit for 55 » package

Policy developments – expectations from the fit for 55 package on heat pump market development

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Legislation covering Heat Pumps

Clean energy 4 all Europeans package	Energy efficiency directive EED	Energy efficiency on systems level (+calculations for HP)	+	+
		Comprehensive assessments on heating and cooling	+	+
	Energy performance of buildings directive EPBD	New builds, renovation strategy + modernisation of H&C	+	+
		Smart buildings	+	
	Renewable energy directive RED	Definitions: renewable energy / renewable cooling	+	
		Sectorial target for renewable heating / cooling	+	+
	Governance Regulation	National energy and climate plans (NECP)	+	
		Improved data situation	+	
	Electricity market design	Flexible tariffs, smart grids	+	+
	F-gas regulation	Reduction of F-Gas related emissions	+	-
	Ecodesign regulations	Requirements (combi-)boilers, airco & smart appliances	+	-
	Long term strategy	fossil molecules → green molecules (H2/CH4) or biomass	-	-
	National legislation	F-gas, taxation, certification requirements, standards	+	-

If not successful
- -

EU Green Deal & Climate Law



“I want Europe to become the first climate neutral continent in the world by 2050. To make this happen, we must take bold steps together A two-step approach is needed to **reduce CO₂ emissions by 2030 by 50, if not 55%.**“

President Ursula von der Leyen

EHPA market and policy report | 28.3.2021 | 15 Folien | Frankfurt

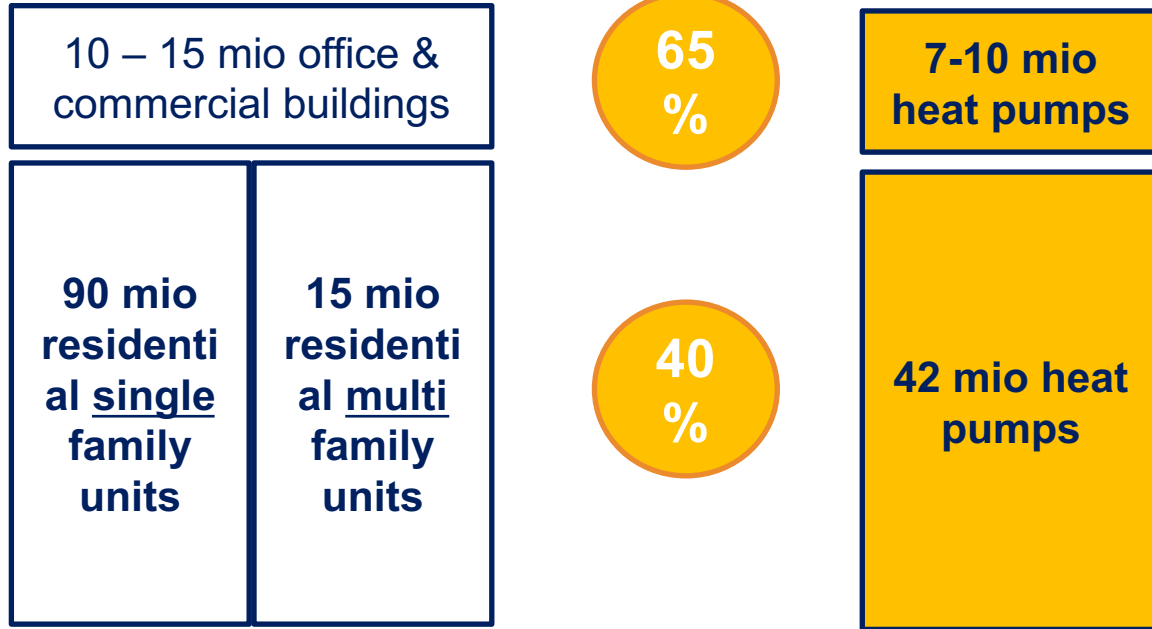
CO₂
-55
%

EU Green Deal & Climate Law

- **EU Strategy for Energy System Integration**
- **EU Renovation Wave Communication**
- **Fit for 55% package (Revision of 15 initiatives)**
 - More renewable energy
 - More energy efficiency
 - Internalisation of the external effects of fossil energy use

**Build on
heat pumps**

EU Energy systems integration strategy



today's HP stock

x 4

+ industry

Renovation wave: the target

- **Decarbonisation of heating and cooling**
- **Double the renovation rate**
- **Foster deep energy renovation: schools, public buildings**
- **Renovate the 35 million least performing buildings by 2030**
- **Allow for affordable and sustainable design via New European Bauhaus**



«4x as many heat pumps ... »

**Industry can deliver,
but**

«We need framework conditions, that trigger
end-user demand»

Fit for 55 – trigger end-use demand for Heat Pumps!



01

Align Policies on efficient AND renewable heating and cooling

- A comprehensive and ambitious heating decarbonisation roadmap
- Incentivize technologies that are simultaneously efficient and renewable
- Incentivize fuel switching in the EED



02

Unlock the full potential of heat pump technologies

- Ambitious and binding target for renewables in heating and cooling
- Enlarge the concept of waste heat to circular energy
- Address energy savings from industrial heat pumps, thermal storage and flexibility



03

Guide citizens to efficient and renewable heating and cooling solutions for their buildings

- One stop-shops for heating and cooling renovations
- Increased requirements on renewable and efficient heating in buildings
- More attractive training and certification for heat pump installers



04

Review energy pricing to guide end-users towards the most energy-efficient solutions

- Re-balance taxation of different energy carriers
- Internalise external effects of fossil energy use through carbon pricing
- Implement legislation to valorise flexibility

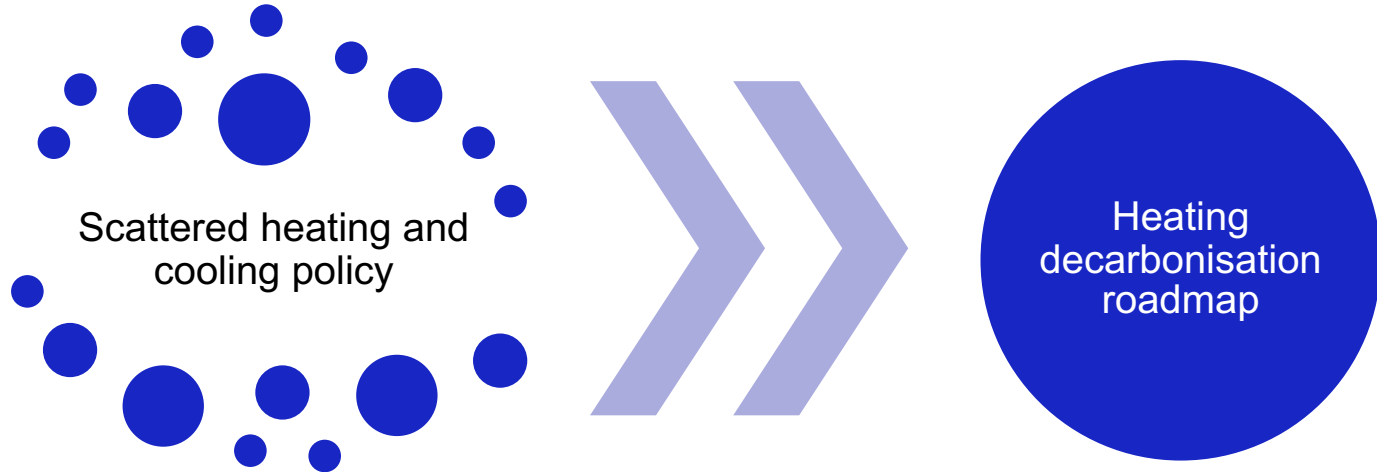
Fit for 55 – trigger end-use demand for Heat Pumps!



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Align policies on efficient AND renewable Heating & Cooling



- Comprehensive **assessments** on H&C (EED) - by December 2020
- Renewable **assessments** in H&C (RED) - by December 2020
- Long-term renovation **strategies** (EPBD) – by April 2020
- **NECPs** – by December 2019

- Align timing: assessing before planning
- Incentivise renewable AND efficient heating and cooling

Fit for 55 – trigger end-use demand for Heat Pumps!



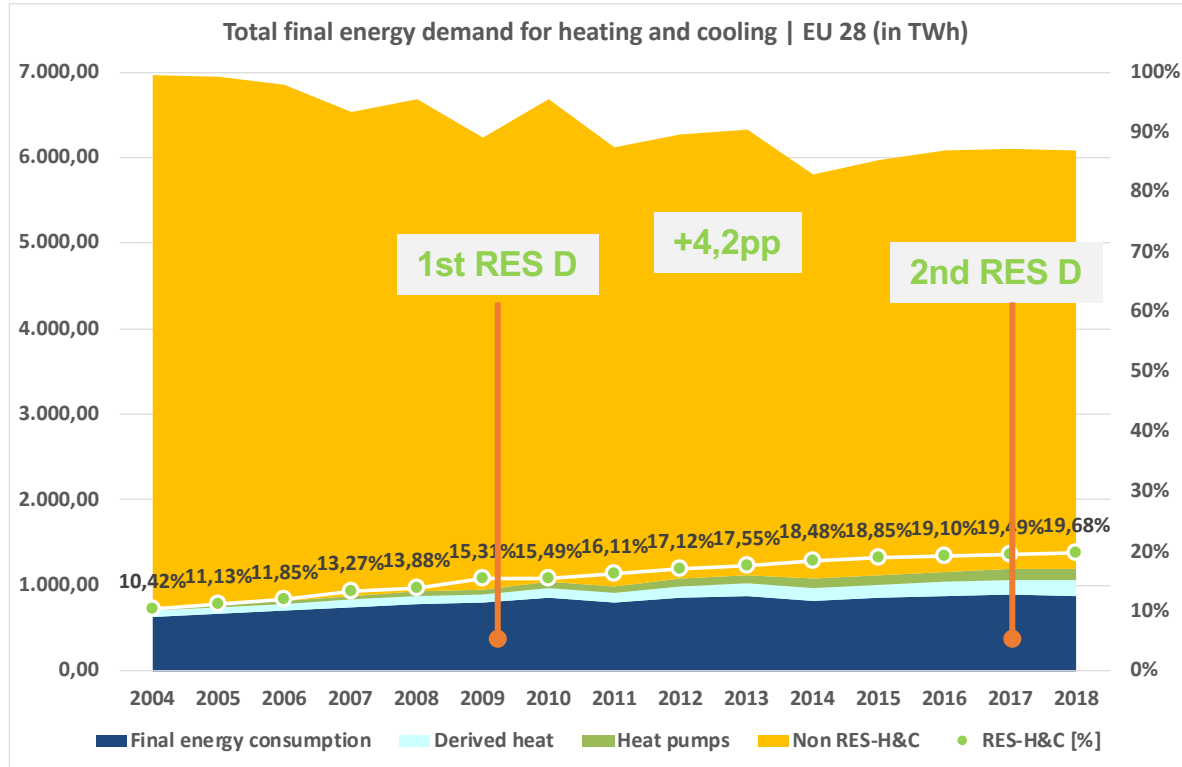
02

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Binding RES H&C target

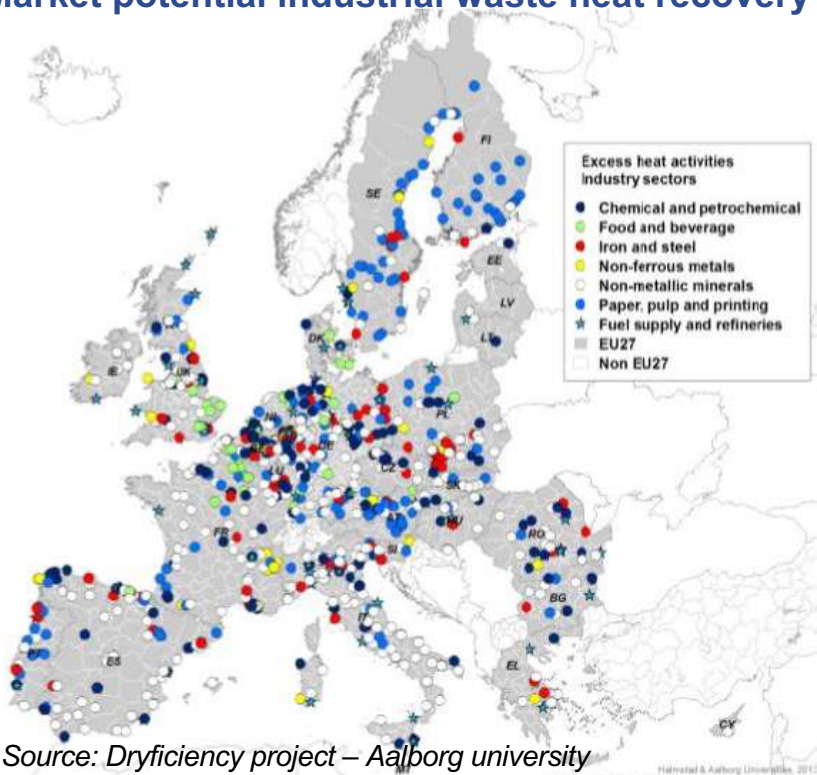
<http://ec.europa.eu/eurostat/de/web/energy/data/shares>



< 1pp
annual increase of
renewable share

Incentivise circular energy use

Market potential industrial waste heat recovery



Extend to commercial and residential sector



Fit for 55 – trigger end-use demand for Heat Pumps!



Guide citizens to efficient and renewable heating and cooling solutions for their buildings

- One stop-shops for heating and cooling renovations
- Increased requirements on renewable and efficient heating in buildings
- More attractive training and certification for heat pump installers

One-stop shops



Ali Sheridan & Family

“There’s a lot to take in in terms of paperwork. SuperHomes held our hand on a lot of that and gave us very clear guidelines. They were always on the end of the phone.”.

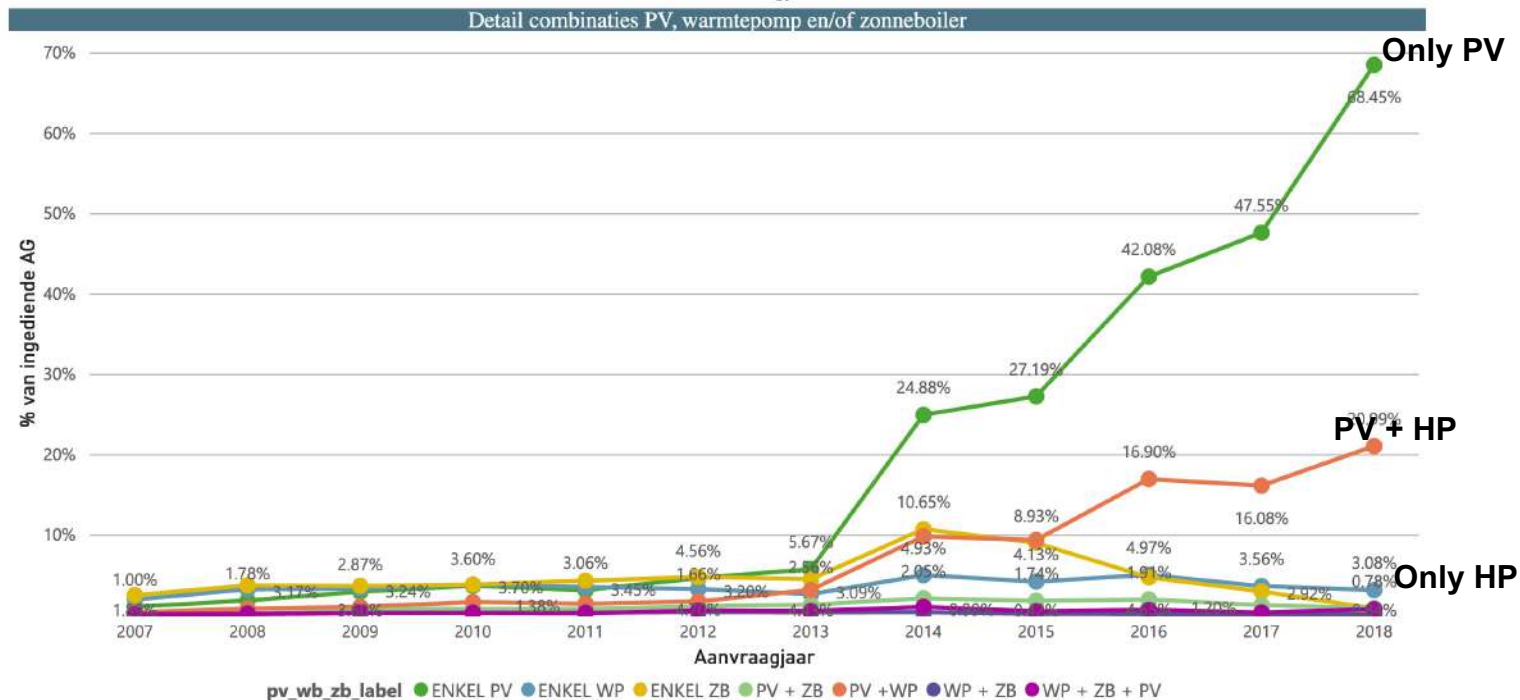


Shay And Olive Aylward

“I would highly recommend it to everybody who can get it done. Our neighbours have been calling to see the system outside and to experience what the house is like”.

Min. share of renewable heat in buildings

Effect of min. share of RES in Flanders



Fit for 55 – trigger end-use demand for Heat Pumps!



04

Review energy pricing to guide end-users towards the most energy-efficient solutions

- Re-balance taxation of different energy carriers
- Internalise external effects of fossil energy use through carbon pricing
- Implement legislation to valorise flexibility

Carbon pricing: make the best technology also the most affordable one

Fossil boiler technology



Energy Efficiency



Renewable



Air quality



Demand response potential

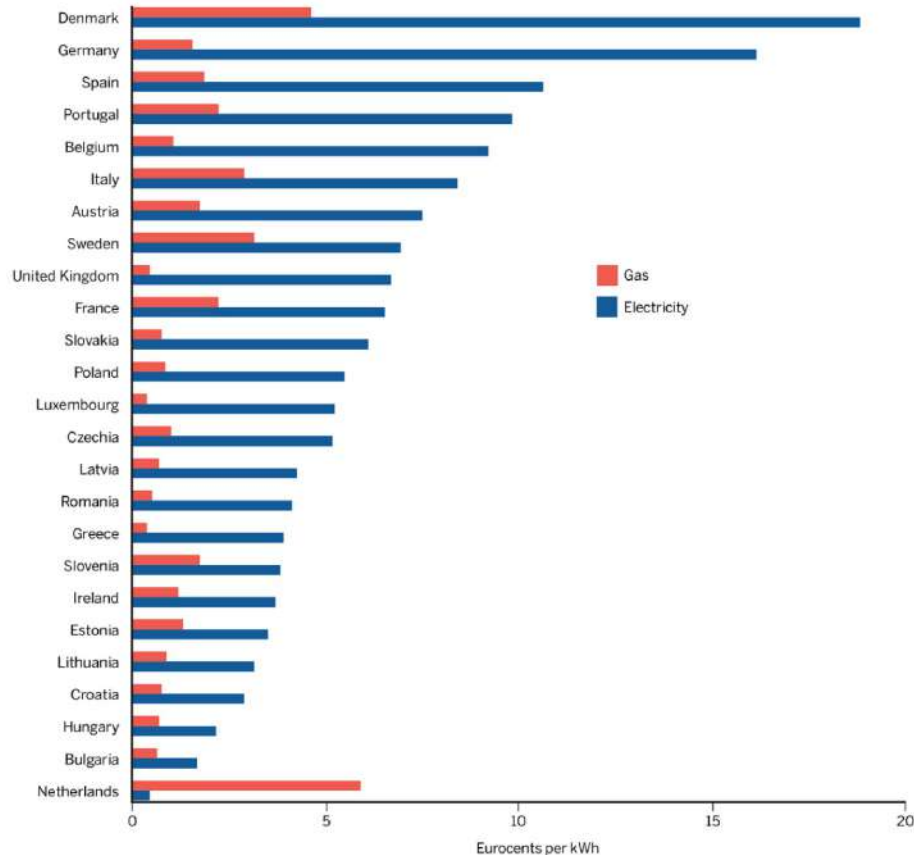


Cost

Heat pump technology



Balance taxation of energy carriers



Levies and taxes (including VAT) on residential gas and electricity prices (euro cents per kWh), average in 2020

Source: RAP report pricing is just the icing – EC 2020 energy prices and costs in Europe

The way forward

Adjustment of production possible (+15%pa)

+

Activate end-user demand

=

A decarbonised buildings stock

Industry is ready

**Align policy
Unlock full HP potential
Guide consumers
CO₂ price signal**

+ support poorer households

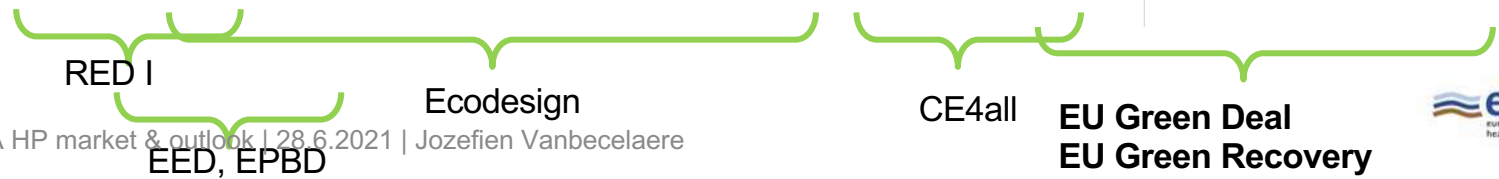
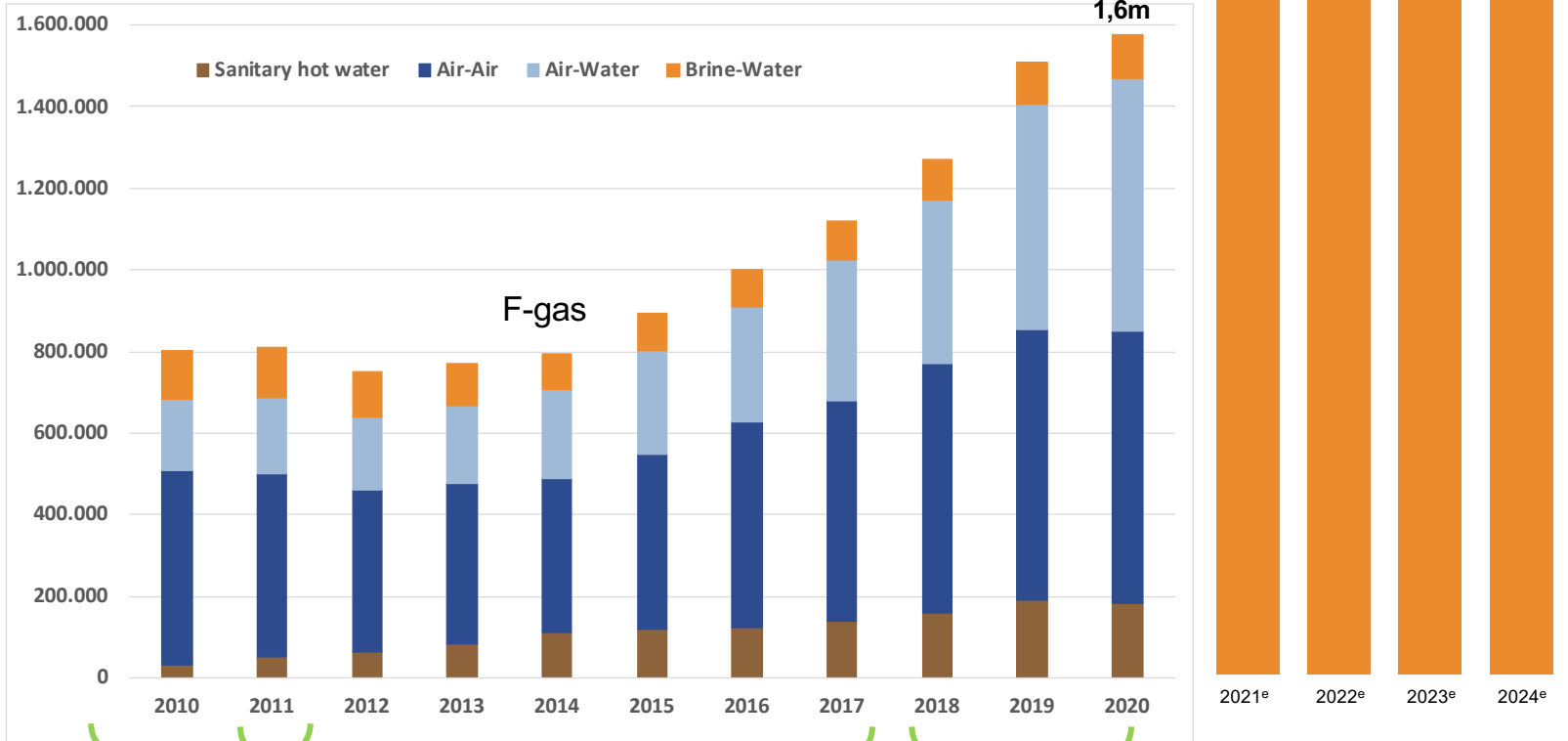
An industrialisation opportunity

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	Revision EED, RED, EPBD	Transition towards a zero-CO ₂ emission society	+	
		More ambitious targets	+	
	ETS on building sector	Extension ETS to heating sector: price for CO ₂ -emission	+	+
	Energy Taxation Directive	Rebalance taxation different energy carriers	+	+
		Renovation wave		
		Energy System integration		
	Long term strategy	fossil molecules → green molecules (H ₂ /CH ₄) or biomass	-	-
	National legislation	F-gas, taxation, certification requirements, standards	+	-

If not successful
- -

2020 – 2030: The heat pump decade



EU electricity grid is ready for 50 million Heat Pumps



The image shows a laptop screen with a data dashboard. The dashboard includes a line chart with multiple series, a bar chart, and a pie chart. The EHPA logo is visible in the top right corner of the screen. The text '05.07.2021 14:05 - 15:05 CEST' is overlaid on the screen. The main text 'The lights will stay on with 50 million heat pumps' is prominently displayed in the center. Below it, the text 'Online Policy Seminar' is visible.

ehpa

05.07.2021
14:05 - 15:05 CEST

**The lights will stay on with
50 million heat pumps**

Online Policy Seminar