As of today

13 599 395



Is it a heatpump? Is it an air conditioner?
Is it a dehumidifier? Is it a hot water generator?

Or is it a electric grid stabilizer?

refrigeration

heating

Hot water

Integration of services based on the refrigerant cycle

cooling

dehumidification

Demand side flexibility

Air qua lity ŏ

Climate



Heat pumps are everywhere











Heat pumps provide heating, cooling and hot water for...

Residential Application





Applications



Industrial Application





District Heating Big buildings



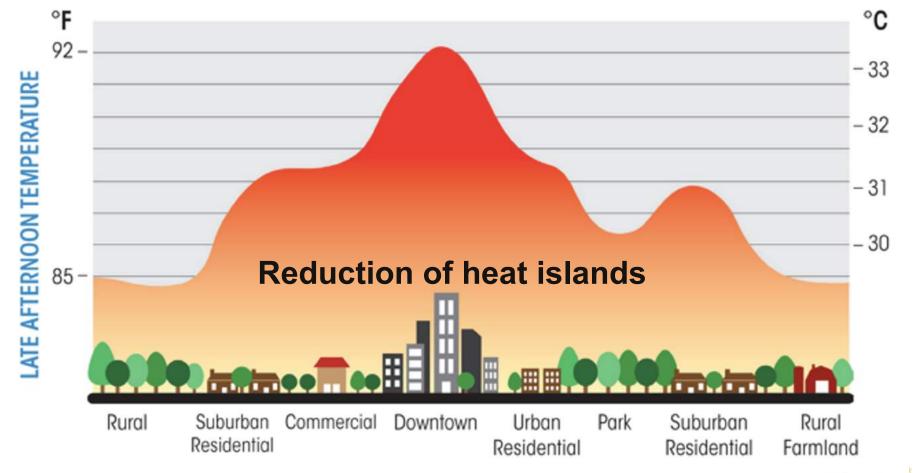


Heat pumps balance a "high-RES-electricity grid"











Heat pump benefits: less air pollution in cities: example Krakow





The European Heat Pump Association aisbl / founded 2000



130

Members

Heat pump manufacturers
Component manufacturers
National associations
Consultants
Research & test institutes

22

countries represented

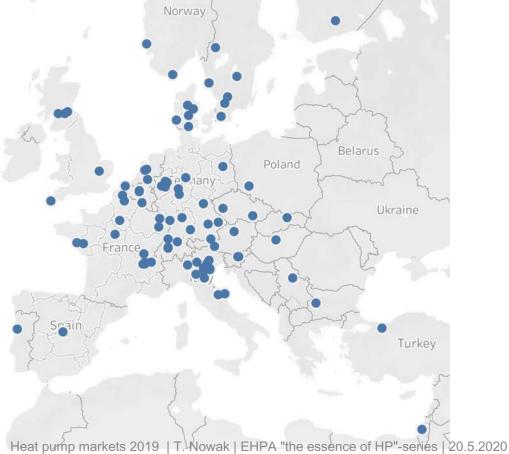
Vision

In a fully decarbonised
Europe, heat-pump
technologies are the
number one heating
and cooling solution,
being a core enabler
for a renewable,
sustainable and smart
energy system.



Heat pump manufacturing in Europe

103 sites







2019

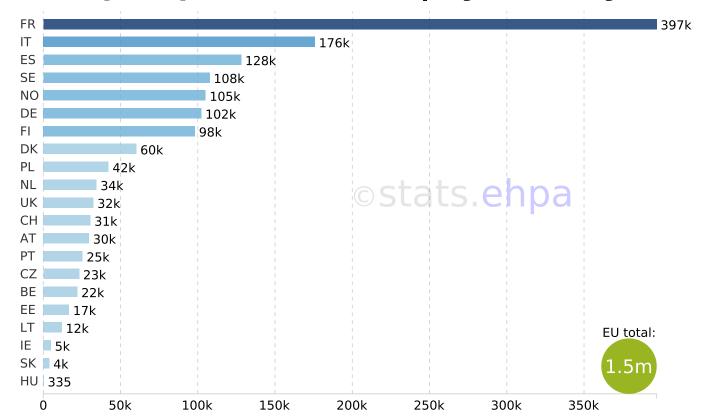
1 453 000

http://stats.ehpa.org





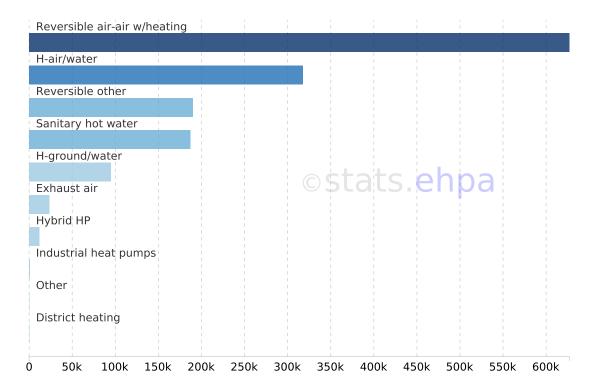
Heat pumps sales 2019 | by country





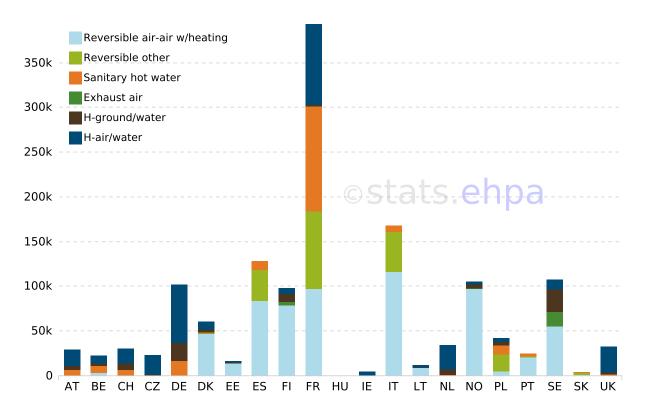


Heat pump sales 2019 | by type



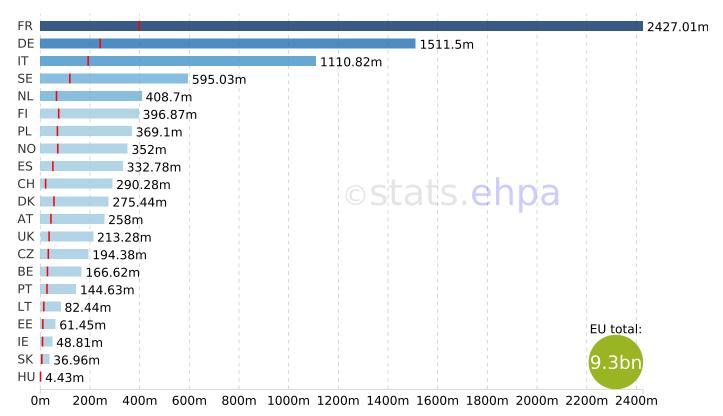


Heat pumps sales 2019 | by country and type



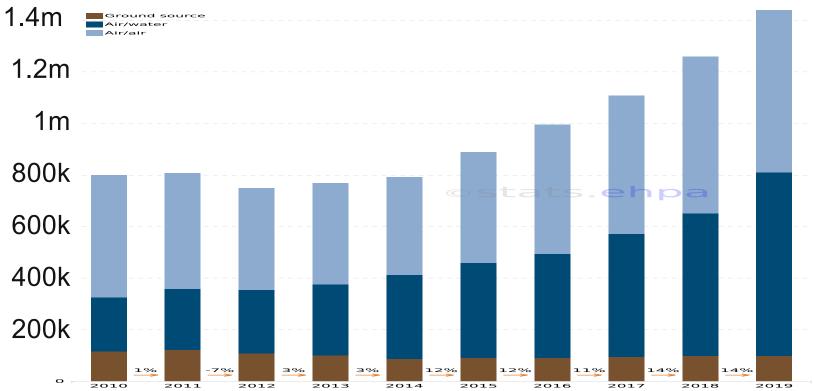


Economic benefit





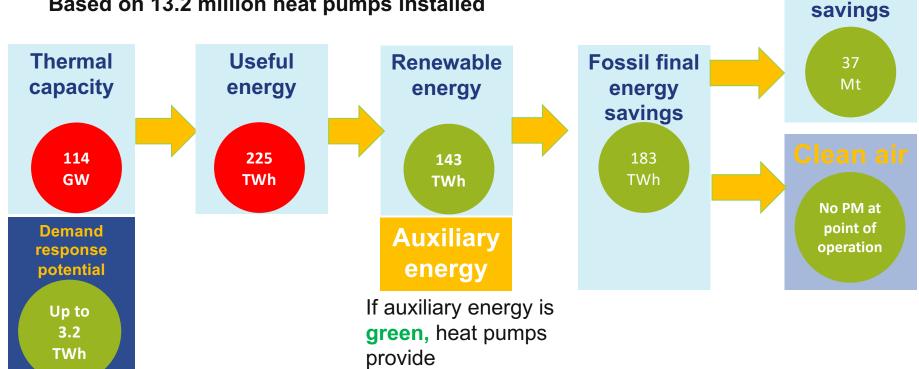
market growth '05 – '19 | HP stock²⁰¹⁹: 13.2 mill. installed



http://stats.ehpa.org

Heat pump benefits 2019

Based on 13.2 million heat pumps installed



100% green heat



CO2

energy demand for heating residential buildings

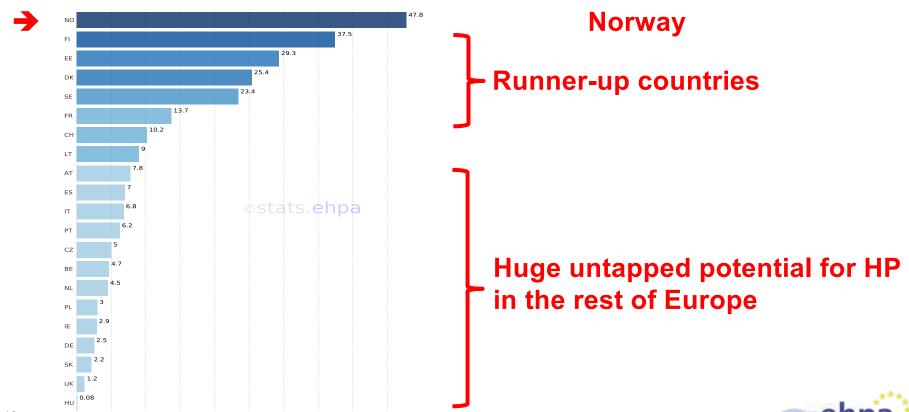
2 625 TWh₂₀₁₅

Source: https://www.mdpi.com/1996-1073/13/8/1894/htm

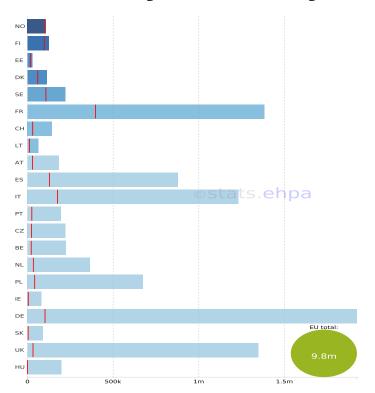




Units sold per 1000 households in 2019



If Norway was everywhere ...



- Potential of an increase in sales by factor 5 to 6
- Is the value chain ready?



100% renewable heating is possible – with heat pumps (incl. Hybrids) + a focus on electrification

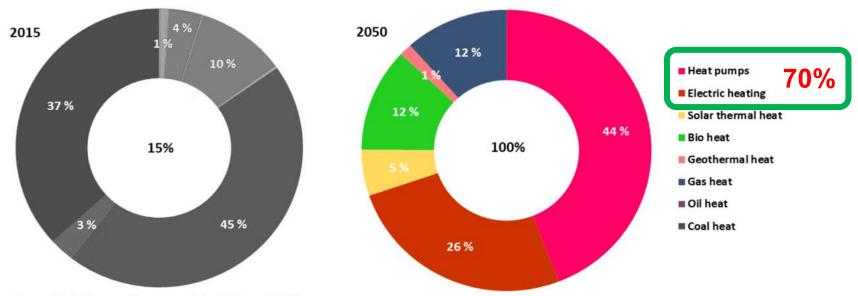
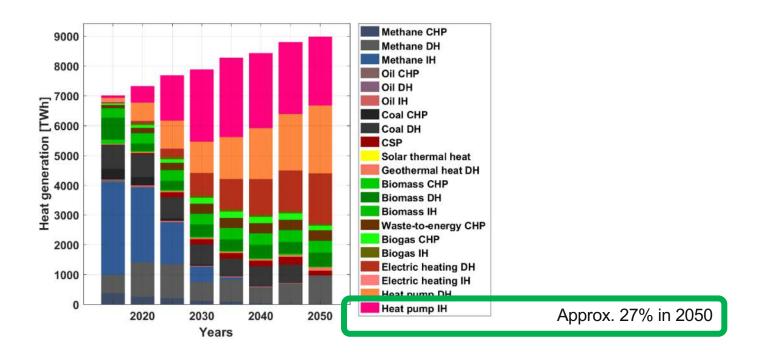


Figure ES-4: Shares of heat supply in 2015 and 2050.

Source: Global Energy System based on 100% Renewable Energy - Energy Transition in Europe Across Power, Heat, Transport and Desalination Sectors



The electrification of industrial heat







Heat Pumps in the EU heating system 2018

6.1 million boilers

1.25 mill. heating heat pumps (20,5 %)

7.8 million sanitary hot water

190 000 dedicated hot water heat pumps (2,5%)

Industrial heating and cooling

ection

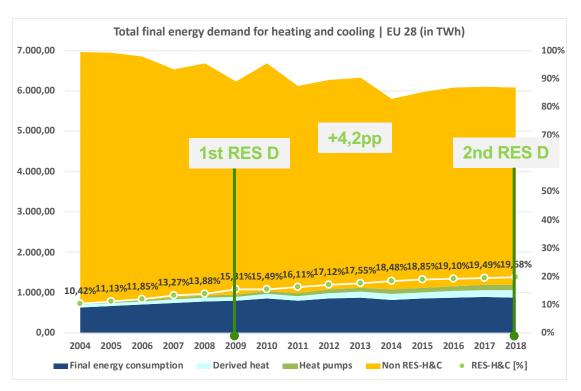
- Use of fossil energy for heating dominates in Europe!
- To decarbonise heating and cooling heat pumps are a perfect option

! Data collection in progress



RES in heating and cooling (based on Eurostat Shares)

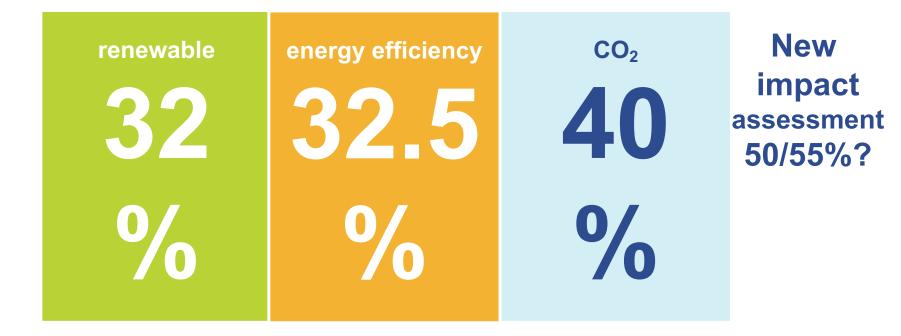
http://ec.europa.eu/eurostat/de/web/energy/data/shares





2030 targets as set by Clean energy 4 all Europeans package

Heat pumps use renewable energy from air / water / soil, waste energy treated similarly







A European Green Deal renewable – smart – integrated







Housing renovation plan will be 'flagship' of European Green Deal

By Frédéric Simon | EURACTIV.com

m Nov 22, 2019 (updated: m Nov 25, 2019)



"The Green Deal could mean lower energy bills for better and more comfortable houses. Everybody wins," said Frans Timmermans, the EU's incoming Commission VP for the European Green Deal, during his confirmation hearing in the European Parliament. [© European Union 2019 - Source: EP]



New market players?



Elon Musk hypes up Tesla smart home HVAC, hints at Cybertruck feature

Fred Lambert - Apr. 23rd 2020 3:07 pm ET V @FredericLambert





Main areas influencing massive deployment of heatpumping technologies

- "Heat pumps work in renovation"
- "Heat pumps work in industry" (and district heating)
- Heat pumps stabilise smart, high-RES electric grids
- + COVID-19

connection of recovery and EU Green Deal

- Support shemes to trigger short term demand
- Reform of energy prices to create continuity





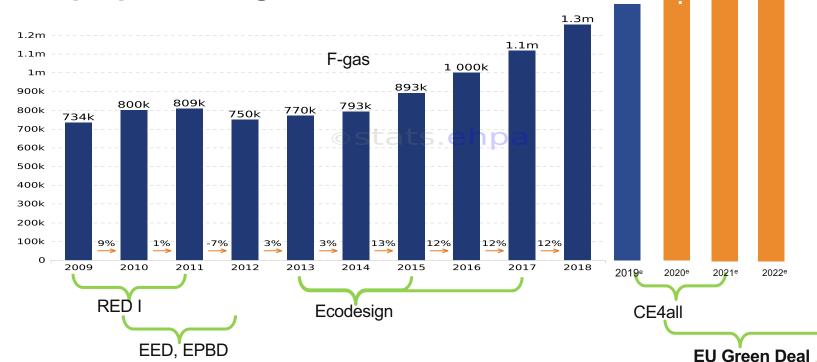


Move past the glass ceiling

- Energy/price ratio
- Energy taxation
- No CO₂-price signal
- Fossil fuel subsidies
- "We can't electrify everything" argument
- (+ debated role of H2 / eMethane)



Question to the industry: Are we prepared for growth?



1,45m

A 100% renewable society is possible – by 2050







The European Heat Pump Association AISBL

- EHPA is a Brussels based industry association which aims at promoting awareness and proper deployment of heat pump technology in the European market place for residential, commercial and industrial applications. EHPA provides technical and economic input to European, national and local authorities in legislative, regulatory and energy efficiency matters. All activities are aimed at overcoming market barriers and dissemination of information in order to speed up market development of heat pumps for heating, cooling and hot water production.
- EHPA coordinates a quality initiative including a Quality label for heat pumps and Certification standards for heat pump installers. The association compiles the annual heat pump statistics and organizes a number of events, among them an annual heat pump conference.

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