

50% renewables in buildings by 2030 and the heat pump ramp-up: success factors and must-win opportunities

› Context

- (1) Close to 50% of Russian gas is used to heat buildings.
- (2) Global emissions must decrease by 50% by 2030 vs 2019 to meet the 1.5°C goal.
- (3) 30% of global emissions come from buildings.

› Outcome

Reducing natural gas (and oil) demand in buildings becomes the nr1 policy priority.

› Objectives

Phase out fossil fuels Phase in renewables



“Renewable energy is freedom energy.”

German Finance Minister,
Christian Lindner



Buildings are part of
the solution.

How does this
materialize in our business?

We are a **105 years** old family owned company

**Johann
Viessmann**

1917–1947



**Dr. h.c.
Hans Viessmann**

1947–1991



**Prof. Dr.
Martin Viessmann**

since 1979



**Maximilian
Viessmann**

since 1979



With one purpose: We create living spaces for generations to come!

Viessmann has
climate targets in line
with the 1.5°C goal.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The investment we made in renewable solutions - in line with our purpose - increased our **resilience** to the tectonic changes arising from the war in Ukraine.

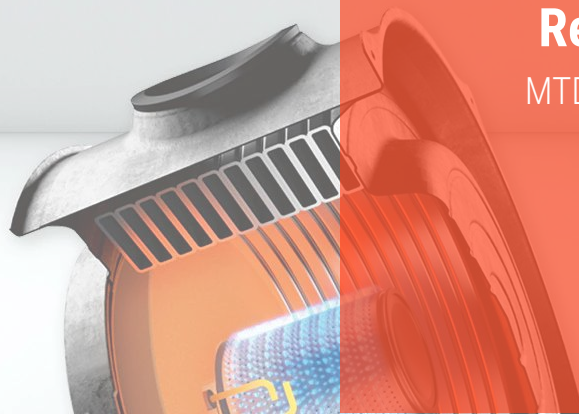


-40%

Sales Quantity Heating Units

Residential Gas

MTD June 2022 vs. 2021





+45%

Sales Quantity Heating Units

Residential Heat Pumps

March - May 2022 vs. 2021




+140%


Net Sales

PV & Electric Storage

March - May 2022 vs. 2021

Once in a century CHALLENGE

>49% renewables in buildings by 2030 

>65% renewables in new heating systems from January 2024 

Accelerated independence from fossil energies
=
Accelerated expansion of renewable energies



Doubling the installation rate of heat pumps over the next **5 years**



Additional **10 million** heat pumps in Europe within the next 5 years



In total **30 million** new heat pumps until 2030



60% heat pumps, **40%** district heating/biomass/solar thermal/etc.



400 thousand new homes per year, also boosted by sustainable serial construction

Once in a century OPPORTUNITY

Rising energy prices



Risks of recession



Losses due to local lockdowns



Rising inflation & interest rates



Weakening consumer confidence



Geopolitical uncertainties



Increasing material costs



Disruptions of value chains



But we are facing unprecedented turmoil so we need smart policies to support the energy transition

What do we need
at **policy level**
to succeed?

3 recommendations:

Scale renewable
solutions

#1

Activate
prosumers

#2

Bring people along
(affordability
and jobs)

#3

Scale
Renewable
solutions

Hydronic Heat Pumps is THE
opportunity of the decade

EU policy
goals:

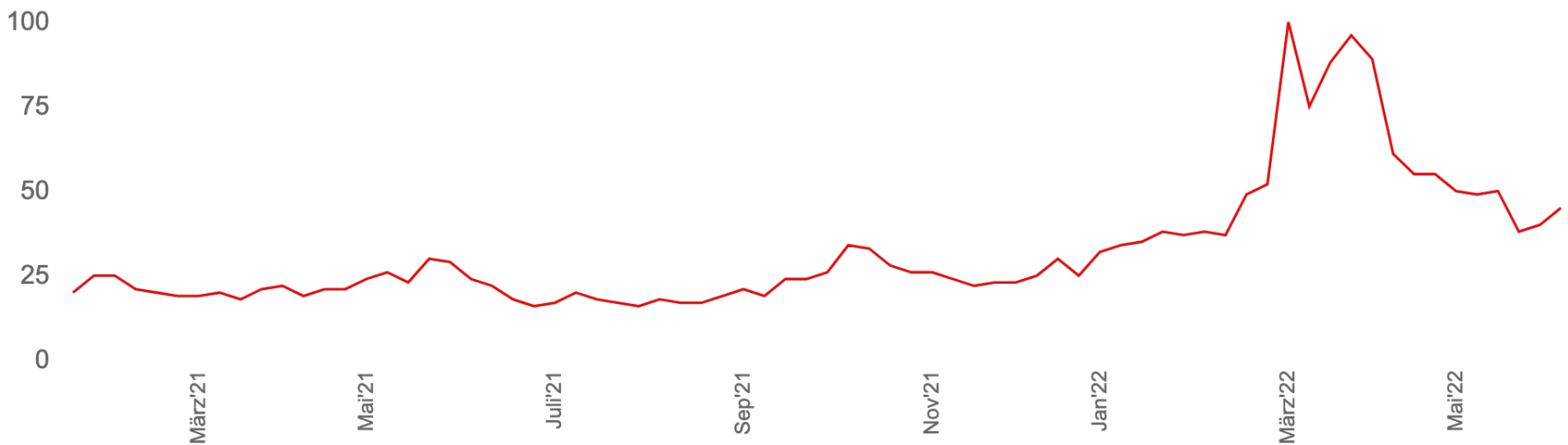
+10 mln by 2027

+30 mln by 2030
(vs 1 MM installed in 2021)

#1

Keyword: Heat pump

Google



The Viessmann 5S strategy for a successful heat pump ramp up made in Europe



Speed

- Number of installers
- Low installation time
- Energy services



Scale

- Ramp up of production
- Installation in *existing* buildings
- Resilient supply chains



Skills

- Upskill installers & partners
- Raise awareness of end-users
- Reskill employees



Customer Satisfaction

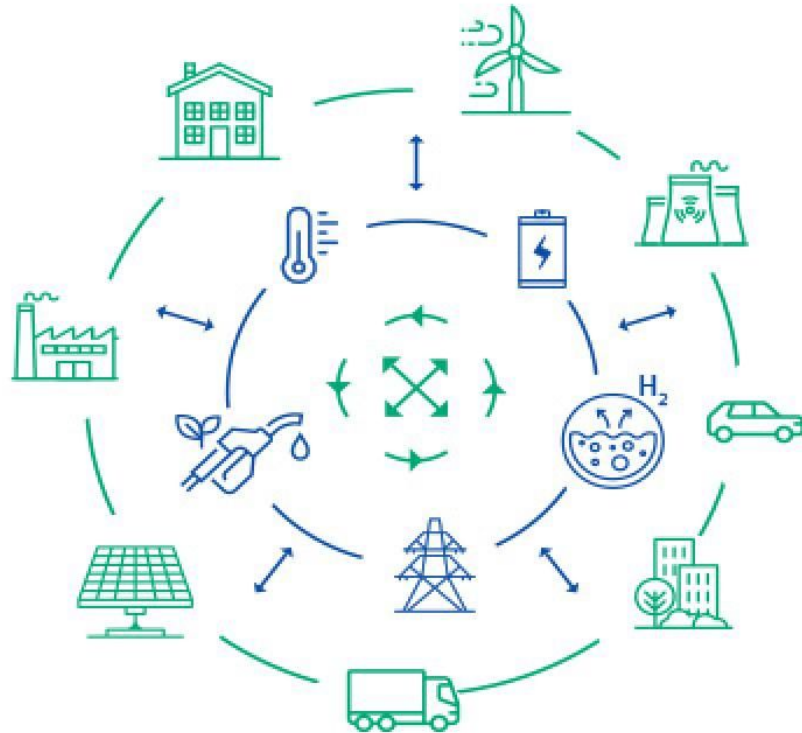
- Affordability
- Efficiency & low noise
- Prosumers



Sustainability

- Environmental friendly refrigerants
- Energy system efficiency
- Circular economy

Activate
prosumers



#2

The solutions exist



Heat Pumps



Hybrid Systems



Biomass Systems



Solar Heat



Condensing Boilers



Electric Direct Heating



PV modules



Battery storage

With the right renewable energy source



Solar



Air



Geothermal



Electricity



Biomass



Green Fuel



Green Gas



New data-driven opportunities in
demand-side-flexibility



Bring
People along

#3

34 million Europeans live
in **energy poverty**

People's **acceptance** is sine qua non for
success

Real danger of **eroding support of the**
transition if climate measures lead to
hardships & financial burdens

Bring
People along

What do we need to do?

Use **carbon pricing revenues** directly in the sector.

Provide **flexible range of options that fit different lifestyles.**

Secure financing and scale new business models such as **heating as a service.**

#3

How to reach 50%:

Scale renewable
solutions

with
Heat Pumps, PV, DSF

#1

Activate
prosumers

#2

Bring
people along

#3

How to safeguard
EU competitiveness
and **industrial footprint?**

How to safeguard EU competitiveness and industrial footprint?

Legal certainty



#1

Holistic approach



#2

Financial support



#3

Historic Challenge

Strong alliance
between
policy makers, industry
and skilled trades.

Historic
Opportunity

WE NEED
A CHANGE

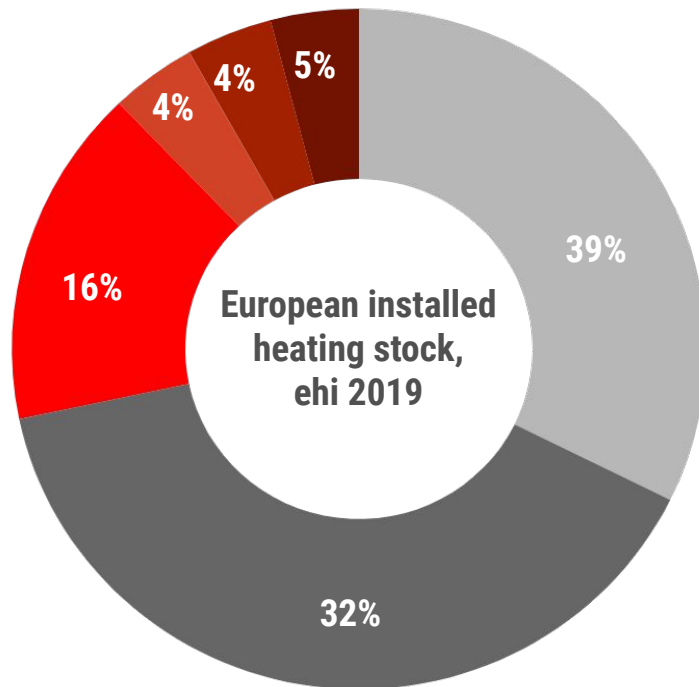
THANK YOU

VIESMANN

Back-up:

More than half of the currently installed 105.7 million space heaters in the EU are old and inefficient

41.2 Mio.	Gas non-condensing boilers	>
33.8 Mio.	Gas condensing boilers	>
16.9 Mio.	Oil boilers (condensing and non-condensing))	>
4.2 Mio.	Heatpumps	>
4.2 Mio.	Biomass boilers	>
5.3 Mio.	Other	>



European heating stock has massive potential for decarbonisation.

> Increasing replacement rate of old and inefficient heaters.

> Incentivise the roll-out of renewable heating technologies.

Viessmann views: Key measures to enable the transition at EU level

REPowerEU	<ul style="list-style-type: none">+ 10 mio heat pumps by 2027 / 30 mio by 2030 & heat pumps 'made in EU' = key technology+ 35 bcm biomethane target and 10 mio t H2 domestic production by 2030+ 600 GW PV by 2030 and focus on integration with renewable heating systems✗ focus on production ramp-up should be even stronger (IPCEI not useful because of time delays)
EPBD	<ul style="list-style-type: none">+ mandatory rooftop PV → improve integration with heating electrification+ hybrids must be flexible option during transition for parts of building stock+ potential of smart heating technologies should be leveraged even more+ roll-out of sustainable heat pumps should be specifically supported✗ data exchange rules must be fine-tuned to protect intellectual property
RED & EED	<ul style="list-style-type: none">+ 45% renewables share and 49% in buildings, - 13% energy use (vs 2020)+ broad toolbox to meet targets via heating replacement (heat pumps, hybrids), DSF (demand side flex)✗ distinction btw. fossil fuel phase out and combustion technology to be improved
ETS & CBAM	<ul style="list-style-type: none">+ support ETS for households starting 2026- if Social Climate Fund secures sufficient re-distribution of costs✗ CBAM: risks distortion of competition for finished goods & raised costs for dom. production
Refrigerants	<ul style="list-style-type: none">+ ambitious F-Gas regulation with clear pathway towards HFC phase-out+ ambitious REACH/PFAS because HFOs are not a valid sustainable alternative

'Geltungsbereich' für die Aussagen heute



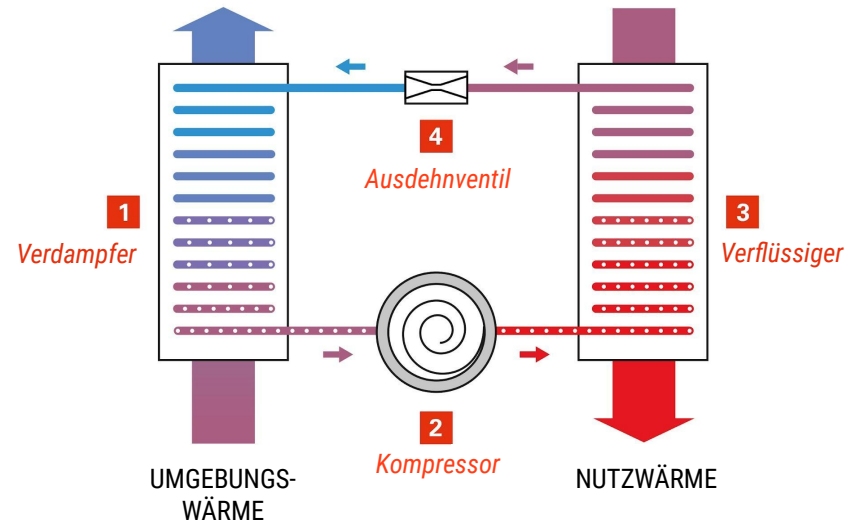
Außeneinheit:
hermetisch
versiegelter R290
Kältekreis
'Monoblock'

Inneneinheit:
Hydraulik, Anschlüsse
an Heizkörper oder
Fußbodenheizung,
Regelung



Kältekreis "pumpt" Umgebungswärme ins Heizwasser

Kältemittel: natürlich oder F-Gas



2: Activate prosumers

50%

of people could become active prosumers



A no-regret move - Active buildings:

- maximise system efficiency via demand response
- reduce the need to fall back on fossil energy during peak times
- reduce energy costs for occupants
- enable direct participation of people in the energy transition



What we need to do:

Make distributed prosumer resources attractive and reward demand-side flex, integrate on-site RES elec via “fair” self-consumption, and “firm” mCHP.

Take a holistic response to system performance of buildings beyond mere reduction of energy consumption in EPBD.

Increase training capacities and skilled workforce capabilities.

2: Bring people along

34 million

Europeans live in energy poverty.

x2

Share of wallet spent on energy by low-income households in the last 20 years.



People buy-in is sine qua non for success

450 million stakeholders

Direct impact on people's everyday lives

Potential for erosion of support for the transition



What we need to do:

Use carbon pricing revenues directly in the sector.

Mitigate increasing energy prices

Provide flexible range of options that fit different lifestyles.

Find financing instruments to support high upfront costs

Secure financing and scale new business models such as **heating as a service.**