

DELTA-EE



HYBRID HEAT PUMPS IN EUROPE

WHY THEY COULD BE A KEY PIECE IN THE DECARBONISATION PUZZLE

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On the webinar today



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Agenda

- **Intro**
- **The challenge: decarbonising Europe's heating**
- **Hybrid heat pumps:**
 - What are hybrids?
 - How are hybrids addressing decarbonisation of heat pain points?
 - What is the size of the market in Europe today & in the future?
 - What's the outlook for hybrids, and how long is their window of opportunity?
- **Summary: Why hybrids could be a key piece of the decarbonisation puzzle**
- **Time for questions**
- **Close**



~45mins

How to participate in the webinar

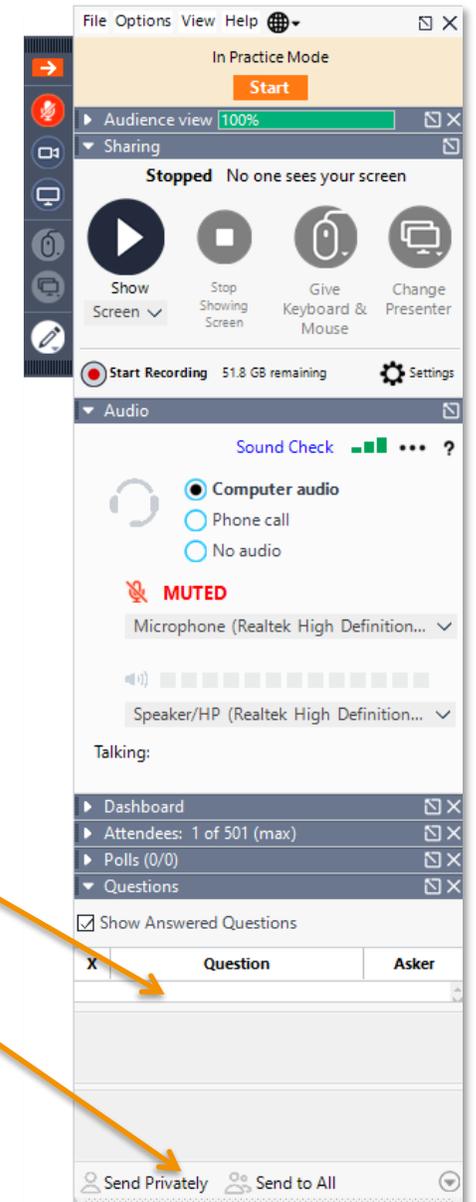
Ask or type a question – we'd like to know your thoughts

Submit a question

Type in question box

Select recipient(s)

We will be notified and monitoring throughout



About Delta-EE

We enable organisations to develop the best strategies, business models and customer propositions for the energy transition. Our breadth & depth of expertise spans:

'New Energy' Business Models

Identify and understand the alternative and new business models for the energy transition



EVs & Electricity

Understand the opportunities and challenges from sector coupling between electricity and transport



Flexibility & Energy Storage

Take advantage of the opportunities emerging from an active demand side



Heat

How channel disruption, sector coupling and new technologies are changing the heat sector



Distributed Power

Global market insight & expertise into the growing role of decentralised generation



Digital Energy

Opportunities in the connected home market and how digitalisation is changing the energy customer relationship

Subscription Research Services in Heat

Heat Consultancy

Electrification of Heat Service

Gas Heating Service

Heating Business Service

Bespoke Support

Delta-EE's Heat Research

The transition from 'old heat' to 'new heat' is disrupting the market in six key ways. Our Heat Research helps our clients to navigate this transition and identify "new heat" opportunities

Disruptions in the heating market:



The transition to low carbon, connected technology



New product to customer journey - with changing installer role



Tightening policy & regulation driving decarbonisation



Customer propositions shifting from products to services



New competition & partnership opportunities from start-ups and non-energy players



End-users becoming more active, engaged, empowered

Hybrid Heat Pumps are a solution which is influenced by – and driven by - many of these disruptive trends. This webinar assesses why they are a key piece in the decarbonisation puzzle

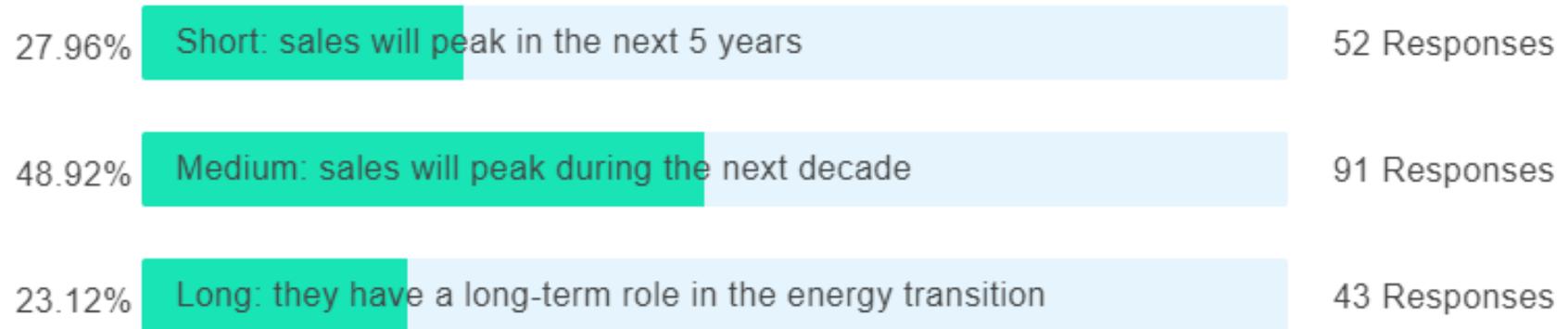
What is a hybrid heat pump?

Delta-EE's definition of a hybrid heat pump:

Two heat generating technologies - an electrically-driven heat pump, and a boiler that runs on gas or liquid fuel - which work together to provide space and/or water heating, and which are operated by a shared control.

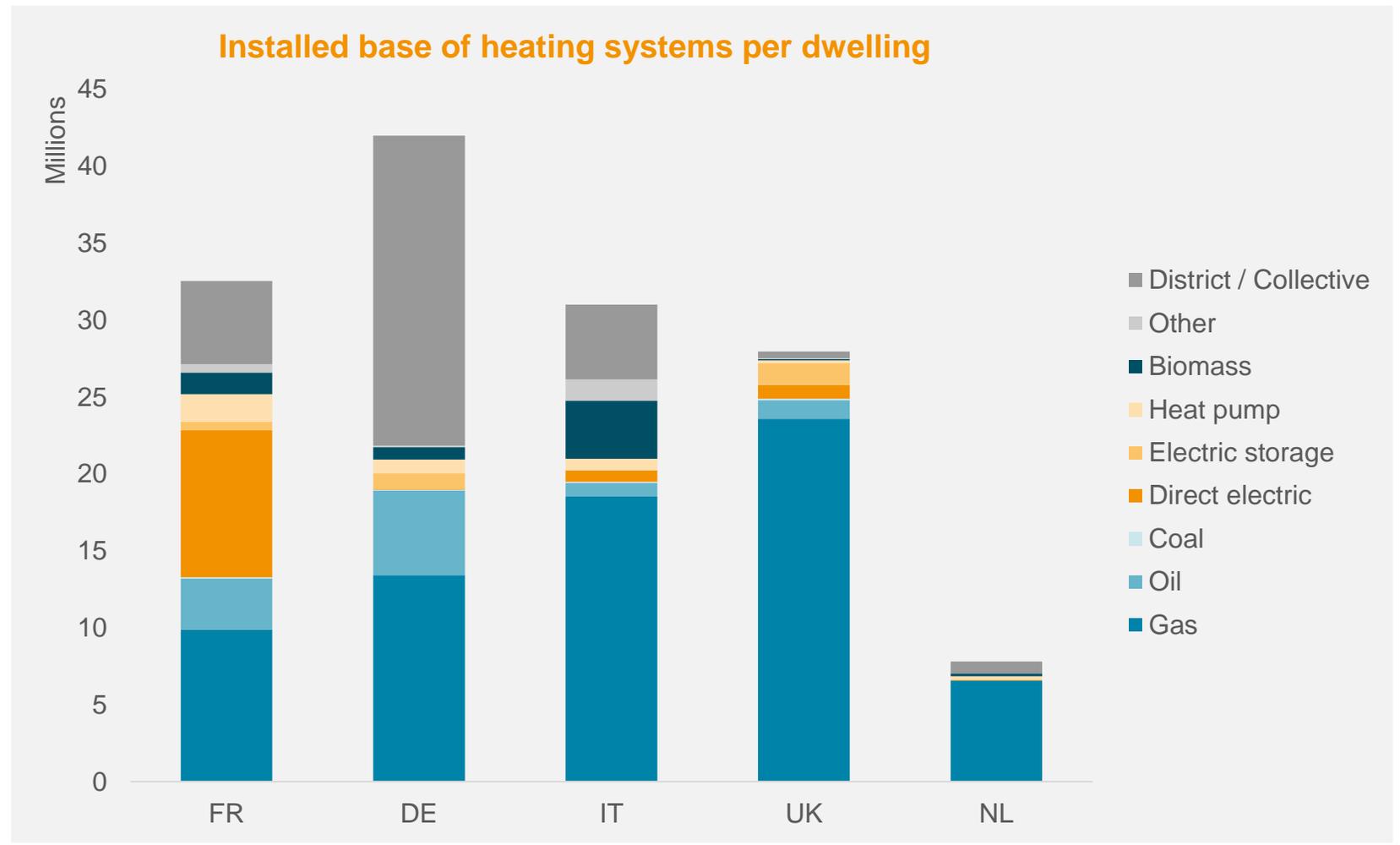
Poll: the outlook for hybrids in Europe

What is the window of opportunity for hybrid heat pumps in Europe?



Decarbonising existing homes is the biggest challenge...

- >100M**
Domestic fossil boilers in use in Europe
- ~15M**
Heat pumps in Europe
- Low 100s of 1000s**
High efficiency gas heating systems in Europe
- <5%**
Proportion of annual boiler replacements which are changed to a low carbon solution
- 1%**
Average building renovation rate



How are hybrids addressing decarbonisation 'pain points' today?

Offering wide range
of solutions for
existing buildings



Tackling end-user
challenges



Managing electricity
grid impact

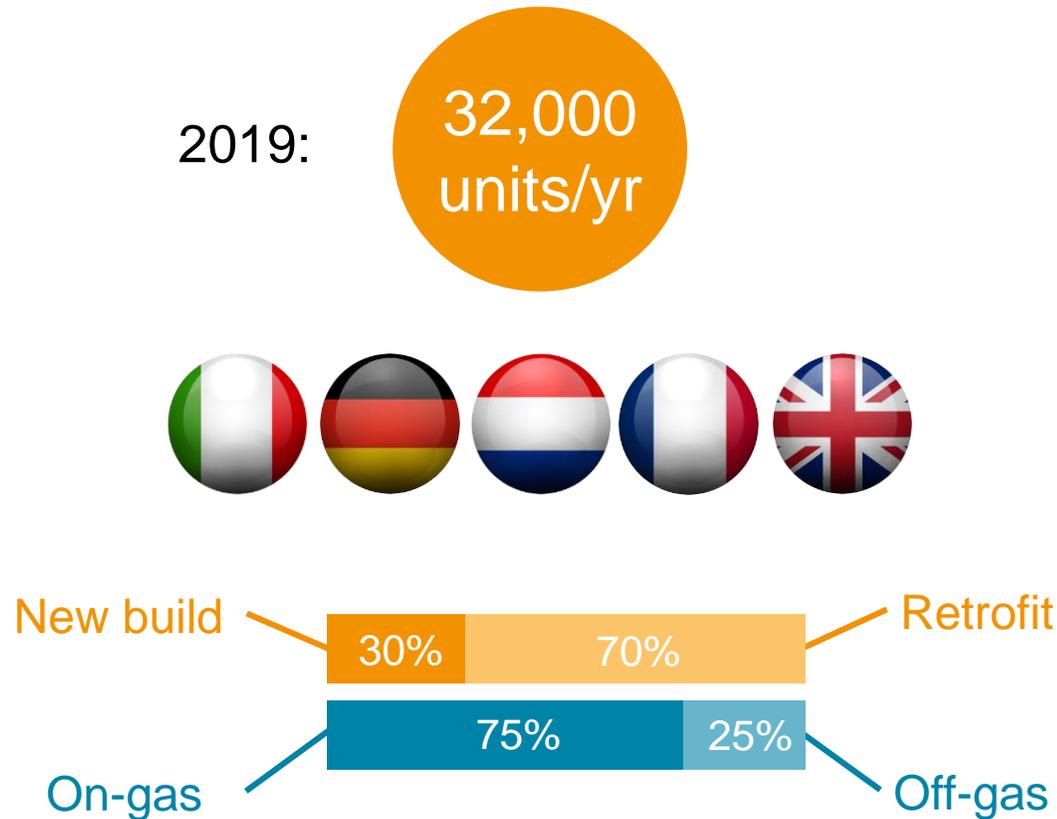


Hybrids' unique
selling point

Keeping multiple
decarbonisation
options open



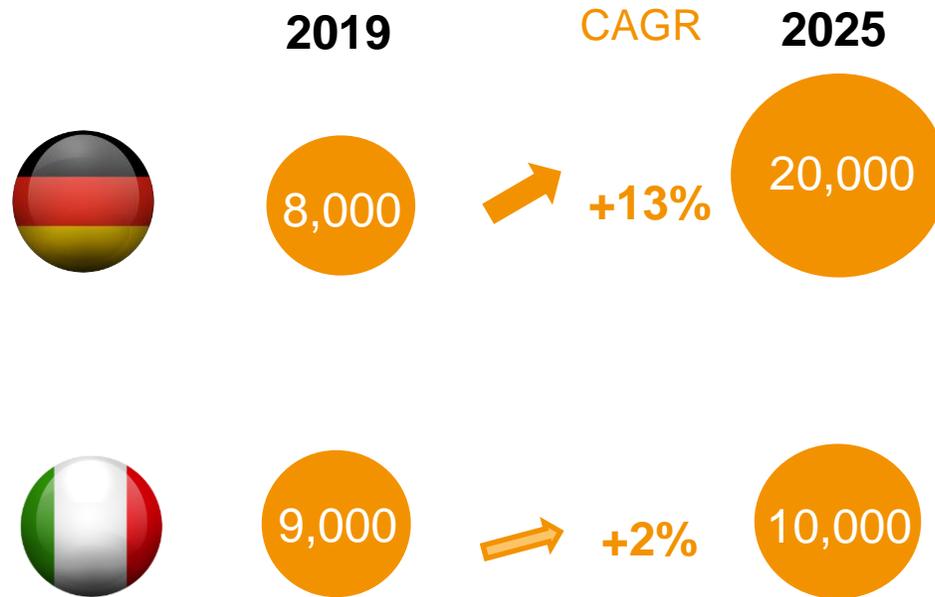
What is the size of the hybrids market today?



Key drivers:

- New build regulations
- Regulatory pressure on oil use
- Increased government support (subsidies)
- New business models

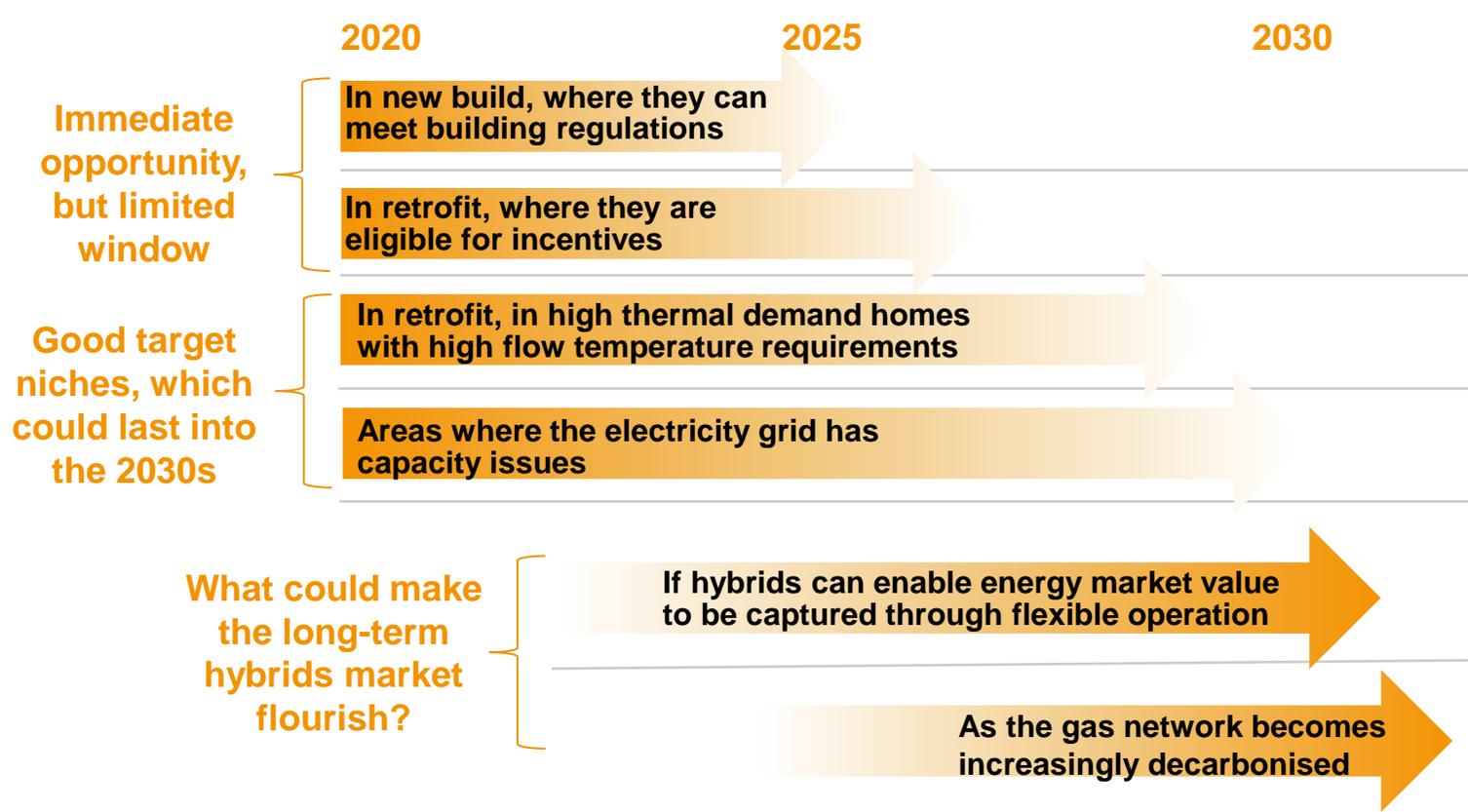
Where are hybrid sales going to grow?



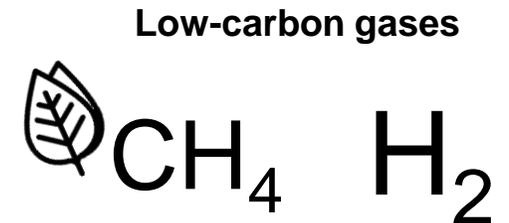
- Enhanced MAP from Jan 2020
 - including 'renewable ready' gas boilers
- Carbon tax introduction in 2021

- Sales into new build continue
- Ecobonus 'Superbonus' until 2023

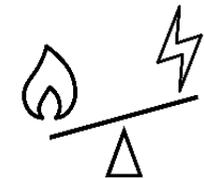
What's the outlook for hybrids? And how long is their 'window of opportunity'?



Key long-term market drivers:

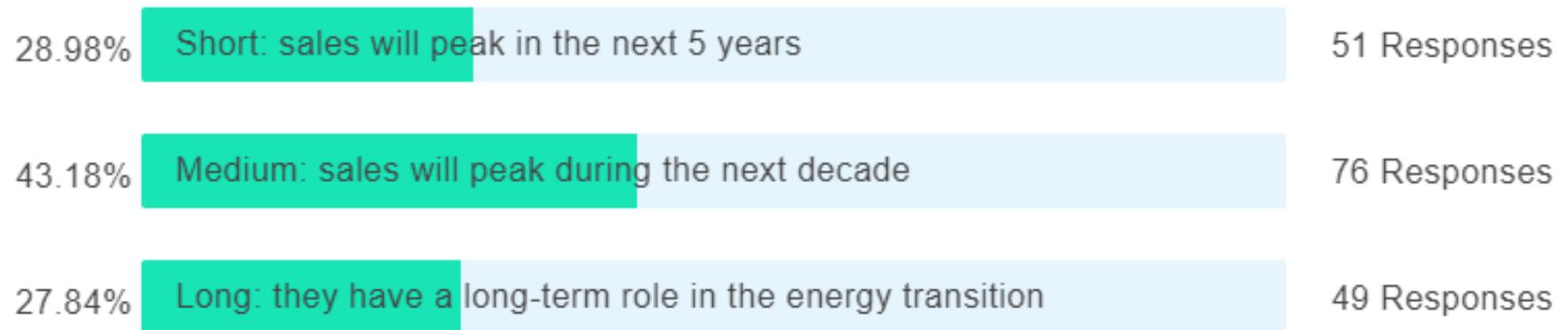


Rising value of flexibility



Poll: the outlook for hybrids in Europe

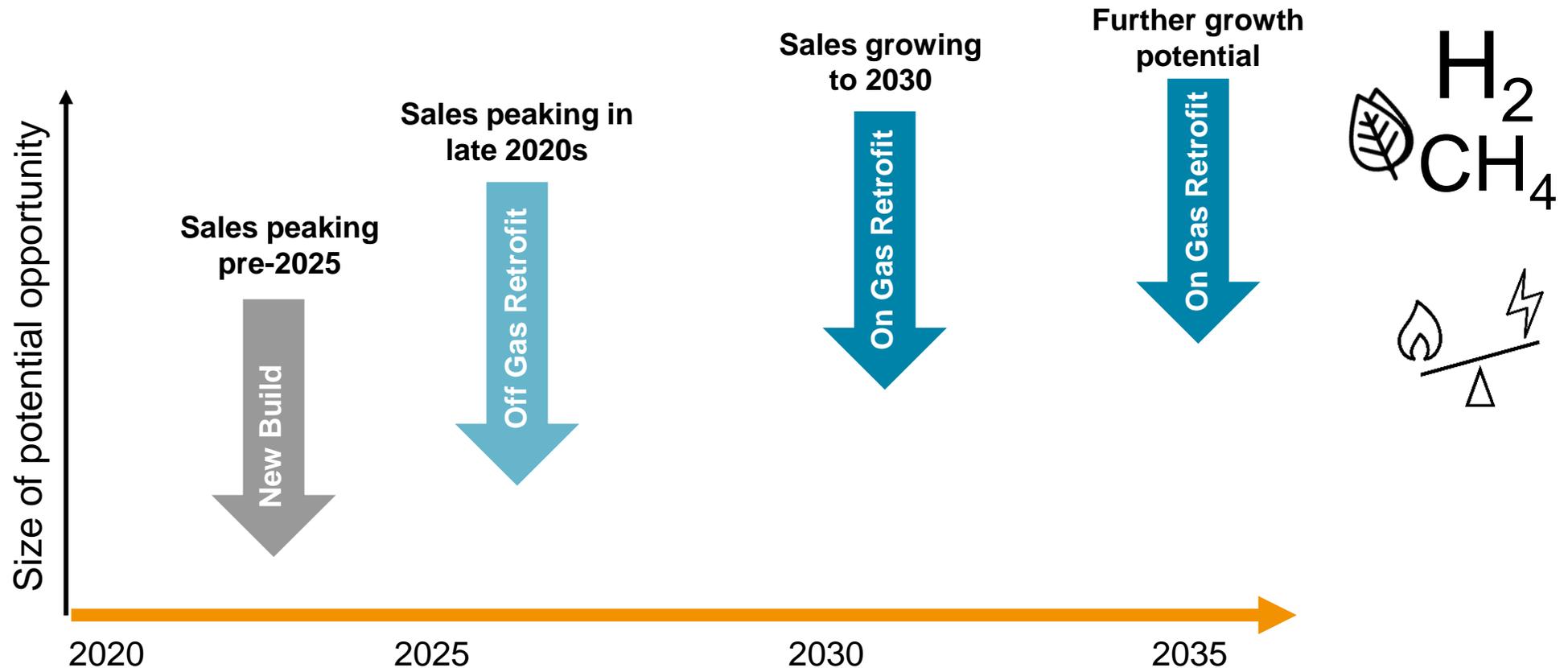
What is the window of opportunity for hybrid heat pumps in Europe?



Summary: Why could hybrids be a key piece in the decarbonisation puzzle?

Hybrids are already decarbonising today. But critically, hybrids offer an opportunity to decarbonise the challenging on-gas retrofit sector...

...>2030, if they enable flexibility value and are an efficient way to use green gas



Questions?



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