

Heat as a Service: Now or Never?

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CONTACT: KLARA.OTTOSSON@LCP.COM

Introducing LCP Delta

Powering the energy transition across the whole value chain

LCP Delta is a specialised energy transition practice providing

Subscription research	Consulting	Technology and data	Training
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~ 100 people

...to organisations that are active in all parts of the value chain

Generation & storage	Networks	Demand & customer propositions
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Active since 2004

...delivering expertise and advice in

Power market forecasting	Energy storage & flexibility	Hydrogen	Power trading	PV
Distributed power	Policy impact analysis	System modelling	Business models	Energy management
EV charging infrastructure	Connected home	Low carbon heat	Customer engagement	Community energy



200+ clients

Agenda

Heat as a Service: Now or Never?

- **(Re)Defining HaaS**
- **Market today**
- **What is shaping the future of HaaS?**

(Re)Defining heat as a service

LCP Delta's previous definition of heat as a service

Using a risk-based definition

~~**Energy price risk:**~~

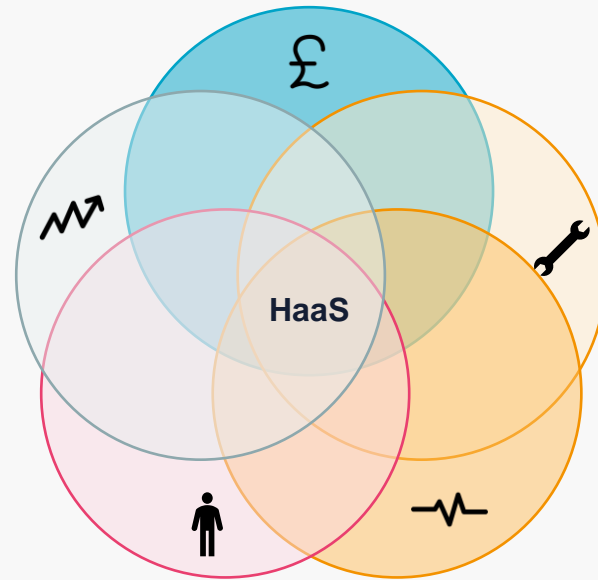
~~Service provider offers a fixed price per unit of heat or warmth generated for a period of time, typically a year.~~

~~**Behaviour risk:**~~

~~Service provider charges for the outcome (warmth) provided thereby taking on the risk that customers are heating inefficiently by, for example, opening windows. This also includes the risks associated with timing of demand, which are related to energy price risks.~~

Financial risk:

Service provider takes on credit risk by providing a heating appliance for a monthly fee and little or no upfront payment.



Technical risk:

The monthly fee charged by the service provider includes: routine maintenance, repairs, and appliance replacement if necessary within the contract period.

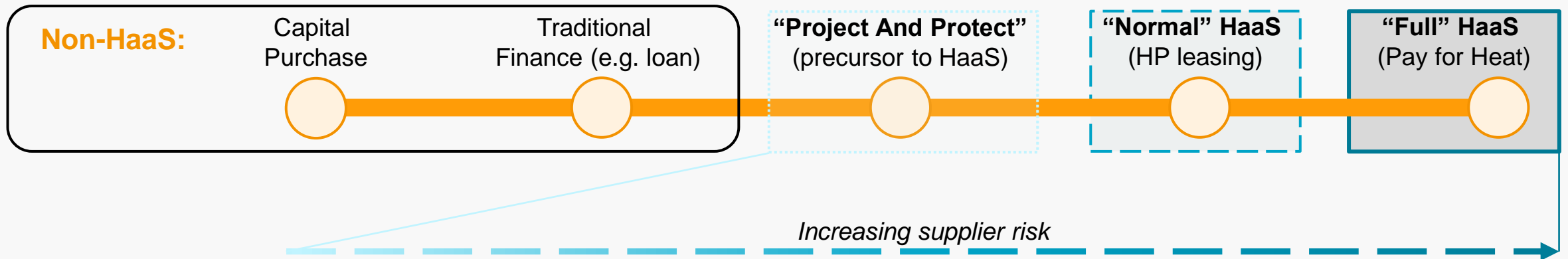
~~**Performance risk:**~~

~~Service provider charges per unit of output (heat) for the outcome (warmth) provided by the heating appliance (or guarantees saving on heating costs). For service providers selling warmth, this includes the risks that 1) the heat distribution system is inefficient and 2) the thermal efficiency of the property is poor.~~

LCP Delta's new definition of heat as a service

There are three levels of heat as a service

Ways to fund a heating installation:



'Project and protect'

- Not strictly HaaS but often a precursor to it.
- A complete HP solution, from design & installation to finance & service. It is not strictly an "as a service" offer as the customer owns the HP in full after paying off the loan.

'Normal' HaaS

- Heat pump leasing with a service and maintenance wrapper.
- May come with longer guarantee where provider accepts some technology risk beyond manufacturer warranty.

Focus of this presentation

'Full' HaaS

- Provider owns appliance and only charges customer for the heat used.
- Typically would include a heat meter to measure appliance output. Payments may be smoothed across the year to avoid winter peaks.

HaaS today

Current penetration of residential HaaS in Europe

HaaS represents an insignificant of heat sales in most countries in Europe, but these 4 are the exception



GERMANY

Annual HaaS share



5%



<1%

Market players



DENMARK

Annual HaaS share



<5%



Market players



NETHERLANDS

Annual HaaS share



<5%

Market players



UK

Annual HaaS share



<1%

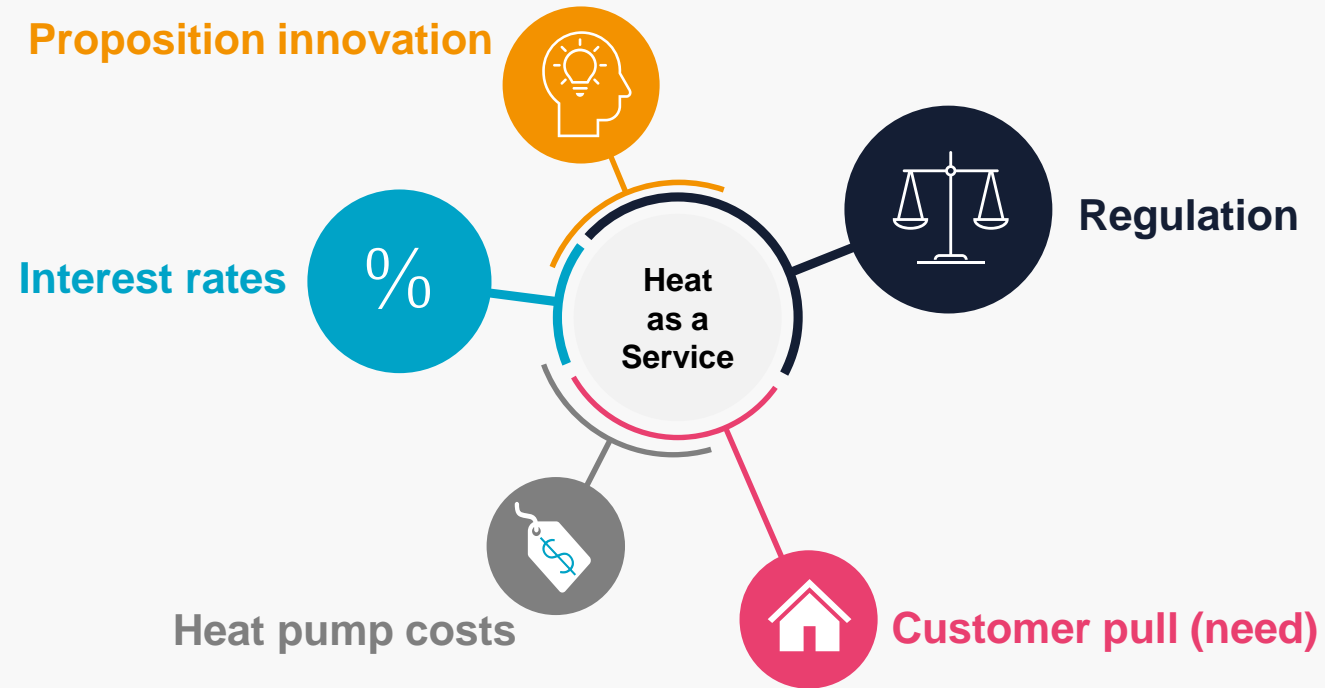
Market players



Thermondo's proposition is currently paused.

What is shaping the future of HaaS?

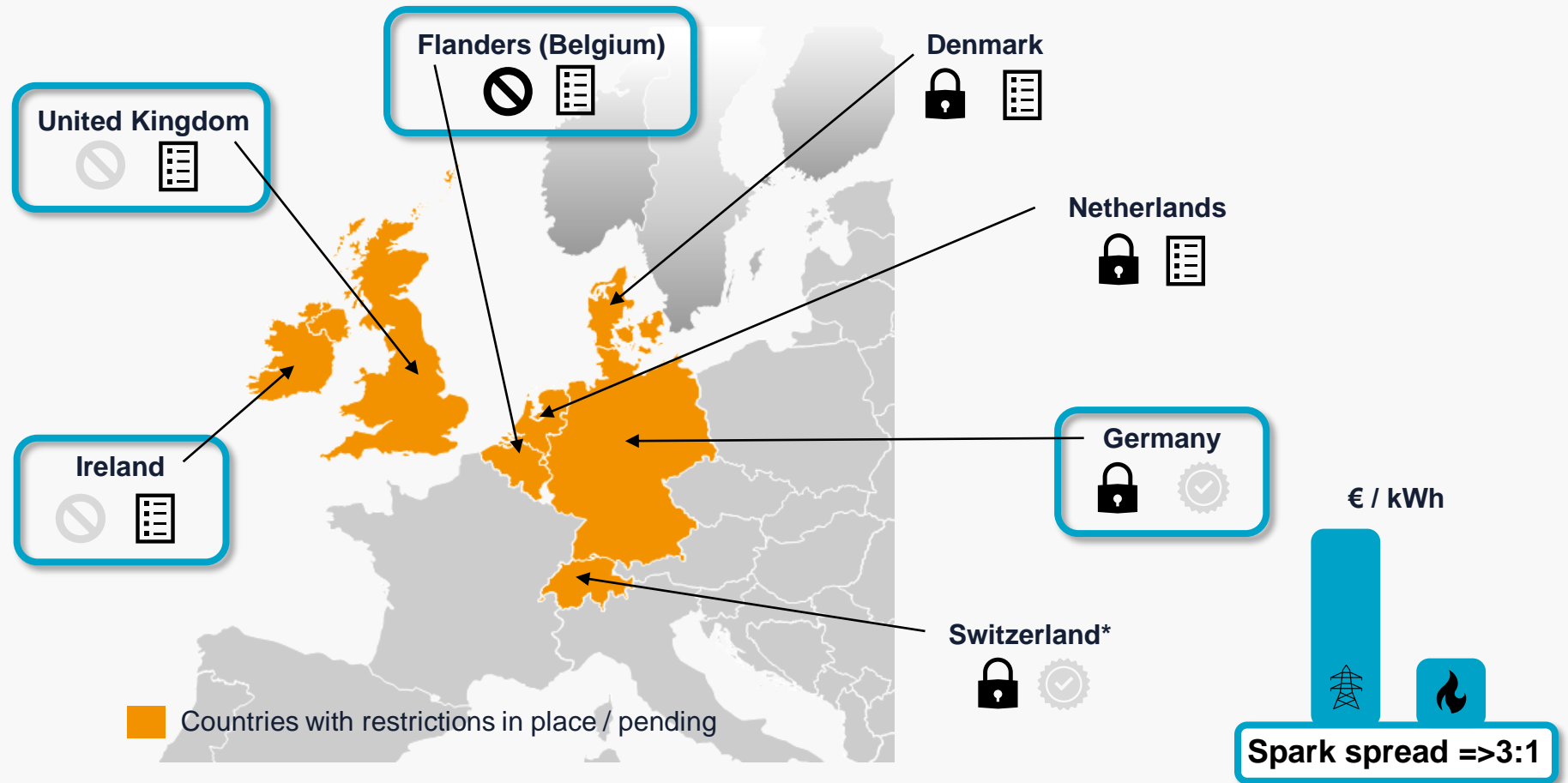
What will impact the growth of heat as a service?



Market influencer: Regulation

Retrofit restrictions on standalone natural gas boiler replacements may create a bigger need for HaaS

Approach	
Restricted	
De facto ban	
Outright ban	
Status	
Proposed	
Confirmed, not implemented	
Confirmed & implemented	

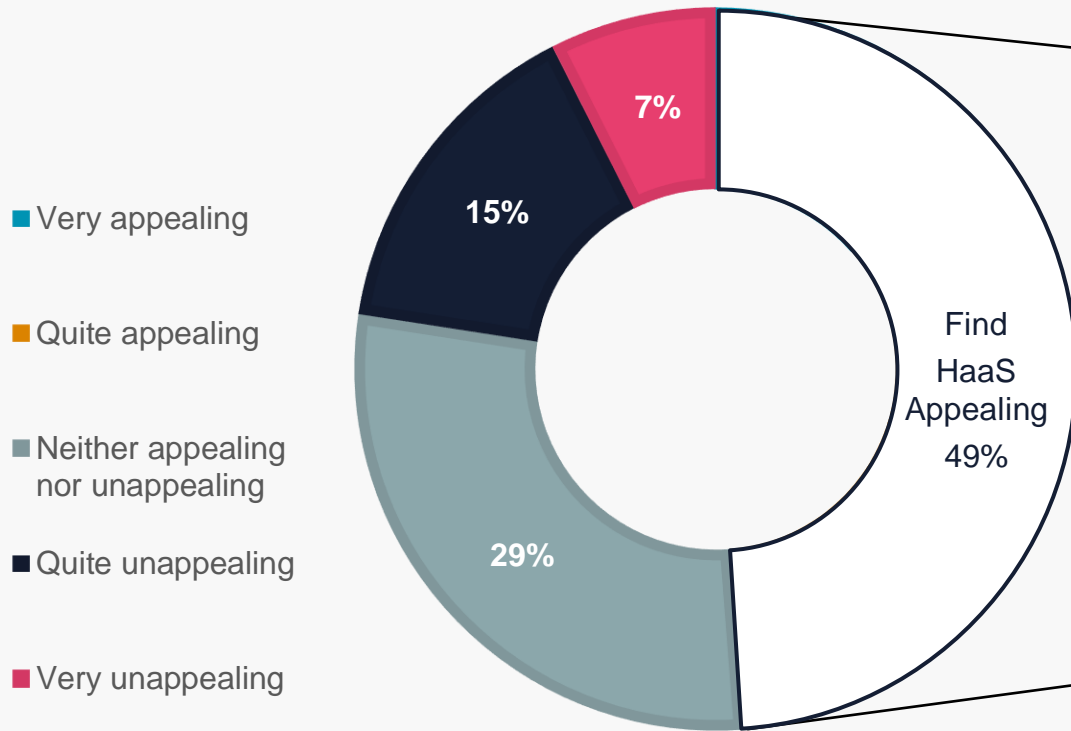


*some cantons in Switzerland have already implemented restrictions, but [none at the national level](#).

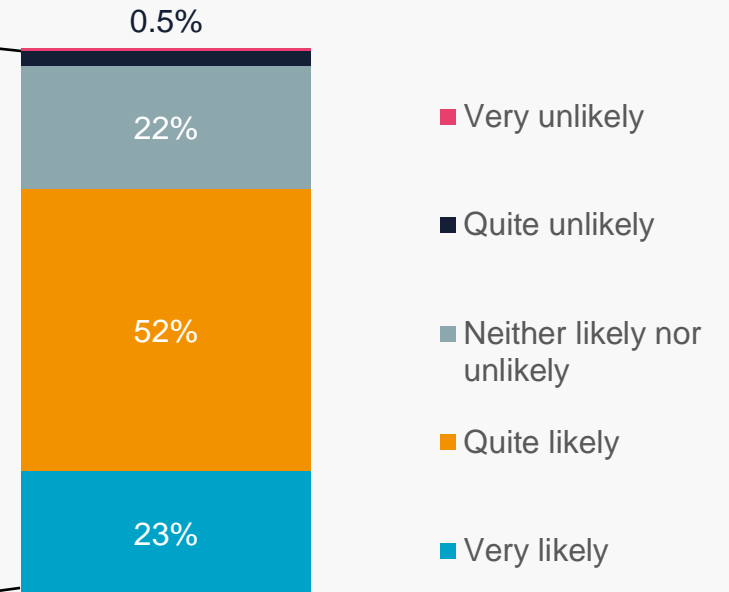
Market influencer: Customer pull

Based on customer research in 6 countries: DE, FR, IT, NL, UK & ES

LEVEL OF APPEAL FOR HEAT AS A SERVICE

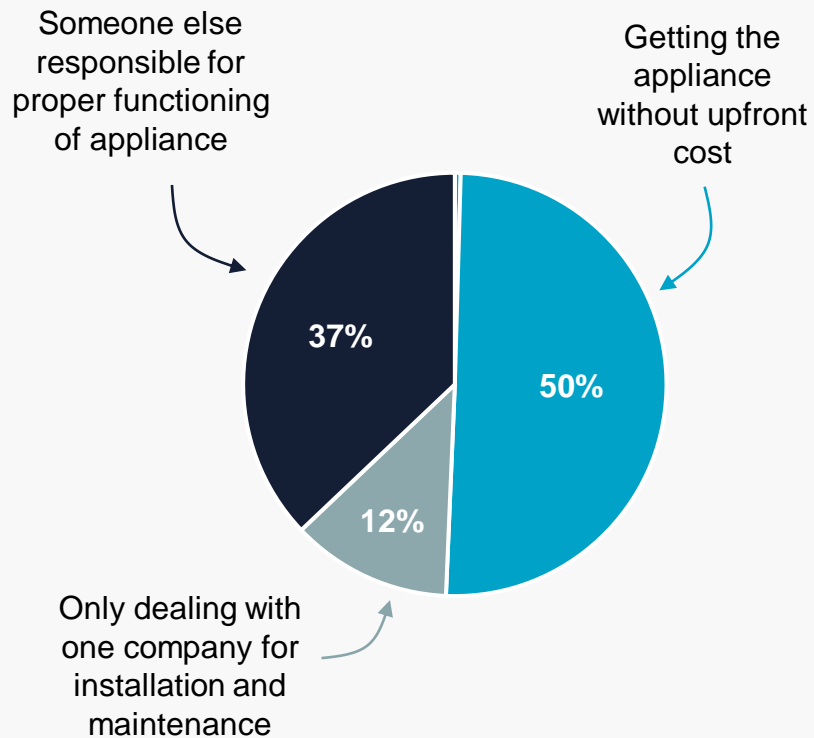


LIKELIHOOD OF USING HAAS FOR THEIR NEXT HEATING APPLIANCE PURCHASE

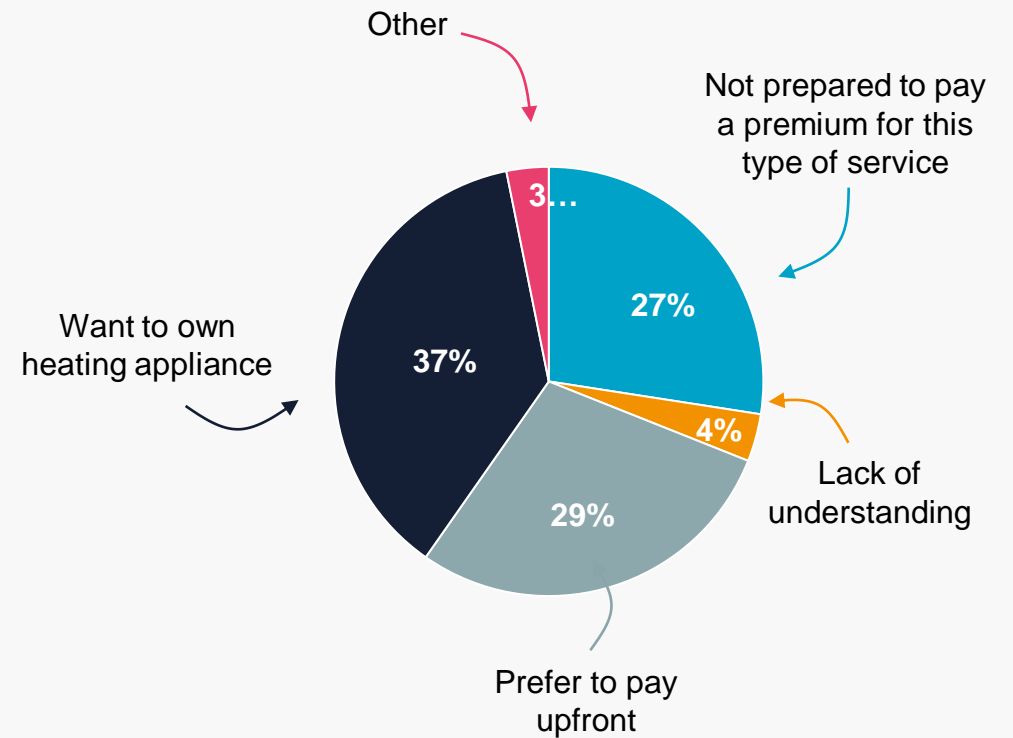


Market influencer: Customer pull

Most appealing feature of HaaS*:



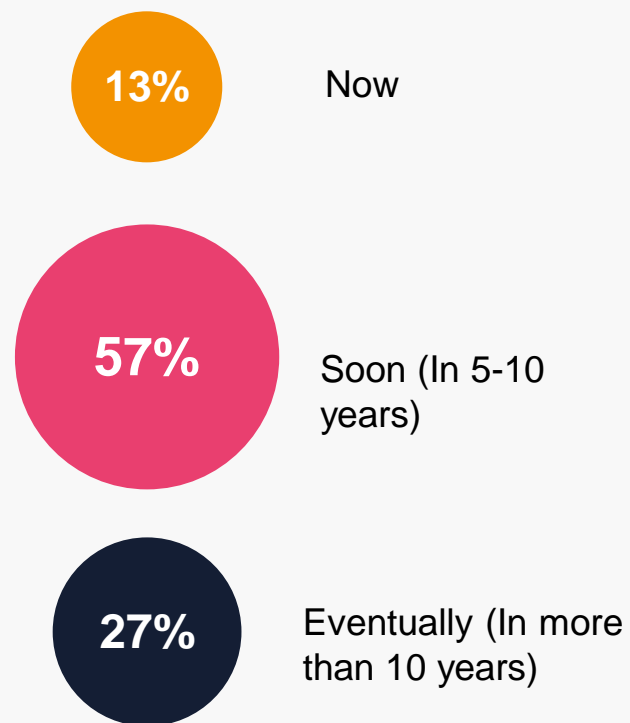
Least appealing feature of HaaS:



*based on participants who find HaaS as appealing, n = 1,567

Heat as a service: now or never?

When will heat as a service take off ?



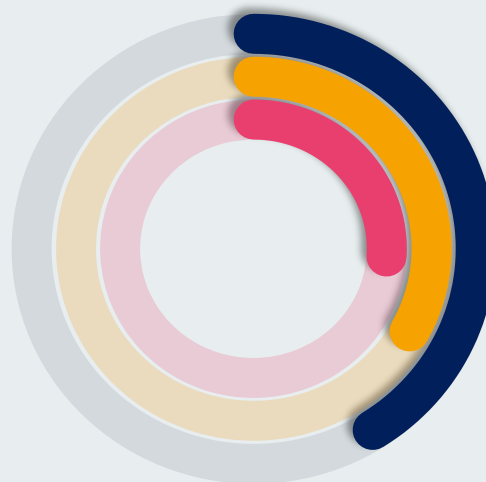
What could slow the uptake?

Unfavourable subsidy structure – typically favouring ownership

- E.g. recent changes in Germany
- Boiler Upgrade Scheme in UK not available with HaaS

Competition from other propositions

If choosing one, homeowners would go for this as preferred option:



41% Green loans

33% Heat as a Service

26% Salary sacrifice

Examples of players offering alternative payment methods



+ LCPDelta

Thank you!



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