

• SEED ROUND 2026 · DELFT, NETHERLANDS

The heat pump for the homes **heat pumps** **can't reach.**

Electric heating at boiler temperatures.
Keep the radiators. Leave the gas behind.

Meet the turbine heat pump



Book an intro call



Air.

The standalone working fluid.

80°C

heat for existing radiators

€1.5M

Confirmed pre-order value in 130 days

€300k

Paid pilot revenue

20+

Systems installed

A DIFFERENT WAY TO MAKE HEAT

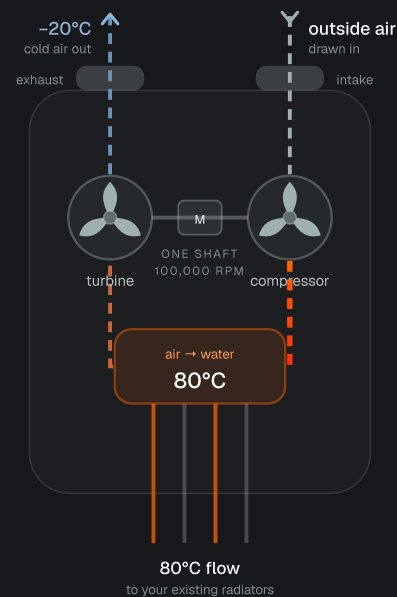


Goodbye heat pump. Hello turbine heat pump.

High-temperature heat and hot tap water. Air as the working fluid.
Keep the existing radiators.

A jet engine, running backwards.

The reversed Brayton cycle turns aerospace engineering into heat and hot tap water for existing homes.



01 Compress the air

An electric motor drives a compressor and turbine on one high-speed shaft.

02 Heat the water

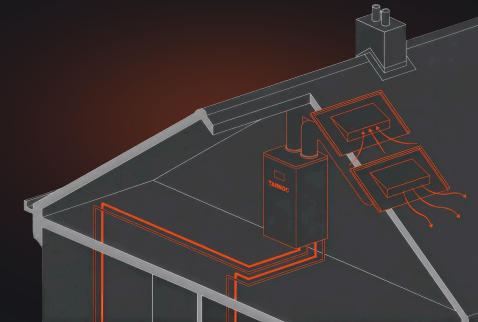
The heat exchanger transfers heat to the existing radiator circuit and the hot tap water, at up to 80°C.

03 Recover energy

Air expands through the turbine, recovering mechanical energy to help drive the compressor.

04 Exhaust cold air

Cooled air leaves through an exterior duct. The standalone cycle uses air as its working fluid.



IN THE HOME

Nothing has to be changed.

- Two air ducts through the roof or façade, the size of a flue. No unit on the wall, no permit.
- **Where the boiler was.** Floor-standing, 74 × 66.5 × 158 cm and 320 kg. Utility room or attic, not the living room.
- **Existing radiators and pipes**, at up to 80°C. No insulation upgrade needed first.
- **Heating and hot tap water** from one unit: CW3 comfort class, 10 litres a minute at 40°C.
- **15 to 20 years** design life.

Go deeper into the technology

The thermodynamics ↗

Competing technologies ↗

Intellectual property ↗

Turbine Heat Pump.



Older homes need high-temperature heat. Tarnoc reuses their radiators and pipework, reducing the disruption of going electric.

THE INDOOR RETROFIT

High heat. No outdoor unit.

For homes where outdoor space, noise rules or façade constraints rule out an outdoor unit. Heating and hot tap water from the spot where the boiler was.

20 kW	80°C	1.6–1.8
heating power	supply temperature	COP

- Home fit & product status ↗
- [See the products on tarnoc.nl ↗](#)

Combi Max.



Combi Max · turbine unit + outdoor unit

Older homes need high-temperature heat. Tarnoc reuses their radiators and pipework, reducing the disruption of going electric.

THE EFFICIENCY EXTENSION

High heat. With outdoor efficiency.

Pairs the turbine with an outdoor unit for larger homes. The outdoor unit carries the base load efficiently; the turbine delivers the 80°C peaks and the hot tap water.

24 kW

nominal power · 30 kW max

80°C

supply temperature

Up to 4.3

COP

[Home fit & product status ↗](#)

[See the products on tarnoc.nl ↗](#)

IN THE PRESS



Real buildings. Real pilot projects.

20+ systems installed. From occupied homes to a hospital and a listed monument: hardware working where the heat is needed.



TARNOC

RESIDENTIAL

Inside a Dutch home.

● Nootdorp, NL · Staedion housing



COMMERCIAL

Hot tap water for a hospital.

● Delft, NL · Reinier de Graaf



HERITAGE

Keep the building's character.

● Arnhem, NL · Gemeente Arnhem



MONUMENT · 1610

Three winters in a house from 1610.

● Middelburg, NL · De Vergulde Schoe



“I can see in broad strokes how far the development has come: more efficient, quieter and more professional.”

Bernard Vercouteren, resident of De Vergulde Schoe, Middelburg. A prototype heated the 1610 monument for three years; it now runs the first commercial Turbine Heat Pump.

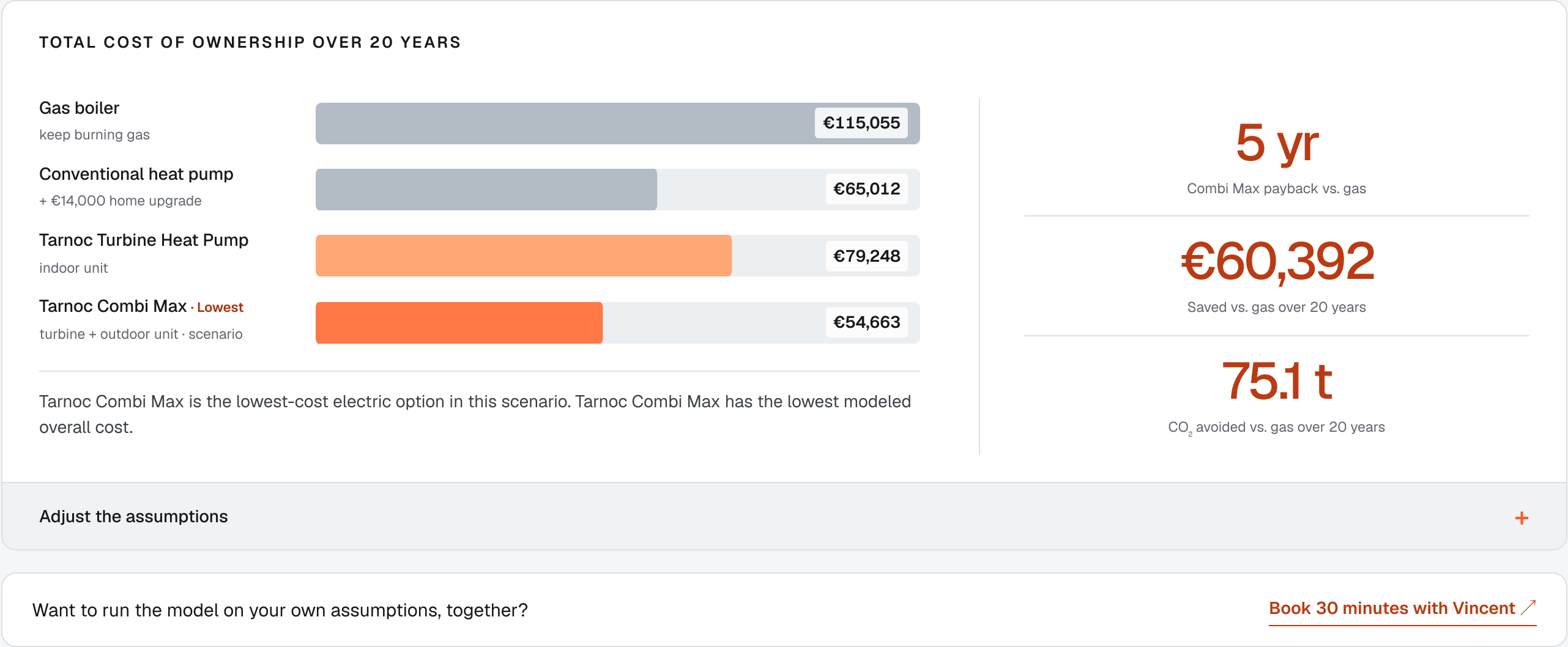
Go deeper into the pilots

The measured home pilot ↗

The house from 1610 ↗

Calculate the ROI.

Compare the machine, home adaptations, energy and maintenance for a homeowner or a housing portfolio.



The Netherlands.

Market sizing, bottom-up

WHY IT MATTERS About 133,000 addressable boiler replacements a year in the Netherlands alone. Nobody replaces a working boiler, so the annual replacement flow is the market we sell into.

TAM **4.6M homes** **€46bn**
Dutch homes heated by an individual gas boiler, apartments excluded.

SAM **1.6M homes** **€16.1bn**
Built before about 1990 and needing water above 65°C, not yet on a heat pump, technically installable and economically reachable.

SOM **~21,300 homes by 2031** **€215M**
Cumulative capture 2027–2031, growing from 0.5% to 7% of the annual replacement flow.

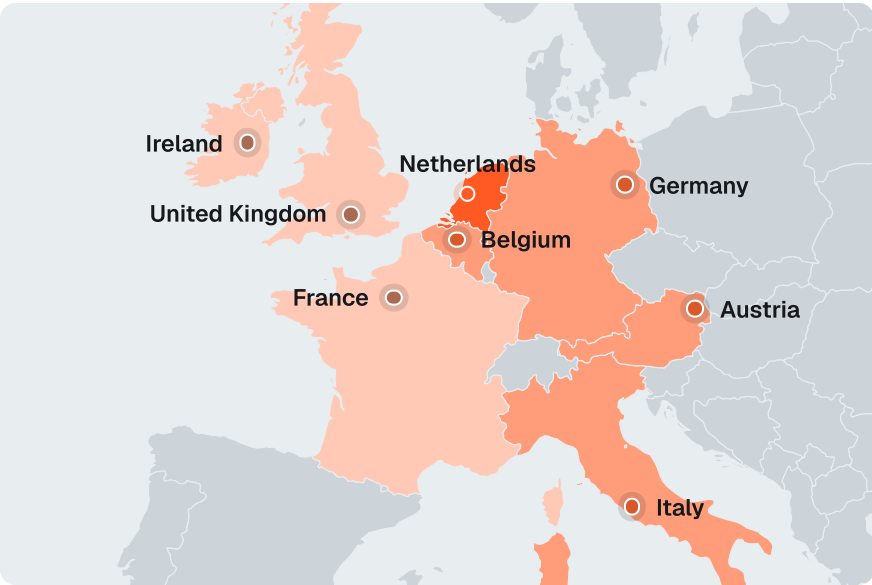
Bottom-up from Eurostat, BPIE, IEA, EHPA, CBS and RVO housing statistics. Each home valued at one installed Turbine Heat Pump, ex VAT.

Go deeper into the market

How the sizing works ↗

Pre-1980, ≥150 m², over 1,500 m³ of gas a year, its own boiler.
Inside that box we are the only machine that fits. Outside it, we tell people to buy something else.

THEN EUROPE, IN THREE WAVES



- Wave 1**
Netherlands
- Wave 2**
Germany · Austria · Italy · Belgium
- Wave 3**
United Kingdom · Ireland · France

Same housing stock, same problem, bigger. Most wave 2 and 3 markets have a worse gas-to-electricity price ratio, which is precisely the problem the Combi Max solves.

Europe (EU-27).

Market sizing, bottom-up

WHY IT MATTERS Nearly 40 million EU homes need water above 65°C that a conventional heat pump cannot supply without renovation. The Netherlands is the proving ground; the same housing stock repeats across the continent.

TAM **109M homes** **€1.1tn**
EU-27 homes on a gas or oil boiler with water-based heat distribution.

SAM **40M homes** **€402bn**
High-temperature homes built before about 1990, technically installable and economically reachable at local energy prices.

SOM **~21,300 homes by 2031** **€215M**
Modelled for the Netherlands only. Wave 2 and 3 markets are upside not yet in the plan.

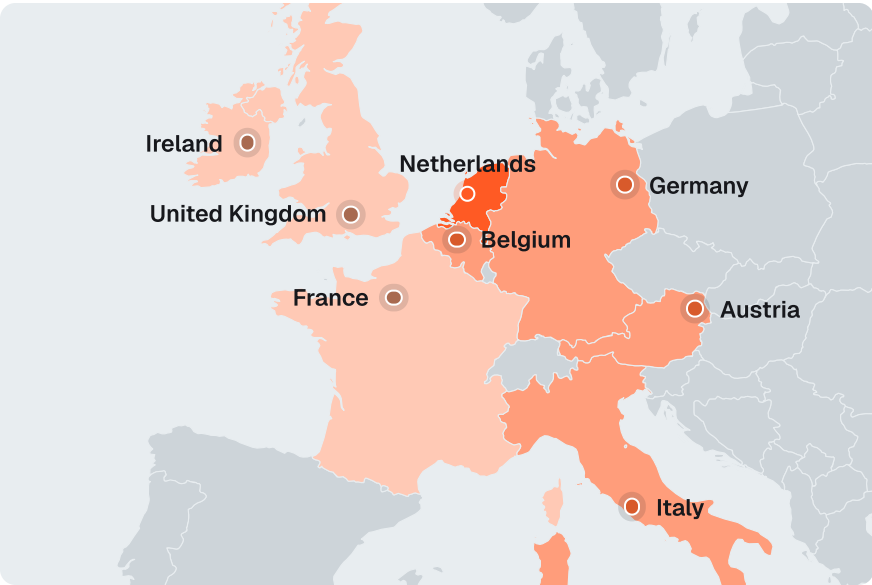
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Sell through installers. Scale through distributors.

Each channel builds the evidence and capability needed for the next.

Installer-led B2B

01

GROWTH PHASE · NOW

Equip installers and housing partners with surveys, training, commissioning tools and service support. Partners bring customer relationships and repeat projects; Tarnoc keeps the product, the standards and the service contract.

Why this makes sense

A repeatable installation offer lets the same product reach many more homes without scaling a direct sales team at the same rate.

MILESTONE

15 local installation companies joined

International distribution

02

SCALING PHASE · FROM 2028

Enter through regional distributors and installers that understand local buildings, customer acquisition and service. Wave 2 is Germany, Austria, Italy and Belgium; wave 3 the United Kingdom, Ireland and France.

Why this makes sense

Partners provide local reach while Tarnoc retains the core technology, product standards and training. Dutch field experience becomes the starting playbook.

MILESTONE

Market entry into Germany, Austria, Italy and Belgium

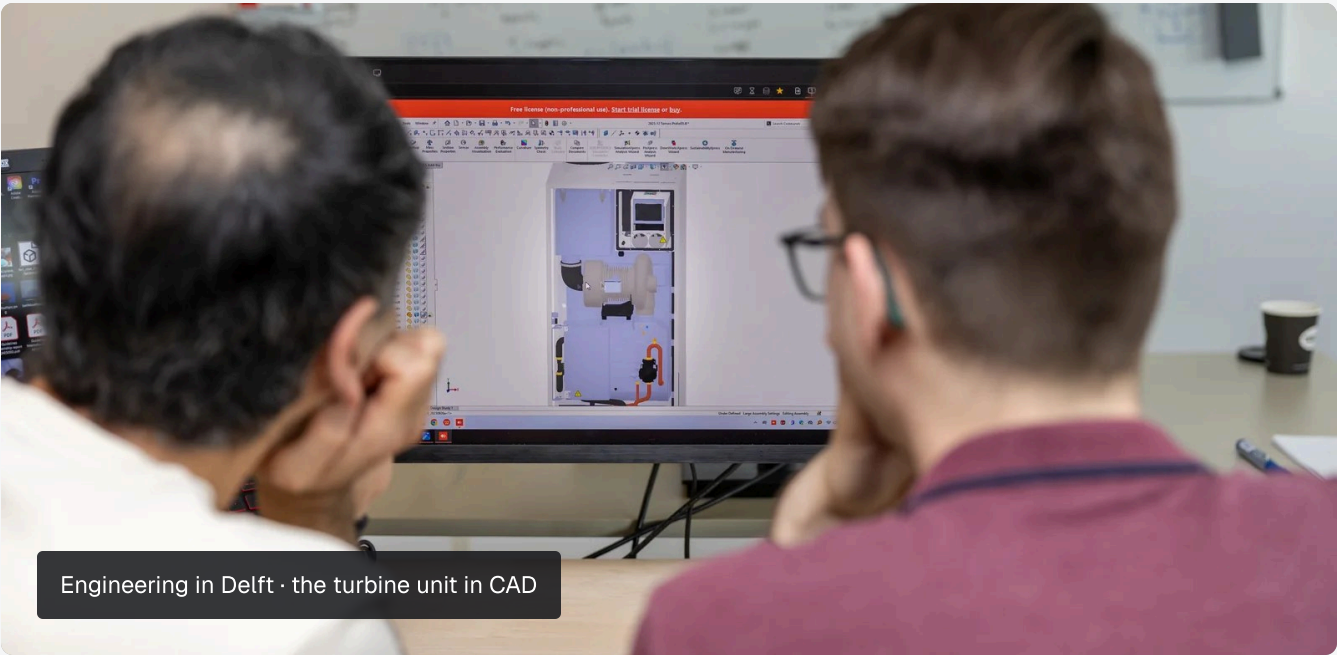
CONSUMERS

Tarnoc also sells directly to a limited number of homeowners. These early adopters keep a short feedback loop on home fit, installation and comfort, and pay a deposit before the unit is built.

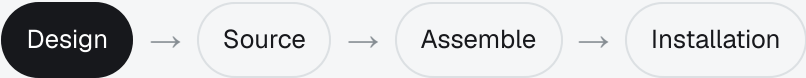
Go deeper into the sales process

The customer journey, in eight steps ↗

Supply chain.



Engineering in Delft · the turbine unit in CAD



Tarnoc owns the system.

Product design, IP, control software, specifications and acceptance tests remain the core of the business.

How the supply chain supports the target ↗

Own the technology.
Scale through partners.

TARGET GROSS MARGIN AT HIGH PRODUCTION VOLUME



More value in every machine as production scales.

- Volume purchasing for the compressor and components
- Design for manufacture and simpler assembly
- Repeatable testing, quality and service
- Recurring yearly service revenue on every installed system

From launch to €100M in four years.

€100M

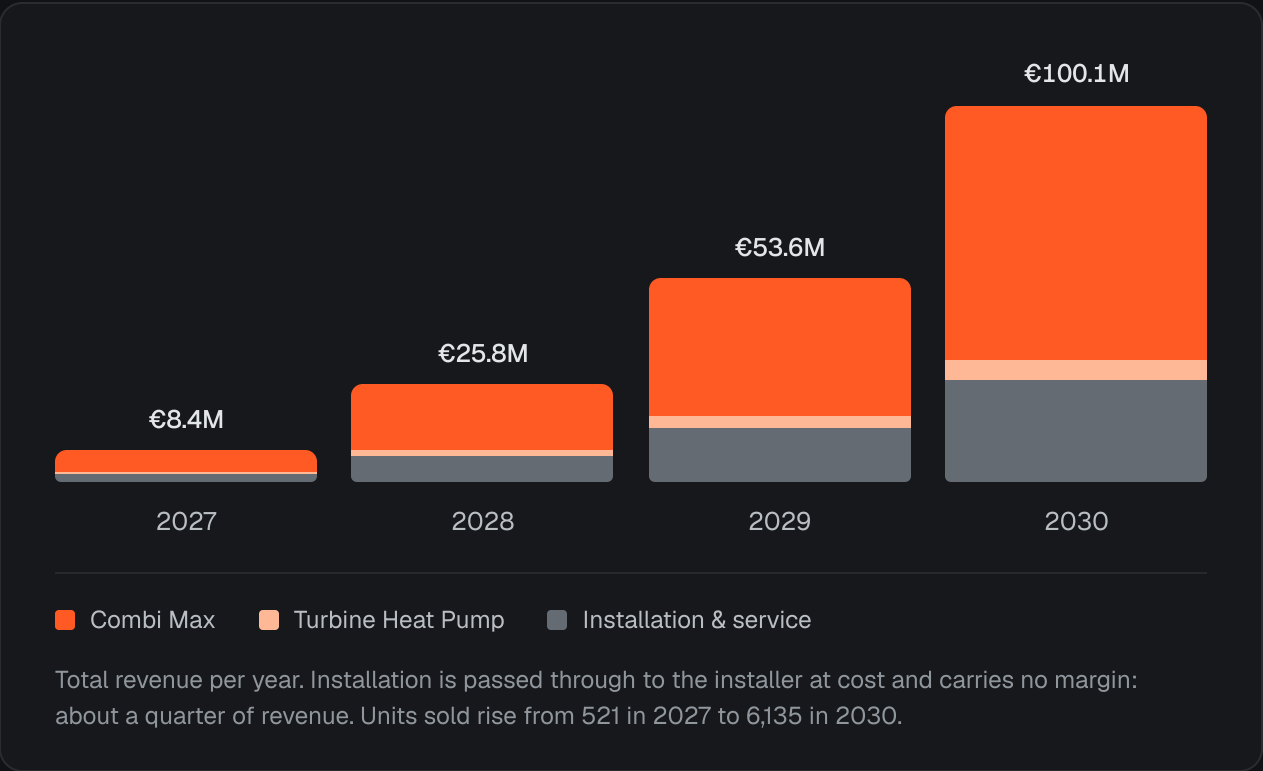
Revenue in 2030, base case

EBITDA positive from 2028 · Netherlands only

Gross margin	4% → 33%
EBITDA 2030	€21.6M
Systems installed by 2030	11,540

The full model runs monthly to 2030: units, margin steps, headcount and cash. We walk through it in a call.

A base case built bottom-up from leads, installer partners and build capacity. The Combi Max carries nine in ten systems; the Turbine Heat Pump opens the homes nothing else can serve.



Plan a call with Vincent



Physics meets execution.



Vincent Wijdeveld +

CO-FOUNDER / CEO

Computer Science, TU Delft.
Company building and commercial execution.

[LinkedIn ↗](#)

Tijmen de Jong +

CO-FOUNDER / CTO

Applied Physics, TU Delft.
Turbomachinery and product development.

[LinkedIn ↗](#)

Next operating focus: production quality, installer enablement and cost-down engineering.



Joas van Veluw +

Head of Product

Nearly 20 years in product development. Heating at Itho Daalderop; engineering leadership at BOAL.

[LinkedIn ↗](#)



Julien Jukema +

Head of Growth

Founded Anywyse, acquired in 2025. Techstars alumnus.

[LinkedIn ↗](#)



Pieter Pijper +

CFO

30+ years as CFO; \$1.5bn in M&A.

[LinkedIn ↗](#)



Jordi van Es +

R&D Engineer

Five years in hardware development at Fugro. Mechatronics, prototyping and manufacturing.

[LinkedIn ↗](#)



Wouter van Seters +

Sr. Product Engineer

Heat pump development experience at BDR Thermea.

[LinkedIn ↗](#)



Fatih Yilmaz +

Project Manager · R&D

R&D experience at BDR Thermea and Viessmann.

[LinkedIn ↗](#)

We are not done yet.

● NEXT GENERATION · BEHIND CLOSED DOORS

TwinCycle

Turbine Heat Pump and Combi Max, folded into one machine. The best of both worlds.

- Both cycles in one indoor unit
- Light enough to install anywhere
- Compact enough for the smaller home

Look inside ↗

Tarnoc is a technology company, and innovating is what we love. The turbine is a platform. The next machine is already on the drawing board.



From working product to **repeatable business.**

€3.0M

Seed round

60%

Production
€1.80M

25%

Commercial
€750k

15%

Product
€450k

CAPITAL → PROOF

A production process that can repeat.

Fund components, tooling and working capital. Prove supplier readiness, end-of-line yield and delivery quality before accelerating volume.

Terms, timeline and the data room are one conversation away.

Discuss the round



TARNOC · SUPERCHARGED HEATING

Turn up the heat. Turn off the gas.

Let's bring it home.

Talk to us 

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Tarnoc · Confidential investor presentation · September 2026