



klugit
energy

HEATING SHOWERS COOLING OCEANS

KLUGIT ENERGY PITCH DECK

Who are we?

Klugit Energy

We exist to deliver simple plug & play solutions that convert domestic appliances into smart devices, more efficient and greener, by operating only when it is best for the families and the environment.

We believe families have the right and power to boost the renewable energy revolution.
They just need the right tools.

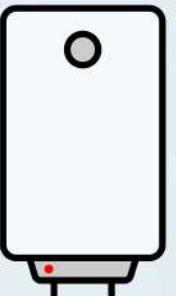


Problem

IN THE EU, STANDBY LOSSES OF ELECTRIC WATER HEATERS ARE EQUIVALENT TO THE EMISSIONS OF

2.500.000 CARS

47 Million
in the EU



Wasted
money
p/ device

=

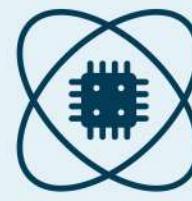
NETFLIX
(account)



Solution



Plug & play IoT device that converts existing electric water heaters into smart devices



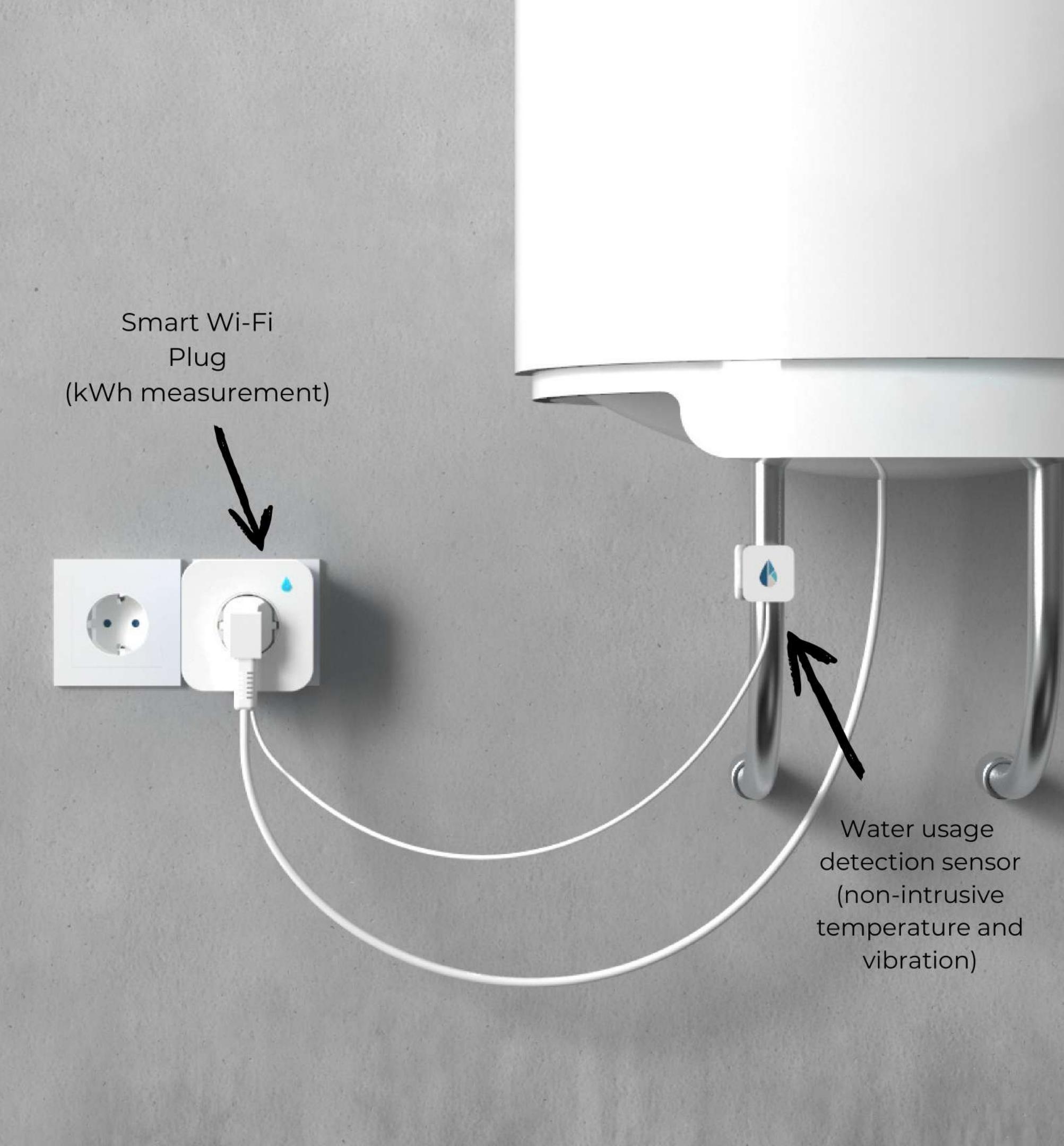
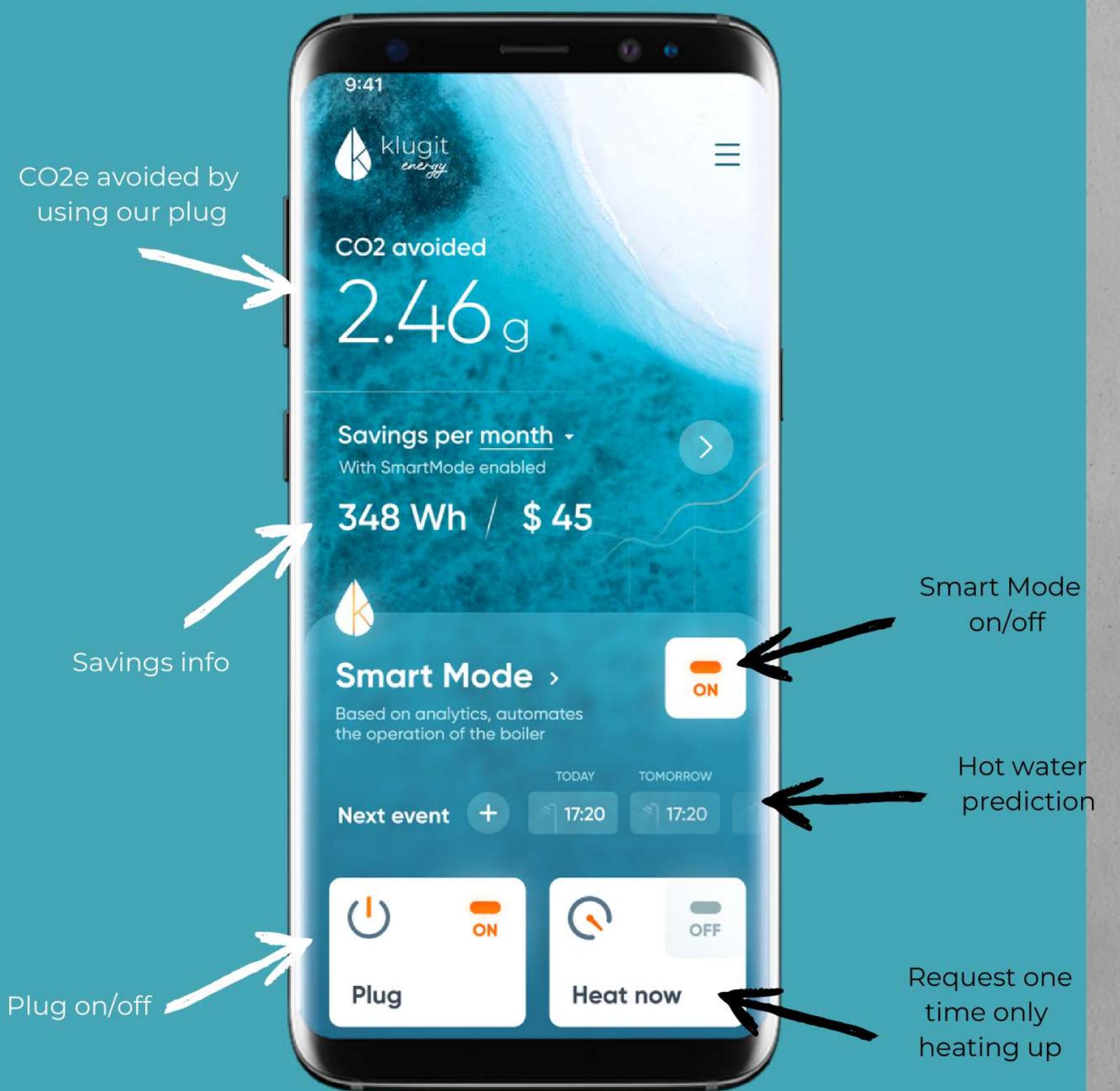
Using AI, it learns the hot water usage routine and heats up water when needed, avoiding thermal losses, up to 100 EUR/y of savings per family (ROI of < 1 year)



Wi-Fi connection / 4G enabling demand-response operations like load-shifting, peak shaving or **priority to renewable energy**



Product details





klugit **on**

PRIORITY TO RENEWABLE ENERGY

Priority to sunny and
windy periods of the day
to heat up your water,
maximizing renewable
energy usage.



klugit **off**



DEMAND RESPONSE ENABLER

Klugit converts electric water heaters into demand-response devices, providing a whole set of flexibility services.

	Power	Investment	Emissions
 klugit Community "battery"	100 MW (50,000 Klugits)	2.5 m EUR	850 tonne CO2
 Powerpack AUS	100 MW	56 m EUR (x22 more)	12,900 tonne CO2e (x13 more)

Market size

13 bn €

Klugit's TAM in hardware sales

20 bn €

Demand-response market size (2021)

Less than 2% of DSF potential being currently used.

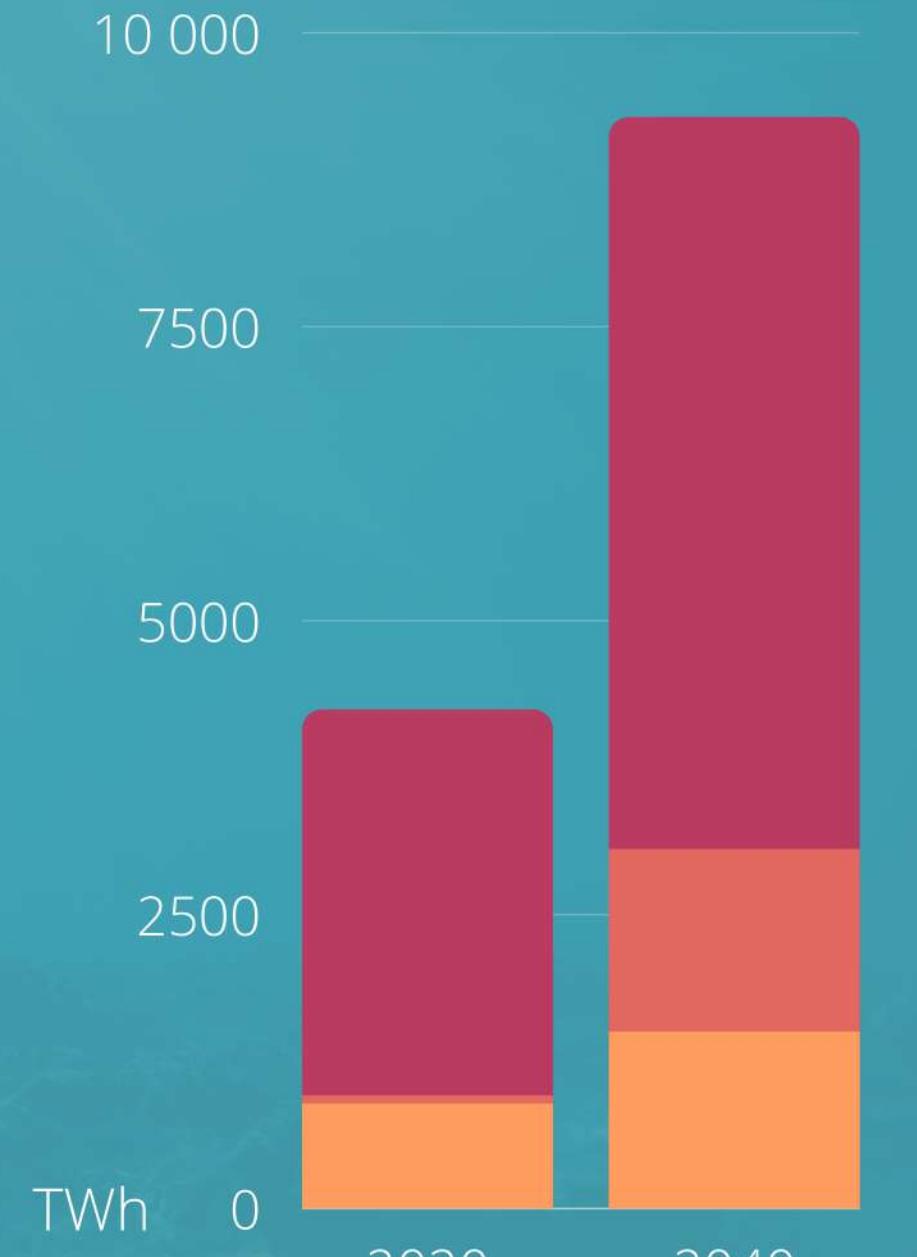
ELECTRIC STORAGE WATER HEATERS

WW installed park
in Mio. devices

2030
338 Mio.

2020
278 Mio.

DEMAND-RESPONSE POTENTIAL



Buildings

Transport.

Indust.&
Agriculture.

Competition

Klugit's end-user centricity clear in its value proposition

	 klugit energy	 SHIFTED ENERGY	 Votalis	 THERMVAULT
IoT retrofit solution	✓	✓	✓	✓
Plug & play (no tools)	✓	✗	✗	✗
Immediate savings (efficiency)	✓	✗	✗	✗
AI / Machine learning	✓	✓	✓	✓
End-user app	✓	✗	✓	✓
Demand response / VPP	Q2.2023	✓	✓	✓

GO-TO-MARKET & BUSINESS MODEL

PRODUCT LAUNCH 2022 - 2023

- **B2C** - hardware sales (one-time only)
 - Direct online (incl. pre-sales crowdfunding)
 - 65 EUR/unit (incl. VAT) - ROI of 1y
- **B2B** - paid pilots selling prototypes and APIs development
 - 150 EUR/unit + hourly fee for R&D

UTILITIES PARTNERSHIP 2023-2024

- **B2B2C** - HW sales to utilities, offering it for free to their customer base
 - 28 EUR/unit to utilities/retailers

Services

- Fixed load-shifting and peak-shaving according to fixed tariffs
- For free

DEMAND AGGREGATOR 2025+

- **B2C** - HW for free to users, energy communities, energy efficiency
- **B2B** - Aggregation services to TSOs and DSOs

Services

- Dynamic load-shifting, peak-shaving, frequency control, energy storage
- Participation in bids

TRACTION

PRE-SEED INVESTMENT (300K RAISED)

- Investment from EIT InnoEnergy as part of their Highway acceleration program
- Boost from Portugal Ventures (Q1.2021)



Portugal Ventures
GROWING GLOBAL

KICKSTARTER CAMPAIGN

- 137 devices sold in 22 days
- Media coverage from main news companies in Portugal
- 70% of Kickstarter users not targeted (US based)

KICKSTARTER

COMMERCIAL PARTNERSHIPS

- Commercial interest from major distributors, utilities and manufactures to commercialize our solutions (2 LoI + 3 pending)



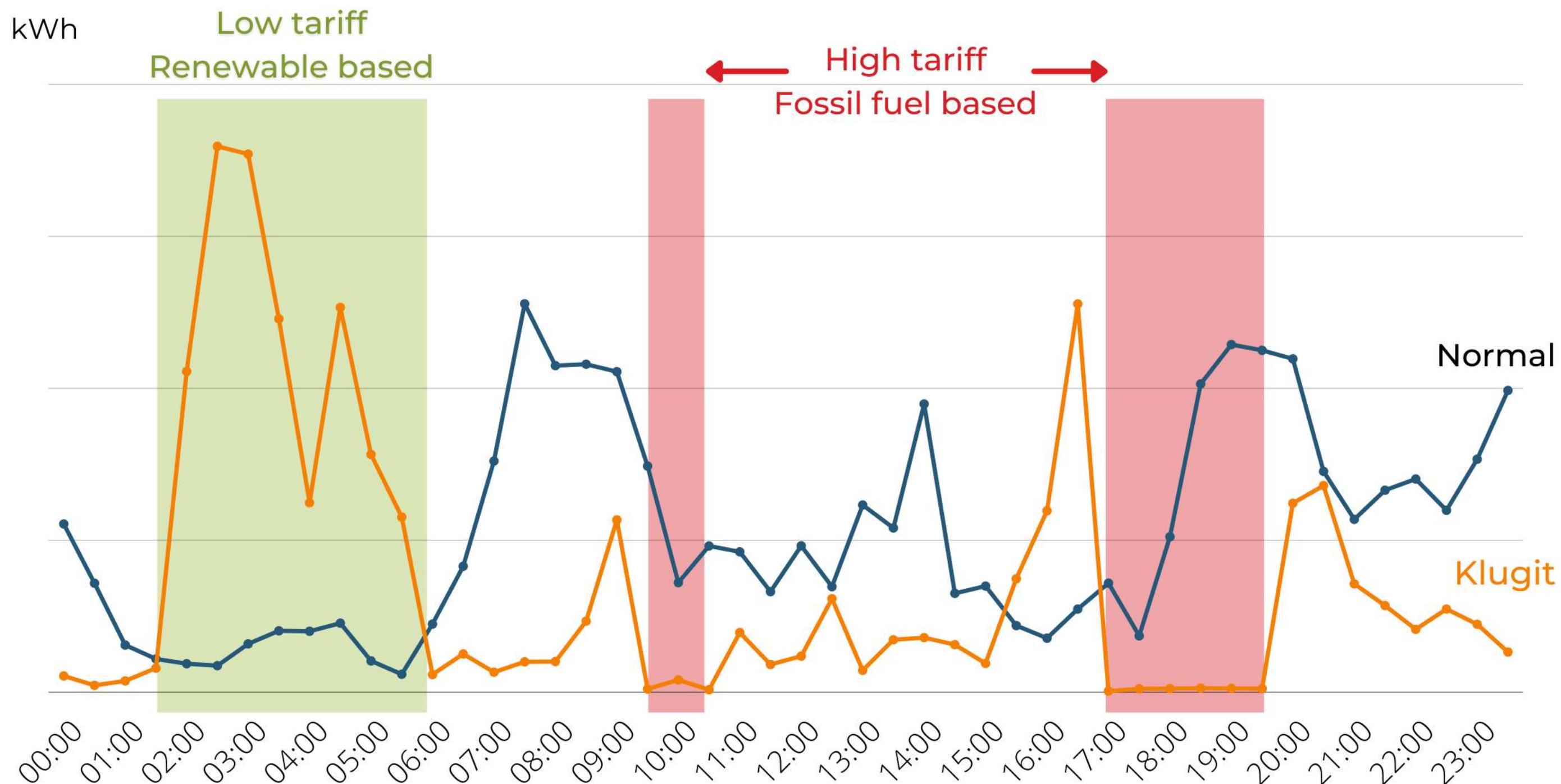
2X PAID PILOTS WITH UTILITIES

- Installation of 20 fully functioning prototypes + app
- Load-shifting services for night time period
- Energy efficiency with Klugit smart mode



EDA Pilot results

Avg. per device per day:



Shifted to low
+0.95 kWh

Shifted from high
-0.69 kWh

Efficiency
-0.99 kWh

Total user savings
-97 €/year

**SOFTWARE LEAD
PEDRO MAGALHÃES**

Expert in embeded
intelligence



**CTO
FRANCISCO MENDES**

+20y experience in
HW
Co-founder of
Beeverycreative



**CEO
TIAGO BANDEIRA**

+10y at Bosch as Int.
Product Manager



**COO
CARLA ANTUNES**

+17y at Leroy Merlin as
Operations manager



NEXT STEPS



Q1.2023

- Close seed fundraising
- R&D team expansion
- Large scale pilot (+100 devices)
- Algorithm improvements

Q2.2023

- Customer support
- Start of sales
- PoC fridge solution

Q3.2023

- International expansion
- Continuous improvement



**PLUG & PLAY
SOLUTIONS FOR
DOMESTIC
APPLIANCES**



Planet
~~USER-CENTERED~~
**APPROACH TO
DEMAND
RESPONSE**



**DEVELOPMENT
OF ENERGY
COMMUNITIES**

THANK YOU

SEED FUNDRAISING OPEN

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“We are the first generation to feel the effect of climate change
and the last generation who can do something about it.”

BARACK OBAMA
