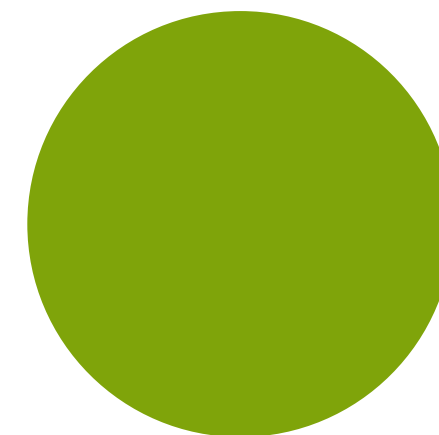


# Heat decarbonisation: the key to Europe's energy independance



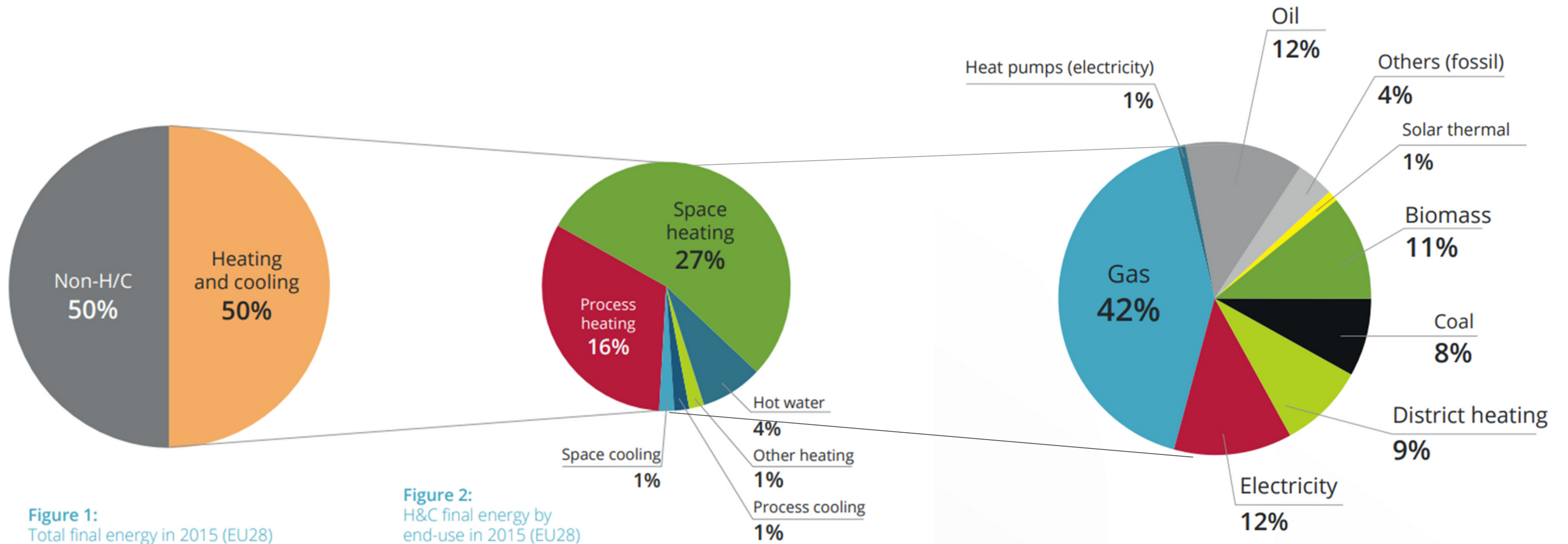
Aurélie Beauvais, Managing Director Euroheat & Power

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14/02/23

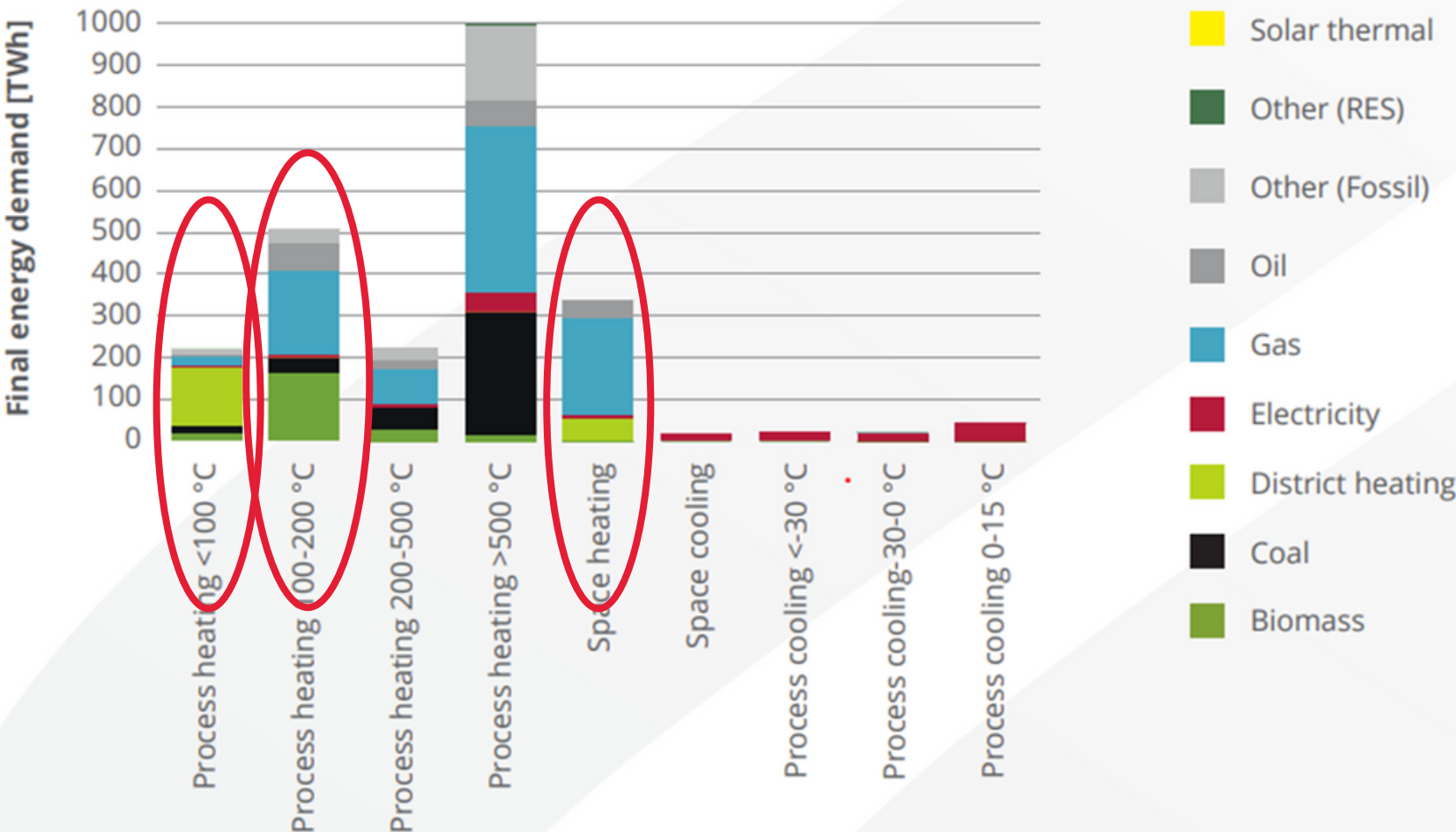
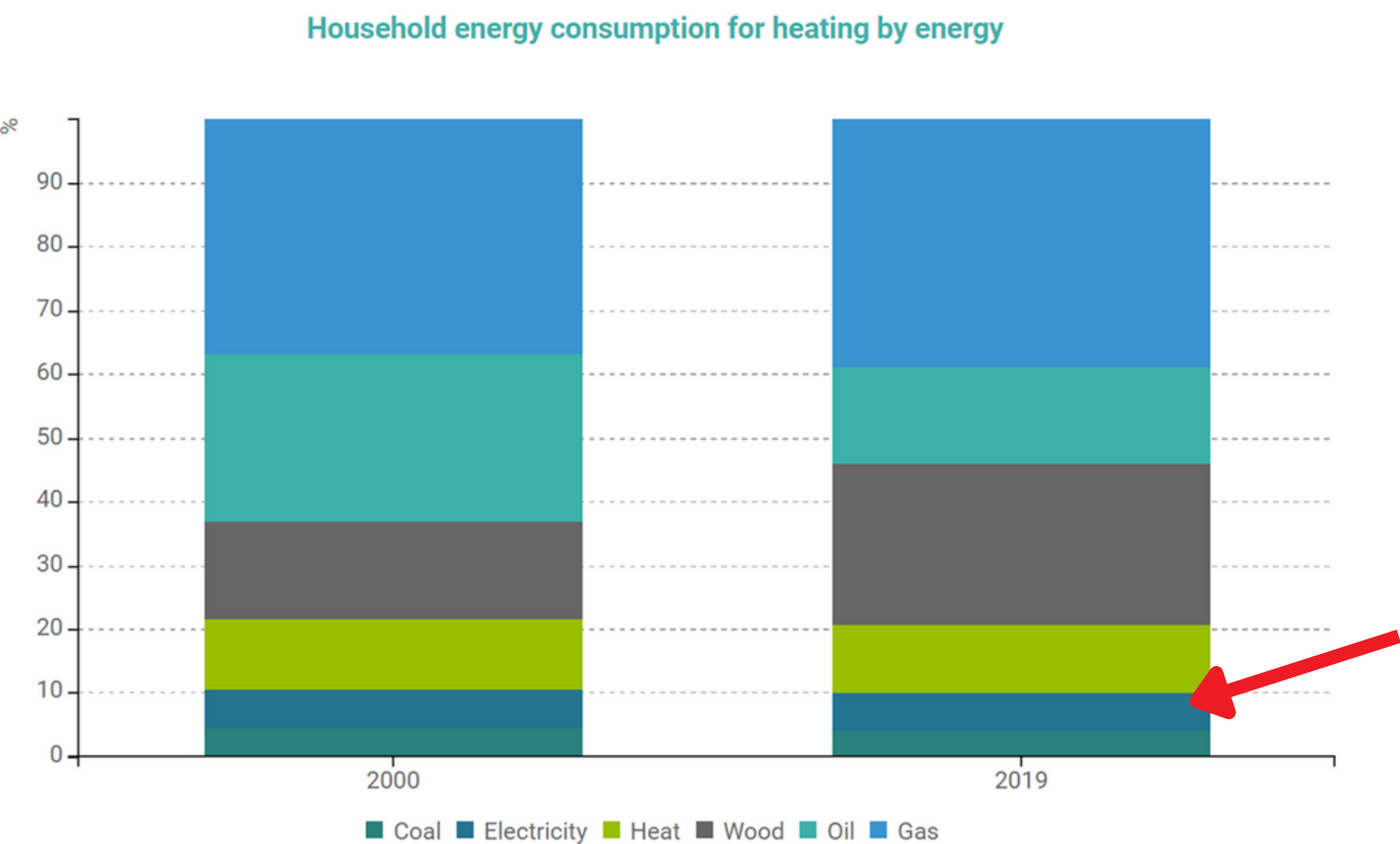
# Heating & cooling is **key** for our energy independence

EU consumes **half** of its energy for heating and cooling purposes. Most of this thermal energy is used in **buildings** (space and water heating) and **industries** (process heating).



# To decarbonise heat, we need a **multi-energy approach**

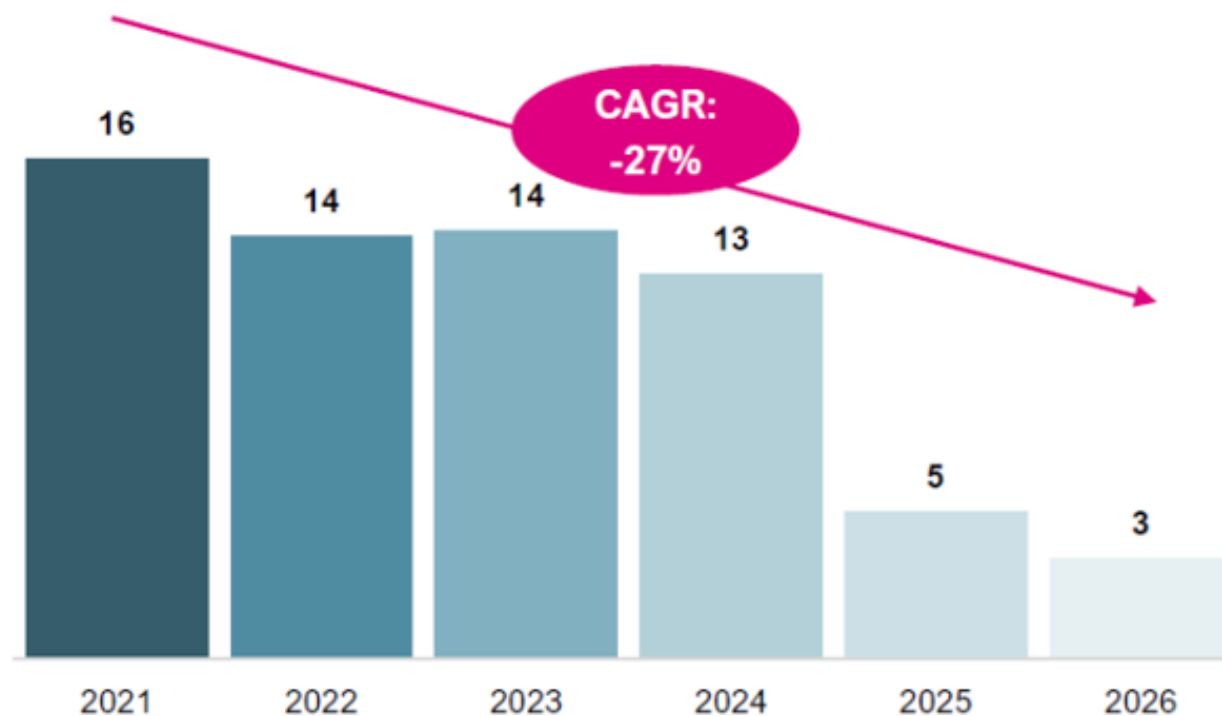
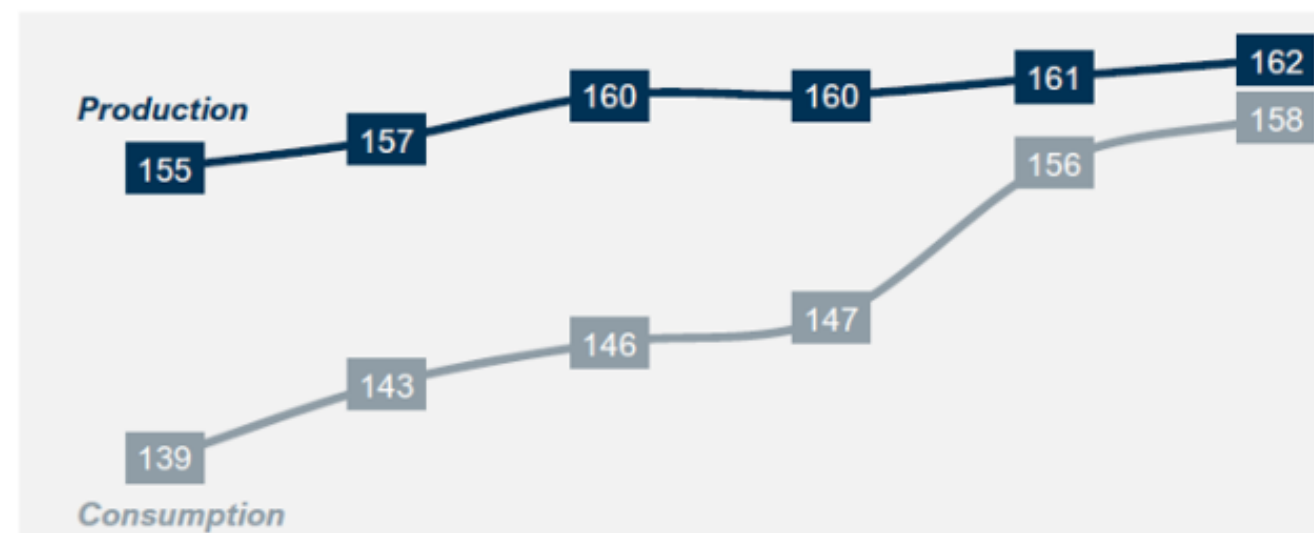
Natural gas is the leading energy source with a rather stable share **(42%)**. **Electricity represents only 6% of households heating consumption**, in comparison, direct heat supply is twice bigger.



# Diversification means **security of supply**

The heat transition is not a "by product of electrification:  
**other solutions exist**, and this is good news!

Forecasted production, consumption and net export in Norway (TWh)



## MAIN DRIVERS FOR CONSUMPTION GROWTH



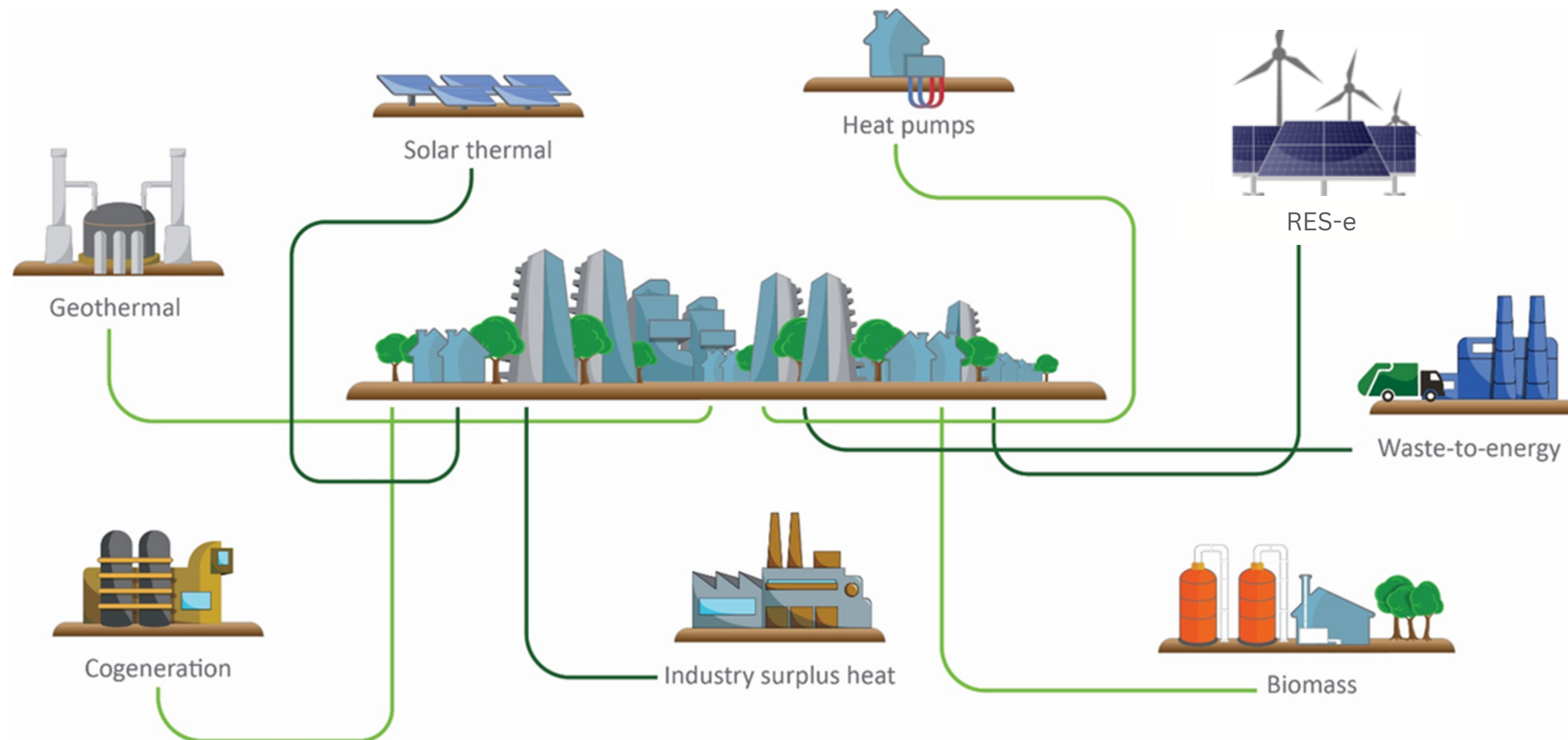
## Comments

- The power consumption in Norway is expected to increase going forward while growth in new power plants is expected to be flat after 2024
- After 2026, the consumption is expected to increase even more due to electrification and new industry
- If the production side do not respond, this will cause a power deficit in Norway



# Efficient district heating and cooling, is a critical enabler for climate-neutral buildings

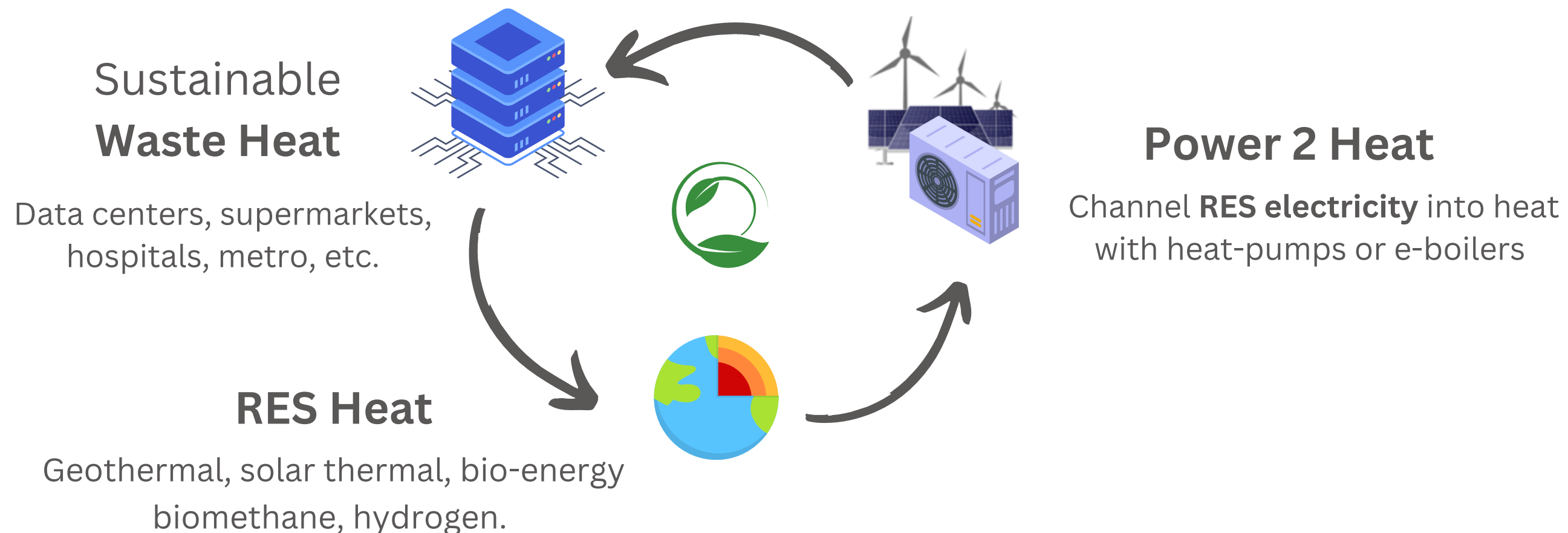
Delivers hot water as well as heating and cooling services to buildings and industrial users, through a network of insulated pipes.



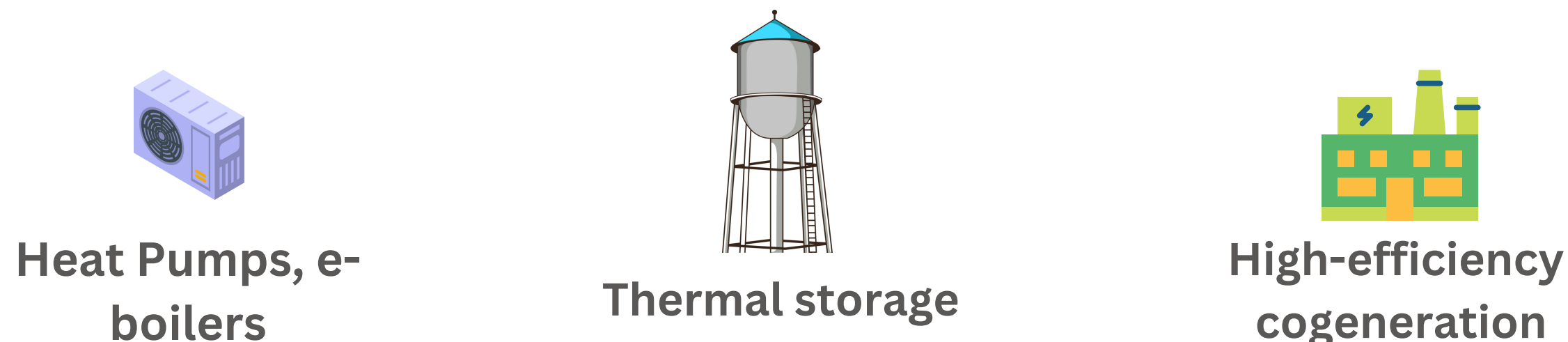
- **10.000+** heat networks, covering **13%** of the EU heat market
- **60 million citizens** supplied, 140 million citizens live in a city equipped with DHC
- **1/3 renewable & waste heat sources** in the DHC mix, and growing
- **Inclusive, and resilient**

# Harvesting **untapped**, and local clean heat resources for the building transition

Huge growth  
potential for  
**sustainable  
heat supply**



Mature  
**toolbox**





## Some **real-life** examples

### **VATTENFALL**

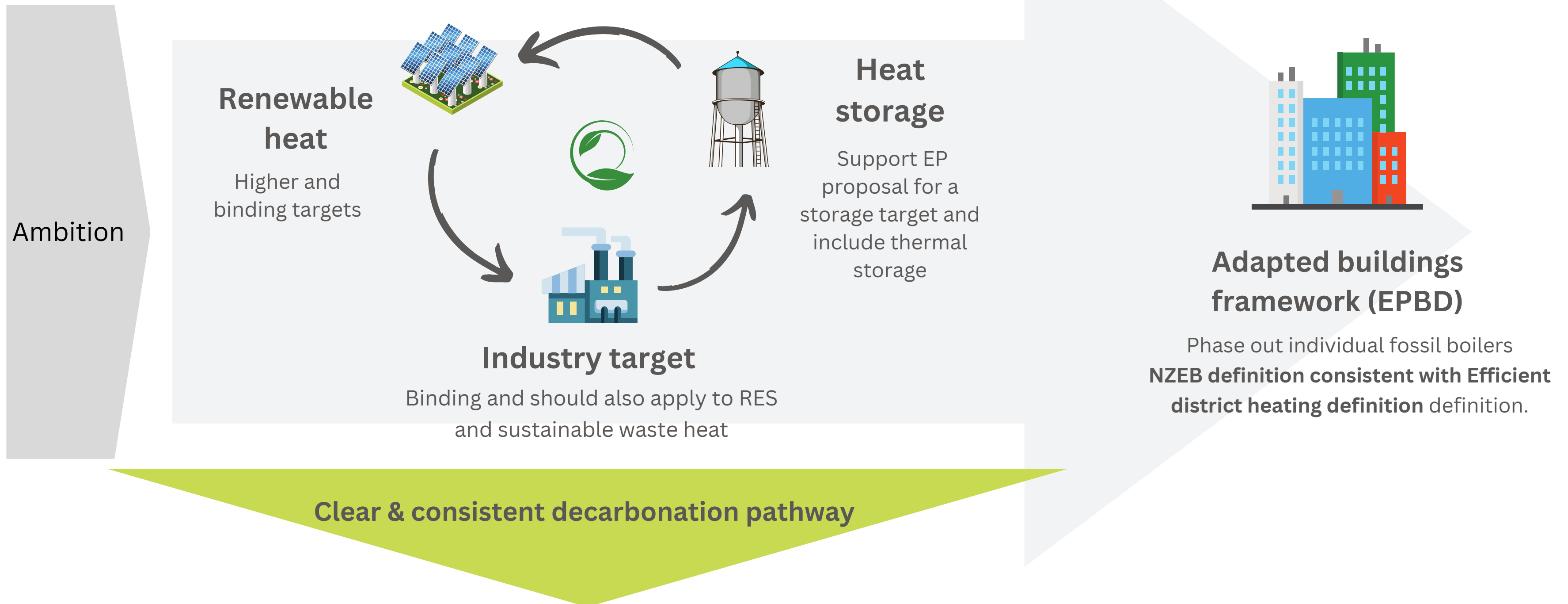
Vattenfall will use electricity from wind farms and solar parks to store heat in a **150 MW electric boiler system in Amsterdam**. It will be the largest facility of its kind in Europe when it enters operations in 2024, and will replace gas-fueled plants in district heating when high availability of solar & wind electricity, until full fossil phase-out.



**Tallaght's first and largest DHC system** uses the excess heat from an Amazon data center facility to heat nearby buildings. a large heat-pump is used to upgrade the data center waste heat (25°). The project supplies 47,000 m2 of public space, 3,000 m2 of commercial space, and 135 apartments, numbers expected to grow when the second phase is completed.



# Fitfor55': secure ambitious targets and consistent building framework



**Efficient DHC definition (EED):** by 2050, 100% of DHC supply will come from RES or recovered heat sources.



# We need a **comprehensive EU framework** to grow and transform



## **Mandatory local heat planning and implementation**



Streamline EU Funding and create an **EU Heat fund** (including funds with direct access for local authorities)



## **Support schemes and risk-mitigation tools:**

- Waste-heat recovery (infrastructure)
- Geothermal & solar thermal (production, integration)



**Speed up State-aid approval** for clean-heat project (REPower EU priority lane)



**Thank you,  
ask your question!**