DECARB HEAT

The Decarb Heat initiative brings together major players of the heating and cooling industry behind one clear vision: **a carbon neutral, efficient European heating & cooling (H&C) sector by 2050**

To reach this objective, we need to start modernising our H&C supply, meaning massively deploying cutting-edge local renewable and energy efficient heating and cooling solutions across Europe's economy

Modernising Heating and Cooling (H&C) should **become a priority** for the EU because:

- ✓ **Modernising H&C is required to achieve Europe's decarbonisation targets.**

The H&C sector represents more than 50% of EU's total energy consumption today. While energy efficiency will significantly reduce energy demand, demand for H&C will remain important in 2050 for domestic, commercial and industry consumers.

- ✓ **Modernising H&C supports Europe's steady economic growth and global leadership.**

A modernised H&C sector relies on local resources, infrastructure and technologies. It creates investment flows within the EU and strengthens European industrial leadership globally while boosting local economies in Europe and creating skilled jobs, safe from delocalisation.

- ✓ **Modernising H&C strengthens Europe's industrial competitiveness.**

Industrial competitiveness relies on secure, affordable and stable supply of heat. A strong modernised H&C sector can bring a competitive advantage to EU industry on global markets shielding it from market fluctuations such as volatile energy prices impacting investment security.

- ✓ **Modernising H&C increases Europe's geopolitical independence.**

A modernised H&C sector increases Europe's security of energy supply and reduces its dependence from other economies.

- ✓ **Modernising H&C empowers Europe's citizens, communities and small business.**

A modernised H&C sector empowers local communities, small businesses and citizens, giving the possibility to each citizen to take part in the energy transition as a consumer, worker, investor or member of a community that relies on decarbonised heat supply.

- ✓ **Modernising H&C is good for European citizens' health and the environment.**

A modernised H&C sector reduces local air pollution and increases air quality, improving the health of Europe's citizens. A modernised H&C sector also showcases resource efficiency and circular economy principles applied through the whole value chain.

- ✓ **Modernising H&C creates new opportunities in other sectors**

A modernised H&C sector creates value for communities, enabling business opportunities in other sectors such as agriculture, industry, digitalisation, buildings, etc.

- ✓ **Modernising H&C should start now!**

The technologies to modernise the H&C sector are already available today. Policy makers need to act now to enable their deployment.

What **actions and policies** are needed to modernise H&C in Europe?

- ✓ **Raise awareness on the importance of H&C** (especially among high-level decision-makers) and the impacts of this sector on EU's climate change & energy, economic, industrial, security, governance, health, environment and other policies. This could help creating the right political impetus.

- ✓ **Update and strengthen EU's Heating and Cooling Strategy** to provide a strong EU framework enabling the transition to a modernised H&C sector.

  The revised strategy should:

  - Take an integrated approach towards the energy systems planning, development and operations across all energy infrastructures. This approach will ensure higher flexibility, improved system efficiency, higher uptake of renewable energy across all energy carriers, and ultimately a cost-effective energy transition.
  - Put forward a smart and cost-effective combination of technologies and fuels. Energy efficiency and renewable energies should be maximised and the synergies between them should be optimised.
  - Tap into existing local resources and technologies and enable further innovation in decades to come.
  - Identify investment needs in infrastructures and R&D (industrial process heat, building sector, innovative renewable technologies, hybrid systems, energy management and storage, demand-side flexibility, etc)
  - Better exploits the potential of thermal storage. Energy storage will be key in the future energy transition. The cost-effective potential of all types of renewable energy storage (be it in the form of heat, molecules or electricity) should be identified and unlocked. Thermal storage is proven to be a cheap seasonal storage and is already deployed in markets, millions of people have already thermal storage in their home. This will prove key in a system including a high share of variable renewable energy.
  - Prioritise effective national and local policies and actions, supported by comprehensive local planning, to unleash the investments needed.
  - Ensure affordability for all through affordable modernisation and quality.

- ✓ **Prioritise the implementation and enforcement of existing legislation, including market surveillance**. In case of identified implementation gaps across Europe affecting the modernisation of H&C solutions must be proposed to improve future policies applying to the H&C sector.

- ✓ **Incentivise the decarbonisation of heating and cooling by establishing a level playing field across regulatory, fiscal and other policy tools.** A stable and fair policy environment will ensure strong economic signals, enabling favourable business conditions for the further uptake of renewable and energy efficiency solutions.

- ✓ **Establish a robust strategy towards the gradual phase out of fossil fuels** in residential, commercial and industrial sectors by mid-century, and the ‘’2050 compatible’’ move to a low-carbon economy with renewable energy sources for a progressive decarbonization pathway starting today.