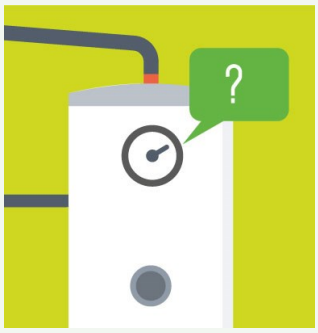
HARP
Heating Appliances Retrofit Planning

Motivating consumers to use
more efficient heating systems

Approximately 72 million low efficient heating systems are installed in Europe.



HARP aims to encourage consumers to opt for more efficient alternatives, such as:

Condensing boilers

Condensing boilers reuse the heat energy of water vapour produced in the combustion process which 'condenses' back into liquid form and is reused to pre-heat the cold water entering the boiler.

- ✓ Increased energy efficiency and reduced emissions
- ✓ Easily combined with renewable energies
- ✓ Suitable for modernisation in existing as well as new buildings

Heat pumps

Heat pumps operate like a refrigerator in reverse: a refrigerant extracts low-temperature heat from the environment, causing the refrigerant in the system to evaporate. The refrigerant is compressed, heat released in a condenser and transferred to the water circulating in the heating system.

- ✓ Using renewable heat from the surroundings
- ✓ Can provide space heating, cooling and/or hot water
- ✓ Reducing CO2 emissions, near zero if powered by renewable electricity (e.g. photovoltaics or wind)

Hybrid heating

Hybrid heating refers to an appliance or a system of appliances which combine at least 2 different energy sources and whose operation is managed by one control. The most common product are hybrid heat pumps that combines an electric heat pump with a condensing boiler.

- ✓ Reducing running costs and improving overall system energy efficiency
- ✓ Combining energy efficiency measures with technologies incorporating renewables
- ✓ Ensuring security of supply and avoiding peak consumption

Biomass boilers

Biomass boilers use wood in diverse formats — wood pellets, wood chips or split logs — for space heating and in some technologies combined space and water heating.

- ✓ Efficient use of renewable sources
- ✓ Using locally available fuel
- ✓ Carbon neutral fuel

Combined heat and power (Cogeneration)

Combined heat and power (cogeneration) produces both heat and electricity in one single appliance. The process heat released by the motor is used for space heating and domestic hot water. The electricity produced is used as required and any excess power fed into the electric grid.

✓ Reducing carbon emissions by generating electricity at the point of use

✓ Allows fuels to be used more efficiently

✓ Enhancing security of supply by reducing reliance on centralised power production

Solar thermal

Solar thermal technology harnesses the energy of the sun. Solar collectors convert sunlight into heat through a circuit with a fluid (frost and heat resistant) which delivers solar heat from the collectors to the hot water storage tank, available to use when needed.

✓ Solar heat is available and free for everybody: low maintenance and operations costs

✓ Compatible with most heating technologies and applicable in existing and new buildings

✓ Long lifespan and easy to use

Know more about available technologies, **CLICK HERE & READ THE FULL REPORT!**

Read the HARP report to find out about...

- **Available** space and water heating **technologies** on the market, smart heating and smart home concepts and solutions, surface heating and cooling and more;
- The main features of the **heating appliances markets** in DE, ES, FR, IT & PT;
- Potential heating **replacement scenarios**, leading to a reduction of heating energy needs.

KNOW MORE, **VISIT OUR WEBSITE!**
heating-retrofit.eu

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