



# OIL HEATING

## AN EFFICIENT OPTION FOR CONSUMERS

MARCH 2016

**Efficient oil heating systems can play a significant role in the efforts aimed at improving energy efficiency in a process of long-term transition, while preserving end user's freedom of choice and affordable improvements.**

**17%**

Close to 17% of heating systems – one out of every six – run on heating oil in Europe, although in certain a number of countries the percentage can be as high as 43%. These are often installed in remote areas where there are currently no affordable alternatives due to lack of infrastructure connections. Some consumers in urban areas also opt for oil based systems in order to preserve their independence from the utility grid.

**12,500**

The European heating oil market is predominantly supplied by around 12,500 small and medium-sized enterprises (SME's). In some countries these cover a market share that can be as high as 20%. They are particularly instrumental in guaranteeing supply to remote areas which are not generally serviced by larger suppliers.

**2040**

The International Energy Agency (IEA) confirms that by 2040 each of the three types of traditional fuel will still account for around one-quarter of global energy demand, while the remainder will be met by low-carbon fuels.

**40%**

In a long-term transition a **multi-energy hybrid system** should be regarded as the most promising way forward, achieving up to 40% reduction in heating oil consumption. This solution offers an optimisation of resources, with renewable energy as the primary source, easily combined with heating oil as a back-up, providing flexibility and security to the end-user.

**30%**

The replacement of old oil boilers by modern condensing oil boilers is a particularly **efficient measure**. As a result, reductions of up to 30% in CO<sup>2</sup> emissions and fuel consumption can be achieved.



THE VOICE OF EUROPE'S INDEPENDENT FUEL SUPPLIERS

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**Europe's consumers need policies that allow them to make affordable and immediate energy efficiency gains – this requires a technology neutral approach.**

Thierry De Meulder, UPEI President



## EFFICIENT OIL HEATING SYSTEMS ARE

1. A safe fuel choice for domestic use.
2. Increasingly environmentally friendly in terms of overall emissions, fuel consumption and quality.
3. Guaranteeing flexibility to determine storage amount and offering independence from the utility grid.
4. Energy efficient (Class A for condensing oil boilers) : new boilers are up to 40% more efficient.
5. A reliable and secure back-up in combination with fluctuating renewable sources in combination with fluctuating renewable sources.

### AN EU STRATEGY ON HEATING AND COOLING

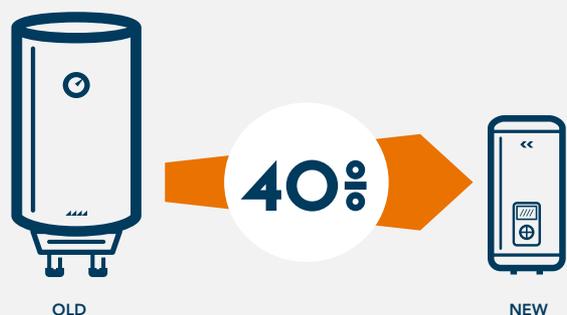
On 16 February, the European Commission published "An EU Strategy on Heating and Cooling" – the first of its kind - recognising the importance of the heating sector, and the contribution that it can make towards the EU's goal of providing a sustainable energy supply to Europe's consumers.

UPEI welcomes the EU Strategy on Heating and Cooling and believes that this creates opportunities to stimulate further developments towards greater efficiency gains in the sector across Europe.

There is no simple solution to the challenges of Europe's heating sector, but modernisation is key. A holistic approach is needed for the modernisation of houses in particular: insulation of the exterior, roof and basement, modernisation of boilers as well as exchange of windows.

With regards specifically to heating, there is no blueprint which fits all purposes. We need a technology neutral approach to ensure that all heating technologies can play their part, as appropriate. Unfortunately, the EU strategy limits its focus to renewables, district heating or cogeneration of heat and power. Policies should be fair and based on performance, rather than favouring certain technologies and solutions.

**New Boilers are up to 40% more efficient**



## EFFICIENT OIL HEATING : AN AFFORDABLE SOLUTION FOR THE EXISTING BUILDING STOCK

In a process of long-term transition, UPEI's Members are committed to fostering smart combined solutions and to promoting future-proof solutions in the market for heating, particularly at a time when households continue to rely on traditional energies.

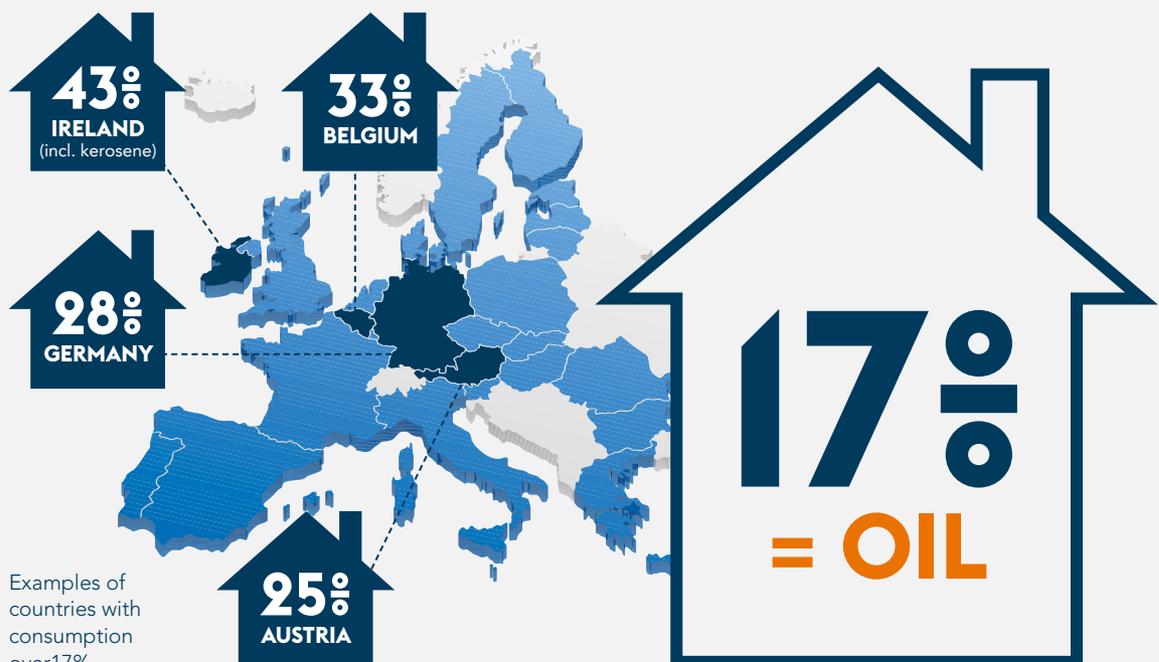
There are sizeable markets for heating oil in Europe and these must be catered for in the most cost efficient and **environmentally friendly way** possible.

The heating oil sector can provide affordable solutions to the public to achieve energy savings and reduce emissions. Modernizing a heating system is a particularly economical measure, which provides on average energy savings of around 40%. It is thus recommended as the first energy measure to begin with.

Using highly efficient, modern oil heating technologies in combination with renewable energies and appropriate insulation can enable up to 85% reduction of a family home's energy use. Homeowners can thus achieve half of the overall energy saving potential of a given building for a quarter of the price of a deep thermal renovation.

Being the closest to the consumer in the supply sector, independent suppliers are in a unique position to respond to today's demand in the heating sector. They are particularly well placed to guarantee supply to remote and remote areas due to their flexibility and client oriented approach.

Proportion of households in Europe using oil heating





**Our customers appreciate their freedom of choice, both when deciding about which fuel to buy, but also when it comes to modernising their homes. They dislike having decisions of this kind imposed upon them by governments. Politicians as well as public authorities should continue to respect this freedom of choice.**

Rainer Winzenried, UPEI Expert



### THE POTENTIAL OF POWER TO HEAT

Last but not least, it can be stressed that hybrid systems have an additional advantage: **the potential of power to heat**. Here, the heating system of a household can absorb the otherwise unused surplus electricity from fluctuating renewable sources. Oil can thus serve as a backup to renewables when energy is low but it can also be used to absorb excess electricity that may be generated, through a heat storage tank.

#### Calculations by IWO based on results of conducted modernisation works

