

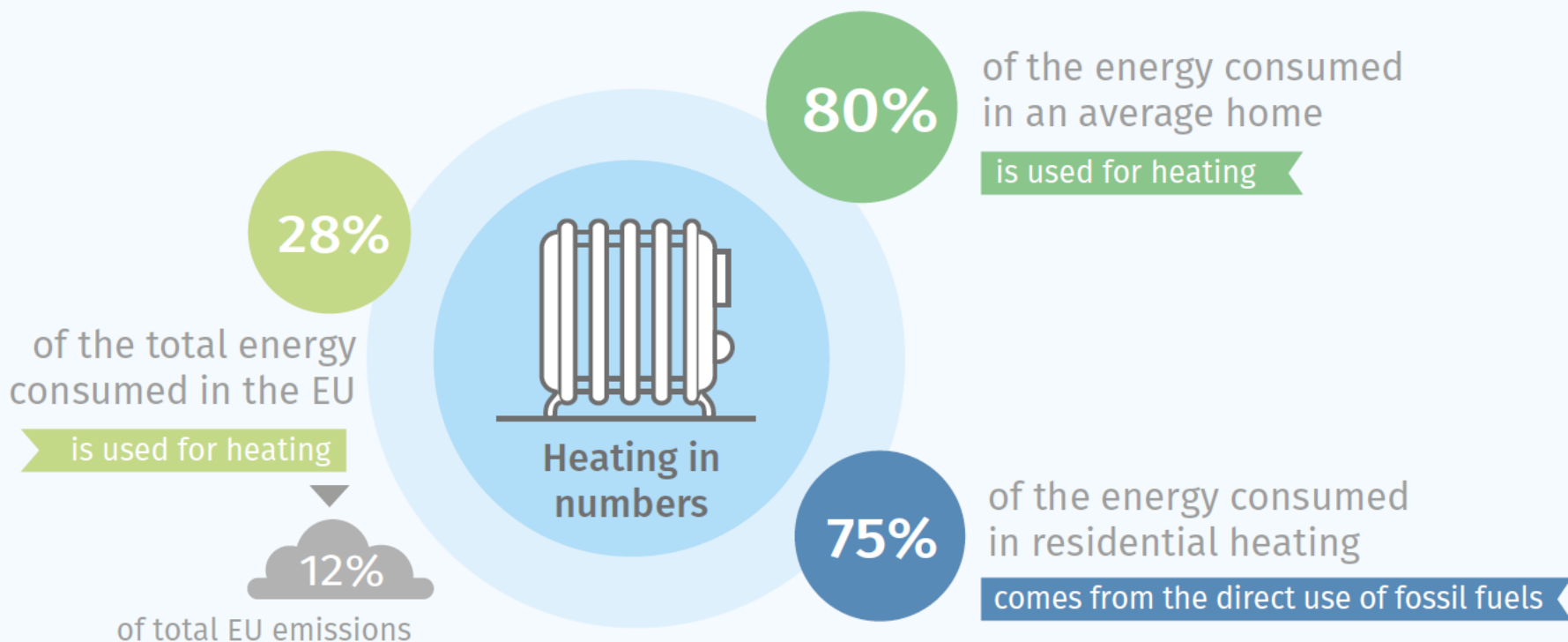


**ecos**

# **Efficienza energetica e riscaldamento negli edifici in Italia. Gli aggiornamenti UE**

Marco Grippa | Programme Manager | 31/01/2022

# Riscaldamento in UE: i numeri



Fonte: Campagna CoolProduct/ ECOS report

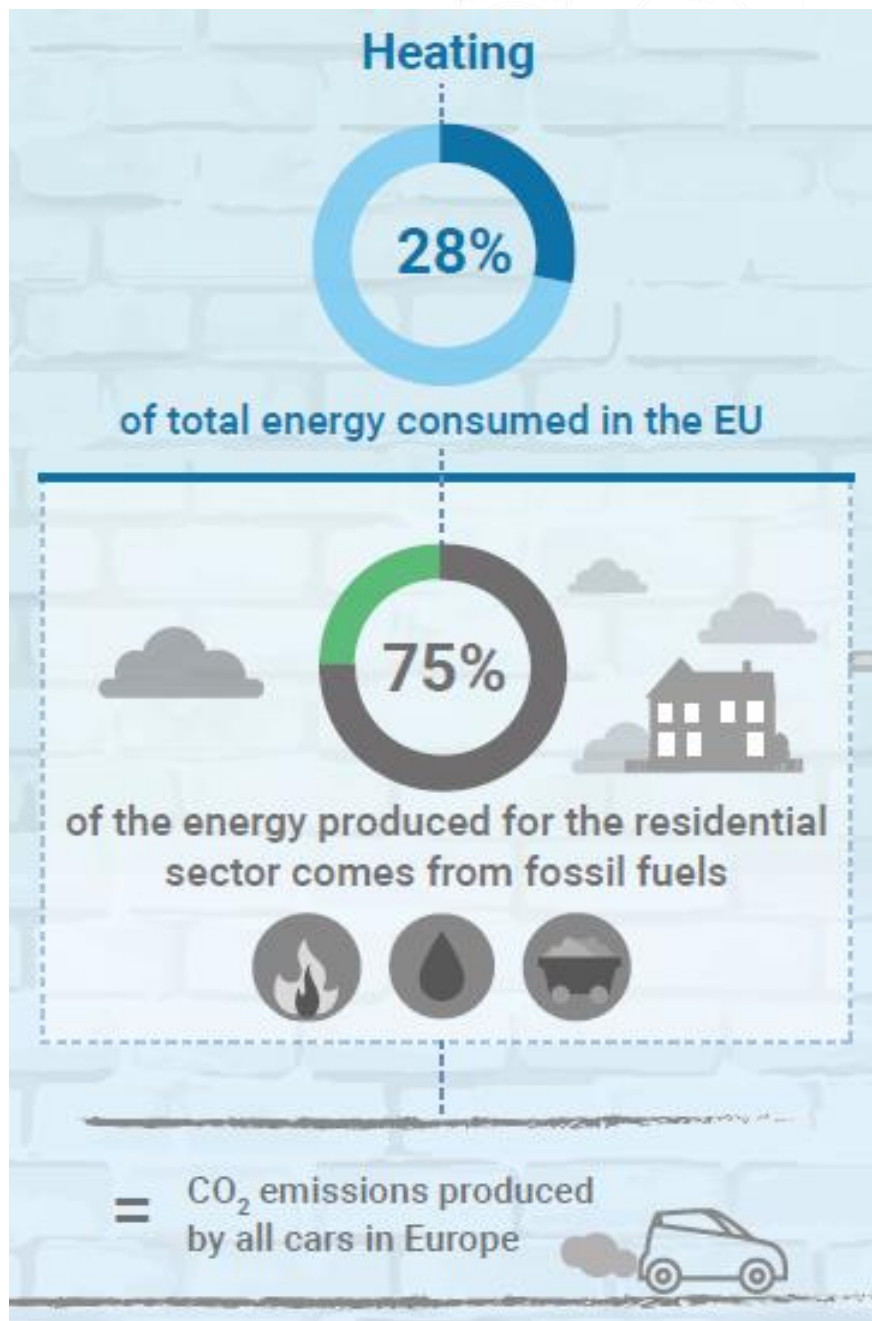
# Il problema

## Caldaie a gas

- 58% degli impianti installati
- La metà è **inefficiente** (classe C o meno), installata **prima del 1992** e ancora in uso

## Parco edilizio

- Inefficiente = domanda di riscaldamento elevata



# Legge UE sul clima: ridurre del 55% le emissioni di gas a effetto serra entro il 2030

- Fine dell'utilizzo di combustibili fossili: passaggio verso tecnologie rinnovabili
- Riduzione del 40% del consumo di gas fossile per il riscaldamento domestico

# Cosa fare?

## What needs to be done?

For the EU to reach at least a 55% reduction in emissions by 2030 – as proposed by the European Commission - and become climate neutral by 2050, a swift and massive decarbonisation of the heating sector is needed.

This will require extensive efforts in (at least) two directions:

1

### Reduce heat demand

through thermal improvement of buildings and more conscious consumer use of space and water heating (e.g. lowering your thermostat by 1°C will help you save 3% of energy per day).

2

### End the installation of fossil fuel-based and inefficient electric heating systems

and replace them with renewable sourced ones, e.g. efficient heat pumps, solar thermal or hybrid heat pumps<sup>5</sup>.

Fonte: Campagna CoolProduct/ ECOS report

# Etichetta energetica e ecodesign per risolvere il problema

How can we do it?



**Rescale the energy label and adapt the class boundaries**

to downgrade the majority of fossil-fuel powered appliances, including condensing gas boilers, to the lowest grades: F and G.

then progressively phase out those appliances in a simple two-step process through ecodesign regulations:

removing  
the G-class



by 2023

removing  
the F-class



by 2025

Fonte: Campagna CoolProduct/ ECOS report

2018 – 2019: Studio preliminare di  
revisione della norma

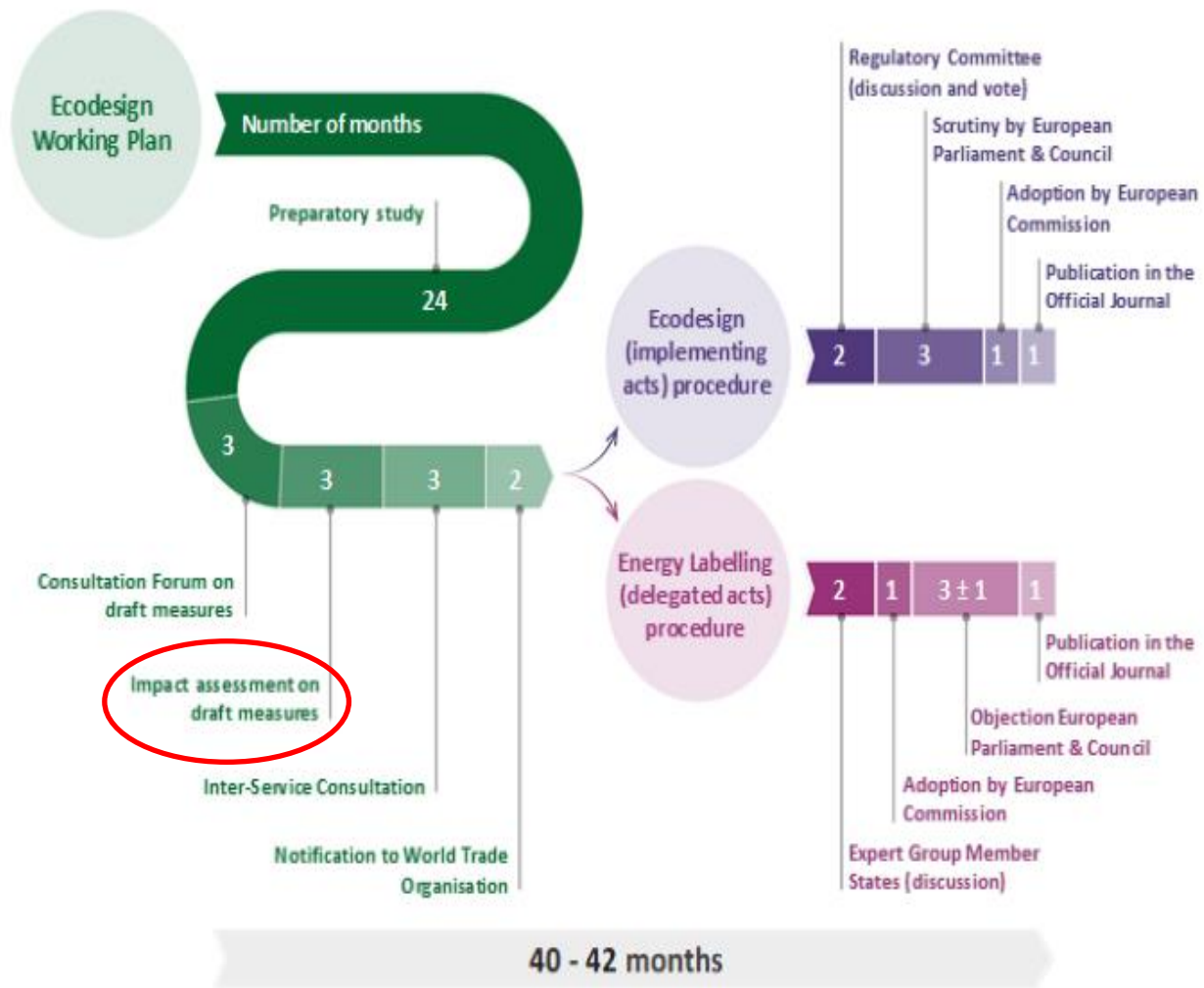
2020 – 2021: Studio aggiuntivo di VHK

Settembre 2021: Riunione del forum di  
consultazione

Inizio 2023: Voto degli Stati membri

# Calendario di revisione della Direttiva Ecodesign

# Il processo normativo di revisione della Direttiva Ecodesign



Fonte: ECA, da informazioni della Commissione Europea



# Proposta di ecodesign

## Ecodesign requirements

### 1. REQUIREMENTS FOR SEASONAL SPACE HEATING ENERGY EFFICIENCY

(a) From [date] the seasonal space heating energy efficiency  $\eta_s$  shall be equal to or larger than

Space heater type	seasonal space heating energy efficiency
Fuel boiler	88%
B1 Fuel boiler $\leq 10$ kW & Fuel combi boiler $\leq 30$ kW	77%
Electric boiler	43%
Cogeneration space heater	100%
Electric heat pump, MT (Medium Temperature)	130%
Thermally Driven (TD) heat pump, MT	115%
Electric heat pump, LT (Low Temperature)	155%
Hybrid space heater, MT*	110%

\*=

2015

86%

75%

NON ABBASTANZA AMBIZIOSO!

Proposed label (PEF=2.1)	Examples of space heaters with proposals	Class width
<b>A</b> (Eff. >205 <sup>41%</sup> )	Empty as requested by the Energy Labelling Framework Regulation	n.a.
<b>B</b> (Eff. 166 - 205%)	Best ground source heat pumps with optimal controls, best hybrid heat pumps , best hybrids heat pumps+ solar	14%
<b>C</b> (Eff. 143 - 165%)	Heat pumps, boiler + HP hybrids, HP + solar hybrids	15%
<b>D</b> (Eff. 123 - 142%)	mCHP + solar hybrids, Heat pumps, boiler + HP hybrids	15%
<b>E</b> (Eff. 106 - 122%)	Solar+ boiler hybrids, mCHP	15%
<b>F</b> (Eff. 87 - 105%)	Condensing boilers	21%
<b>G</b> (Eff < 87%)	Non-condensing B1 boilers	n.a.
	Direct Electric boilers	
	(Empty class)	
	(Empty class)	

Seasonal space heating energy efficiency classes of heaters in medium-temperature (MT) and low-temperature (LT) applications,  $\eta$  in %

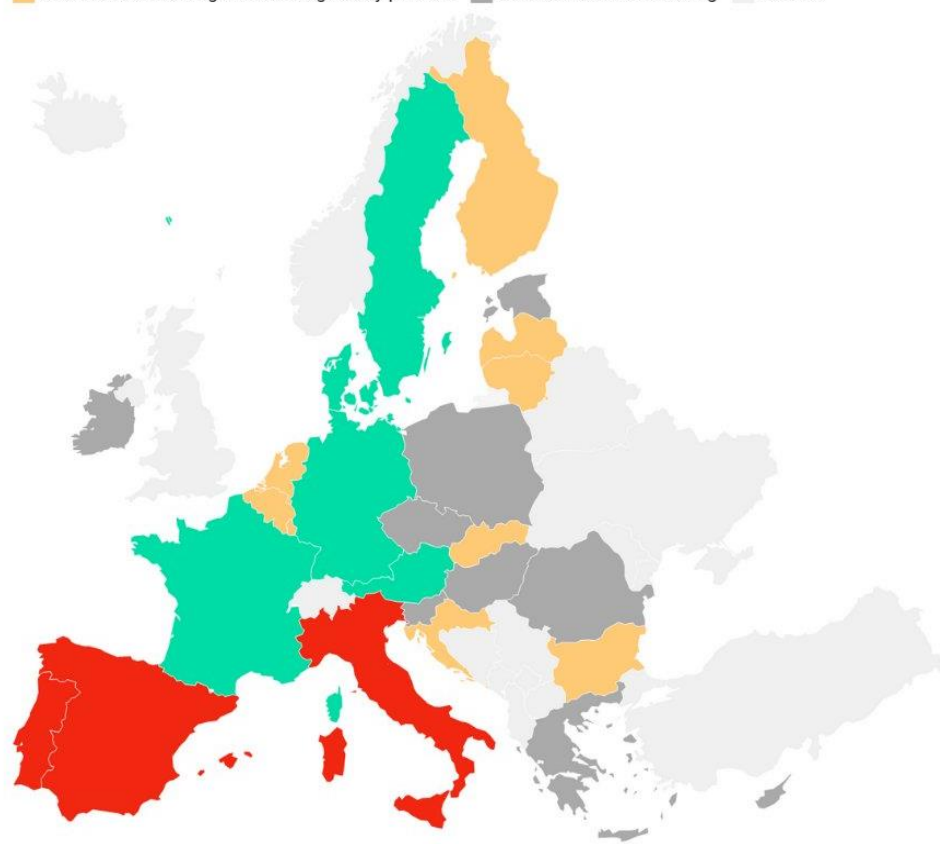
Seasonal space heating energy efficiency class	Seasonal space heating energy efficiency class <b>MT regime</b>	Seasonal space heating energy efficiency class <b>LT regime</b>
A	$\eta \geq 210$	$\eta \geq 290$
B	$180 \leq \eta < 210$	$240 \leq \eta < 290$
C	$150 \leq \eta < 180$	$215 \leq \eta < 240$
D	$120 \leq \eta < 150$	$190 \leq \eta < 215$
E	$100 \leq \eta < 120$	$172 \leq \eta < 190$
F	$90 \leq \eta < 100$	$155 \leq \eta < 172$
G	$\eta < 90$	<155

Fonte: Campagna CoolProduct/ ECOS report

# Proposta di etichetta energetica

- Contraria all'aumento di ambizione delle norme di Ecodesign sui prodotti per il riscaldamento
- *"Non tutti i prodotti di riscaldamento possono essere **elettrificati**"*

Spoke in favor of higher ambition and fossil fuel phase-out Spoke against a higher ambition  
Attended the meeting but did not give any position Did not attend the meeting Non EU



## La posizione dell'Italia

# Anomalia per le stufe elettriche

## The ugly truth about electric heaters

Did you know?

~20 million electric heaters are sold every year

Electric heaters are a waste of electricity

Electric heaters cause severe electricity peaks in wintertime

Fossil-fuelled plants are fired up to cope!

You didn't know?

That's not surprising.

Electric heaters ...have no energy label!

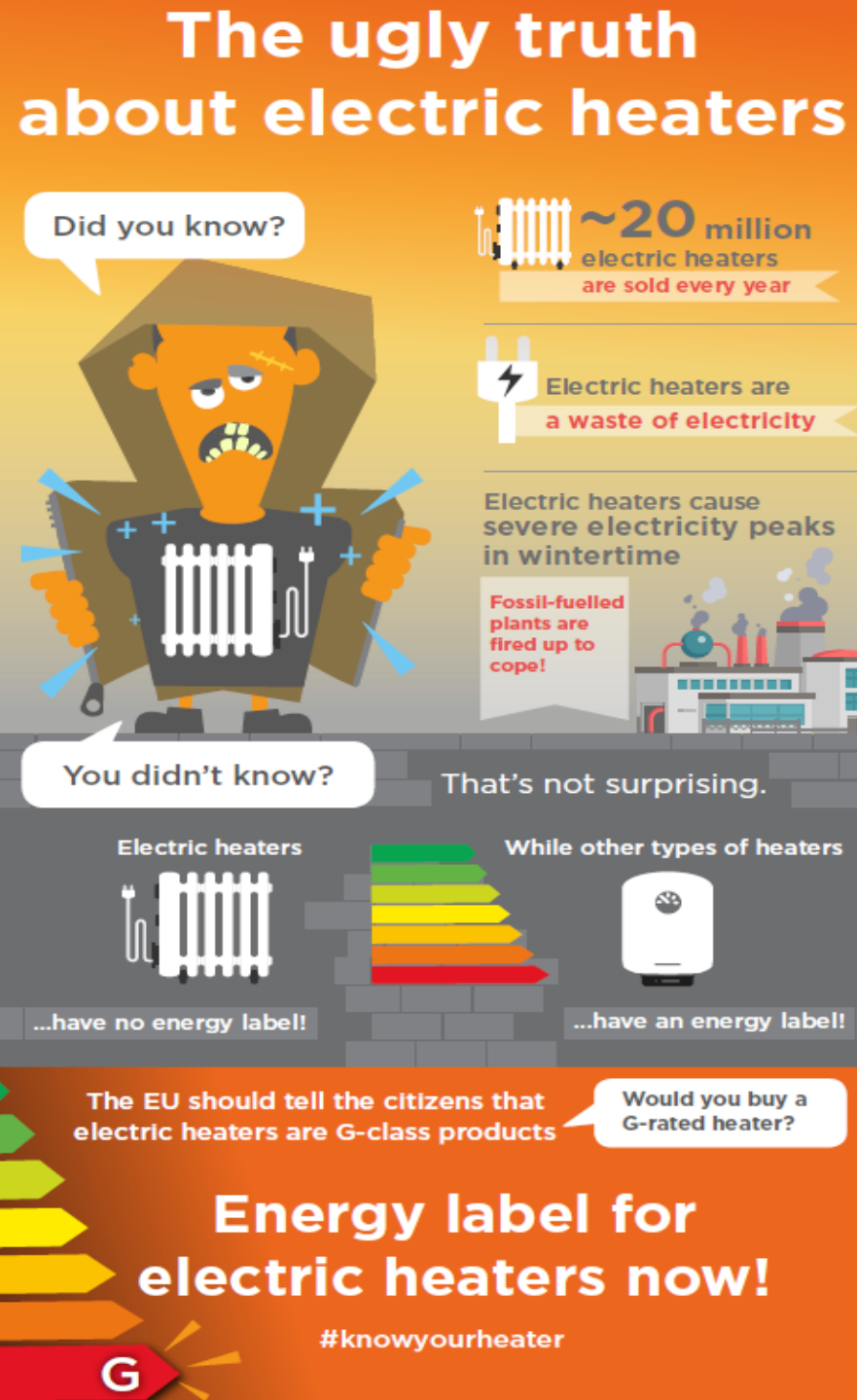
While other types of heaters ...have an energy label!

The EU should tell the citizens that electric heaters are G-class products

Would you buy a G-rated heater?

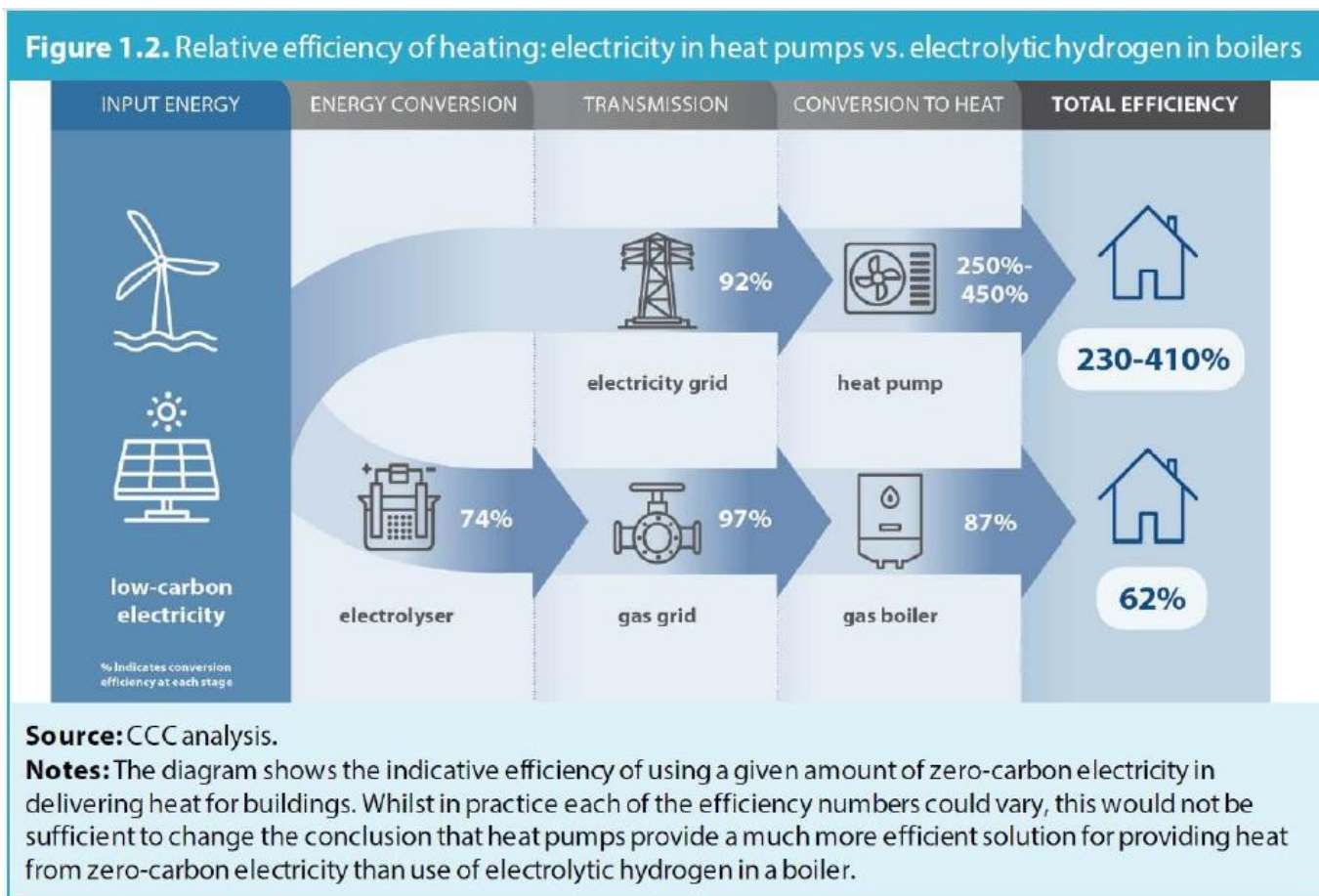
### Energy label for electric heaters now!

#knowyourheater



The infographic features a central character, a man with a grumpy expression wearing a hooded cloak, holding a radiator. The background is orange and yellow. It includes various icons: a radiator, a lightning bolt, a factory, and energy efficiency bars. A speech bubble at the bottom contains a large letter 'G'.

# Riscaldamento a idrogeno: un processo non efficiente



Fonte: UK Committee on Climate Change

# Il 95% della produzione attuale viene da fonti fossili

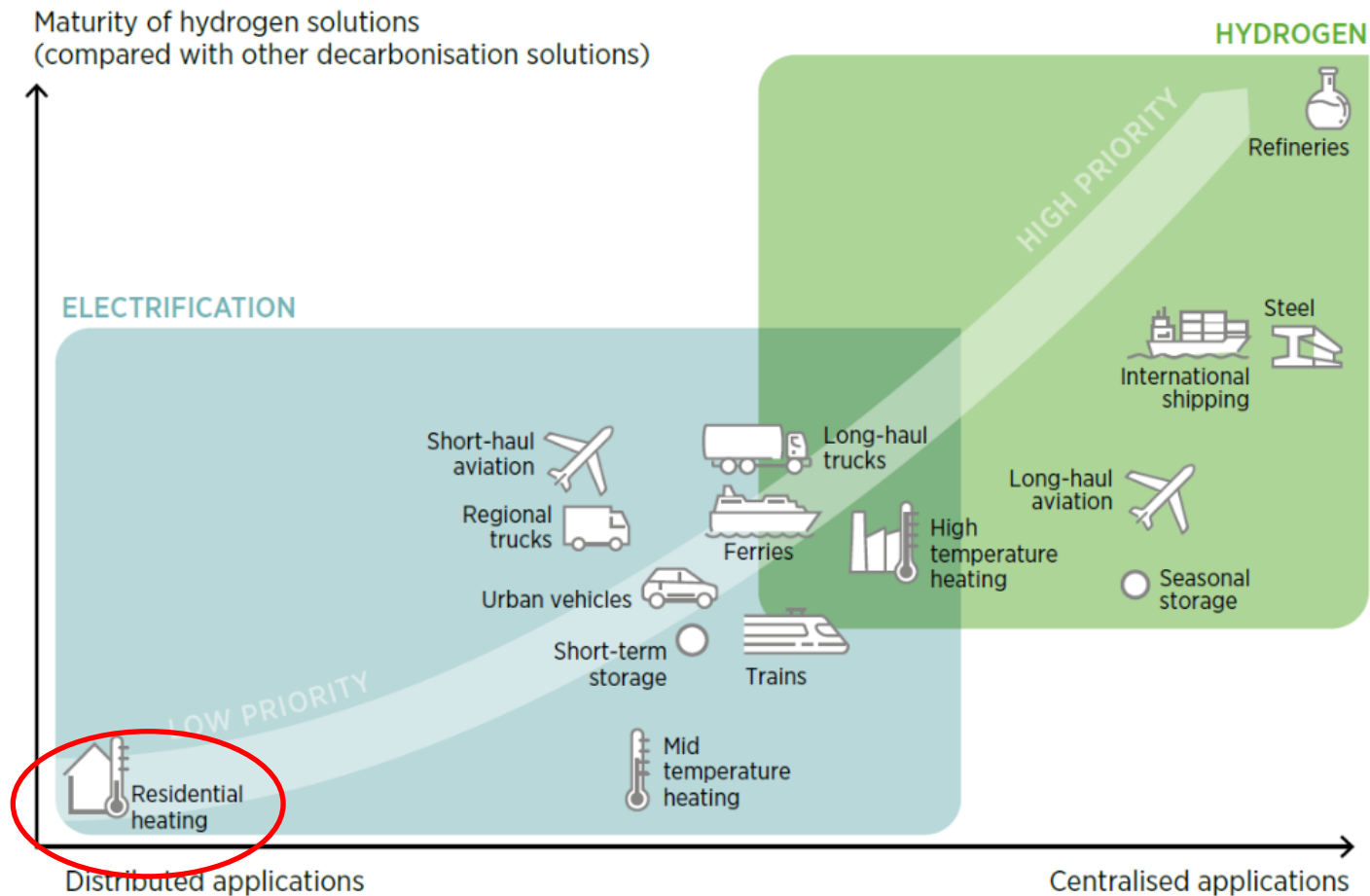
- Lo si estrae dall'acqua o da composti organici
- Diversi tipi di produzione esistono, come elettrolisi o produzione termochimica.
- La produzione di idrogeno rinnovabile (H<sub>2</sub> verde) sarà limitata.

**Fonti di energia primarie (sole, vento, ma anche nucleare, gas fossili e petrolio)**

**Prodotti finali (idrogeno, ossigeno o CO<sub>2</sub>)**

**Intensità energetica**

# Idrogeno negli impianti di riscaldamento?



Fonte: IRENA, 2022

Non in impianti di riscaldamento!

# Le miscele idrogeno-metano non sono una soluzione

- Rimpiazzare il solo 10% di gas naturale utilizzerebbe tutto il potenziale di idrogeno verde.
- [Vari stakeholders](#) suggeriscono l'utilizzo diretto di idrogeno.



- **Renovation wave:** 200 miliardi per il rinnovamento degli edifici.
- Rinnovamento degli edifici con classe energetica F e G entro il 2033.
- Dal 2030, i nuovi edifici devono essere a **emissioni zero**.
- Gli stati membri non possono fornire **incentivi finanziari** per i boiler a combustibili fossili dal 2027.

## **Revisione della direttiva sulla performance energetica degli edifici - EPBD**

# Grazie per la vostra attenzione

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