

## PROJECT PARTNERS

### **PALAZZETTI**

PALAZZETTI LELIO SPA is an Italian Company, established in 1954, leader in the domestic biomass heating products and services, designed to endure in time and to assure the well-being of customers in a healthy environment.



Since 1990 ATech has co-shaped global trends in advanced electronics and environmentally friendly devices. Besides, ATech runs two owned brands: Perles Power Tools and Fumis, Creating the Future of Your Comfort, which has recently become a market leader in Biomass Combustion Technologies.



RVD is a Belgium dealer distributing in Belgium and Luxembourg stoves and pellet systems as auxiliary or even primary heating sources.

**greenstove.eu**

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# GreenStove

Gas Renewable Eco Energy Nature Stove:  
LIFE GREEN-STOVE

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The LIFE GREEN-STOVE - LIFE20 ENV/IT/000190 project has received funding from the LIFE programme of the European Union.

# PROJECT OBJECTIVES

→ The main objective of the LIFE GREEN-STOVE is to develop and produce a new pellet stove based on a clean 2-stage combustion process and control technologies with the aim to strongly reduce the pollutant emissions and increase the efficiency, optimizing the use of wood pellet biomass to replace fossil fuels in the production of thermal energy for residential heating, reducing risks for environmental impacts, fully in line with EU Green Deal goals and EU Clean Air Policy.

→ Upscale production process demonstrating its replicability at outstanding performance levels and achieving an efficient system in terms of manufacturing, installation and maintenance, ensuring maximum impact with dedicated exploitation strategy, technology protected by patents.

# PROJECT EXPECTED RESULTS

## ENVIRONMENTAL:

The innovative controlled biomass combustion leads to a drastic reduction of pollutants (NO<sub>x</sub>, CO, OGC, PM) by using a renewable fuel, towards emission values comparable to a traditional gas boiler:

**NO<sub>x</sub> -60%**

CURRENT VALUES \_\_\_\_\_ **150** mg/m<sup>3</sup>

\_\_\_\_\_ **60** mg/m<sup>3</sup>  
REDUCTION WITH LIFE GREEN-STOVE

**CO -60%**

CURRENT VALUES \_\_\_\_\_ **250** mg/m<sup>3</sup>

\_\_\_\_\_ **100** mg/m<sup>3</sup>  
REDUCTION WITH LIFE GREEN-STOVE

**OGC -75%**

CURRENT VALUES \_\_\_\_\_ **20** mg/m<sup>3</sup>

\_\_\_\_\_ **5** mg/m<sup>3</sup>  
REDUCTION WITH LIFE GREEN-STOVE

**PN -75%**

CURRENT VALUES \_\_\_\_\_ **20** mg/m<sup>3</sup>

\_\_\_\_\_ **5** mg/m<sup>3</sup>  
REDUCTION WITH LIFE GREEN-STOVE

## TECHNICAL:

The overall objective is to reach an efficiency of 92%, specifically:

- Reduce pollutants using a new 2-stages combustion system
- Reduce the accumulation of dirt in different components of the stove, guaranteeing the pellet stove performance and limiting maintenance interventions
- Integrate innovative control algorithms and connectivity services to achieve smart interaction with the stove, enabling predictive maintenance and energy saving through AI and big data analysis

## DURATION AND BUDGET

The project runs from 01/09/2021 until 29/02/2024.  
The project budget is € 2,207,327.