

Paşabahçe Bulgaria, Trakya Glass Bulgaria and Air Liquide thank European Commission LIFE+ program for funding the LIFE Eco-HeatOx, LIFE CleanOx and LIFE Smart Oxy-Boost projects.



## ONGOING LIFE PROJECTS

**NEW!**

Project Acronym	LIFE CleanOx	LIFE Smart Oxy-Boost
<b>Project Title</b>	Cleanest oxy-fuel combustion technology with radiation based waste heat recovery for glass melting furnaces	Smart oxygen boosting for reducing energy consumption and emissions of glass melting furnaces
<b>Project Number</b>	LIFE16 CCM/BG/000059	LIFE17 CCM/BG/000069
<b>Project Location</b>	Targovishte, Bulgaria	Targovishte, Bulgaria
<b>Total Amount</b>	€ 2,794,283	€ 1,990,591
<b>% EC co-funding</b>	€ 1,244,870	€ 884,693
<b>Project Start Date</b>	01/07/2017	01/07/2018
<b>Project End Date</b>	30/06/2021	31/12/2021
<b>Coordinating Ben.</b>	PASABAHCE BULGARIA EAD	TRAKYA GLASS BULGARIA EAD
<b>Associated Ben.</b>	Air Liquide S.A.	Air Liquide S.A.

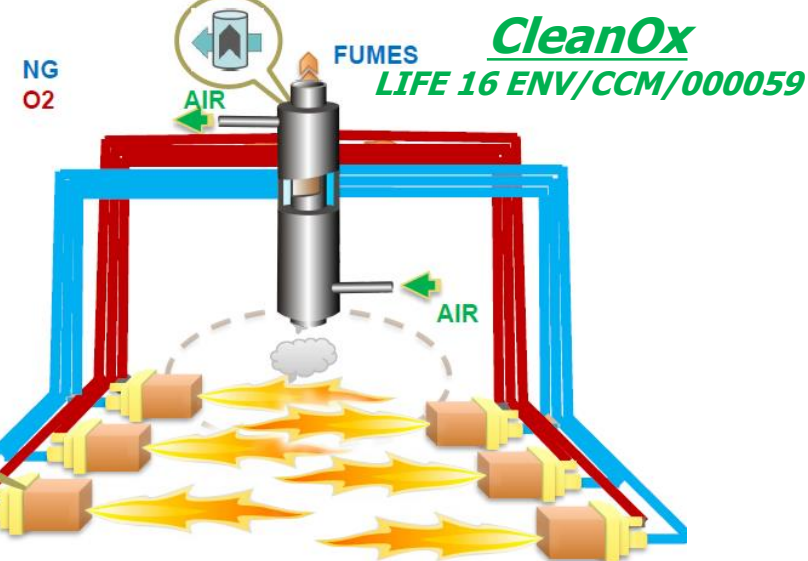
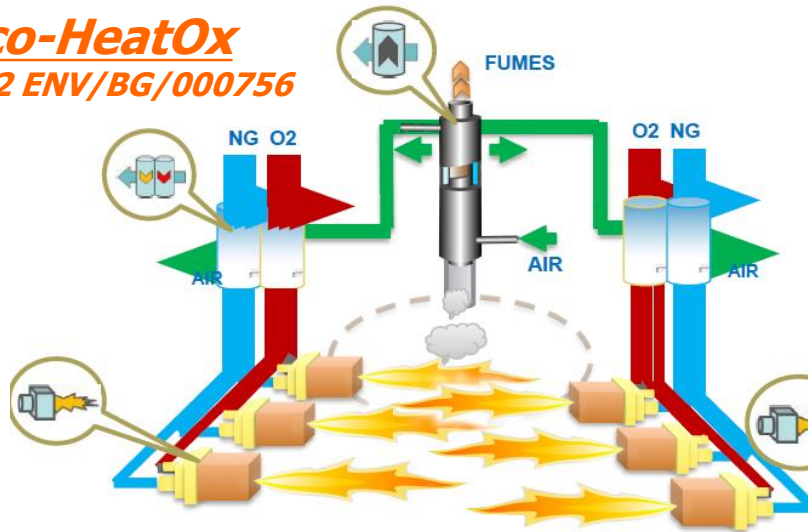
# OBJECTIVES & SCOPE (LIFE CleanOx)

*Demonstrate innovative radiative heat exchanger to validate and promote LIFE **CleanOx** for greater reduction in energy and pollutants with significantly lower CAPEX compared to LIFE **Eco-HeatOx***

## Main Objectives

- Reduce **GHG** emissions (30% less CO<sub>2</sub> and 90% less NO<sub>x</sub>) compared to end-fired furnace
- Reduce **Energy** consumption by 30% compared to end-fired furnace
- Reduce **CAPEX** by 50-75% compared to LIFE **Eco-HeatOx**

**Eco-HeatOx**  
LIFE 12 ENV/BG/000756





## EXPECTED IMPACTS (LIFE CleanOx)

**At the end  
of the project,**

Objective	Indicators		Estimated Impact (absolute values)
Improved Environmental and Climate Performance (including resilience to climate change)	Reduction of greenhouse gas emissions (GHG)	CO2	6 750 tons / year
	Air quality and emissions	Air Pollutants (please specify: NOx, PM, etc)	NOx reduction 376 tons / year
	Reduction / substitution of dangerous substances	Ammonium Solvent (%25 hydrated)	405000 liters / year
Better use of natural resources	Energy	Reduced energy consumption	35 Gwh / year

**3 or 5 years  
after the project,**

Improved Environmental and Climate Performance (including resilience to climate change)	Reduction of greenhouse gas emissions (GHG)	CO2	283 500 tons / year
	Air quality and emissions	Air Pollutants (please specify: NOx, PM, etc)	15 750 tons / year NOx reduction
	Reduction / substitution of dangerous substances	Ammonium Solvent (%25 hydrated)	17 010 000 liters / year
Better use of natural resources	Energy	Reduced energy consumption	1 470 Gwh / year