

THE FURNACE FOR THE FUTURE:

A breakthrough technology for glass packaging production with the goal of achieving climate neutrality



For a climate-neutral and fully decarbonised glass industry

At present, 80% of emissions in the glass industry come from the combustion of natural gases used to melt glass in a furnace.

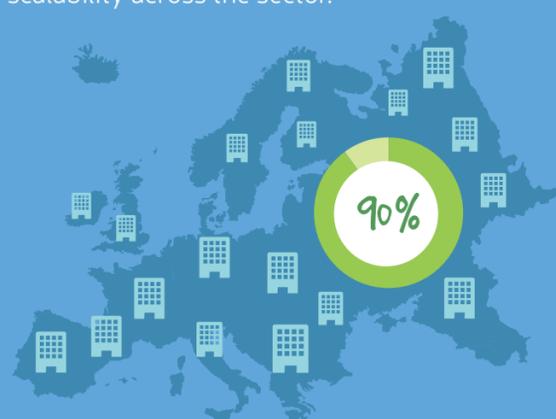


The 'Furnace for the Future' (F4F) will allow the European glass industry to **switch to renewable electricity and dramatically reduce CO2 emissions**. Electric melting already works but is limited to small-scale furnaces for clear glass with limited recycled glass content. The F4F can make this work for much bigger furnaces, for all glass colours and using high amounts of recycled glass.



F4F - The first of its kind in the world

19 companies representing 90% of production in Europe have joined forces to finance the F4F, for the benefit of the whole European container glass sector. The first F4F will be built in Germany, while the know-how will be shared to support scalability across the sector.



F4F technology will **cut direct furnace CO2 emissions by 60%**, as 80% of the natural gas is replaced with renewable electricity.

The F4F will be the **world's first large-scale hybrid electric furnace**, able to melt amber glass together with high levels of recycled glass.



350 tonnes/day



The F4F will operate on a commercial basis. **First results are expected in 2023.**



F4F - Reinforcing the European glass industry's global leadership in innovation



The European glass packaging industry counts **162 manufacturing plants in 23 European countries**, making it one of the largest production centres in the world.



Europe is a global leader in glass furnace and machinery technology. Breakthrough projects like the F4F will **reinforce the region's leadership** in the sector and drive a Circular Economy.



Most of the glass containers produced are delivered to customers within a 300km radius, **supporting the creation of local jobs**. More than 125,000 people work in the glass packaging value chain across Europe.



The glass packaging industry as a strategic driver of the European economy

Glass is healthy, reusable and infinitely recyclable. By addressing our biggest problem (CO2), the industry can offer a future-proof packaging that is healthy, circular and climate-neutral - one that can sustainably meet growing consumer demand.

€250 billion



Glass is the leading packaging material in the wines and sparkling wines, spirits, beer and cider segments, is growing rapidly as a food packaging, and comes second only to plastics in water and soft drinks.



The container glass industry serves essential EU sectors like food, beverages and pharmaceuticals, plus perfumery and cosmetics. In 2019, products packed in glass contributed to the EU trade balance by **around €250 billion**.

Let's build long-term sustainability

The European glass industry is committed to enabling the transition to a resource-efficient and low-carbon economy. By doing so, the industry will ensure that actions and business goals are in line with global commitments to the UN 2030 Sustainable Development Goals. Your support will enable the glass container industry to power this transition.

