

Brewing a Sustainable Future The Glass Packaging Recipe

4 June 2021

THE EUROPEAN CONTAINER GLASS INDUSTRY

Our industry in numbers:

- **125,000** jobs (40,000 direct)
- **162** plants in 23 countries
- **>80 billion** products
- **>60%** of the total EU glass production
- **€600 million** invested annually in energy efficiency, decarbonisation and upgrades
- Products packed in glass: **€250 billion** contribution to EU trade balance



BEER AND GLASS PACKAGING

- The **biggest share** of glass produced goes to the Beer market (*FEVE*)
- Since 2014, the total sales of glass packaging for the beer market increased by **9% in unit terms** (10% in tons) (*FEVE – Data Year 2019*)
- **71%** of beers are packed in glass (*Euromonitor*)
- **70%** of European Consumers say they prefer beer only in glass packaging (*InSites Survey 2020*)
- A versatile packaging solution : it can be a **one-way** (Recycled) or **returnable** (Reused)



Glass Sales Figures Year 2019: FEVE members data



WHAT ARE WE DOING?

**PAVING THE WAY WITH
FURNACE FOR THE FUTURE
AND CLOSE THE GLASS LOOP**



WHAT HAS BEEN DONE TOGETHER SO FAR?

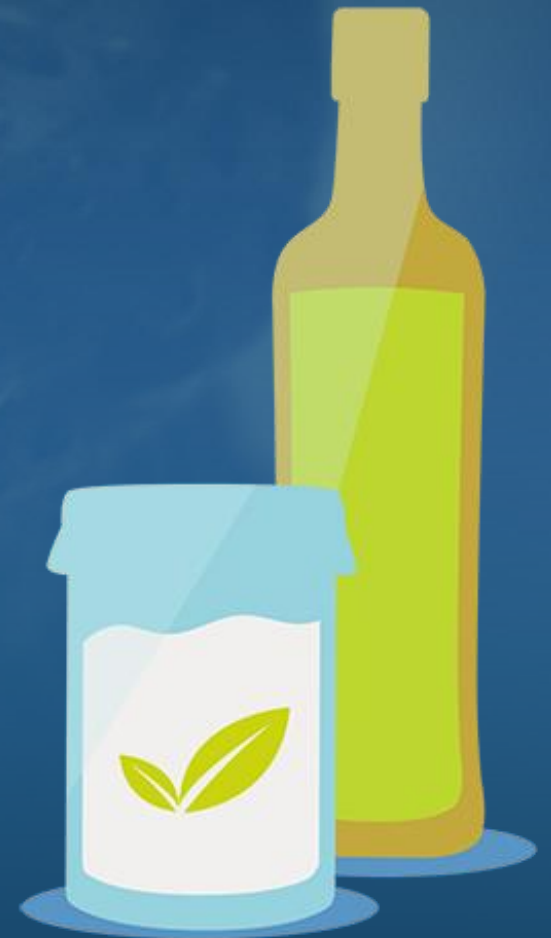
More **environmentally friendly** sources of energy

Amount of energy used per tonne of glass by **70%** over the last 50 years

CO2 emissions reduced by **50%** in the last 50 years

Recycled glass content increased to **52%** on average in Europe

Weight of glass bottles reduced by **30%** on average in the last 20 years



IN THE GLASS INDUSTRY, THE CO₂ EMISSIONS COME FROM:



1

Combustion of natural gas :

~80%

Potential solutions:
Electrification, hydrogen, biomass

The Furnace for the Future



A vision for climate-neutral packaging

2

Process emissions from decomposition
of carbonates in the virgin raw materials:

~20%

Potential solution:
more recycled glass in the batch

Introducing 'Close the Glass Loop'



The European ambition to collect glass
more and better, together



The background is a blue-tinted image of a thermometer. The thermometer's scale is visible on the right side, with a green arrow pointing downwards. The chemical formula CO₂ is prominently displayed in the upper right. Large, semi-transparent numbers representing years are scattered across the background: 2055 at the top, 2050 in the middle, and 2049 at the bottom.

FURNACE FOR THE FUTURE

A FUNDAMENTAL MILESTONE TOWARDS CLIMATE NEUTRALITY





THE F4F PROJECT HAS SEVERAL UNIQUE FEATURES:

1

Will be **developed by and benefit the whole European container glass sector**, as a collaboration between 19 companies (>90% EU production). Co-financing vs knowledge sharing.

ALLIED
Trusted by the World's Finest Brands


ArdaghGroup

BA

BEATSON CLARK 
DELIVERING THE DIFFERENCE

 FEVE
The European Container
Glass Federation

vetropack 

gerresheimer

GCA

OH

VERESCENCE

SAVERGLASS


POCHET du COURVAL

SGD
PHARMA

HRASTNIK1860

Sto

 verallia
Forever Glass


vidrala

vetreria
etrusca 

VCP


Wiegand-Glas





THE F4F PROJECT HAS SEVERAL UNIQUE FEATURES:

2

Will **significantly reduce CO₂ emissions**, by replacing 80% natural gas with renewable electricity.

3

Will be the world's **first large scale hybrid furnace** for **reduced glass** using **recycled glass** – built by Ardagh in Obernkirchen, Germany.

4

Will directly produce glass containers for the **commercial markets from 2023**.



SEEKING PUBLIC SUPPORT THROUGH THE INNOVATION FUND



For F4F, Ardagh **submitted a grant application** under the Innovation Fund of the ETS directive (2-stage process).

311 projects were in competition in stage 1, and only 70 are **invited to stage 2**.

F4F has successfully gone through stage 1 of the EU grant procedure and has been **invited on 25 March 2021 to submit the full application** by 23 June.

INNOVATION FUND

Driving clean innovative technologies towards the market



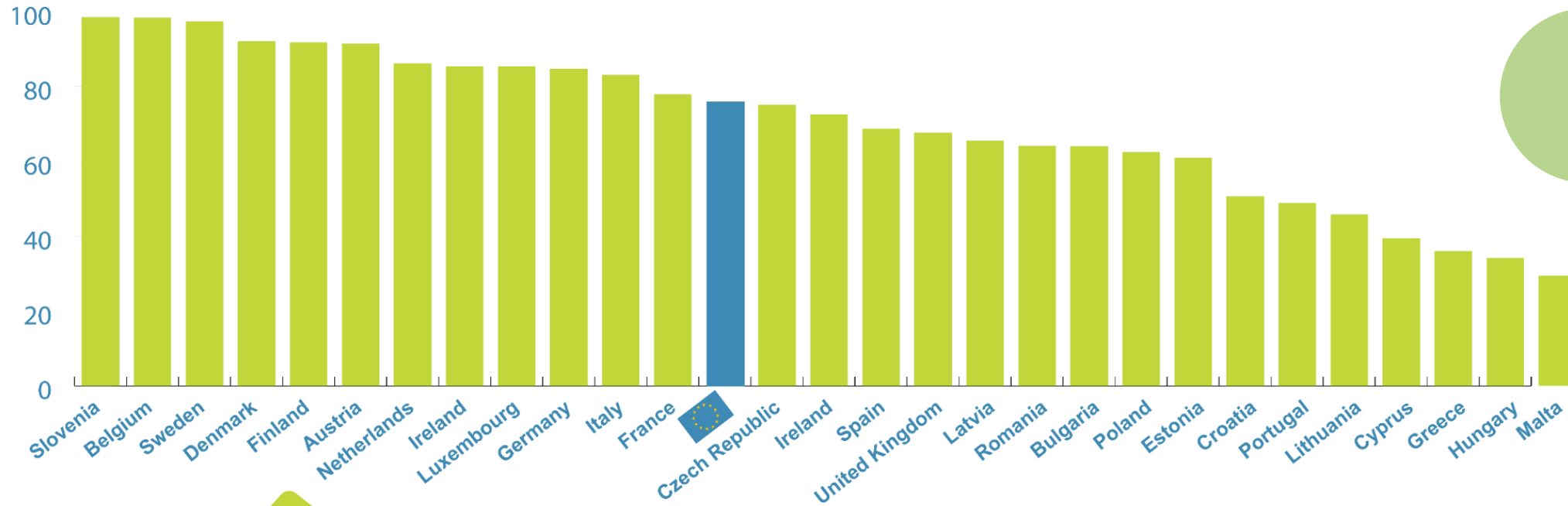


CLOSE THE GLASS LOOP

**A FUNDAMENTAL MILESTONE
TOWARDS FULL CIRCULARITY**



Why Close the Glass Loop



Close the Glass Loop

The European ambition to collect glass more and better, together



Vision

Our vision is to achieve full actual recycling of collected glass packaging, by uniting the glass collection and recycling value chain to make sure our Circular Economy works better.

Goals

- **90% collection for recycling rate** of used glass packaging in the EU by 2030 (up from the current average of 76%).
- **Better quality of collected glass**, so more recycled content can be used in a new production loop.



THANK YOU