

# L'industrie européenne du verre d'emballage face au challenge de la décarbonation.

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 @FeveEU



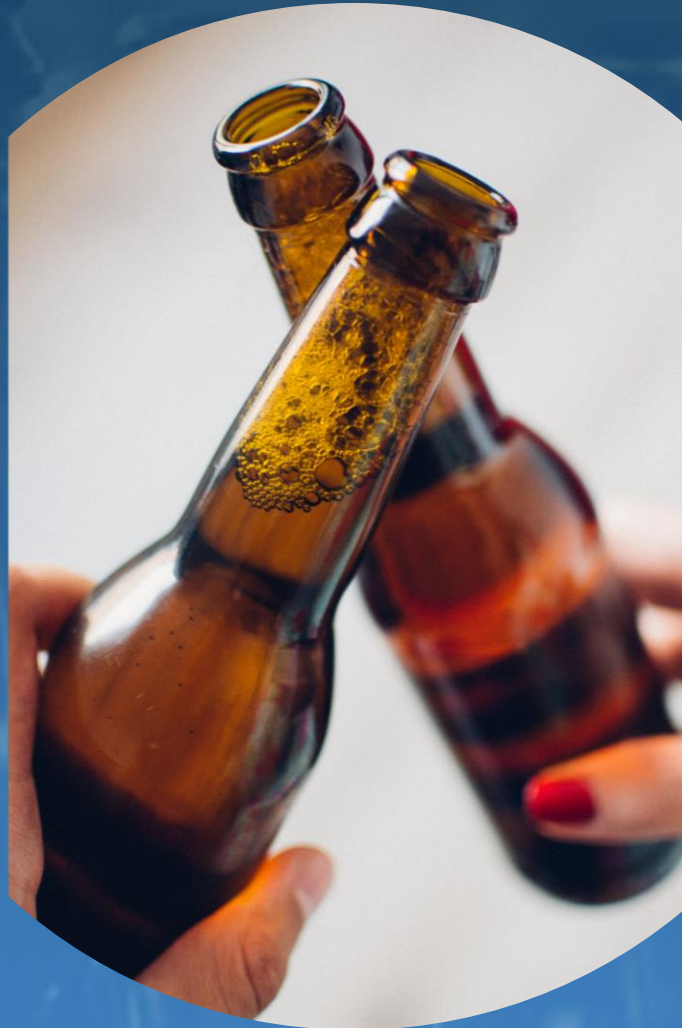
FEVE  
The European Container  
Glass Federation

# About FEVE & the Container Glass Industry



# THE PRODUCTS WE MAKE

## Food & beverages



## Cosmetics & Perfume



## Pharmaceuticals

\* European container glass production in Mt, order of magnitude (2022)

# FEVE members



Ardagh Group



BA Glass Group



DELIVERING THE DIFFERENCE

Beatson Clark



Qualità e creatività nell'arte vetraria. Dal 1946

Bormioli Luigi



Bormioli Pharma



Gerresheimer Group



Gürok Turizm ve Madencilik A.Ş.  
(GCA)



Heinz Glas



O-I Europe Group



Park Cam San. & Tic. A.S.



Pochet Group



Ramon Clemente



Saverglass Group



SGD Pharma Group



Steklarna Hrastnik d.o.o



Stölzle Glass Group



Verallia Group



Verescence



Vetreria Cooperativa Piegarese



Vetreria Etrusca



Vetropack Group



Vidrala Group



Wiegand Group



Zignago Vetro Group

# THE EUROPEAN CONTAINER GLASS INDUSTRY

## Our industry in numbers:

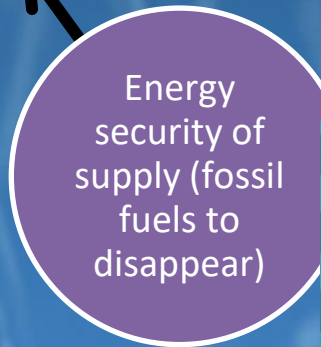
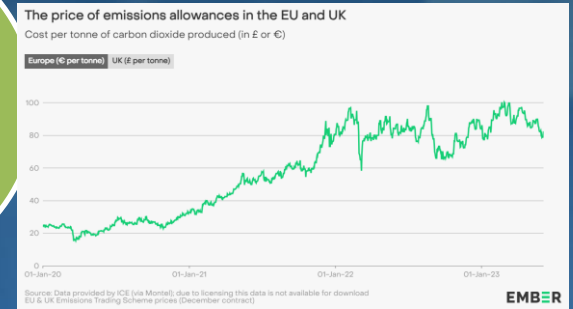
- **125,000** jobs (40,000 direct)
- **162** plants in 23 countries
- **>22 millions tonnes glass produced per year; > 80 billion** products
- FEVE represents over **90%** of the European glass container manufacturing industry
- **€600 million** invested annually in energy efficiency, decarbonisation and upgrades
- Products packed in glass: **€140 billion** contribution to EU trade



# Our journey towards decarbonisation



# Driving forces towards decarbonisation



9.7.2021 EN Official Journal of the European Union L 243/1

I  
(Legislative acts)

REGULATIONS

REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 30 June 2021  
establishing the framework for achieving climate neutrality and amending Regulations (EC)  
No 401/2009 and (EU) 2018/1999 ('European Climate Law')

# Where do direct CO2 emissions come in the container glass industry?

1

Combustion of natural gas :

**~80%**

Potential solutions:  
Electrification, hydrogen, biomass

## The Furnaces of the Future



A vision for net zero glass production



2

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

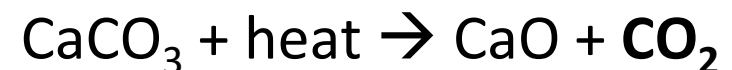
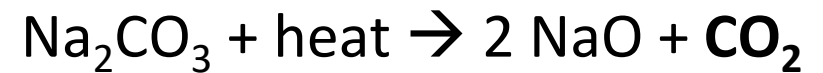
**~20%**

Potential solution:  
more recycled glass in the batch

## Introducing 'Close the Glass Loop'



The European ambition to collect glass more and better, together





# WHAT DO WE NEED ? **ENABLING CONDITIONS**

1

Secure **sufficient availability** of low-carbon energy carriers for container glass plants

2

Ensure the **affordability of low-carbon energy carriers** for the container glass industry

3

Promote development of **necessary infrastructure** for the transport and distribution of low-carbon energy carriers to container glass plants

4

**Take into account investment cycles** for the container glass industry

5

Call for increased **support for capital and operational decarbonisation expenditure**



# The FEVE Decarbonisation report





# New FEVE report on decarbonising the container glass industry

## One destination, multiple pathways:

How the European container glass industry is decarbonising glassmaking

## The report:

- Showcases what our industry is putting in place to reduce greenhouse gas emissions (~90 projects)
- Explains what are the enabling conditions needed to ensure the transition
- Is co-signed by all CEO's member of FEVE

# OUR DECARBONISATION PATHWAYS



1

**Furnaces for the Future**

2

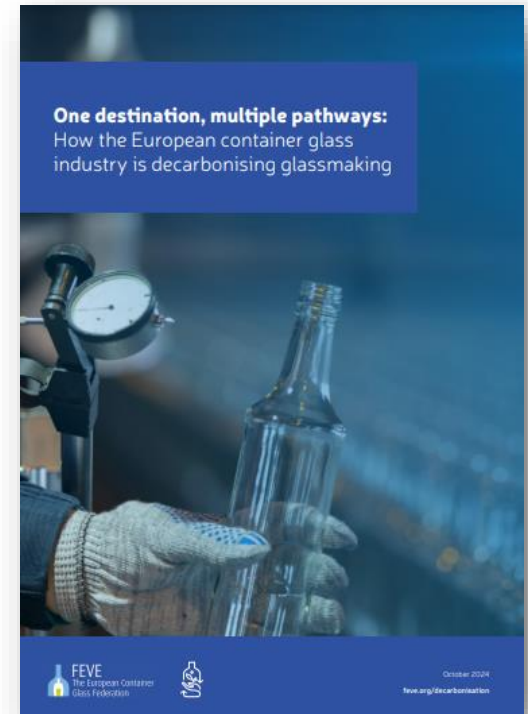
**Closing the Glass Loop**

3

**Sourcing & Design**

4

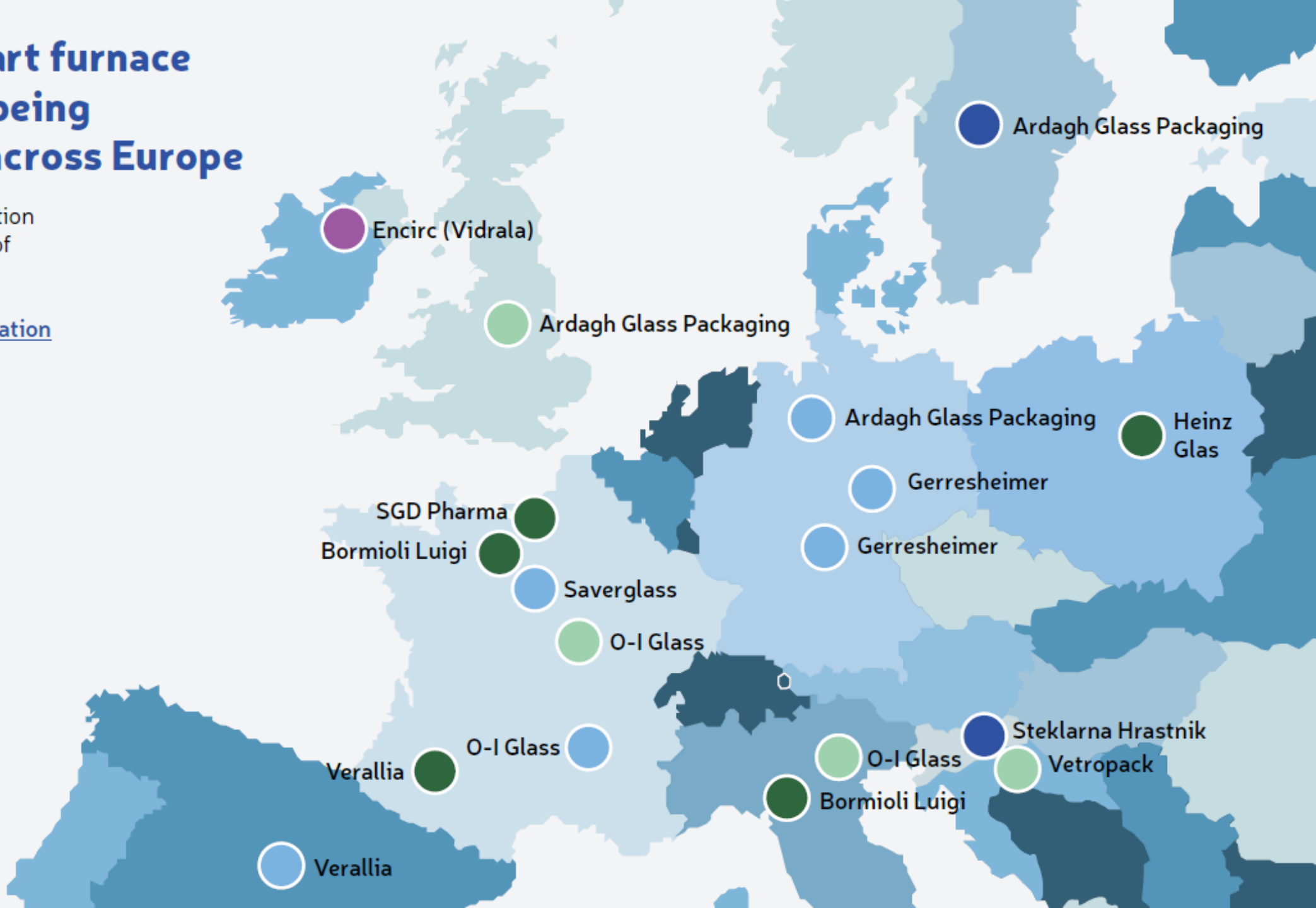
**Transport & Delivery**



# State-of-the-art furnace technology is being implemented across Europe

Snapshot of furnace transition projects across Europe as of October 2024.  
For more examples, see [www.feve.org/decarbonisation](http://www.feve.org/decarbonisation)

- Electricity
- Hybrid technology
- Biofuels & biogas
- Hydrogen
- Energy efficiency upgrades



# Conclusions

1. Glass is one of the **most inert and circular** packaging material
2. The decarbonisation challenge is a difficult one, but **the container glass industry has technological solutions** ready to be implemented
3. We need authorities to put **the right framework** in place to succeed our transition

