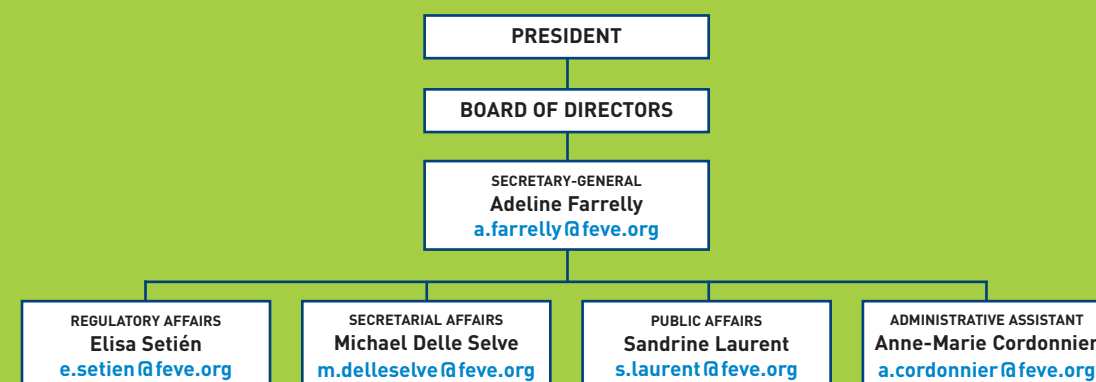


## Who is FEVE ?

### The European Container Glass Federation

Glass packaging is represented in the European Union by the European Container Glass Federation (FEVE)<sup>1</sup>. Founded in 1977, FEVE is an international not-for-profit association which currently counts 59 packaging containers and machine-made glass tableware members operating in 22 European countries.



The association's objective is to represent the common interests of its members at international and, particularly, at European levels.

It is directed by a Board of Directors, whose members are elected for a two-year term by the General Meeting.

The composition of the Board is designed to assure wide geographic, as well as corporate, representation.

FEVE is the operational nerve centre of the association:

- it represents its members and updates them on EU related issues;
- in its representational role, it engages with European institutions and a wide range of other relevant stakeholders, as well as with members and national glass associations.

The FEVE Secretariat:

- Acting on guidance and policy decisions of the Board;
- Working with the various members' standing committees and group of experts;

## FEVE members

### Austria

- Stözl-Oberrglas GmbH
- Vetropack Austria GmbH

### Belgium

- Durobor
- MdV Vidrala

### Czech Republic

- Crystalex a.s.
- O-I Manufacturing Czech Republic
- Vetropack Moravia Glass, a.s.

### Denmark

- Ardagh Glass Nordic (Holmegaard)

### Estonia

- O-I Manufacturing Estonia

### Finland

- O-I Manufacturing Finland

### France

- Bormioli Rocco & Figlio
- O-I Manufacturing France
- Saint-Gobain Emballage
- Saverglass
- SGD
- Tourres & Cie
- Verrierie d'Albi
- Verrieres Pochet et du Courval

### Germany

- Ardagh Glass GmbH
- Gerresheimer AG
- Heinz Glas GmbH
- Noelle + von Campe Glashütte GmbH
- O-I Manufacturing Germany
- Saint-Gobain Oberland AG
- SGD Kipfenberg GmbH
- Zwiessel Kristallglas

### Greece

- Yioula Glassworks S.A.

### Hungary

- O-I Manufacturing Hungary

### Italy

- Ardagh Glass S.r.l.
- Bormioli Luigi SpA
- Bormioli Rocco & Figlio SpA
- O-I Manufacturing Italy
- Saint-Gobain VETRI
- Zignago Vetro SpA

### Netherlands

- Ardagh Glass B.V.
- O-I Manufacturing Netherlands
- Royal Leerdam

### Poland

- Ardagh Glass S.A.
- O-I Manufacturing Poland S.A.

### Portugal

- BA - Vidro, S.A.
- Saint-Gobain Mondego
- Santos Barosa - Vidros, SA
- Sotancro S.A.

### Slovakia

- Vetropack Nemsová, s.r.o.

### Spain

- BA Vidrio
- Bormioli Rocco S.A.
- O-I Manufacturing Spain
- Saint-Gobain Vicasa S.A.
- SGD La Granja
- Vidrala S.A.
- Vidrieria Rovira Srl. (O-I group)

### Sweden

- Ardagh Glass Nordic (Limnared)

### Switzerland

- Vetropack Holding S.A.

### Turkey

- Pasabahçe (Siseçam group)
- Siseçam

### United Kingdom

- Allied Glass Containers
- Ardagh Glass Ltd
- Beatson Clark plc
- O-I Manufacturing United Kingdom

For further information, please visit  
[www.feve.org](http://www.feve.org)

# Glass : The sustainable packaging material



# 100% recyclable

## Glass packaging is a unique, natural material

Made from some of the earth's most abundant raw materials – sand, soda ash and limestone – glass is the purest, most natural material for food, beverages, pharmaceuticals and cosmetics packaging. Long-valued by consumers for its ability to preserve the original flavour and colour of products, glass is the healthiest packaging choice not only for us, but also for our planet.



One of the unique advantages of glass is that it can be endlessly recycled without any loss of quality to produce another glass bottle or jar, creating timeless packaging options. This makes glass the only true «cradle-to-cradle» recycling material.

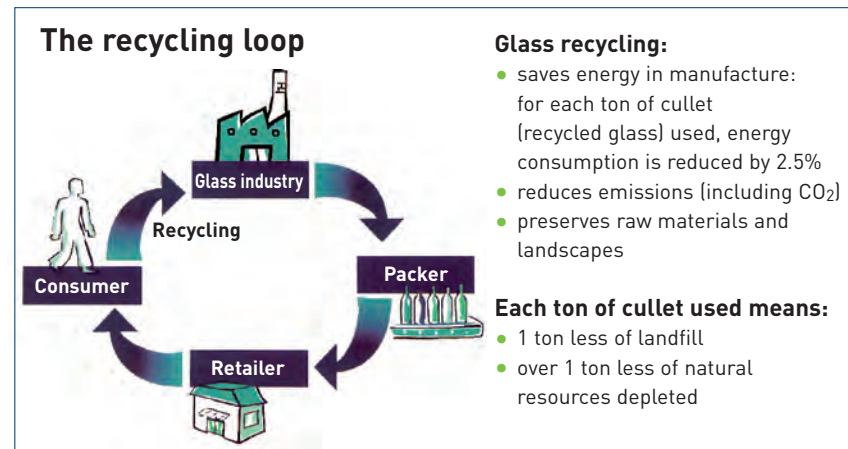
Of all the ecological initiatives implemented by governments across Europe, glass recycling stands out as one of the success stories to date. Strong cooperation between consumers, public authorities and the glass container industry has resulted in high recycling rates across most countries.

Not only does recycling glass reduce landfill, it also decreases the need for raw materials and energy in the manufacture of new glass containers. Recycled glass, known as cullet, has a lower melting point than raw materials, which

means that more glass can be melted for the same energy investment, emissions can be reduced and the furnace life extended. And since up to 90% of cullet can be used to manufacture new containers, the only real limit to using recycled glass today is the amount of glass recovered and the availability of cullet in Europe, preferably colour-sorted whenever possible.

### «Cradle-to-Cradle» recycling

Glass is the only packaging material that can be manufactured in a «closed loop». This means that because used glass packaging can be recycled again and again to create new bottles and jars, it never needs to go into landfill.



In 2006, more than 10 million tonnes or 61% of glass packaging were collected for recycling in Europe

Everything looks better, feels better and tastes better in glass

There are many reasons why consumers prefer to buy food and beverages in glass. In the pharmaceutical domain, glass is the packaging reference to measure and to keep quality of the medical product it contains. First and foremost, packaging must preserve products, and glass is the best material for doing this because it is chemically inert. The only packaging material which requires no protective layer between content and container, it preserves the natural flavour and appearance of products without the need for preservatives. And the fact that glass containers are re-sealable helps to keep products fresher for longer once opened.

Glass also has very strong visual appeal. Its transparency allows it to showcase the colours and textures of the product it contains – whether a brand of organic tomatoes or a fine malt whisky – enticing the consumer to try the product. Adding to this appeal, glass offers many design possibilities. It can be manufactured in myriad colours, formed into almost any shape and embossed and decorated in a wide variety of ways, to create a bottle or jar that's a pleasure to look at and to use. Glass can turn the simple act of pouring mineral water into an occasion.

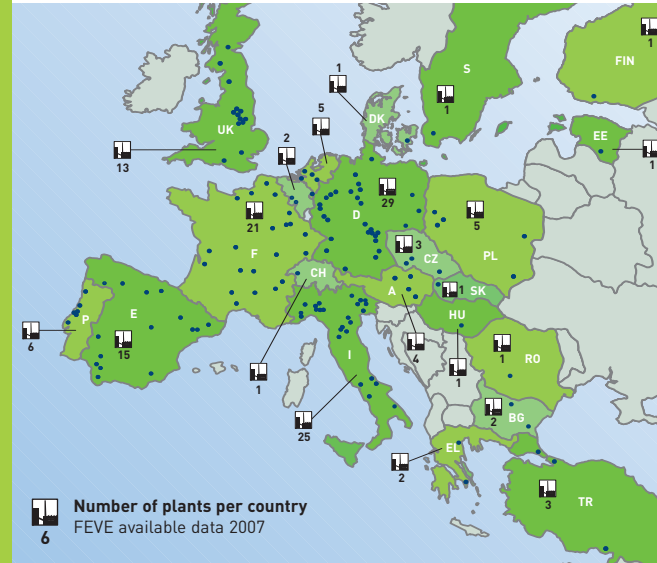
Used to preserve food and beverages for over 3,000 years, glass is tried and trusted by consumers as the natural, healthiest form of packaging for themselves and their families. With today's awareness of the need to preserve our environment, they also recognise that glass is one of the best packaging materials for the planet.



# Glass Packaging in Europe

## A major glass producing industry

Glass packaging production is widespread in Europe, with manufacturing operations occurring in 21 EU Member States. There are more than 50 producers belonging to approximately 20 independent corporate groups.

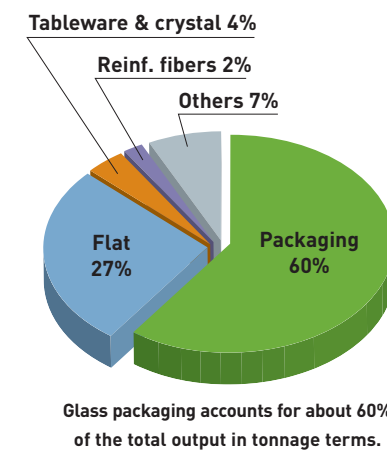


The chart above shows the importance of this industry in the European Union.

The industry makes a major contribution to EU trade balance by conveying many of Europe's leading exports products around the world.

The various types of glass are now produced by largely distinct industries,

### Glass Production by industry EU 25 - 2005 (estimate)



tries, although they share common interests at the level of raw materials and glass melting.

### Manufacturing people & jobs

The glass packaging industry employs about 40,000 people in more than 140 plants all over Europe (including Switzerland and Turkey).

# Innovation & Technology

## A commitment to constant improvement and innovation

The glass packaging industry's strong commitment to the environment is perfectly in tune with its need for innovative production cycles. As an industry, glass packaging is aware that future achievements will depend on a tireless and constant improvement of the already good environmental performances, while maintaining competitiveness and therefore investing in new technologies.

The renewed experience in design and conception of glass packaging witness this commitment to improvement and innovation: it allows manufacturers proposing to their customers new, open-minded ideas, deliver the most advanced and flexible solutions and, doing so, answering to the numerous and demanding market needs.

Nowadays, with the help of the most advanced computer technologies, a glass packaging project-designer is able to provide retailers and brand owners with the most realistic concept of the requested article which will take into account all aspects of their demand as well as producing lines and logistics constraints. The final project will include a detailed overview of technical and aesthetic assets, which will help customers to optimize the use of the requested article. The innovation in concept and design therefore results in time saving and efficiency

improvement of the whole production cycle.

But innovation does not concern only the conception phase: on the contrary all steps of the production cycle benefit from the application of the newest material and working methodologies best combining energy, human and machine power resources, while maintaining untainted inherent properties of glass and reducing the impact on the environment.

So doing, in the last 25 years, the glass packaging industry has been able to record a unique success story in decoupling production from emissions by choosing more sustainable energy sources, by increasing the efficiency of furnaces, by reducing the quantity of raw materials or cullet used for the production process, by using constantly increasing quantities of cullet.

In this way, the industry has broken the direct link existing between the production cycle and the impact on the environment, while maintaining its competitiveness.

Focused on a no-waste strategy, the glass packaging industry is moving ever closer to its goal of becoming almost completely self-sufficient, with minimal need for raw material. It's clear that the industry is committed to enabling glass to fulfil its role as the earth's most ecologically-friendly packaging material – all the way through its infinite life-cycle.

