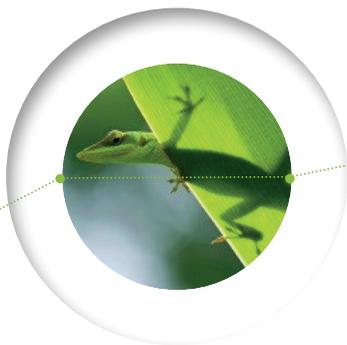


The European Adhesive
and Sealant Industry

Facts & Figures 2014





Facts & Figures 2014

Although adhesives and sealants play an essential role in a huge range of consumer and industrial products they are largely invisible once applied. As a result, there is little awareness of the adhesive and sealant industry and the benefits it brings.

The aim of FEICA's 2014 Facts & Figures is to provide a concise overview of the European adhesive and sealant industry. This specialty chemical sector, which represents about 2% of the total European chemical industry's turnover, contributes more than 13 billion euros to the EU economy and employs more than 41,000 people.

World adhesive and sealant sales	04
Europe's share of the global adhesive and sealant industry	06
European adhesive and sealant market evolution	08
Sales in Europe by country	10
Adhesive and sealant end-use sectors	12
Adhesive and sealant formulation technologies	14
Adhesive and sealant producers in Europe	16
R&D spending	18
Employment	20
Harmonised classification	22

Adhesives and sealants: a history of innovation

The first use of bonding technology by humans can be dated to around 200,000 B.C., when birch-bark-tar was used to glue stone arrowheads to a shaft. Subsequently, humans used a range of natural materials – such as blood and animal protein, fish, resins from trees, natural rubber and milk protein – as bases for adhesives and sealants. Towards the end of the 19th Century, synthetic materials began to be used, spawning many more innovative adhesives and sealants.

A dynamic and successful industry

Today, the European adhesive and sealant industry is a success story that makes many everyday products possible, contributes to the economy, fosters sustainable development, encourages innovation and offers stimulating careers for people with a wide range of skills.

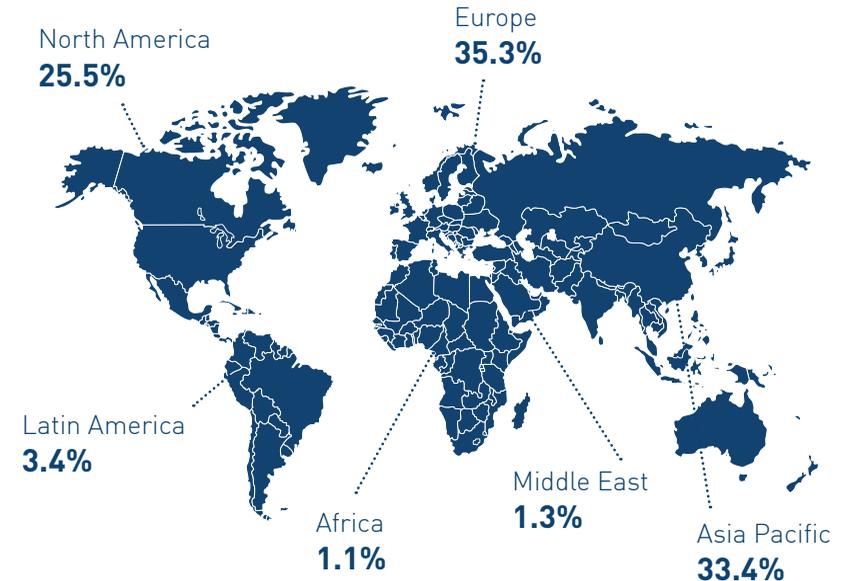
World adhesive and sealant sales

The global market for adhesives and sealants reached a value of 38 billion euros in 2014, with Europe holding a share of 35%.

Europe	€13,400 mn
Asia Pacific (incl. India and Oceania)	€12,700 mn
North America	€9,700 mn
Latin America	€1,300 mn
Middle East	€500 mn
Africa	€400 mn

The world adhesive and sealant market 2014

€38bn



FEICA defines the European market as the 28 countries of the EU plus the rest of Western Europe, selected countries in Central and Eastern Europe, and Turkey.

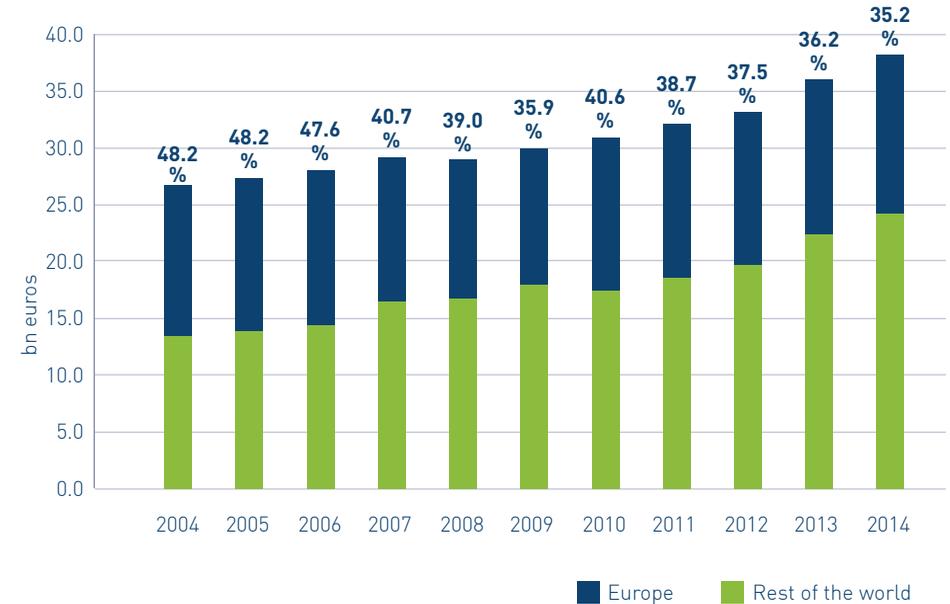
Data source: CHEM Research GmbH, DPNA International Inc., ASC, FEICA

Europe's share of the global adhesive and sealant industry

Although the European market has grown by an average 2% year-on-year in the past decade, it has been outpaced, particularly by Asia. As a result, Europe's share of the global market has declined from about 48% in 2004 to 35% in 2014.



The global market for adhesives and sealants 2004-2014



Data source: CHEM Research GmbH, DPNA International Inc., ASC, FEICA

European adhesive and sealant industry market evolution

Following a long period of steady growth, the European adhesive and sealant market experienced a downturn as a result of the global financial crisis. The market returned to pre-crisis levels in 2014 and is currently worth more than 13 billion euros.



The European adhesive and sealant market 2004-2014

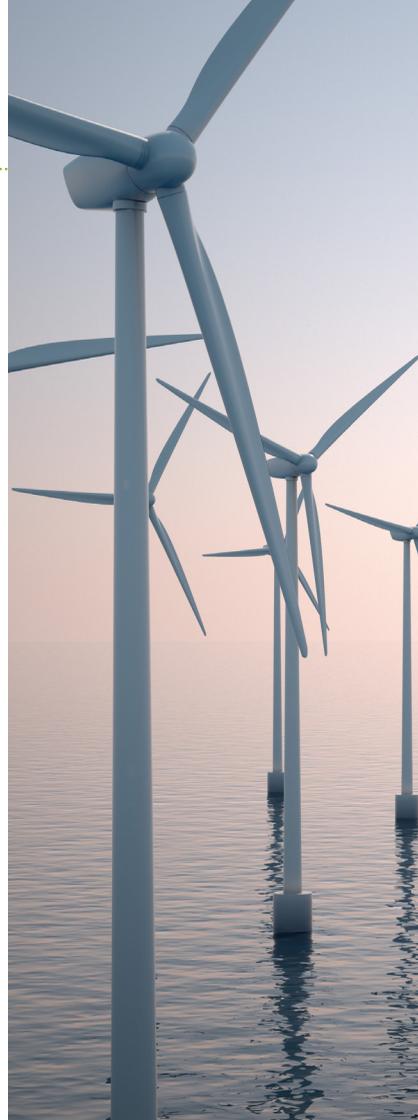


The value of the market finally reached the pre financial crisis level in 2014.

Data source: CHEM Research GmbH

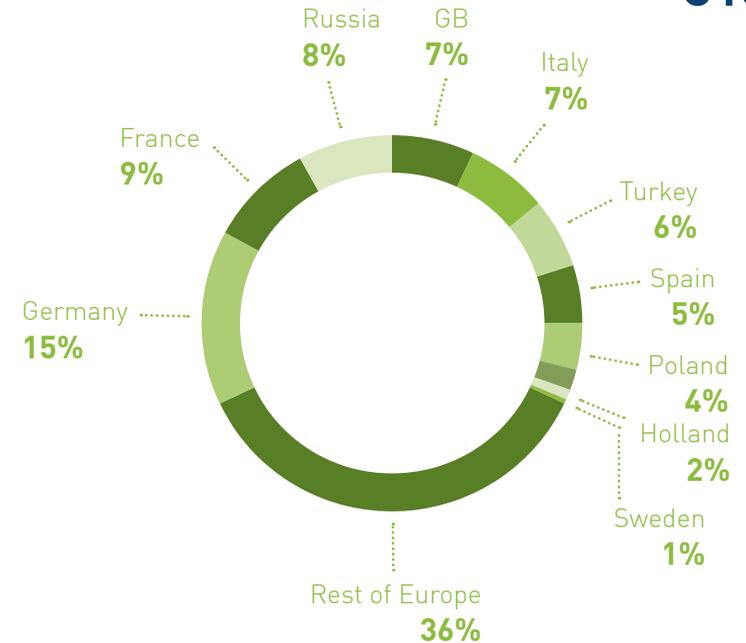
Sales in Europe by country

Currency fluctuations will have an impact on the precise value definitions. However, it is clear that Germany is the largest market for adhesives and sealants in Europe. The top ten countries account for 64% of European demand, while the top six countries share more than 50% of the demand.



The European adhesive and sealant market 2014 Top ten countries

€13.4bn



Data source: CHEM Research GmbH

Adhesive and sealant end-use sectors

Adhesives and sealants are advanced formulated products that play an essential role in thousands of everyday items. From your mobile phone to your car; your washing machine to your shoes; the construction and weather-proofing of your house to your toilet tissue; all of these items and many more rely on adhesives and sealants.

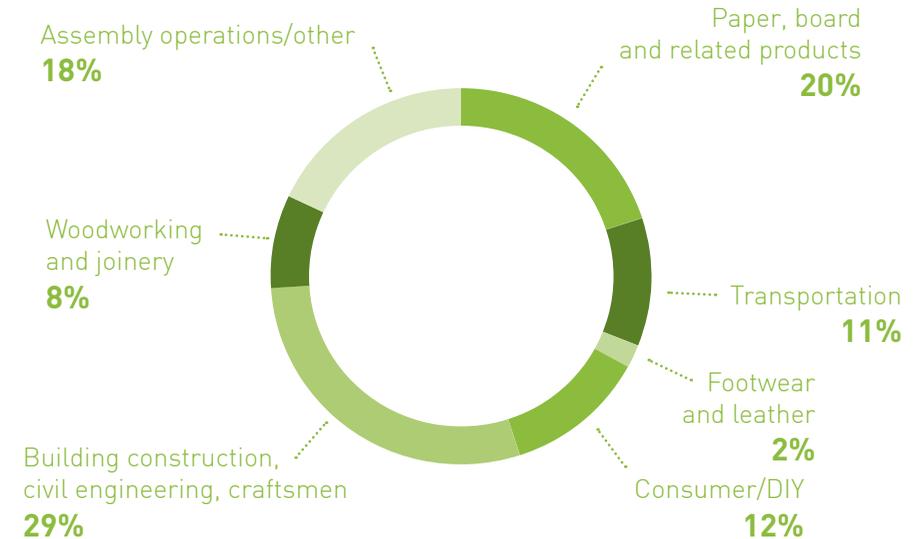
Not only do they make these products possible; in many cases they also enable manufacturers to produce them in a more cost-effective and environmentally-responsible manner.

In terms of value, the major end-use sectors for adhesives and sealants in Europe are building and construction, paper and board, industrial assembly and transportation. At least half of the products are used in industrial applications.



The European adhesive and sealant market 2014 End-use sectors

€13.4bn



Data source: 2012 ASC-CATIA-FEICA Adhesives and Sealants Classification Manual, CHEM Research GmbH

Adhesive and sealant formulation technologies

Adhesives and sealants are based on a range of natural and synthetic raw materials.

In Europe, reactive systems represent more than 50% of the market by value. This is partly because they are well represented in both adhesive and sealant products, and also because they are relatively high value products.

Waterborne products represent more than a quarter of the market. The use of solvent-borne adhesives has been steadily declining as the industry continues with its commitment to move to safer, more environmentally-responsible technologies wherever possible. They now represent only 10% of the market.

The number of different product formulations used varies according to the market sector. In total, it is estimated that close to 15,000 standard adhesive and sealant formulations are in use in Europe, based on five formulation technology platforms and serving more than 100 well-defined end-uses. In addition to standard products, many more formulations have been and continue to be developed to satisfy the demand for customised products in specialty applications.



The European adhesive and sealant market 2014 Formulation technologies

€13.4bn

A&S based on natural raw materials
3%

Waterborne systems
27%

Hot melts
10%

Solvent-borne systems
10%

Reactive systems
50%



Data source: 2012 ASC-CATIA-FEICA Adhesives and Sealants Classification Manual, CHEM Research GmbH

Adhesive and sealant producers in Europe

There are about 450 adhesive and sealant companies in Europe manufacturing at some 700 sites. They can be classified as follows:

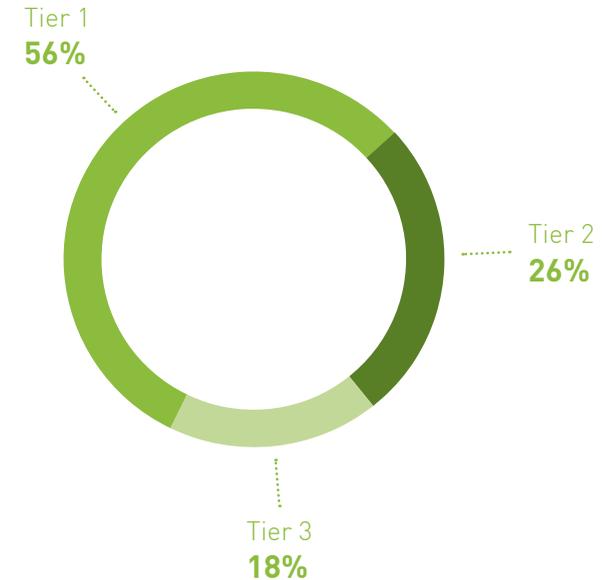
- Tier 1 companies: The top 10, with annual sales above 200 million euros.
- Tier 2 companies: About 50 manufacturers with annual sales in the range 20 - 200 million euros.
- Tier 3 companies: Several hundred SMEs with annual sales in the range 2 - 20 million euros.

The top 10 have a 56% share of the European market. Tier 2 companies have a 26% share, while the numerous Tier 3 companies have 18% of the market. This means that the top 60 companies account for about 80% of adhesive and sealant sales in Europe.



European suppliers of adhesives and sealants 2014 Manufacturers' Sales Value

€13.4bn

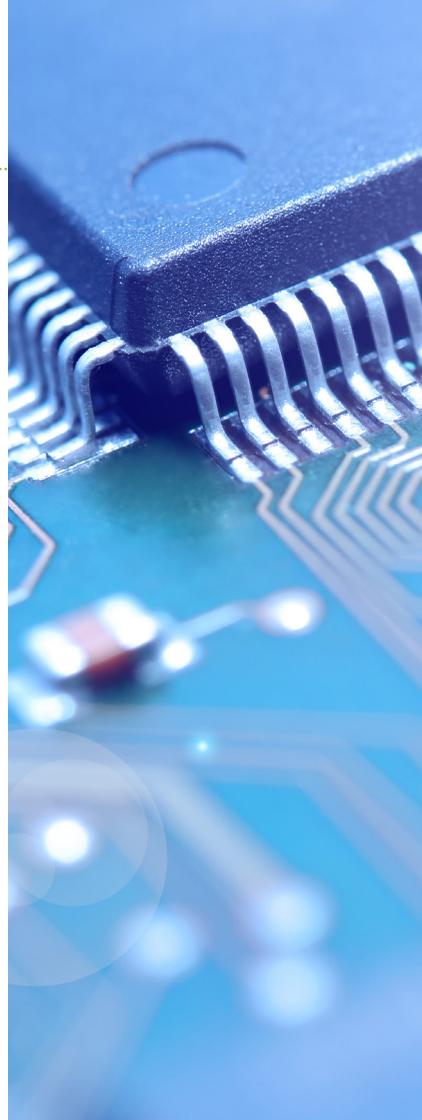


Data source: CHEM Research GmbH

R&D spending

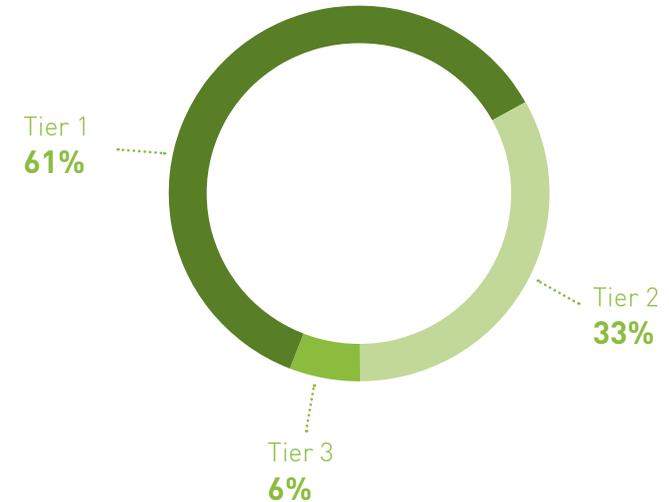
About 370 million euros were spent on research and development (R&D) in 2014. Adhesive and sealant companies spend on average 2-3% of sales on R&D, which is higher than the chemical industry on average.

Adhesive and sealant manufacturers who develop and manufacture more technologically advanced products tend to spend 5-6% of sales, whereas those involved in simpler products can spend less than 1%. The 60 Tier 1 and Tier 2 companies accounted for at least 90% of the R&D spend.



European adhesive and sealant industry 2014 R&D spending

€370mn

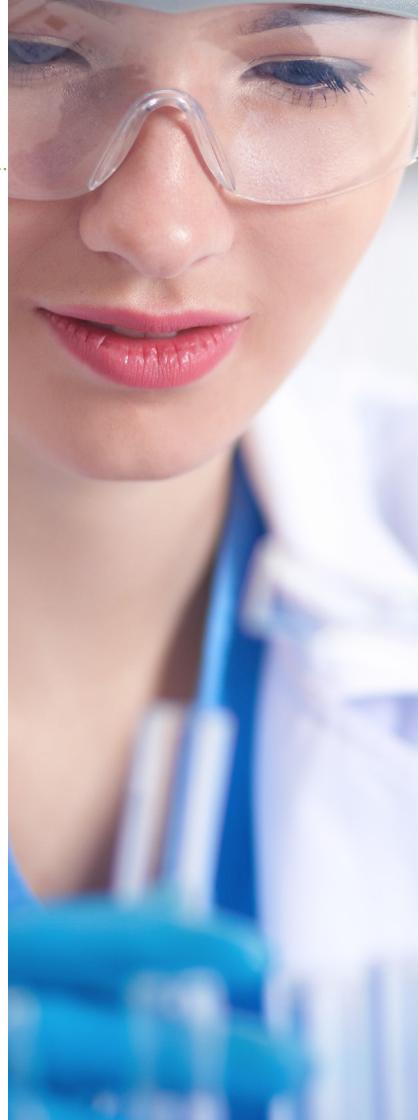


Data source: CHEM Research GmbH

Employment

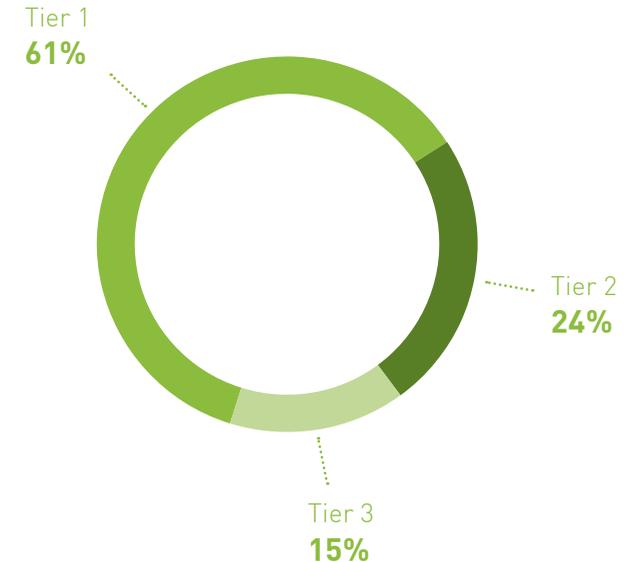
It is estimated that the European adhesive and sealant industry employs more than 41,000 people. Approximately 25,000 are employed in the top 10 manufacturers, 10,000 in Tier 2 companies and 6,000 in Tier 3 companies.

Together, Tier 1 and 2 companies provide about 85% of the employment opportunities. The industry offers stimulating careers for people with a wide range of skills. In addition, scientific innovation in the sector provides a rich source of new possibilities for Europe's manufacturing companies.



European adhesive and sealant industry 2014 Employment

ca. 41,000
employees



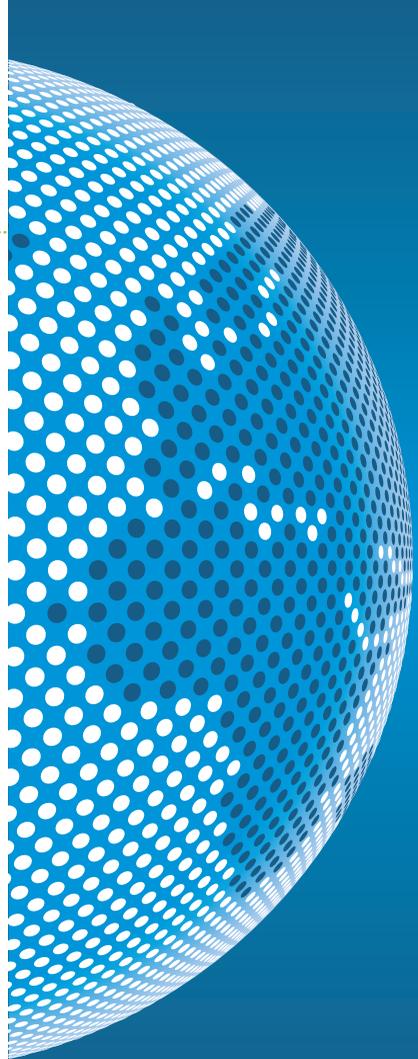
CHEM Research GmbH, Eurostat (<http://ec.europa.eu/eurostat>).

Harmonised classification

The adhesive and sealant market is highly fragmented since every different bonding and sealing operation effectively represents an end use. In order to establish common definitions for worldwide reference, the industry's associations - FEICA, ASC (the Adhesive and Sealant Council, Inc., in the USA) and CATIA (the China Adhesives and Tape Industry Association) - have jointly developed a harmonised classification of adhesives and sealants.

Download your free copy of the Adhesive & Sealant Classification Manual,

www.feica.eu/library/information-for-industry/aas-classification-manual



FEICA

FEICA, the Association of the European Adhesive and Sealant Industry, represents the industry at a European level and works with all relevant stakeholders to create a mutually beneficial economic and legislative environment.

FEICA Mission Statement

FEICA is a member-oriented, value-driven organisation representing the European adhesive and sealant sector.

FEICA is committed to continuous improvement in its efficiency and effectiveness, and ensures a vigorous industry by:

- Engaging with legislators and providing guidance to the industry on EU regulatory affairs and the safe use of our products.
- Fostering sustainable development within the industry.
- Providing advocacy and a platform for industry dialogue and knowledge sharing.

For more information, visit www.feica.eu



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