

"This year is on track to be the biggest for global M&A on record, and the flat and specialty glass industry has enjoyed a buoyant time in the past 12 months in terms of transactions."

**VALĒRIJA LIEĢE**GLASS PROCESSING & FINISHING SPECIALIST
OAKLINS

MARKET TRENDS

### Glass M&A in 2021

Looking back at 14 announced M&A transactions in the flat and specialty glass industry this year.

DONE DEALS

### Oaklins' 2021 transactions

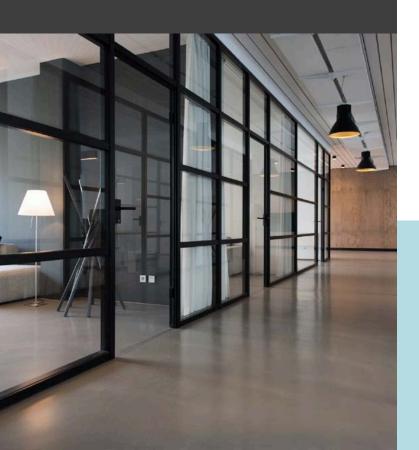
We have advised on two completed transactions in the past 12 months – in the Netherlands and the USA.

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### **Competition in China**

While Saint-Gobain remains the world's most valuable glass producer and processor, competition is tightening in China.





### M&A in glass: 14 transactions closed in 2021 to date

With 2021 on track to become the biggest year for global M&A since records began, we look at completed deals within the flat and specialty glass industry this year – a total of 14 transactions, half of which had private equity backing and five were cross-border.

## SAINT-GOBAIN SELLS GLASSOLUTIONS UNITS

Saint-Gobain is continuing the portfolio optimization strategy it launched in 2018 with the aim of enhancing its growth and profitability profile. This has led to the disposal of several Glassolutions business units in Europe in recent times: four transactions in 2019, one in 2020 and an additional five in 2021 so far.

In June it was announced that Glassolutions Objekt-Center, which specializes in glass processing at two sites in Berlin and Radeburg and employs almost 200 people, will be sold to private equity fund AEQUITA. The fund purchased the operations of Glassolutions in the Netherlands in 2019, and expects strong synergies with the two new sites.

The Radeburg site produces a complete range of insulating glass units geared towards the commercial property market, and is widely perceived as a competent and reliable partner for creating sophisticated insulating glass façades to be used in international construction projects. The Berlin site was founded in 1933 by Franz Döring, and is a recognized specialist for curved architectural glass.

In early August, Sprimoglass, a
Belgian glass processor, announced
the acquisition of Saint-Gobain's
glass placement services, Boermans
Construct. The target is a provider of
glass installation services, both for
interior and exterior glass as well as for
façade systems.

It was also announced in August that Aurys, which specializes in the shaping and processing of flat glass, had been sold to a former manager of Saint-Gobain in a management buy-out. The company employs around 145 people at its Carentan-les-Marais site in France.

In Germany, GVG Deggendorf, which specializes in tempered glass, was sold to the Swiss Arbonia group, a building supplier that specializes in heating, ventilation and air-conditioning technology, sanitary fittings, windows, and exterior and interior doors.

The Deggendorf site in Bavaria employs around 160 people and produces more than one million square meters of high-quality glass products annually.

In the latest transaction to date, Saint-Gobain sold its regional glass transformation business in Denmark to Semcoglas Holding, the German glass manufacturer. Glassolutions in Denmark employs approximately 160 people across 4 distribution sites and 2 production sites.

#### Glass processing units sold by Saint-Gobain since 2018

| Country                               | Business unit   | Revenue (US\$m)   | Employees   | Buyer   |
|---------------------------------------|---|---|---|---|
|                                       | Façade installation and glass replacement                 | 95  | 440   | PE  |
| <b>+</b>                              | Glass manufacturing and distribution                      | 40  | 170   | PE  |
|                                       | Producer and supplier of safety glass products            | -   | 40  | Private   |
| # # # # # # # # # # # # # # # # # # # | Two flat glass production units and a transformation line | 225   | 310   | PE  |
|                                       | Eight glass distribution sites and four production sites  | 75  | 300   | PE  |
|                                       | Seven glass processing sites                              | 50  | 350   | PE  |
|                                       | Two glass processing sites                                | 25  | 200   | PE  |
|                                       | Glass placement services company                          | -   | _   | Strategic   |
|                                       | Tempered glass processing site                            | 25  | 160   | Strategic   |
|                                       | Flat glass shaping and processing site                    | 25  | 145   | МВО   |
|                                       | Four distribution sites and two production sites          | 35  | 160   | Strategic   |
|                                       |   | Glass manufacturing and distribution  Producer and supplier of safety glass products  Two flat glass production units and a transformation line  Eight glass distribution sites and four production sites  Seven glass processing sites  Two glass processing sites  Glass placement services company  Tempered glass processing site  Flat glass shaping and processing site | Glass manufacturing and distribution  Producer and supplier of safety glass products  Two flat glass production units and a transformation line  225  Eight glass distribution sites and four production sites  75  Seven glass processing sites  50  Two glass processing sites  25  Glass placement services company  —  Tempered glass processing site  25  Flat glass shaping and processing site | Glass manufacturing and distribution  Producer and supplier of safety glass products  Two flat glass production units and a transformation line  Eight glass distribution sites and four production sites  Fight glass processing sites  Seven glass processing sites  Two glass processing sites  Glass placement services company  Tempered glass processing site  Flat glass shaping and processing site  25 160 |

## AGC EXITS ITS FLAT GLASS BUSINESS IN NORTH AMERICA

According to Mergermarket, the deal value of most glass transactions closed in 2021 has not been disclosed; however, the most significant transaction is likely to have been AGC's decision to sell its North American architectural glass business to US-based Cardinal Glass Industries for US\$450 million.

As part of the deal, Cardinal Glass Industries will take over all three AGC plants in the USA, in Kansas, Tennessee and Virginia, which altogether have three flat glass furnaces and two coaters. According to AGC, the driver for the divestment was a desire to improve the profitability and asset efficiency of its architectural glass business.

Cardinal Glass Industries is based in Minnesota, and is a manufacturer and supplier of window and door glass for residential use in the United States. This transaction allows Cardinal to expand its flat, coating and tempering capabilities.

### PRIVATE EQUITIES PROVIDE MBO SUPPORT AND PURSUE BUY-AND-BUILD STRATEGIES

Private equity bidders remained the most active participants in glass M&A transactions, both in terms of bidding and of being selected as the end buyer.

AEQUITA continued its buy-and-build strategy by acquiring two more sites from Saint-Gobain, while two private equity funds, VR Equitypartners and Inventure Digital, supported a management buy-out of Glas Strack. This company was founded in 1933 and is one of the leading glass suppliers in Germany. Its product range includes single-pane safety,

laminated safety, double-glazed, special and painted glass as well as digital prints.

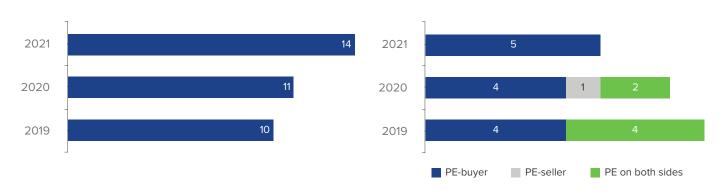
With its approximately 90 employees, Glas Strack covers the entire value chain from cutting and glass finishing to shipping using its own logistics system. Both funds took a significant minority stake in the Bochum-based company.

Another private equity purchase of corporate divestments was signed off in August, with Aliante Equity Tre acquiring the interior glass solutions (IGS) business from Dormakaba. The deal includes the transfer of: Dormakaba's global interior glass solution products, a manufacturing site in Bad Salzuflen, Germany, and selected sales units in Europe. The transaction includes 235 employees, who will be taken on by the new owner. Dormakaba's IGS business represented the smallest part of the company's global product clusters.

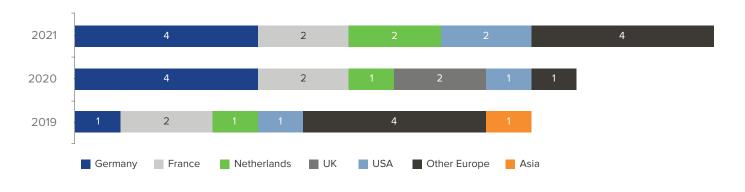
### 2019-2021 DEAL STATISTICS

### Total announced transactions by volume

### Private equity activity



### **Target geography**



Sources: Mergermarket, Oaklins analysis. Data as of 17 December 2021

"We are seeing in both our own deals and in other transactions that glass processing & finishing is currently a hot sector for M&A. We see larger conglomerates divesting businesses that have a more local angle (primarily insulated glass producers), and private equity firms viewing this as an excellent opportunity to get their hands on these businesses and aim to execute a buy-and-build strategy."

### **VALĒRIJA LIEĢE**

OAKLINS' GLASS PROCESSING & FINISHING SPECIALIST

# Oaklins' glass deal activity in 2021: two transactions closed

Oaklins' teams in the USA and Europe have closed two transactions in the glass industry so far this year.

In Europe, Oaklins' team in the Netherlands advised the shareholders of wholesale glass supplier Martin Glas on its sale to VE Partners, a Dutch private equity firm focused on SMEs.



has been acquired by



M&A SELL-SIDE

Construction & Engineering Services/Private Equity One of our member firms in the USA served as the exclusive financial advisor to Global Security Glazing ("Global") and Dlubak Specialty Glass Corporation ("Dlubak") in their sale to Iscolima, a portfolio company of Stirling Square Capital Partners. Isoclima's glass panels are used for the automotive and rail industries, military vehicles and buildings, and marine and aerospace applications as well as for racing cars.

With production facilities in Alabama and Pennsylvania, Global and Dlubak are leading manufacturers of complete security glass solutions that meet stringent bullet, forced entry, blast and fire resistance requirements for a diverse range of applications. The acquisition strengthens Isoclima's leadership in the ballistic transparencies industry by expanding its product offering and establishing local production capabilities in North America, which are pivotal to the achievement of its growth targets.

The transaction was led by Jerome S. Romano, Managing Director, and his colleagues Vidur Kapur and Bradley S. Goldstein. Jerome previously advised J.E. Berkowitz, a leading architectural glass manufacturer located in Pedricktown, New Jersey, in its sale to Consolidated Glass Holdings (the former owner of Global and Dlubak).

In 2020, senior management and minority investor Czech Asset Management acquired a controlling interest in Global and Dlubak. The company was previously owned by Grey Mountain Partners.





have been acquired by



M&A SELL-SIDE

Construction & Engineering Services/Private Equity

"We chose to work with this Oaklins member firm due to their significant experience in glass fabrication transactions and in-depth building products sector knowledge and relationships. We worked directly with the Oaklins team on several previous transactions, and recognized the commitment and value they deliver. The Oaklins team effectively positioned the complex and technical nature of the company's products, and clearly articulated the market opportunity. They provided hands-on, senior-level attention throughout the process and identified an international strategic partner for the company in Isoclima, which will support our long-term growth objectives."

LANCE COTTON, PRESIDENT

GLOBAL SECURITY GLAZING AND DLUBAK SPECIALTY GLASS CORPORATION

# **M&A** activity

A selection of recent private transactions in the glass sector from January to December 2021

| Date   | Target  | Rationale  | Bidder  | Туре      | Country |
|--------|---|--|---|-----------|---------|
| Dec-21 | -GLASSOLUTIONS                                | Saint-Gobain has sold its glass transformation<br>business Glassolutions in Denmark to Semcoglas, a<br>German glass manufacturer. The Danish business has<br>4 distribution sites and 2 production sites.  | SEMCO<br>WIR MACHEN DAS. GLAS.                                      | Strategic |         |
| Nov-21 | Gl.bal<br>DLUBAK                              | Isoclima, an Italy-based producer of high-performance glass and transparent solutions, has acquired two US production facilities that fabricate complete, security glass solutions that meet stringent bullet, forced entry, blast and fire resistance requirements for a diverse range of applications. | High-Tech Security Glass ISOCLIMA  STIRLING SQUARE CAPITAL PARTNERS | PE        |         |
| Sep-21 | Martin<br>Glas                                | Martin Glas, a wholesale supplier of glass in the<br>Netherlands and Belgium, was acquired by VE<br>Partners.  | ✓≥ VE PARTNERS  | PE        | 96      |
| Aug-21 | GLASSOLUTIONS<br>MANS-COBAN                   | Saint-Gobain disposed of its glass processing subsidiary Aurys. The subsidiary has US\$24 million turnover and 145 employees.  | Manager   | МВО       |         |
| Aug-21 | dorma<br>kaba                                 | Dormakaba divested its interior glass solutions (IGS) business to Italian-based industrial and financial group Aliante. The business had net sales of US\$49.4 million in the financial year 2019-20.  | ALIANTE   | PE        |         |
| Aug-21 | GLASSOLUTIONS<br>MATICOLUTIONS                | Saint-Gobain sold GVG Deggendorf, which specializes in tempered glass, to the Swiss Arbonia group. The Deggendorf site in Bavaria employs 160 people.  | ARBONIA 🛦   | Strategic |         |
| Aug-21 | BOERMANS<br>CONSTRUCT                         | Sprimoglass Group, the first independent processor of flat glass in Belgium, acquired Saint-Gobain's glass placement services from Boermans Construct.   | SPRIMOGLASS   | Strategic |         |
| Jul-21 | Langenhuizen<br>GLASSERVICE BV<br>HEESCH CUIK | Martin Glas acquired local family business<br>Langenhuizen Glasspecialist. The acquisition allows<br>to expand in Brabant area.  | Martin<br>Glas  | Strategic | 96      |
| Jul-21 | ZOS   | Heluz Group, a family-owned brick and construction materials producer, acquired Izos, a producer of insulation glass. Izos had 2019 revenues of US\$34 million.  | <b>HELUZ</b>  | Strategic |         |
| Jul-21 | Glas Strack                                   | VR Equitypartner and Inventure Digital supported the management of Glas Strack Innovations in an MBO.  | VR Equitypartner  | PE        |         |
| Jun-21 | <b>AGC</b> (three sites in the USA)           | AGC sold its North American architectural glass<br>business to US-based Cardinal Glass Industries for<br>US \$450 million. The deal includes all three of AGC's<br>plants in Kansas, Tennessee and Virginia, with three<br>flat glass furnaces and two coaters altogether.                               | CARDINAL &  | Strategic |         |
| Apr-21 | GLASSOLUTIONS<br>(two sites in Germany)       | AEQUITA acquired Saint-Gobain Glassolutions<br>Objekt-Center, comprising two glass<br>processing sites in Radeburg and Berlin.   | AEQUITA   | PE        |         |
| Apr-21 | Metallity6<br>VÄLIMÄKI OY                     | Pihla Group acquired a stake in Metallityo Valimaki,<br>a Finnish manufacturer of steel and aluminum doors<br>and windows and glass walls.   | Pihla   | Strategic | +       |
| Mar-21 | ROCHÈRE                                       | Tourres & Cie has acquired La Rochere, SAS, a<br>France-based manufacturer of glassworks products<br>and specialist in pressed glass.  | Tourres & Cie   | Strategic |         |

# Selected listed players

Selected flat and speciality glass industry players

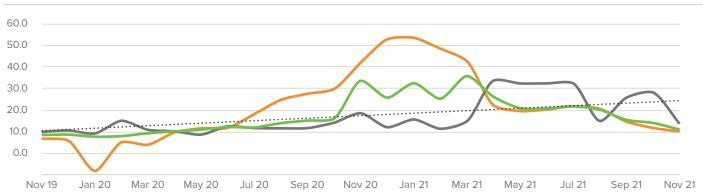
| Company                                     | Country | Market cap<br>(US\$m) | Enterprise value (US\$m) | Revenues | EBTIDA  | EBITDA<br>margin | EV/<br>Revenue | EV/<br>EBITDA |
|---|---------|-----------------------|--------------------------|----------|---------|------------------|----------------|---------------|
| SAINT-GOBAIN                                |         | 36,882                | 46,033                   | 46,573   | 5,942   | 12.76%           | 1.05x          | 8.21x         |
| ₩ 隔欄集团<br>Fusiao Group                      |         | 19,039                | 19,428                   | 2,978    | 771     | 25.89%           | 6.39x          | 24.68x        |
| AGC   |         | 11,184                | 17,862                   | 13,671   | 2,031   | 14.86%           | 1.39x          | 9.38x         |
| () XUIE®                                    |         | 10,491                | 10,491                   | 2,400    | 1,001   | 41.71%           | 4.39x          | 10.53x        |
| FGG   |         | 8,755                 | 8,989                    | 944      | 382     | 40.47%           | 9.32x          | 23.04x        |
| 旗演集團  |         | 6,716                 | 6,913                    | 1,442    | 493     | 34.19%           | 4.69x          | 13.70x        |
| GROUP                                       |         | 448                   | 4,315                    | 4,508    | 484     | 10.74%           | 0.96x          | 8.94x         |
| ŞİŞECAM                                     |         | 3,088                 | 4,171                    | 2,858    | 639     | 22.36%           | 1.99x          | 8.91x         |
|   |         | 2,765                 | 3,685                    | 1,489    | 295     | 19.81%           | 2.46x          | 12.41x        |
| 金晶集团<br>JINJING GROUP                       |         | 2,094                 | 2,374                    | 736      | 156     | 21.20%           | 3.17x          | 14.92x        |
| SG  |         | 1,332                 | 1,723                    | 1,603    | 417     | 26.01%           | 1.05x          | 4.04x         |
| ② 注頭區的作業公司<br>LUOTANG GLASS COMPANY LIMITED |         | 1,196                 | 1,530                    | 456      | 118     | 25.88%           | 3.30x          | 12.72x        |
| apogee enterprises, inc.                    |         | 1,195                 | 1,374                    | 1,231    | 138     | 11.21%           | 1.12x          | 9.92x         |
| CENTRAL GLASS                               |         | 786                   | 1,131                    | 1,722    | 157     | 9.12%            | 0.67x          | 7.35x         |
| CNG中玻                                       |         | 530                   | 978                      | 484      | 104     | 21.49%           | 1.98x          | 9.19x         |
| Vitro.                                      |         | 513                   | 895                      | 1,768    | 184     | 10.41%           | 0.51x          | 4.87x         |
|   |         |                       |                          |          | Average | 21.76%           | 2.89x          | 11.64x        |
|   |         |                       |                          |          | Median  | 21.35%           | 1.99x          | 9.92x         |

Source: InFront Analytics

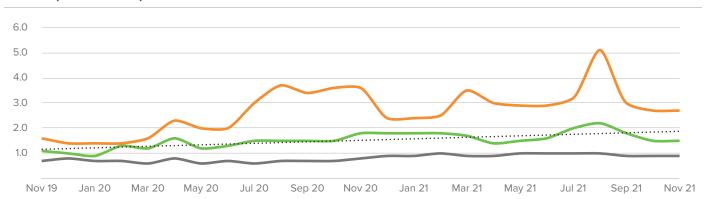
# Valuation trends

Following a highly volatile period from early 2020 to the beginning of 2021, the third and fourth quarters of this year have seen the valuations of glass companies stabilize. There has been a visible decrease in the valuation levels of China-based companies, with their valuations moving downwards towards those of competitors in other regions. The EV/EBITDA range has settled at 7.00x to 12.00x. Significantly, in China, Fuyao Glass, the world's largest supplier of automotive glass, is being challenged by Xinyi Glass. In the first half of 2021, the revenues of Xinyi Glass surpassed those of Fuyao Glass for the first time. Nevertheless, by enterprise value, Fuyao Glass is still valued at a higher multiple (over 20.00x EV/EBITDA) and remains the world's second largest glass company.

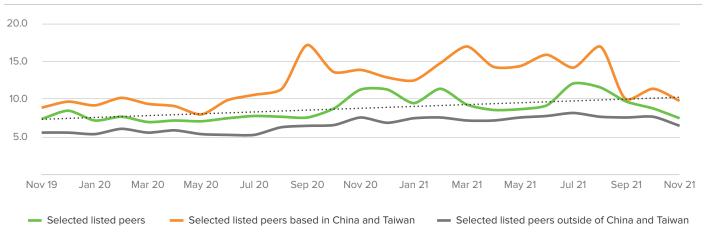
### Price/Earnings (last 24 months)



### EV/Sales (last 24 months)



### EV/EBITDA (last 24 months)



Source: InFront Analytics
Valuation data is as of 17 December 2021

# Deep local roots, global commitment

Oaklins brings you opportunities from across the world and we meet you with our expertise wherever you are

### OAKLINS OFFERS A COMPREHENSIVE RANGE OF SERVICES

- M&A advisory (buy- and sell-side)
- Growth equity and equity capital markets advisory
- Debt advisory
- Corporate finance services

Glass processing & finishing is one of our focus areas. Combining comprehensive sector knowledge with global execution has led Oaklins to become one of the most experienced M&A advisors in the glass processing & finishing sector, with a large network of relevant market players worldwide. This results in the best possible merger, acquisition and divestment opportunities for glass processing & finishing companies.

If mergers, acquisitions or divestitures of businesses or business units are part of your strategy, we would welcome the opportunity to exchange ideas with you.

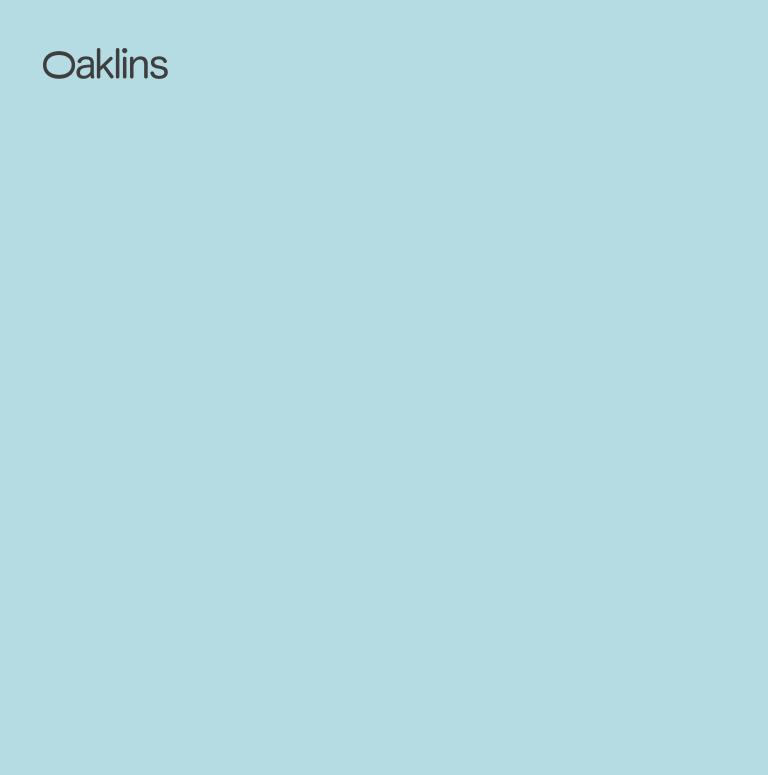


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Valērija leads Oaklins' glass processing & finishing team and is a partner at Oaklins Baltics in Riga. As part of her sector focus, Valērija continuously follows developments, attends the major events and maintains regular contact with the key players in the industry. She advised former owner NCH Capital and the management team on a management buy-out of Groglass, the world's leading producer of anti-reflective glass using proprietary vacuum coating technology.

Oaklins is the world's most experienced mid-market M&A advisor, with over 850 professionals globally and dedicated industry teams in more than 45 countries. We have closed 1,700 transactions in the past five years.



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