

WELCOME TO EU GLASS INDUSTRIES NEWS



Table of Contents

EU COMMUNITY NEWS	2
<i>EU LEGISLATION</i>	2
<i>TRADE POLICY</i>	2
<i>ENVIRONMENT</i>	4
<i>SOCIAL</i>	7
<i>GENERAL MATTERS</i>	9
GLASS NEWS	14
<i>FLAT GLASS</i>	14
<i>CONTAINER GLASS</i>	19
<i>DOMESTIC GLASS</i>	29
<i>REINFORCEMENT FIBRES</i>	30
<i>SPECIAL GLASS</i>	31
DIVERSE	35

EU COMMUNITY NEWS

NEW EU LEGISLATION

Council Decision

N° (EU) 2017/219 of 23 January 2018

The Council have approved the conclusion of the **Agreement between the European Union and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems (ETS)**, signed on 23 November 2017.

The instrument of approval of the Union shall only be notified when the Swiss Confederation has brought into force the requisite rules extending its ETS to aviation and Annex I, Part B of the Agreement is amended accordingly.

Article 3

This Decision shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union, i.e. end of February 2018.

Full Decision on page 1 at

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2018:043:TOC>

21021/O.J. L43 - 2018.02.16

TRADE POLICY

EU Trade Agreement Expert Group

The European Commission's new expert group on EU trade agreements held its first meeting on 1st February in Brussels.

The Commission has set up the expert group to provide an additional forum for getting expert advice and differing perspectives on trade. The group builds on the Commission's long-standing, active dialogue mechanism with civil society on trade issues.

30 organisations representing business, trade unions, consumers, the environment and other areas participated in the first meeting. The number of participants is intended to foster in-depth dialogue. The Commission's idea is to consult the group on new issues for trade negotiations and areas where it feels it needs a broader perspective. The Commission hopes the group's input will help it in its ongoing efforts to ensure that EU trade policy is state-of-the-art and progressive.

EU Trade Commissioner Cecilia Malmström gave an overview of the state of play of the EU's ongoing negotiations and other policy work, noting that many of the EU's partners were looking to the EU for global leadership on trade.

The group and Commissioner Malmström discussed current issues related to trade agreements and possible issues for input and reflection from the group (e.g. multilateral investment court, e-commerce, trade and gender, provisions for SMEs, etc.). There was also an in-depth discussion on the issue of consumers and trade agreements.

The Commission will publish reports of the meetings, as well as papers submitted by the Group's members.

21022/Press Release – 2018.02.01

New Procedural Phase For Adoption of New EU Rules on Trade Defence

The ambassadors of the EU Member States (Coreper) confirmed on 7 February the final compromise text of the political agreement concluded in trialogue on 5 December 2017 between the Estonian Presidency of the EU Council and the negotiators of the European Parliament on the **recast of the EU's trade defence instruments** – which was proposed by the Commission in April 2013. Coreper had already confirmed the principle agreement on 20 December. The text is now due to be examined by lawyer linguists before being **formally adopted – first at the Council, probably in April, then at the European Parliament, probably in May.**

21023/Press Release – 2018.02.07

VAT Cooperation Agreement Signed with Norway

The EU and Norway signed a cooperation agreement on VAT – the first of the kind with a third country. The agreement aims to establish a legal framework between the EU Member States and Norway in order to prevent VAT fraud and to provide mutual assistance on recovering VAT. The structure governing the cooperation will in the end be quite close to that in force between the Member States. The agreement was negotiated by the Commission on the basis of a mandate from the Council in December 2014.

21024/Press Release – 2018.02.07

EU / Chile

In keeping with its commitments on transparency, the Commission has published 18 EU initial textual proposals which set out the EU's position in specific areas of the negotiations for a new, modernised trade agreement between the EU and Chile.

The Commission also published a report of the second round of talks that took place in Santiago (Chile) from 15 to 19 January 2018. These were the first substantive discussions on trade following the launch of talks in November last year.

The negotiating teams covered a broad range of issues such as the facilitation of customs procedures, trade in services, investment, competition, rules of origin, and intellectual property. Although the negotiations are still in the early stages, thanks to a positive engagement on both sides, the teams were able to make good progress in most of the areas.

The negotiators agreed to meet again soon although no precise dates have yet been agreed.

21025/Press Release – 2018.02.06

ENVIRONMENT & ENERGY

Energy Taxation to Tackle Climate Change

The Organisation for Economic Development and Cooperation (OECD) has called on the governments of its member states (which include most EU countries) and those of the G20 to make better use of the lever of energy taxation to bring down harmful emissions from energy use. In a report published on 14 February, it also encourages them to make greater use of carbon taxation and alignment of energy prices with the costs of climate change and air pollution.

“Efforts have been made, or are underway, in several jurisdictions to apply the ‘polluter-pays’ principle, but on the whole progress towards the more effective use of taxes to cut harmful emissions is slow and piecemeal”, said OECD Secretary General Angel Gurría.

The report, covering 42 of the OECD and G20 countries which account for 80% of the world’s energy consumption, reveals that, outside road transport, 81% of emissions were untaxed in 2015 and rates on 97% of taxed emissions were below the low-end estimate of climate costs of €30 per tonne of CO₂.

Meaningful tax rate increases have largely been limited to the road sector, where an average of 97% of emissions are taxed, and the share of emissions taxed above climate costs rose from 46% in 2012 to 50% in 2015, through fuel tax reforms in some large emerging economies (China, India and Mexico).

“Encouragingly”, the OECD says, some countries, such as France, are removing lower tax rates on diesel compared to petrol.

However, fuel tax rates remain well below the levels needed to cover non-climate external costs in nearly all countries, the OECD states.

At the same time, coal, consumption of which produces large amounts of harmful emissions and which accounts for almost half of carbon emissions in the 42 countries, is almost everywhere the lowest taxed form of energy, and in some countries, goes completely untaxed, the OECD laments, highlighting that coal is taxed at more than €5 per tonne of CO₂ in just five of the countries studied.

While the intense debate on carbon taxation has sparked action in some countries, actual carbon tax rates remain low. Carbon tax coverage increased from 1% to 6% in 2015, but carbon taxes reflect climate costs for just 0.3% of emissions. Excise taxes dominate overall tax rates by far, the OECD points out.

Major improvements are urgently required, aligning energy prices with the costs of climate change and air pollution and ensuring cost-effective action on climate change, it emphasises.

21026/Press Release – 2018.02.14

Revised Energy Performance in Buildings

On 21st February, the European Parliament's energy committee approved the political agreement concluded on 19 December 2017 with the EU Council on the revised directive on energy performance in buildings, thus paving the way for its adoption in plenary in April. The improvements to the text that were agreed in triilogue include measures to strengthen the energy performance of new buildings, accelerate the pace of renovation of existing buildings and exploit the enormous potential of gains in energy efficiency in the building sector – which accounts for 40% of the primary energy consumed in Europe. Once formally approved by Parliament, then by the Council, the new directive will enter into force 20 days after its publication in the Official Journal of the EU. Member states will have 20 months to transpose the new elements of the directive into national law.

21027/Press Release – 2018.02.22

Circular Economy

In Brussels, on 20 and 21 February, a conference of stakeholders organised by the European Commission and the European Economic and Social Committee (EESC) focused on speeding up implementation of the EU action plan for the circular economy. Businesses, local authorities and citizens discussed the latest proposals put forward by the Commission to give the plan of action concrete substance, i.e. the strategy on plastics, and will explore future areas of action. The conference was opened by European Commission Vice-President Frans Timmermans, responsible for rural development, and Vice-President Jyrki Katainen, in charge of employment, growth, investment and competitiveness.

Timmermans placed emphasis on the next steps to take to move further forward in this “fourth industrial revolution which is happening at a dizzy rate”. He counts on the support of MEPs in the little time remaining before the European elections in 2019 and on mobilisation of all – businesses, citizens, NGOs, researchers.

“There are other important work streams too, from synergising our chemicals and waste policies, to financing and research, to awareness raising and better tracking and measurement of the progress we are making in the circular economy. We have about a year left in which to complete this work”, said Timmermans.

Jirki Katainen said that the circular economy is now on track, he spoke of the ten key indicators that will be developed to measure progress: “We want to see if actions have been undertaken, encourage best practice and place emphasis where efforts are needed”.

The commissioner also stressed the importance of the initiative concerning the interface between the legislations relative to chemical substances, products and waste, which will relate to the traceability of worrying substances in products, their traceability in recycled materials and the difficulties encountered in application of EU waste classification methods.

“We must clarify this interface. The aim is to launch a debate with all stakeholders. By the end of 2019, we want actions to have begun. We do not rule out legislation”, he said.

Another priority will consist of encouraging a year that is low on carbon. “We want to launch a framework on products so that they may be more respectful of the circular economy and so that consumers can choose”.

MEPs want more. MEPs said that “there is still much to be done” and called for concrete proposals resulting in legislation. Peter Liese (EPP) pointed out that Parliament has been calling for a strategy on antibiotics for years. Pavel Poc (S&D, Czech Republic) takes the view that an essential condition to be met to manage a successful transition to the circular economy is to “inscribe the EU plan of action in a strategy for a non-toxic environment” that the Commission has wanted to present for a long while.

EESC engagement. The European Economic and Social Committee (EESC) undertook, for its part, to make the circular economy an economic model that comes under “business as usual” for companies and leaves no-one aside. “The transition to a circular economy is a great opportunity for civil society. It is already happening on the ground. (...) However, we need to ensure that the transition is widely accepted. Leaving no one behind is one of the objectives of the circular economy stakeholder platform that is a crucial space to forget this kind of shared vision of the transition to a circular and sustainable European economy”, EESC President Georges Dassis said during the stakeholders’ conference.

21028/Press Release – 2018.02.22

EU Ecolabel after Brexit

Unless there are transitional provisions to the contrary, the 2009 European regulation establishing the **EU Ecolabel** – a small flower logo with twelve stars – attributed to goods and services recognised as having fewer adverse effects on the environment, on the basis of strict ecological criteria – **will no longer apply to the United Kingdom once the agreement for the UK’s withdrawal from the EU is concluded.**

Businesses must therefore be prepared for this eventuality, which could be effective from midnight 30 March 2019. Guidelines published by the European Commission to assist business in this task set out the following points:

- As from the withdrawal date, the EU Ecolabel Competent Body designated by the United Kingdom will lose its status. It will be removed from the list of European
-

competent bodies and will lose its right of access to the Ecolabel catalogue (ECAT) database.

- EU Ecolabels awarded by the British competent body may no longer be used on products on the EU-27 market.
- Where economic operators hold an EU Ecolabel contract issued by the UK Ecolabel Competent Body prior to the withdrawal date and plan to continue using the EU Ecolabel when placing the product concerned on the EU-27 market as from the withdrawal date, they have two options:
 - Apply for a new contract with an EU-27 Ecolabel Competent Body on the EU-27 market;
 - Arrange for a transfer – on the basis of a contractual arrangement between the holders of the EU Ecolabel, the UK Ecolabel Competent Body, and the EU-27 Ecolabel Competent Body.

For products placed on the EU market before the withdrawal date, the EU is seeking to negotiate a solution with the United Kingdom in the withdrawal agreement, the Commission states.

The EU Ecolabel is a voluntary system celebrating its 25th anniversary this year. It is attributed to companies that want their products or services to be in line with the required criteria. It has been delivered to nearly 54,000 products and services in Europe.

21029/Press Release – 2018.02.19

SOCIAL ISSUES

Employment and Productivity Continuing to Rise in the EU

The EU economy continued its “*expansion*” at a “*robust and higher than expected pace*”, particularly in terms of employment, with 236.3 million people in work in the EU, the highest level ever recorded, according to the review of employment and social development for the third quarter of 2017 published by the European Commission in February 2018.

Compared with the same quarter of 2016, employment rose by 1.7% in both the EU and the euro area, representing 4 million more people employed in the EU and 2.7 more in the euro area. In all, 236.3 million people were employed in the EU as a whole and 156.3 million in the euro area. The service sectors continued to drive growth in the EU, with employment increasing in all sectors except financial, where a slight decrease was recorded, the review states.

It is worth noting that permanent jobs and full-time employment were the main contributors to employment expansion. The number of people with permanent contracts rose by 1.7% in the first three quarters of 2017. This represents an increase of 2.8 million employees, three times more than the increase in temporary contracts (some 900.000) over the same period. The number of full-time contracts remains below pre-crisis levels, however, the review states.

All in all, everything is positive, whether unemployment, labour productivity (growth of 0.8%), the financial situation of households (1.5% growth) or labour demand (up 2%).

The review can be found at:

<http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8063>

21030/Press Release – 2018.02.12

Unemployment Rates

The **euro area** seasonally-adjusted unemployment rate was **8.7%** in **December 2017**, stable compared to November 2017. This is the lowest rate recorded in the euro area since January 2009. The **EU-28** unemployment rate was **7.3%** in December 2017, also stable compared to November 2017. This is also the lowest rate recorded in the EU28 since October 2008.

Eurostat estimates that 17.978 million people in the EU28 were unemployed in December 2017, a decrease by 150,000 in the EU28 and by 119,000 in the euro area compared with November 2017.

Czechia	2.3%	Slovenia	6.2%
Malta	3.6%	Sweden	6.5%
Germany	3.6%	Belgium	6.6%
Hungary (Nov.)	3.9%	Lithuania	7.1%
UK (Oct.)	4.3%	Slovakia	7.4%
Netherlands	4.4%	Portugal	7.8%
Poland	4.4%	Latvia	8.1%
Romania	4.6%	Finland	8.7%
Austria	5.3%	France	9.2%
Estonia (Nov.)	5.4%	Croatia	10.0%
Luxembourg	5.6%	Italy	10.8%
Denmark	5.6%	Cyprus	11.1%
Bulgaria	6.1%	Spain	16.4%
Ireland	6.2%	Greece (Oct.)	20.7%

Elsewhere

USA	4.1%	Russia	5.1%
Canada	5.9%	Brazil	11.8%
Japan	2.8%	Australia	5.5%
Switzerland	3.3%	India	3.46%
Turkey	10.3%	China	3.90%

21031/Eurostat Press Release – 2018.01.31

GENERAL ISSUES

Future of Industrial Policy in Europe

EU Ministers of Economy opened a political discussion on the future of industrial policy in Europe, with the aim of preparing a comprehensive and long-term EU industrial strategy with a horizon of 2030. The Ministers met in Sofia on 1 February 2018 in the framework of the informal meeting on Competitiveness.

“The global changes in recent years, as well as the progress and development of the partners and competitors, call for determination today in order to ensure the future in the next decade and beyond. Today's meeting is an important one for laying the foundations of a future long-term and comprehensive industrial strategy,” said the Bulgarian Minister of Economy Emil Karanikolov.

In view of establishing the future EU industrial strategy, the Ministers discussed the trends and factors that determine the future of the European industry, and common goals and priorities for the new industrial strategy, which will ensure that the European industry is competitive in the changing global environment. Key aspects addressed by the Ministers included digitalisation, value added chains, the integration of European companies and how they can compete most successfully on the global markets, and the role of core and energy-intensive industries for the overall European industry.

By initiating this first discussion the Bulgarian Presidency set the foundations for a future industrial strategy of the European Union. This first meeting will be followed by a series of meetings and sessions at political and expert levels, including formal ministerial meetings in Brussels in March to develop a comprehensive and long-term industrial strategy.

21032/Press Release – 2018.02.01

Future of the European Union

EP 2019

- **EU27 could support cut to 705 seats in composition of European Parliament**

The European leaders discuss several institutional questions linked to the May 2019 European electoral deadlines, such as the composition of the next European Parliament and the process of head of list candidates (*‘Spitzenkandidaten’*) for presiding over the future European Commission.

The leaders were asked to give their position on the European Parliament's proposal to reduce the size of the hemicycle from 751 to 705 MEPs for the 2019-2024 legislature due to Brexit, without a loss of seats for any country.





Europe's leaders endorsed a reduction in MEPs from 751 to 705 for the 2019-2024 term of office in line with Brexit, as desired by the European Parliament itself, without any country losing seats. In line with demographic changes, 27 of the 73 seats that will be vacant once the United Kingdom leaves the EU will be reallocated as followed: The 27 seats would be attributed as follows to the countries currently insufficiently represented:

- +5 seats for France (making 79) and Spain (59),
- +3 seats for Italy (76) and the Netherlands (29),
- +2 for Ireland (13),
- +1 seat for Poland (52), Romania (33), Sweden (21), Austria (19), Denmark (14), Finland (14), Slovakia (14), Croatia (12) and Estonia (7).

No countries are reported to have asked for more seats in Parliament, but the Netherlands said that all the UK's seats should have been scrapped. Hungary questioned the redistribution of seats in line with changes in population, since new residents are not necessarily European citizens with the right to vote.

A formal decision of the Council will be taken in June, in time for Member States to adjust their legislation before the next European elections.

Finally, like 25 other Member States, Spain will make a contribution to the holding of citizen consultations in April to October on the future of Europe.

Spitzenkandidaten. European leaders do not oppose the idea of a process of lead candidates ('Spitzenkandidaten') to give a familiar face to European political families campaigning for the European elections of May 2019.

But anxious to protect their prerogatives and to keep wriggle room in the light of future election results, the EU27 rejects any automaticity whereby the Spitzenkandidat designated by the European political party that won the European elections would automatically become president of the European Commission.

'*There was an agreement for no automaticity in this process,*' explained the president of the European Council, Donald Tusk. The German chancellor, Angela Merkel, said one would have to see what the majorities were at the European Parliament because even in a national government, it is not necessarily the party that won the most votes that gets the prime minister job.

Europe's leaders noted that under the European treaty, it is for the European Council to propose a candidate for the Commission presidency in the light of the European election results and for the European Parliament to elect or reject said candidate.

Tusk stressed the importance of the double democratic legitimacy of the European Council, which is made up of democratically elected heads of state (elected in their own country) and the European Parliament of MEPs elected using universal suffrage. The President of the European Commission, Jean-Claude Juncker, noted the '*shared responsibility*' of member states and Parliament.

Transnational lists. The EU27 agreed to breathe life before the European elections of 2024 into debate about setting European constituencies so MEPs can be elected on transnational lists. The French president, Emmanuel Macron, said that France's vision favoured a more democratic Europe, a genuine transnational list whose head could have been a lead candidate.

He regretted the European Parliament's rejection of transnational lists because of hostility from the EPP, saying Parliament had missed an opportunity.

This idea, supported by France, the Mediterranean countries and Ireland, is rejected by the European Parliament itself and the Visegrad countries.

In the perspective of the European elections, France is concerned about developing a European democratic space and will present its initiative aiming to organise citizens' consultations to involve Europeans in the reflection on the future of Europe with 27 Member States. Such consultations will be organised in 24 to 25 Member States from April until October, according to a diplomat, with a view to reporting back to the European summit in December. The Commission would play a role of facilitator by setting up and managing an online information platform.

21033/Press Release – 2018.02.22 & 23

- **MEPs reject idea of transnational lists for European elections 2019**

One of French President, Emmanuel Macron, key proposals, namely using some of the remaining British seats in order to establish a **pan-European electoral constituency** for future EP elections, was **rejected by a small majority of MEPs (54%)**. In particular, the proposal was blocked by the staunch opposition of the European People's Party that labelled it as a "centralist and elitist artificial construct".

This ambitious initiative was opposed by both Eurosceptic and right-leaning Parliamentarians. The largest EP group, the EPP, heavily campaigned against the proposal in the run-up to the vote.

Being the dominant group in the European Assembly, **the EPP is relatively happy with the status quo when it comes to the electoral system for the European elections**, also because the group is the most likely to win a plurality of seats in 2019 and keep the Presidency of the European Commission after the upcoming EP elections.

However, **some EPP members disagreed with the official position of their group**. Among others, the Parliamentarians of Rajoy's People's Party decided to back the proposed transnational lists, as well as some Austrian (Othmar Karas and Paul Rübig) and French EPP members (Arnaud Danjean, Jérôme Lavrilleux, Philippe Juvin and Tokia Saïfi).

The EPP-led coalition got the upper hand thanks to several defections within the groups supporting the initiative, namely ALDE, S&D and the Greens/EFA. Within the Greens/EFA group, all the Swedish members decided to oppose the proposal to set up a joint constituency, as well as the Scottish and Welsh nationalists.

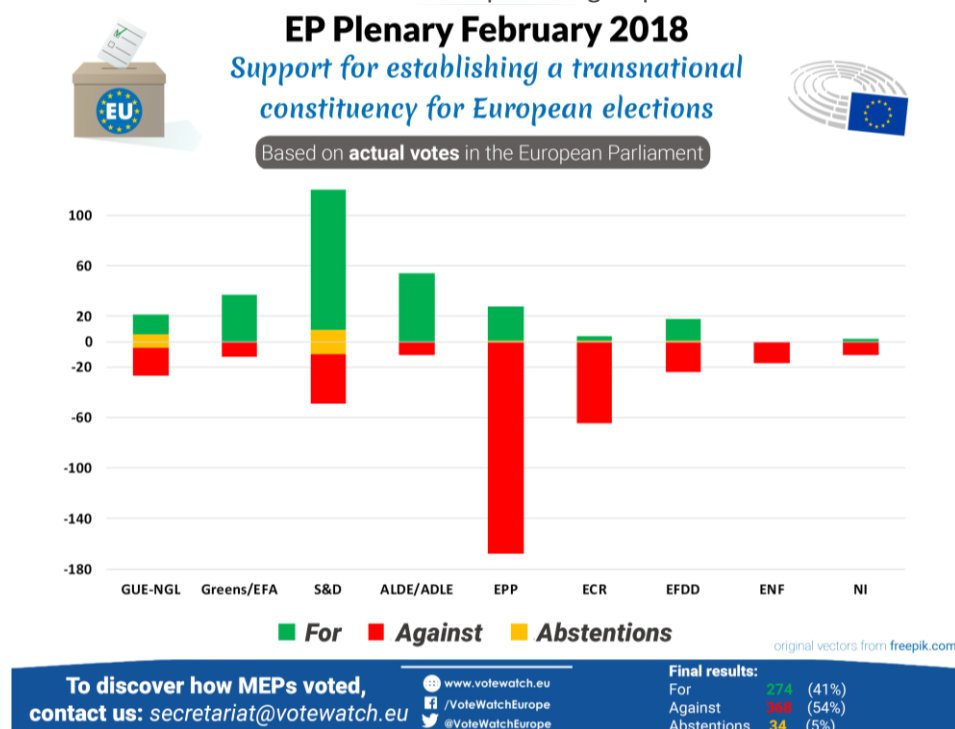
Within the Social Democrats, several national delegations (mostly from smaller countries) decided to join forces with the other groups in opposing the transnational lists. **Among others, the Bulgarian, Slovak, Czech, Danish, Swedish, Dutch and most Romanian Social Democrats voted against the proposal.**

The liberals of ALDE were slightly more cohesive than the Social Democrats, although there was some opposition to the proposal warmly promoted by the group leader, Guy Verhofstadt. Remarkably, even **the President of the ALDE Party, Johannes Cornelis van Baalen, opposed drastic changes to the current electoral system.**

Most of the outgoing British MEPs decided to either oppose the transnational lists or to abstain, lending little support to the advocates of further federalization of the European elections. Among the few British MEPs supporting the transnational lists, we found the chair of the Committee on Civil Liberties, Justice and Home Affairs, Claude Moraes.

This idea was backed by the constitutional affairs committee (AFCO) to set up a European constituency allowing some 30 MEPs to be elected on transnational lists to the European elections of May 2019.

See below how the MEPs in each of the political groups in the Parliament voted:



21034/Press Release – 2018.02.07 & 08

BREXIT Developments



1. Draft EU Text for Brexit Negotiations

On 7 February, the European Commission published the final draft text which will more than likely be put to the EU27 leaders during the European Council in March, which concerns arrangements for the transition period requested by the British government. The document was presented to member states on 6 February, prompting an annoyed response from London mainly due to the sanctions that the EU plans to take against Britain should European rules be breached during the transition period.

On 29 January, the EU27 ministers for European affairs had decided that, during the period end March 2019 to end December 2020, London was to uphold all European

acquis and agree to losing its decision-making powers, with the British government being simply consulted on certain matters and involved in specific discussions but without voting rights.

In addition, during that period, it should come under the jurisdiction of the EU Court of Justice and agree to the entry into force of certain legislative texts.

In the document published on 7 February, which makes Michel Barnier’s negotiating mandate on transition official, the Commission foresees the possibility of sanctions over the transition period, mainly via a “mechanism allowing the Union to suspend certain benefits deriving for the United Kingdom from participation in the internal market”.

21035/Press Release –2018.02.07

Inflation Rate

Latest Eurostat figures show that the annual inflation rate was **1.3% in January 2018 in the Euro area**, down from 1.4% in December 2017. **The EU28 annual inflation was 1.6% in January**, down from 1.7% in December.

The largest upward impacts to euro area annual inflation came from services (+ 0.56%), followed by food, alcohol & tobacco (+ 0.39%), energy (+ 0.22%) and non-energy industrial goods (+ 0.15%).

Cyprus	-1.5%	Netherlands	1.5%
Greece	0.2%	Sweden	1.6%
Ireland	0.3%	Poland	1.6%
Denmark	0.6%	Slovakia	1.7%
Spain	0.7%	Belgium	1.8%
Finland	0.8%	Austria	1.9%
Portugal	1.1%	Latvia	2.0%
Croatia	1.2%	Czech Republic	2.1%
Italy	1.2%	Hungary	2.1%
Malta	1.2%	Slovakia	2.6%
Bulgaria	1.3%	U K	3.0%
Germany	1.4%	Romania	3.4%
Luxembourg	1.3%	Lithuania	3.6%
France	1.5%	Estonia	3.6%

Elsewhere

USA	2.1%	Russia	2.2%
Canada	1.9%	Brazil	2.86%
Japan	1.0%	Australia	1.9%
Switzerland	0.7%	India	5.21%
Turkey	10.3%	China	1.5%

21036/Eurostat News Release – 2018.02.23

GLASS NEWS

FLAT GLASS

Glass Companies

Saint-Gobain



1. Saint-Gobain has been recognized **as top employer in the US by the Top Employers Institute** for its employee offerings for the third consecutive year.

The Top Employers Institute is an independent global organization that certifies employers for creating excellent workplace conditions for employees and will recognize Saint-Gobain at an award ceremony in Miami.

“Embracing reciprocity and emphasizing a personal approach to uncover what matters most to our employees is a core value driving our company culture,” says Valerie Gervais, senior vice president of human resources at Saint-Gobain Corp. “At Saint-Gobain, we create innovative materials to help solve the world’s biggest challenges in terms of sustainability, comfort and well-being, and we strive to do the same thing for our employees. It’s an honour to be recognized for our dedicated efforts by a prestigious organization.”

Crucial to the Top Employer Certification is Saint-Gobain’s participation in a stringent auditing process in which the company’s performance scores were rated against an international standard. The Top Employers Institute assessed Saint-Gobain’s employee offerings on the criteria of talent strategy, workforce planning, onboarding, learning and development, performance management, leadership development, career and succession management, compensation and benefits, and company culture.

Saint-Gobain’s Top Employers achievement comes on the heels of the company’s inclusion on the Human Rights Campaign’s 2018 Corporate Equality Index for its diversity and inclusion efforts in the workplace. In 2017, Saint-Gobain launched LIVE OPEN, an employee resource group for members and allies of the LGBTQ community.

21037/Press Release – 2018.02.13

2. Saint-Gobain is aiming to **triple revenues in India in the next ten years**

Saint-Gobain is aiming to triple revenues in India in the next ten years to INR 20,000 crore, its chairman de Chalendar said. “India is one of the fastest growing countries for Saint-Gobain.

About EUR 130 million, or 10% of Saint-Gobain’s investment capex, find their way into India that contributes only 2% of its sales. The share of India in total manufacturing is around 4%. The last three years have seen the French company plough back all the profits it made in India to grow its business there.

Chalendar is encouraged by the proactive reforms undertaken by the Indian government, including a progressive reduction in bureaucracy, tax reforms, and a more positive economic climate.

21038/Press Release – 2018.02.26

AGC

AGC

The AGC Float Glass plant in Church Hill, Tennessee (USA), experienced a leak that was contained correctly. A leak occurred on 5 February when workers were bringing the number two float line down for a rebuild as part of the plant's USD 40.6 million expansion. The glass leaked into the designated leak area for such occurrences.

Local firefighters were called to the scene to make sure the leak was contained properly. According to Tom Segelhorst, AGC human resources manager, one person had a very minor 'first aid' injury.

AGC plans to add more than 100,000 additional square-feet of manufacturing space to its existing facility in Hawkins County. The expansion is expected to bring 85 new jobs to the plant.

21039/Press Release – 2018.02.14

Şişecam



ŞİŞECAM

Sisecam Group continues to seize inorganic growth opportunities in addition to new investments. The group now made a move to own a second flat glass factory in Italy, after acquiring the Sangalli Porto Nogaro plant in 2016 for the price of EUR 85 million.

Sisecam has submitted an offer for the acquisition of the Sangalli Group's **Sangalli Manfredonia facilities in southern Italy**.

Commenting on the acquisition offer, Sisecam Group Vice Chairman and CEO Prof. Ahmet Kirman made the following statement: "We expect strategic benefits in terms of our European flat glass operations by acquiring the Sangalli Manfredonia plant, which enjoys a favourable geographical location and offers an annual production capacity of 190,000 tons. The Porto Nogaro plant, which we acquired in November 2016 has made a significant contribution to our competitiveness in the European market. If we finalize the acquisition operation for the Sangalli Manfredonia plant, we will further consolidate our European leadership while doubling our flat glass production capacity in Italy. Our group is currently the largest Turkish investor in Italy, and completing the planned acquisition will further improve that leading position, and we will also become one of the largest flat glass producers of Italy."

The tender process is expected to be completed in the coming months. The 190,000 tons/year flat glass plant in southern Italy also operates a 4 million m²/year lamination line, a 4 million m²/year coating line, and a 1.5 million m²/year satin line.

Kirman said: "We are active in the four main segments of flat glass, glassware, glass packaging, and chemicals. We are aware that we cannot achieve our strategic targets through organic growth only. Thus, inorganic growth is important for us, especially outside Turkey. In accordance with our investment policy focusing on sustainable growth and high performance, we make continuous efforts to seize all potential opportunities including acquisitions, joint ventures and other forms of cooperation. Our offer for the Italian flat glass producer Sangalli Manfredonia is a result of these proactive and careful efforts."

21040/Press Release – 2018.02.08

Pilkington/NSG

Pilkington OptiShower™ glass has been developed to enhance showers aesthetics, improving their appearance and facilitating maintenance.

One of the critical aspects of a standard shower cubicle or enclosure is its maintenance. It is not always easy to keep it transparent, free from traces of limescale, soap and various detergents. In fact, continuous cleaning is necessary.

Over time, the signs of deterioration and opalescence effects are observed on the glass that make its maintenance particularly laborious.



A few months ago, Pilkington Italia launched to the market Pilkington OptiShower™ a new type of glass specifically designed to solve such problems.

Thanks to its special surface coating, the glass helps to keep the shower enclosure transparent and clean over time. The highly resistant coating has anti-corrosion properties that protect the glass surface while maintaining the appearance of the shower box, making it easy to clean.

Due to its resistance to abrasion and high durability, the coating does not deteriorate during the working life of the shower cubicle, keeping all its properties constant over time.

Pilkington OptiShower™ is also a very useful product for public showers (swimming pools and sports facilities) and is ideal for hotels, where the reduction of maintenance time can be a considerable cost saving.

Further applications of Pilkington OptiShower™ may include wall coverings in bathrooms or wet rooms in general.

Thanks to the anti-corrosion coating, it can also be used in the naval sector.

Glass processors appreciate the pyrolytic coating of Pilkington OptiShower™, as it is easy to work with using standard techniques. In fact, this glass can be toughened, bent, laminated as well as silk-screened, even on the coating side.

21041/Press Release – 2018.02.14

Vitro



1. Vitro (North America) has announced its results for the **fourth quarter of 2017**, i.e. solid results reflecting the recent acquisition in Flat Glass, of Vitro Automotive (formerly PGW's Original Equipment unit OEM), with good performance of the Construction and Automotive segments on the Flat Glass division in Mexico.

Consolidated Net Sales rose 41.5% year-over-year during the fourth quarter of 2017 to USD 527 million. This was mainly driven by the 49.5% YoY increase in revenues in the Flat Glass division to USD 472 million for the quarter, notwithstanding the outage of two of Vitro's flat glass furnaces in Carlisle, PA.

Despite the adversities caused by the incident at the company's Carlisle, PA plant, the EBITDA showed an increase of 1.2% compared to the same period of the previous year, mainly due to the acquisition of the Automotive Glass business in the United States, as well as an excellent performance in the Architectural and Automotive markets in Mexico, reaching an EBITDA of USD 90 million in the current quarter, of which Flat Glass contributed USD80 million.

Commenting on Vitro's performance and outlook, Mr. Adrián Sada Cueva, Chief Executive Officer, said "The results in the fourth quarter were a reflection of the ongoing challenges and adversities we faced during the year. We are seeing good results from recent acquisitions which delivered solid sales increases, as well as from our legacy businesses. But this was partially offset by the incident at our Carlisle plant last August. While one of the two affected float lines recovered average production capacity towards year-end, we are advancing a major refurbishing at the other float line and expect it to be back in operations during 3Q'18."

21042/Press Release – 2018.02.22

2. Vitro Flat Glass receives **US Department of Energy's (DOE) funding for glass furnace project.**

Vitro Flat Glass is working on a project to reduce industry cost and energy use by developing a neural network model for glass furnace operations. The goal is to enhance its reduced-order model for glass furnace operations with real-world production data. According to the project details of Vitro's proposal, a machine learning approach will be used to identify the boundary in operating space between good and poor-quality products.

Vitro is one of seven companies participating in the DOE Advanced Manufacturing Office's (AMO) HPC4Manufacturing program. The DOE will provide USD 1.87 million in total funding for the initiative, which uses the DOE's high-performance computing (HPC) resources and expertise to advance US manufacturing and clean energy technologies.

Vitro Flat Glass will partner with the Lawrence Livermore National Laboratory (LLNL) to "develop real-time glass furnace control using a neural net-based reduced order model of a CFD simulation of molten glass flow in a follow-on project titled 'Advanced Machine Learning for Glass Furnace Model Enhancement.'"

According to the proposal, “the enhanced model will enable fast and accurate control of furnace operations. Similar models, if deployed across the glass industry, could improve operational efficiencies and reduce overall costs and energy usage by 3.5 trillion British thermal units per year. These reductions will help maintain US global competitiveness in this industry.”

21043/Press Release – 2018.02.27

Gomelsteklo (Belarus)

Modernization carried out at Gomelsteklo has reportedly enabled the company to double production. The modernization of the company, which began in 2008, is now in the final stage. During this time, production lines for the production of polished, laminated and energy-saving glass have put into operation.

As Gomelsteklo’s General Director Ivan Proturo noted, this has increased the efficiency of production. “The modernization has enabled to double output, and the export potential of the company has also been increased, we are now able to compare prices with the world leaders of the industry, and trade products in international markets,” he said.

The company can now fully meet the needs of the Belarusian market in energy-efficient glass, almost completely reducing the share of imports. While the country’s domestic market consumes only about 80% of Gomel glass.

At the same time, a huge share of the products produced here (80-90%) is shipped to countries of Western Europe, Russia, Ukraine. Only by the results of 2017 more than 35 million square meters of glass for the amount of more than USD 100 million was shipped for export.

21044/Press Release – 2018.02.23

Turkmen Glass

As explained in our previous issue January 2018 – N° 348 (Item 20987), the “Türkmen aýna önümleri” is the largest glass manufacturing enterprise in the Central Asian region, Türkmen aýna önümleri (Turkmen glass products), was opened recently in Ovadandep, 25 kilometers north of Ashgabat, in Turkmenistan.

“At the initial stage, 15 types of products are planned to be produced here, the assortment will increase with time, and some part of the output will be exported,” Turkmen President Gurbanguly Berdimuhamedov said at the opening ceremony.

The enterprise will produce float glass (polished, sheet glass) and various containers for the food and medical sector. Investments in the project amounted to USD 375 million. Over 800 new jobs have been created.

Berdimuhamedov noted that the enterprise will annually produce 3.95 million square meters of transparent glass, 1 million square meters of tinted glass, 300,000 square meters of tempered glass and 100,000 square meters of laminated glass, as well as 400,000 square meters of high-quality double-glazed windows.

He also stressed that currently 70% of raw materials for glass manufacturing are produced in Turkmenistan, and soon it is planned to bring the level of localization to 100%.

The commissioning of the enterprise will significantly reduce the volume of imports of relevant products to the country, and in the future, to export in a wide range of finished glass products, according to the Turkmen leader.

21045/Press Release – 2018.02.23

CONTAINER GLASS

Glass Companies

O-I



1. O-I Full Year 2017 Results

Owens-Illinois, Inc. has reported financial results for the full year and fourth quarter ended 31 December 2017.

“In 2017, we delivered strong earnings and cash flow generation, in line with the commitments we made at Investor Day in early 2016. We have been building capabilities in the commercial, manufacturing and supply chain space that are demonstrably adding to the top line - through higher shipments year-on-year - and the bottom line - through the tangible benefits of our Total Systems Cost approach,” said Andres Lopez, CEO.

“We are working together in a new way, as one enterprise, enhancing the customer experience, executing on our initiatives and deleveraging the balance sheet that together support our conviction to deliver rising earnings and cash flow in 2018.

Even as we continue to invest in new capabilities and explore non-organic growth opportunities in the industry, we have begun to pivot towards a more balanced approach to capital allocation that we anticipate will include share buybacks in 2018.”

For the full year 2017, the company recorded earnings from continuing operations of USD 1.11 per share (diluted), compared with USD 1.32 per share in 2016. Excluding certain items management considers not representative of ongoing operations, adjusted earnings were USD 2.65 per share. This was up 15% compared with the prior year of USD 2.31 per share and at the high end of management guidance of USD 2.60 to USD 2.65 per share. The company generated strong cash flows, exceeding guidance.

Cash provided by continuing operating activities for 2017 was USD 724 million compared with USD 758 million for 2016 which included a non-recurring value added tax refund of approximately USD 130 million. Adjusted free cash flow for 2017 was USD 393 million, which exceeded management guidance of USD 365 million. Net sales were USD 6.9 billion, an increase of nearly 3% compared to the prior year, due to higher shipments, higher prices and favourable currency translation.

Total glass container shipments increased approximately 1% on a global basis, compared with the prior year, led by gains in Europe and Latin America. Earnings from continuing operations before income taxes were USD 275 million, which was USD 81 million lower than 2016 despite higher segment operating profit in 2017. The decline is driven by pension settlement charges of USD 218 million, as well as higher charges related to debt redeemed in 2017.

Segment operating profit of reportable segments for 2017 was USD 942 million, an increase of 7% compared with prior year. Gains were reported in Europe, North America and Latin America. As expected, segment operating profit was lower than 2016 in Asia Pacific, the company's smallest region, mainly reflecting higher supply chain costs which are being addressed with asset improvements.

Full year net sales were USD 6.9 billion, up USD 167 million from 2016, an increase of nearly 3%. Prices were 1% higher on a global basis, mainly due to price adjustments resulting from cost inflation.

Global shipments increased approximately 1% in 2017. From a geographic perspective, key contributors to shipment growth were Italy, Mexico and Brazil. Favourable foreign currency translation also benefited net sales by USD 106 million. Shipments in Europe increased 1%, primarily due to favourable beer, spirits and wine volumes. In North America, sales volumes declined 3% compared to the prior year period, mainly due to lower shipments of beer. Full year shipments for Latin America rose 4%, primarily due to higher shipments of beer and spirits. Overall, Asia Pacific shipments declined 1% as higher shipments to food customers were more than offset by lower shipments to beer and non-alcoholic beverage customers. In mature markets within Asia Pacific, sales volumes increased approximately 1%, primarily due to higher beer shipments. Sales volumes in China declined for the full year because, during the first half of 2017, domestic production was exported to support sales elsewhere in the region.

Segment operating profit was USD 942 million in 2017, compared with USD 882 million in the prior year, an improvement of 7%. In Europe, segment operating profit was USD 263 million, an improvement of USD 26 million over the prior year period, or 11%. The region profited from improvements in Total Systems Costs, cost savings from the closure of a plant in the Netherlands, and higher sales volumes. These benefits were partially offset by lower average selling prices that were not fully offset by deflation.

The company expects earnings from continuing operations, and adjusted earnings, for the full year 2018 to be in the range of USD 2.75 to USD 2.85 per share, which compares favourably with adjusted earnings of USD 2.65 per share in 2017. The company expects cash provided by continuing operating activities for 2018 to be approximately USD 800 million and adjusted free cash flow to be approximately USD 400 million.

2. O-I's containers achieve Cradle to Cradle certification

O-I is the first food and beverage packaging company to achieve gold rating on the Cradle to Cradle Product Scorecard.



The Cradle to Cradle Certified(TM) Products Program is one of the premier sustainability certifications for products around the world and across industries. "The certification provides brand owners, consumers, regulators, and shareholders tangible validation of our company's ongoing commitment to sustainability," said Jim Nordmeyer, VP, Global Sustainability at O-I. "It's an important baseline and helps us identify next steps to improve our environmental and social performance."

Nearly 90% of O-I's glass operations were certified across product categories and for certain container colours in the beer, non-alcoholic beverage (NAB), spirit, wine and food markets. The certification is based on five categories: material health, material reutilization, water stewardship, renewable energy use, and social fairness.

"Achieving a gold rating in material health strongly reinforces the benefits of glass," said Nordmeyer. "Glass is safe for repeated food contact and endlessly recyclable. It's virtually impermeable to oxygen so it protects the freshness and taste of consumers' favourite food and beverage brands."

21047/Press Release – 2018.02.19

Ardagh



Ardagh's plant in Neuenhagen, Germany plant has completed one of the company's largest furnace repair projects.

A 370 tonne furnace with its feeders has been rebuilt and hot end and cold end technology installed. The site now uses Industry 4.0 technology. As well as the furnace furnace repair the company now runs two Heye 12 Section 5 1/2" DG SpeedLines as well as Heye inspection equipment at the cold end.



The two lines started production with 750ml Bordeaux bottles and 500ml wide neck jars. “This major furnace repair is an important step towards future and secures production success for the next two decades”, said Plant Manager, Hartmut Treichel.

The implemented closed-loop technologies include latest Smart Plant features, such as the Heye Process Control, that monitors the pressing processes of all plunger mechanisms of the IS-Machine and enables the machine operator to recognise malfunctions at the earliest moment.

All the installations, merged into a smart closed-loop strategy, ensuring high yields for the plant.

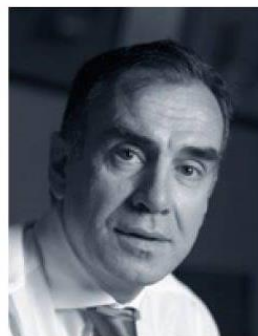
This is also thanks to the good cooperation between the committed Ardagh people on site and the comprehensive installation service of the Heye team, that trained the production team to reliably operate the hot end and cold end equipment.

21048/Press Release – 2018.02.13

Verallia



Verallia Packaging has appointed Didier Fontaine as its Chief Financial Officer and Corporate Planning Director.



Didier Fontaine will also be in charge of finance, purchasing and IT. He will be a member of the Executive Committee.

“I am delighted to welcome Didier onto Verallia’s Executive Committee. His financial and industrial expertise and experience will make a valuable contribution to the deployment of our company’s business strategy,” said Michel Giannuzzi, Chairman and CEO of the Verallia Group.

Didier began his career in 1987 in the banking sector in Canada and Brazil in corporate and project finance. He joined Schlumberger in 1995 as Head of Treasury Europe-Latin America and then held various financial management positions. He took over the administrative and financial management of Faurecia Echappement in 2002 and Inergy Automotive in 2005. More recently in 2009, Didier joined Plastic Omnium as Executive Vice President, Administration and Finance, where he actively participated to the transformation of the Group during the automobile crisis, leading to a significant and sustainable improvement of the financial results. In 2012, Didier was appointed Chief Financial Officer and Head of Purchasing and IT at Constellium, where he successfully led its IPO on the New York and Paris stock exchanges in mid-2013.

In late 2016, Didier was appointed Administrative and Financial Director at Zodiac Aerospace where it also oversaw IT and Legal. During his tenure at Zodiac, Didier had a leading role in driving the merger with Safran, reorganizing the Group and significantly deleveraging the company.

Didier graduated from Sciences Po Paris in Tax and Finance and holds a Higher Diploma in Econometrics from the University of Lyon.

21049/Press Release – 2018.02.22

Beatson Clark



Leading glass packaging manufacturer Beatson Clark is once again investing in the future of its Rotherham plant, covering all areas from glass melting and production to inspection, packaging and IT.

This latest investment of over GBP 2 million is in addition to the GBP 20 million that has been spent on improvements over the past decade and is part of the company's commitment to improve quality and maintain excellent customer service.

Over Christmas and the New Year, Beatson Clark's engineers worked hard to install a new amber bottle making machine and upgrade the forehearth.

Improvements to the forehearth will enhance glass homogeneity, delivering better quality glass to the machine which will produce high-quality bottles and jars using the latest technology. Installation of the new machine took three weeks to complete and demonstrates the company's commitment to serving the growing bottled beer market.

Beatson Clark also plans to install a new Tiama MX4 inspection machine, a high-tech innovation which will use light sensors to check for smears, splits and wall thickness in the glass.

New strapping facilities were also recently trialled and installed at Beatson Clark's glassworks in Rotherham. The new advanced method of strapping the pallets will significantly reduce the de-palletisation time for high speed lines.

Beatson Clark prides itself on providing the best customer service, which is why it has also invested in a QAD Enterprise Resource Planning System. The system includes an updated CRM (customer relationship management) module and will integrate all areas of the business.

21050/Press Release – 2018.02.05

Vitro



Vitro (North America) has announced its results for the fourth quarter of 2017. Revenues for the Glass Container unit, were essentially flat at USD 53 million, as a result of weak demand for machinery and equipment products (FAMA), partially offset by an increase in Fragrances and Pharmaceutical sales. Measured in Mexican pesos (MXN), Consolidated Net Sales increased 35.2% YoY to MXN 10,068 million.

“In the packaging business, our pharmaceuticals and cosmetics segment delivered favourable results, with the development of new products in Mexico, and an increased presence in the United States, Colombia, Peru and Brazil. By contrast, our Machinery and Equipment Business FAMA faced a very difficult quarter as our main customer significantly reduced purchases of machinery and equipment, as well as moulds in the fourth quarter.

21051/Press Release – 2018.02.22

Heinz-Glas

Two Evolution Ultimate 4 machines from IRIS Inspection machines have been installed on the flint cosmetics line of Heinz-Glas in Dzialdowo, Poland. Evolution Ultimate 4 is a compact version of the Evolution Ultimate non-contact inspection solution from IRIS Inspection machines.



The Polish subsidiary of Heinz-Glas has taken delivery of its first non-contact inspection equipment from IRIS Inspection machines in recent weeks. Designed specifically for the inspection of perfume and cosmetics ware that requires the highest level of perfection, the machine has been designed for the inspection of sidewall defects such as stones, blisters and inclusions, as well as deformations and verticality defects, plus the detection of uneven glass distribution in the base. In addition, the Evolution Ultimate 4 machine can detect such transparent cosmetic defects as oil and lap marks, surface blisters, orange skin, tears and wash boards etc.

There has been close co-operation between the parent Heinz-Glas Group and IRIS Inspection machines since 2011. Heinz-Glas installed its first Evolution 1 inspection machine at the Piesau glassworks in central Germany. Subsequently, a diverse range of Evolution equipment has been acquired for the advanced Piesau and Klein Tettau factories in Germany, as well as for the Heinz-Glas site in Lima, Peru. This includes combinations of Evolution 1 for standalone finish inspection, Evolution 5 (base, finish and base stress inspection, with mould number reader), Evolution 12 (sidewall and sidewall stress inspection) and Evolution Ultimate machines for the detection of transparent defects in perfume and cosmetics containers.

21052/Press Release – 2018.02.02

SGD Pharma



Clareo is SGD Pharma's new premium range of moulded glass vials in Type II, for injectable solutions. Clareo vials from SGD Pharma offer a combination of homogeneous wall thickness and superior cosmetic quality, which for moulded glass Type II is unique in the market. The new range offers technical characteristics similar to the vials in the existing range and can replace them without any regulatory change.



The mission of SGD Pharma is to improve and protect patients' health by supplying high quality, reliable and innovative glass primary packaging to customers in the pharmaceutical industry. The company's commitment is to continuously innovate and to reinforce patient safety by improving the physical, chemical and cosmetic properties of its different types of glass.

- The mechanical resistance to shock of the Clareo vials has been considerably improved by obtaining a more homogeneous distribution of the glass (+15pts compared to the standard process). This increased regularity allows a significant reduction of the breakage rate (up to 10x lower).
- Clareo vials have more flat and uniform bottoms, which ease the thermal transfer during freeze-drying processes.
- Clareo vials also offer a superior cosmetic quality, leading to an improved inspectability before and after filling. Pharmaceutical and biotechnology companies benefit from this advantage, allowing a reduction of their Total Cost of Ownership (TCO), mostly for high value-added products.

SGD Pharma can share a list of molecules, for which compatibility with glass Type II has been approved by the authorities. It is currently the only manufacturer able to supply vials for injectable solutions in moulded glass Type II, offering the combined benefits of transparency and strength.

21053/Press Release – 2018.02.06

Bormioli Pharma



Bormioli Pharma starts 2018 with stability drive, providing pre-dosed solvent and drug powder oral delivery product for easy self-administration and increased safety. Bormioli Pharma's AccuRec is a revolutionary dual-chamber system for oral reconstitutable medicines, a step-change towards eliminating the adverse side effects of excipients in oral drugs.

AccuRec's dual chamber system design maximizes drug stability by eliminating the need to include excipients with the active ingredient; a promising high-tech solution to a growing safety concern in the industry. The inclusion of excipients in pharmaceuticals is traditionally used to make drugs more stable, but can also contribute to additional adverse effects from direct toxicity, allergy or intolerance.



Considering this additional risk, the use of excipients requires justification to ensure they are not being used to disguise poorly formulated products or inadequate packaging. AccuRec has the capability to circumvent the need for excipients because the chambers avoid active ingredients contacting and interacting with the solvent until the moment of administration. Reconstitution is usually complex but AccuRec's dual-chamber system is an easy to use system enabling the user to reconstitute oral drugs in just a few easy steps. AccuRec helps to eliminate the chances of human error by providing pre-dosed solvent and drug powder chambers ensuring easy self-administration and effective mixing.

"Unstable drug formulations are a growing concern for healthcare professionals and drug developers," says Elena Piazza, Business Development and Marketing Manager, Bormioli Pharma. "Our AccuRec system has drawn on Bormioli Pharma's heritage in reconstitutable medicines and completely redesigned the powdered oral drug concept. The revolutionary design makes reconstitution simple and accurate, helping to ensure efficacy of treatment and ease of use for the patient. At Bormioli Pharma, we are excited about what AccuRec can offer stakeholders in the healthcare provision: from payers to patients."

AccuRec was exhibited at Pharmapack 2018 and available from February 2018. Bormioli Pharma expects the first at-scale commercial roll out of its AccuRec system with a drug manufacturer in the second quarter of 2018, and anticipates wide horizons as it grows throughout 2018.

Bormioli Pharma is committed to developing further innovative premium packaging solutions as it aims to address four other crucial pharmaceutical market needs. These are closing safety gaps in pediatric syrup administration, introducing further protection features for protein-based drugs, streamlining the freeze-drying process for parenteral drugs, and making inhalable dry powder drugs accessible in developing countries.

Gerresheimer



GERRESHEIMER

1. Dr. Christian Fischer, Chairman of the Management Board of Gerresheimer AG, will leave the company with immediate effect. Dr. Fischer has asked for an amicable premature termination of his services due to personal reasons. Such decision is not based on diverging views regarding the strategy or business performance of the company. The Supervisory Board has accepted such request.

The company will be managed by the remaining three board members until a new CEO has been appointed. The CFO Rainer Beaujean will assume the function of Speaker of the Management Board for the interim period. Andreas Schütte continues to lead the Plastics & Devices Division. Dr. Lukas Burkhardt has taken over responsibility for the Primary Packaging Glass Division since 1 January 2018.

21055/Press Release – 2018.02.08

2. Gerresheimer AG closed the **2017 financial year** (1 December 2016 to 30 November 2017) with an improved adjusted EBIDA margin, despite a decrease in revenues. “The financial year 2017 was characterized by uncertainty in the pharma and healthcare markets relevant to us. Growth in the global pharma market slowed considerably in 2017. Despite a slight decrease in revenues, we were able to raise profitability. We are consequently proposing an increased dividend. We are confident that we can grow sustainably and profitably in the coming years and further expand our strong position in the markets for pharmaceuticals, healthcare and cosmetics. We have taken important steps in this direction and set our strategic priorities for the years ahead. Accordingly, we are raising our long-term target Gx ROCE to around 15%,” said Rainer Beaujean, CFO and Speaker of the Management Board.

Revenues ended the financial year 2017 with a decrease of just 2.0% to EUR 1,348.3m. On a constant exchange rate basis, revenues stood at EUR 1,361.6m, down by 1.8%. The global pharma market grew significantly more slowly in 2017 than in the preceding years. Especially in the US – the world’s largest and most important pharmaceuticals market – there was growing uncertainty, also stemming from the debates surrounding healthcare reform, trade policy and tax reform.

Owing in part to this general market uncertainty, Gerresheimer reported lower sales of glass packaging for injection drugs in the US. Additionally, in the medical plastic systems segment – and here notably in the case of inhalers – there was a drop in demand among some of the pharma customers for whom Gerresheimer is the sole supplier.

The Company succeeded in improving other key performance indicators in spite of the reduction in revenues. Full-year adjusted EBITDA rose to EUR 310.8m and at constant exchange rates to EUR 314.3m, including EUR 3.6m from positive fair value evaluation of the Triveni put option. Profitability, measured as adjusted EBITDA margin, was 23.1%, considerably above the already strong prior-year figure of 22.4%. Adjusted net income from continuing operations after non-controlling interests stabilized at EUR 127.5m. Operating cash flow, at EUR 204.6m, was above the prior-year figure of EUR 197.4m.

Gerresheimer's expectations for financial year 2018, in each case at constant exchange rates are as follows. The Company bases its exchange rate assumptions here on the average rates over the last 12 months. For the US dollar – which is expected to have the largest currency impact on the Group currency, accounting for about a third of Group revenues in 2018 – an exchange rate of approximately USD 1.12 to EUR 1.00 has been assumed.

- For revenues, Gerresheimer anticipates a range whose lower end corresponds with the actual figure for the financial year 2017. At the upper end, the Company expects revenues at constant exchange rates of up to around EUR 1.4bn.
- For adjusted EBITDA at constant exchange rates, Gerresheimer projects a range of EUR 305m to 315m.
- Capital expenditure in 2018 will amount to around 8% of revenues at constant exchange rates.

21056/Press Release – 2018.02.23

Orora



Australian container manufacturer Orora has signed an agreement to have wind-generated electricity supplied to its Gawler Glass facility. It has signed the long-term power purchasing agreement with global renewable energy provider Pacific Hydro, to supply wind-generated electricity for the South Australian (SA) operations.

The energy will be supplied from Clements Gap Wind Farm (*pictured*), for a volume equal to Orora's total electricity demand in SA. The agreement also includes risk-sharing arrangements to protect Orora's exposure to variable market prices in South Australia. Orora CEO, Nigel Garrard, said: "Orora operates energy intensive businesses and is continuing to actively investigate a range of options to manage higher energy prices and safeguard supply for the Australian operations.

"Renewable energy represents a competitively priced and sustainable energy source and this agreement provides our operations with greater energy price certainty over the long-term."

The Gawler facility recently completed an AU\$42 million (US\$33.8 million) expansion project. Mr Garrard added that the Gawler facility has implemented a number of process improvements with the focus on safety.

The installation of a world first trial of automated swabbing technology will allow Orora to improve safety and optimise process stability on an ongoing basis.

The operator's time is redirected from manual swabbing to focus on process quality.

In addition, mould laser cleaning technology was developed and commissioned at the plant, reducing manual handling of over 20 tonnes each day and improving the quality and life of moulds.

In its half-year financials, it said glass volumes were ahead of pcp driven by continued industry growth in bottled wine exports that offset a marginal decline in beer volumes. He added that the business had purchased land, including two previously leased warehouse facilities adjacent to the Gawler site. This will enable further improvements in supply chain optimisation at the site.

21057/Press Release – 2018.02.20

DOMESTIC TABLEWARE AND CRYSTAL GLASS

Glass Company

Libbey



Libbey celebrates 200 years

Founded two centuries ago, Libbey Inc. will be holding special events in May to celebrate this important anniversary and its milestones during these years such as the development of machine-blown glass in 1907 and the first one-piece press and blow stemware process in 1970.

Libbey was founded as the New England Glass Company on 18 February 1818.

Libbey Inc. has several significant milestones in its history, including when the glass manufacturing company established its roots in Toledo in 1888, and again in 1892, when Edward Drummond Libbey changed its name from the New England Glass Company to what it is today. Significant events in the glass company's history include being the first to develop machine-blown glass in 1907 and its patent of the first one-piece press and blow stemware process in 1970. The events will also laud other glass companies that contributed to Toledo's wealth as the Glass City, including the Libbey-Owens-Ford Glass Co. and Owens-Illinois.

But it was two centuries ago, 1818, that the company first established itself, and it is that benchmark – and the company's successes since – that will be celebrated this year with both private and public events on 4 and 5 May.

Libbey plans to host an invitation-only event the evening of 4 May, which will include a Toledo Symphony Orchestra performance, cocktails, and a video about the company. There will be a public event at different locations in the city on 5 May, which will include hands-on painting, drawing, and sculpting activities and glassblowing demonstrations at the Toledo Museum of Art.

In conjunction with the celebration, the art museum in late April will open an exhibition of Libbey glass featuring both contemporary pieces and late 19th and early 20th century works from its permanent collection of 650 Libbey pieces, including the popular Libbey punch bowl that was cut by a craftsman at the Toledo plant for the 1904 St. Louis World's Fair.

Libbey has already started its internal celebration, coined Toast to 200 Years, and employees have been asked to raise a glass in its two US manufacturing plants as well as plants in China, Mexico, the Netherlands, and Portugal.

21058/Press Release – 2018.02.02

REINFORCEMENT GLASS FIBRES

Glass Company

Owens Corning



1. Owens Corning announced that **Adrienne (Deanie) D. Elsner**, President, U.S. Snacks, Kellogg Company, has been **elected to the company's Board of Directors** effective immediately.

"We are pleased to welcome Deanie Elsner to our Board of Directors," said Owens Corning Chairman and Chief Executive Officer Mike Thaman. "With her extensive experience in business, marketing and product innovation, she will be a great asset to the company and is certain to make significant contributions to the Board."

Ms. Elsner joined Kellogg Company in August 2015. Prior to joining Kellogg Company, she served more than 20 years in various leadership roles at Kraft Foods, Inc., including Executive Vice President and Chief Marketing Officer. Her experience also includes sales roles at Procter & Gamble and Johnson & Johnson. Ms. Elsner has served on the Board of Directors of the Ad Council as well as the Museum of Science and Industry in Chicago. Ms. Elsner holds a bachelor's degree in Marketing and Entrepreneurial Studies from the University of Arizona and a MBA in Marketing and Finance from the University of Chicago.

21059/Press Release – 2018.02.02

2. **Owens Corning reported Full-Year 2017 results.**

Full-year 2017 net earnings were \$289 million, or \$2.55 per diluted share, compared with net earnings of \$393 million, or \$3.41 per diluted share, during 2016. Adjusted earnings in 2017 were \$498 million, or \$4.40 per diluted share, compared with \$419 million, or \$3.63 per diluted share, during 2016.

"Owens Corning had another great year. We were pleased by the continued momentum in our three businesses and the addition of Paroc and Foamglas to our portfolio," said Chairman and Chief Executive Officer Mike Thaman. "In 2018, the company is again positioned to produce strong revenue and earnings growth with substantial free cash flow."

- Reported EBIT for full-year 2017 was \$737 million, compared with \$699 million during 2016. Adjusted EBIT in 2017 was \$855 million, up from \$746 million in 2016.
- The company generated record operating cash flow of \$1.0 billion and record free cash flow of \$679 million in 2017. The company converted adjusted earnings to free cash flow at a rate of 136%.
- Composites posted EBIT of \$291 million, a fifth consecutive year of improved performance.

2018 Outlook

- The company expects an environment consistent with consensus expectations for U.S. housing starts and global industrial production growth.
- In Composites, the company expects continued growth in the glass fibre market, driven by global industrial production growth. In 2018, the company expects EBIT improvement of about \$20 million, with the benefit of market growth and improved pricing partly offset by accelerated inflation and higher rebuild costs.

21060/Press Release – 2018.02.21

SPECIAL GLASS

Glass Companies

SCHOTT

1. SCHOTT has developed a **unique process that enables freedom of design and high precision in structured glass wafers**. SCHOTT highlighted its new **FLEXINITY™** portfolio of structured glass solutions at Photonics West in San Francisco.

SCHOTT's new FLEXINITY™ structuring portfolio offers complete freedom of design on glass wafers and thin glass. FLEXINITY™. The breakthrough will enable new applications and further miniaturization of electronics through thinner glass wafers and structures that are more precise. The technology offers the lowest structuring radius of just 150 micrometers (μm) and a feature size tolerance lower than $\pm 25 \mu\text{m}$.



“Component manufacturers have been on the hunt for more precise, lighter, and thinner structured glass wafers, but mechanical structuring methods have reached their limits,” said Matthias Jotz, Product Manager at SCHOTT Advanced Optics. “New applications that have been waiting for smaller components are finally possible.”

An increasing trend toward miniaturization in IC packaging, biochips, sensors, micro-batteries, and diagnostic technology has pushed demand for high-precision structured glass wafers, even as technology to create them has reached its limits. This has made it difficult to shrink wafers any further, and limited the pace of innovation.

SCHOTT

SCHOTT's new FLEXINITY™ structuring portfolio offers complete freedom of design on glass wafers and thin glass. With FLEXINITY™, any shape is possible, and the process allows extremely tight tolerances and structures. Structured wafers are available made of glass types from SCHOTT's unique down-draw glass portfolio, or plano-plano-processed BOROFLOAT 33® borosilicate glass.

SCHOTT's structured glass wafers are available in 4-inch to 12-inch wafers, in thinness ranging from 0.1 to 3.0mm. The smallest structuring radius is set to 150 µm and the feature size tolerance is lower than ± 25 µm. Customers can choose from several different glass types, such as borosilicate glass (MEMpax®, D 263® family, BOROFLOAT 33®) and alkali-free glass (AF 32® eco).

SCHOTT has already created sampling capabilities; mass production will be ready for 2019.

21061/Press Release – 2018.01.23

2. **PYRAN® Platinum** is a fire-rated glass-ceramic that prevents the spread of fire, hot gases and smoke, now also the largest.



PYRAN® Platinum is now also the largest. At 51 x 99 inches, the new PYRAN® Platinum sheet size enables to realize projects that were previously impossible.

PYRAN® Platinum is produced using SCHOTT's unique Microfloat process. The hot molten glass ribbon is floated on an inert bed of liquid tin and is allowed to cool slowly without any mechanical contact that could blemish the smooth surface. The result is PYRAN® Platinum's smooth, distortion-free mirror finish.

PYRAN® Platinum is clear and colourless, without the distracting amber tint associated with competitive fire-rated glass-ceramics. The neutral colour allows PYRAN® Platinum to blend in with the surrounding architecture of the building.

PYRAN® Platinum is a fire-rated glass-ceramic that prevents the spread of fire, hot gases and smoke. Even under high thermal loads, the glazing stays transparent, ensuring that the burning building can be safely evacuated.

PYRAN® Platinum fire-rated glass-ceramics are certified by Underwriters Laboratories for fire-protection ratings up to 90 minutes in windows and 180 minutes in doors. For safety-rated applications, filmed (PYRAN® Platinum F) and laminated (PYRAN® Platinum L) versions are available.

21062/Press Release – 2018.02.06

Zeiss



Zeiss has added a new 25mm f/2.4 wide angle prime lens (pictured), to its Loxia manual-focus line-up for Sony's full frame E-mount cameras.



A new lens from Zeiss features a Distagon optical design that has been specially developed for Sony's high-resolution, full-frame sensors. It contains 10 elements in eight groups, including one element with an aspheric optical surface and two elements made from special glass with anomalous partial dispersion. It is effectively free from distortion. Like the 21mm f/2.8 and 35mm f/2 wide-angle lenses in the Loxia family, it is designed for manual focusing and manual aperture selection. The minimum focus is 25 cm and apertures can be stopped down to f/22. The aperture ring includes a DeClick mechanism. Zeiss lenses are characterised by focusing rings with a large rotation angle which enables high precision. Changes are immediately visible in the viewfinder. The lens includes a distance scale and depth of focus indicators to provide additional support for manually focusing.

The new lens features a precision-engineered full-metal casing, metal focus and aperture rings and a tough front bayonet and filter screw. A special sealing ring on the bayonet also protects the interface between the camera and the lens.

Detailed information about the new lens can be found at <http://lenspire.zeiss.com/en/loxia-24-25/>.

21063/Press Release – 2018.02.21

Miscellaneous

Nokia

The Nokia 10 phone is attracting a lot of attention especially with regards to the possibility of it having five cameras. Nokia 10 is one of the most awaited phones from HMD house this year. While there have been enough rumours about Nokia 9, Nokia 10 has managed to attract a lot of attention, courtesy to the rumours that suggest that the phone will come with 5 cameras set up.

Now there's one more reason why Nokia 10 could be a special device thanks to a video revealing the possible concept design of Nokia 10 and it shows a glass back that looks stunning.



Nokia 10 will have a glass back

The video reveals a metal and glass built of the phone, with a fingerprint sensor at the back of the device, company name embossed below the fingerprint sensor, a camera module with dual cameras and ZEISS branding above the scanner. Nokia 10 is also expected to come with more than 1 selfie shooters.

Nokia 10 is expected to launch soon this year, most probably after the Nokia 9 launch. In a recent sketch we can see that Nokia will use 5 camera lenses on the back and it can be rotated and placed below a primary lens and detector.

21064/Press Release – 2018.02.02

Akhan Semiconductors

Mirage Diamond Glass is a special glass that is reinforced with diamonds and which, says its manufacturer Akhan Semiconductors, could be used on phones as early as 2019.



As early as 2019, we could see the first phones that have diamond glasses or displays that are protected by special glass. The glass is reinforced with diamonds as opposed to other protective glasses. It is called Mirage Diamond Glass and is manufactured by Akhan Semiconductors.

According to Akhan's CEO, diamond-reinforced glass is much stronger and harder than traditional protective glass. Mirage Diamond Glass is made from laboratory-made diamonds, the main plus is that it can be used in combination with other technologies such as Gorilla Glass, which is now used by most phone manufacturers.

Currently, the latest tests are underway before the technology is offered to manufacturers. Initially, they want to cooperate with one manufacturer and then expand their cooperation to other players in the phone market.

For example, tests show that diamond protection glass will have no effect on the touchscreen. Strength tests are also performed to ensure a good life. The results are however not yet available, nor the price.

21065/Press Release – 2018.02.13

DIVERSE

GLASS & SUPPLIERS

British Glass Members Present Sustainable Glass Manufacturing to UK Government

Pilkington UK and Encirc Glass invited government officials to view a sustainable glass manufacturing presentation.

Pilkington UK welcomed Lord Prior, a former member of the Department for Business, Energy and Industrial Strategy (BEIS), and government officials to its Greengate site in St Helens, presenting the latest technology, investment and expertise in flat glass manufacturing. It includes high performance technical coatings that contributed to energy efficient buildings with thermal insulation and control of heat gain from the sun. Dr Nick Kirk, British Glass Technical Director, said: "Glass capability is a vital economic and technological asset with a key role to play in the modern manufacturing economy. "Much of twenty-first century life depends on products that use glass – from 100% recyclable packaging and energy-efficient glazing to optical technologies that enable anything from night vision to Internet communication.

"That's why we're urging the government to work with us to ensure the glass industry can plan, invest and grow successfully in the UK."



Caption: British Glass take Lord Prior, a former member of BEIS, on a tour of Encirc Glass. L-R Dave Dalton (British Glass), Noel McGovern (Encirc), Lord Prior and Fiacre O'Donnell (Encirc).

The presentation topics following the tour included energy policy, plant investment, improvements in solar control, thermal insulation and the economy post-Brexit.

Dave Dalton, British Glass Chief Executive, said: "It is essential that we work closely with the government to ensure that its strategies for the industry, clean growth and resources enable glass manufacturing in the UK to deliver a sustainable and competitive future."

Mr Dalton accompanied Lord Prior to Encirc Glass' container manufacturing site in Elton. It provides filling, bonded warehouse and logistics services. Lord Prior observed the measures that glass manufacturers are implementing as they enforce the UK Glass Sector Decarbonisation Action Plan.

As the UK enforces its industrial strategy and nears towards Brexit, British Glass is working with the government to ensure it recognises and understands the importance of glass manufacturing and the factors that will determine its ongoing success.

21066/Press Release – 2018.02.05

ZEISS Research Award 2018



Tobias Kippenberg and Jean-Pierre Wolf are the 2018 winners of the prestigious ZEISS Research Award.

Tobias Kippenberg, Professor at the Laboratory of Photonics and Quantum Measurements at the École Polytechnique Fédérale de Lausanne (EPFL), is a pioneer in the field of cavity optomechanics and microresonator-based optical frequency combs. His research has demonstrated that, by using microresonators – which can confine light in an extremely small space and guide it – the faint forces exerted by light rays can be used to measure and cool mechanical movements in the quantum regime. This means, for instance, that high-precision sensors can be developed to measure mechanical movements that are several orders of magnitude more precise than the currently available position sensors, and that are even sensitive enough to measure the quantum mechanical “zero point motion” of a mechanical oscillator.

Jean-Pierre Wolf, Professor at the Biophotonics Institute at the University of Geneva, will be honoured for his groundbreaking application of ultra-short, ultra-intense laser pulses in researching the earth's atmosphere. His research makes it possible to find out more about pollutants in the earth's atmosphere and potentially control lightning and condensation in clouds. This could even make it possible to prevent extreme weather. The focus of his research efforts has been on the applications of ultra-short spectroscopy for biological, medical and environmental research.

The awards will be presented during the ZEISS Symposium “Optics in the Quantum World” on 18 April 2018 at the ZEISS Forum in Oberkochen.

The ZEISS Research Award is presented every two years and has been allocated prize money totalling EUR 40,000. The selected candidates should have already demonstrated outstanding achievements in the field of optics or photonics. They should still be actively conducting research, and their work should offer major potential for gaining further knowledge and enabling practical applications.

Initiated and funded by Carl Zeiss AG, the ZEISS Research Award is the successor to the Carl Zeiss Research Award that honoured outstanding achievements in optical research every two years from 1990 onward. Many winners of Carl Zeiss Research Award went on to obtain further awards and distinctions; four of them were also honoured with the Nobel Prize.

Since 2016, independently of the ZEISS Research Award, the Ernst Abbe Foundation in the Donors' Association for the Promotion of Sciences and Humanities in Germany has been presenting a research award with a focus on up-and-coming talent: the Carl Zeiss Award for Young Researchers. The award has been allocated prize money totalling EUR 21,000 and will be shared equally among three winners, with each receiving EUR 7,000. This award will also be presented at the ZEISS Symposium on 18 April 2018. The winners in 2018 are:

- * Dr. Irene Costantini, European Laboratory for Non-Linear Spectroscopy, Florence
- * Dr. Kilian Heeg, Max Planck Institute for Nuclear Physics, Heidelberg
- * Dr. Fabian Stutzki, Fraunhofer Institute for Applied Optics and Precision Engineering, Jena.

21067/Press Release – 2018.02.19

Otto Schott Research Award

The 15th Otto Schott Research Award will be presented in 2018 to Prof. Dr. C. Austen Angell. The esteemed glass scientist from Arizona State University in the US will receive the award along with a EUR 25,000 endowment for his pioneering, lasting scientific contributions throughout his illustrious research career.



Prof. Angell's impressive contribution to the world of glass science is best expressed in numbers:

- 100 of his 523 essays to date have been cited over 100 times;
- Angell's publications have been cited nearly 58,000 times of which 17,500 coming within the last five years;
- In the last five years, Angell holds a remarkable h-index (ratio for a scientist's global reputation in professional circles) of 64; his entire career registers 106.

Angell's findings and achievements have garnered high interest from the glass community. Famous for his independent work on understanding liquid dynamics, the American scientist has focused particularly on the classification of viscous fluids, as well as the description of cooperative processes for liquids in the form of an "energy landscape for cooperative processes in liquids."

Besides his life achievements, the 84-year-old's remarkable continuity and relevance with which he has repeatedly enriched glass science served to distinguish him over the multi-stage selection process among 16 nominees and 13 submissions for the Otto Schott Research Award.

“Prof. Angell has managed to remain constantly active and visible as a researcher. He has published many influential scientific papers as a first and even sole author,” explained Prof. Kathleen Richardson and Prof. Tanguy Rouxel, members of the Board of Trustees of the 15th Otto Schott Research Award, in justification of their recommendation of the ultimately unanimous winner. **The award is scheduled to be officially presented at the 15th International Conference on the Physics of Non-Crystalline Solids in conjunction with the 14th European Society of Glass Conference in St. Malo, France, on July 9, 2018.**

21068/Press Release – 2018.02.26

SEMINARS / CONFERENCES / WORKSHOPS

Challenging Glass Conference 6

The next edition of the Challenging Glass Conference will take place **17 and 18 May 2018 at TU Delft in the Netherlands.**

Challenging Glass is an international bi-annual conference that aims at gathering world class designers, engineers, researchers and industry partners to discuss on the architectural and structural use of glass.

Conference themes: Projects & Case studies, Joints & Fixings & Adhesives, Strength & Stability, Laminated Glass & Interlayer Properties, Hybrid & Composite Glass Components, Numerical Modelling & Experimental Validation, Curved & Bended Glass, Architectural Design, Geometries & Lighting, Structural Glass Design Philosophy & Structural Safety, Insulating Glass Units, Glass in Facades.

21069/Press Release – 2017.07.06



ICCG12: 12th International Conference on Coatings

The 12th edition of the ICCG international scientific conference will take place in Würzburg (Germany) **on 12 June 2018** and will also include an accompanying exhibition, which will be a marketplace for innovation.

In 2018, participants in this biannual conference, technical exhibition and industry get-together, will *“Dive into the World of Coatings”* and will find this motto reflected on a number of very different levels which all serve to create an attractive meeting space for scientists, technologists, managers, and practitioners from research, teaching and industry. There will be opportunities to discuss all kind of topics in the field of large-area coatings on glass and plastics.

To foster the idea of networking and to offer a platform for future projects, the accompanying exhibition will be turned into a marketplace for innovation. Exhibitors will have the opportunity to give short presentations or to host innovation talks to introduce latest developments.



There will also be room for B2B meetings which may lead to follow-up contacts at a later stage. It is also seen that there is time available for in-depth discussions without having to miss out on a talk or skip a presentation.

The application of coatings onto glass and plastics is still of major importance to create high added value products. Large area deposition of inorganic materials under atmospheric or vacuum conditions has become the basis of energy savings, harvesting, and storage.

Optical thin films dominate the market in consumer electronics and communication networks. Emerging markets and new business opportunities for high volume products rely on coatings on flexible substrates generated either through plasma enhanced processes or wet chemical deposition techniques. Advanced materials and hybrid nanocomposites present further options to create multifunctional and even active surfaces contributing to the development of high-tech products and services. The 12th ICCG will highlight these international market trends, discuss new relevant materials and deposition technologies. We will bring together experts from science and industry as well as other stakeholders defining the future of surfaces and coatings.

Prior to the conference, on Monday afternoon 11 June 2018, several short courses will be given by experts in the field of thin films and coatings. These educational lectures are intended to provide fundamental and technological background on specific conference topics.

Conference program: Introductory session followed by “Markets and business in the field on coatings on glass and plastics” - Chairmen: Dr. K. Suzuki, Mr. J. Vitkala

The conference will be organized in several sessions:

Technical sessions

1. Advanced vacuum processes - Chairmen: Prof. Dr. G. Bräuer, Dr. J. Strümpfel
2. Atmospheric pressure processes - Chairmen: Prof. Dr. K. Spee, Dr. J. Pütz
3. Film growth, metrology, process control, simulation - Chairmen: Mr. R. Shimshock, Dr. T. Kälber, Prof. Dr. B. Szyszka
4. Energy conversion, lighting, displays - Chairmen: Dr. M. Junghähnel, Dr. D. Bernt
5. Optics, sensors, life sciences, packaging - Chairmen: Dr. G. Ockenfuss, Prof. Y. Shigesato
6. Architectural and automotive glazing - Chairmen: Prof. S. Oktik, Dr. R. Thielsch

Panel discussion: Electromobility and autonomous driving and its influence on coatings on glass and plastics

ICCG12 is organized by the International Organizing Committee of ICCG, Fraunhofer Institute for Silicate Research ISC and Vincentz Network.

21070/Press Release – 2017.11.21

15th PNCS / 14th European Society of Glass (ESG) Conferences

The **International Conference on the Physics of Non-Crystalline Solids (PNCS)** and the **European Society of Glass (ESG)** conferences, which are both interested in glass with slightly different scientific or technologic emphases, will be held together in **Saint Malo, France, from 9 to 13 July 2018**.

- The 15th International Conference on the Physics of Non-Crystalline Solids is the continuation of a series of meetings started by Pr. V.D. Fréchette (USA), in 1958. 13 conferences have been organized subsequently, with the latest one organized by Pr. Cormack, from Alfred University (USA) in 2015. Continuing the tradition, PNCS XV will provide an international forum for the most recent developments on the physics of non-crystalline materials.
- The ESG Conference is the largest meeting organized by the European Society of Glass. The aim of this 14th conference is to present and discuss ways to improve the quality and the performance of glass products in their various applications. The conference will maintain the quality of the previous congresses while incorporating new features to learn about the latest developments in glass technology and European Regulations.

Topics of the conferences will include: Basic Glass Science, Special Glasses, Glass Application, Glass Properties, Melting Technology, and Heritage, History, Scholar.

For more information on this event, please go to: <http://www.ustverre.fr> or <https://pncs-esg-2018.sciencesconf.org>



21071/Press Release – 2018.01.16

ICG 10th Workshop and Annual Meeting 2018

1) **The 10th ICG workshop** will be composed of two interwoven threads overviewing fundamentals in glass science and focusing on bioglasses and glasses for pharmaceutical packaging.

Taking place in **Montpellier, France, 2-6 July 2018**, it will be composed of two interwoven threads.

The first thread will overview fundamentals in glass science emphasising structure-property relationships, experimental techniques and material simulations.

Specific properties, their structural dependence and applications will be discussed e.g. optical behaviour, transport phenomena, nucleation and crystallisation, and strength. The second thread this year will focus on bioglasses and glasses for pharmaceutical packaging. Attention will be given to the structure and properties of bioactive glasses, hybrids and composites, for the design of new materials for health applications. Compatibility with human body of prostheses and scaffolds, will be discussed. The interactions with drugs and molecules with glass, adsorption, delamination problems of glass containers for pharmaceutical products, will also be treated.

In the sessions where the two threads overlap, all participants will cross two bridges: one between science and application, the other between academia and industry. The lecturers will be world experts in their fields. A significant aspect of the workshop will be student-centred projects that will help participants to develop their understanding by applying what they know to specific issues.

Pre-registration: Deadline 15/04/2018 by email to: verres2018@mycema.fr

Registration deadline 15/05/2018.

Participants will be limited to 30 (Glass Science) and 20 (Glass Applications).

A more complete programme will appear soon on the ICG web site (www.icglass.org).

2) The ICG Annual Meeting 2018 will be taking place 23-26 September in Japan, and is organized by the Ceramics Society of Japan (CerSJ).

The 2018 annual meeting of the International Commission on Glass (ICG) will be held in Yokohama, Japan, 23-26 September 2018. ICG 2018 is organized by the Ceramics Society of Japan (CerSJ), in strong collaboration with the Glass Industry Conference of Japan (GIC).

Preparations are underway regarding the meeting to welcome many glass researchers, engineers and related professionals from all over the world.

A list of topics of papers can be found at:

<http://www.icg2018yokohama.com/program/index.html>

For more information, visit the ICG website at www.icg2018yokohama.com.

21072/Press Release – 2018.01.08 & 18

Call for Abstracts for the 79th Conference on Glass Problems

The 79th Conference on Glass Problems (GPC) invites engineers, educators, students, and solutions providers working on various aspects of glass manufacturing to submit an abstract for an oral presentation at this premier industry conference. The 79th Conference on Glass Problems is organized by the Glass Manufacturing Industry Council and Alfred University, and endorsed by The American Ceramic Society.

Broad topics of interest include:

- Furnace design and reconstruction
 - Physics and chemistry of the melting process
 - Thermodynamics and reaction kinetics of oxide systems relevant to industrial glass melting
-

- Modeling of glass melting and processing
- Combustion and heat transfer
- Refractories
- Safety
- Raw materials: engineered, minerals, and chemicals, batching and recycling
- Forming
- Energy efficiency and management
- Environmental impact of glass
- Advanced process controls and sensors
- New topics (relevant to glass manufacturing)

79th GPC selected oral presentation authors are required to submit a paper for publication in the proceedings of the conference.

The 79th annual GPC will run **November 5-8, 2018**, once again at the Greater Columbus Convention Centre in Columbus, Ohio.

The conference is the largest glass manufacturing conference in North America, and attracts glass manufacturers and suppliers worldwide to exchange innovations and problem solutions. Co-organized by the Glass Manufacturing Industry Council and Alfred University, the conference provides expert lectures, panel discussions and focused courses and symposia, along with exhibiting and networking opportunities. True to its tagline, GPC is the conference where glass manufacturers meet. Submit your abstract today to become a part of the technical program.

If you have questions about the 79th Conference on Glass Problems, please visit <http://glassproblemsconference.org>.

21073/Press Release – 2017.09.05

GPD Finland 2019

The Glass Performance Days (GPD) event in 2019 will celebrate its 27th year of service to the glass industry and will address the challenges the industry faces today.

In 2019, the technical sessions of the conference and workshops of the Glass Performance Days (GPD) will be addressing the challenges the industry faces today regarding the ever-changing demands on City planning, building design, energy-efficiency and environmental fit. A special focus will be on the contribution of new glass technologies to these demands. The modular program of the event will consist of the following:

* 25-26 June 2019, Workshops

* 26-28 June 2019, Conference Part (six parallel technical sessions each day) and Exhibition Part, including Glass Expo section for the glass product exhibition and Step Change section for start-up companies.

More info at <https://gpd.fi/events/gpd-finland-2019/>.

21074/Press Release – 2017.12.19
