

WELCOME TO EU GLASS INDUSTRIES NEWS



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EU COMMUNITY NEWS

NEW EU LEGISLATION

Commission Notice

Commission Notice on Technical Guidance on the Classification of Waste

The purpose of this Notice is to give technical guidance on certain aspects of Directive 2008/98/EC on waste ('Waste Framework Directive' or 'WFD') and Commission Decision 2000/532/EC on the list of waste ('List of Waste' or 'LoW'), as revised in 2014 and 2017. In particular, it provides clarifications and guidance to national authorities, including local authorities, and businesses (e.g. for permitting issues) on the correct interpretation and application of the relevant EU legislation regarding the classification of waste, namely identification of hazardous properties, assessing if the waste has a hazardous property and, ultimately, classifying the waste as hazardous or non-hazardous.

Full Notice on page 1 at

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:C:2018:124:TOC>

21139/OJC124 - 2018.04.09

TRADE POLICY

European Parliament to Strengthen Gender Equality in EU's Trade Agreements

The Council of Ministers of the EU adopted on 16 April the final version of the new regulation on the trade defence instruments of the EU, which was born of the inter-institutional agreement in December 2017, paving the way for its final adoption by the European Parliament in May.

The United Kingdom and Sweden voted against the text and Ireland abstained, in a vote by qualified majority.

The regulation modifies the current legal framework, which allows higher customs duties to be levied on dumped or subsidised imports, in order to improve the protection of EU producers from damage caused by unfair competition.

The new rules aim to ensure greater transparency and predictability for the imposition of provisional anti-dumping and anti-subsidy measures.

They set in place a pre-disclosure period of three weeks after the information is made public, during which time the provisional duties will not yet apply.

They also enable investigations to be launched without an official request from industry when there is a threat of retaliation by third countries and allow trade unions to submit complaints together with industry and to become interested parties in the proceedings. They shorten the normal investigation period to period of seven months, with a maximum period of eight months. Definitive duties will have to be imposed within 14 months.

Higher anti-dumping duties may be imposed where there are raw material distortions and where these raw materials, including energy, count individually for more than 17% of this cost. This would make it possible to adapt the level of duty imposed under the 'lesser duty rule' if this is in the interests of the EU. The imposition of higher duties will include a target profit set at a minimum of 6%.

The new rules will also allow importers to be reimbursed of duties collected during an expiry review investigation in cases where trade defence measures are not upheld.

Finally, they take account of social and environmental standards when assessing the acceptability of an undertaking and when establishing the injury elimination margin.

The European Parliament is expected to adopt the new regulation at its plenary session of 2-3 May. The formal signature of the agreement is anticipated to take place in Strasbourg in late May, ahead of its publication in the Official Journal of the EU.

21140/Press Release - 2018.04.16

EU / JAPAN

The Commission presented the outcome of negotiations for the Economic Partnership Agreement with Japan to the Council. This is the first step towards the signature and conclusion of the agreement.

A swift conclusion and a quick implementation of the most important trade agreement ever negotiated by the EU was a personal commitment undertaken by the President of the European Commission Jean-Claude **Juncker** and the Prime Minister of Japan Shinzo **Abe**. During a bilateral Summit and at the margins of a G7 Summit, both leaders provided political leadership at the highest level in order to accelerate and finalise negotiations in 2017. The agreement should be signed in the upcoming EU- Japan Summit, to be held in Brussels by the summer.

The **Japan** agreement is the biggest bilateral trade partnership ever negotiated by the European Union. The Economic Partnership Agreement will open huge market opportunities for both sides, strengthen cooperation between Europe and Japan in a range of areas, reaffirm their shared commitment to sustainable development, and include for the first time a specific commitment to the Paris climate agreement. It will remove the vast majority of customs duties that cost EU companies exporting to Japan €1 billion a year. The agreement will also eliminate a number of long-standing regulatory barriers, such as double testing and overlapping bureaucracy. It will open up the Japanese market of 127 million consumers to key EU agricultural exports, protect over 200 traditional European regional food and drink products in Japan (the so-called Geographical Indications) and increase EU export opportunities in a range of other

sectors, including the ability for European companies to bid for public contracts in many Japanese cities.

The EU and Japan are also in the final stages of negotiation of a Strategic Partnership Agreement.

Upon entry into force, it will upgrade the political relations between the two sides by reinforcing political dialogue, affirming shared values and common principles, and enabling closer cooperation to tackle common challenges, bilaterally and in multilateral fora.

Next steps: Once approved by the Council, the agreement will be sent to the European Parliament, aiming for the entry into force before the end of the current mandate of the European Commission in 2019.

At the same time, negotiations with Japan continue on investment protection standards and investment protection dispute resolution. The firm commitment on both sides is to move towards an agreement in the investment protection negotiations as soon as possible, in light of the shared commitment to a stable and secure investment environment in Europe and Japan.

21141/Press Release - 2018.04.18

EU / Singapore

The Commission presented the outcome of negotiations for the trade and investment agreements with Singapore to the Council. This is the first step towards the signature and conclusion of the agreement.

The trade and investment agreement with **Singapore** is the EU's first completed bilateral deal with a member of the Association of Southeast Asian Nations (ASEAN). Within ASEAN, Singapore is by far the EU's largest partner with a total bilateral trade in goods of €53.3 billion (2017) and in services of €44.4 billion (2016).

Over 10,000 EU companies are established in Singapore and use it as a hub to serve the whole Pacific region. With these agreements, the EU has therefore made an important stride towards setting high standards and rules for the important and fast-growing Southeast Asian region. The deals also represent the first building block of a future region-to-region trade and investment agreement between the EU and ASEAN. Singapore is already the number one location for European investment in Asia, with investment between the two growing rapidly in recent years. Bilateral investment stocks reached €256 billion in 2016.

As well as offering huge economic opportunities, the trade agreement also includes comprehensive chapters on trade and sustainable development; setting the highest standards of labour, safety, environmental and consumer protection; as well as strengthening joint actions on sustainable development and climate change and fully safeguarding public services.

Next steps: Once approved by the Council, the agreement will be sent to the European Parliament, aiming for the entry into force before the end of the current mandate of the European Commission in 2019; the investment protection agreement with Singapore will follow its ratification procedure also at Member State level.

21142/Press Release - 2018.04.18

EU / Mexico

The European Union and Mexico reached a new agreement on trade, part of a broader, modernised EU-Mexico Global Agreement. Practically all trade in goods between the EU and Mexico will now be duty-free, including in the agricultural sector. Simpler customs procedures will further benefit the EU's industry, including in sectors like pharmaceuticals, machinery and transport equipment. The agreement also lays down progressive rules on sustainable development. Among other things, the EU and Mexico have committed to effectively implementing their obligations under the Paris Agreement on climate change. It will also be the first EU trade agreement to tackle corruption in the private and public sectors.

Today's agreement – once finalised and approved – will benefit both companies and consumers across Europe and advance the EU's values-based trade policy agenda. The agreement in principle struck today brings the EU's trade relationship with Mexico into the modern era, tearing down most of the remaining barriers to trade. Since the previous EU-Mexico trade agreement came into force in 2000, trade between the EU and Mexico has risen at a rate of around 8% per year, resulting in an overall increase of 148% in trade in goods over the period. Despite these positive results, there was still a wide margin for improving the trade relationship that the new agreement is addressing, by making virtually all trade in goods duty-free.

The main elements of the agreement

1) Agricultural exports from the EU are set to benefit the most, such as poultry, cheese, chocolate, pasta, and pork.

The agreement will, in particular:

- provide preferential access for many **cheeses** such as Gorgonzola and Roquefort, which currently are up to 20%, and gain significant new access for many others within annual quotas;
- secure a considerable volume for **milk powder** exports in one of the largest markets, starting with 30,000 tonnes from entry into force, rising to 50,000 tonnes after 5 years.
- allow the EU to substantially increase its **pork** exports to Mexico, with duty-free trade for virtually all pork products;
- eliminate tariffs for products like **chocolate** (currently up to 30%) and **pasta** (currently up to 20%);
- ensure the protection from imitation for 340 distinctive European foods and drink products in Mexico, so-called **geographical indications**, such as Comté cheese from France, Queijo São Jorge cheese from Portugal, Szegedi szalámi from Hungary, and Magiun de prune Topoloveni plums from Romania. This means that EU producers of traditional delicacies are not struggling against copies, and when consumers buy these products they can do so knowing they are buying the real thing.

When it comes to customs procedures, the new agreement will bring in new rules to simplify and speed up paperwork and physical checks at Mexican customs.

- 2) The agreement includes a comprehensive **trade and sustainable development** chapter, which sets the highest standards of labour, safety, environmental and consumer protection; introduces a new dialogue with civil society in all areas of the agreement, strengthens the EU and Mexico's actions on sustainable development and climate change, notably the obligations both sides undertook under **the Paris Agreement on climate change**; and maintains and fully safeguards Member States' right to organise public services the way they choose.

The agreement also includes an explicit reference to the **precautionary principle** that, already enshrined in the EU treaties, allows the EU to keep products out of its market as long as there is no scientific certainty that they are safe.

It will also be the very first EU trade agreement to include provisions to **fight corruption**, with measures to act against bribery and money laundering. The broader Global Agreement, of which the trade agreement is an integral part, also covers the protection of human rights, as well as chapters on political and development cooperation.

- 3) The agreement is a big step forward in giving companies mutual access to government contracts in both the EU and Mexico **public procurement markets**. EU and Mexican companies will be placed on an equal footing, irrespective of whether they present a bid in Mexico or in the EU. Mexico has also committed itself to enter into negotiations with the Mexican States to allow EU firms to tender for contracts at State level by the time the agreement is signed.
- 4) This opening goes hand in hand with setting a level playing-field: we agreed a high level of protection of **intellectual property rights**. This protects EU research and development and guarantees fair pay for EU artists, as well as the 340 traditional EU delicacies mentioned above.
- 5) The new agreement opens up **trade in services**, such as financial services, transport, e-commerce, and telecommunications. The agreement will also help develop a favourable environment for a knowledge-based economy, with a new chapter on digital trade. This will remove unnecessary barriers to online trade, like charging customs duties when downloading an app, and will put in place clear rules to protect consumers online.
- 6) On **investment protection**, the agreement improves investment conditions and includes the EU's new Investment Court System, ensuring transparency and the right of governments to regulate in the public interest, and will also ensure that Mexico and the EU work towards the setting up of a Multilateral Investment Court. Overall, this agreement will strengthen Europe's leadership in **shaping globalisation** by putting in place trade rules that are in line with the EU's core values and safeguard the EU's interests and sensitivities. In doing so, it contributes to addressing challenges identified in the reflection paper on Harnessing Globalisation.

Next Steps: Today's agreement in principle includes the most important elements of the agreement. In some chapters, technical details still need to be tied up. Negotiators from both sides will continue their work to resolve the remaining technical issues and finalise the full legal text by the end of the year. Then, the Commission will proceed with the legal verification and translation of the agreement into all official EU languages, and will subsequently submit it for approval by the European Parliament and Council of the European Union.

21143/Press Release – 2018.04.21

ENVIRONMENT & ENERGY

EU Expert Group on Innovation Fund (ETS)

The Innovation Fund has been established by the revised EU Directive to enhance cost-effective emission reductions and low-carbon investments (ETS Directive). The fund will support low-carbon innovation in energy intensive industry, carbon capture and utilisation (CCU) technologies, innovative renewable energy and energy storage technologies, and demonstration projects on the environmentally safe capture and geological storage of CO₂ (CCS).

The Innovation Fund expert group, to be set up soon, will assist the European Commission in designing the Innovation Fund to be set up as part of the revision of the EU Emissions Trading System and will be composed of experts from the energy intensive industries, NGOs, research institutes and Member States.

21144/Press Release – 2018.04.05

EU Clean Energy Package

The Bulgarian Presidency of the Council of the EU intends to breathe new life into the inter-institutional negotiations underway on the three key legislative texts of the clean energy package: the revised directives on energy efficiency and renewable energies and the regulation on the energy/climate system of governance.

So far, the trialogue talks between the member states, the European Parliament and the European Commission on these three texts have made little headway.

In two working sessions devoted to these three texts, the ministers will attempt to change the position of the member states ahead of the forthcoming trialogue talks on 16 May on the energy efficiency text, 17 May for the renewables text and 26 April for the governance text.

- The European Parliament reached its position on the three texts in question on 17 January, opting for two binding objectives of 35% up to 2030 for renewables and energy efficiency.
- At the Council, the ministers have gone for indicative targets of 30% for energy efficiency and at least 27% for renewables at EU level.

Aside from these two targets, the Council and Parliament must reach compromises on other key political elements, such as the compulsory annual energy savings target under the energy efficiency directive and the objectives for the transport and heating/cooling sectors under the renewables directive.

Clean energy with a Balkans perspective will be front and centre at a high-level conference following the ministerial meeting, with two panel discussions on the instruments for a transition to a low-carbon economy and on regional energy cooperation.

21145/Press Release – 2018.04.18

Revision III of the CMD (Carcinogens & Mutagens Directive)

On 5 April, the European Commission presented its third revision of the directive on carcinogens and mutagens (the so-called "DCM" directive, 2004/37/EC) to add cadmium (and its inorganic compounds), beryllium (and its inorganic compounds), arsenic acid (and its salts and inorganic compounds), formaldehyde and, finally, 4,4'-methylenebis ("MOCA") to the list of substances covered by the directive.

"Limiting exposure to cancer-causing chemicals on the work floor will improve protection for over 1 million workers", said the Commissioner for Employment and Social Affairs, Marianne Thyssen, going on to stress that this initiative comes as part of the 10th principle of the European Pillar of Social Rights guaranteeing a healthy, safe and properly adapted workplace.

According to a Commission communication, these five substances concern around 1.07 million workers and will help to prevent 22,000 cases of work-related illnesses. However, formaldehyde represents the vast majority of these cases, as around 990,000 people are directly exposed to it. MOCA, on the other hand, affects only around 350 workers, according to the figures put forward by the Commission.

These substances are found in many sectors of activity, from battery production and zinc and copper foundry activities for cadmium, via laboratories and the glass-making industry for beryllium and arsenic acid, the construction sector and the production of fur, leather and paper for formaldehyde and the plastics sector for MOCA.

Upper limits and transition periods

In the recitals to the directive, the upper limit of 0.001 mg/m³ for cadmium could be difficult to achieve in a number of sectors, the text explains. It therefore provides for a period of seven years during which the upper limit will be set at 0.004 mg/m³. Similarly, for beryllium, the upper limit of 0.002 mg/m³ will be hard to achieve for certain sectors and a period of five years has been set in place during which an upper limit of 0.006 mg/m³ will apply. The same for arsenic acid, with a limit of 0.01 mg/m³, but a transition period of two years will be available for copper-smelting factories. Formaldehyde and 4,4'-methylenebis ("MOCA") are also subject to upper limits of 0.37 mg / m³ and 0.01 mg / m³, respectively, over a period of eight hours. There will be no transition period for either of these substances.

Commissioner Thyssen has announced that a fourth revision will take place in 2019.

21146/Press Release – 2018.04.05

Revised Directive on Energy Performance of Buildings

On 17 April, the European Parliament approved, by 546 votes to 35, with 96 abstentions, the final text of the revised directive on the energy performance of buildings, born of the inter-institutional agreement concluded under the Estonian Presidency on 19 December 2017.

The amendments to the text agreed in trilogue include measures to reinforce the energy performance of new buildings, speed up the refurbishment of existing buildings to make them lower-energy and tap the enormous energy efficiency potential of the construction sector, which uses 40% of all primary energy consumed in Europe.

The MEPs have set a target of virtually zero energy consumption of buildings in Europe by 2050.

- The revised directive requires the member states to put together long-term national strategies to support a low-cost refurbishment of public and private buildings, to reduce emissions in the EU by 80% to 85% compared to 1990 levels.
- The national strategies will include roadmaps to decarbonise the building stock by 2050, with interim targets for 2030 and 2040. Measurable progress indicators will be set in place to monitor their implementation.
- The revised directive also brings in electro-mobility requirements for new buildings and those undergoing major refurbishment, such as at least one electric vehicle recharging point in buildings with more than ten parking spaces and the installation of the necessary cabling infrastructure for recharging.
- The text also includes new tools such as the '*smartness indicator*', which is used to measure the state of preparedness of buildings to improve their functioning and interaction with the network, by adapting energy consumption to the actual needs of the occupier. The Commission will develop this concept by the end of 2019.
- Finally, new and existing buildings in which heat generators are replaced must be fitted with temperature self-regulating mechanisms. The rules on the control of heating and air conditioning systems have been tightened up.

Once it has been approved by the Council of Ministers, the text will be published in the Official Journal of the EU and will enter into force 20 days after its publication. The transposition period for the new rules into national legislation will be 20 months.

21147/Press Release – 2018.04.17

EU Circular Economy

Review of 'waste' directives to increase recycling and reduce landfill

On 18 April, with its final vote on review of the EU waste directives, the European Parliament opened the road to adoption by the Council of a key element in the 2015 EU action plan to promote the transition to a circular economy, in the interest of the environment, public health, the saving of resources, and employment.

With an overwhelming majority, Parliament endorsed the provisional institutional agreement on review of four directives aimed mainly at fixing ambitious, binding objectives for re-use and recycling and for reducing landfill activity.

Simona Bonafé of Italy underlined: *“This package also contains important measures on waste management, but at the same time goes further by defining rules taking into account the entire life cycle of a product and aims to change the behaviour of businesses and consumers”.*

- There will be an obligation to recycle at least 55% of municipal waste (from households and businesses) by 2025. The target will be 60% by 2030 and 65% by 2035.
- Sixty-five percent of packaging waste should be recycled by 2025, and 70% by 2030, with specific objectives for each material (plastic, wood, ferrous metals, aluminium, glass, paper and cardboard).
- Landfill will also be limited to 10% maximum of all municipal waste by 2035. The challenge is considerable as, in the EU, nearly one quarter of household waste is still sent to landfill and less than half is recycled or composted.
- Textiles and hazardous waste from households should be collected separately by 2025.
- By 2024, biodegradable waste should also be collected separately or recycled at home through composting.
- Member states should endeavour to reduce food waste by 30% by 2025 and by 50% by 2030. They should provide incentives for the collection of unsold food products and their safe redistribution and heighten consumers’ awareness of the meaning of “use by” and “best before” dates.

The text imposes stricter methods of calculation and stricter rules for measuring progress made towards attaining these objectives, as well as stricter demands for separate waste collection. In addition, it strengthens the hierarchy of waste processing options through economic instruments and measures aimed at preventing waste generation, and fixed minimum requirements for greater producer accountability.

21148/Press Release – 2018.04.18

SOCIAL ISSUES

Extensive EU-OSHA awareness campaign on carcinogenic and mutagenic substances in workplace

On 24 April, the EU Agency for Safety and Health at Work (EU-OSHA) launched an extensive awareness-raising campaign on dangerous substances over a two year period. Christa Sedlatschek, EU-OSHA’s Director provided details to journalists of a study carried out by her agency and stated that, *“Chemical and biological substances are present in at least 40% of companies in Europe and 17% of workers have said that they have been in contact with chemical substances over at least 15% of the time they have been working”.*

She added that the risks are often underestimated or indeed ignored and highlighted the potential noxiousness of certain substances, such as flour, which are less well-known. She also explained that young workers and migrants are often the most exposed to these substances. Every year 120,000 people develop a work-related cancer and 80,000 people die of them.

On this basis, the EU-OSHA is therefore launching a huge awareness campaign, which includes its internal website translated into 23 EU languages, in addition to an online tool (currently only in English) that aims to effectively manage dangerous substances in the workplace. A version will soon be developed in Austria, Estonia and Romania. Another database has been set up that brings together the practical orientation documents used in 11 Member States, with case studies and computer graphics. The budget for this campaign stands at an estimated €2.1 million for 2018 and a little less in 2019, explained the director, who also indicated that the 13 participating member states were investing in this campaign to varying degrees.

Directive on carcinogenic and mutagenic substances

This campaign is part of the European Commission's action on the third revision of the directive on workers' exposure to carcinogenic and mutagenic substances. The Commissioner for Employment and Social Affairs, Marianne Thyssen, said that she hoped to be able to present a fourth revision before the end of the current mandate.

21149/Press Release – 2018.04.24

Revised Europass: Making Skills and Qualifications More Visible Across the EU

On 12 April, EU Member States adopted the Commission's proposal to revise the Europass framework. The revision, which aims at simplifying and modernising the Europass CV and other skills tools for the digital age, will enable people across the EU to make their skills and qualifications more visible, and will help policy makers to anticipate labour market needs and trends.

With this agreement, the Commission has now delivered on all ten actions announced under the Skills Agenda for Europe, launched in June 2016.

Commissioner for Employment, Social Affairs, Skills and Labour Mobility, Marianne Thyssen, said:

" For over a decade, Europass has been a key tool to support better communication and understanding of skills and qualifications. It has served as a crucial bridge between the worlds of work and education and training. There are over 55,000 visits a day to the Europass portal and over 100 million downloads of the Europass CV since 2004.

Europass has clearly demonstrated its added value as a vehicle to communicate skills across the EU, but it has to evolve in parallel to challenges and opportunities in the digital age.

Thanks to today's adoption of our proposal to modernise Europass, the framework will offer an e-portfolio for storing and sharing information, tools for people to self-assess their skills and tools for describing formal and informal learning as well as qualifications.

For the first time, Europass will also offer information to support career management including information on trends and demands in the labour market and on guidance and learning opportunities across Europe."

21150/Press Release – 2018.04.12

Unemployment Rates

The **euro area** seasonally-adjusted unemployment rate was **8.5%** in **February 2018**, down from 8.6% in January 2018. This is the lowest rate recorded in the euro area since December 2008. The **EU-28** unemployment rate was **7.1%** in February 2018, also down from 7.2% in January 2018. This is also the lowest rate recorded in the EU28 since September 2008.

Eurostat estimates that 17.632 million people in the EU28 were unemployed in February 2018, a decrease by 201,000 in the EU28 and by 141,000 in the euro area compared with January 2018.

Czechia	2.4%	Sweden	6.2%
Malta	3.5%	Belgium	6.4%
Germany	3.5%	Estonia (Jan.)	6.5%
Hungary (Jan.)	3.7%	Lithuania	7.3%
Netherlands	4.1%	Slovakia	7.5%
UK (Dec.)	4.2%	Portugal	7.8%
Poland	4.4%	Latvia	8.0%
Romania	4.6%	Finland	8.4%
Denmark (Jan.)	4.9%	France	8.9%
Austria	5.2%	Croatia	9.6%
Bulgaria	5.3%	Cyprus	9.6%
Slovenia	5.3%	Italy	10.9%
Luxembourg	5.4%	Spain	16.1%
Ireland	6.1%	Greece (Dec.)	20.8%

Elsewhere

USA	4.1%	Russia	5.0%
Canada	5.8%	Brazil	12.6%
Japan	2.5%	Australia	5.6%
Switzerland	2.9%	India	3.46%
Turkey	10.8%	China	3.90%

21151/Eurostat Press Release – 2018.04.04

GENERAL ISSUES

Future of the European Union

EP Reform of European Parties and Their Foundations



On 17 April, the European Parliament gave its blessing to the institutional agreement on the reform of the rules governing the activities of the European parties and European political foundations (Regulation 1141/2014). Natural persons are no longer permitted to participate in the formation of the European political party, as only national parties will hold this prerogative. On financing, 10% of the global envelope will be divided up evenly and 90% will be distributed on the basis of the representation in Parliament of the national parties that are members of European parties. The minimum co-funding threshold will be 10% for parties and 5% for foundations. The new rules are expected to be in place before the publication of the calls for proposals for European funding for 2019 at the end of June.

21152/Press Release – 2018.04.17

Council Agreement on “a minima” Reform of EU Electoral Law



In Luxembourg on 17 April, none of the European affairs ministers of the EU rejected the Bulgarian compromise proposal for an *a minima* reform of EU electoral law. However, a unanimous agreement could not be officially reached, for instance due to the absence of a government in Italy.

“We hope we’ll be able to reach consensus at the end of April”, the Bulgarian Foreign Minister, Ekaterina Zaharieva, told the press. Thanking the Belgian and Italian delegations for their constructive attitudes, she stressed that the reform aims to make European elections more visible, promote electronic voting and prevent people from voting twice.

Like Italy, Belgium, Greece and France regretted the fact that the legislative reform drops certain proposals, called for by the Parliament in 2015 but rejected in February, such as the creation of a European electoral constituency allowing MEPs to be elected from transnational lists.

By request of Germany, the **legislative proposal provides for a minimum vote threshold (between 2% and 5%) to be introduced at European level for MEPs to be elected in single-constituency countries or countries with constituencies of at least 35 seats.**

The legal services of the Council states that the adoption of the reform by written procedure would have to take place at the end of April, as this is the latest the member states could reasonably adapt their internal laws ahead of the European elections of May 2019.

The Bulgarian proposal is available at:

<http://data.consilium.europa.eu/doc/document/ST-7597-2018-INIT/en/pdf>

21153/Press Release – 2018.04.17

BREXIT Developments



1. Length of time needed to implement free-trade agreements argues against hard Brexit

It could take 26 years before all free-trade agreements to be negotiated by the United Kingdom, once it leaves the EU, with its other principal trade partners (the United States, China, India, Australia and New Zealand) enter into force, said on 3rd April the pro-European British think tank Open Britain, which is working to keep the UK in the single market.

Research conducted by Open Britain calculated the average time taken by each of the partner countries identified by the British Secretary State for Trade, Liam Fox, as priorities for post-Brexit free-trade deals, to conclude such agreements, from the beginning of negotiations until the entry into force: India takes on average six years and eleven months, China five years and nine months, Australia five years and one month, New Zealand four years and seven months and the United States three years and nine months.

As the British government will not be able to carry out more than one set of negotiations at the same time and that it is likely to be occupied with negotiating its free-trade deal with the EU for most of the 2020s, the United Kingdom will have to wait until 2045 at least before its future free-trade agreements with its principal commercial partners are in place, Open Britain warns.

“Given the enormous length of time needed to negotiate new trade agreements, we all have the right to ask if Brexit remains the best choice for our country and to keep open the option of saying 'no thanks' to what Theresa May brings back from her negotiations”, commented British Labour MP, Peter Kyle.

“Trade negotiations are nasty, brutish and long. After a hard Brexit, the UK will not be in a position to dictate terms to major economies like the US and China. Under pressure from ministers to salvage something after Brexit, [the British government] risks being taken for a ride by President Trump and others who will insist we lower our food and environmental standards - and possibly open up our NHS”, warned former European Commissioner and trade negotiator, Lord Patten.

21154/Eurostat News Release – 2018.04.04

2. The 27 EU heads of state adopted guidelines on 23 March on the future relationship between the European Union and the United Kingdom after the post-Brexit transition period.

They also approved the terms of this transition period, which will run from 29 March 2019 to the end of 2020, and endorsed the progress made thus far in the UK’s withdrawal agreement, particularly on the issue of citizens’ rights and the financial settlement.

There is now reference to financial services in an appendix to the recent draft guidelines. The future free-trade agreement will include financial services, but these will be subjected to an 'enhanced equivalencies' mechanism.

For the EU, this means that a unilateral decision of the Twenty-Seven will make it possible to rule that British rules on financial services are equivalent to those in force in the EU. This

decision will provide a guarantee of the respect of the integrity of the single market and the EU's decision-making autonomy.

For the remainder, these guidelines reiterate that the EU hopes to have the deepest possible relationship with its neighbour, particularly on defence and security, but also on culture and education.

The guidelines can be found at: <http://www.consilium.europa.eu/media/33458/23-euco-art50-guidelines.pdf>

21155/Eurostat News Release – 2018.03.26

3. Latest Negotiations' Status

The leaders did welcome the “written assurances” given by UK Prime Minister Theresa May on **Ireland and Northern Ireland**. London has agreed that, as a backstop solution (*), Northern Ireland would remain in regulatory alignment with the European Union in order to avoid the return of a hard border between Ireland and Northern Ireland. The contents of this option are however still to be discussed.

(*) The Commission proposed in February a third option to avoid the return of a hard border between Ireland and Northern Ireland. This option provides for Northern Ireland full alignment with the rules of the customs union and the single market. Only if the issue of Ireland is not settled either as part of the future relationship (option 1) or through specific solutions proposed by the UK (option 2) will the third option come into play (“backstop solution”).

EU Ministers called, however, for caution and made clear that, in the absence of a **viable solution for the island of Ireland**, it would not be possible to approve the negotiations as a whole. “Nothing is agreed until everything is agreed”, is clearly stated in the adopted conclusions.

Moreover, European leaders called for efforts to continue on the territorial application of the agreement, “notably as regards Gibraltar”, thus taking up the Spanish demands on this matter. Madrid wants to continue talks on areas of interest, such as transport and taxation. On future relations, May spoke of a “new dynamic in the negotiations”, promising the commitment of her country to finding operational solutions for Ireland. She also repeated that a good free-trade agreement would be beneficial for both parties.

21156/Eurostat News Release – 2018.03.30

Inflation Rate

Latest Eurostat figures show that the annual inflation rate was **1.3% in March 2018 in the Euro area**, up from 1.1% in February 2018. **The EU28** annual inflation was **1.5% in March**, up from 1.4% in February.

The largest upward impacts to euro area annual inflation came from services (+ 0.67%), followed by food, alcohol & tobacco (+ 0.41%), energy (+ 0.20%) and non-energy industrial goods (+ 0.07%).

Cyprus	-0.4%	Germany	1.5%
Greece	0.2%	Slovenia	1.5%
Denmark	0.4%	Czechia	1.6%
Ireland	0.5%	France	1.7%
Poland	0.7%	Bulgaria	1.9%
Portugal	0.8%	Hungary	2.0%
Italy	0.9%	Sweden	2.0%
Finland	0.9%	Austria	2.1%
Netherlands	1.0%	Latvia	2.3%
Luxembourg	1.1%	Lithuania	2.5%
Croatia	1.2%	Slovakia	2.5%
Spain	1.3%	U K	2.7%
Malta	1.3%	Estonia	2.9%
Belgium	1.5%	Romania	4.0%

Elsewhere

USA	2.4%	Russia	2.4%
Canada	2.2%	Brazil	2.68%
Japan	1.5%	Australia	1.9%
Switzerland	0.8%	India	4.28%
Turkey	10.23%	China	2.1%

21157/Eurostat News Release – 2018.04.18

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GLASS NEWS

FLAT GLASS

Glass Companies

Saint-Gobain



CHINA: SAINT-GOBAIN INCREASES ITS FLAT GLASS PRODUCTION CAPACITY FOR THE AUTOMOTIVE MARKET. Saint-Gobain has taken a 50% stake in a flat glass production line of the Chinese group JJG, located in Zibo in the Shandong province, North-East China, with a total annual capacity of 160,000 tonnes. This joint venture will allow Saint-Gobain to almost double its production of basic glass in China, reinforcing the reliability of the flat glass supply for its Sekurit automotive glass factories. Saint-Gobain has been present in glass in China since 1994. It already manages one flat glass production unit of 100,000 tonnes per year in Qingdao in the Shandong province, and three production units for automotive glass. This investment is in line with the Group's strategy of expanding its presence in emerging countries, reinforcing Saint-Gobain's position in automotive glass in China.

21158/Press Release – 2018.04.11

AGC



1. AGC Processing Teplice

Glaston has closed a deal for a FC Series tempering furnace with Czech company AGC Processing Teplice, member of AGC Glass Group.

The €1.5 million order is booked in Glaston's Q1/2018 order book and intake. The machine will be delivered to the customer towards the end of summer 2018.

AGC Processing Teplice offers its customers a variety of glazing solutions for the architectural and automotive industries. The main products are insulating glazing, glazing for public buildings, facades and glass for interior applications.

The FC Series tempering furnace has achieved popularity among customers looking for flawless end-product quality.

"With the FC Series we are replacing the oldest furnace and it will allow us to enlarge our excellent service with top grade products in AGC Processing Teplice", said Petr Mazzolini, regional director of Processed Glass CE.

21159/Press Release – 2018.04.23

2. AGC Automotive Europe launches "Pure Grey", the first neutral glass as an alternative to green-tinted glass.

Destined for automotive glass, including vision glass (windscreen and front side windows), "Pure Grey" is a neutral glass which offers the first and so far only alternative to the green-tinted glass used on all car models for its solar control properties.

While its energy performance is similar to that of green-tinted glass, Pure Grey with its neutral tint has better performance in terms of rendering of transmitted and reflected colours.

Pure Grey is the result of worldwide research within the AGC Group and its advanced float glass production facilities. It is characterised by neutral light transmission with excellent colour rendering, unlike green-tinted glass which significantly affects the perception of colours inside and outside the vehicle. When it comes to light reflection, the same neutral character benefits the quest for overall harmony, enabling it to blend with the privacy glass in the back of the vehicle and with the colour of the bodywork.

Pure Grey also affords energy performance equivalent to green glass with its selectivity 2 of 1.2: by reflecting a significant fraction of the incident infra-red radiation (solar factor less than 62%), it reduces heating inside the vehicle while affording good light transmission (more than 70%).

“With Pure Grey, AGC Automotive Europe reinforces its ambition and capacity to develop glass products with high added value for its automotive customers,” explains Jean-Marc Meunier, Regional President for AGC Automotive Europe.



21160/Press Release – 2018.04.27

Euroglas



A special ceremony to place the cornerstone for the construction of the second float glass production line at **Euroglas Polska** was held in mid-March, while production on the new line is planned for the first quarter of 2019.

On 14 March 2018 in Ujazd, Poland, a special ceremony was held to place a cornerstone for the construction of the second float glass production line at the Euroglas Polska sp. Z.o.o. glass factory.

The ceremony was attended by, inter alia, representatives of the glass factory Euroglas Polska, the Swiss holding Glas Trösch, Press Glass and local authorities.



As stressed by Euroglas Polska: “The investment is a response to the continuously growing demand for such glass. The production on the new line, similarly to the production on the existing one, will be carried out with the use of the state-of-the-art technologies, with special focus on environmental protection.”

During the ceremony, a speech was delivered by Arkadiusz Muś – Chairman of the Board of Press Glass SA, which is a shareholder of Euroglas Polska. During his appearance he presented the event from his own perspective.

“We are witnessing an event – and I am not afraid to say it – that is an epochal event, both for Poland and for Europe. Due to the fact that today in Ujazd we begin the construction of the second float glass production line, in a year and a half this place will become the largest float glass production centre in Europe. This is all possible thanks to the great success of the first joint investment of Glas Trösch and Press Glass, started about ten years ago.”

Arkadiusz Muś further stressed that such projects are the effect of long-term development strategy pursued by many entrepreneurs over the last decades.

Euroglas Polska sp. z o.o. now operates one float line in Ujazd and manufactures coated glass with the magnetron method. The Swiss family holding Glas Trösch is the majority shareholder of Euroglas Polska sp. z o.o.

21161/Press Release – 2018.04.17

Miscellaneous

Christian Quenett Elected Chairman of Glass for Europe

On 22 March 2018, during the last General Assembly of Glass for Europe, Dr. Christian Quenett, Head of Architectural Glass Europe Pilkington Deutschland AG (NSG Group), was elected Chairman of the Board of Directors of Glass for Europe.

Christian Quenett, who already occupied the position of Vice-Chairman of the Board, takes over the position of Chairman from Dr. Akcakaya, President of the Flat Glass Group of Siseecam after two years. The NSG Group is one of the world's largest manufacturers of glass and glazing products for the architectural, automotive and technical glass

sectors. With around 27,000 permanent employees, NSG has principal operations around the world and sales in over 100 countries.



"Glass for Europe aims at strengthening and championing an active and influential flat glass industry in the European Union," says Christian Quenett. "I am eager to support Glass for Europe's activities to make sure that the vision of the flat glass industry is properly disseminated among opinion leaders and policy makers both in Brussels and across the European continent," he added.

During the General Assembly, Philippe Bastien, General Manager, Building & Industrial Division of AGC Glass Europe, was elected Vice-Chairman of the Board. The Board of Directors of Glass for Europe is made up of high-level representatives of the five leading EU-based float glass manufacturers, AGC Glass Europe, Guardian, NSG Group, Saint-Gobain Glass Industries and Siseecam and of one representative from Germany's flat glass and glazing association, Bundesverband Flachglas.

21162/Press Release – 2018.03.29

CONTAINER GLASS

Glass Companies

Ardagh



Ardagh Group has implemented a sustainable battery storage system to increase resilience and energy security at its glass container plant in Irvine, Scotland.

It's the biggest behind-the-meter storage system in Europe and the first system to be used in the glass industry.

The Irvine plant needs a reliable energy supply to support its continuous manufacture of glass containers throughout the year.

The sustainable battery, provided by ESB Smart Energy Services, provides the plant with a reliable back-up during peak energy consumption and sends energy back to the grid when demand is low.

The solution is a combination of a Tesla battery and a grid-optimising platform.

The Tesla battery is designed to efficiently store energy during periods of lower demand and to support demand during intermittent power failures.

The grid-optimising platform enables Ardagh to participate in the National Grid's Firm Frequency Response service. In practice, the battery reduces the plant's reliance on the grid and when excess energy stored by the battery is not required, it can be delivered back to the National Grid.

Annelene Fisser, Ardagh's CSR & Sustainability Manager, said: "We are committed to environmental responsibility and sustainable manufacturing processes and had been exploring battery storage solutions for a long time to help us effectively meet these commitments.

"When ESB approached us with its battery storage offering, we felt confident that this would provide the efficient and cost-effective solution we were looking for."

21163/Press Release – 2018.04.23

O-I

In its first quarter 2018 results, O-I reported higher earnings, within guidance, on sales growth and margin expansion in the Americas and Europe.

"This quarter marks the company's ninth consecutive quarter of higher earnings year-over-year," said Andres Lopez, CEO. "We delivered strong performance in-line with our guidance, while executing the planned, finite investments in asset stability. This reflects our focus and commitment to delivering on our strategic initiatives, including programmes aimed at improving the customer experience, shifting to higher-value segments, becoming more cost-competitive, leveraging technology and simplifying our organization."

"Our European and Americas regions delivered particularly strong sales and margin expansion in the first quarter. We continue to be positive about our 2018 outlook," said Lopez. "Our teams are aligned and energized like never before, executing with rigor and discipline. This, combined with our balanced capital allocation strategy, is expected to create significant value for our shareholders for years to come."

For the first quarter 2018, the company recorded earnings from continuing operations of USD 0.59 per share (diluted). This was on the upper end of management guidance of USD 0.55 to USD 0.60 per share.

Net sales were USD 1.7 billion, an increase of nearly 8% compared to the prior year, due to higher prices and favourable currency translation. Total glass container shipments in the first quarter of 2018 were comparable to the prior year quarter, with low-single-digit gains reported in the Americas.

Earnings from continuing operations before income taxes were USD 135 million, compared with USD 73 million in the prior year, driven by solid operational performance and non-recurrence of certain expenses in the prior year.

The company consolidated the North America and Latin America segments into one segment, named the Americas, to better leverage critical resources and competencies across a larger geography, to replicate best practices and to reduce costs.

First quarter 2018 net sales were USD 1.7 billion, up USD 121 million from prior year, an increase of nearly 8%. Prices were 2% higher on a global basis, mainly due to price adjustment formulas and a constructive environment in Europe. Favourable foreign currency translation benefited net sales by USD 99 million, primarily due to a stronger Euro. In line with guidance for the quarter, total glass container shipments were comparable with the prior year.

In the Americas, shipments increased nearly 2% compared to the prior year period, driven primarily by higher shipments to food and alcoholic beverage customers. Consistent with the past several quarters, year-over-year shipments in Brazil recovered strongly. However, in the US, solid growth in food and non-alcoholic beverages were more than offset by a decline in alcoholic beverages, which is largely due to ongoing trends in megabeer. The Company is well positioned to benefit, however, from US beer imports, as evidenced by strong volume growth in the joint venture with CBI, which has successfully ramped up its fourth furnace.

In Europe, sales volumes continue to be robust. Shipments in first quarter 2018 were essentially on par with the strong comparable in the prior year and are 4% higher than 2016. Asia Pacific shipments declined, partially driven by the timing of returnable float replenishment in Southeast Asia.

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 midpoint of this range represents more than a 10% compounded annual growth rate in adjusted earnings per share since 2015.

The company expects earnings from continuing operations, and adjusted earnings, for the second quarter of 2018 to be approximately USD 0.75 per share. Solid improvement in on-going business operations are expected to be essentially offset by investments in assets and, new technology developments as well as a higher tax expense, compared with prior year.

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.

Presently, no substantive impact on the company's adjusted earnings or cash taxes is expected in 2018 as a result of the Act.

21164/Press Release – 2018.04.25

Vetropack Group



1. **Vetropack's Annual General Assembly** re-elected Claude R. Cornaz as a member of the Board of Directors and also appointed him as Chairman of the Board. Claude R. Cornaz was CEO and Delegate of the Board of Directors of Vetropack Group from 2000 to 2017.



From left: Claude R. Cornaz and Hans R. Rüegg

Claude R. Cornaz succeeds Hans R. Rüegg as Chairman of the Board of Directors. Hans R. Rüegg was a member of the Board of Directors since 1993 and Chairman of the Board of Directors of Vetropack Holding Ltd since 2005. He retired from office at the Annual General Assembly on Friday, 20 April 2018.

21165/Press Release – 2018.04.26

2. **Sustainability is a top priority for Vetropack Group**, which is why, for the fourth time now, it has published a report designed to inform its business partners, customers and the general public about its economic, environmental and social activities. The 2017 Sustainability Report is in line with the GRI G4 Reporting Guidelines – option “core”.

The Vetropack Group has been focusing on sustainable financial management for many years. The same high quality and flexible approach to customer requests at all companies in the Group is a key element of this strategy. A willingness to invest in technologies to improve quality and efficiency is fundamental. The European market environment developed favourably on the whole in 2017: demand grew and production volume went up. This is mainly accounted for by the enormous popularity of European wines and beers outside the continent itself, which stimulated exports and caused the demand for glass packaging to rise.

Environmental protection is more than just an empty phrase, which is why Vetropack takes action such as calculating the carbon footprint of its customers' glass packaging. The Group applies the "cradle-to-cradle" approach, which takes account of the entire life cycle. Production technology, weight, cullet percentage, transport distances and transport methods are significant factors influencing the carbon footprint. By partially switching over to rail transport, for example, Vetropack has managed to reduce the number of lorry trips required in Switzerland by around 5,500. In doing so, it has succeeded in saving an estimated 2,900 tons of carbon dioxide.

In its efforts to reduce the eco-footprint of its products and services, Vetropack Group is sending out a clear message: investments are being made in product development, logistics, measures to raise the percentage of cullet in its melted material and the energy consumption of the melting furnaces.

In 2017, the percentage of recycled glass used in producing green glass was 67%, while amber and flint glass containers consisted of 48% and 43% used glass respectively. In some glassworks, used glass makes up as much as 83% of the raw material. The average figure was 53%. Overall, 2,482 GWh of energy was consumed in 2017. Thermal energy for the furnaces accounted for more than 60% of the total greenhouse gas emissions generated during production.

The Group-wide training centre in Pöchlarn was officially opened in 2017. Vetropack employees at all facilities can receive training in all production steps at the hot end here. The investment in the training centre will pave the way for Vetropack to train specialists itself in the long term. Satisfied staff and satisfied customers Integrity, reliability and transparency are key pillars when it comes to working with others at Vetropack – not only towards fellow staff but also in relation to customers, suppliers, neighbours and the local community.

An employee survey was carried out at our plants in Kremsmünster, Pöchlarn (both in Austria), Bülach and St-Prex at the end of 2016. The survey focused on the perceived attractiveness of workplace culture.

Vetropack also conducted a customer survey in Croatia, Switzerland and Austria in 2017. The extensive positive feedback received from this demonstrates a consistently high level of customer satisfaction. It also provided an opportunity to identify new customer requirements, such as the need to expand smaller production series. This constructive criticism is a crucial driver for the ongoing development of Vetropack Group.

The 2017 Sustainability Report is available online:

<https://www.vetropack.com/en/sustainability/sustainability-report/>

Verallia



Verallia has launched 'Garrafita visits school' in Portugal, in an aim to show children from 3 to 7 years old the benefits of glass recycling and sustainability.

'Garrafita visits school' is Verallia's learning programme for children in Portugal.

This initiative is aimed at showing kids the benefits of glass recycling and sustainability. Following these interventions, the children are invited to promote these key practices with their friends and families.



The programme mascot – Garrafita, the nickname for 'garrafa' or bottle in Portuguese – interacts with the children during animations to explain to them the glass life cycle. Glass is the ideal eco-friendly material, as it is composed of natural minerals (sand and limestone) and is 100% recyclable, endlessly.

Last year, more than 80 children benefitted from this programme. In view of this success, in 2018 Verallia Portugal will roll out a more comprehensive programme in the schools around its Figueira da Foz plant located on the Atlantic coast, halfway between Lisbon and Porto.

This action is part of Verallia's CSR programme. The Portuguese teams are actively involved with local communities.

In Portugal, Verallia has around 250 employees. Its headquarters, factory and product development centre are located in Figueira da Foz. With its two furnaces, the business produces daily over two million bottles and jars for still wines (including the famous ports), sparkling wines, beers, spirits, soft drinks and food. Verallia Portugal serves local and international customers. The business stands out for its remarkable knowledge of the Portuguese market and the close relations it has nurtured with its customers over the last 30 years.

www.pt.verallia.com

21167/Press Release – 2018.04.05

Beatson Clark

Beatson Clark has created a 8oz square jar for ready-made ingredients company Very Lazy. Using the latest sculpting software, Beatson Clark's in-house design team has created an 8oz square jar with the Very Lazy logo embossed on two sides, which is due to hit the shelves in late March.

Emma Freeman, Brand Manager at Very Lazy, said: "The whole process of working with Beatson Clark is easy and painless."



“We’ve worked with Beatson Clark for a long time and their design team, headed up by Dean Arey, is very experienced.”

Very Lazy provides a range of time-saving ingredients for busy cooks, including chopped garlic, ginger, smoked garlic and red chillies, which are all preserved in white wine vinegar.

After 14 years of successful cooperation, Dkfm. Johannes Schick, CEO of the Stölzle Glass Group, will leave the Group end of April at his own request in order to face a new set of challenges.

Johannes Schick was very successful in shaping the Stölzle Glass Group which currently consists of six production sites and three decoration facilities in Europe. More than 2400 employees are engaged in the manufacturing of high-end packaging glass for Pharmaceuticals, Perfumery & Cosmetics, Spirits and Consumer products.

DI Georg Feith, MBA, who has held for many years various management positions in CAG group (the group Stölzle belongs to), also as a member of the Stölzle Supervisory Board, will take over the management during the month of April.

“We are convinced that he will ideally continue the successful path of the Stölzle Glass Group in all its Business Units,” said Mag. Doris Marka, Head of Marketing at Stölzle Glass Group.

21168/Press Release – 2018.04.09

Steklarna Hrastnik



Slovenian glassmaker Steklarna Hrastnik is to launch a holding company in Switzerland, in April in a bid to ease its further international strategic development, and also plans to start building a plant in Poland in 2019.

Slovenian glassmaker Steklarna Hrastnik will reportedly launch a holding company in Switzerland in April in a bid to ease its further international strategic development.

The Hrastnik-based company generated EUR 15.2m in revenue in the first quarter of the year and a net profit of EUR 1.9m, which the company said was 43% above the target.

The company also said that its production capacities were all but booked until the end of the year.

General manager Peter Cas believes that the Swiss holding GlobalGlass will pave the way for the glassmaker's long-term growth and development.

A key role in making the holding operational has been entrusted to Andrej Bozic, until recently the head of the glass division and earlier the general manager.

Bozic is also involved in the incorporation of a joint venture in Poland, 60% of which will be owned by the Swiss holding, while the further 40% will be in Polish ownership.

The glassmaker plans to start building a plant in Poland in 2019 in an investment estimated at EUR 70m. The plant is to enable Steklarna Hrastnik to get into the global glass market.

After eight years at the company Bozic plans to take on new career challenges. He has declined the offer to become the chairman of GlobalGlass and join Werner Vontobel and Igor Lah on the board.

Bozic served as general manager of Steklarna Hrastnik between 2010 and 2017, a period of restructuring that transformed the company into a leading niche manufacturer of high-quality glass packaging.

21169/Press Release – 2018.04.04

Glass Décor (Russia)

Glass Décor, based in the region of Moscow, Russia, has announced that it has commissioned two new production lines from Fermac (Italy) and Madag (Switzerland), at the Glass Décor decoration factory in Orekhovo-Zuevo, Moscow Region. Investing in new production lines is an important step in improving and updating production processes and in accelerating the implementation of current and urgent orders for customers of Glass Décor.

The line of fully automatic decoration of bottles produced by Fermac, Italy, is already 10th in the account, installed at the Glass Décor factory, and the second line with numerical program control. This screen printing machine is designed for decoration of glass products of complex shape, as well as decoration on the sides of the bottle. This is the only printing machine in the world equipped with a CNC control system to synchronize five digital coordinates during printing, including vertical movement, stencil movement and product rotation. Such control allows the specialists of Glass Décor to accurately control the printing process on glass bottles of any shape – round, square, oval, conical and irregularly shaped bottles. The work of the technological line is controlled by a processor, taking into account the shape and size of the bottle to be decorated.

The new production line is equipped with an additional station for printing with UV inks with the same curing of paint by 360°. For thermoplastic paints there is an optical infrared pyrometer with the function of automatically maintaining the set temperature. A special camera is installed in front of the unloading station to control the print quality. The new decoration line is equipped with 10 stations and performs full-colour printing in 8 colors with a maximum capacity of 80 bottles per minute, or 4,500 per hour.

In addition to the new line of automatic decoration, a new line of hot stamping with foil DecoRoll produced by Madag, Switzerland, was launched at the Orekhovo-Zuevo plant. This plant weighing more than 2500 kg is designed for high-precision hot stamping of round bottles. Unlike most installations of other manufacturers that perform hot foil stamping on plastic surfaces, the Madag line is designed to work exclusively with glass bottles. The maximum productivity of the new production line is 50 bottles per minute, or 3000 per hour.

Glass Décor was founded in 1999. In the structure of Glass Décor there is a glass factory in the city of Gus-Khrustalny, Bunkovsky Experimental Plant, decorating plants in Orekhovo-Zuevo and Skopin (the former enterprise of Italdecor), the logistics company Glass Décor Logistics, the corrugated cardboard and stretch unit -films, trading companies.

The glass factory produces 120,000,000 units of clean bottles per year with a capacity of 0.05 to 4.0 litres. The assortment of a clean bottle of Glass Décor includes two models – Standard and Elite and consists of 64 items.

Glass Décor products are exported to more than 30 countries. Clients of Glass Décor include large and well-known manufacturers of alcohol drinks such as Alcoholic Siberian Group, JSC Tatspirom, BELUGA GROUP (Synergy), Ladoga Group, Luding Group, AZ Granata (Azerbaijan), Armenia Vine (Armenia), GEM International (Mongolia), other producers.

21170/Press Release – 2018.04.26

Siam Glass



Siam Glass intends to build a second production line at its plant Ayutthaya to produce bottles for energy drinks, popular in Thailand.

SORG will supply them with a top modern glass melting furnace with four forehearths and glass conditioning system, an energetically highly efficient regenerative end-fired furnace with a melting capacity of 310 tpd amber glass, heated with gas and equipped with an electric melting booster as well as the proven SORG® Deep Refiner®.

The glass will be supplied to the four production lines via a SORG® STW working end and four forehearths. Considering the forehearth pulls and production requirements, two forehearths type SORG® 340S® and two forehearths type SORG® 240 are planned.

Apart from the engineering for the furnace, working end and four forehearths, also the complete equipment, control system and refractory package will be supplied.

21171/Press Release – 2018.04.13

Nampak (South Africa)



South African container glassmaker Nampak has told shareholders it is selling its glass division. "To ensure the long-term profitability of glass and to address the operational skills gap, the board has resolved to approach packaging industry players to invite proposals for the sale of the glass business," it said.

Exploratory discussions had been held with a number of strategic partners and a formal corporate finance disposal process was in process, it said.

It is thought the business could end in foreign hands as competition authorities are unlikely to agree to a deal with the sole other South African container glassmaker, Consol Glass.

In November 2011, Nampak spent R938m to acquire the 50% of its glass business it did not own from joint venture partner, German-based Wiegand-Glas.

At the time Nampak CEO Andrew Marshall said the acquisition was part of a strategy of "investing in our core businesses where we believe we have competitive advantages".

21172/Press Release – 2018.04.10

Consol Constructing Ethiopian Glass Plant

South African container glass manufacturer Consol is constructing a greenfield facility in Debre Birhan, Ethiopia. It is scheduled for commissioning in the fourth quarter of this year.

Consol's Ethiopian facility is expected to have an initial production rate of approximately 40,000 tonnes of glass output per year. This will increase to 60,000 tonnes per year as the facility increases production to its installed capacity over a three-year period, based on market demand.

Consol's major customers include leading beverage and food companies operating in Africa, such as Anheuser-Busch InBev (following its acquisition of SABMiller), Diageo, Distell, East African Breweries, Heineken, Namibia Breweries and Tiger Brands.

As at 31 December 2017, the group's total manufacturing capacity across sub-Saharan Africa included six manufacturing facilities and 13 furnaces capable of producing output of approximately 932,000 tonnes of manufactured glass that can be sold as 'Good Glass' per year.

21173/Press Release – 2018.04.24

Miscellaneous

EU Glass Packaging Closed Loop Recycling Steady at 74%

Latest industry data on glass recycling show that the average glass recycling rate in the EU28 is steady at 74%. This means that over 11.6 million tons of glass bottles are collected and recycled into food grade quality material for the production of new glass containers.

Countries such as Belgium, Slovenia or Sweden, with excellent separate collection systems, continue to outperform beyond 95%. While glass stands alone as the most circular packaging solution, maintaining permanent quality even when recycled, the reality is that there is still an important collection gap to fill in many EU countries.

“Our industry is mobilized to fill the gap to 100% EU glass recycling because recycled glass is our most important raw material”, commented Adeline Farrelly, FEVE Secretary General. “We hope the new packaging recycling targets will give the necessary boost to all EU countries to invest in closed loop glass collection.”

Real recycling is a balancing act between developing materials that are recyclable, and markets that are open to use recycled material. *“More and more effort is being put at European level to use recycled material for new food packaging”, says Jean-Paul Judson, FEVE Public Affairs Manager. “Recycled glass is of food grade quality. It goes straight into new food or beverage containers. We want to engage with policymakers to make this model the reference”.*

See FEVE Recycling Statistics published on the FEVE website www.feve.org

21174/FEVE Press Release – 2018.04.10



British Glass Responds to Announcement of Deposit Returns Scheme Consultation

British Glass Senior Policy Adviser Debra Huntington commented on the announcement from the Department for Environment, Food and Rural Affairs regarding a deposit return scheme saying: “Glass is 100% and endlessly recyclable with no loss of quality ...”

The Department for Environment, Food and Rural Affairs has announced that a deposit return scheme to increase recycling rates and slash polluting waste will be introduced later this year – subject to consultation.

Commenting on the announcement, British Glass Senior Policy Adviser Debra Huntington said: “Glass is 100% and endlessly recyclable with no loss of quality – it should always be recycled back into new glass.”

“British Glass welcomes the opportunity to examine how existing glass recycling systems might work with any proposed deposit return schemes, because glass is already widely and extensively recycled. Our concern is that any scheme for glass bottles is appropriate to how and where we all use glass packaging – and actually improves, rather than undermining, the existing glass recycling infrastructure.”

“Glass packaging manufacturers already use a significant amount of recycled glass in their production: it reduces energy use and CO2 emissions; it also helps in the process of glass melting and forming. British Glass is continually working with its members – and colleagues across the glass packaging supply chain – to improve quality and quantity of glass that comes back to manufacturers for recycling.”

21176/Press Release – 2018.03.30

Germany Reports Growth in Glass Containers in 2017

The German container glass sector reported growth in sales in 2017, with the highest growth observed in the segment of containers for soft drinks (water, milk and juice) at 3.9%.

Sales of container glass in Germany in 2017 increased by 4.2 million tons.

German glassware group Aktionsforum Glasverpackung, part of the industry association of the German glass industry Bundesverband Glasindustrie e.V., reports that sales of container glass in 2017 increased by 4.2 million tons, which is 1.9% more than in the previous year. Sales in the country increased by 0.6%, and internationally by 5%.

The beverage sector reported 2.5% growth in 2017, with the highest growth observed in the segment of containers for soft drinks (water, milk and juice) at 3.9%, due to steady demand for mineral water. According to data from the Union of Mineral Resources of Germany (Verband Deutscher Mineralbrunnen e.V.), in 2016 the consumption of these waters per capita was high at the previous year and amounted to about 148 litres.

Distribution of alcoholic beverages was also positive. Sales of beer, spirits in glass increased by 2.4% compared to the previous year, despite the fact that sales of beer decreased by 2.1%. Wines and sparkling wines saw an increase in sales by 2.2%.

Glass containers for food, pharmaceutical and cosmetic products increased 0.8%. In the segment of glass containers for food products (except fruits, vegetables and canned food with vinegar) sales increased by 0.7%, and in the glass container segment for fruits, vegetables and pickled canned goods, growth was 0.9% over the previous year.

21177/Press Release – 2018.04.23

AB InBev New Sustainability Goals to Reach by 2025

In its aim to cut its greenhouse emissions, Anheuser-Busch InBev intends to make all its packaging either returnable or from mainly recycled materials, thus cutting its greenhouse gas emissions by a quarter by 2025 and help thousands of farmers cope with disruptions to water supplies stoked by global warming.

The Belgium-based brewer also said it would make all its packaging either returnable or from mainly recycled materials by 2025 and was on track to achieve a goal set in 2017 to get all the electricity it buys from renewable sources by 2025.

“It’s a win-win ... It’s good for business and good for the environment,” said chief executive Carlos Brito. Brito said AB InBev was vulnerable to environmental changes since it relied on barley, malt, hops, wheat, rice and other products grown by 50,000 farmers in dozens of nations. “If the environment has a problem, we have a problem,” he said in a telephone interview from New York of disruptions such as heatwaves, droughts, floods and storms linked to climate change.

AB InBev plans to cut greenhouse gas emissions by 25% by 2025, to the equivalent of 37.93 kg (83.62 lb) of carbon dioxide to produce a hectoliter of beer from 50.57 kg in 2017.

Brito said the new goals for 2025 would include suppliers and wholesalers - beyond the company’s previous environmental targets that focused on the company’s core operations. The firm aims to cut water use, including by “restoring watersheds in areas that need it most, and improving water availability and quality for our communities,” it said. It would work to ensure all farmers had needed skills by 2025.

AB InBev was one of 74 companies on an “A list” for water reporting in 2017 from the independent London-based CDP, which monitors environmental performance by thousands of companies. It got a “B” for reporting on climate change in 2017 after an “A minus” in 2016.

The firm will seek new ideas by scientists and entrepreneurs for everything from plastics recycling to better soil management in a project called the ‘100+ Sustainability Accelerator’.

21178/Press Release – 2018.04.09

DOMESTIC TABLEWARE AND CRYSTAL GLASS

Glass Company

Trend Group

Poland's Forglass has designed, fabricated and installed a 120/150 TPD regenerative end-fired furnace to Trend Group, a major Polish producer of tableware glass. The furnace order for its Szydłowiec plant included electric boosting to melt ultra-white flint tableware glass.

Following a successful startup, many performance parameters exceeded the values guaranteed in the contract. Chiefly, the glass quality index is below 10 bubbles with the specific energy consumption below 1020 kcal/kg.

Forglass furnace design takes into account the specific characteristics of oxidized, ultra-white flint tableware glass with low iron content – mainly high values of effective thermal conductivity coefficient and higher saturation of SO₃ in the molten glass.

Trend Group expressed its satisfaction with the furnace by placing subsequent orders – the modernisation of three additional furnaces for its other plants.

21179/Press Release – 2018.04.24

Miscellaneous

LSU grad student creates drinkware that really keeps beverages cold

A graduate student at LSU has invented a new line of drinkware designed to keep beverages cold for longer periods of time.

One of the great challenges of outdoor life in south Louisiana is to keep beverages in a glass cold without the slippery condensation build-up. An LSU graduate student says he's cracked the code, inventing a new line of drinkware designed to keep beverages cold for longer periods of time.

Sean King, a mechanical engineering graduate student, has obtained a provisional patent for what he's calling **FLOE Drinkware**, according to an LSU news release. The 16-ounce glassware is engineered similarly to double-pane windows, comprising two layers of material separated by an internal vacuum sleeve to make ice last twice as long in a beverage and create little to no condensation on the outside of a glass.

King came up with the idea for the drinkware after a summer visit to a local restaurant with his family. Sitting on the patio with his parents, the Baton Rouge High School alumnus started thinking after his father said it would be great if someone invented a glass that could keep his drink cold.



“After about 15 minutes on the patio, our drinks were warm,” King says. “So, then I thought, I could do that. I actually know how to do that.”

The glasses have the advantage of being able to maintain an internal vacuum between the inner and outer sleeves. The technology, King explains, increases the amount of time you can enjoy a beverage without ice from a few minutes to an hour.

King still needs to obtain a utility patent for his invention. He plans on donating 15% of every FLOE product sold – including stickers and T-shirts – to the Flint Water Fund and the Appalachian Freshwater Initiative, both of which help people in their respective communities gain access to clean drinking water.

21180/Press Release – 2018.04.06

REINFORCEMENT GLASS FIBRES

Glass Company

Owens Corning / Taiwan Glass



Owens Corning has entered into technology licensing and manufacturing supply agreements with Taiwan Glass.

Owens Corning, a leading global producer of glass fiber reinforcements for composite systems, has entered into technology licensing and manufacturing supply agreements with Taiwan Glass Ind. Corp., based in Taipei, Taiwan.

The agreements will leverage Owens Corning’s Advantex® glass fiber reinforcements and the well-positioned manufacturing platform of Taiwan Glass to produce a mix of products for both thermoplastic and thermoset applications. The companies will continue to operate as separate commercial entities.

“The agreements with Taiwan Glass will support Owens Corning’s growth in the Asia Pacific region, beyond China, while also expanding our capacity to supply customers in Europe and North America,” said Arnaud Genis, President of Owens Corning’s Composites business.

“Over the years, Taiwan Glass has been a customer, supplier, and licensee of Owens Corning technology,” Genis added. “We are pleased to build upon our successful, long-term relationship with the announcement of these new agreements.”

The agreements with Taiwan Glass represent the latest in a series of relationships Owens Corning has consummated with Asia-based manufacturers that license its technology.

These agreements have enabled the company to leverage its internal capacity while also taking advantage of external assets to deliver Owens Corning products – tested using the company’s quality systems and meeting the same specifications as its owned operations.

MRichard Lin, General Manager of the Fiberglass Business, of Taiwan Glass, added, “we are pleased to strengthen our strategic relationship with Owens Corning. These agreements enable Taiwan Glass to continue to satisfy customers through delivering outstanding quality and comprehensive services, and to contribute to the composites industry.”

21181/Press Release – 2018.04.05

SPECIAL GLASS

Glass Companies

Corning

Corning Incorporated is to build a manufacturing facility that will create over 300 new jobs in Durham County, North Carolina, USA.

The facility will manufacture Corning’s Valor Glass and is part of the company’s plan, announced last July, to invest \$500 million and create 1000 new US jobs.



The announcement follows similar Corning investments in the development and manufacturing of Valor Glass in Big Flats and Erwin, New York.

The new facility will be constructed adjacent to a Corning Life Sciences manufacturing facility, enabling the company to realise synergies between the two businesses.

It is anticipated the new facility will be operational by year-end 2019.

21182/Press Release – 2018.04.06

Zeiss

ZEISS Symposium: quantum technology has the potential to become one of the major innovation drivers in the 21st century

Close cooperation between science and industry was a key success factor.

This year's ZEISS Symposium was on Optics in the Quantum World; for two days, around 300 international experts discussed the future of and fields of application for quantum technologies in Oberkochen.



For Dr. Ulrich Simon, Head of Research & Technology at the ZEISS Group, quantum technologies are becoming increasingly important. At this year's ZEISS Symposium "Optics in the Quantum World," he emphasized that "up until now, people have tended to underestimate the opportunities afforded by quantum technology." The first specific product launches are expected in several areas in the next five to ten years. "The innovation cycles are becoming shorter, and it is important that companies like ZEISS commit to this technology. This will affect us more quickly than we thought a few years ago. In particular quantum sensors will prove important for our Medical Technology, Measuring Technology and Microscopy areas." Quantum sensors are enhanced sensors that are many times more precise than their predecessors.

Europe will play a key role in the development of quantum technologies. According to a survey conducted at the ZEISS Symposium, nearly half of the 300 participants from science and industry anticipate that in 2030 Europe will be the world's leading region for quantum technology. 39% expect it to be the Asia-Pacific region, 14% the US.

Prof. Dr. Michael Kaschke, President & CEO of the ZEISS Group, explained why the ZEISS Symposium focused on quantum technology: "Digitalization has transformed the world and is a product of quantum technology from the 20th century. "The first wave produced innovations like semiconductor technology and lasers. "Many people believe that 21st-century quantum technology will bring about a second wave that will further change the world." For Kaschke, the close cooperation between science and industry is a key success factor. The ZEISS Symposium "Optics in the Quantum World" has helped foster this.

21183/Press Release – 2018.04.25

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DIVERSE

GLASS & SUPPLIERS

Emhart to Complete Takeover of its Chinese Joint Venture

Bucher Emhart Glass is to take over the remaining shares of its joint venture with Shandong Sanjin Glass Machinery.

The joint venture was formed in 2011 and specialises in glass forming machinery in China.

Emhart said the complete takeover emphasises the importance of the Chinese market and will lead to a rapid and more systematic development of the subsidiary.

In 2011, Bucher Emhart Glass acquired a stake of 63% of Shandong Sanjin, which is located in Zibo. Sanjin produces standard glass forming machines, inspection machines and annealing lehrs specifically for the Chinese market. Bucher Emhart Glass exports glass forming and inspection machines, serving China's high-end segment only.

The complete takeover of Sanjin (*pictured*) by Bucher Emhart Glass will be concluded over the next few months.

Emhart said it will foster even stronger collaboration between the two companies as well as the systematic and direct application of knowledge regarding technology, production efficiency and product development.

Sanjin will also profit from the best practices and management processes of Bucher Emhart Glass.

21184/Press Release – 2018.03.28

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.

21185/Press Release – 2017.07.06

Pharmaceutical Glass Packaging Workshop

Glass Technology Services (GTS) Ltd. Is holding a one-day glass packaging workshop for the pharmaceutical industry on **7 June 2018**, in Sheffield (UK).



Whether you make, sell, process or use glass packaging – this workshop will give you an understanding of how glass is processed, quality control, appropriate selection in terms of specification and durability and how to meet your legal responsibilities. There will also be a chance to discuss your specific requirements in our one to one surgeries.

More details and booking form on <https://www.glass-ts.com/pharmaglass>

21186/Glass-TS Press Release – 2017.04.16

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. Junghänel, 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.

21187/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>



21188/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 .

21189/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>.

21190/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/>.

21191/Press Release – 2017.12.19