

WELCOME TO EU GLASS INDUSTRIES NEWS



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INTERNAL & MEMBERS' NEWS

GAE Secretariat General

New Secretary-General for 2018

Succeeding to Adeline FARRELLY, Secretary-General of FEVE (European Container Glass Association), **Mr. Bertrand CAZES**, Secretary-General of *Glass for Europe* (the trade association of Europe's flat glass sector), will be in charge of **managing Glass Alliance Europe in 2018**.

The 2018 annual work programme takes into account the Business Plan for 2016-2019 as well as the requests from members to maintain focus in activities on clearly defined and achievable objectives, where consensus emerging between all members can be identified.

This annual work programme takes stock of the difficulties encountered in 2016-17 on this last item but it nevertheless seeks to maintain the ambition, the vehicle and the means for future activities in the fields of climate change and public affairs if desired by the membership.

In terms of environmental dossiers, focus in 2018 will be as follows:

- ✓ Food contact: new values, overall migration limits, EURL work, specific concerns, Council of Europe.
- ✓ Respirable crystalline silica: regulation at EU level.
- ✓ Chemicals at Work: revision of the CMD – Carcinogens and Mutagens Directive - and of the CAD – Chemicals at the Workplace Directive.
- ✓ REACH: new substances proposed for classification and defence of raw materials as intermediates.
- ✓ Air quality policies: revised legislative proposal for Air Quality, implementation of the National Emissions Ceilings (NEC) Directives and of the IED Directive in Glass permits.
- ✓ ETS post 2020 (*if consensus emerges again*).

Finally, this work programme leaves space for new issues to be dealt with by Glass Alliance Europe. These new issues need to be assessed on a case-by-case basis by the Executive Committee, as was agreed for example for energy issues or BREXIT.

20954/GAE News – 2018.01.04

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EU COMMUNITY NEWS

NEW EU LEGISLATION

Council Directive

N° (EU) 2017/2398 of 12 December 2017

The Council has amended Directive 2004/37/EC on the **protection of workers from the risks related to exposure to carcinogens or mutagens at work** (CMD).

SCOEL (Scientific Committee on Exposure Limits) assists the Commission, in particular in identifying, evaluating and analysing in detail the latest available scientific data, and in proposing occupational exposure limit values for the protection of workers from chemical risks, which are to be set at Union level pursuant to Council Directive 98/24/EC (5) and Directive 2004/37/EC. **The amendments concern notably the RCS (Respirable Crystalline Silica), RCF (refractory ceramic fibres) and certain chromium VI compounds.**

RCS

- The occupational limit value is set at 0.1 mg/m³ for work involving exposure to respirable crystalline silica dust generated by a work process (respirable fraction).
- Recital 18 reminds that “respirable crystalline silica dust generated by a work process is not subject to classification in accordance with Regulation (EC) N° 1272/2008” [Classification, Labelling & Packaging Regulation 1272/2008].
- Recital 19 mentions NEPSI as an example of valuable and necessary instrument to complement regulatory measures and in particular to support the effective implementation of limit values. NEPSI signatories keep to try to enhance recognition in a further amendment of the CMD.
- Member States have up to 17 January 2020 to transpose the amendment into national law. The implementation report will be issued about five years after the implementation. The Commission has then up to three years to evaluate the implementation report. A revision of the RCS dust OEL could then take place, if deemed appropriate.

RCF

Classified as carcinogenic Cat. 1B, exposure limits should be set.

Chromium VI

OEL of 0.005 mg/m³ but with a transitional measure of 0.1 mg/m³ until 17 January 2025.

All details on page 87 at:

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2017:345:TOC>

20955/O.J. L345 - 2017.12.27

Commission Regulation

N° (EU) 2018/79 of 18 January 2018

The Commission published on 19 January the REGULATION (EU) 2018/79 of 18 January 2018 amending Regulation (EU) No 10/2011 **on plastic materials and articles intended to come into contact with food.**

All details on page 31 at:

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2018:014:TOC>

20956/O.J. L14 – 2018.01.19

TRADE POLICY

EU Trade Defence Instruments

On 20 December, the Council of the EU confirmed, at the level of the ambassadors of the Member States (Coreper), the inter-institutional agreement in principle concluded on 5 December on the revision of the EU's trade defence instruments, proposed by the Commission in April 2013.

Under this agreement, the new rules will increase the transparency and predictability for the imposition of provisional anti-dumping measures and anti-subsidy measures, by providing for a pre-disclosure period of three weeks after the information is made public, during which provisional duties will not yet be applied, as well as additional safety nets addressing the issue of stockpiling imported products.

They will make it possible to open investigations without an official request from industry if there is a threat of retaliation from a third country and authorise unions to submit complaints jointly with industry and become interested parties in the proceedings.

They shorten the investigation period to a normal period of seven months, but no more than 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 these raw materials, including energy, account for more than 17% of this cost. This would allow for an adaptation of the level of duties imposed under the "lesser duty rule" if it 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 duties collected during an expiry review in the event of trade defence measures not being maintained.

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

The new regulation will enter into force once it has been approved by the Council of Ministers of the EU and by the European Parliament, whose committee on international trade will first be called upon, most likely **on 23 January**, to confirm the inter-institutional agreement in principle. The formal adoption process is likely to be concluded by the end of the first half of 2018.

In parallel, the EU's new methodology for calculating anti-dumping taxes entered into force on 20 December. It is accompanied by an initial country report on market distortions resulting from considerable state interference; this concerns China, the object of most of the EU's anti-dumping activity.

20957/Press Release – 2017.12.21

EU/Mexico Trade Agreement 2.0

The EU and Mexico made a lot of progress and are close to a deal, probably at the beginning of 2018.

The discussions are still stalling on the agricultural chapter, particularly on dairy products, a very sensitive issue for the EU, and on opening up Mexican public procurement markets.

On the question of the protection of geographical indications (GIs), Malmström said that the two parties still had to “find solutions on some” of the 400 GIs the EU would like to protect on the Mexican market.

Discussions are also continuing on investment protection and the dispute settlement mechanism, in this area. Mexico is still considering the EU proposal of an investment court system (ICS) for arbitration in investment disputes, which forms part of the agreements concluded by the EU with Canada, Singapore and Vietnam and is being promoted in its agreement with Japan, to replace the private arbitration courts like the Investor State Dispute System (ISDS).

20958/Press Release – 2017.12.21

Economic Practical and Legal Ramifications from Brexit

The European Commission published a document for economic operators, on the ramifications of United Kingdom leaving the EU, with regard to the application of European rules on industrial products. In this seven-page document, the European Commission tackles the question of importing products from United Kingdom after 30 March 2019, the need to have certified representatives for all British companies on Union territory and the question of reassessing approved products in the United Kingdom by EU27 notified bodies.

Document at following link: <http://ec.europa.eu/docsroom/documents/27401>

20959/Press Release – 2018.01.29

ENVIRONMENT & ENERGY

Bulgarian Council Presidency Agenda

Speeding up the EU's **transition to a circular economy** and **boosting eco-innovation** will be the **main environmental priorities** of the Bulgarian Presidency of the Council of the EU, which has just taken up office. It says it will work to safeguard the high standards of environmental protection and EU citizens' quality of life and will encourage both sustainable development and the green economy.

Improving air quality, better regulation, implementation of the Paris climate agreement and preparing for COP 24 will also be among the focus areas in its six-month work programme ahead of the next global climate meeting (Katowice, Poland, in December 2018).

Circular economy. During the period of the Bulgarian Presidency, the revised EU waste directives, on which an inter-institutional agreement has just been struck as part of the circular economy package, will be adopted. Beyond this formality, the Presidency will start discussions on the additional circular economy mini-package presented by the Commission a year ago – a communication on transforming waste into energy, a proposal on revising the directive on the recycling of electric and electronic equipment, creation of a new platform for financing innovative projects and a progress report on the implementation of the circular economy action plan. A policy debate on the EU strategy on plastics, expected from the Commission, is scheduled for the Environment Council of 5 March.

Also during the Bulgarian Presidency, discussions will take place on the findings of two analyses currently taking place that have a direct link to plastics: evaluation of the implementation of the REACH regulation on registration, evaluation, authorisation and restriction of chemicals and the regulatory fitness test of chemical legislation (excluding REACH).

Eco-innovation. Keen to encourage innovative solutions for improving air quality and protecting the health of European citizens and the environment, the Presidency will, jointly with the European Commission, organise the 21st European Forum on Eco-Innovation in Sofia on 5 and 6 February and will initiate an exchange of views on this issue at the informal meeting of environment ministers on 10 and 11 April.

Better regulation. Simplifying regulatory regimes in order to cut red tape and coordination between sectoral legislation – an issue that the Bulgarian Presidency views as crucial to a more effective, more efficient implementation of environmental legislation – will also be on the agenda of the informal ministerial meeting in April.

Climate. The Presidency has declared its determination to encourage implementation of the Paris Agreement and will work on preparation of COP 24 seeking an ambitious outcome, with the facilitative dialogue, known as the Talanoa dialogue, among the parties to the agreement taking place throughout the year.

In terms of legislation, the Presidency will work to reach agreement with Parliament on the draft regulation on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles.

With the member states, it will examine the proposal for a regulation setting new CO₂ emission standards for new passenger cars and vans in the EU until 2030 – a key issue in the second clean mobility package presented by the Commission in November of last year.

20960/Press Release – 2018.01.05

EU Political Agreement on Energy/Climate Governance Mechanism

On 18 December, the energy ministers of the EU reached an informal political agreement ('general orientation') on the draft regulation establishing a system of governance of the Energy Union to put energy and climate planning into a single framework.

This regulation, which is part of the 'clean energy' package proposed by the Commission in November 2016, establishes a cooperation and control mechanism to ensure the implementation of the **EU's general and specific objectives up to 2030 concerning the deployment of renewable energies, improving energy efficiency, reinforcing interconnections and reducing greenhouse gas emissions.**

These rules aim to ensure the coherence and long-term stability of national energy and climate policies, their predictability for investors and their coordination towards the Energy Union objectives: - security of supply; integration of the single energy market; energy efficiency; decarbonisation of the energy system; research and innovation - and commitments under the International Climate Agreement concluded in Paris in 2015.

A staggered trajectory towards 27% renewables. Under the general orientation, the member states will present integrated national energy and climate plans for 2021-2030, setting out their aims, policies and measures within the five pillars of Energy Union.

To ensure that the countries make a constant and cumulative contribution to the indicative target of a share of 27% of renewables (100% of the target) in the primary energy mix of the EU by 2030, via a 20% share in 2020 (0%), the Council has introduced three minimum thresholds in the trajectory towards the final objective, expressed in percentage terms of progress to be made: 24% in 2023, 40% in 2025 and 60% in 2027.

An iterative process. The governance mechanism is based on an iterative process between the member states, which will present their provisional and definitive plans and progress reports, and the Commission, which will supervise them and make recommendations to plug any gaps in execution.

The Council's general orientation provides for a 'gap-filler mechanism' in the event of the inadequacy of the national contributions for renewables up to 2030 or insufficient achievements in terms of the planned contributions.

A list of criteria is included for the Commission's assessment of the initial degree of ambition of the national contributions, on the basis of which it may make non-binding recommendations to help the capitals to get on track.

The member states must also continue to comply with their binding renewables targets set for 2020, up to 2020 and beyond. If a country falls behind its reference share set for 2020, it will need to take corrective measures within a year.

Additionally, the Council has tightened up the measures aiming to facilitate convergence by all member states towards the electricity interconnection objective, including key criteria to assess progress.

The governments will be required to present biannual national integrated progress reports for both energy and climate. The Commission will be responsible for monitoring progress made and may make recommendations calling for extra measures, at national or EU level.

Trilogue negotiations on the basis of the EP report by Michèle Rivasi (Greens/EFA, France) and Claude Turmes (Greens/EFA, Luxembourg) will continue in early 2018.

20961/Press Release – 2017.12.19

Revised Renewables Directive

At the meeting of European energy ministers in Brussels on 18 December, the Council of the EU reached political agreement in principle (general approach) on the **draft revised directive on promoting renewable energy use with a view to achieving a share of at least 27% for renewables in overall EU Energy consumption by 2030**.

In the chapter on empowering consumers, the Council general approach agreed by ministers, contains provisions that enable consumers to benefit from simplified notification procedures for small-scale installations. The text also sets out clearly the role, rights and obligations of “renewable self-consumers” and renewable energy communities.

For the heating and cooling sector, member states will have to adopt measures to achieve an indicative annual 1 percentage point increase in the share of renewable energy. As existing national systems and installations differ widely across the EU in this respect, the Council text reflects the specific characteristics of “cooling” installations in warmer climates.

In the transport sector, ministers have raised the renewables target for 2030 to at least 14% of total energy consumption in transport (compared with 12% in the Estonian compromise) and there is also a sub-target of 3% for advanced biofuels, for which double-counting will be allowed. This advanced biofuel’s target has an intermediate binding milestone of 1% in 2025 to increase investment security and guarantee the availability of fuels throughout the period.

Electromobility is strongly encouraged by two multipliers of 5x for renewable electricity used in road transport, and of 2x for rail transport.

The existing 7% cap on first-generation biofuels is maintained in order to provide certainty for investors. If a member state sets a lower cap, it will be rewarded with the option of lowering its overall target for renewables in transport.

The general approach also clarifies rules on the sustainability criteria and greenhouse gas emissions saving criteria that apply to biofuels, bioliquids and biomass fuels.

The text agreed contains provisions that give member states the possibility of opening up their national support schemes across borders to generators of renewable energy in other member states, but the final decision on this will remain with them.

Lastly, to provide certainty for investments in renewable energy, the Council text, like the Commission’s proposal, addresses the stability of financial support by preventing unjustified retroactive changes to support schemes.

Triologue negotiations between the Council, the European Parliament and the Commission on this text will be able to begin at the start of 2018 as soon as Parliament has adopted its negotiating mandate.

20962/Press Release – 2017.12.19

Parliament-Council Agreement on Non-ETS Effort Sharing Sectors

The Estonian Presidency of the Council of the EU and representatives from the European Parliament reached an informal inter-institutional agreement on 21 December. This agreement relates to the draft regulation on effort-sharing in reducing greenhouse gas emissions from sectors that are not covered by the EU emissions trading scheme (ETS) – transport, buildings, agriculture and waste.

Between 2021 and 2030, these sectors, which are responsible for around 60% of EU greenhouse gas emissions, will have to reduce their emissions by 30% compared to 2005 levels. Over this period, each member state will have to meet annual emissions reduction targets, calculated on the basis of per capita wealth produced.

One of the last remaining questions to be settled was the starting point for calculating the greenhouse gas emissions trajectory for the member states. The **starting point** will be based on the **average emissions from 2016 to 2018** as proposed by the Commission with the start of the trajectory calculation at 2019 and 5 months or in 2020, whichever results in a lower allocation for that member state.

To meet their targets, the member states will be able to use two new tightly framed flexibilities: the one-off ETS flexibility for allocations to member states under the ETS system and the other in line with new rules governing the inclusion of forestry and agricultural activities in the fight against climate change (Lulucf regulation).

A safety reserve is also introduced to help EU countries with low revenues and which have already made early efforts to reduce their emissions but which will have difficulties in attaining their 2030 target. This will ultimately rise to €105 million – €10 million less than the amount initially set out by the member states.

Specific provisions have been maintained to manage the situation, particularly in Malta and Latvia, which will benefit from an additional allowance in quotas to the tune of 2 million tons of CO₂ in 2021.

Commissioner for Climate Action Miguel Arias Cañete, welcomed the agreement which, he said, proved the Union's determination to remain in the forefront of action against global warming by taking concrete action itself.

The inter-institutional agreement was sent to the member states in order for them to provide a response by end of January.

20963/Press Release – 2017.12.21

European Commission Consults on Establishing Post-2020 ETS Innovation Fund

A public consultation on the establishment of the Innovation Fund is accessible on-line until 10 April to encourage investment in low-carbon technologies as part of the post-2020 reform of the EU Emissions Trading System (ETS). The European Commission hopes there will be maximum contribution not only from industrial stakeholders directly affected, as these are likely to benefit from the fund's resources, but also from stakeholders indirectly affected – environmental NGOs, regional authorities, European institutions, European and national financial institutions, and the public. The goal is to gather a broad range of viewpoints, for example on key innovation challenges, and the expectations and financial needs of potential beneficiaries.

More information and online questionnaire on EC website at:

https://ec.europa.eu/clima/consultations/public-consultation-establishment-innovation-fund_en

20964/Press Release – 2018.01.23

Revision of EU Waste Directives

Glass for Europe welcomes provisional agreement on waste package

Thanks to the recently agreed provisional agreement regarding waste, flat glass manufacturers will be able to increase the recycling of building glass.

A provisional agreement has been reached between three institutions on the waste package. Glass for Europe, the trade association of Europe's flat glass sector, which manufactures energy saving technologies for the building, transport and solar-energy sectors, welcomes that an agreement could be found. "Flat glass is fully recyclable into glass products and yet recycling rates remain low in Europe. With this agreement, the EU policy signal in support of a truly circular economy is clear and flat glass manufacturers are keen on upscaling the recycling of building glass," said Bertrand Cazes, Secretary General of Glass for Europe.

Circular economy starts by ensuring that the status of by-products is not unduly complexified or denied so that these pre-consumer streams can be easily recycled. The conditions for a substance or object to be considered as by-product are already defined in the waste framework directive. However, experience shows that flat glass off-cuts are too often considered waste in Member States despite meeting all the conditions set. Glass for Europe welcomes the commitments made in the agreed text for a uniform application of the conditions.

The second and biggest challenge is to enhance the effective recycling of end-of-life building glass coming from old windows and façades. Because it is not properly sorted at source in Europe, its recycling in new glass products is made difficult. Studies have shown that in certain regions of Europe, there can be social and environmental benefits to improving building glass collection and sorting. With this new waste package's signal to look at specific waste streams including building glass, all relevant economic actors, with the support of public authorities, are invited to work hand in hand to design models that are both effective and economically balanced.

Glass for Europe is looking forward to the implementation of the new waste package. "The new framework provides long-term vision and clarity on all actors' responsibilities, and our industry is ready to engage with national, regional and local authorities to design appropriate measures to close the flat glass loop, wherever it can benefit Society," concluded Bertrand Cazès.

20965/Press Release – 2017.12.21

EU Circular Economy: First EU Plastic Recycling Strategy

In the interests of the environment, the health of its citizens and the recycling industry, the EU has no option but to increase the recycling and reuse rates of plastic packaging – the greatest scourge of the seas which has to be turned into an opportunity for European industry. It is on this simple premise that the very **first EU strategy on plastics**, presented by the European Commission in Strasbourg on 16 January, is based.

Given that packaging represents some two thirds of European plastic waste and that reducing marine litter is a matter of urgency, the principal objective is to ensure that **all plastic packaging on the EU market is recyclable or reusable by 2030**, by promoting more sustainable ways of producing plastic, right from the design stage, and by making recycling more profitable for business.

This holistic strategy incorporates a whole range of means – legislation, economic incentives, voluntary agreements with industry – transforming the way products are designed, produced, used, and recycled and reducing marine litter, cutting the use of disposable plastics, such as drinking straws and cutlery, placing restrictions on the intentional use of microplastics, encouraging demand for recycled plastics, creating a genuine single market for plastics and working to mobilise all European players and encourage international cooperation. In the EU at present, only 6% of the demand for new plastic is met by recycled plastics.

The Commission also expects this strategy, a key factor in driving forward the EU transition towards a circular economy, to have a positive effect on innovation, investment prospects, growth, jobs and the competitiveness of European industry.

The strategy, resulting from long Collegial team work, is *“what will make the fourth industrial revolution a success”*, in the view of Commission First Vice-President with responsibility for sustainable development Frans Timmermans. It will also provide a way forward after the closure of the Chinese market to European plastic waste from 1 January but Timmermans prefers to see it as an *“opportunity”* for Europe to lead the way in the plastics value chain rather than a way to resolve a problem.

“We can’t live without plastic but plastic can be a killer. Every second in the world, 700 kg of plastic litter ends up in the seas. If we don’t change the way we produce and use plastics, there will be more plastics than fish in our oceans by 2050. We must stop plastics getting into our water, our food, and even our bodies. We need an economy where it will be profitable to recycle plastic, where the marine sector is encouraged not to throw waste into the sea and where ports have the facilities to recycle plastics. We need high

quality plastics and to work to raise awareness among citizens to change our habits”, he said.

A directive to reduce marine litter. The Commission presented a draft European directive on waste reception facilities in ports. This is the only new legislative proposal at this stage. It establishes measures to ensure that waste generated on ships or fishing vessels or gathered at sea – including fishing gear – are not just thrown into the water but are brought back to land to be dealt with properly in appropriate facilities.

“Every year, Europeans generate 25 million tonnes of plastic waste, but less than 30% is collected for recycling and we export this waste to Asia. It’s economically absurd. We throw away 90% of the value of plastic packaging. Only 5% remains in our economy”, stated Commission Vice-President with responsibility for jobs, growth, investment and competitiveness Jyrki Katainen. This waste represents between €70 and €105 billion annually in Europe. *“We have not yet brought forward proposals but the goal we are targeting is an economic logic in which recycling will encourage improvement in the supply and demand for recycled plastics”*, stated Katainen.

Making recycling viable. To serve this objective, the Commission is looking to new rules on packaging to improve the quality of the plastics used on the market and to make them more recyclable, and to increase demand for recycled plastic. A standardised approach will be necessary for the selective collection and separation of packaging waste throughout the EU and the key requirements of the packaging directive will have to be updated for the production of better quality plastics.

Limiting microplastics. To reduce the use of these plastic particles of less than 5mm which make their way ultimately into the food chain, the Commission is planning, in a year or two’s time and certainly before 2020, to propose, within the framework of the REACH legislation on chemical products, a ban on microplastics intentionally added to products such as detergents, paints and cosmetics. A ban of this sort is already in force in some countries, such as Sweden and the United Kingdom, in the cosmetic sector. France has announced the introduction of a similar measure.

A voluntary agreement might be possible on microplastics from textiles but *“will be more difficult”* for tyres, Timmermans said, underlining that the solution has to be through innovation, with the financial backing of the Horizon 2020 programme, to limit the amount of microplastics released into the atmosphere.

A ban on non-degradable oxo plastics could also come within the framework of the European REACH regulation.

Tackling disposable plastics. In May of this year, the Commission will launch a legislative initiative to further reduce the use of single-use plastics (such as coffee cups and drinking straws), along similar lines to the legislation on single-use plastic bags which has brought great success. *“Over 70% of Europeans says they have reduced their use, including 30% last year.”* An online public consultation will continue to run until 12 February.

Boosting innovation. The Commission intends to provide guidelines for national authorities and European businesses on how to cut plastic waste to a minimum at source. Support for innovation will be increased, with an additional €100 million for 2018 and 2019 to finance the development of smart and more easily recycled plastics, make the recycling process more efficient and track and eliminate dangerous substances and contaminants from recycled plastics.

Revised Directive on Building Energy Performance

On 19 December, the negotiators of the Estonian Presidency of the Council of the EU, the European Parliament - led by their rapporteur, Bendt Bendtsen (EPP, Denmark) - and the Commission reached a political agreement in principle on the revised directive on the energy performance of buildings.

The Council of the EU adopted its general approach on 6 June and the Parliament adopted its position on 11 October on this text, which was proposed by the Commission in November 2016 in the framework of the package of measures for clean energy.

In particular, the obligation for Member States to define long-term renovation strategies for existing buildings has been introduced, according to a Council statement. In new non-residential buildings with more than 10 parking spaces, a charging station for electric vehicles will have to be put in place every 5 parking spaces.

The provisional agreement makes provision for installation of the necessary cabling infrastructure for charging points for electric vehicles to be put in place at a later date.

As for the monitoring energy performance, the Commission will, between now and the end of 2019, develop a common European mechanism to assess how well-prepared buildings are for smart technologies and a readiness indicator to assess the readiness of buildings to adapt their operation to the needs of the occupants.

The improvements to the text agreed upon between the three institutions include measures aiming to reinforce the energy performance of new buildings, speed up the pace of refurbishment for existing buildings to make them lower-energy and to make the most of the enormous potential of energy efficiency gains in the construction sector, the largest consumer of energy in Europe.

EU member states will be required to put in place long-term national strategies for the renovation or residential and non-residential building stock in order to bring about a reduction of 80-95% in carbon emissions (compared with 1990) from energy consumption in this sector, which is responsible for 40% of final energy consumption in the EU. These strategies are to be used to address issues such as health and indoor climate as well as obstacles to renovation, while allowing access to financial assistance.

The provisional inter-institutional agreement still has to be formally adopted by the European Parliament and the Council of the EU before coming into force.

20967/Press Release – 2017.12.20

Draft Revision of EU Drinking Water Directive

The proposal for revision of the EU directive on the quality of drinking water, awaited for years, is expected to be presented by the European Commission on 1st February.

The MEPs on the European Parliament's environment committee recently expressed concern at the time taken by the Commission in bringing forward this text, which the Bulgarian Presidency recently said it was expecting.

According to the Commission, the now imminent proposal for revision will seek to improve water quality and safety for human consumption by adding new and emerging substances to the list of criteria for determining water safety.

It will also seek to *“improve access for all people, especially for vulnerable and marginalised groups”*.

Its third objective will be better access to information about the quality and supply of drinking water in their living area, improving confidence in tap water

The proposal for a revised directive is the response announced by the Commission as its follow-up to the very first European Citizens’ Initiative (ECI) Right2Water, which called on the European Commission to take action to have access to drinking water recognised as a universal human right to a common good.

20968/Press Release – 2018.01.29

SOCIAL ISSUES

Unemployment Rates

The **euro area** seasonally-adjusted unemployment rate was **8.7%** in **November 2017**, down from 8.8% in October 2017. This is the lowest rate recorded in the euro area since January 2009. The **EU-28** unemployment rate was **7.3%** in November 2017, down from 7.4% in October 2017. This is also the lowest rate recorded in the EU28 since October 2008.

Eurostat estimates that 18.116 million people in the EU28 were unemployed in November 2017, a decrease by 155,000 in the EU28 and by 107,000 in the euro area compared with October 2017.

Czechia	2.5%	Slovenia	6.5%
Malta	3.5%	Sweden	6.6%
Germany	3.6%	Belgium	6.7%
Hungary (Oct.)	4.1%	Lithuania	7.0%
UK (Sept.)	4.2%	Slovakia	7.5%
Netherlands	4.4%	Latvia	8.1%
Poland	4.5%	Portugal	8.2%
Romania	4.7%	Finland	8.4%
Estonia (Oct.)	5.1%	France	9.2%
Austria	5.4%	Croatia	10.4%
Luxembourg	5.5%	Italy	11.0%
Denmark	5.6%	Cyprus	11.0%
Ireland	6.1%	Spain	16.7%
Bulgaria	6.2%	Greece (Sept.)	20.5%

Elsewhere

USA	4.1%	Russia	5.1%
Canada	5.7%	Brazil	12.0%
Japan	2.7%	Australia	5.4%
Switzerland	3.3%	India	3.46%
Turkey	10.6%	China	3.95%

20969/Eurostat Press Release – 2018.01.09

GENERAL ISSUES

Council of EU Draft Conclusions on Long-term Industrial Strategy

On 16 January, the Council of the EU working party on competitiveness and growth discussed the conclusions drafted by the Bulgarian Presidency of the Council on a draft full, long-term industrial strategy and a joint action plan at all levels of governance. The six-page provisional document prepares the conclusions of the Competitiveness Council of 12 and 13 March. Its content reflects the calls made by the member states following presentation by the European Commission of its “revisited” strategy in September that failed to go far enough for a number of delegations.

The text calls for a full industrial policy to be put in place, drawing greatest benefit from the energy transition and the circular economy. The Council thus calls on the Commission to begin consultation with the member states and the various players to determine possible goals by 2030. The text also calls on the Commission to draft a joint action plan to coordinate measures at European, national and regional levels.

The provisional conclusions speak of a range of areas where business innovation needs to be supported: the internet of things, artificial intelligence, connected and stand-alone systems, 5G, 3D printing, standardisation and cybersecurity. The document underlines the importance of increasing data storage capacity and raising cybersecurity and data protection levels.

The provisional conclusions stress the importance of a European framework tailored so as to connect research, innovation and economic circles. Elsewhere, the document lays emphasis on public-private partnerships and important projects of common European interest (IPCEIs).

The Bulgarian Presidency has made industrial policy one of its priorities and has included its plans to put in place a “common industrial policy” (CIP) in its work programme.

20970/Press Release – 2018.01.15

Members of Subsidiarity and Proportionality Workgroup

The Estonian MEP Toomas Vitsut, Austrian MEP Reinhold Lopatka, Bulgarian MEP Kristian Vigenin, the President of the Committee of the Regions (CoR) Karl-Heinz Lambertz (S&D, Belgium), CoR members Michael Schneider (EPP, Germany) and François Decoster (ALDE, French) are now members of the **workgroup on subsidiarity and proportionality**.

These members were nominated by the Conference of Parliamentary Committees for Union Affairs of Parliament of the European Union (COSAC).

So far, the European Parliament has not yet appointed its three representatives.

The group will be chaired by Mr Juncker's right-hand man, Vice President Frans Timmermans, and he will hold his first meeting by the end of January. The group is expected to meet up by 15 July.

It should be pointed out that this group had been announced by the President of the Commission during the state of the Union speech last September. **Its aim is to work on "Scenario 4" (doing less but doing it more efficiently) presented in the White Paper on the Future of the Union and linked to the concept of the added European value that will guide the elaboration of the next multi-annual financial framework for the post-2020 period.**

20971/Press Release – 2018.01.18

Future of the European Union

First Parliamentary Plenary Session 2018



The agenda of the first plenary session on 3rd week of January focussed on the **future of Europe**, the priorities of the Bulgarian presidency of the Council of the EU, and the outcome of the last European summit.

Several debates were scheduled, in particular, **Brexit negotiations and Ireland's specific situation in this respect**.

Another topical issue was **Russia and the way Russian propaganda is influencing member states**.

When it comes to voting, MEPs took position on the control of EU exports, especially cyber-surveillance tools for civil and military purposes that can be used by dictatorial states, such as devices allowing the interception of mobile phones, computer hacking, bypassing of passwords, or the identification of internet users.

Other issues tackled during the plenary session included the Commission's proposal to set in place a tax on the use of plastic bags, the review of European rules on renewable energies and energy efficiency, as well as on the governance of the Energy Union (*see previous articles under Environment Issues*).

20972/Press Release – 2018.01.12

Revision of the Number of Elected Members of Parliament (MEPs)

On 23 January, the European Parliament's committee on constitutional affairs (AFCO) validated the compromise found by the main political groups suggesting that the **number of MEP seats** should be reduced from 751 to **705 for the next legislature 2019-2024**.

The Huebner/Silva Pereira report on the composition of Parliament, which was approved by a comfortable majority (21 votes in favour, 4 against and 0 abstentions), suggests that the 73 seats that would become vacant after the United Kingdom's withdrawal from the EU should be allocated as follows:

- 27 to countries currently insufficiently represented: +5 seats for France (i.e. 79 in all) and for Spain (59), +3 for Italy (76) and the Netherlands (29), +2 for Ireland (13), +1 for Poland (52), Romania (33), Sweden (21), Austria (19), Denmark (14), Finland (14), Slovakia (14), Croatia (12), Estonia (7);
- and 46 seats placed in reserve with a view to the creation of a European constituency for the election of 30 representatives on the basis of transnational lists and membership of the EU by the Balkan states.

The draft report will be put to the plenary session in February so that the Parliament may give its stance before the informal European summit is held. The latter will be looking at these institutional issues on Friday 23 February. The creation of a European constituency must be endorsed by changes to the EU electoral law.

20973/Press Release – 2018.01.23

France's Vision of a European Electoral Constituency

The withdrawal of the United Kingdom from the European Union, which will leave 73 seats empty at the European Parliament, is a genuine opportunity for those in favour of a European electoral constituency that would see MEPs elected from transnational lists in the European elections to be held between 23 and 26 May 2019.

The French authorities are on the move, trying to win over the member states to make changes to the electoral process at European level. At the highest political level, the French President, Emanuel Macron, has succeeded in rallying his opposite numbers from six other southern countries. In their declaration adopted at a mini-summit in Rome, Cyprus, Spain, France, Greece, Italy, Malta and Portugal take position in favour of consulting the citizens on the future of the EU and state that the creation of transnational lists could strengthen the democratic dimension of the EU.

At the European Parliament, the French government has been unstinting in its efforts to convince the MEPs of political groups and/or countries with misgivings about the move. According to the informal French document, any voter registered on an electoral list would have the option to vote for MEPs on transnational lists. The vacant seats would be divided up between the transnational lists with at least 3% of the votes in a ballot by proportional representation, with no vote-splitting or preferential voting, and with blank ballot papers to be left unaccounted, but with no influence on determining the votes cast.

These lists would be officially drawn up and approved by an EU election committee, as follows:

- the candidates would be registered on the voting lists in at least one third of the member states;
- share of candidates from the same country may not exceed 25%;
- the first seven candidates must be from different countries;
- the lists will alternate between candidates of different sex and nationality.

The EU election committee would be made up of 27 national representatives and individuals appointed by the Presidents of the European Council, European Parliament and European Commission plus the director of the authority responsible for registering European political parties and their foundations.

The draft reform of EU election law, which the Parliament adopted in November 2015, but which remains blocked at the Council, seeks to enshrine the process of appointing *Spitzenkandidaten* (lead candidates), who would head the transnational lists in the European elections of 2019. According to Parliament, the European political parties would appoint their lead candidate and in the event of victory, these *Spitzenkandidaten* would chair the European Commission. This was the case with the appointment of Jean-Claude Juncker to the head of the European institution following the victory of the Christian Democrats in the European elections of 2014.

20974/Press Release – 2018.01.17

BREXIT Developments

1. Conditions for Post-Brexit Transition Period

On 29 January, the ministers for European affairs of the Twenty-Seven agreed in full unanimity upon the outlines of the transition period to begin on 29 March 2019, when the withdrawal of the United Kingdom from the EU is to take effect.

The ministers agreed upon the term proposed by the EU negotiator for the **transitional period, which will run until 31 December 2020.**

This phase will be useful and will allow the British government to prepare, for instance to avoid disorder on the borders and then to prepare for other challenges, he stressed. Among these challenges, the senior politician referred to those related to the withdrawal of the UK from Euratom, the European Atomic Energy Community, and the need to give European and British companies enough time to adapt by ensuring a stable regulatory framework and avoid two adjustments in a row - a concern that has been voiced by the British Chamber of Commerce.

In this mandate for the chief negotiator, Michel Barnier, the Twenty-Seven call for the **UK to remain a 'passive' member of the European club**, required to observe the entire European acquis and the obligations stemming from it, but with no powers to take part in decision-making. The entire acquis and the jurisdictional structure, in other words the competence of the European Court of Justice will apply.



However, the UK will have no decision-making or representative powers in the EU institutions and bodies; no Commissioner, no MEPs, no representative in the European agencies.

5 major principles will inform the negotiations on the transition period:

- 1) the integrity of the single market: any transition will include all of the economic sectors covered by the single market and the four associated freedoms (freedom of movement of goods, capital, services and persons);
- 2) the integrity of customs union: the common customs tariff must continue to apply for the entire transition period, along with the border controls for products from third countries;
- 3) the implementation of all new EU rules adopted during the transition period, “under the control of the European agencies, the Commission and the Court of Justice of the EU”;
- 4) the rejection of any form of “à la carte transition”: the regulatory framework and all European polities will remain binding upon the United Kingdom;
- 5) respect for the EU’s decision-making autonomy: *“the United Kingdom will become a third country on the morning of 30 March 2019 and will no longer participate in the EU institutions”*.

However, Mr. Barnier said that the UK could in future still attend certain meetings in comitology, referring to the example of the common fisheries policy.

No transition agreement without agreement on orderly withdrawal. Barnier explained that under article 50 of the EU Treaty, there can be no agreement on the transition period if there is no agreement on the withdrawal treaty, on which *“there can be no going back”*.

This means that the content of the agreement on the withdrawal conditions and transition period will have to be adopted in October 2018. The Council, European Parliament and British authorities will then have until February 2019 to take position.

Bilateral political statement on future relationship. On top of an agreement on the withdrawal and transition period, Barnier explained that he wanted a political document that will clearly and unambiguously define the outlines of the future relationship between the EU and the UK. The aim is to allow both sides to know how the future will look.

The EU negotiator explained that by taking account of the British red lines, the only possible option was a free-trade agreement on the model concluded with Canada, South Korea and, most recently, Japan. Negotiations on future relations have started since the EU has clarified its intentions (new specific orientations) that the Twenty-Seven are expected to adopt in March 2018.

On trade, London will indeed be free to negotiate agreements with third-country partners, but will be unable to conclude them formally. During this period, the UK will also be required to respect the provisions of the free-trade agreements in place between the EU and third countries and with which the UK will continue to comply.

Barnier also stressed that the partnership between the EU and the UK will not stop at economic matters, but will also cover legal cooperation, aviation cooperation and bilateral cooperation in matters of security, defence and foreign policy.

20975/Press Release – 2017.12.21 – 2018.01.23

Inflation Rate

Latest Eurostat figures show that the annual inflation rate was **1.4% in December 2017 in the Euro area**, down from 1.5% in November 2017. **The EU28 annual inflation was 1.7% in December**, down from 1.8% in November.

The largest upward impacts to euro area annual inflation came from fuels for transport (+ 0.11%), tobacco (+ 0.06%) and milk, cheese & eggs (+ 0.05%), while telecommunication (- 0.10%), garments & vegetables (- 0.05%) had the biggest downward impacts.

Cyprus	-0.4%	Poland	1.7%
Ireland	0.5%	Sweden	1.7%
Finland	0.5%	Bulgaria	1.8%
Denmark	0.8%	Slovenia	1.9%
Greece	1.0%	Slovakia	2.0%
Italy	1.0%	Belgium	2.1%
Spain	1.2%	Czech Republic	2.2%
France	1.2%	Latvia	2.2%
Netherlands	1.2%	Hungary	2.2%
Malta	1.3%	Austria	2.3%
Croatia	1.3%	Romania	2.6%
Germany	1.6%	U K	3.0%
Luxembourg	1.6%	Lithuania	3.8%
Portugal	1.6%	Estonia	3.8%

Elsewhere

USA	2.2%	Russia	2.5%
Canada	2.1%	Brazil	2.95%
Japan	0.6%	Australia	1.8%
Switzerland	0.8%	India	4.88%
Turkey	11.9%	China	1.8%

20976/Eurostat News Release – 2018.01.17

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GLASS NEWS

FLAT GLASS

Glass Companies

Saint-Gobain



Clarivate Analytics has just published its Top Global Innovators 2017 ranking. For the seventh time in a row, Saint-Gobain has been included in the 100 most innovative companies and institutions in the world, based on four patent-related metrics: the total number of patents, the number of patents granted as a ratio of patents filed, the global scope of the portfolio of patents, and the impact of patents measured by the number of references.

“This acknowledgement of the quantity, quality and impact of our patents is recognition of the priority Saint-Gobain has placed on innovation and R&D over the past years. In order to continue to provide our customers with new and differentiating solutions, we file more than 450 patents each year, thereby strengthening our lead position on our markets,” said Armand Ajdari, Vice President, Research & Development and Innovation, Saint-Gobain. R&D at Saint-Gobain is supported by 3,700 employees, a global network of eight cross-business research centres and numerous dedicated R&D units for a total investment of €438 million in 2016. With more than 900 R&D projects in progress, Saint-Gobain has a pool of innovations that allows it to launch many new products every year. One out of four products sold today by the Group did not exist five years ago.

In addition to specific R&D projects in each Activity, Group R&D supports, through specific programs, the many efforts to reduce carbon emissions and to develop expertise and projects in three major areas: • materials and processes • building sciences • the digital transformation and associated emerging technology.

20977/Press Release – 2018.01.27

AGC



1. AGC Glass Europe: Stratobel Colour, the alliance of aesthetics and safety

Stratobel Colour is AGC Glass Europe’s new range of coloured laminated glass products for exterior architectural projects (facade, balustrades, roofs, etc.) and interior decoration (partitions, floors, etc.).

AGC Glass Europe is launching Stratobel Colour - a new range of coloured laminated glass products combining trendy looks with safety.

Stratobel Colour offers eight classic colours while maintaining the characteristics of the laminated safety glass. Two greys and two browns, customisable and inspired by nature. Multiple films of the same colour can be combined to increase opacity while maintaining luminosity. It is possible to replace the Planibel Clearlite with the highly transparent Planibel Clearvision in order to make the colours appear more prominent.

The range also offers two translucent whites (Mat 80 and Mat 65) that let light through while protecting privacy, along with the totally opaque white and black.



By combining products from AGC's broad range with the coloured films, it is possible to merge the aesthetics of colours, safety and other functions, such as solar control, thermal insulation and acoustic insulation in one single product.

This brand-new range offers a multitude of solutions for exterior architectural projects (façade, balustrades, roofs, etc.) and interior decoration (partitions, floors, etc.).

To customise a project or reflect a brand identity, the service My Colour by Stratobel offers the option of creating custom colours tailored to the requirements of each project. AGC representatives will use AGC's specially developed IT tool to guide customers from the design phase all the way to placing the order.

20978/Press Release – 2018.01.18

2. Dibotics and AGC Automotive open new boundaries to integrate LiDAR sensors behind the windshield

Thanks to Dibotics' know-how in LiDAR (Laser Imaging Detection and Ranging) data processing and an integrated special infrared transparent glass conceived by AGC Automotive the first LiDAR solution inside the vehicle has been developed.

"We found the same innovation spirit in the AGC Automotive and Wideye teams and we're delighted to have contributed to this major breakthrough for Autonomous Driving," said Raul Bravo, CEO of Dibotics.

There are several reasons why seamless integration of LiDAR inside the vehicle is a major step for industry:

- The LiDAR sensor is fully protected inside the vehicle cabin and does not require extensive sealing
- The aperture of the LiDAR is kept clear in all conditions with windshield features (wipers, defrosting, ...)
- LiDAR is fully effective in a high mounting position, for the best long-range vision
- The LiDAR data can be combined with other sensors around the car to offer the best redundancy of data
- Each sensor is totally hidden inside the vehicle, behind IR glass windshield and/or behind IR glass trims



As automotive glass manufacturer leader, AGC Automotive has created a dedicated entity, totally devoted to autonomous vehicles and LiDAR integration: **Wideye**.

“The ecosystem of autonomous vehicles deserves all our attention and a dedicated service to face new challenges” said Michel Meyers, Mobility Business Development Office Director – AGC Automotive Europe. “Automotive infrared transparent glass and LiDAR integration with Dibotics are a real breakthrough.

As partners, AGC Automotive and Dibotics share the same vision of autonomous vehicles: both are device agnostic and can work with every type of LiDAR sensor. Both companies strongly believe that LiDAR will be the key enabler for Autonomous Vehicles, combined with other sensors to provide maximum safety to drivers. They are both also fully convinced that design will remain a main topic and a powerful trigger for autonomous vehicles adoption.

Dibotics is a Paris-based company offering innovation in real-time LiDAR processing. Founded in 2015 by Raul Bravo and Olivier Garcia, two serial entrepreneurs with extensive experience of 15 years in LiDAR processing for mobile robotics applications, Dibotics has an original approach that differs from the traditional solutions. Its sensor-agnostic 3D SLAM technology (Simultaneous Localization and Mapping) and Augmented LiDAR™ created the first solution allowing advanced features like point-wise classification, objects detection and tracking and calibration-less Sensor Fusion to be performed only based on the sensor data itself. All of this performs without requiring any learning (deterministic) and can be embedded in a small and low-power integrated circuit (SLAM on Chip™).

Wideye is a dedicated entity of AGC, totally focused on autonomous vehicle ecosystem, thanks to three value axes: supply of exclusive infrared transparent glass for vision and non-vision glazing & LiDAR covers, tailor made design of parts for LiDAR integration, and LiDAR’s global integration with partners.

20979/Press Release – 2018.01.08

3. AGC begins installation of new MSVD coater

AGC has begun the installation of its new state-of-the-art magnetron sputtered vacuum deposition coater, at its Greenland, Tennessee, manufacturing complex, which houses two float glass lines.

Plans to locate the new coater in North America were announced in June 2017. AGC expects production to begin in December.

AGC's partnerships with the local labour union will create more than 200 new jobs and generate opportunities for additional expansion in the future.

20980/Press Release – 2018.01.31

4. Lexus draws on Japanese arts and crafts with AGC glass

The Lexus LS will feature moulded glass panels on the doors, with glass from AGC, to create the reflective effect of kiriko glass.



The Lexus LS will be available with, not just hand-pleated silk surfacing but also moulded glass panels. The use of glass to form a decorative surface in a car is a world-first – it features on the door panels.

Lexus said the decision to use glass, was “Inspired by fine Japanese kiriko glass, the panels strike a rich visual and tactile contrast with the stitched leather upholstery, cool metal door handles and hand-pleated silk surfacing”.

Apparently, the inspiration for the design of the panels is kiriko, the Japanese tradition of hand-cutting “delicate patterns into glass, producing stunning reflections of light. It is often seen in vases, sake glasses and traditional ornaments”.

Lexus LS chief designer Koichi Suga said the look and feel of the glass changes according to the angle of viewing and the time of day. “This special ornamentation represents the best of both worlds – it is an industrial product that is also a work of art,” he said.

The idea behind the panels began in 2014 when Lexus went to the Asahi Glass Company (AGC) to determine how glass might be used inside Lexus vehicles. AGC turned to Takumi craftsman Toshiyasu Nakamura to “recreate the reflective effect of kiriko glass for the LS. This provided a unique challenge because, unlike a kiriko sake glass, there is no light passing through the glass inside the LS door”. Nakamura described his solution: “Cutting at altering angles through the hand-drawn lines on the glass results in a ‘twist’, allowing much light to reflect at different angles along those lines.”

But crafting a prototype was one thing, Lexus and AGC had to work out how the panels would be mass produced. After a 3D-scan of the prototype was taken an eight-stage process was developed which involved everything from film-dipping to mounting a metal plate to the back of the glass for strength; and all completed at eight different locations in Japan.

20981/Press Release – 2018.02.01

Şişecam

Şişecam's Science and Technology Centre, the R&D unit of global glass manufacturer Şişecam Group, received the Intellectual Property Competence Award of the Turkish Ministry of Science, Industry and Technology.

Prof. Şener Oktik, Şişecam Group Research and Technology Development President, received the award from Dr. Faruk Özlü, Turkish Minister of Science, Industry and Technology (pictured).



The Şişecam Science and Technology Centre was chosen from among the 889 R&D and design centres supported by the ministry.

Şişecam's \$40 million Science and Technology Centre is based in Çayırova, Gebze, Turkey.

Prof. Oktik said: "The Şişecam Science and Technology Centre is the driving force behind Şişecam Group's research and technological development efforts. It's an award-winning, environment-friendly facility offering a 9400m2 indoor space.

"Şişecam Science and Technology Centre is Turkey's largest and best-equipped science and technology center in this field, and also ranks high among R&D centres in the world. The centre employs 225 experts who conduct research and develop technologies at a local and international level.

"Şişecam Group targets to drive its growth through research and technological development, and will continue to heavily invest in this field".

20982/Press Release – 2018.01.03

Guardian



1. Guardian Glass has **expanded its Middle East product line portfolio** with a groundbreaking addition, the Guardian SunGuard® SuperNeutral® (SN) series of coated glass products.

Locally manufactured at Saudi Guardian International Float Glass Ltd. (GulfGuard), these innovative high-performance products outpace the region's current offerings as the most technically advanced coated glass, developed to meet the complex needs of the Middle East and Asia in terms of climate, regulations and architectural and aesthetic requirements.

Guardian Glass has been producing SunGuard advanced architectural glass products for decades but this is the first time they will be introduced to the company's Middle East customers and manufactured at the GulfGuard plant.

Six glass products fall under the new series, all of which feature double silver coating of the highest performance of any product manufactured in the Middle East.

The products come in a range of options, offering customers the flexibility to create the perfect balance between light transmission and solar heat gain in different commercial applications.

In terms of aesthetics, the SN series has been designed to have a neutral appearance with the least amount of color shift when viewed at different angles.

In addition to being energy efficient, the SN series helps to promote environmental sustainability by reducing shipping time for projects based in the Middle East and Asia. The new SN series will also help developers in the region seeking LEED certification by helping to increase point values in a number of categories, including daylighting, selectivity and logistics.

As a part of the launch, Guardian Glass's trained and certified local Technical Advisory Center (TAC) team of experts will conduct a tour visiting processors in the Middle East and Asia to brief, train and certify use of the new SN series.

Gary Prideaux, Regional Technical Manager, Guardian Glass commented, "we have certified processors from the Middle East all the way to New Zealand to ensure they get the most out of Guardian Glass products. We are always keen to share our knowledge and best practices with them to optimize quality and get the best possible results in processing."

Saudi Guardian International Float Glass Ltd. (GulfGuard) is a joint venture between Guardian Industries and the National Company for Glass Industries "Zoujaj". GulfGuard has one of the newest and most advanced sputter coaters in the region for the production of high performance, energy-efficient glass products. In addition to GulfGuard, the companies also operate a plant in Ras Al Khaimah, UAE.

20983/Press Release – 2018.01.12

2. Guardian sustainability calculator wins multiple awards

Guardian’s digital tool evaluates the company’s glazing product performance in green rating systems.



Product Analysis

SNR 43 on Clear

Transmission	Heat Gain	Transmitted Color
Visible Light %: 43	Relative: 56	
UV %: 17	Shading Coefficient: 0.26	Reflected Color
Solar Energy %: 18.9	Solar Coefficient: 0.226	
Reflectivity	Light-to-Solar: 1.89	
Visible Light Out %: 27.6	U-Value	
Visible Light In %: 14	Winter Nighttime Air: 0.268	
Solar Energy %: 43.1	Summer Daytime Air: 0.268	

Health Product Declaration	Link
Simple Box Energy Modeling	Link
Recycled Content - Pk Consumer (%)	1.79
Manufacturing Location	Richburg, SC, Geneva, NY
Fabrication Location	ByGlazing Systems LTD., Residential Division Concord, ON

The Guardian Sustainability Calculator’s launch has garnered Guardian Glass an unprecedented three awards from the architectural and glass trade media.

A digital program, the Sustainability Calculator helps architects and designers review how glazing make-ups from Guardian Glass can help a project earn certification from green building rating systems such as LEED®, the Living Building Challenge and the WELL Building Standard.

This tool clearly resonated with the judges and readers for these award programs:

- Architectural Record Products – The Sustainability Calculator was a winner in the Facades category.
- Glass Magazine Award – The Sustainability Calculator won in the category of Most Innovative Web Tool, App or Software Product.
- USGlass Magazine Readers Choice Award – Readers named the Sustainability Calculator Most Significant Website/Resource.

“The Guardian Sustainability Calculator gives you the power to select Guardian exterior or interior coated glass products, evaluate them and document their contribution potential,” explains Brian Schulz, product manager, Guardian Glass North America. “We’re honored that the judges for Architectural Record and Glass Magazine, and the readers of USGlass Magazine, recognize how the Sustainability Calculator helps architects and designers see what’s possible™ and aids in the specification process.”

As the newest component of Guardian Glass Analytics™ for North America, the Sustainability Calculator joins the Performance Calculator, Building Energy Calculator, BIM Generator and the Glass Visualizer.

Together, these industry-leading tools provide comprehensive engineering and analytical modelling and custom glass content that create value for users by demonstrating the advantages of high performance glass in building façades.

20984/Press Release – 2018.01.10

OroshasaGlas



OROSHazaGLAS Kft. is a 100% Hungarian flat glass processor, which is on a growth course. Located 20 km from the Rumanian border, approximately 170 employees process high-class flat glass. In addition, the company has a technical office and an assembly team in Budapest. Founded in 1995 (roots are going back to 1974), the company generates a yearly turnover of EUR 12 million. 70% of the products are exported.

OROSHazaGLAS deals with three customer segments: The first one is automotive (windows and doors for trains, trams, tractors and cabin manufacturers), the second customer segment are industrial applications (glass solutions for household appliances, elevators, fridges, etc.) and the third one is façade engineering (production and installation). “The next two years seem to be highly promising,” says General Director Istvan Toth. “There are many construction projects in the segments office and public buildings authorized or rather in realization. Approximately half a million square meters, a real boost for our business.”

OROSHazaGLAS has been an important LiSEC customer at the Hungarian market for a long time – the company sees LiSEC as strategical partner for insulating glass production and laminating technology. In operation are two cutting tables (one even for laminated glass) and three insulating glass lines from LiSEC. A fourth new insulating glass line for the production of jumbo insulating glass elements is being planned.

OROSHazaGLAS' latest investment is a LiSEC laminating plant. They already had a laminating plant, but they weren't satisfied with it. Toth puts the reasons for this decision in a nutshell: “The existing laminating plant had its limitations. First of all, there was a capacity problem: It was too small and we had to operate it in four shifts to keep up with the orders. Nevertheless, it remained the bottleneck of our production and jeopardized delivery times considerably. Moreover, there were too many non-recyclable rejects, which caused a significant loss of money. A third reason was the fact that the production process was very sensitive – even minor deviations caused problems.”

The new LiSEC lamination plant has been in operation since December 2016. The system is able to process sheets with a size of up to 5,100 x 2,600mm and a thickness up to 100mm.

20985/Press Release – 2018.02.01

Glas Trösch



Glas Trösch HYCLEAN glass with antibacterial properties prevents pathogens from growing and kills germs that have settled on heavily used surfaces, ensuring top hygiene but can also be used as an elegant design feature for aesthetic purposes.



Glas Troesch has developed a type of glass that effectively and lastingly controls germs not visible to the human eye: HYCLEAN prevents pathogens from growing and kills germs that have settled on heavily used surfaces.

The coated glass was tested by Hohenstein Laboratories GmbH & Co. KG, an accredited testing laboratory and research institute, which confirmed its antibacterial properties.

Clean clinical environments are guaranteed with HYCLEAN. The effectiveness of this antibacterial glass was tested on a wet surface and assessed after 24 hours under conditions optimised for bacterial growth. The results speak for themselves – all analyses show that none of the bacterial species applied during testing were able to settle on the glass.

HYCLEAN's resistant surface provides ideal protection of the surfaces underneath it. The glass is both easy to clean and largely resistant to external mechanical influences. HYCLEAN is not only scratch-resistant but also resistant to disinfectants based on alcohols, aldehydes, hydrogen peroxide, and chlorine.

Its antibacterial effect is long-lasting and ensures perfect cleanliness, even between cleaning procedures. The antibacterial glass can also be supplied with an "easy-to-clean" coating to ensure that water droplets simply drip off and do not leave behind any limescale residues.

The antibacterial glass not only ensures top hygiene but can also be used as an elegant design feature for aesthetic purposes. There are no limits to what can be achieved. The antibacterial glass thus provides good protection while at the same time adding visual highlights to wall glazing, partitions, or kitchen worktops.

HYCLEAN is ideal for use in locations with special hygiene requirements such as swimming pools, canteens, or laboratories. In commercial kitchens or lifts, too, the antibacterial glass can be usefully applied to protect touchscreens, light switches, wall glazings, shelving, or cover panels.

20986/Press Release – 2018.01.26

Turkmenistan Glass Factory

A new glass factory built in Turkmenistan is getting ready for commissioning, and will produce both building glass as well as a variety of transparent and coloured bottles. It will provide 800 jobs in the village of Ovadendape Akhal velayat. The project of the construction of the innovative enterprise "Türkmen aýna önümleri" was set up as part of the implementation of the state program on import substitution.

The facility, which was built in partnership with the Turkish company Tepe Türkmen Insaat ve Ticaret Anonim Sirketi, is aimed at the annual production of 7 million 200 thousand square meters of various types of building glass and a variety of transparent and coloured bottles.

In order to train highly qualified specialists in the field of glass production, Turkmen specialists are trained in Russia, Germany, Italy and Austria.

20987/Press Release – 2018.01.19

Kinestral

Kinestral presents Halio – which not only allows users to adjust the exact amount of light that comes through windows, but can connect to digital assistants like Alexa.



Smart homes are quickly becoming the new normal, as ever more ‘smart’ appliances hit the market. With the growing popularity of digital assistants such as Alexa (a 2017 study by the Consumer Technology Association predicted that 44% of adults in the United States plan to buy a smart speaker in 2018) consumers automate many of the daily tasks of home life, from big things like keeping your home secure to less pressing details, like combining the weather report with breakfast. Kinestral, maker of the Halio smart-tinting window, wants to eliminate pesky blinds, offering a window that can darken to dim incoming sunlight.

Halio offers a more nuanced approach to blinds and shutters, allowing users to adjust the exact amount of light that comes through the glass.

The Halio can connect to digital assistants like Alexa, and users can fine-tune the tinting with remarkable precision.

The company is planning to launch Halio for commercial buildings around mid-2018, with residential sales closer to the end of the year. Although the price is not yet set, it is estimated to be around four to five times that of a traditional window.

20988/Press Release – 2018.01.18

Bangkok (BG) Float Glass

BG

Bangkok Glass (BG), one of the top Asian players in container glass manufacturing, turned to Grenzebach technology for its new cold end float glass line.

BG float glass line in Kabinburi, Thailand (about 100 km from Bangkok), under the name of BG Float Glass Co. Ltd. or BGF, has now an equipment which produces 600 tons of glass per day with thicknesses ranging from 2-15mm.

The entire Cold End is supplied by Grenzebach including cutting equipment, paper applying machines, stacking units and the equipment control system.

BG is the biggest container glass producer within the ASEAN countries: 3,735 tons of daily capacity, 41 production lines and 13 melting tanks.

20989/Press Release – 2018.01.29

Miscellaneous

Westminster Abbey Windows Used to Investigate Glass Myth

John Mauro, Penn State glass researcher, will be reporting on the investigation of the 13th-century glass of London's Westminster Abbey, in the upcoming edition of the Journal of the American Ceramic Society.



Gazing through the stained-glass windows of London's Westminster Abbey can evoke memories as diverse and vivid as the windows themselves, but to John Mauro, Penn State glass researcher, the windows sparked a quest to better understand the science behind the iconic portals to history.

In the January 2018 issue of the Journal of the American Ceramic Society, Mauro reports on the investigation of the 13th-century glass and dispelled the myth that cathedral glass is thicker at the bottom because of glass viscosity, or its slow transition to a liquid. While that has been established before, but Mauro, along with three other researchers, determined that the science was off by 16 orders of magnitude.

What does that mean? It means those windows are transitioning to a liquid much faster than previously thought. However, the transition is still far too slow for a noticeable difference. For example, it would still take billions of years to cause nano-sized alterations to the shape of the glass.

"It was a lot of fun to directly address an urban legend that has captured the imagination of the general public for so many decades," said Mauro, professor of materials science and engineering. "Glassy materials have captured the attention of humanity for millennia, and I hope that this work will help draw more attention to the cutting-edge physics and chemistry that are still hiding in these ancient and beautiful materials."

Mauro's team found several opportunities for improvement in the science of cathedral glass flow.

First, previous publications considered modern soda lime silicate and germania glass compositions rather than directly considering a real medieval cathedral glass composition. Previous work also did not include explicit fluid-flow calculations and was based on measurements conducted decades ago in the former Soviet Union.

This work resulted in a new theory, the Mauro-Allan-Potuzak (MAP) equation, which the researchers said more accurately captures the detailed viscous flow of glass, including the composition dependence of glass viscosity.

Mauro, who has advocated for changing the definition of glass, said this research helped him arrive at that conclusion. Because of its unique transitional properties, glass has eluded definition, even among experts.

"This research emphasizes the hybrid liquid-solid nature of glass," Mauro said. "Glass has a liquid-like atomic structure and also exhibits viscous flow like a liquid. But mechanically it responds as a solid material, since the configurational degrees of freedom are largely frozen at typical experimental time scales."

Mauro first questioned the science behind medieval glass while studying Gorilla Glass at Corning, where he worked for 18 years perfecting the product found in billions of electronic devices. In the first iteration of Gorilla Glass, researchers found that it shrank measurably when well below its transition temperature.

"This led us to measure the low-temperature viscosity of Gorilla Glass," Mauro said. "We found that the room-temperature viscosity of Gorilla Glass is many orders of magnitude less than what had been previously reported for medieval cathedral glass. This led me to question whether the previous estimates for the room-temperature viscosity of cathedral glass were artificially high."

20990/Press Release – 2017.12.22

LaWin: Smart Windows to Heat Up Buildings

Lawin

A group of researchers and scientists from the Jena Friedrich Schiller University have developed a prototype of glass which can be used to heat up buildings. They presented a prototype of glass that can darken and heat the rooms. Smart glass will go on sale already this year and will reportedly be used in the façades of buildings.

Up to 40% of all energy costs in the EU are heating, cooling, air conditioning and lighting of buildings. One of the solutions is the project of **energy-efficient window glasses Large-Area Fluidic Windows (LaWin)**, which since 2015 is engaged in a group of researchers from the University of Jena. In a recent article, scientists presented a prototype of such a window glass.

The window allows to darken the glass with a button, and its surface collects the thermal energy of the sun's rays. This is achieved by introducing a special liquid into the glass. "A key feature of our project is the use of liquids in windows and façades, for example, as coolants or to provide additional functions," says Project Coordinator Lothar Vondracek. "To this end, we are developing new glass materials that are used to circulate functional fluids."

In the latest prototypes, iron nanoparticles are added to the liquid, which can be extracted with a magnet. "Depending on the amount of iron particles in the liquid, the liquid itself acquires different shades of grey or does not turn black," says Vondracek. "As a result, you can control the lighting and collect solar heat, which can then be used to heat the room."

The system's efficiency is comparable to conventional solar thermal systems, but can be easily integrated into the façade of the building. Magnetic processing of iron particles takes place in a separate reservoir. Also, the windows do not require electricity connection. "The biggest advantage of large-scale liquid windows is that they can replace air conditioning systems, daylight control systems and, for example, warm water," says Vondracek.

The key point is the development of economical glass modules of large size. They should not only contain special channels for liquid, but also do not break during the entire life of the building and comply with building regulations. Scientists were able to demonstrate on prototypes of 200 square meters that these requirements can be met.

In 2015-2017, the project received a grant of EUR 5.9 million from the EU under the Horizon-2020 program and EUR 2.2 million from 11 industrial companies. This year, the first commercial deliveries of smart energy-saving glasses are planned.

<http://glas.uni-jena.de/research/recent-projects/lawin/>

20991/Press Release – 2018.01.22

Automotive Glass Europe

Automotive Glass Europe is a partnership of automotive glass replacement and repair companies covering 18 European countries, which employs 7,000 specialist glass professionals and operates from 1,500 fitting centres.



Pim de Ridder, managing director, Automotive Glass Europe

The network has completed the largest ever number of repairs and replacements in 2017 with growth stimulated by increasing numbers of people travelling throughout Europe. One of the countries experiencing the largest growth, according to the European Travel Commission's latest report, is Portugal, where visitor numbers have risen by 25% when compared to 2016.

Joana Marques, managing director of Grupo ExpressGlass, the Automotive Glass Europe® partner in Portugal, explains: "This year has been the busiest on record and we have been serving more drivers than ever from countries all over Europe. The UK in particular has accounted for many of these with a significant increase in demand for replacement of windscreens on left-hand drive vehicles.

Pete Marsden, managing director at National Windscreens, the UK partner of Automotive Glass Europe®, also reports a substantial increase in cross-border demand for vehicle glass replacement. "The number of UK registered vehicles requesting glass replacement services whilst travelling throughout other European countries has been steadily growing. That is why we are so pleased to be part of this European-wide network, allowing us to provide unrivalled and seamless service to our insurance, leasing and fleet customers," said Pete.

Pim de Ridder, Automotive Glass Europe® managing director, said: "I am delighted that we have been able to service so many customers this year which really shows the value of us being an ambassador for so many fleets and insurers in 18 European countries.

"With more vehicles than ever crossing European borders and with many of these in need of repair or replacement services, the demand for our services and the convenience it offers continues to grow rapidly," he concludes.

20992/Press Release – 2018.01.16

euroTECH Vertriebs GmbH

In the glass and window industry, suction cups are used to transport glass panes, which often develop suction marks once they fog up for the first time. The vacuum experts at euroTECH Vertriebs GmbH, headquartered in Geislingen near Balingen, have developed and patented a suction plate cover to prevent such marks.



MTC behind a glass pane

During the production of seals for suction cups, the material is fortified with chemical components and softening agents. These substances fog up or react with the coating when they come into contact with glass. Suction cups can also cause abrasion damage to glass panes, depending on the sealing lip of the cup and the structure of the supporting surface (grooves, nubs, etc.). If these marks are not removed immediately, they will become visible whenever the panes are exposed to steam.

euroTECH developed its MTC suction plate covers to solve this problem and prevent suction marks on the sensitive glass surfaces. The covers are made from an oil-free, silicone-free polyethylene that does not leave any notable marks on glass, provided that the material remains in good condition.

MTC suction plate covers are tear-proof, flexible, breathable and anti-static. They do not produce lint and can be washed and sewn. Their integrated elastic band allows the MTCs to be pulled over the seals and remain in the correct position. They are tear-proof when wet and dry. The unique fibre structure of the material ensures that this tear-proof quality is maintained even if the suction plate covers are scratched. In addition, the covers are extremely lightweight: they weigh less than half of other materials with a similarly high durability.

When using suction plate covers, note that the friction coefficient decreases. This value can vary depending on the seal geometry. During horizontal transport, the holding power decreases by approximately two per cent. During vertical transport, around 50 per cent of holding power are lost. This can be offset easily by using larger or additional suction plates. If a customer requires suction plate covers, euroTECH will take this request into consideration during the project planning and provide suction cups with the correct carrying capacity. The euroTECH product portfolio contains suction cup covers in many different sizes – including ones for oval suction cups.

CONTAINER GLASS

Glass Companies

O-I



1. O-I and waste-to-product company, Renewi, have signed a new **Shareholder Agreement (SHA) for their Maltha Joint Venture.**

The SHA signals a new start for Maltha, one of Europe's largest glass recycling companies. As Maltha was historically majority owned by Van Gansewinkel and a new SHA was required following the merger earlier this year between Van Gansewinkel and Shanks to create Renewi.

Renewi will continue to own 67% of the joint venture, with O-I retaining its 33% stake. The partners will deliver an important contribution to the circular economy by producing high-quality raw materials from waste glass.

Maltha focuses on recycling both flat and container glass into cullet and glass powder for reuse in the glass industry. The cullet and powders produced are sold to glass manufacturers, including O-I, and makers of other glass products who demand high purity material.

The new agreement with Renewi strengthens Maltha's ability to provide a consistent, uncontaminated supply of high-quality cullet to much of O-I's European operation. Maltha has sites in the Netherlands, Belgium, France, Portugal and Hungary.

20994/Press Release – 2018.01.09

2. **Nadir's Acquisition of O-I Unit Discouraged by Brazilian Authorities**

Nadir Figueiredo's proposed acquisition of O-I's hollow glass unit in Brazil has been discouraged by the authorities.

Brazil's General Superintendence (SG) of the Administrative Council for Economic Defense (Cade) said the acquisition would lead to the joining of companies operating in the same market and at the same stage in the production of domestic glass utilities.

"The analysis pointed to the existence of a market which, prior to the operation, was already very concentrated. "Nadir in some points (such as the maintenance of margins and revenues even with the entry of imported ones) already has a large market dominance. The competitive problems arising from the operation are difficult to negotiate, given the characteristics of the market, the operation and the fact that there is only one large competitor in the country besides the Applicants".

The case will now be passed on to one of Cade's six advisers, who will report the case. He or she should prepare a vote, whether or not following the suggestion of the SG, which will then be voted by the plenary of the antitrust authority, formed by the councillors and the president of the local authority.

20995/Press Release – 2018.01.23



Ardagh

Ardagh Group has announced that it is to permanently close its US Milford, MA, glass container production facility due to a continued decline in demand from the mass beer market in the United States. The closure of the site, which employs 250 people, is expected to take place on or after 31 March 2018. Affected customers will be serviced from the group's other North American glass facilities.

Ardagh said that although capacity dedicated to the mass beer market will be reduced, it will continue to pursue growth opportunities in stronger performing end markets, including wine, spirits and food. This will involve the conversion of some mass beer capacity to serve these alternative end markets.

It added that targeted investments in its North America network, including new inspection equipment, will enhance its competitive position and enable differentiation through a focus on innovation, quality and service.

The Milford plant began operations in 1973 and has been producing beer bottles since 1987, and was part of Ardagh's USD 1.7 billion purchase of Verallia North America in April 2014 from French group Saint-Gobain.

20996/Press Release – 2018.01.19

Verallia Group

1. Verallia Vauxrot Glass Plant Furnace Rebuild



Verallia's Vauxrot glass plant in Aisne, France celebrated the lighting of a new furnace in an ignition 'match' ceremony - a glassmaking tradition.

The furnace will supply the site's three production lines that makes bottles for the wine, spirits and beer markets, the latter boosted by the trend in micro-breweries.



With the €24m investment, Verallia reaffirms its commitment to sustain and modernise its northern French site, a champion in the field of quick colour and model changes, thanks to its expertise in manufacturing complex glassware.

The major renovation work lasted three months and involved 600 people. Its end-port regenerative furnace meets energy-consumption and air-emission standards. It can now run on gas, unlike the previous, 100% fuel-powered installation.

Work has also been carried out on the hot and cold ends to improve working conditions: soundproofing of the hot-end cabin and wide use of hoists to reduce the carrying of heavy loads.

The Vauxrot plant is the Verallia group's historical glassmaking facility and was opened in 1827. In 2015, Verallia invested several hundreds of thousands of Euros to adapt its installations to the new dark amber colour. Almost black with high density, it protects the contents from the effects of light and gives products an image of refinement and distinction.

With the Saint-Romain-le-Puy facility in Loire, France, Vauxrot is one of only two Verallia plants in France that makes yellow and dark amber bottles, mainly for the beers and spirits markets. The Vauxrot facility employs 150 people and produces 600,000 bottles a day.

The Vauxrot plant recycles very high quantities of cullet processed by Everglass in Rozet-Saint-Albin, 30km from the site.

Thomas Doudoux, Verallia Vauxrot plant manager, said: "We now have an extensively modernised manufacturing facility to continue improving quality and productivity, essential on highly competitive markets.

"We've also improved our teams' working conditions using the 5S method which helps us to ensure safety, cleanliness and the organisation of the plant at all times."

The match ceremony, which celebrates in both a festive and solemn way the lighting of a new furnace, dates back to the times when furnaces were religiously blessed. Though secular today, the event still features a 'godmother' - a member of the plant team.

The godmother of Vauxrot's new furnace is Elisabeth Demuyt, the plant's management assistant.

20997/Press Release – 2018.01.29

2. Verallia to invest in Spain in 2018

Verallia, third worldwide producer of glass packaging for food and beverages, will be focusing on Spain in 2018. Increased domestic and export demand, an upturn in end markets, and increased consumer awareness of the advantages of glass have combined to make Spain a strategic country for the Group.

Verallia's planned investments in 2018 include chronologically: Zaragoza, where the facilities will be updated in the early months of the year; Azuqueca de Henares, with a new production line to be added to its new facilities; and Burgos, where the furnace will be totally refurbished converting it into one of the largest in Europe.

The **Zaragoza** plant – where an investment of EUR 20 million is planned – is currently refurbishing its facilities. These improvements are designed to increase flexibility and capacity, and modernize both the furnace and the production lines.

At **Azuqueca de Henares**, where the plant was totally upgraded in 2017, the Group will invest EUR 5 million to add a new line in order to regain, by next spring, the plant's previous production level with one furnace only instead of two furnaces.

At **Sevilla**, in the second half of 2018, the capacity of one production line will be increased.

The Group will also invest EUR 30 million at the **Burgos** plant to provide it with the latest-generation furnace and new machinery, so Verallia can keep up with the Spanish wine market's growth. The new furnace's production will be greater than at Azuqueca, as the company will have the largest furnace in Europe at its Burgos site.

Verallia produced around 16 billion glass bottles and jars in 2016. Verallia has manufacturing operations in 13 countries, sales locations in 46 countries with 5 technical centres and 13 product development centres, and local customer relationships in all regions. In 2016, Verallia achieved net sales of EUR 2.4bn.

20998/Press Release – 2018.01.31

3. Verallia Appoints Group Industrial Director

Verallia has appointed Yves Merel as its Group Industrial Director (pictured). He is also in charge of Operational Excellence, Quality and EHS (environment - health - safety) and is a member of the Executive Committee.

Mr Merel is an Engineering graduate from the Technology University of Compiègne with a Management degree from Harvard.



He started his career in 1991 within Legrand as a Maintenance Manager. In 1995, he joined Valeo, where he successively held the positions of Process Engineering Manager, Production Unit Manager, Suppliers Development Manager in the USA and Plant Manager in France.

In 2005 he became Lean Manufacturing Director for Wagon Automotive before moving on, in 2008, to join FCI in Singapore as VP for Industrial Development.

In 2012, he joined Constellium as Executive Vice President, Lean and EHS. Since February 2017, he has held the position of Executive Vice President in charge of Operational Excellence within Framatome.

Mr Merel is also on the Executive board of the Lean Institute France and Senior Advisor for Lean Global Network.

20999/Press Release – 2018.01.15

Stoelzle Masnieres Parfumerie



Quali Glass Coat is a new technique from Stoelzle Masnieres Parfumerie's decoration workshop, which enables to achieve an array of new decorative effects with very low environmental impact (compared with conventional lacquering) and greater mechanical resistance.

With this new decoration process, Stoelzle Masnieres Parfumerie once again combines innovation with environmental commitment.

"Thanks to the investments made by Dr. Cornelius Grupp, owner of the Stölzle Glass Group, we have all joined him in his commitment, aware of our duty to take responsibility for the environmental impact that will affect future generations. We are optimistic for the future of our company, which is entering its third century in 2018." Etienne Gruyez, managing director of the Perfumery & Cosmetics Business Unit, Stoelzle Masnières Parfumerie SAS.

Glass production represents, on the average, 70% of their environmental impact. The electricity consumed represents 37% of the impact of glass production, which explains why this energy resource is a priority. Since 2017 the electricity consumed at the site comes exclusively from 100% French renewable resources.

The extraction and transport of the materials used in glass production represent, on the average, 30% of the environmental impact. This rate is kept low by the proximity of the basic raw material, sand, which is extracted 200 km from the factory and transported by boat.

In 2017, Stoelzle Masnières Parfumerie reduced its environmental footprint by 17%. This significant reduction was measured in a study conducted by the EVEA (independent consulting firm in eco-design and life cycle analysis), based on eight impact criteria affecting water, soil and air: CO2 - 8%; PH - 9%; Smog - 7 %; Marine eutrophication 7%; Aquatic ecotoxicity - 8%; Mineral resources - 12%; Fossil energy resource consumption - 45%; Net water consumption 38 %.

Johannes Schick, CEO of Stölzle Glass Group, regarding the company's environmental commitment: "Over the last few years, the Stölzle Glass Group has been growing steadily. Linked with this growth and expansion of production capacity, Stölzle has invested heavily in the field of environmental protection. Today, we can be proud not only of meeting our legal obligations, but also of making a significant contribution to the environment as a result of our ongoing improvements and innovations. Our medium-term targets for 2020 and beyond continue to pursue this strategy."

"The Stölzle Glass Group recycles more than 100,000 tonnes of glass per year, thus saving raw materials and energy. The roadmap set for 2020 stands as proof of our commitment, through our qualification for ISO 14001 and OHSAS 18001 certification, and through the implementation of heat recovery systems in each factory to reduce our carbon footprint while improving our energy and resource efficiency."

Gerresheimer

Gerresheimer has appointed Dr. Lukas Burkhardt (38) to its Management Board and he will assume responsibility for the Primary Packaging Glass Division.

GERRESHEIMER



Dr Burkhardt studied mechanical engineering at ETH Zurich, where he also obtained his PhD. He began his career at Audi in Ingolstadt.

From 2007 to 2014, he held various managerial positions within the Rieter Automotive Group, now the Autoneum Group, including six years in China and India.

Most recently, he was in charge of all Asian plants as Head of Operations Asia. In 2015, he became Chief Operating Officer and member of the Group Management Board of the international Franke Group.

There, he was responsible for production at more than 30 plants around the world as well as for logistics, procurement, and process engineering and partly product engineering.

Gerresheimer's management board comprises of Christian Fischer (CEO), Rainer Beaujean (CFO), Andreas Schütte (Plastics and Devices Division) and Lukas Burkhardt (Primary Packaging Glass Division).

21001/Press Release – 2018.01.08

Croxon's

Croxsons is working to provide its customers with a collection of new bottles that meet their brands' needs, taking over a glass furnace at one of the largest glass manufactures in China to produce antique-green wine bottles.

Croxsons has recently taken over a glass furnace at one of the largest glass manufactures in China to produce antique-green wine bottles

As a direct result of extensive customer feedback concerning the lack of bottle choice in the global wine industry supply chain, leading glass packaging company, Croxsons, has recently taken over a glass furnace at one of the largest glass manufactures in China to produce antique-green wine bottles.

Aimed specifically at the Australia, New Zealand and the US wine markets, whilst complementing their existing European offering, the move will see Croxsons being able to provide their customers with a collection of new bottles that meet their brands' needs.

Croxsons argue that whilst industry trends have seen the reduction in weight of wine bottles, a strategy which has significant environmental benefits, every bottle and brand has a right weight.

EST. 1872
CROXSONS
William Croxson
A FAMILY OF PACKAGING

It appears however, that there are concerns amongst some of Croxsons' customers that the industry has moved some bottles away from being super-premium, or even premium, to a lighter, standard weight bottle. Clearly the risk to brands using a wrong-weight bottle is that consumers will feel a disconnection between the price point and the aesthetics that the bottle delivers.

Croxsons' Chairman, James Croxson, said: "We went out and asked the industry what needs improving with their supply chain. We listened to the responses, invested in a furnace and produced 12 new moulds specifically for Australia, New Zealand and the US, to complement our existing global offering.

"With strong supply chain relationships spanning over 80 years, we take the packaging headaches away from our customers and transform their bottle to represent their brand, by improving on some market stalwarts and making them more suitable for the 21st Century."

Founded by a wine merchant in 1872 and now strategically positioned in Europe, Australasia, the Far East and America, Croxsons have been supplying glass packaging and closure solutions for 145 years. Since then the family owned business has built an enviable reputation with their intricate involvement in the wine industry. This lasting connection within the trade has strengthened throughout the decades and has made Croxsons a trusted packaging partner with some of the world's biggest drinks brands.

21002/Press Release – 2018.01.17

Steklotech (Russia)

Tyumen glass container factory "Steklotech" plans to produce 250 million bottles in 2018, which is comparable to the volumes of 2016 and 2017. According to Elena Ostryagina, the general director of the company, these figures fit into the figures of the past and 2016: "The plant is working steadily and our results are good. We can hardly expect a significant increase in the production of glass containers, as six years have passed since production was started, and equipment is becoming obsolete. In particular, we have come to the point where two of our furnaces need hot repair, which allows them not to stop them completely, but to continue working."

This year, Steklotech will make a bid to increase the range of glass containers.

"We will definitely continue experiments with the form: the first this year will be a new bottle for a series of products of the Tyumen plant" Benat," says Elena Ostryagina.

21003/Press Release – 2018.01.29

Miscellaneous

Russia: recycling standards of goods and packaging approved until 2020

Russian Prime Minister Dmitry Medvedev has approved the standards for the recycling of goods and packaging for 2018-2020.

The standard of waste utilization in 2018 for most groups [of goods] does not exceed or equal to the waste management standard established for 2017. At the same time, for certain groups of goods, the waste disposal standard for the year 2018 is 0% and then introduced with a smooth increase in values. Values of specifications are established only for groups of goods that are subject to disposal, for which the infrastructure for waste disposal has been established and is functioning from the use of these goods. In particular, in 2018 the standard for recycling corrugated paper and paperboard, as well as containers of these materials is 25%, and in 2020 it will be 45%. The same standard is approved for corrugated cardboard packaging. It is assumed that entrepreneurs in 2018 should process 10% of the packaging from paper and non-corrugated cardboard, and in 2020 - already 20%. Similar standards are approved for polymeric, wooden and cork, as well as aluminium packaging, whereas for steel and **glass packaging** they are 15% and **25%** respectively.

The goal of the adopted decisions is to reduce the burden on the environment by reducing the volumes of disposal of consumer waste at landfills of solid household waste, involving waste products that are subject to disposal, into economic circulation as additional sources of raw materials and energy.

21004/Press Release – 2018.01.16

DOMESTIC TABLEWARE AND CRYSTAL GLASS

Glass Companies



Libbey®

Libbey

Libbey Inc. had a good day on the market for Monday 18 December as shares jumped 6.19% to close at USD 6.69. About 173,784 shares traded hands on 1,103 trades for the day, compared with an average daily volume of 173,408 shares out of a total float of 22.02 million.

Shares of Libbey have been trading within a range of USD 20.72 and USD 5.81 over the last year.

21005/Press Release – 2017.12.21

Waterford

This year's celebrations in Times Square, New York, saw the drop of a 3.5 metre glittering crystal ball from Waterford Crystal.



The glittering crystal ball from Waterford Crystal dropped with a burst of confetti and dazzling fireworks as revellers rang in 2018 in frigid Times Square — the second-coldest celebration there on record.

The temperature was only -12°C in the city, and the celebration was less crowded than other years. Bundled up in hats, gloves, face masks and numerous layers of clothing, partygoers danced and hugged and kissed as the ball dropped.

The dazzling finale of the show was the traditional drop of a Waterford Crystal ball down a pole atop 1 Times Square.

This year, the ball was 3.5m in diameter, weighing 5,385 kilos and was covered with 2,688 triangles that change colours like a kaleidoscope, illuminated by 32,256 LED lights. When the first ball drop happened in 1907, it was made of iron and wood and adorned with 100 25-watt light bulbs. The first celebration in the area was in 1904, the year the city's first subway line started running.

21006/Press Release – 2018.01.08

Luigi Bormioli Gets New President



Michael Duncan is no longer president of Luigi Bormioli Corporation and has been succeeded by Giuseppantonio following Bormioli Rocco acquisition. Duncan was appointed president in 2013. His responsibilities have been assumed by Vincenzo Di Giuseppantonio, the current CEO of Bormioli Luigi Italy.

The move comes after the completed acquisition of the Bormioli Rocco glassware brand by Bormioli Luigi S.p.A. on 15 December. Both Bormioli Rocco and Luigi Bormioli operations will continue to be run separately under this common ownership.

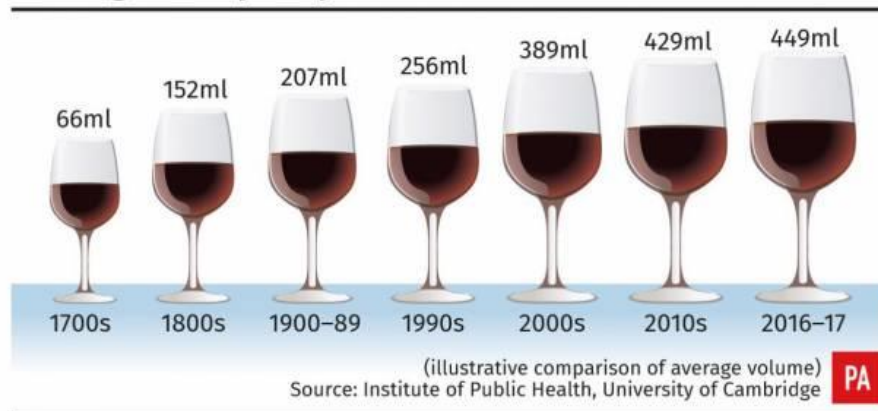
21007/Press Release – 2018.01.08

Miscellaneous

Wine Glass Capacity 'Increased Significantly' Over Last 300 Years

Experts in antique drinkware have helped to confirm that wine glass capacity increased from 66ml in the 1700s to an average of 449ml now.

Wine glass capacity since 1700



Research has looked at how the capacity of wineglasses has risen over centuries, showing that the capacity of wine glasses has increased sevenfold in the last 300 years and most steeply in the last two decades, a study has found.

Researchers believe this growth in glass size may have encouraged the nation's increasing wine consumption, which rose almost fourfold between 1960 and 1980, and almost doubled again between 1980 and 2004.

The new study examines this possible link, with researchers acknowledging that cheaper prices, wider availability and greater marketing of wine were also likely to play a role.

The data about glass sizes over time was obtained by researchers who conducted online searches and spoke to experts in antique glassware, including museum curators, to obtain measurements of 411 glasses from 1700 to modern day.

In a separate experiment carried out in Cambridge last year, researchers found that selling wine in larger glasses – even when the amount in the glass remained the same – may encourage people to drink more. They found using larger glasses led to an almost 10% increase in sales.

Professor Theresa Marteau, director of the Behaviour and Health Research Unit at Cambridge University, said: "Wine will no doubt be a feature of some merry Christmas nights, but when it comes to how much we drink, wine glass size probably does matter." Dr Zorana Zupan, first author of the glass size study, said: "Our findings suggest that the capacity of wine glasses in England increased significantly over the past 300 years.

"For the most part, this was gradual, but since the 1990s, the size has increased rapidly. Whether this led to the rise in wine consumption in England, we can't say for certain, but a wine glass 300 years ago would only have held about a half of today's small measure. On top of this, we also have some evidence that suggests wine glass size itself influences consumption."

Increases in the size of wine glasses over time likely reflect changes in a number of factors including price, glass technology, societal wealth and wine appreciation. For instance, the “Glass Excise” tax, levied in the mid-18th century, led to the manufacture of smaller glass products, and sizes increased after it was abolished in 1845.

Researchers argue that new policy options could become viable if it was proven that larger wine glasses had an impact upon consumption.

These policy options could include restricting the size of wine glasses in licensed premises, potentially shifting the societal norm and encouraging people to use smaller glasses at home.

But the researchers acknowledge the seasonal sensitivity to these suggestions in the final line of their report: “We predict – with moderate confidence – that, while there will be some resistance to these suggestions, their palatability will be greater in the month of January than that of December.”

21008/Press Release – 2017.12.22

Global Crystal Tableware Market 2018

The Global Crystal Tableware report provides an analysis of the current state of the global Crystal Tableware market and the factors that will shape its progression in the future.



The Crystal Tableware industry report also examines marked growth trends and technological developments that will come to the fore in the said Crystal Tableware market in the coming years. In addition, the Crystal Tableware market report includes historical growth markers, competitive hierarchy, and development trends and data about how these indices will change in the regional and international markets for Crystal Tableware in the coming years.

Top manufacturers of Crystal Tableware are mentioned with a detailed profile: Lalique, Siseam, Bormioli, Baccarat, Libbey, Nachtmann, Arc International, EveryWare Global and Waterford Crystal.

Following this, the Crystal Tableware market report 2018 examines the profit analysis and gross margins for Crystal Tableware manufacturers for the 2013-2018 periods. Consumption volume, sale price analysis, and consumption values are other factors that are discussed on the basis of region, product type Drinking Ware, Dinner Ware, Others and application Commercial Use, Residential Use, Others for the 2013-2018 periods.

The report provides insights into the manufacturing cost structure of Crystal Tableware. This is calculated as an aggregate of raw material costs, equipment costs, labour costs, and other costs. Insights into the manufacturing processes of Crystal Tableware are also provided herein. In terms of a technical consideration, the report discusses the production capacity of major manufacturers of Crystal Tableware. This is estimated on circumstances such as the number of production plants, R&D status, raw material sources, and technology used by these manufacturers in 2017.

The report concludes with an overview of the distribution channels and marketing channels of Crystal Tableware. This mainly consists of trade groups and industry associations.

21009/Press Release – 2018.01.22

REINFORCEMENT GLASS FIBRES

Glass Company

Caspian Glass Fibre Plant

Caspian Glass Fibre Plant and Dagingnovatsii are the two new companies to set up in Kaspiiskn a city in Dagestan, having the status of the territory of advanced development. The Caspian Glass Fibre Plant"intends to create the production of fiberglass and products from it, while "Dagingnovations " will develop technologies and equipment for the production of composite materials and products.

Also, applications are being prepared for obtaining the status of residents of TOP Kaspiysk by large industrial enterprises of the republic - Concern KEMZ, Caspian Sheet Glass Plant and Caspian Precision Mechanics Plant.

The first resident of the territory on 21 December 2017 was NPP Inkomtech, which plans to invest RUB 2.7 billion in a new production of composite materials and plastic products used in construction.

In Dagestan, a law has been passed that provides tax benefits to residents of Kaspiysk. The draft law provides income tax relief for participants, rates are set at 5% for five years and at 10% for the period from the sixth to the tenth years. Also, residents are expected to be exempted from property tax for 10 years.

21010/Press Release – 2018.01.18

SPECIAL GLASS

Glass Companies

SCHOTT

SCHOTT

1. At **Schott Group's annual results** press conference, Chairman of the Board of Management, Dr. Frank Heinrich, and Chief Financial Officer, Dr. Jens Schulte, presented the figures for fiscal year 2016/2017.

Schott AG continued on its growth course in fiscal year 2016/2017 by improving on all of its key earnings figures. EBIT reached EUR 272 million, well above the EUR 223 million the company reported in fiscal year 2015/2016. Consolidated earnings reached a record level of EUR 197 million. Free cash flow of EUR 153 million was also a significant improvement.

Sales increased by 3.1% to EUR 2.05 billion. All three segments "Precision Materials," "Optical Industries" and "Home Appliances" contributed to this. Demand for ZERODUR® glass-ceramic as a key component in microlithography and astronomy, high-quality pharmaceutical packaging and special glass for kitchen appliances was particularly dynamic. Foreign sales accounted for 86% of total sales. Nearly half of sales were generated in Europe, around a quarter in North and South America and around a quarter in Asia. The number of employees worldwide remained unchanged at 15,100, 5,200 of whom were based in Germany. Investments in property, plant and equipment amounted to EUR 154 million. More than half went to German sites. The largest foreign investment was the establishment of a pharmaceutical packaging plant in China, which went into operation last September.

Schott intends to continue on its path of sustainable and profitable growth in the current fiscal year. The technology group expects a boost from demand for ZERODUR® glass-ceramic, pharmaceutical systems and the expansion of production capacities for specialty glass products. SCHOTT plans to invest a total of EUR 180 million. A quarter of this will go to the main plant in Mainz, creating more than 100 new jobs.

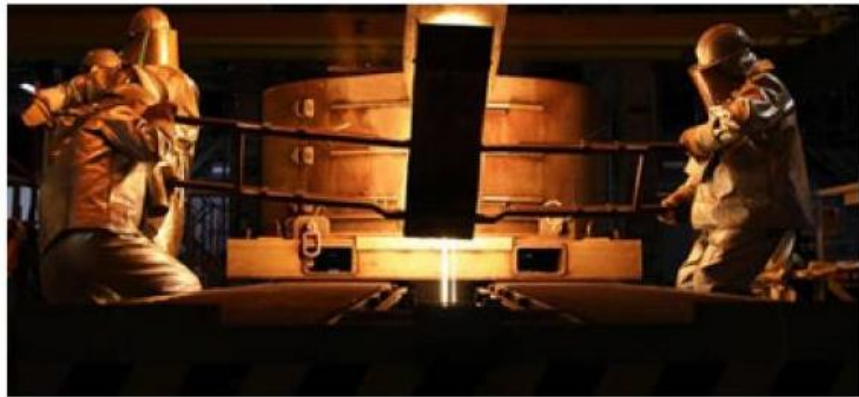
On the basis of innovations, investments and the strong global economy, Schott expects Group sales to increase by between 3 and 6% and earnings to remain stable at a high level.

21011/Press Release – 2018.01.23

2. SCHOTT started with the **production for the ELT main mirror** at its production facility in Mainz with complete delivery of the segments expected to be completed by 2024.

SCHOTT will produce for ESO (European Southern Observatory) up to 949 identical 1.52-meter hexagonal segments for the giant mirror of the ELT, made of ZERODUR® glass-ceramic, a material with a thermal expansion of near zero that makes it especially suited to astronomy applications.

The SCHOTT melting team has started casting the first mirror segments that will make up the 39-meter primary mirror (M-1) of the European Large Telescope (ELT). To make the segments, liquid glass heated to over 1400°C will be poured directly into moulds, and transferred into a cooling furnace and subjected to a ceramization process lasting several weeks. The result is ZERODUR® glass-ceramic, a material with a thermal expansion of near zero that makes it especially suited to astronomy applications. The SCHOTT production facility in Mainz is expected to complete delivery of the segments by 2024.



“Casting the mirror substrates for the M1 is a milestone in the European Southern Observatory’s (ESO) project plan. The main mirror of the ELT will be humanity’s largest eye on the sky, enabling us to reach unprecedented depths of space,” said Marc Cayrel from ESO’s ELT project team. SCHOTT has developed special casting moulds for the production of the M1 segments. “The glass consumption factor will be as low as possible, so we can work very efficiently,” explains Dr. Thomas Westerhoff, Director of Strategic Marketing for ZERODUR® at SCHOTT.

After ceramization, each of the round ZERODUR® blocks will be cut into five slices of approximately 60-70 mm in thickness. Further processing at SCHOTT will take place on state-of-the-art computer-controlled 5-axis CNC machines. SAFRAN Reosc, a company based in France, will polish the M1 segments.

ZERODUR® is a proven material that has been selected for four of the five high-precision mirror elements of the ELT. In addition to the segmented 39-meter giant mirror, these will be a convex mirror 4.2 meters in diameter (M2), the M3 concave mirror (3.8 meters in diameter) and a 2.4-meter diameter adaptive mirror (M4).

“Thanks to significant expansion of production capacity at the Mainz site, SCHOTT is very well prepared for the production of ZERODUR® glass-ceramic, both for the ELT project and for the currently very gratifying high demand from the high-tech industry,” said Dr. Thomas Westerhoff, director of strategic marketing, ZERODUR® at SCHOTT Advanced Optics.

Two glass melting tanks are in parallel operation due to the high demand. Furthermore, new jobs were created for around 50 employees, and additional capacity-expanding investments are planned for the coming year.

21012/Press Release – 2018.01.25

Zeiss



ZEISS presented its first-ever **Group-wide sustainability report**.

Sustainable action and long-term value added are firmly anchored in the company's mission statement and are part and parcel of everyday life; ZEISS kicks off 2018 in Oberkochen by focusing on "Rethinking education".

In terms of value added, the past fiscal year has seen 46% fewer CO₂ emissions, around 8,400 patents worldwide and more than EUR 540,000 for approximately 120 funded projects.

With the report on fiscal year 2016/17, the world's leader in the optics and optoelectronics industries documents how it defines responsible behaviour in a dynamic, ever-changing economic and societal environment and takes action with a view to lasting business success.

The report certified by the Global Reporting Initiative (GRI) illustrates the principles guiding the company's operations, what objectives it has set itself and what measures it is taking in five fields of action (integrity and compliance; products and the value chain; the environment; employees; societal and social engagement). In the report, ZEISS acknowledges its commitment to the global Sustainable Development Goals (SDG) that were adopted by the United Nations in December 2015.

"ZEISS's success is a result of sustainable, responsible action that is founded on our strategy, our brand and our values. Thus, responsibility toward society, individual customers, partners, employees and the environment is at the core of the corporate identity we live by," says President and CEO Prof. Dr. Michael Kaschke. "We can proudly look back on 170 years of tradition characterized by ever more sustainable value added. Only by continuing to see our responsibility holistically can we ensure ZEISS remains successful."

One example of ZEISS's future-oriented commitment to sustainability is an initiative that will be launched on 7 February 2018 with the kick-off event at the ZEISS Forum in Oberkochen. It aims to network partners from science and industry. Fully in keeping with SDG 4 (Quality Education) and in line with the slogan "Rethinking education", the event sees schoolkids, trainees, students and newly formed start-ups present their ideas about how we can rethink and shape education in innovative ways. They will present new approaches such as e-learning and self-determined learning. The best ideas will be honoured with prizes as part of the event.

ZEISS is assuming societal responsibility and would like to play an ever-greater role in addressing educational topics together with its partners. After all, only through close networks will it be possible to overcome the challenges associated with future-oriented education, both regionally and globally.

21013/Press Release – 2018.02.01

Seves

SEVES Group, a Triton Fund III company, has sold its VITRABLOK Glass Block Division to private equity firm ASC Investment, aiming to focus more on its core insulator business.



“We are delighted to have found a suitable home for this business division, so that it can continue to grow profitably in accordance with its future standalone requirements and developments. VITRABLOK has been a very valuable part of the SEVES Group for many years. However, we want to focus in the future on our core insulator business,” said Peter Baumgartner, CEO SEVES Group.

“We appreciate the support the SEVES Group has given us for many years and we are now looking forward to the next level of development of VITRABLOK under the new ownership of ASC Investment,” added Petr Kralik, CEO of VITRABLOK.

21014/Press Release – 2018.01.26

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DIVERSE

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.



Key-dates for authors

Paper submission deadline	1 January 2018
Paper review notification	1 March 2018
Paper revision deadline	18 March 2018
Conference	17-18 May 2018

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.

21015/Press Release – 2017.07.06

ICCG12: 12th international conference on coatings



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

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

To foster the idea of networking and to offer a platform for future projects, the accompanying exhibition will be turned into a marketplace for innovation. Exhibitors will have the opportunity to give short presentations or to host innovation talks to introduce latest developments. There will also be room for B2B meetings which may lead to follow-up contacts at a later stage. It is also seen that there is time available for in-depth discussions without having to miss out on a talk or skip a presentation.

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

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

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

intended to provide fundamental and technological background on specific conference topics.

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

The conference will be organized in several sessions:

Technical sessions

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

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

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

21016/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>



21017/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 abstract submission of the ICG2018 opened on 4 January, with submission deadline fixed for 1st March 2018.

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 abstract submission guidelines go to:

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

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

21018/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.

To submit an abstract:

<http://glassproblemsconference.org/wp-content/uploads/2017/08/79th-GPC-Call-for-Abstracts-Form.pdf>

Fill in the abstract submission form fields and return the completed abstract submission form as an email attachment to Donna Banks at dbanks@gmic.org.

Deadline for submission of abstracts is January 24, 2018, 9 pm EST — no exceptions If you have questions about the 79th Conference on Glass Problems, please visit <http://glassproblemsconference.org>.

21019/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.

Step Change 2019 – A Roadmap for Industry, Innovation and Ecosystem – is the first glass industry start-up event in the world, whose goal is to bridge the gap between the glass industry with a space to engage innovators, start-ups and new technologies.

The Step Change ecosystem is unlike anything seen in the glass industry to date.

At the 2017 GPD event, over 30 glass industry start-ups came together to showcase and pitch, which provided the start-ups and industry an insight into how they can work together.

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

21020/Press Release – 2017.12.19