

Glass Night discusses the digital future of manufacturing

Glass Night, organised by the French association Glass Vallée, investigated the role of Artificial Intelligence and digitalisation in the future of glassmaking. Among those taking part in a panel discussion were representatives of Saverglass, Verescence, Pochet du Courval and Zignago Vetro. Jean Hardy* was in attendance.



Glass Vallée's second Glass Night (La Nuit du Verre) was focused around a panel discussion on Artificial Intelligence (AI) and digitalisation. The evening included introductory words from Glass Vallée's new President, Stéphane Franconville (*pictured above*), who succeeded Valerie Tellier last summer. A summary of perfumery trends since the Covid pandemic was also presented.

The digitalisation/AI panel (*pictured top*) consisted of David Bardina, Metron; Alexandre de Marsac, Saverglass; Guillaume de Roberty, Pochet du Courval; Johan Garnek, Fabriq; Jean-Michel Gorand, Verescence; Benjamin Loubet, Aveva; and Jean-Christophe Loubet of Zignago France.

The panel said AI and digitalisation are going in the same direction - they are not separate. It is the same approach which begins with digitalisation and, when mature, leads to AI. There is a direct connection between the two concepts.

Digitalisation should not be confused with data processing. The differences are not so much the processes, but rather the tools and their end-users, that is:

- Data processing (second half of the 20th century): creation of daily reports sent to management, generally in the form of printed documents.
- Digitalisation (early 21st century): real-time data collection sent to online operators and received on their tablets or smartphones.

This leads to a Copernican Revolution, with an impact on human resources management. There is no digitalisation and, even more so, no AI, without a strong involvement of the team on the factory floor, who ensure the smooth functioning of the system.

AI then becomes the cherry on the cake of the digitalisation process, that is:

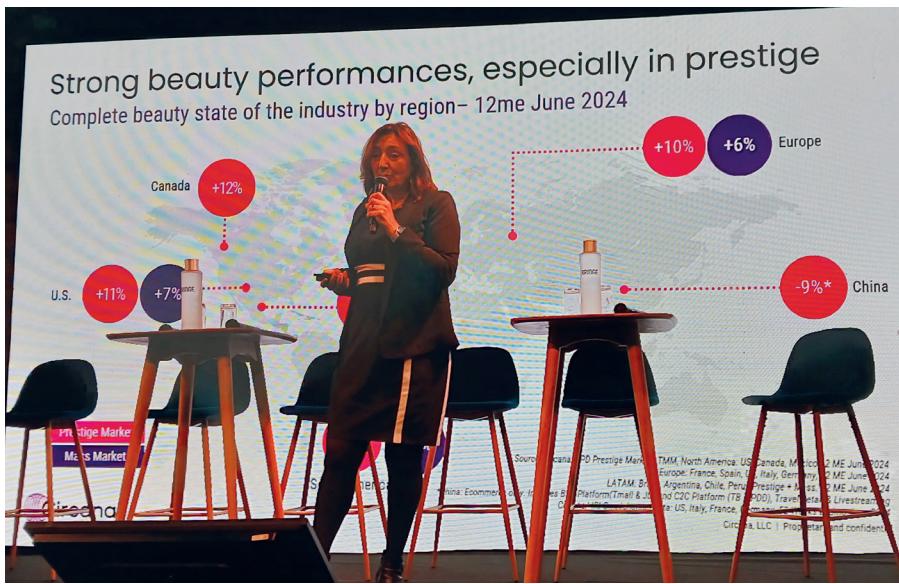
- Digitalisation - a systematic data collection and distribution, nothing more.
- AI - an intelligent use of those data to support decision-making.

The digitalisation - AI approach is linked to other glass industry topics such as reduction of consumption of raw materials, melting energy sources and greenhouse gas emissions. The intelligent use of data entry generates energy savings.

The discussion also highlighted the need for close collaboration between glassmakers and digital specialists. These are no longer consultants giving an outside opinion but real partners who regularly visit the factory to understand the work of the operators.

The first and important task to be carried out is a rigorous data entry. This

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involves placement of sensors at the right place at all stages of the process, everywhere in the plant. But it is not enough to generate data, the data must be understood to be properly used afterwards.

The database is no longer a passive tool but becomes a 'knowledge centre', continuously fed by the data entered along the production lines, but also by the direct input from senior managers sharing their knowledge thanks to their experience.

Real-time data collection throughout production helps to optimise furnace use. Each production batch can be compared to a standard with an automatic and in real-time correction.

Digitalisation, together with the development of AI, leads to solutions in energy analysis, which are greatly needed, given the objectives in reducing CO₂ emissions. Not to mention the fundamental changes that are looming, such as the conversion of gas furnaces to hybrid furnaces and/or all-electric furnaces.

Therefore a major digital transformation is taking place. New digital tools make an essential contribution to the best practices sharing within a typical workflow: anomaly - diagnosis - correction. Glassmakers absolutely want to avoid the repetition of anomalies and, in case of an error, want to reduce the reaction time.

Digitalisation and AI facilitate the transmission of glassmaking know-how. A glass company group present on several sites can constitute a cross-linked database which can be used to quickly react to defects observed, regardless of the factory or the country.

By the end of the discussion several ideas had emerged.

AI will not eliminate jobs but will free operators from time-consuming tasks, such as reporting, and will therefore allow them to concentrate on tasks with higher added value.

AI can become a cross-generational tool, from elders to young people, in terms of the transmission of technical knowledge, and from young people to elders with the use of digital tools.

Moreover, digitalisation and AI makes companies more appealing to work for, and this has been observed in other sectors when recruiting young employees.

The contribution of AI in the design of new bottles, in support of computer-aided design (CAD) software, has not been explored in depth and could be a potential topic for a future Glass Night.

Perfumery trends

Earlier in the evening Stéphane Franconville, Glass Vallée President introduced the first speaker, Mathilde Lion, Executive Director Global Client Development at Circana (*pictured above*), who presented an analysis of the perfumery-cosmetics industry.

She said the sector had recovered well since the turbulent Covid years, but the market had evolved in regard to the perfumery - body care sub-sector. She continued that the following developments can be noted:

- Customers are still willing to pay a high price, but have become more demanding: they want to see and understand the real value of their 'favourite' purchases.
- In times of geopolitical uncertainty

(risk of war, etc.) and economic difficulties for many people, 'doing yourself some good' has become a capital value, for men and women, regardless of their age or status. However, the study still revealed differences in behaviour, depending on the age and/or country of origin of the people.

- New trends have emerged: increasing part of the body sprays, the strong comeback of giftboxes of various sizes, and the concept of refilling perfume bottles.

Glass Night

The Glass Vallée brings together more than 70 companies active in and around glass, located mainly along the Bresle, the river which forms the boundary between Normandy and Picardy.

For the past two years it has organised the Glass Night which brings together the actors of the sector, generally around one or two discussion topics.

It is an opportunity for the Glass Vallée members to gather and to invite their customers, partners or subcontractors to enjoy the atmosphere.

This year's event took place at the Bridge, located below the Alexandre III bridge, crossing the Seine River, not far from the Champs-Elysées, Paris, with approximately 160 people in attendance.

The evening highlighted a strong trend: the alliance between humans, mechanics and IT as a driver of innovation in the glass industry. This synergy demonstrates the sector's ability to combine tradition and innovation to meet current and future challenges.

As the President of La Glass Vallée said in his speech: "For us, La Nuit du Verre is an opportunity to showcase all the professionals who make up La Glass Vallée: model makers, founders, mould makers, glassmakers, decorators, finishers, craftsmen.

"They all contribute every day to innovating, creating and pushing the boundaries of creativity and technique. This collective intelligence is at your service to share successes and meet the challenges of today and tomorrow." ■

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