

1. How important is the Industry 4.0/digital concept to hollow and container glassmaking?

It is definitely a must. Glass as packing material is always under pressure from materials such as PET and cans. So glass manufacturers must strive to become better, every day. This journey will never end, glass must become lighter, energy consumption must be reduced and glass containers must be financially attractive for all partners in the production value chain.

2. Do you expect the digital concept to be embraced by the hollow glassmaking industry?

If we see what article subjects we have in the magazines or which lecture titles we have at the conferences, definitely yes. Also if you see how the product portfolio of the leading suppliers evolve. The benefits will be cost reduction, reduction of energy consumption and bottle weight, work safety will increase and production will become more flexible.

3. What does your company offer its customers in terms of the Industry 4.0/digital glassmaking concept?

We offer a full concept from engineering to advanced technology to service and partnership in production optimising.

Our technologic solution set contains three columns, Smart Data (like PlantPilot, Tracking & Tracing or unique container coding by data matrix), Smart Machine Controls (like advance HMI, E-Timers or Smart Motion with multi weight production or swabbing robot) and finally Smart Process Controls (a large set of closed-loop process control solutions for gob weight, wall thickness, ware spacing and cooling control.).

4. Has digital glassmaking become an important concept at your company? Do you have an R&D team devoted to it, for example?

Of course, we have a special team which analyses the challenges and improvement potential of every single production step, in the same time looking for new technological solutions. The advantage of Heye is that we are true glass people, not just a machine manufacturer. So we have the chance to combine glass expertise with high-end engineering.

5. How has your technology evolved to embrace the digital age?

Compared to 10 or 20 years ago, automation and software concepts are more important. In addition, new enabling Industry 4.0 technologies such

as augmented reality become affordably, in addition to more flexible sensors and actors, new mobile devices etc. Our job is to select what makes sense and what has a potentially relevant benefit to improve production.

6. Are there any negatives to the digital age?

Heye tries to concentrate on the most important working steps in the production process. Not everything that could be possible from a technological perspective makes sense from the financial or complexity side. We think that concentration or focus is key. E.g. swabbing of the blank moulds is the most important manual working step. For this step we offer an advanced robot solution helping to prevent losses and to increase the productivity in a relevant way.

7. What is your vision of a container glass factory in five to 10 years time?

Our vision is a smart plant. A smart glass plant combines the best Industry 4.0 concepts to produce glass containers in an energy-efficient and profitable way. The smart plant is highly automated, able to keep a high quality level at low unit costs.

◀ Mark Ziegler, Marketing Manager, Heye International.

