

# Software company evolves in the 20 years since its formation

German software and measurement company ilis was formed when two fellow students spotted a niche in the glassmaking process. Its Managing Director and co-founder, Henning Katte, spoke to Greg Morris.



▲ ilis' StrainScope cord tester.

**W**hen German company ilis exhibits at the glasstec event in Duesseldorf later this year it will have a sizeable stand in a fairly prominent position.

Most proudly for its principal shareholder and Managing Director, Henning Katte, the booth will have its own branding and its posters will advertise its own corporate design, reflecting the form language of its products.

It is a far cry from when the software solution provider first exhibited at the event in 1998, shortly after ilis' formation with its own small, bare booth.

"As a small, new company there were things I thought about but couldn't afford at the time. If, almost 20 years ago, I had looked ahead, I would be surprised by our glasstec booth now with everything in our own brand and corporate design.

"People can see our brand and our appearance and it reflects the design and quality of our products."

In the intervening years its presence has increased at the event, sometimes sharing a stand with Dr Martin Buss and Partners - who has been helpful in introducing new contacts to the company - to this year's event where it will have a 42m<sup>2</sup> booth.

From humble beginnings the company is now a global player and its systems and measuring devices can be found in several continents.

It has a staff of eight at its office in Erlangen, near Nuremberg, and has tentative plans to open a subsidiary office in the USA.

The company's aim is to make high-end technology as accessible as possible to people in the lab and in quality assurance. Mr Katte said that his personal interest in computer science is in making systems easy to use, which helps people to speed up their workflow.

Its main products are its stress measuring solutions, which account for about 80% of its sales, its colour measurement solutions, and its batch calculation software.

Ilis' products are spread throughout the glassmaking chain. Its batch calculation computes the amount of raw materials required for use and also predicts glass properties such as viscosity.

Its stress measurement tools are used directly after forming and annealing, so is related to quality, while its colour measurement equipment is used at the end of the line to ensure the product has the proper appearance.

The company is currently focused on the container and optical glass markets, but has plans to enter the flat and automotive glass markets in the future.

## Early days

In 1991, Mr Katte started to study computer science at the Clausthal University of Technology in Lower Saxony, Germany. Since dormitories were overcrowded back then, he ended up sharing an apartment with Gerd Buchmayer, who was about to finish his studies in glass technology.

At the time, Mr Buchmayer's father headed the lab of a glass factory and was seeking a software solution to measure glass colour. It gave the pair the idea to develop a solution and this was the seed for what later became the ilis company.

After graduating Mr Buchmayer went on to work for Saint-Gobain Oberland (now Verallia) and

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Mr Katte continued to develop the colour measurement software further with Heiko Vollstedt, who studied technomathematics at the same university.

Despite his computer science background, Mr Katte immersed himself in glass technology, attending courses at the Clausthal Institute of Non-Metallic Materials to extend his knowledge about the material.

Before then, he did not know much about the industry but he now started to have ideas about other parts of a glass factory that required automation.

“I wanted to find out as much as I could about glass and glass technology. I developed an interest in glass and saw it was much more than what people think, so began to take lectures in glass chemistry and physics to get a good background to know more about what I do. I hate to do things I don’t fully understand,” said Mr Katte.

The founders completed a few side projects to help fund their university studies and, shortly after graduation, concentrated their efforts on ilis.

### Perseverance

But despite a co-operation with Saint-Gobain Oberland, Mr Katte admits the company struggled for the first couple of years.

“We began with a vision and we thought that people would buy and use our equipment, but it takes a while for people to really notice you. The first five years were a struggle – we didn’t make a notable loss but also didn’t earn a lot.

“We produce costly things so people needed to be sure that their investment was something for the future. They didn’t want to invest in a company that wouldn’t be around two years later.

“There were a lot of blind calls and it was frustrating, but we never gave up. We were convinced that what we do was useful to the industry. We had the impression that what we do might be early for the industry, and that is still the case with many things we do now.”

Their perseverance paid off and ilis began to be noticed by glass manufacturers. It had also expanded its product range, and companies in the



▲ Mr Katte at the 2014 glasstec.

► ilis has been a regular participant at glasstec in Duesseldorf since 1998.

optical glass sector asked ilis to modify its equipment to meet their needs.

Work began to roll in and the company moved into its own offices, a 110-year-old heritage building, and expanded its number of staff.

About two thirds of its installations are in the hollow sector today, with the remaining third in optics. In terms of sales, it is about half and half as the instruments it sells to the optics industry are usually more complex and larger.

### Staying ahead

Among the company’s strengths is its ability to spot forthcoming trends in glass technology.

Mr Katte said that sometimes glass companies need to be convinced that the equipment is ahead of its time. “We might be early with the technology and when people don’t see similar solutions elsewhere on the market they can be confused.

“But the benefit is that when the market adopts the technology we have finished our development, we have something which really works.

“We always try to stay one step ahead of the industry, we get feedback but usually our products are founded on my own ideas or from things that we think will be useful to the industry, that save money or improve quality.

“I live in two worlds; my background is in computer science, so my strength is informatics and automation on one hand, and glass technology on the other. I know what our customers do, not in detail, but I have the general picture of that.

“I know all the production techniques, theoretically at least, and I know a lot about glass chemistry and physics. I think that is the key

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feature. I am able to develop new products because I am able to realise them in new software.

“I talk to customers and listen to their requirements and to the sales team. I then think how this could fit into our strategy and product development, and if we can enhance existing products or if we can develop something new.”

Among its other strengths is that there are no investors in the company, and money it generates from sales is reinvested into product development.

New developments are financed by already introduced products and not via bank loans or credits.

Geographically, Germany is its strongest market with 30% of its sales last year from its home country, 20% was from other EU countries and 50% from the rest of the world. But it has seen a growth outside the EU in recent years such as in the USA, hence the plan to set up a US subsidiary.

## Future

Glasstec is an important event for the group and it aims to have new technology to launch at the show and attract new customers.

But, due to the company's small size, one of its main sources of finding new customers is via the internet. It has posted videos about products on its website that can be used as training guides by customers, and also makes use of new media.

But most importantly for its reputation is word of mouth. ilis sells high-end products and it really helps when its customers visit other plants within their group or meet at conferences, Mr Katte said. “But that really starts after 10 years, when you have usually sold enough so that word of mouth works.

“We still fill a niche in the market and there are a very few companies doing similar things as we do, but they are focused on different markets or segments.

“We receive enquiries from the flat and automotive segments and our products are useable in those sectors, so perhaps it is something for the future. I like the glass industry. It is a relatively small industry and if you have something special it is easier than in a large sector, with 10 competitors and where only prices drive what you do.

“It is a price sensitive market and there's a difference between the mass glass producers and the speciality producers, but it's a challenge also. We have to look at our resources and spend time on valuable things.

“There is no room to invest in things that don't evolve into a product. It can happen where you develop something which is not accepted, but you cannot afford to do that often, so that is always a challenge.

“I like glass because it is a fascinating material. There is a mystique about it and it is still not completely understood, so there is room for research and new things.

“It is a material that is both industrial and artistic. It is amazing what you can do with this material and it is more involved in daily life than people assume.” ■



ilis is at glasstec in Hall 14, stand F04  
ilis, Erlangen, Germany [www.ilis.de](http://www.ilis.de)