“The market is going through a stage of consolidation”

An interview with Huub van Esbroeck, co-founder of 3-D printing solutions provider Structo

By Kristin Hübner, DTI

Singapore-based dental solutions provider Structo has the mission of empowering businesses with its application-specific digital solutions. Just recently, it helped one of Singapore’s leading dental consortiums, FDC, a service provider with 21 clinics in the city-state, to launch its own facility. By managing the entire manufacturing line of AAA Aligners, FDC now has a clear compliance manufacture. We have observed a trend among customers in just under a year. Currently, Structo serves various markets from our base in Singapore, but in the short to medium term, we are increasing our presence worldwide, with an initial focus on markets where we have a concentration of customers so that we can guarantee the best technical support.

Huub van Esbroeck, AAA Aligners offer an affordable alternative to other clear aligner treatments. These savings are then passed to the end user, making clear aligner treatment more accessible to a larger demographic, which will soon be expanded regionally.

Can you describe the role of Structo’s technology in the development of AAA Aligners?

Dr Nurul Aizat, who is CEO and Group Clinical Director of FDC, approached Structo with a problem: the high costs of relying on an external manufacturer for its aligner cases. With the increasing volume of cases from all of its 21 clinics, FDC realized that it had the opportunity to start managing the process itself to reduce manufacturing costs.

Together, we embarked on this project, which resulted in Structo assisting FDC to set up its entire digital chain, including the purchase of an intra-oral scanner, treatment planning software, Structo’s dental 3-D printer and thermoforming equipment, as well as staff training. The Structo OrthoForm’s high throughput—30 models can be fabricated in 15 hours—translated to FDC only needing one printer for the entire manufacturing line of AAA Aligners.

How is the manufacturing process streamlined at the FDC clinic?

Instead of relying on an external aligner manufacturer or a dental laboratory, FDC now has a clear aligner manufacturing line in its own facility. By managing the manufacturing process itself, FDC can now eliminate the bottlenecks of working with external manufacturers, for example the lead time being determined by an external party, such as a laboratory that serves multiple customers other than FDC. By managing the process itself, FDC has halved the turnaround time from one month to only two weeks upon receiving a case, giving it an edge over its competitors.

Do you think this kind of collaboration can be applied in other areas of dentistry as well?

Collaborations such as these can be extended to any form of appliance manufacture. We have observed that the market is going through a stage of consolidation, and as a result, we are witnessing the emergence of more corporate dental service groups such as FDC. These groups would have tremendously higher volumes compared with individual practices. When these volumes hit a critical mass, these groups should and will eventually start looking at insourcing their manufacturing process to better manage their costs through economies of scale.

Does Structo have plans to venture into other businesses or regions anytime soon?

In 2016, we introduced our first dentistry-specific 3-D printer, the Structo OrthoForm, tailored for orthodontic applications. A few weeks ago, we introduced the Structo DentalForm, our second dentistry-specific 3-D printer, tailored for restorative dentistry, for example precision models. We believe the way forward for 3-D printing in dentistry is to develop solutions for specific applications. This unique approach to product development has given Structo tremendous success, with installation bases in four continents in just under a year. Currently, Structo serves various markets from our base in Singapore, but in the short to medium term, we are increasing our presence worldwide.

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