SPI doubles turnover and raises more funds

SPI Lasers has reported upbeat first-half results for 2007, as well as extra funding of more than £10 million ($21 million) through the placing of more shares. Turnover for the first half of 2007 equalled the full-year revenue for 2006, according to the company's interim results. The company's new product introductions in the microfabrication, marking and medical sectors are now shipping in volume, and it is seeing growth in all its markets, particularly in Asia.

Its share placing raised £10.5 million ($22 million, net) and will enable the company to meet its working capital requirements as well as provide funds for the continued growth of the business. The fundraising comprises not only institutional placings of new ordinary shares, which will raise £8.5 million ($18 million, net), but also a strategic investment by Japanese company Furukawa Electric of £2 million ($4 million), which now holds 10.7% of the company's issued share capital.

SPI was prompted to examine various sources of funding following a trading update in mid 2007. Here SPI announced an impact on trading due to a number of external and internal issues including the weak US dollar, the pricing environment within its laser markets and some supplier delays.

"The strong end to 2006 successfully rounded off what had been a challenging year for SPI. Having met market expectations for the first half, we encountered technical process problems in the middle of the year that delayed the introduction of new products and initially slowed down our sales growth," says David Parker, chief executive of SPI. "However, we are delighted that the resolution of these issues has enabled us to meet the revised second-half expectations and to build a solid order book as we entered 2007. The company continues to make good progress implementing its various cost-reduction initiatives with the benefits due to come through in the beginning of 2008, and the goal to become profitable towards the end of 2008."

David Holloway, chief financial officer for SPI Lasers.

SPI Lasers has also appointed David Holloway as chief financial officer. He brings with him considerable experience through a number of senior finance positions in private and listed multinational manufacturing and technology-based businesses.

Strong growth predicted in fibre-laser market

Fibre-laser sales totalled more than $240 million in 2007 and are expected to grow on average by 26% per year until 2011, according to the latest market report from Strategies Unlimited.

Marking is still the largest application for fibre lasers in terms of volume of sales, but Strategies Unlimited believes there is also great opportunity for fibre lasers at the high-power end of the market. "Marking was an obvious entry point for the fibre laser, but the low prices in that market mean that the overall opportunity from marking alone is somewhat limited," says Tom Hausken, author of the report. "The sales of a few very-high-power fibre lasers can bring as much revenue as many low-priced lasers for marking."

In his opinion microfabrication is also another great opportunity for the fibre laser. "These systems are more expensive than marking lasers but the market in this area is not as inaccessible as the high-power segment."

Since Strategies Unlimited published its laser forecast last year, Hausken feels that the reputation of fibre lasers has changed from one of strong scepticism surrounding the future of fibre lasers to a calmer and less polarized acceptance of fibre lasers in the market. "Discussions are moving from sweeping generalizations to more nuanced specifics," he says. Also, several leading laser vendors each introduced a fibre-laser product this year, giving the technology much greater credibility.

"We still believe that fibre lasers represent the most important new technology in the laser industry in a decade, and one of the most elegant laser designs ever," says Hausken. "But this must be placed in the context of the laser industry, which is already highly fragmented, and slow to change."

nLight buys fibre manufacturer Liekki

The US company nLight, a manufacturer of high-power semiconductor lasers, has bought Finnish specialty-fibre manufacturer Liekki.

The combination of the two companies' technologies will provide their customers with a complete supply chain from semiconductor lasers and fibres to optical modules. Liekki has developed a direct-nanoparticles-deposition fibre-technology process in which the waveguiding elements and the active ions are deposited simultaneously in the form of nanoparticles.

This enables production of state-of-the-art highly doped fibres that minimize the required fibre length, provide strong amplification with a broad and flat gain profile, and have high efficiency and excellent beam quality as well as reduced photodarkening and nonlinear effects.

"This is a very important acquisition that integrates core technology for the rapidly growing markets for semiconductor and fibre lasers," states Scott Keeney, nLight's president and CEO. "Combining the nLight and Liekki product portfolios will bring compelling solutions to our industry. We highly value the Liekki team and their operational excellence."

Spire to develop fibre laser for ear surgery without anaesthesia

The US company Spire has received a two-year, $870,000 Phase II Small Business Innovation Research grant from the National Institutes of Heath and the National Institute on Deafness and Other Communication Disorders, for the development of a high-power fibre laser capable of performing myringotomy and middle-ear surgery without the need for anaesthesia.

Myringotomy is a common procedure, typically performed on children under the age of five, whereby the tympanic membrane (eardrum) is punctured to drain fluid and reduce the risk of ear infection. Approximately one million children undergo this procedure annually in the USA.

In the first phase of the project, Spire developed a one-watt fibre laser and demonstrated the capability of forming controlled openings in animal fascia tissue, which has similar characteristics to the tympanic membrane. The laser being developed in Phase II is expected to emit between five and ten times the power level of the Phase I laser, thereby making it a candidate for replacing conventional scalpel surgery (which requires anaesthesia) with a less traumatic procedure.