International SSL Alliance

Newsletter

Volume II Issue 3, June, 2012

ISA 2012 Working Meeting Sponsor AIXTRON

A General Introduction of AIXTRON

AIXTRON

World's leading manufacturer of MOCVD equipment. AIXTRON SE is a leading provider of deposition equipment to the semiconductor industry. The Company's technology solutions are used by a diverse range of customers worldwide to build advanced components for electronic and opto-electronic applications (photonic) based on compound, silicon, or organic semiconductor materials and more recently carbon nanotubes (CNT), graphene and other nanomaterials. Such components are used in display technology, signal and lighting technology, fiber communication networks, wireless and cell telephony applications, optical and electronic data storage, computer technology as well as a wide range of other high-tech applications. AIXTRON SE's securities are listed on the Frankfurt Stock Exchange and, in form of American Depositary Shares (ADS), on the Global Market of the NASDAQ Stock Market, and are included in the TecDAX index, the NASDAQ Composite Index, the MSCI World Small Cap Index, the Nature Stock Index (NAI) and the Dow Jones Stoxx 600. Founded in 1983, the Company is headquartered in Herzogenrath, Germany.

AIXTRON Production and Headquarters in Herzogenrath/Aachen, Germany

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AIXTRON Production Hall

Interview with Paul Hyland, AIXTRON

One consequence of the recent rapid economic growth of many developing countries and a growing awareness of the need to protect natural resources is that far greater attention is now being paid to energy-efficient and environmentally-friendly LED lighting. Over the last few years, more and more national governments have laid down various policies banning the use of inefficient incandescent lamps and promoting the use of more efficient, energy-saving LED lamps.

Driven by substantial national and regional subsidies and initiatives, we saw a huge upturn in demand for both LED research and manufacturing equipment in 2010 and 2011. However, since the third quarter of 2011 we have seen the development of an increasingly difficult market environment. The market appears to have very abruptly slowed down, with many LED companies delaying further capital equipment investments in the face of considerable market uncertainty. What does this mean for the industry? How will the market develop in the short and long term and how should the industry deal with the current situation?

ISA discussed these and other questions in their SSL seminar during the recent Light and Building Fair in Frankfurt, Germany, and took the opportunity to discuss the current market conditions with Paul Hyland, President & CEO of AIXTRON SE, a leading provider of deposition equipment to the semiconductor industry. AIXTRON offers a broad range of complex material deposition solutions to their customers, helping them to improve both their cost of ownership and product quality at the same time.

With regard to the current market outlook, Mr. Hyland first looked back over the last couple of years to give his interpretation of the recent market developments. Since 2009, the LED equipment market has seen an unprecedented level of demand for MOCVD systems following the introduction and rapid adoption of LED LCD TVs. In Paul Hyland's opinion, the majority of the necessary equipment capital investments for the LED backlighting market have already been made by now, while at the same time, the emerging LED lighting market has not yet generated sufficient equipment demand to support the start of the next LED equipment investment cycle.

Although the current market for LEDs and manufacturing equipment remains sluggish, Paul Hyland remains convinced that the emergence of an LED lighting industry is not a question of "if"…It is only a question of "when". Despite the currently difficult market conditions, we continue to see encouraging Solid State Lighting signals but what we need right now is more time and patience before we see the commercial traction we are expecting. The recent downturn could also accelerate the widely anticipated consolidation process in the industry. Eventually, it is expected that the LED market will become increasingly dominated by larger companies, with the necessary critical mass to be able to create a meaningful market position and then be able to sustain it. The very competitive environment that is becoming more evident, will, most probably, accelerate a decline in LED prices and consequently speed up the end market adoption rate, thereby benefiting us as consumers.

With respect to the announced cooperation with MSFL (Minsheng Financial Leasing Co. Ltd.), Mr. Hyland thinks that Minsheng, as China's main non-banking financial institution, is a strong and highly credible partner for AIXTRON in the rapidly developing Chinese market. This cooperation is not another sales channel for the company, but rather a strategic alliance, to promote to AIXTRON's customers the availability of alternative financing options in China, in this period of credit tightness. AIXTRON will not get directly involved in the financing or distribution of credits and loans and also will not financially benefit from the leasing instruments. It is seen by AIXTRON purely as an additional customer support service. AIXTRON has noted of late, that some of their customers have experienced increased difficulty in acquiring appropriate financing for their investments as the difficult economic climate has restricted the availability of credit. The cooperation with Minsheng will deliver more options to customers looking to fund their capital investments and overcome credit tightness.

Speaking of the effect of the European financial crisis, Mr. Hyland comments that it has had little direct influence on the company because more than 95% of its business is in Asia and more than 95% of the revenues are recorded in US dollars not Euros. Paul Hyland believes that the current financial crisis is not so much a European one but more of a global financial crisis affecting companies and consumers' confidence worldwide. The Euro has a very important role to play if it can be stabilized as this will generally support a global economic recovery. And although AIXTRON is not directly impacted by the Eurozone problems, an improvement of consumer confidence and increased capital spending will support AIXTRON's business as well.

AIXTRON R&D Center in Herzogenrath/Aachen, Germany

When it comes to serving customers, AIXTRON has just opened a new training and demonstration facility in Suzhou in March of this year. This MOCVD technology center at SINANO, the Suzhou Institute for Nanotechnology and Nanobionics, a research institute of the Chinese Academy of Sciences, will support China's global LED ambitions. It is an endeavor to assist customers as they develop their processes and also to offer specific training to their employees. AIXTRON has offered MOCVD seminars in China for more than a decade now and attends at least 3 or 4 major conferences in China each year, where they offer a series of training courses. The last seminar was attended by more than 500 people over two days, who participated in a variety of training presentations aimed at improving specific MOCVD know how. The new training and demo center offers not only a permanent base for training but is also a point of contact for customers who experience difficulties with their processes. Mr. Hyland explained that the industry has grown so fast, that the infrastructure, including training, is lagging behind, but that AIXTRON is doing what it can to support their customers.

New R & D Center

On the question of how to maintain the competitive edge in the market, Mr. Hyland stresses the importance of Research and Development work for AIXTRON. The company has spent a very substantial amount of money over the last couple of years on R & D and has accelerated its development programs. More than 30% of all employees are working in R&D and, in the last 18 months, AIXTRON has spent ca. EUR 60m on building a new R&D Center with room for 450 engineers and additional research laboratories. R&D work is the foundation for the future success of all technology companies and AIXTRON is well aware that you need to keep investing to be always one step ahead of the competition. Mr. Hyland also underlined that this multi-year investment program is not only focused on the next generation of LED manufacturing tools but covers a broad range of deposition equipment for "beyond LED" opportunities as well. These future markets include other non-LED MOCVD applications such as power electronics, OLEDs or carbon nanotubes.

As for Chinese policies and subsidies; Mr. Hyland appreciates the consistent and comprehensive support that the Chinese national and regional governments have given to the LED industry in the last three years. The objectives set down in 2009 and the latest 5-year-plan are a big advantage for China's LED industry. The recent move from equipment-oriented, to device- and consumer-oriented subsidies, signals the Chinese government's encouragement of companies to focus on both the quality and the quantity of LEDs produced in China.

The logic is inescapable; once the subsidies have created the momentum that companies need to produce high-quality LEDs and profitable business, then the subsidies are no longer necessary. Sustainable commercial traction will drive the future need for companies to buy more MOCVD systems.

When talking about the ISA 2012 Working Meeting, and what members expect of ISA, Mr. Hyland says that he was very encouraged by the working sessions he attended. He thinks that ISA has an opportunity to become an authoritative voice of the SSL industry, which is not about repeating what other people are saying but aiming to be the rational voice for their members and to offer a point of focus and coordination. Paul Hyland emphasizes that ISA holds a key position in the world as a truly international and global organization representing all the interests of the LED industry. He is greatly impressed by the strategy and the logic being pursued by ISA, which has a good chance to play a very important and meaningful role for the industry in helping to develop a common view and approach to support the industry going forward.