



INTERIM PROJECT MANAGER FOR JAPANESE CUSTOMER OF UNAXIS DISPLAY TECHNOLOGY

INTERVIEW

with Dirk Bongardt,
Senior Project
Manager PECVD
Unaxis Balzers AG



Display Technology develops thin film coating processes for making Liquid Crystal Display (LCD) Flat Panel Displays (FPD). TFT (thin film transistor) technology controls the individual pixels using an active semiconductor component and creates high-contrast, brilliant images. Flat panel displays are used in televisions, laptops, personal computers, mobile phones and PDA.

The technology processes developed at Display Technology help to reduce production costs by up to 40%. The production systems are semi-customized to ensure that customers' requirements are met, from the initial concept right through to process design, implementation, manufacture and after-sales customer support. A Displays system takes approximately nine months to manufacture.

Display Technology employs around 400 people worldwide and operates local sales and customer service centers in Japan, Korea and Taiwan, where 99% of the world's flat panel displays are made, and has development and manufacturing plants in Trübbach (Switzerland), and research facilities in Paris (France) and Osaka (Japan).

Mr. Bongardt, what are the biggest challenges you are encountering in Display Technology?

The biggest challenge Displays Technology is facing are the fast changes of the systems from generation to generation. The first generation of systems in 1993 could process glasses with the size of ~350*450mm. Nearly every other year, a new system generation to increasingly large glasses has been developed, produced and installed. The 4th generation systems for substrates larger than 1m² were installed in 2000 and now, in 2005, the 7th generation system for a substrate size of already bigger than ~4.5m² is going into production. Although Display Technology's systems are standardized as much as possible, a straight up-sizing of hardware and process technology as well as the adaptation of a standard software is not always fully possible. This requires a huge effort from the R&D-Team, the process engineers and the system designers.

Which type of systems does Display Technology produce?

Displays Technology is designing and

producing two types of systems. The types are used in the TFT-displays production for two different types of processes PVD and PECVD. TCO (thin conductive oxides) and metal layers are coated in the UNI-system using the PVD (physical vapour deposition) process. The α -silicon and silicon nitride passivation layers, are deposited in the KAI systems using the PECVD (plasma enhanced chemical vapor deposition) process.

What are the main tasks of a project manager for customer systems?

The value of the above systems is in the order of several million CHF per piece. For these projects, the project manager is the "one face to the project". He is responsible from the first quotation through the manufacturing and installation to the final system acceptance by the customer. The project manager must think and act as a general manager for his project. In the early phases of the project he will prepare a precise cost estimate of all items and activities related to the project. He is involved in the sound analysis of the project risks and the possible impact on

feasibility, delivery date and cost. He also has to maintain a tight cost control, spanning from the purchase to the production and assembly until the installation and warranty service. Finally, with his social competence, he has to lead and motivate a multi-functional, multi-cultural and international project team.

Which background and experience is necessary to be a successful project manager?

To fulfil the requirements outlined above a project manager needs to be a generalist with a good balance between contractual/commercial and technical skills. Desirable is a masters or bachelors degree in some engineering discipline. To master the requirements successfully some industry experience in project work is a must. Overall a project manager must be willing and capable to take responsibility. His work style must be structured and tenacious. He must have a very sound cost/profit-consciousness and be able to multi-tasking using the project management tools professionally and effi-

ciently. He must have a sense for group dynamics and needs to be able to understand and motivate his team. Ideally he has also gathered some multicultural experience in an Asian country (PR China, Japan, Korea, Taiwan). He must be fluent in English and German and be willing to travel ~25%.

What was the situation, when you contacted BRAINFORCE and what were the criteria to decide for an external project manager?

In 2004, Display Technology had received enormous orders for several 6th and 7th generation systems PECVD and PVD systems. All UNAXIS project managers were already assigned to these projects and were already running at more than full capacity to fulfill these orders in time. On top of this, a Japanese customer placed a repeat order at short notice for one Gen. 3.5 PVD system to enhance his production capacity. The requested lead time was very tight. The new PVD system had to be an exact copy of the previously delivered systems, which are running reliably in production with high up-time since already 7 years. To overcome this bottleneck we needed some external support that could meet all the requirements set out earlier. A feasible option was to employ an experienced external interim project manager, who can start immediately within a short ramp-up time. It was no option to hire a new project manager as the hiring and ramp up process would have taken too much time. Also in favor of the employment of an external interim manager was that s/he could be employed on a project-base, hence keeping Unaxis flexible. The BRAINFORCE' project manager fulfilled all these criteria. Additionally, he was flexible to adapt his work intensity to the project requirements, which rendered him especially cost-efficient.



What were the tasks, the BRAINFORCE manager had to fulfil, and what are the success factors?

He was responsible for the above mentioned Gen. 3.5 PVD project from the customer's purchase order to the initial acceptance test before the delivery of the system to Asia. Within this frame he was fully integrated and treated as an internal Unaxis project manager. On some occasions he even served as a deputy for other internal project managers. With his well-founded professional experience, he quickly familiarized himself with our business and was immediately able to recognize the critical path and factors and took quickly the necessary actions. He successfully lead a multinational and multicultural project team of engineers, production- and assembly-specialists. He planned and supervised the activities, cost, schedule and documentation in SAP. He took considerable part in the analysis of problems and identification of solutions. During the monthly reporting sessions he informed his superiors on the progress of the project.

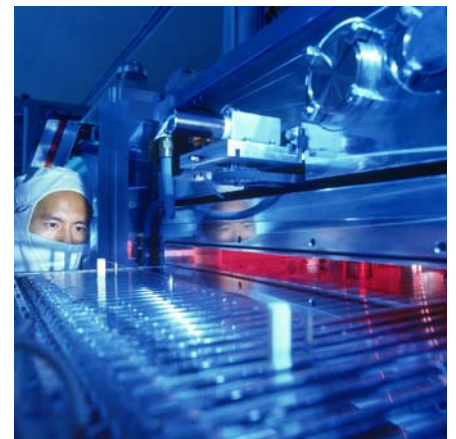
Were there difficulties to over-come during the mandate, and how have they been resolved?

One of the difficulties consisted of the fact that the customer required a system identical to the first one he had ordered in 1999. But some components were no longer available, because technology had noticeably progressed in the meantime. The project manager had to find the optimum between "copy exactly" and the implementation of new technology - always keeping in mind cost and delivery deadlines. He successfully prepared several solutions and skilfully mastered these challenges. As an illustration, he organized and conducted the initial acceptance in our facilities. He lead very detailed and often complicated technical/

commercial negotiations with the customer's inspection delegation. In this situation he acted very responsibly and with consideration. He fully represented the interests of our company and still was perfectly capable to communicate with our Asian customer. Thanks to his and the team's efforts the initial acceptance test was a success.

Did the outcome of the interim project management meet your expectations?

As you can see from my above descriptions, we are fully satisfied with the outcome. Despite the very turbulent and busy phase at Unaxis, the project could be delivered in time and within budget to the full satisfaction of the customer. Due to the independent working style of the project manager, our need for support was low and due to the flexible employment we never had to build up overcapacity.



Where do you see the advantages of an interim manager? Will you consider such an engagement in future?

The advantage of an interim manager is his broad experience combined with the specialist know-how, which he gained during different assignments at other international companies. This enables him to be productive from the start. Many times we look at our daily tasks through our Unaxis glasses. It is quite helpful to get qualified inputs from external specialists. This broadens our minds and helps us to realistically assess our situation and options. I will consider further engagements of BRAINFORCE interim managers for projects with a defined duration, clear goals and tasks, and where the team and company also profits from the general project and management know-how.

