

Creating a training program for statistical methods and design of experiments

ORDER:

To create a tailored statistics training concept for the engineers of an international electronic components manufacturer

DURATION/PLACE:

12 months/Germany

INDUSTRY: SEMICONDUCTOR

Training



JOB DESCRIPTION

The customer wanted to create a tailored statistics training concept, complete with course materials and a certification program. Based on their specifications, we designed a five-day training program with comprehensive course materials, including learning objectives, exercises, teaching content, and didactic resources.

After test runs and fine-tuning along with the customer, a certification concept for the trained engineers was deployed successfully. To enable further company internal deployment and the proliferation of the obtained quality standards, we certified the customer's internal trainers according to the LETR procedure (Learn-Examine-Train-Release).

SERVICES OFFERED:

- Development of a tailored training concept for statistical methods and design of experiments

RESULT

A customized course with a unique didactic concept was developed and delivered to the customer. Internal trainers were coached and certified to continue this training concept.

Interim management and organizational development at a start-up company

ORDER:

To establish a manufacturing organization at a 3/5 semiconductor manufacturer

DURATION/PLACE:

28 months/Netherlands

INDUSTRY: SEMICONDUCTOR

Training, Process Management



JOB DESCRIPTION

A start-up company in the field of photonic components with around 25 employees wanted to realize organic growth in its next developmental stage. Following the successful proof of technical feasibility of their first commercial product, we gradually established the foundations for industrial pilot production. By fostering a strong focus on cost efficiency, timely delivery, and high-quality standards, we were able to establish a value-stream-oriented process and lay the groundwork for industrial quality assurance. Additionally, we introduced electronic production control and reporting systems to enhance operational efficiency.

During the project, the workforce grew to approximately 70 employees, and the organizational structure was adapted several times to address new challenges. With the successful completion of the due diligence review and secured investment for further capacity expansion, the project was completed on schedule.

SERVICES OFFERED:

- Development of a value stream-oriented process landscape
- Establishment of a quality management system
- Introduction of production control and reporting systems

RESULT

After the successful achievement of the developmental goal, operational management was handed over to the company's internal successor.

Production ramp-up of a semiconductor production facility

ORDER:

Task force management of the volume ramp-up of a 3/5 semiconductor laser diode production.

DURATION/PLACE:

20 months/Germany

INDUSTRY: SEMICONDUCTOR

Factory Ramp-up



JOB DESCRIPTION

We analyzed the need for structural improvements within the production facility to meet the increasing production demand and implemented targeted optimizations accordingly. These were addressed by transparent shop floor control and consecutive bottleneck management. Further root cause investigation of the instable deliveries revealed key structural deficits in the product development management originated from the organically grown laser diode production facility. These problems were addressed by initiating technical project management aimed at enhancing water manufacturing process and resolving technical issues in back-end processing and component separation. By creating a data driven decision making and closing the loop back to development, the efficiency and speed of visual inspection and optical quality control were improved. Additionally, we established a dedicated industrial quality department, along with robust quality processes, to reinforce product standards. To streamline operations, we introduced semi-automated product and process monitoring, supported by automated data analysis, enabling more efficient and accurate oversight. Together, these measures strengthened the production framework, setting the foundation for ongoing growth and operational excellence.

SERVICES OFFERED:

- Taskforce leadership
- Technical project management
- Problem solving
- Establishment of a quality assurance system
- Product and process monitoring
- Automated data evaluation

RESULT

The annual yield of quality-compliant products grew from just 3 million units/year to 12 million units/year.

Strategic Location Evaluation for SiC Power Modules

ORDER:

To establish a structured decision basis for relocation and industrialization of SiC-based intelligent power modules.

DURATION/PLACE:

9 months/Germany, Korea

INDUSTRY: SEMICONDUCTOR

Manufacturing, Factory
Industrialization



JOB DESCRIPTION

Evaluation of potential production sites for SiC-based intelligent power modules for an international semiconductor manufacturer.

We structured and managed a cross-location comparison of manufacturing sites based on cost structure, scalability, technological maturity, and risk exposure.

Alternative production and integration routes were developed and assessed. A full life-cycle cost-of-ownership model was implemented to provide quantitative transparency.

Technological and operational risks across the value chain were identified and prioritized. A robust integration and testing concept was derived to support implementation readiness.

SERVICES OFFERED:

- Project leadership
- Cross-location production benchmarking
- Cost-of-ownership analysis
- Risk evaluation and prioritization
- Integration and testing concept development

RESULT

Delivered a transparent, structured and quantitative decision model for management.
Production in mainland China was selected based on the evaluation.

Accelerated Development of a Power Semiconductor Product

ORDER:

Program management for delivery of a new product configuration within nine months.

DURATION/PLACE:

11 months/Germany, Korea, Singapore

INDUSTRY: SEMICONDUCTOR
Program & Industrial Execution



JOB DESCRIPTION

A power semiconductor manufacturer required functional product samples within nine months instead of the planned 22 months.

Full program responsibility was assumed. Internationally distributed development, manufacturing, and support units were synchronized and aligned under a structured governance framework.

Requirements were systematically derived and prioritized. A project board was introduced to enable rapid technical and commercial decisions under time pressure. Risks were continuously assessed and managed to maintain alignment with the external customer timeline.

SERVICES OFFERED:

- Complete program management
- Governance and board implementation
- International coordination
- Risk assessment and prioritization
- Milestone control evaluation and prioritization

RESULT

Functional product samples were delivered within nine months. Time-to-market was significantly reduced, and internal execution capability strengthened.