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 photonic components start-up with approx. 25 employees entered its next growth phase following successful proof of feasibility of its first commercial product. We established the foundations for industrial pilot production with focus on cost efficiency, delivery reliability, and consistent quality standards.

A value-stream-oriented production structure was implemented. Industrial quality assurance processes were introduced, along with electronic production control and reporting systems to increase transparency and operational stability. During the project, the organization scaled to approx. 70 employees and the structure was adapted to support further growth.

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.

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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

Production capacity had to be structurally strengthened to meet increasing demand. We introduced transparent shop floor control and systematic bottleneck management to stabilize output. Root cause analysis of delivery instability revealed structural deficits in product development and process maturity.

Targeted technical project management was initiated to improve wafer manufacturing, back-end processing, and component separation. A closed data feedback loop between production and development was implemented to increase process transparency. Visual inspection and optical quality control were accelerated through data-driven decision-making. In parallel, a dedicated industrial quality department was established, supported by robust quality processes and semi-automated product and process monitoring.

SERVICES OFFERED:

- Taskforce and technical project leadership
- Problem solving and quality system implementation
- Product and process monitoring with automated data analysis

RESULT

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

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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 and risk prioritization
- Cost-of-ownership analysis
- Cross-location production benchmarking
- 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.

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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
- Risk assessment and prioritization
- International coordination
- 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.

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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 required a customized statistics training program including structured course materials and a certification concept. Based on defined specifications, a five-day training program was developed covering learning objectives, exercises, technical content, and didactic tools.

After pilot sessions and refinement, a structured certification program for participating engineers was implemented. To enable sustainable internal rollout, selected employees were qualified as internal trainers following the LETR (Learn–Examine–Train–Release) procedure.

SERVICES OFFERED:

- Design and implementation of customized statistics and DoE training

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.

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Interim management and organizational development for a special machine manufacturer

ORDER:
To establish a technology and service organization in the Asia-Pacific region.

DURATION/PLACE:
18 months/Germany, South Korea

INDUSTRY: SPECIAL MACHINES
Factory Ramp-up

JOB DESCRIPTION

For a manufacturer of flatbed plasma deposition lines, we established a technology and service organization in South Korea to support customers in the Asia-Pacific region. This included setting up a branch office, building and training a local expert team, implementing a customer and complaint management system, and integrating operations into local structures.

To secure spare parts availability, an emergency warehouse was established in the duty-free area of an international airport, reducing response times and customer downtime. Local service engineers were recruited and trained to ensure fast and reliable on-site support.

SERVICES OFFERED:

- Project leadership
- Recruitment and training of specialized team
- Logistic process development
- Establishment of a customer and complaint management system

RESULT

Successful establishment of a technology and service organization that was handed over to an internal successor at the end.

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Task force management in the field of spare parts logistics and field service

ORDER:
To lead a task force to reduce the error rate in the refurbishment kits delivered to the field for special machinery upgrade and repair

DURATION/PLACE:
14 months/
Netherlands, Germany, Taiwan

INDUSTRY: SPECIAL MACHINES
Taskforce Management

JOB DESCRIPTION

An international special machine manufacturer for semiconductors faced issues with faulty spare parts kits and incompatible upgrades in the field. Rapid design changes increased complexity and impacted customer satisfaction, particularly in Asia.

An interdisciplinary task force implemented an online version control system for hardware and software configurations across production and field equipment. A modular release concept ensured controlled upgrades and significantly reduced downtime of critical plant components.

SERVICES OFFERED:

- Task force management
- Problem solving
- Technical change control / versions management

RESULT

Successfully reduced the error rate by 85% while simultaneously doubling the number of successfully executed upgrades.

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Project management: Commissioning of production lines

ORDER:
To plan, install and commission turnkey plants for solar cells and module production

DURATION/PLACE:
26 months/
Spain, South Korea, Germany

INDUSTRY: SPECIAL MACHINES
Project Management,
Factory Ramp-up

JOB DESCRIPTION

The customer aimed to establish semiconductor production lines for solar modules based on polycrystalline silicon wafers. Based on investment plans and performance specifications, we designed, built, and approved the required machinery in close collaboration with the customer.

Production facilities, including chemical and logistics units, were set up and qualified on site. Assembly, commissioning, and process installation teams were established, and multi-shift operations introduced to ensure efficient production. The production lines met performance targets, were qualified, and successfully handed over to the customer.

SERVICES OFFERED:

- Program & Project management
- Planning, construction and commissioning of a production line
- Orientation and training of employees

RESULT

Successfully planned, designed, and commissioned the production line. Completed all acceptance tests before handing it over to the customer.

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Project management in the field of Semiconductor-Special Machine Construction

ORDER:
Project management for the prototype development of an innovative light source to produce sub-20nm semi-conductor structures

DURATION/PLACE:
24 months/Netherlands, USA

INDUSTRY: SPECIAL MACHINES
Project Management,

JOB DESCRIPTION

The mechanical main carrier for the novel light source in lithographic exposure systems for semiconductor production was developed and integrated with functional components from other subsystems. Starting with an existing solution concept, we completed the system integration of the light source, followed by the design and development of functional prototypes.

This system was then transitioned into a small prototype series through international collaboration. Employing the **"concurrent engineering"** approach, we addressed and resolved technical challenges in high vacuum technology, cleanroom production, and high-energy laser technology in the project. To ensure optimal coordination of technical changes across subsystems both in terms of functionality and time, we also introduced systematic technical version control and structured technical change processes.

SERVICES OFFERED:

- Project management
- Technical problem solving
- Introduction of prototype small series
- Introduction of change process

RESULT

Four prototypes were delivered, and an initial pre-series of 10 systems entered production.

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Implementation of a worldwide training program at a major international corporation

ORDER:
To train the engineers of an international Original Equipment Manufacturer (OEMs) in the areas of reliability, Design for reliability and system structuring

DURATION/PLACE:
36 months/
Europe, USA, Mexico, Asia

INDUSTRY: AUTOMOTIVE
Training

JOB DESCRIPTION

For a leading multinational corporation, standardized training programs for Design for X were implemented worldwide to ensure a consistently high level of engineering expertise across all locations.
In close collaboration with the client, the existing framework was updated to meet the latest technical requirements. The redesigned 8-day program, featuring enhanced content and modern didactics, was rolled out as part of the specialist development curriculum.

Delivered by experienced technical experts from SYSMANO, who actively work in the field, the training directly connected theory with real project scenarios. This ensured a clear, practice-oriented transfer of specialized knowledge.

SERVICES OFFERED:

- Worldwide implementation of subject-specific training courses
- Certification of in-house trainers

RESULT

Successfully completed the training program and received excellent feedback from the participants and the corporation.

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