



**PHILIPS**

Innovation  
Services

Manufacturing  
processes & systems

Customized manufacturing  
processes create  
**competitive edge**

## Looking for **expertise?**

You're developing a new product, but do not have a clear idea how to produce it yet. How can you make sure the product is designed to be manufactured cost-effectively and reliably? And how can you introduce it into your factory? Do you need a customized production line or only a dedicated machine? **Pleased to meet you!**

Our system architects and process engineers work closely together with your development and engineering teams. They are able to design the manufacturing process, line or machine you need, embedding the newest technologies as additive manufacturing, intelligent robotics and manufacturing data management in production, where beneficial. Our expertise is in building scalable

manufacturing solutions that are critical to quality; managing your equipment investment risks as volumes increase. Being globally active in supporting innovation processes end-to-end, concurrent engineering is the way we work; hereby speeding-up your time to market and giving you an advantage over your competitors. Challenge us to show you we deliver!



**Customer satisfaction  
of 4.5/5**



**concurrent  
engineering**

is the way we work,  
speeding-up your  
time to market

Certified for

ISO  
**13485**

ISO  
9001

ISO  
14001

DD Your industrialization support towards robust and reality proven production

### Design for industrialization 4.0

You get Smart Factory solutions based on the latest technologies in intelligent robotics, additive manufacturing and automation & data management as well as flexible digital manufacturing platforms. **Because** our manufacturing technology system architects design the interfaces and interdependencies between production, manufacturing processes, product design and supply chain choices.

**Methodologies:** 3P-workshops, design for 6Sigma, lean principles, design for manufacturing

DD Your competitive advantage based on integrated manufacturing lines optimized exactly for your business situation

### Integrated industrial solutions

You gain a competitive advantage, supporting your chosen business model and control points optimally focused on cost leadership, zero ppm quality level, time to market, reliable production, and know-how protection. **Because** we design and realize turnkey manufacturing technology based on your specific needs, with building blocks seamlessly combined in one integrated manufacturing solution; all the way from prototype machines to full industrial lines.

**Methodologies:** integral project management, commissioning of CTQ processes, industrial sourcing & market intelligence, DfX (Design for Excellence)

DD You master unique manufacturing processes which move you ahead of competition

### Custom manufacturing processes

You get innovative and robust industrially proven manufacturing processes that are your manufacturing control points. **Because** we bring physics, chemistry, mechanization, automation and software control together to stretch the technical limits. Active and closed loop process control is based on inline measurement to implement the customized manufacturing processes in a robust way. Our expertise fields: laser processing, vision & quality measurement, micro assembly & joining technologies, (organic) coatings & vacuum technologies, additive manufacturing & printing and glass processing.

**Methodologies:** 6Sigma – DMAIC, QMAP, design for testing, V-model

DD Your gateway to product quality control points and late customization in the digital world

### Testing & configuration equipment

You gain an advanced test strategy including measurement solutions suitable from R&D up to industrial environments. You can assure that your customers receive best quality at lowest cost, while you comply with quality regulations. **Because** our test stations offer the possibility of late stage customization via loading of control software and are remotely accessible to control your outsourced manufacturing.

**Methodologies:** design for testing, V-model, RFID tagging, remote control, late stage configuration

DD Full digital control of your manufacturing system performance

### Manufacturing data management

You get

- Real-time and remote access by linking your production systems to an MES system
- Big data mining of production quality and operational performance
- Mass customization of products & small series
- Logged tracking and tracing of products

**Because** we implement manufacturing data management systems via an integrated approach, analyzing production flow, Q-maps and control plans to select a fitting MES-SCADA system, involving our Black Belts and dedicated MES experts as needed.

**Methodologies:** project management, lean / black belt 6Sigma, MES-SCADA interface, machine control platform

DD You get more out of your production equipment investment by re-using, upgrading or reallocating it

### Lifecycle services

You get global after sales service, supporting your maintenance department to improve your existing production equipment to lower cost, increased capacity and better quality, or to adapt it for producing new products. **Because** we are able to upgrade your technology and add to it creating a consistent set of old and new modules. Our lifecycle specialists take care that electronic sensors and software systems are kept compatible with existing and new interfaces.

**Methodologies:** DfX (Design for Excellence), value engineering, design for maintenance

