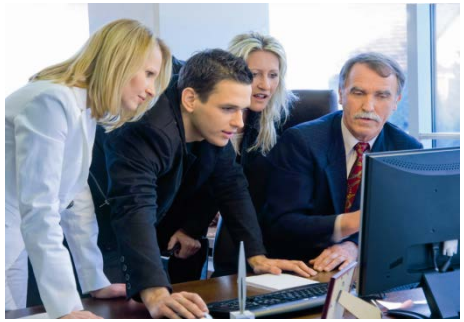
Company Presentation

Advancing Measurements by Light

Polytec, Waldbronn

Founded in 1967



Polytec Today

350 Employees Worldwide

Polytec Worldwide Offices & Representatives

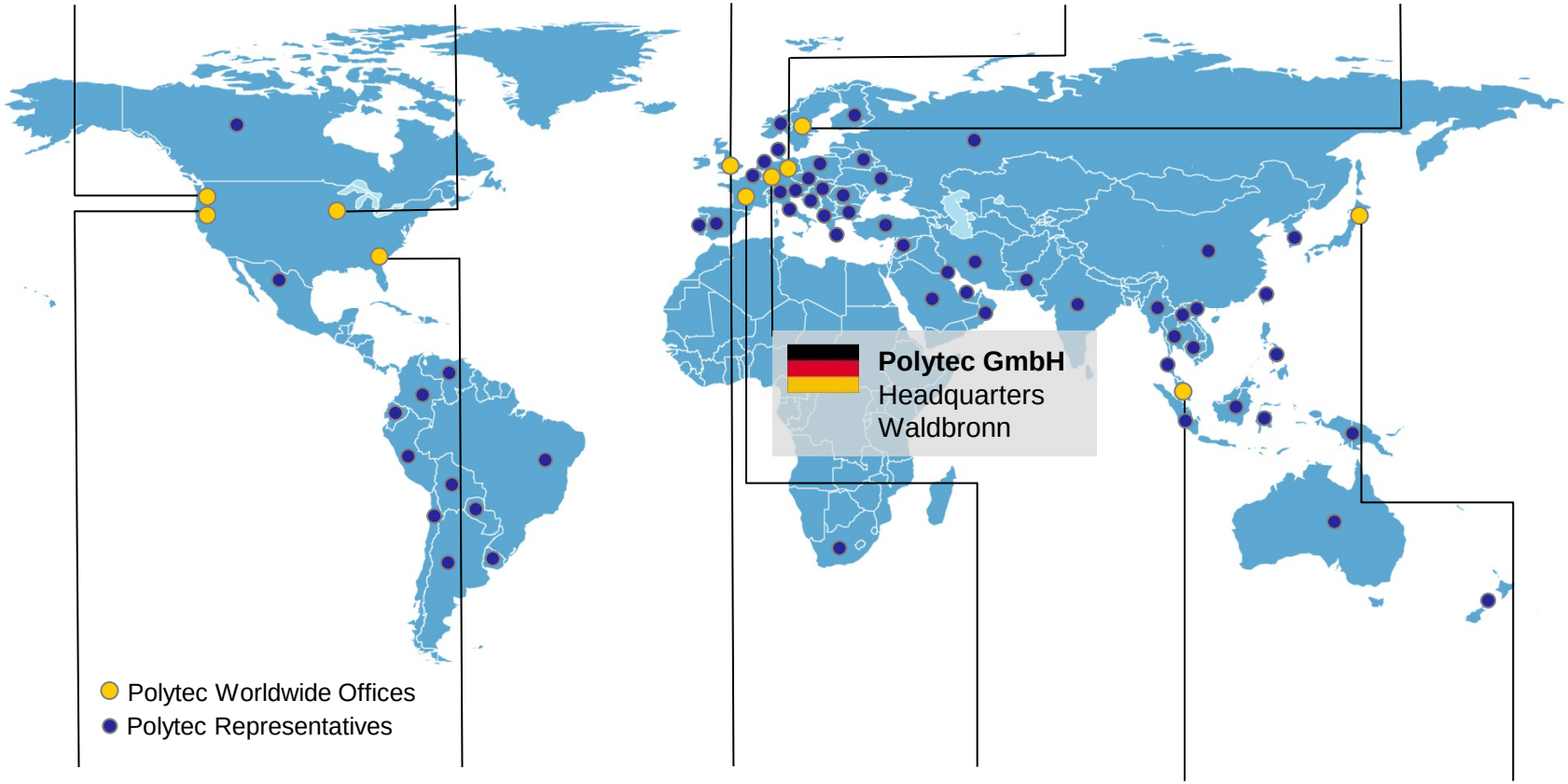
Polytec LLC
Campbell, CA

Polytec, Inc.
Central Office
Dexter, MI

Lambda Photometrics Ltd.
Harpenden

Polytec GmbH
Sales Office
Berlin

LAT elektronik AB
Vällingby



Polytec, Inc.
North American HQ
Irvine, CA

Polytec, Inc.
East Coast Office
Hopkinton, MA

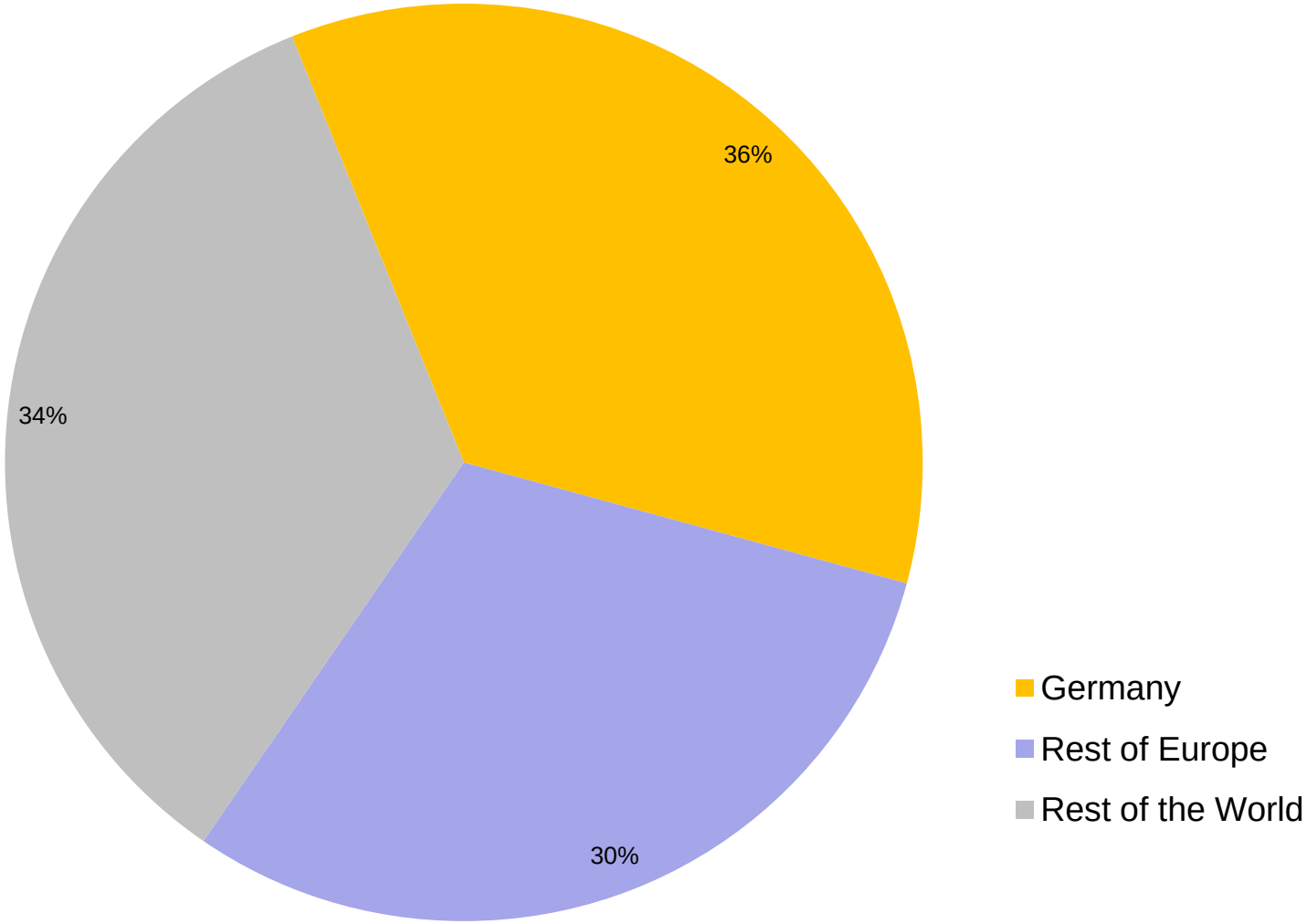
Polytec Ltd.
Harpenden

Polytec SAS
Châtillon

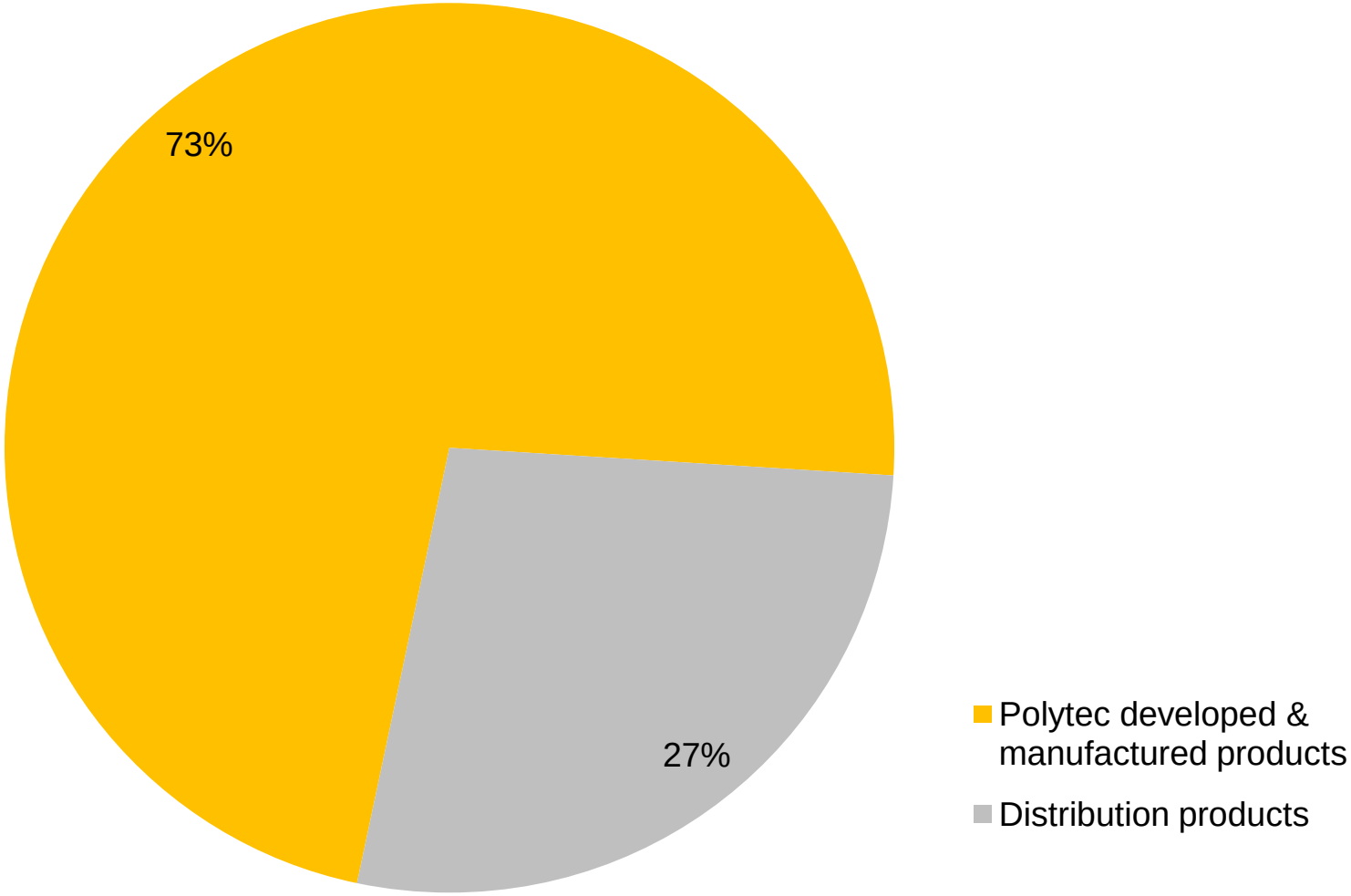
Polytec South-East Asia Pte. Ltd.
Singapore

Polytec Japan
Yokohama

Sales Worldwide by Regions



Sales Worldwide by Product Groups

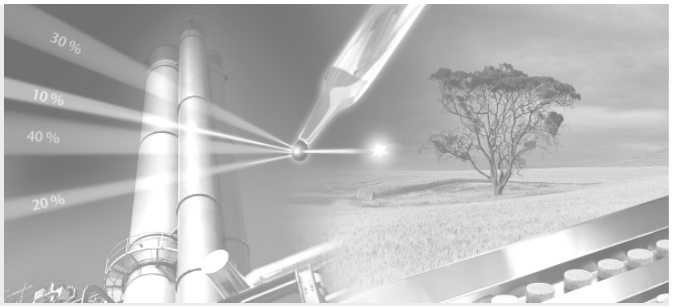


Business Units

Polytec

Optical Measurement Systems

Analytics



Photonics

Optical Measurement Systems

Just Point and Measure

Laser Doppler Vibrometer

Non-contact, Optical
Vibration Measurement

Higher Quality, Faster Processes, Lower Costs

Laser Surface Velocimeter

Industrial Length and Speed Control

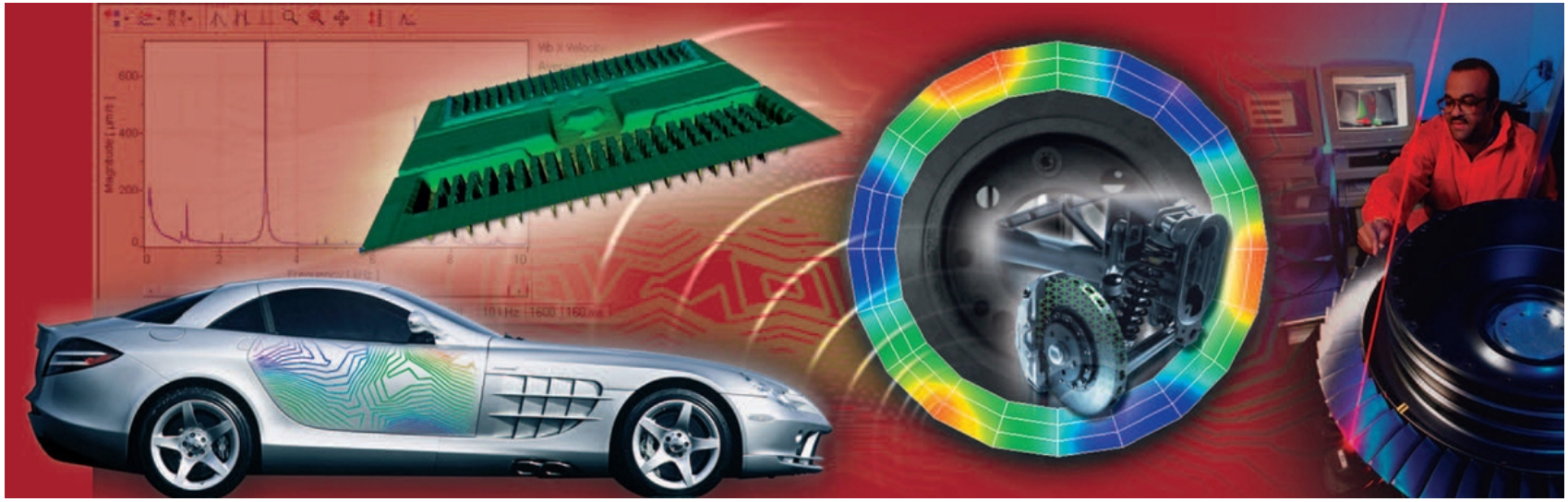
Rapid, Non-contact, Large Area

Surface Metrology

Surface Topography such as
Flatness, Parallelism and Ripple

Laser Doppler Vibrometry

Intro



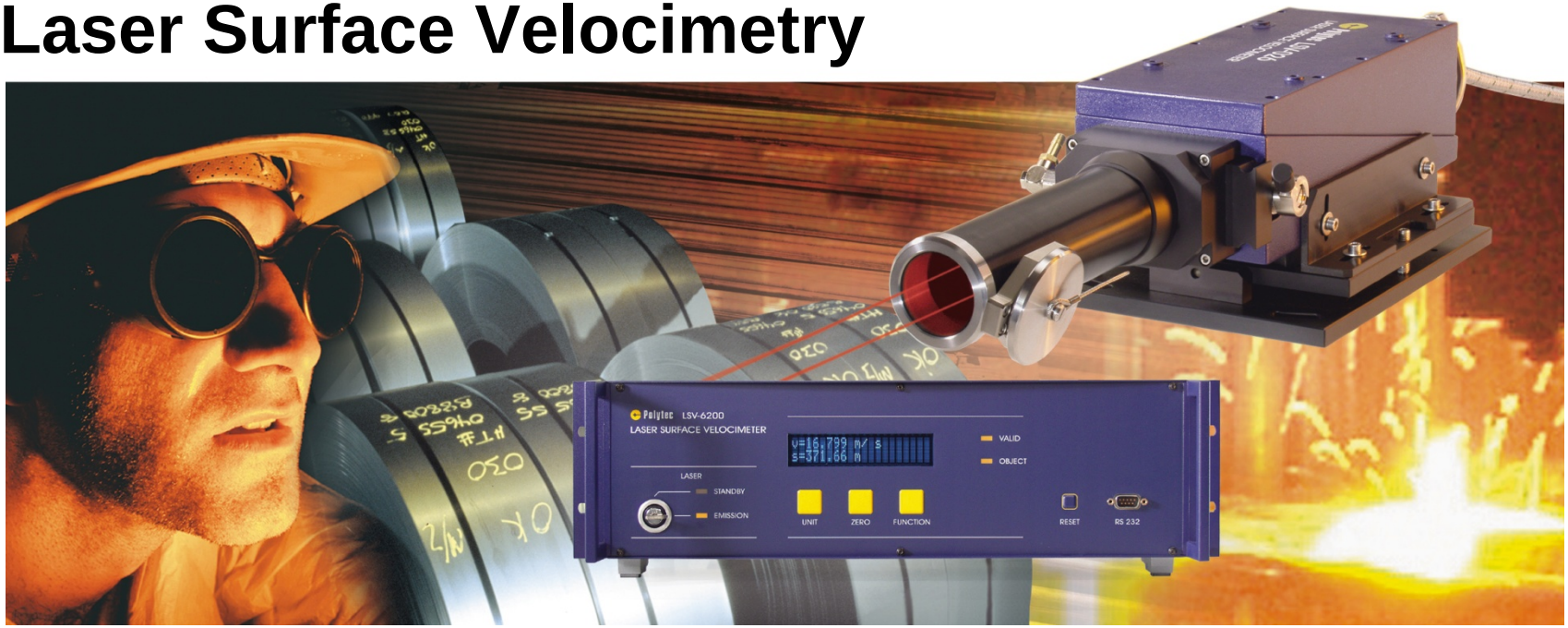
Non-contact vibration measurement

- Single-point or full-field scanning
- Out-of-plane or 3-D components
- Macro- und microstructures
- R&D and production environments
- Up to 1,2 GHz

Typical Applications

- Automotive
- Aerospace
- Data Storage
- Microstructures
- Transportation
- Engineering
- Audio und Acoustics
- Biology und Medicine

Laser Surface Velocimetry



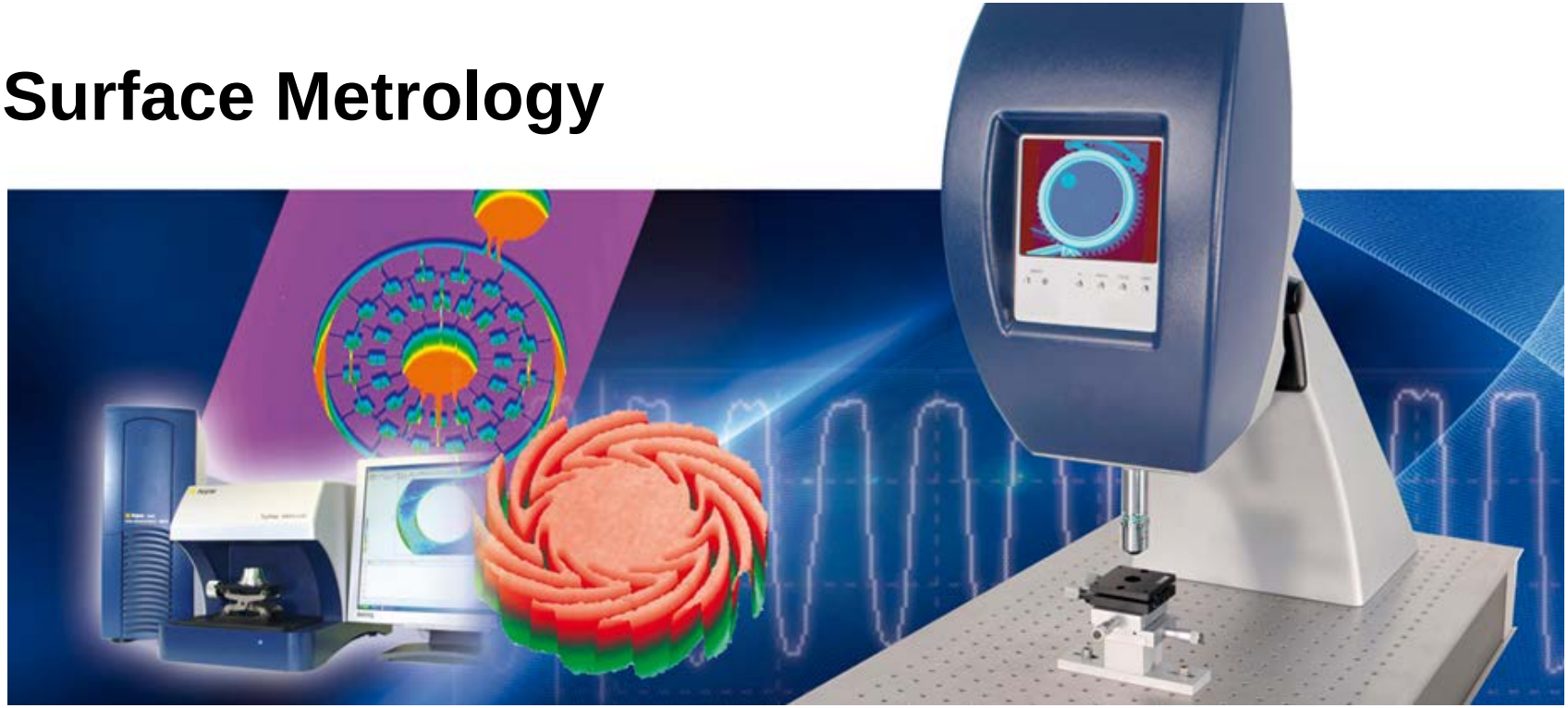
Measuring Length and Speed

- Non-contact and precisely
- In hostile environments
- At large working distances
- Flexible process integration

Typical Applications

- Length/speed measurements in hot and cold rolling mills
- Online control of continuous casters
- Cut-to-length control of billets/slabs, plates, tubes, profiles, etc.

Surface Metrology

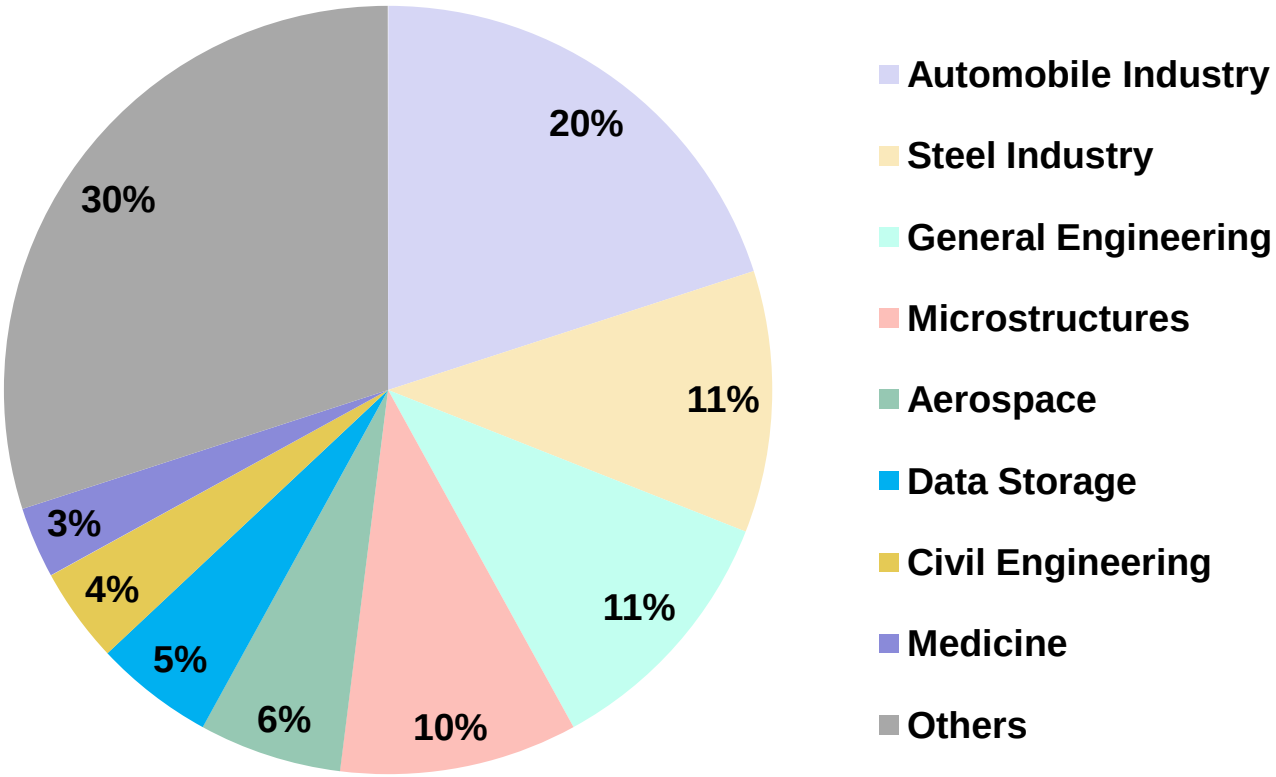


- Optical topography and flatness measurements
- Large Z dynamic range,
  10 nm Z resolution, large fields of view

Typical Applications

- Verifying product part specifications
- Industrial quality and process control

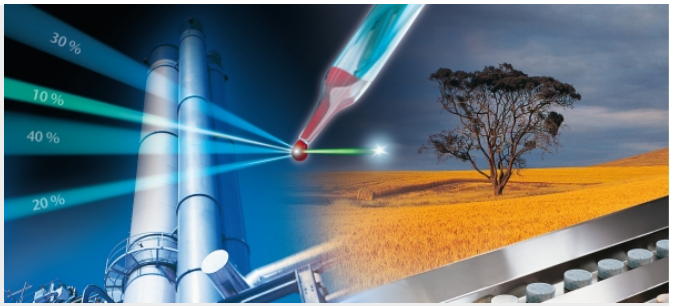
Important Markets & Applications Areas



Business Units

Optical Measurement Systems

Analytics



Photonics

Improved Quality and Reduced Costs

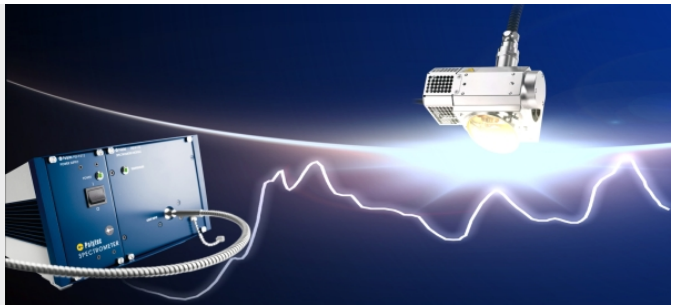
Process Analytics

For Incoming Goods Inspection, Process Monitoring and Final Quality Control

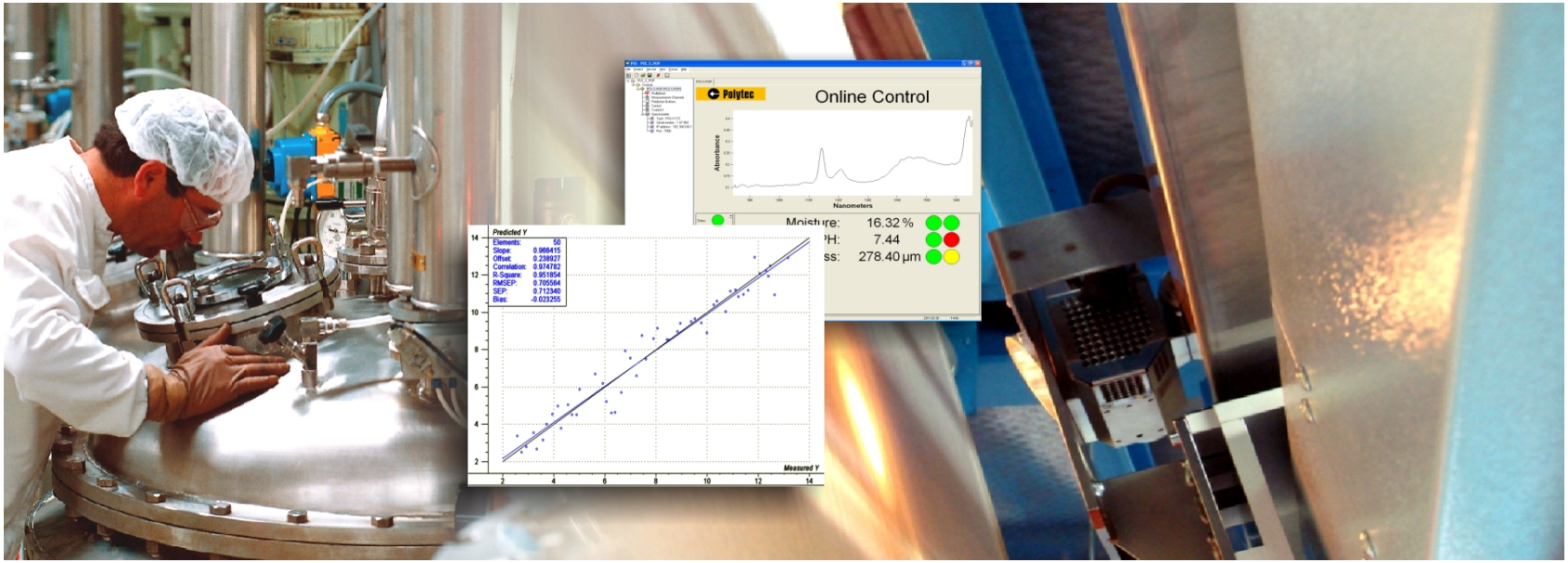
Straight and Modular

Spectroscopy

Application Specific Configurations from Standardized System Components



Process Analytics



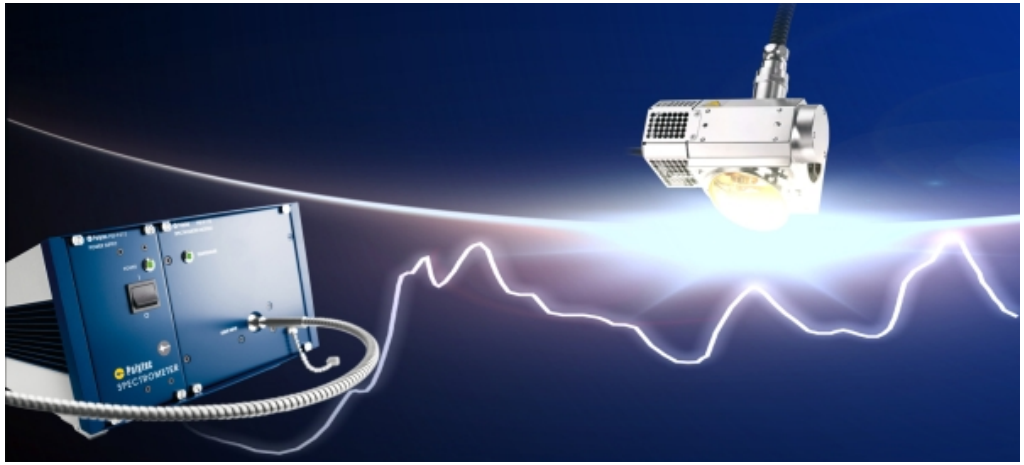
Quality or Identity Control

- Incoming goods inspection
- Process control
- Product inspection

Applications

- Quantitative analysis
- Qualitative analysis
- Layer thickness
- Particle size

Spectroscopy



Modular NIR-Spectrometer Systems
for Fast and Precise Online Analysis

- Paper webs
- Bulk materials
- Liquids / compounds
- Gases

High End Components
for OEM Integration

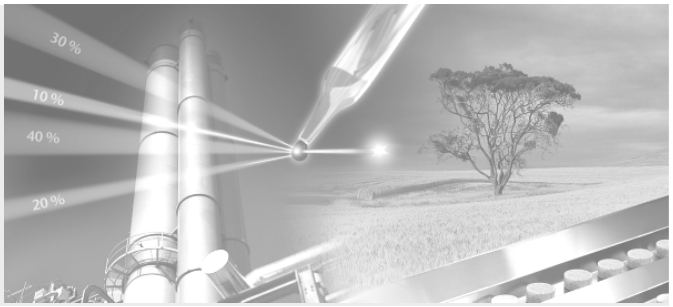
- Transmission grating polychromators
- Electric components
- Automated accessories

Business Units

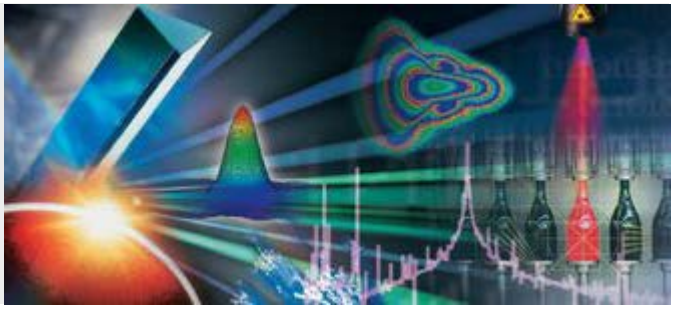
Polytec

Optical Measurement Systems

Analytics



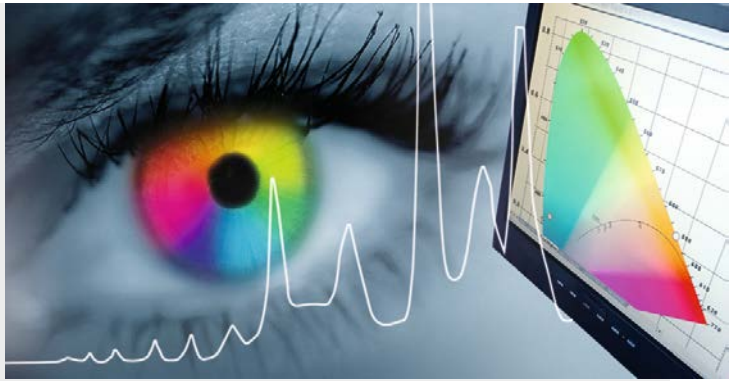
Photonics



Products - Consulting - Service

Optical Technologies

In the field of Radiation Measurement Systems, Sensor Technology, Spectroscopy, Telecommunication, Laser Technology and Semiconductor Metrology

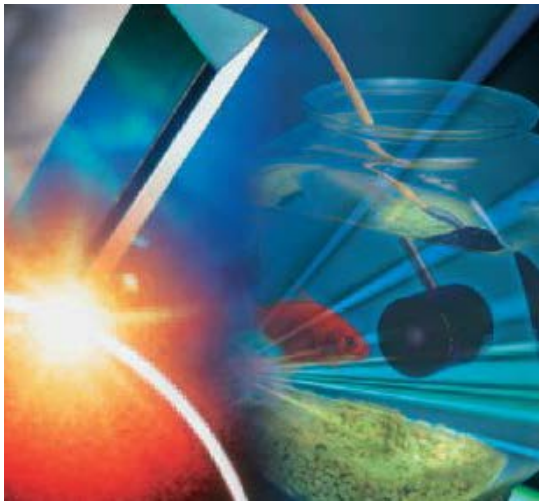


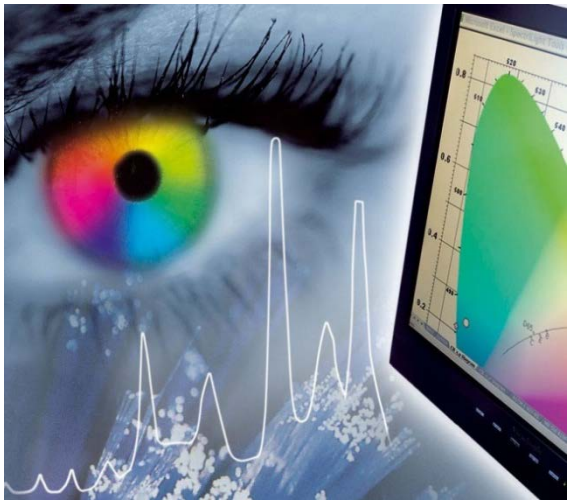
Components - Systems - Solutions

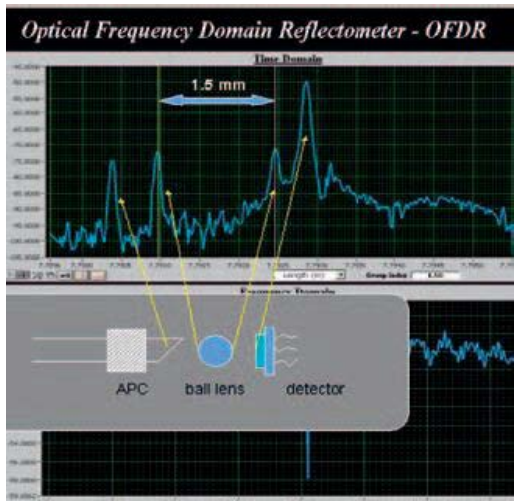
Machine Vision

For Industry, Research and Development

Optical Technologies



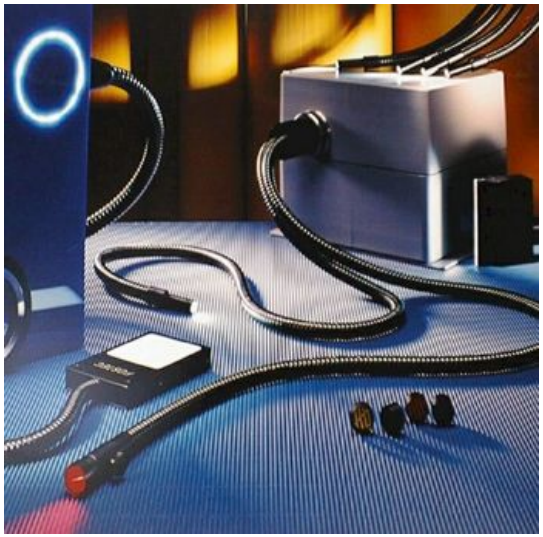


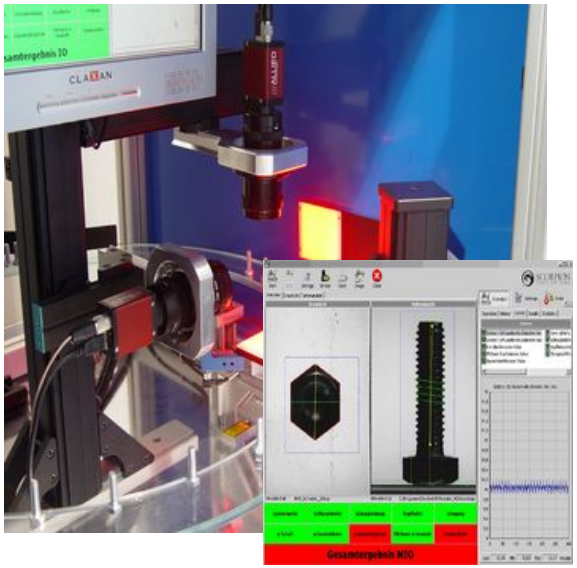


Components and Systems

- Laser and laser systems
- Laser accessories and components
- Special lamps and light sources
- Light measurement
- Spectral and imaging systems
- Electro-optical test systems
- Detectors / receivers
- NIR cameras
- Optical telecommunication
- Fiber optic sensing
- Photovoltaics and semiconductor metrology

Machine Vision





Components and Solutions

- Fiberoptic illumination
- LED illumination
- Lenses
- Matrix cameras
- Line scan cameras
- High-speed cameras
- Filters
- Vision software
- Vision packages with configurable software
- Enclosures for cameras and lighting

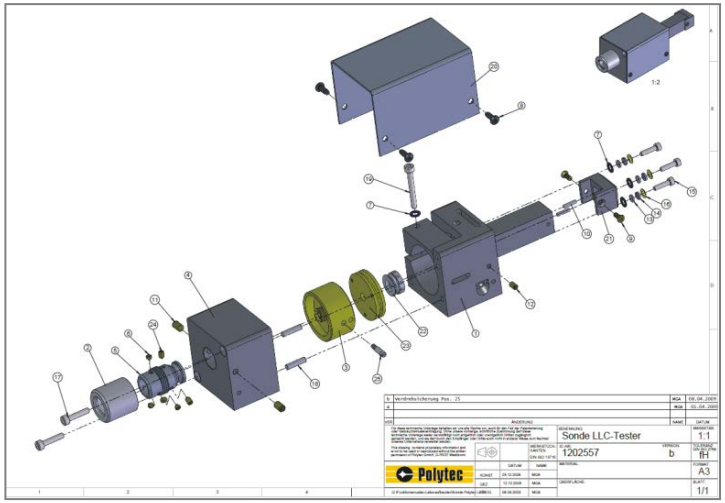
Research & Development

Manufacturing & Quality Control

Application Services

Customer Support / Service

Research & Development



Departments

- Engineering
- Electronics
- Optics
- Software
- Technical Documentation
- New Technologies

Domains

- Laser vibrometry
- Laser velocimetry
- Video microscopy
- NIR spectrometry
- Surface metrology
- Research projects

About 50 employees

Polytec

Partnerships with Institutes, Universities, Research Centers and Organizations

MEMS INDUSTRY GROUP®

MSTBW

Photonics BW
Kompetenznetz Optische Technologien

Fraunhofer

MAX-PLANCK-GESELLSCHAFT

KSOP
Karlsruhe School of Optics & Photonics

PTB Physikalisch-Technische Bundesanstalt

SPECTARIS
Verband der Hightech-Industrie

VDI

IVAM.

VDE Verband der Elektrotechnik Elektronik Informationstechnik e. V.

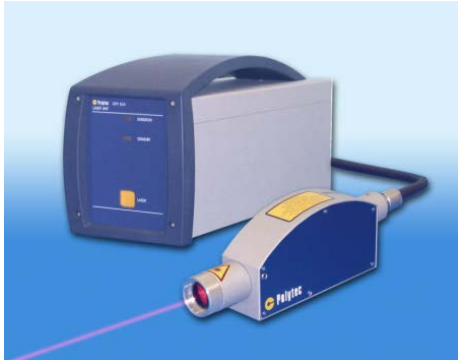
European Commission

DLR Deutsches Zentrum für Luft- und Raumfahrt e.V.

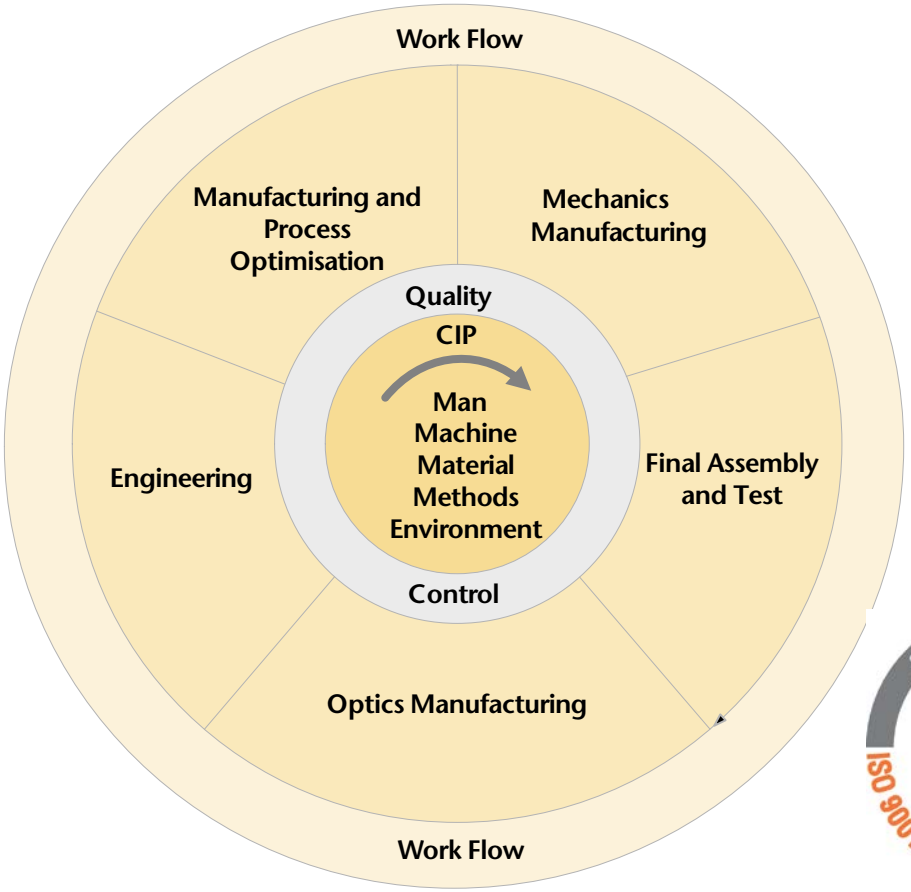
MEMUNITY
The MEMS Test Community

Universität Stuttgart

Manufacturing & Quality Control



CIP = Continuous Improvement Process



Certification in accordance with ISO 9001:2008

Use our application knowledge for your projects!
We offer:

- **Measurement services**
  - On-site our in your labs
  - By experienced application engineers
  - With the most suitable and up-to-date vibrometry measurement systems
- **System rental**
- **Training and educational seminars**
  - Regular seminars on applications of vibrometry and the optimal use of vibrometers at the Polytec offices
  - Customized training at your site for your specific application

Customer Support / Service

We support our customers worldwide with:

- Well-trained service specialists and additional know-how of the Polytec service engineers and research scientists in the specific technologies of interest (optics, electronics, software)
- Repair and calibration at local service centers or on-site at customer facilities
- Global network of service sites
- Hardware and software service contracts
- A service hotline for prompt phone support