

PRECISION IN MEASUREMENT



## Überblick und Produktportfolio

SIOS Experten-Tag 2023

Dr. Denis Dontsov  
Geschäftsführer

# About SIOS



## Headquarter

in the **centre of Germany/Ilmenau**  
all key processes are  
at one location



## Experience

over **31 years of experience** and  
know-how in the development and  
production of laser interferometer



## Reference

**renowned companies** in the field  
of metrology, semiconductor  
industry and research



## Core Business

- standard products
- customized products
- OEM products

# International Representatives

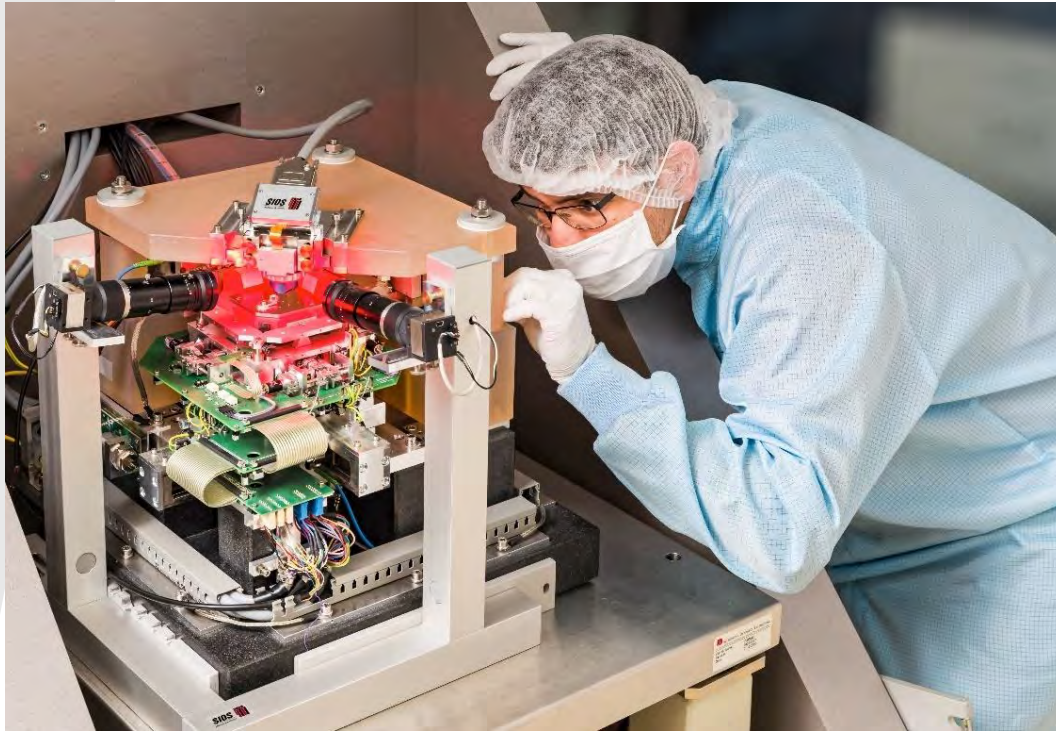


**23 representatives**  
in 30 countries

**PRECISION & QUALITY**  
MADE IN GERMANY

# The Best of Two Worlds

## Scientific Competence

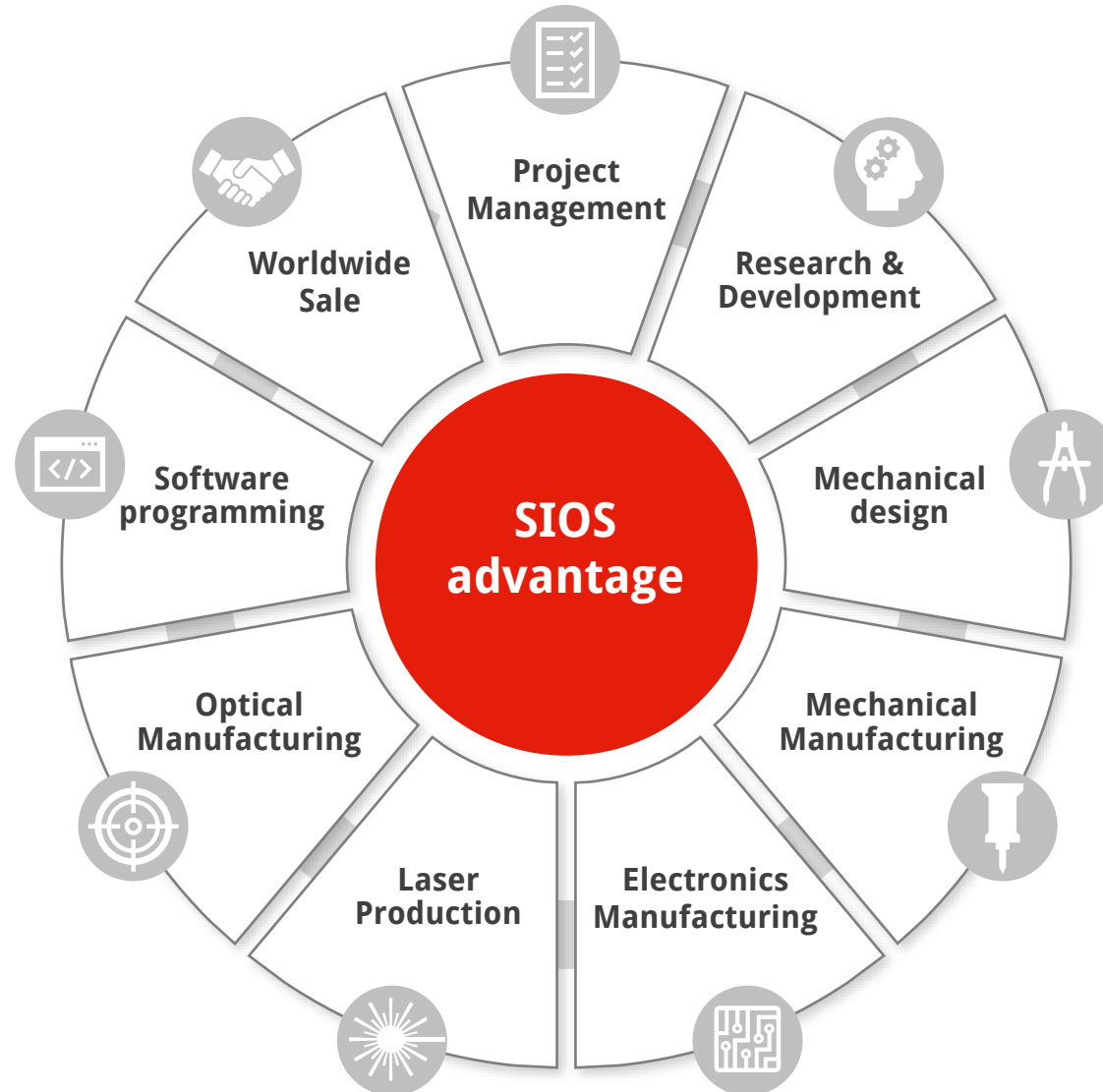


## Industrial Performance



The main focus is the development of high precision laser interferometers for **length, angle, straightness** and **vibration** measurement as well as **temperature** measuring systems

# All Key Processes at One Location



# Multipurpose Interferometer Family



**SP 5000 NG**

- high-precision length measurement
- easy to align
- single-beam



**SP 5000 TR**

- simultaneous measurements of length, and angles
- Abbe-error calculation
- triple-beam



**SP 5000 DI/F**

- extremely long term stable
- differential principle
- best for feedback control
- length measurement
- angle measurements



**LSV NG**

- high resolution
- non-contact vibration analysis
- surfaces of any roughness

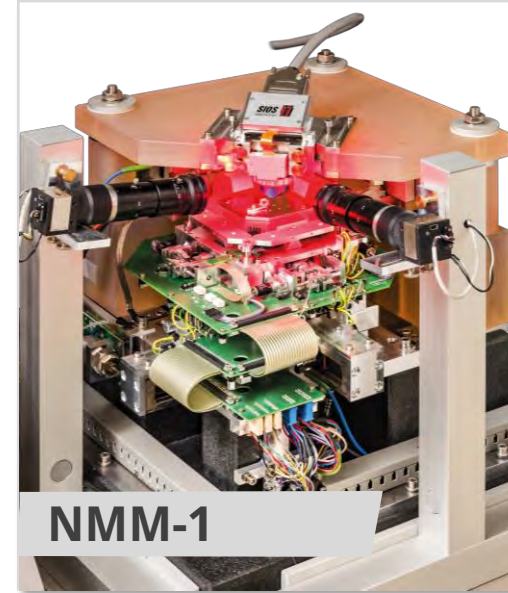
# Our Solutions for Your Applications



Laser interferometer for high-precision simultaneous measurement and calibration of **length, pitch angle, yaw angle and straightness** on positioning axes



**Frequency stabilized He-Ne lasers** as measuring technology and as frequency standard



**Nanopositioning and nanomeasuring** machine for high resolution and high accuracy measurements



**Tactile thickness measurement** and calibration, based on laserinterferometric gauging probe LM20 or LM50

# Vibration Measurement Systems



laser vibrometer with internal **fixed focus** lens



laser vibrometer with external **changeable fixed focus** lens



laser vibrometer with **variable focus** lengths



nano vibration analyzer **microscope setup** or portal setup



# Multiple Beam Systems Development Chain

## SP 2000 TR

Triple beam  
interferometer



## SP 15000 C5

Multiple beam  
5 DOF measuring  
interferometer



## SP 5000 TR

Triple beam  
interferometer  
with alignment unit



## SP 15000 C6 NG

Multiple beam  
6 DOF measuring  
interferometer

# Differential Systems Development Chain

## SP 2000 DS

Dual beam differential interferometer



## SP 5000 DI/F

Dual beam common path differential interferometer for feedback applications



## SP 2000 DI

Dual beam common path differential interferometer



## SP 5000 TR-DI

Multiple beam common path differential interferometer for feedback applications