Introduction to ZEISS Group
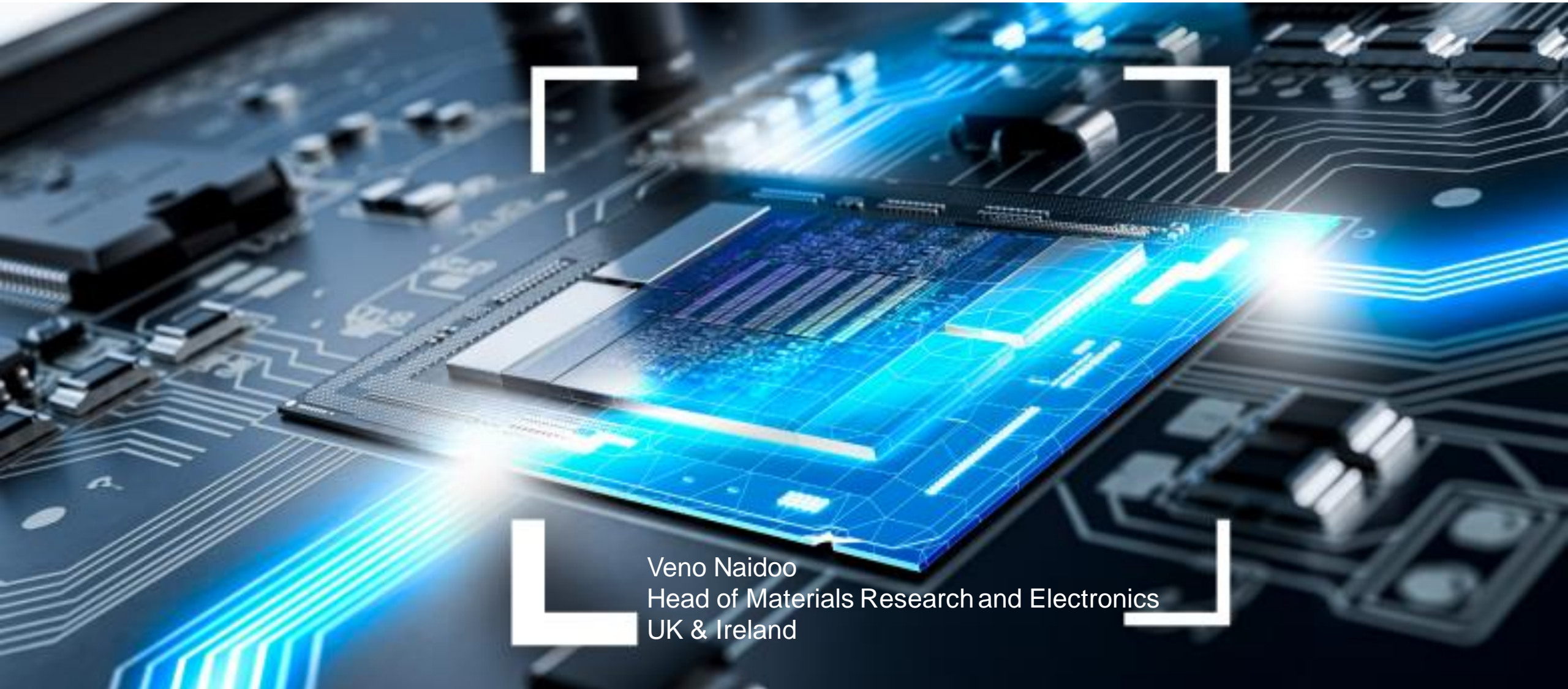
Veno Naidoo
Head of Materials Research and Electronics
UK & Ireland

ZEISS Organization

Segments
of the ZEISS Group

Semiconductor Manufacturing Technology

- Semiconductor Manufacturing Optics
- Semiconductor Mask Solutions
- Process Control Solutions

Industrial Quality & Research

- Industrial Quality Solutions
- Research Microscopy Solutions

Medical Technology

- Ophthalmic Devices
- Microsurgery

Consumer Markets

- Vision Care
- Consumer Products

ZEISS locations in numbers

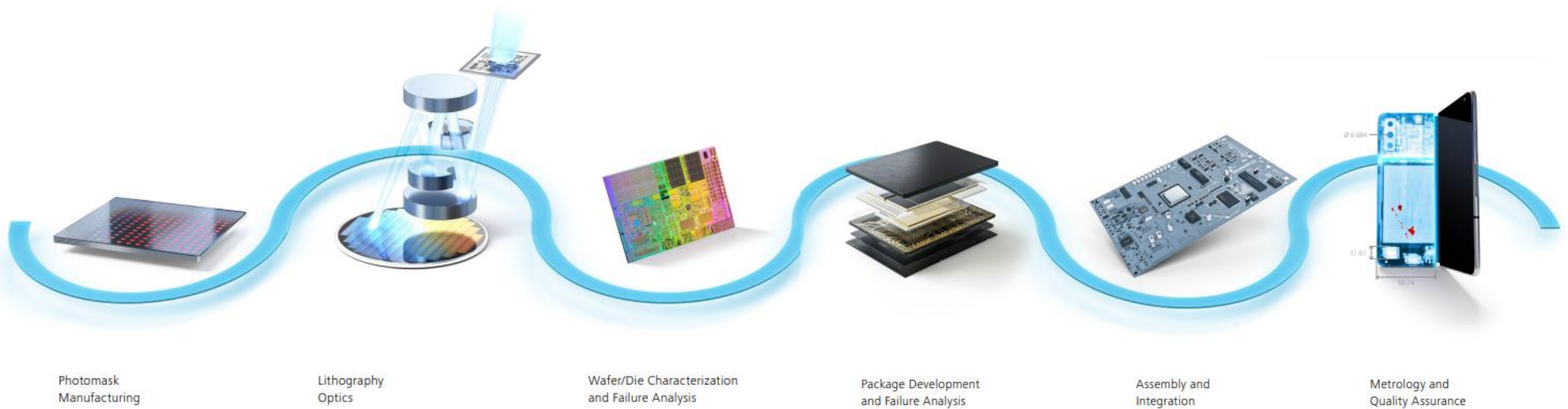| 50	100	30
represented in around 50 countries	more than 100 locations worldwide	around 30 research and development sites

ZEISS Solutions
for Semiconductor Development, Manufacturing and Analysis

Photomask
Manufacturing

Lithography
Optics

Wafer/Die Characterization
and Failure Analysis

Package Development
and Failure Analysis

Assembly and
Integration

Metrology and
Quality Assurance

Photomask Solutions

ZEISS PROVE
Photomask metrology

Measures image placement with sub-nanometer repeatability and accuracy. Pattern generator calibration, mask process control, and in-die metrology.

ZEISS MeRiT
Photomask repair

Single-platform opaque and clear defect repair on all photomask materials with top precision. Superior resolution and accuracy, no contamination.

ZEISS ForTune
Photomask tuning

Meets tightest mask registration specifications, achieving high yields, preventing excursion, and reducing process defect probability on wafer.

ZEISS AIMS
Aerial image measurement

Unique system for performing defect review, printability analysis, and repair verification on current and future photomask generations.

Wafer/Die Characterization, Package Development, Failure Analysis, Assembly & Integration

Electron Microscopy Solutions

ZEISS EVO
Conventional SEM for failure analysis and quality analysis

Routine inspection and failure analysis of PCBs, passive components, and modules.

ZEISS Sigma
Mid-range FE-SEM for failure analysis and inspection

Offers excellent user experience and higher productivity. Enhanced resolution at low voltages. Acquire analytical data twice as fast and with added precision.

ZEISS GeminiSEM
FE-SEM for highest demands in imaging and analytics

Easy imaging with sub-nanometer resolution and high detection efficiency. Ideal for nanoprobing and characterization of materials requiring low voltages.

ZEISS Crossbeam
FIB-SEM for high-throughput sample preparation

High-res sample preparation, imaging, and analytics. Unique workflows for 2D and 3D devices. Failure analysis turnaround in hours with fs laser integration.

Wafer/Die Characterization, Package Development, Failure Analysis, Assembly & Integration

Light Microscopy Solutions

ZEISS Stemi Stereo Microscopes
Routine inspection made easy

Inspection of PCBs and electronic components for quality assurance and failure analysis with large field of view and up to 50x magnification.

ZEISS Visioner 1
Digital microscope with revolutionary technology

100x more usable depth of focus for visualization of the PCB assembly and electronic components. All in focus, every time.

ZEISS LSM 900 Mat
Confocal laser scanning for 3D surface analysis

Inspection of surface roughness and 3D profiling on wafers, PCBs, and electronic components for inspection, quality assurance, and failure analysis.

ZEISS Axio Imager Vario
Wafer inspection with best-in-class optics

Modular platform for inspecting wafers up to 300 mm and large PCBs. Upgradable hardware and software modules for diverse inspection capabilities.

Wafer/Die Characterization, Package Development, Failure Analysis, Assembly & Integration

X-ray Microscopy Solutions

ZEISS BOSELLO
Robust defect detection

Automated or manual non-destructive 2D X-ray inspection for high productivity, quick loading and unloading, fast cycle times, and flexible applications.

ZEISS METROTOM
Handles entire components

Quality assurance with a single 3D computed tomography scan. Standard acceptance test, precision engineering, and sophisticated calibration for system traceability.

ZEISS Xradia Context
High-end microCT for packaging and components

Failure analysis and 3D inspection with high-quality imaging and upgradable modular platform.
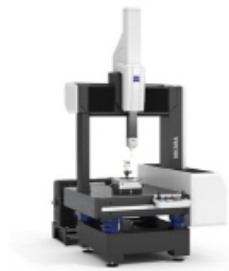
ZEISS Xradia Versa
Industry-leading resolution and contrast

Outstanding failure analysis for semiconductor packaging. 3D X-ray imaging extends the limits of resolution and contrast.
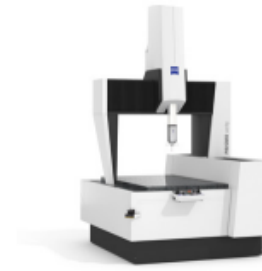
Metrology and Quality Assurance

CMMs and Metrology Solutions

ZEISS MICURA
Top precision for small parts

Ideal for meeting increasing accuracy requirements. Particularly suited to complex and compact components with tight tolerances.

ZEISS PRISMO
When precision matters the most

High-speed scanning with maximum accuracy in the measuring lab, full compliance with ISO quality standards, and no compromise on precision.

ZEISS CONTURA
Prepared for all challenges – today and tomorrow

Ideal for versatile measuring tasks thanks to mass technology, which allows tactile and optical sensors to be used on the same system.
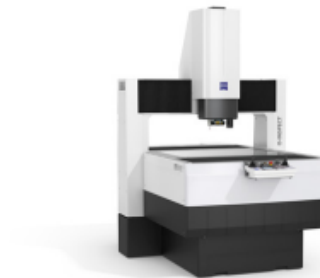
ZEISS O-INSPECT
Expert in every discipline

For components requiring tactile precision plus an optical solution for surface-sensitive sections. Optimally measures each characteristic every time.

Software Solutions

Software and Digital Solutions

ZEISS ZEN core
Software suite for connected microscopy

From materials lab to production: the most comprehensive suite of imaging, segmentation, analysis, and data connectivity tools for multi-modal microscopy.
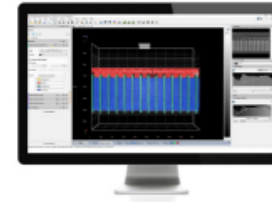
ZEISS arivis
Comprehensive image analysis platform

Family of software products for multi-modal, multi-dimensional microscopy data that integrates and connects all image analysis pipelines.

ZEISS Quality Suite
Platform for metrology software and much more

Single-platform access to our 3D software. Read news articles, book extensive software training courses, and find add-ons for your metrology software.
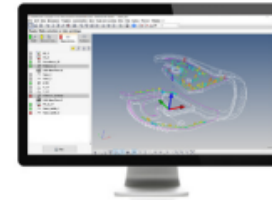
ZEISS CALYPSO
All-round software for dimensional metrology

Quick, simple, and reliable measurement of geometrical elements. Combines with ZEISS measuring systems and sensors for a powerful one-stop solution.