Investor day 2022

Welcome

Financial summary

- **Revenue growth of 21% to £492.4m**

  - Record level of demand as key market sectors continue to recover and semiconductor and electronics remain strong

  - Strong growth in all regions, continuing the trend seen in H1

- **Adjusted profit before tax increases by 47% to £124.0m**

  - Cost pressures continuing with certain operating costs increasing in Q3, including labour and utilities

  - Previous cost base reductions and productivity increases support improved operating margins

  - Return on sales increased to 25% (2021: 21%)

  - Q3 includes £2m of asset impairment for our Russia operation

- **End of period cash and bank deposits rise to £241.1m**

  - Cash generation of £19m in Q3, reflecting strong trading offset by increased capital spend and inventory growth to support demand

Key metrics

	2022 Q3 £m	2021 Q3 £m	Change %
Revenue	492.4	407.4	21%
Adjusted profit before tax	124.0	84.4	47%
Statutory profit before tax	120.2	106.3	13%
End of period cash and bank deposits	241.1	197.3	22%

Regional revenue

	2022 Q3 £m	2021 Q3 £m	Change %
Americas	105.6	86.9	22%
APAC	238.3	199.3	20%
EMEA	149.5	121.2	23%

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Outlook

- Our markets are currently performing strongly, we expect demand from the semiconductor and electronics sectors to remain strong.

- We expect full year revenue to be in the range of **£655m** to **£675m**.

- Adjusted profit before tax is expected to be in the range of **£155m** to **£170m**.

Full year range

		2022 Q3 YTD £m	2022 Q4 £m	**FY 2022 £m**	YoY growth
Revenue	Lower	492	163	**655**	16%
	Upper		183	**675**	19%
Adjusted profit before tax	Lower	124	31	**155**	29%
	Upper		46	**170**	42%

Workshop: Financials including Q3 overview

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Transforming Tomorrow Together

We make it possible to create the products, materials and therapies that will define our world in the decades to come and touch billions of lives
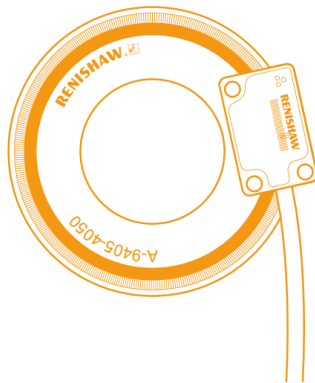
Manufacturing technologies

Industrial Metrology

Position Measurement
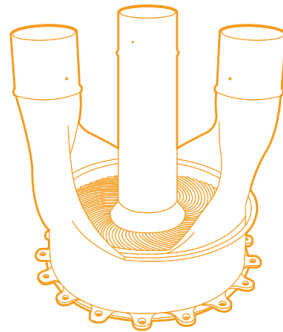
Additive Manufacturing

Analytical instruments and medical devices

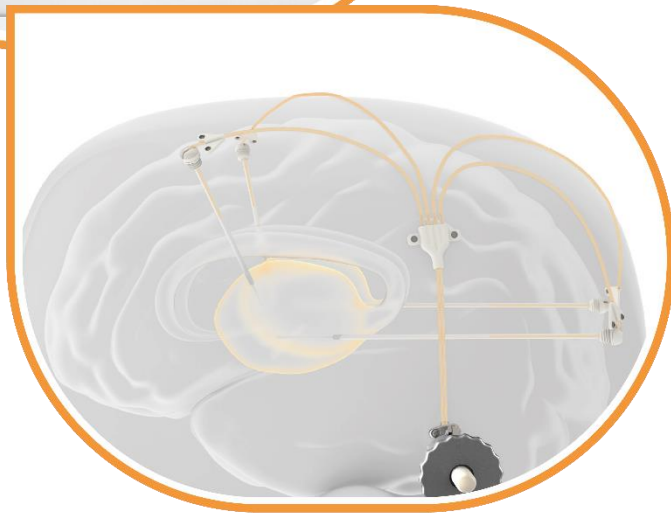Spectroscopy

Neurological

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Analytical instruments and Medical devices
Overview

Product/Commercial strategies

Spectroscopy

- Expanding into new markets beyond the laboratory with portable products for remote sample analysis, including production environments for process monitoring (e.g. Virsa™ fibre-fed spectrometer)

- Easy to use, compact bench top systems for dedicated application areas such as early disease detection and pharmaceutical quality control (e.g. RA816 and RA802 Analysers)

Neurological

- Developing a common platform for drug delivery and deep brain stimulation (DBS)

- Focused on strategic growth opportunities supporting pharma companies with trials for their candidate drugs, using our drug delivery system

Both businesses operate as independent units reflecting the technology and market differences compared to our Manufacturing technologies business
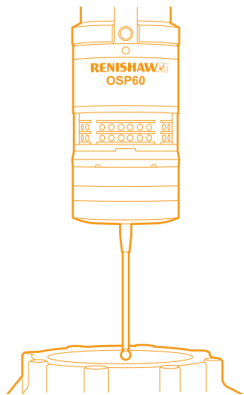
RENISHAW®
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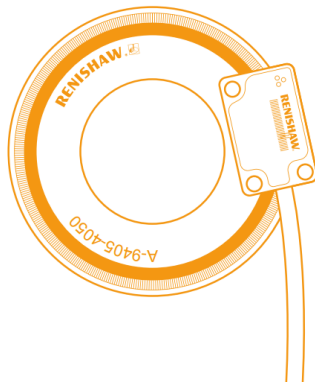
Manufacturing technologies
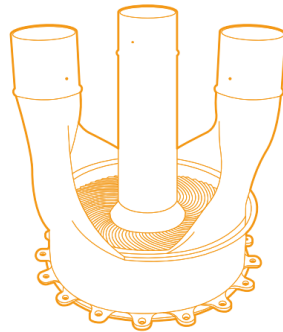
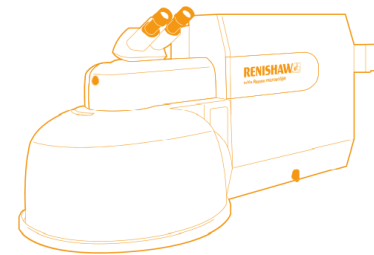## Analytical instruments and medical devices

Industrial Metrology

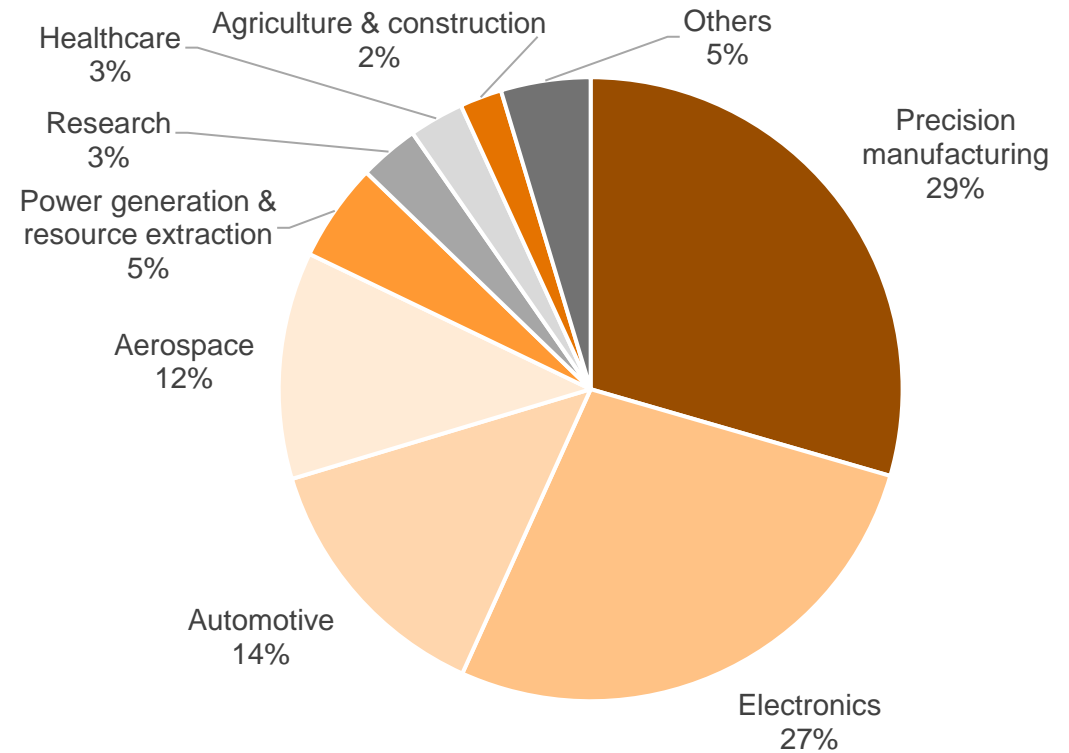Position Measurement

Additive Manufacturing

Spectroscopy

Neurological

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Manufacturing Technologies
Transforming Tomorrow Together

End market overview[1]

Precision manufacturing 29%

Electronics 27%

Automotive 14%

Aerospace 12%

Power generation & resource extraction 5%

Research 3%

Healthcare 3%

Agriculture & construction 2%

Others 5%

Workshop: Markets overview

Notes
1. End market overview is an unaudited management estimate with majority of sales being indirect (through machine builders, distributors etc).

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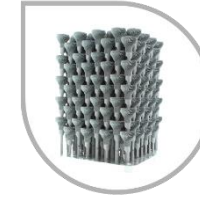
Manufacturing Technologies
Transforming Tomorrow Together

What will tomorrow look like?

Sustainable
Renewable energy, recycling and reuse, 'net zero' transport

High-performance
Complex and efficient products, delivering more with less
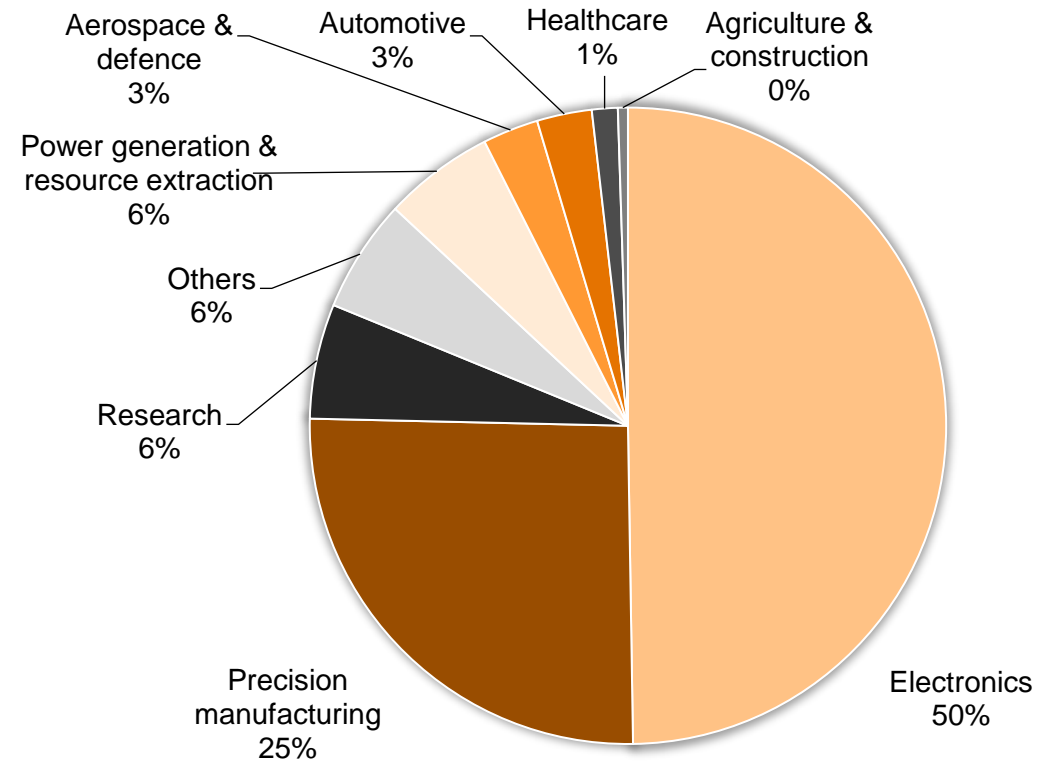
Intelligent
Electronics, sensors, 'big data' and artificial intelligence

Global industrial trends:

- Global skills shortages and rising labour costs – increased investments in automation, robotics and ease-of-use technology
- Net Zero commitments – demand for products that maximise efficiencies, enable lightweight parts and minimise waste
- Industry 4.0/smart factories – demand for more digitalisation and data to inform manufacturing processes
- Near-shoring and re-shoring – competitive manufacturing in high-cost labour markets requires automation and robotics

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Manufacturing Technologies – Position Measurement
Overview

End market overview[1]

Pie chart – End market overview:
- Electronics 50%
- Precision manufacturing 25%
- Research 6%
- Others 6%
- Power generation & resource extraction 6%
- Aerospace & defence 3%
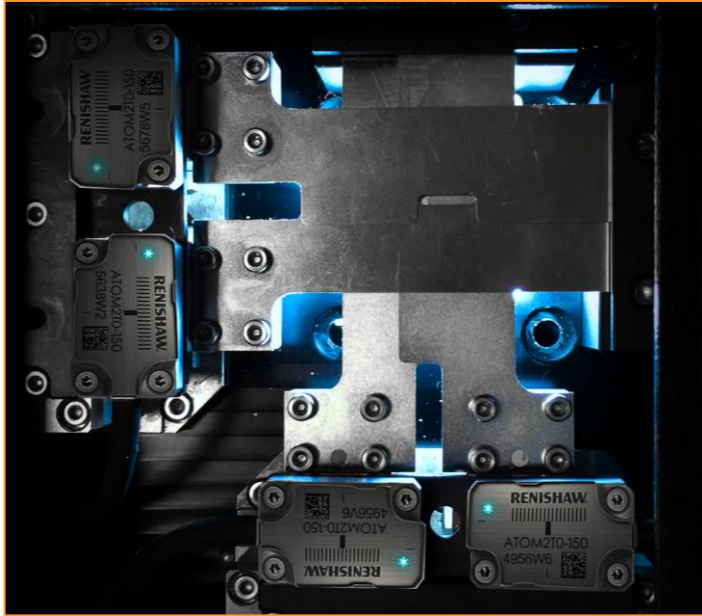- Automotive 3%
- Healthcare 1%
- Agriculture & construction 0%

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Manufacturing Technologies – Position Measurement
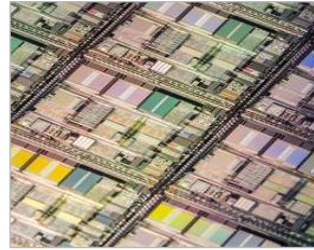## Semiconductor and electronics manufacturing

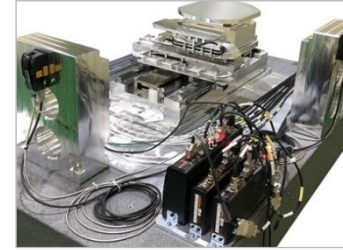Laser repair of flat panel display assemblies

High growth market

- Consumer electronics demand
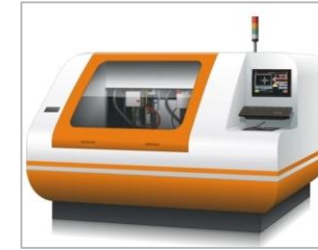- Enhanced automation
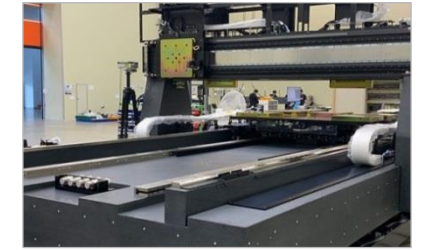- Reshoring of manufacturing
- Moore's law

Photolithography

Wafer inspection

PCB router

Flat panel inspection

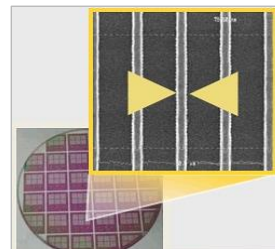**Application segment**

| Front-end semiconductor | Back-end semiconductor | PCB manufacture & test | Flat panel displays |

CD and DR SEM

Wafer handling

Wire bonding
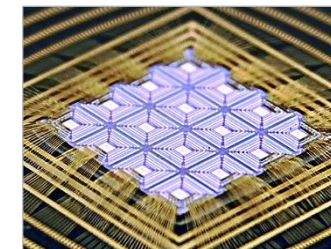
PCB testing

Semiconductor   Electronics

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Manufacturing Technologies – Position Measurement
How we win

Product Innovation

Manufacturing capability

Global customer support

A strong family of encoders
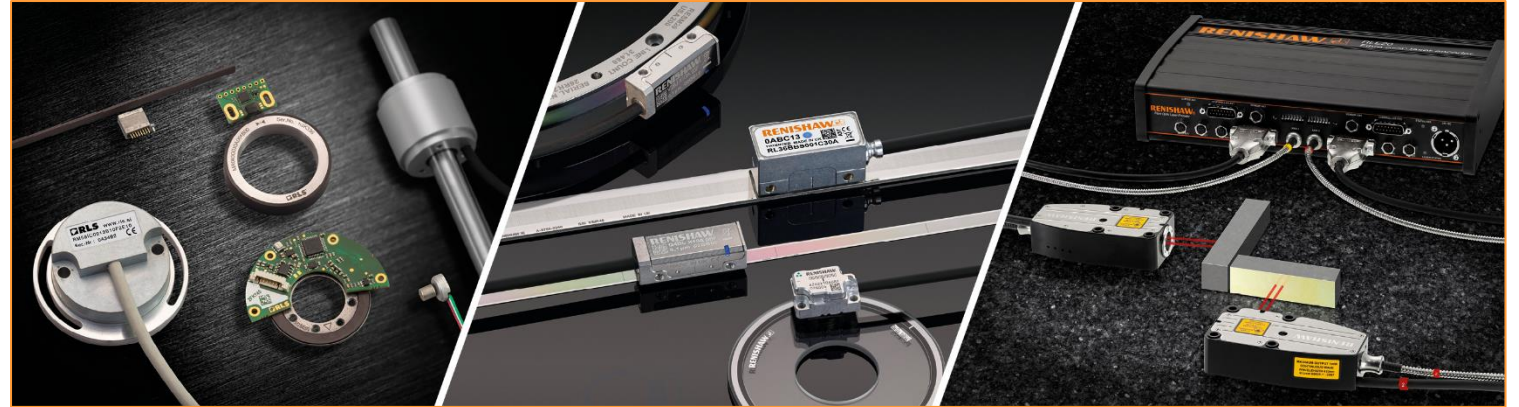
Development is through targeted research into new technology and adjacent markets

Key account capture

- Targeted relationship building over many years through strong local technical and commercial capabilities

- Well positioned to respond when opportunities arise

- Winning new business through superior technical products and ease-of-use, and the capability to deliver reliably

Workshop: Position Measurement commercial update
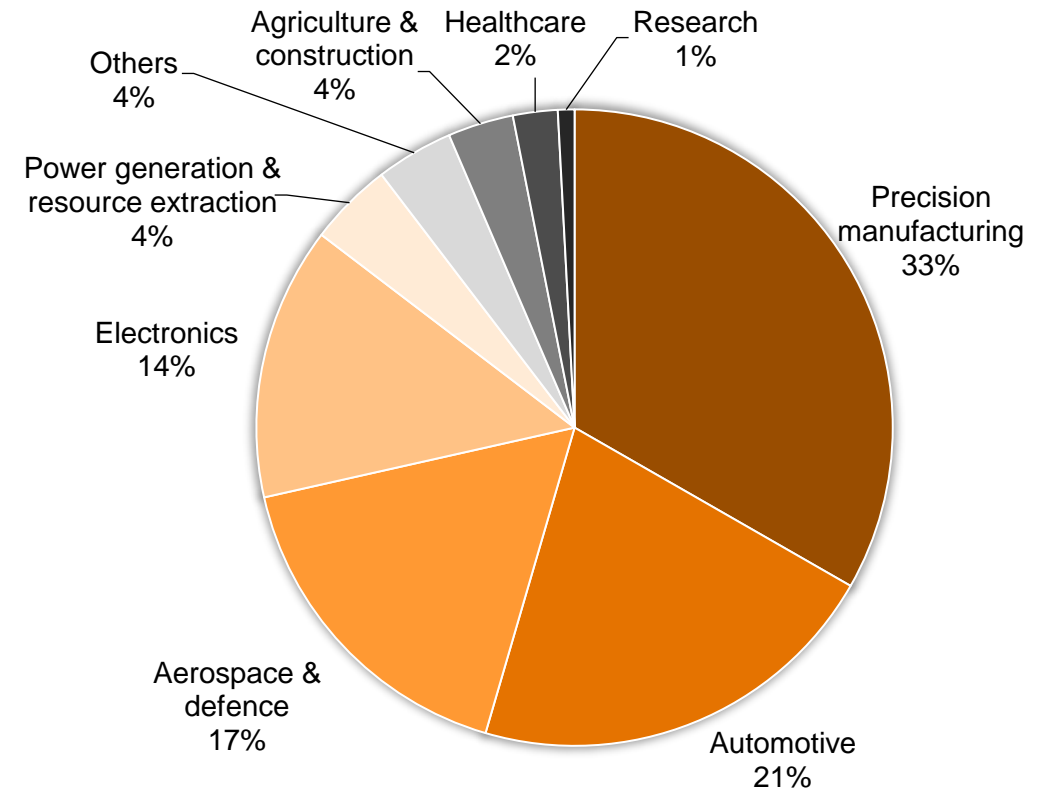
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Manufacturing Technologies – Industrial Metrology
Overview

End market overview[1]

Pie chart:
- Precision manufacturing 33%
- Automotive 21%
- Aerospace & defence 17%
- Electronics 14%
- Power generation & resource extraction 4%
- Others 4%
- Agriculture & construction 4%
- Healthcare 2%
- Research 1%

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Manufacturing Technologies – Industrial Metrology
Overview

$ Tight specifications and cost pressures facing manufacturers

Focus on shop floor, point of manufacture metrology

Process control capabilities allow productive, high precision automated manufacturing

High growth market

- Enhanced automation
- Autonomous factories

Shop-floor programming

Robot motion control

Automated gauging with intelligent process control

Multi-sensor part verification, fixtures for inspection on CMMs and gauges

In-cycle probing

Part and tool setting

Shop floor

Renishaw Central data connectivity

Machine calibration and health checks

Production control and analytics

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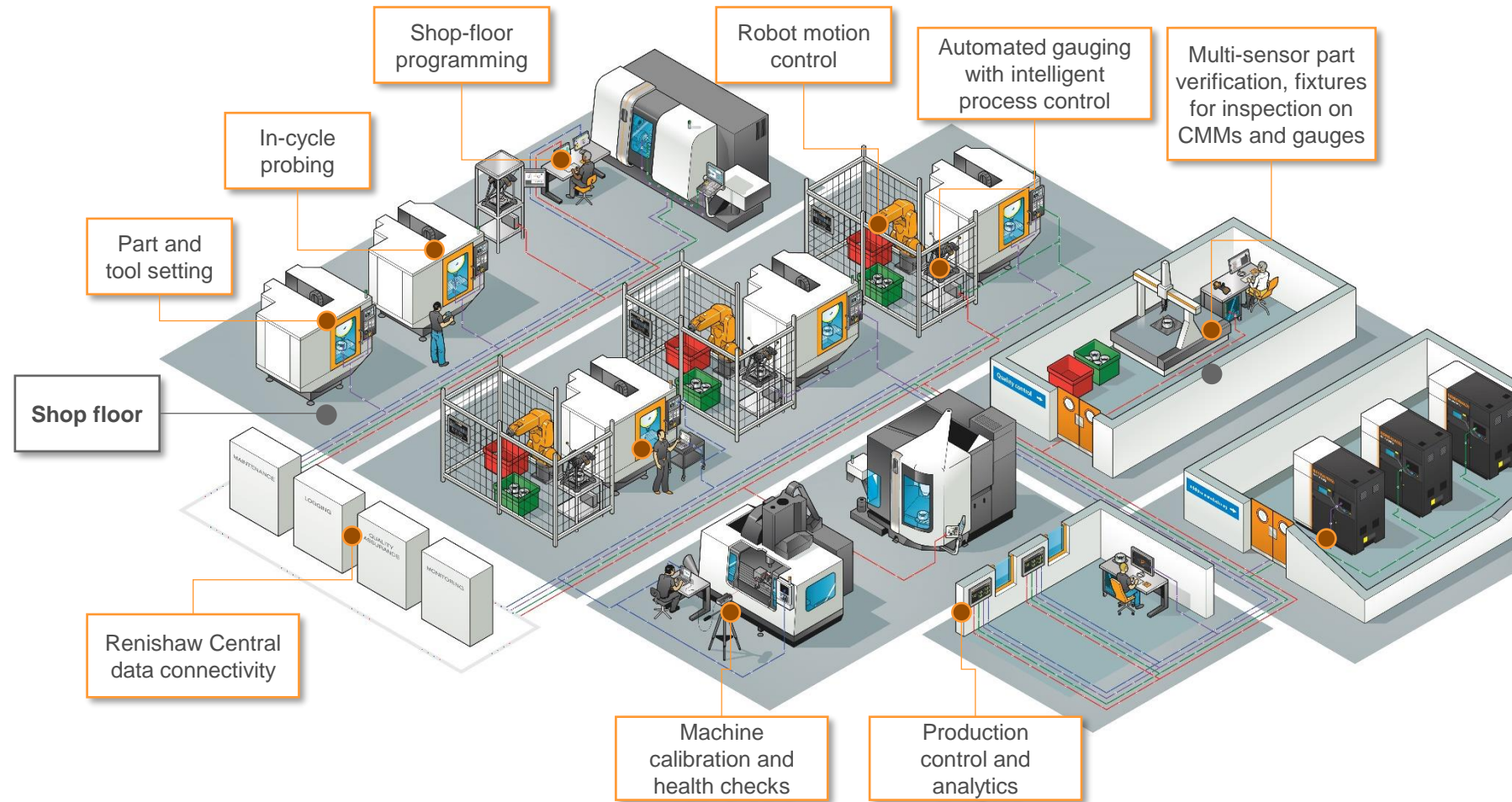
Manufacturing Technologies – Industrial Metrology
Global customer support

Global customer support includes all routes to market

Machine tool builders – global technical support

End user – machine tool retrofit capability increasing with new partners

End user – targeted key account strategies for Equator™ shop floor gauge and REVO® system solution sales

Collaboration with 3rd party software opening up new routes to market for Equator

Sales by channel (FY22)

Distribution 19%

Machine builders 55%

End user 26%

Route to market

Customer needs

RENISHAW apply innovation™ → **Machine builders** → **Distributor** → **End user**

Pull through demand

RENISHAW apply innovation™
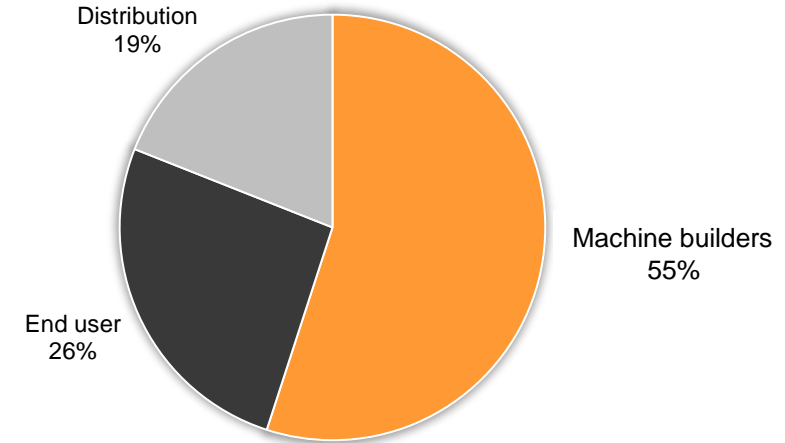
Manufacturing Technologies – Industrial Metrology
Product innovation

Precision
Accurate, intricate production processes, delivering higher product performance and sustainability
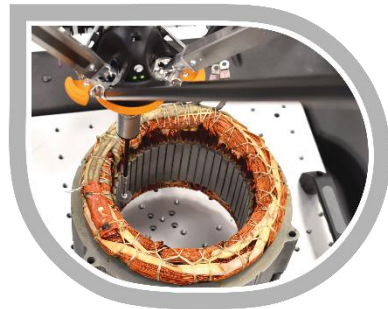
Productivity
Higher process yields, faster cycle times and more automation

Practicality
Easy-to-use solutions with embedded knowledge and data analytics

Continued investment in product innovation

Workshops: CMM/gauging and machine tool product line updates

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Manufacturing Technologies – Industrial Metrology
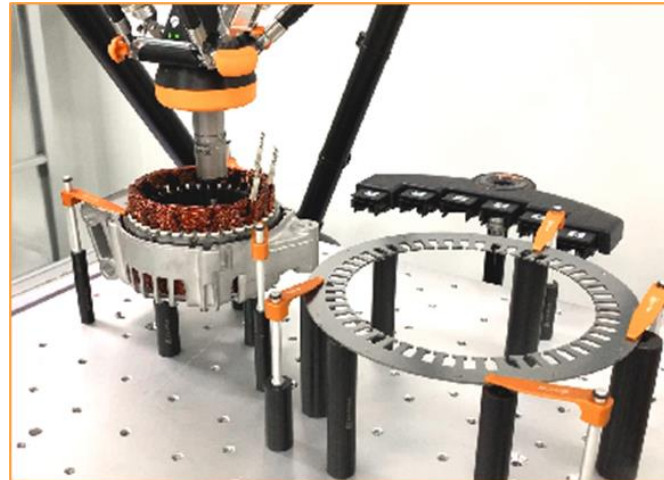## Process control and metrology data

New manufacturing connectivity platform – Renishaw CENTRAL

Consolidates manufacturing process and metrology data from all devices and uses data to update CNC controls

Shop-floor programming

Robot motion control

Automated gauging with intelligent process control

Multi-sensor part verification, fixtures for inspection on CMMs and gauges

In-cycle probing

Part and tool setting

Machine calibration and health checks

Production control and analytics

Additive manufacturing
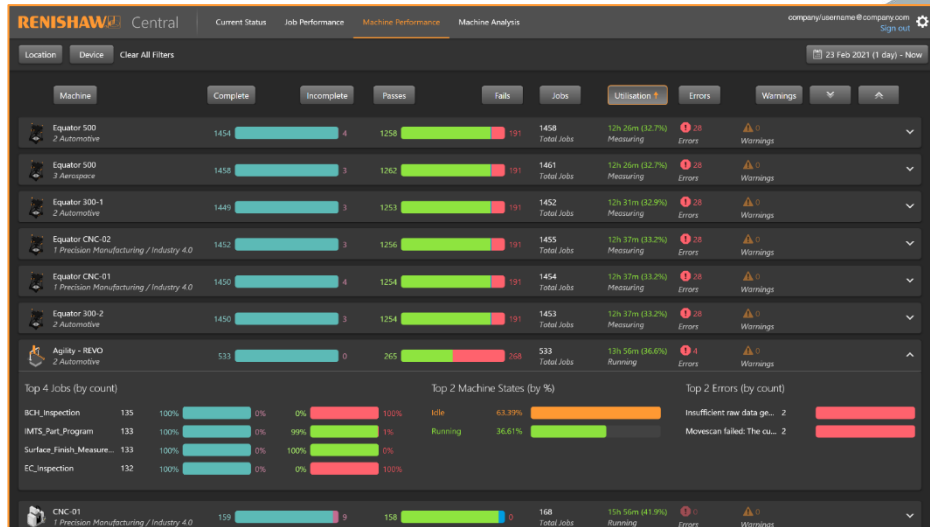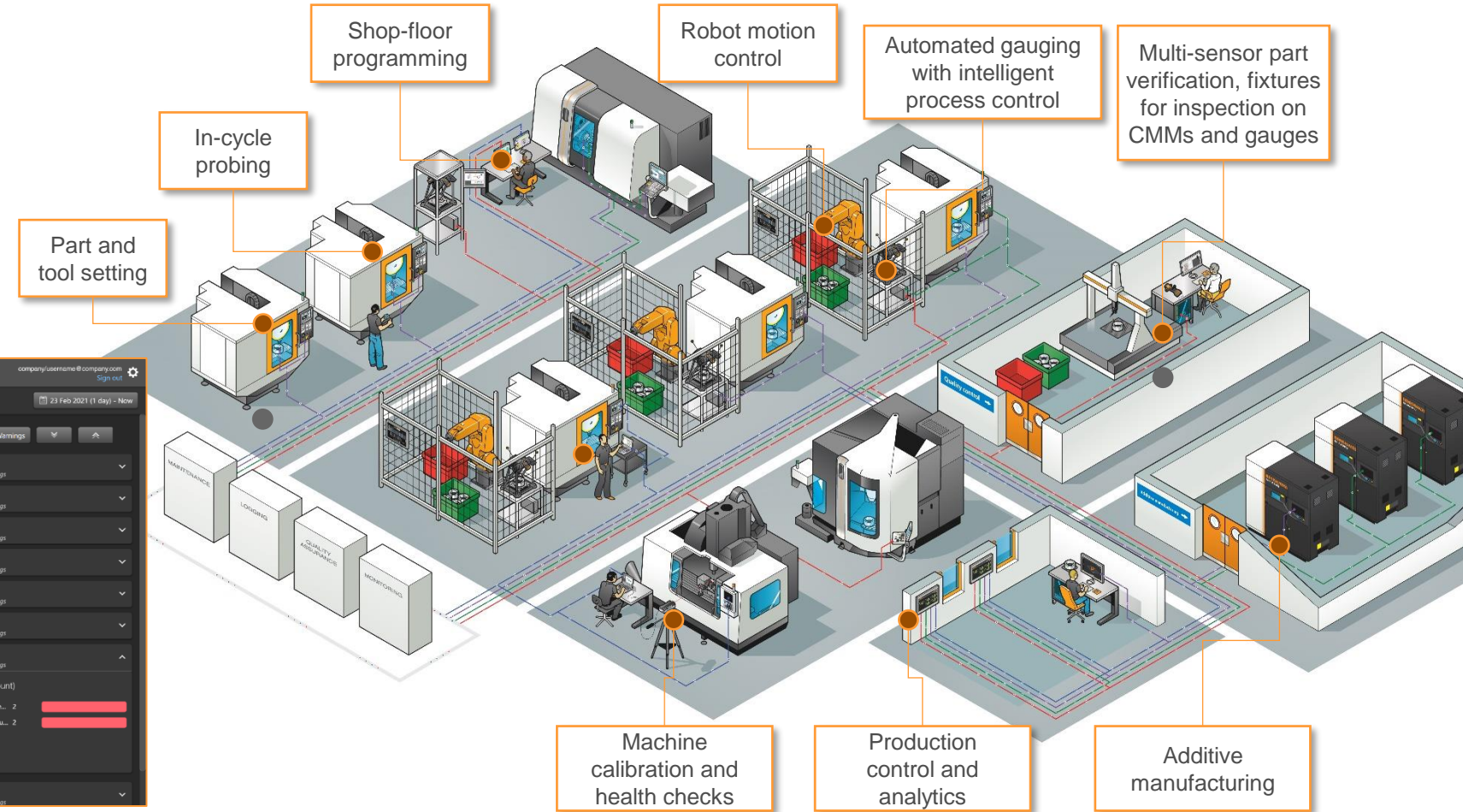
Workshop: Industrial Metrology software strategy

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Manufacturing Technologies – Additive manufacturing
Overview
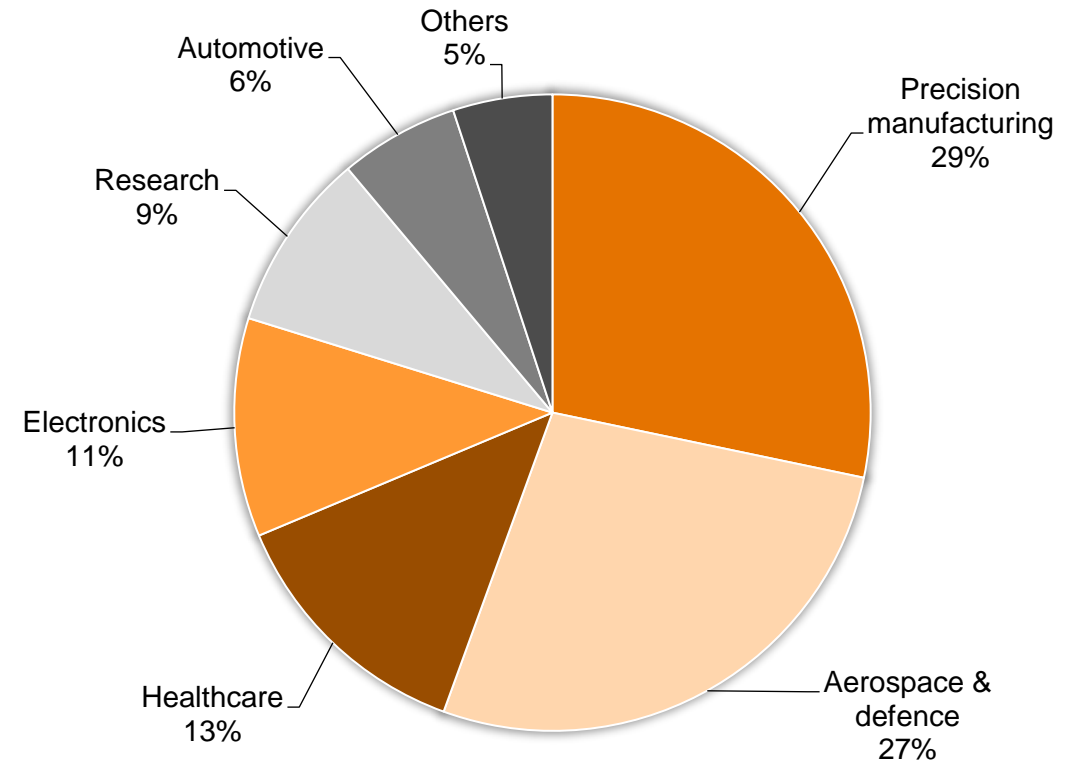
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Manufacturing Technologies – Additive Manufacturing
AM parts

- Attractive opportunities for AM in multiple sectors including healthcare

- AM is highly suited to patient-specific dental prosthodontics and implants, and orthopaedic implants

- Our multi-laser systems give our customers productivity and part quality for the volume manufacture of precision components

Image courtesy of Croom Precision Ltd

Additively manufactured orthopaedic parts including acetabular cups and tibial trays - image courtesy of Croom Precision Medical

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Manufacturing Technologies – Additive Manufacturing
AM manufacturing

Robot motion control

Automated gauging with intelligent process control

Multi-sensor part verification, fixtures for inspection on CMMs and gauges

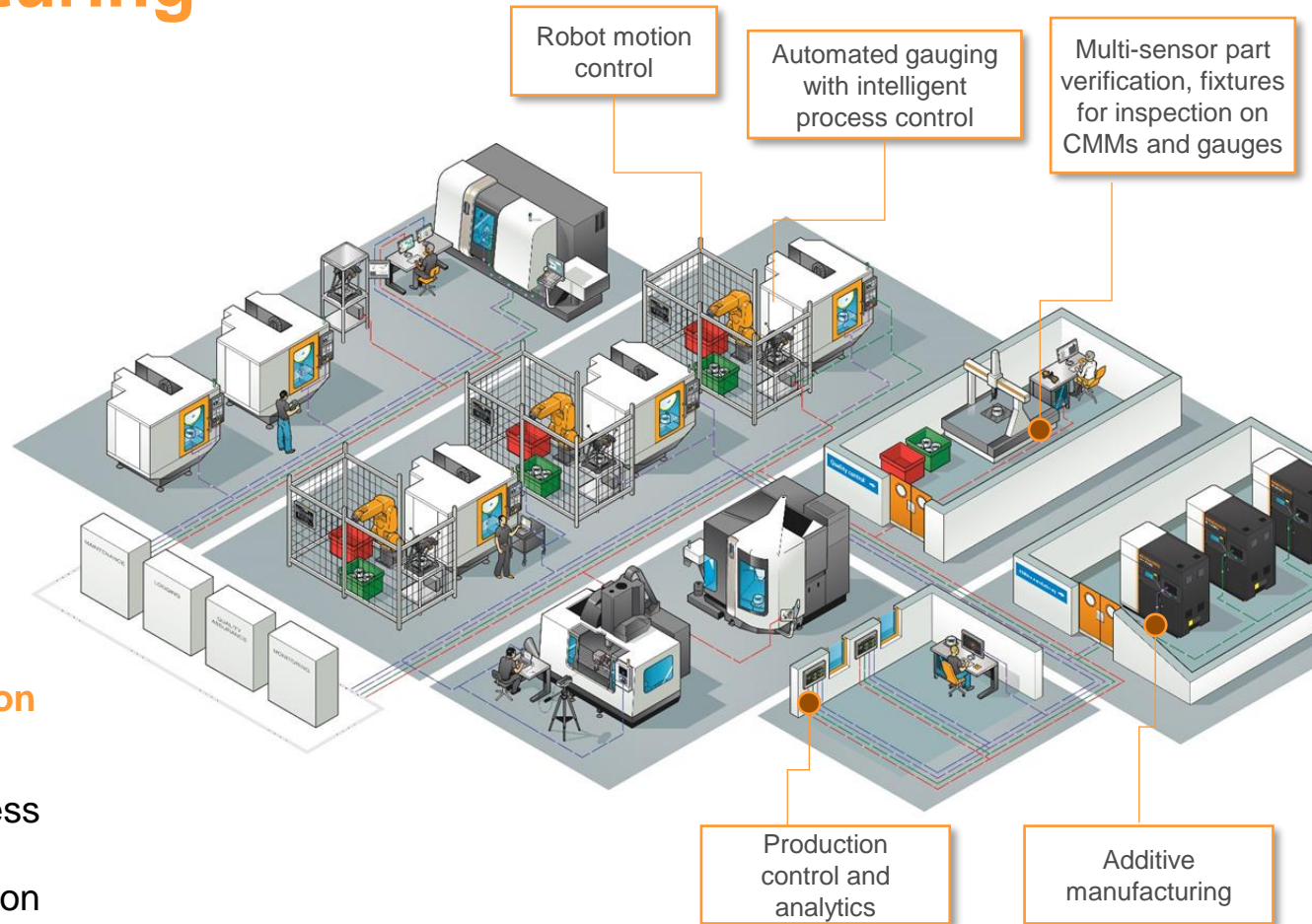Production control and analytics

Additive manufacturing
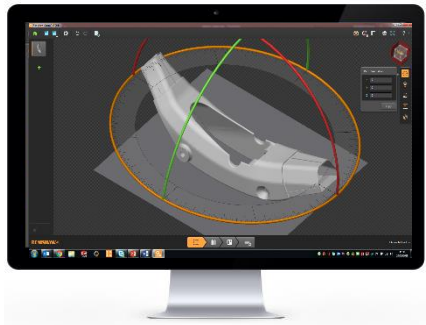
Software for build preparation and monitoring

Optimisation of the build process

Supporting third party integration

500Q AM platform

Productive and precise
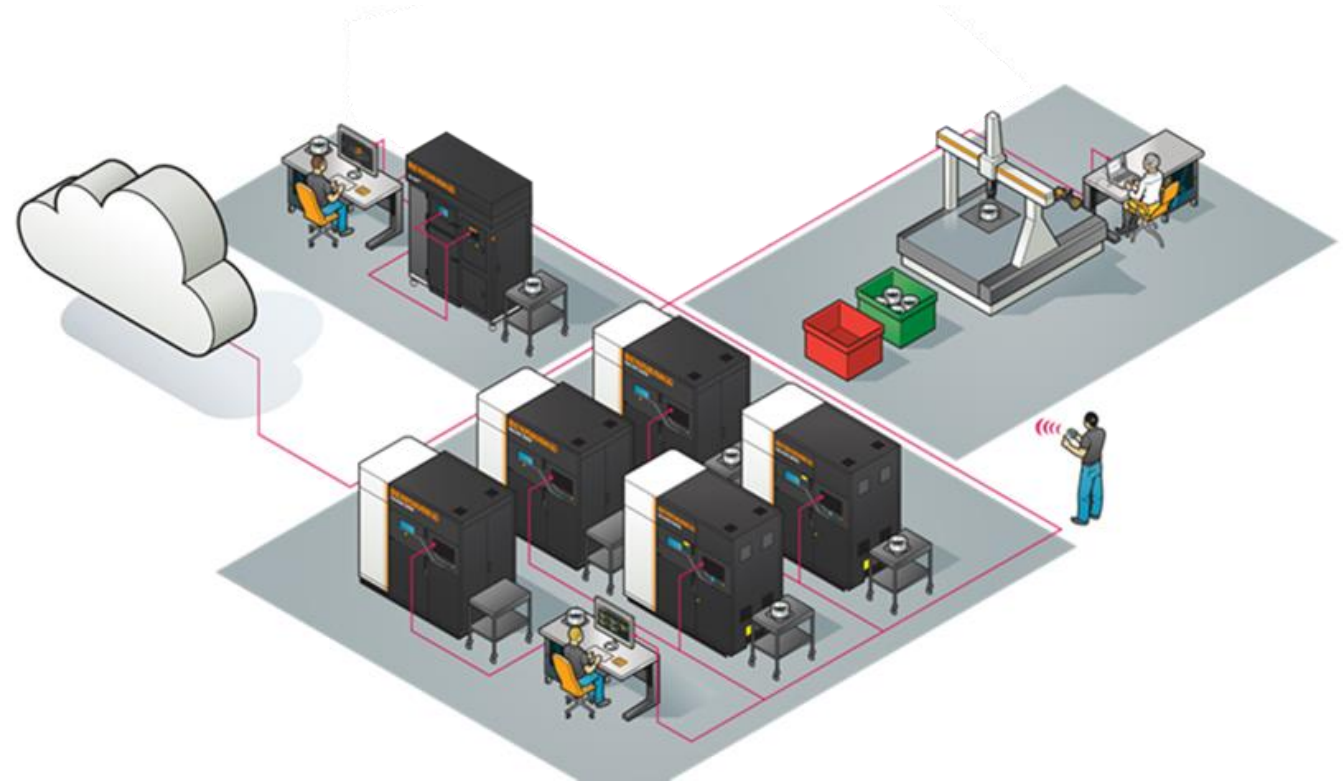
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Manufacturing Technologies – Additive Manufacturing
Investing for the future

Design for AM optimised parts

Educating on the design philosophy

Product innovation

Productivity, Precision, Practicality

Workshop: AM strategy

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Manufacturing Technologies
Close adjacent markets

Attractive opportunities for diversification in machine tool market

R&D programmes targeted at areas in or close to existing Manufacturing technology markets where we can bring innovation
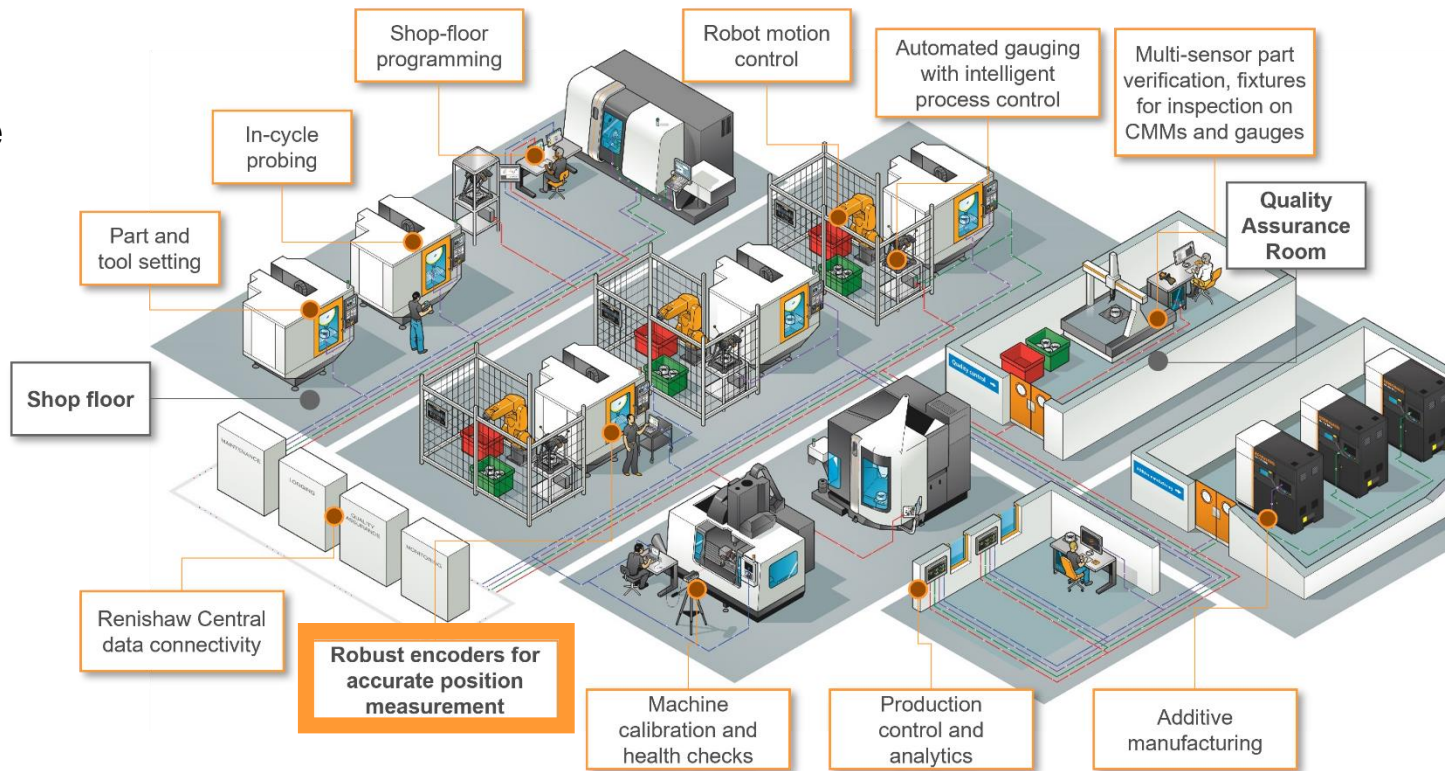
Encoders for machine tools

SpinCo™ magnetic rotary encoder

FORTiS™ enclosed encoder

Shop-floor programming

Robot motion control

Automated gauging with intelligent process control

Multi-sensor part verification, fixtures for inspection on CMMs and gauges

In-cycle probing

Quality Assurance Room

Part and tool setting

Shop floor

Renishaw Central data connectivity

Robust encoders for accurate position measurement

Machine calibration and health checks

Production control and analytics

Additive manufacturing

Workshop: FORTiS encoder and encoder manufacture

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Our recipe for success
Manufacturing – delivering high-quality products on demand

Responding to demand

Productivity

Investment

Miskin manufacturing expansion plans

- We manufacture most products in-house – control of quality, delivery, costs and ability to respond rapidly to changing demand

- Strategic inventory to enable responsive delivery to changing customer demand

- Global factory network with robust supply chains which proved invaluable during the pandemic

- World-class facilities that showcase our own technologies in action – we talk our customers' language

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Sustainability
Transforming Tomorrow Together

Empowering our customers to innovate sustainably

Across all sectors our products help to:

- Reduce energy consumption
  - Less energy required to produce the same level of machined components
- Minimise waste
  - Reduce unproductive machine time
  - Eliminate scrap components
- Manufacture high performance products
  - Tighter tolerances
  - Greater efficiency in operation
  - Lighter in weight
  - Greater reliability requiring less service

Through our environmental commitments, we will also help our customers to reduce their emissions

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