

# Introducing Renishaw plc

## About Renishaw

### World leading metrology company

A FTSE 250 company with headquarters in United Kingdom



### Advancing operational performance

Transforming manufacturing efficiencies and raising product quality

Maximising research capabilities

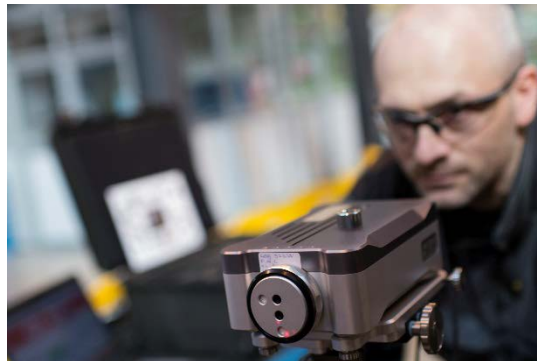
Improving medical procedures and patient outcomes

## Our mission

Provide leading-edge technology by encouraging innovation to address our customers' needs.

Design, manufacture, and supply metrology systems of the highest quality and reliability, enabling dimensional measurement to traceable standards.

Strive for total customer satisfaction through superior customer service.



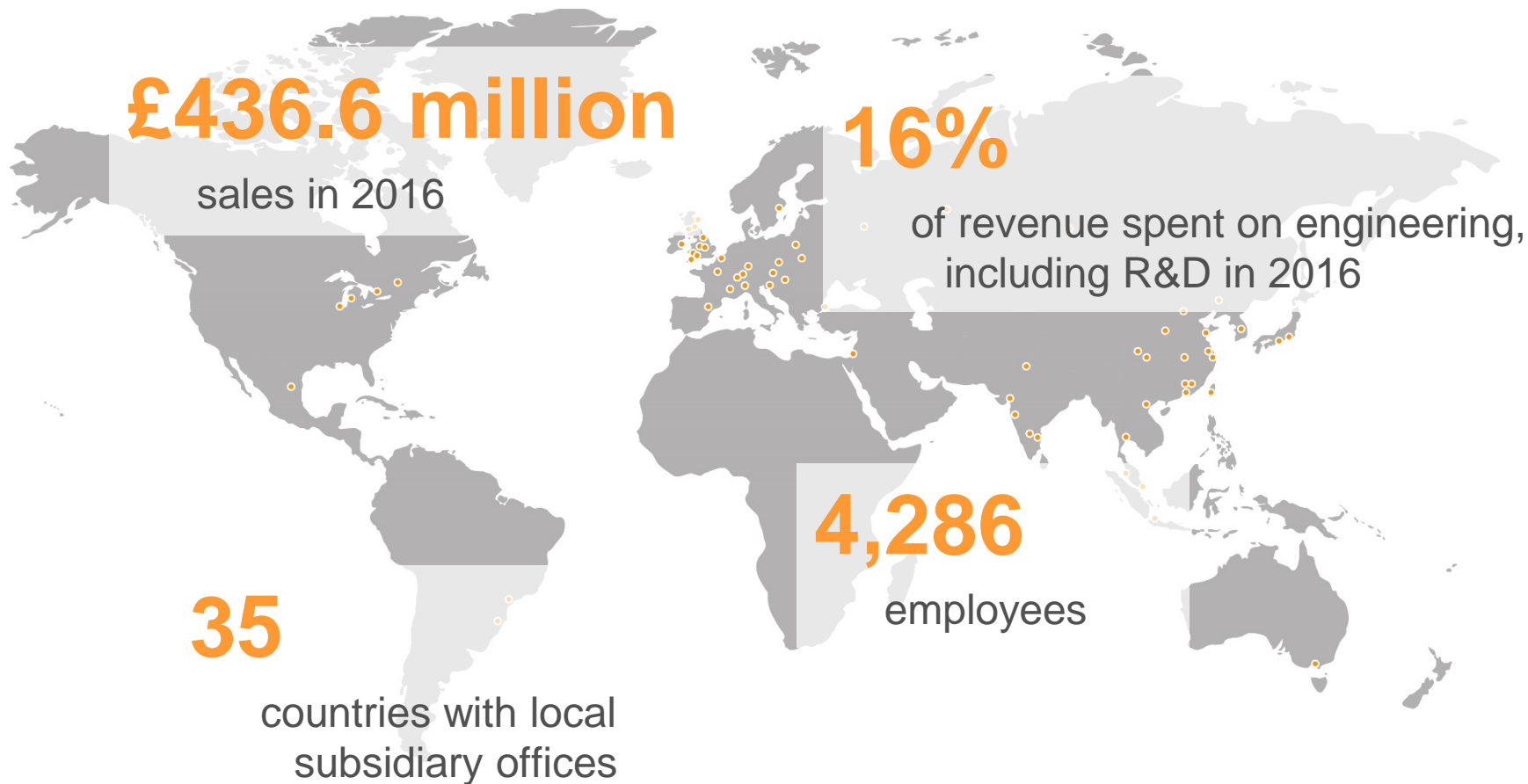
## Our ethos



“Renishaw fundamentally believes that success comes from patented and innovative products and processes, high quality manufacturing, and the ability to provide local customer support in all its markets around the globe.”

**Sir David McMurtry**  
Chairman & Chief Executive

# Highlights

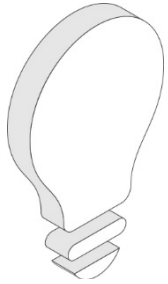


## Securing growth for the long term

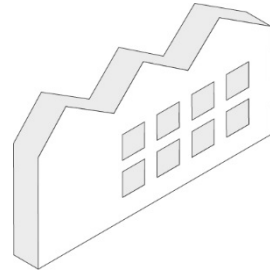
To assure success, we undertake as many of our core activities as possible, including design, manufacturing, sales and support.



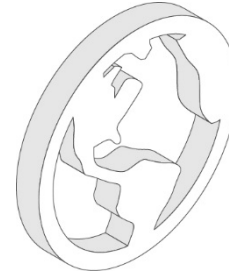
## Our strategy



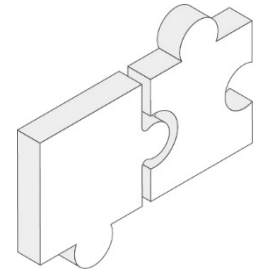
Continual research  
creating strong  
market positions with  
innovative products



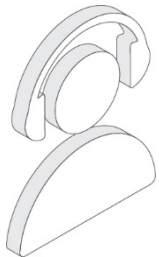
Efficient high-quality  
manufacturing



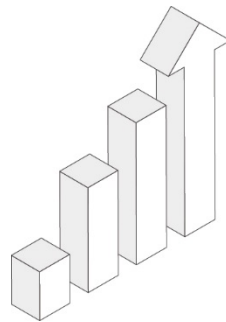
Strong market  
presence and focus  
on emerging  
markets



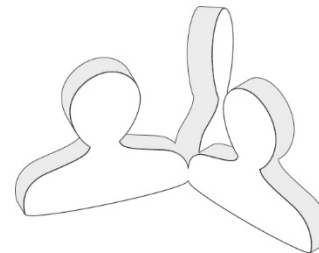
Building the  
business via  
acquisition



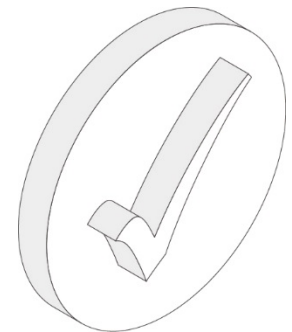
Customer support



Consistent organic  
growth



People



Focus on becoming  
a solutions provider

## Our customers



Aerospace



Automotive



Electronics



Energy



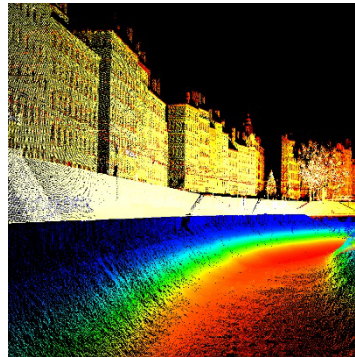
Heavy industry



Marine and offshore operations



Medical and healthcare



Mining, mapping and quarrying



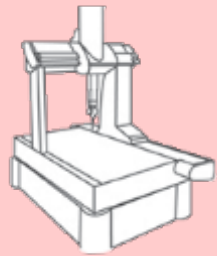
Precision manufacturing



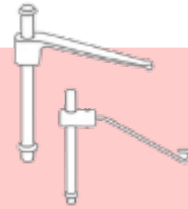
Scientific, research and analysis



# Our expertise – Manufacturing process control



Co-ordinate  
measurement  
products



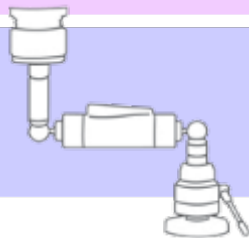
Metrology  
fixtures



Gauging



Machine tool  
probe and tool  
setting systems



Calibration and  
performance  
testing products

**Post-  
process  
monitoring**

**In-process control**

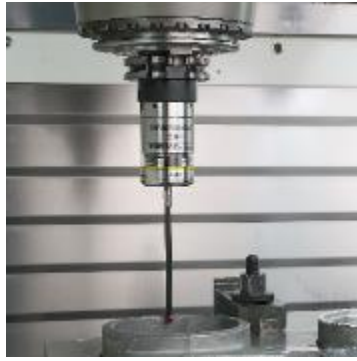
**Process setting**

**Process foundation**

# Our expertise – Industrial metrology



CMM probes,  
software and  
retrofits



Machine tool  
probes and  
software



Automated  
gauging  
systems



Machine  
calibration and  
optimisation



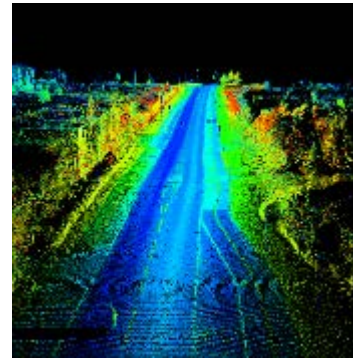
Additive  
manufacturing



Position  
encoders



Styli for probes



Spatial laser  
measurement



Metrology  
fixtures

## Our expertise – Healthcare



Neurological  
products and  
therapies



Cranial,  
maxillofacial and  
dental products



Raman  
spectroscopy

# Our service, your solution

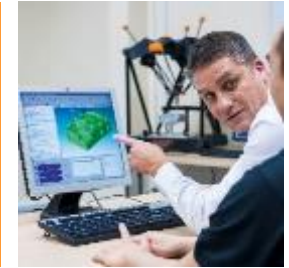


Hardware

End user  
retrofits



Customer  
training



Applications  
engineering



Custom  
turnkey  
solutions



Consultancy

Consumables  
supply



OEM fitment

Advanced  
products



Worldwide  
service &  
support

Software



## Helping our customers succeed

**Consult** | Engineer | Implement | Support

Understanding our clients' needs

Establishing a relationship as a trusted partner

// We looked at the whole production cycle time and in some cases were able to reduce it by up to 50%. //

**Alp Aviation (Turkey)**



## Helping our customers succeed

Consult | **Engineer** | Implement | Support

Drawing on experience with customers and our own processes  
Leveraging our R&D network

// REVO®, the flexible measuring system, significantly increases our measuring capacity and also scans deep-set features with high accuracy.

**MTU Friedrichshafen  
GmbH (Germany)**



## Helping our customers succeed

Consult | Engineer | **Implement** | Support

Providing end-to-end solutions from a diverse product portfolio  
Using local expertise in 35 countries with international backup



// For our machining cell,  
there was no other cost-  
effective, shop-floor  
measuring tool  
comparable to the  
Equator.

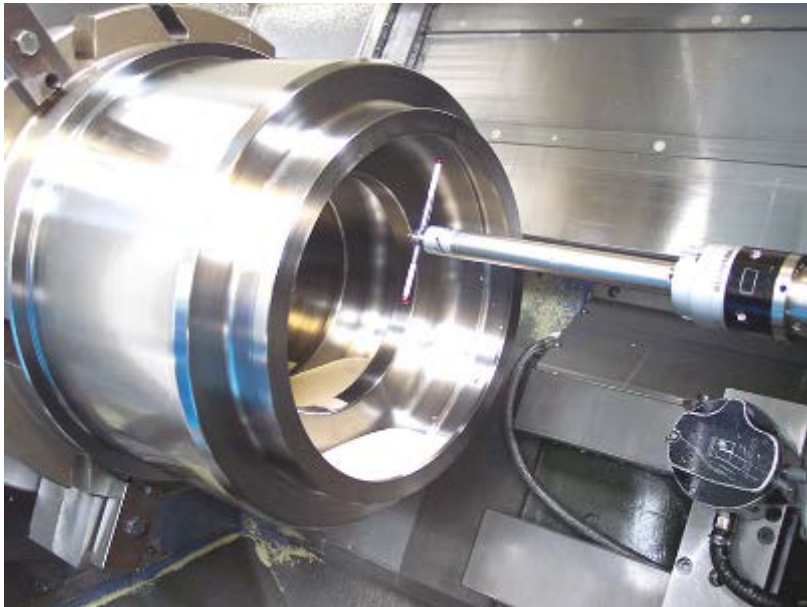
//  
**Conroe (USA)**

## Helping our customers succeed

Consult | Engineer | Implement | **Support**

Ensuring easy access to dedicated staff

Same-day shipping of spares and consumables



// Throughout our use of CNC machines we have had a close relationship with Renishaw – the flexibility and willingness to assist has always been out-standing. //

**Castle Precision (UK)**

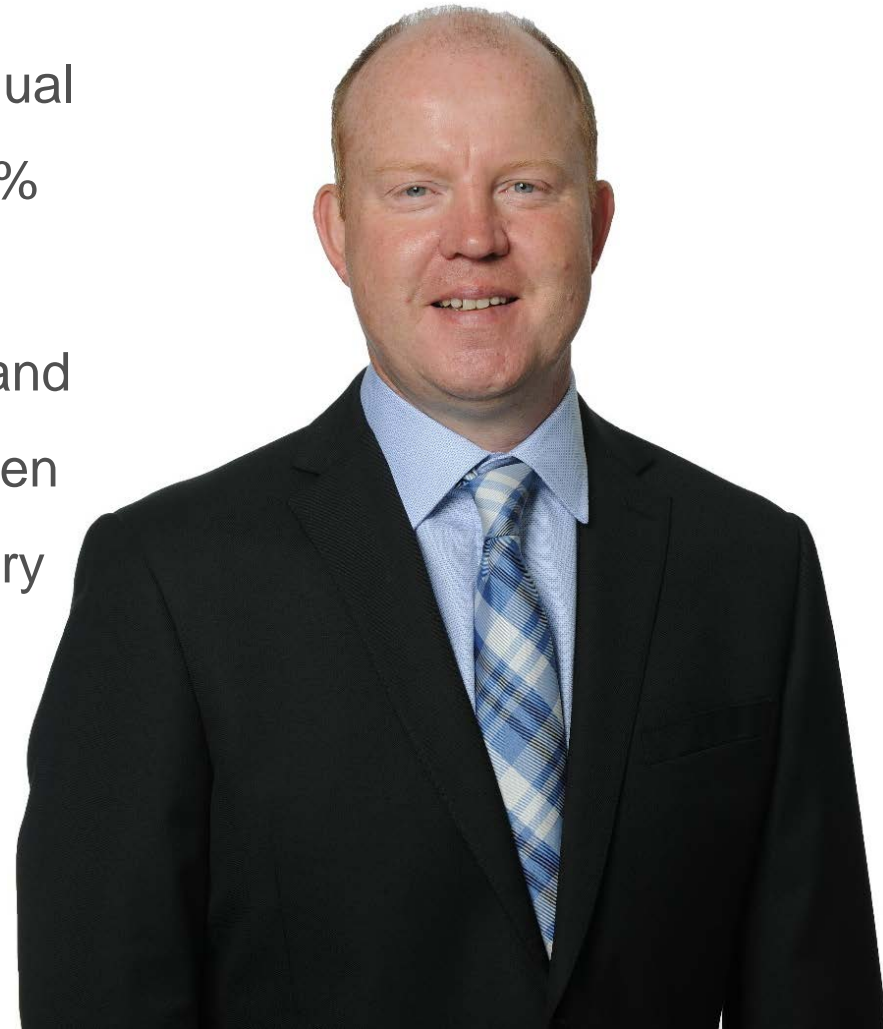


## Our commitment to innovation

“We have a long term commitment to Research and Development, with annual spend historically between 14 and 18% of revenue. We also invest heavily to create our own distribution channels and are prepared to make acquisitions when we find companies with complementary technology and people.”

**Geoff McFarland**

Group Engineering Director





**OVER 40 YEARS OF  
BREAKTHROUGH INNOVATION**

# Over 40 years of breakthrough innovation



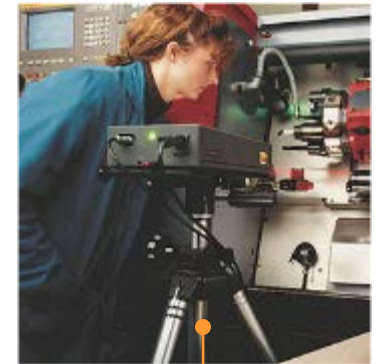
1972



1977



1987



David  
McMurtry  
invents first  
touch-trigger  
probe

First dedicated  
probe for  
machine tools

MAETRACE  
digitising  
software  
released

Renishaw's  
first laser  
interferometer  
system

# Over 40 years of breakthrough innovation



1989

Renishaw's first range of encoder readheads and interfaces



1991

QC10 ballbar system



Raman microscope



1992

Cyclone scanning machine

# Over 40 years of breakthrough innovation



**1995**



**1997**



**2002**



**2005**

HS10 laser  
scale

PCMT process  
control  
software for  
machine tools  
released

Triclone 90  
dental scanner

REVO five-axis  
measurement  
system

# Over 40 years of breakthrough innovation



2007

Neurological  
product line  
established



2010

Investment in  
laser  
measurement  
and survey  
systems



2011

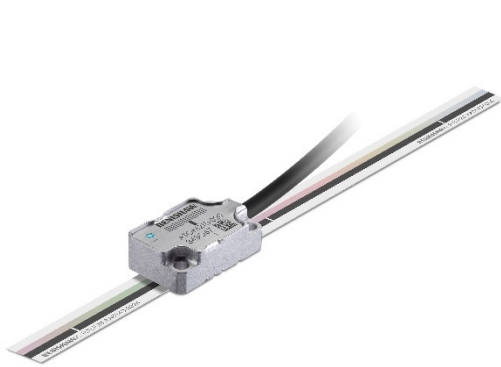
Gauging and  
Additive  
product lines



2013

Fixtures  
product line

# Over 40 years of breakthrough innovation



2014

ATOM™  
miniature  
position  
encoder



2015

RVP non-  
contact vision  
probe for  
REVO-2



Merlin lidar  
mapping  
system



2016

inVia™  
Qontor®  
confocal  
Raman  
microscope

## Vision

“Over the years, John Deer and I have tried to build a company that is different to most others. Different in how we apply technology to real world problems; in how we invest for the long term; in how we manufacture rather than outsource; in how we treat our customers as partners.”



**Sir David McMurtry**  
Chairman & Chief Executive



## Our journey so far...



1973

Renishaw  
Electrical Ltd  
registered

1976

First probe for  
CMMs  
commercially  
available

1978

First patent  
case fought  
jointly with  
Rolls-Royce

## Our journey so far...



1979

Sales reach  
£1 million  
(85% exports)

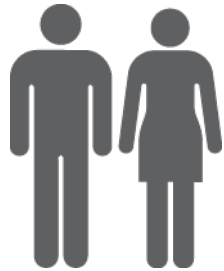
First Queen's  
award  
(Export  
Achievement)

1981

David McMurtry  
joins company  
full-time, first  
apprentice  
recruited

First overseas  
manufacturing  
facility (Ireland),  
first sales  
subsidiary (USA)

## Our journey so far...



1984

Renishaw shares enter official list on LSE; rights issue raises £5.9 million

First sponsored student scheme

1985

New Mills building opened (now the company's HQ)

1987

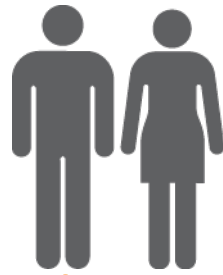
Agreement with Rolls-Royce to take 100% ownership of original patents

## Our journey so far...



1996

3 awards for  
RAMTIC  
production  
system



1997

1000  
employees  
worldwide



2000

Worldwide  
sales reach  
£100 million



2001

David  
McMurtry  
receives  
knighthood 'for  
services to  
design and  
innovation'

## Our journey so far...



2006

Purchase of  
itp GmbH

2010

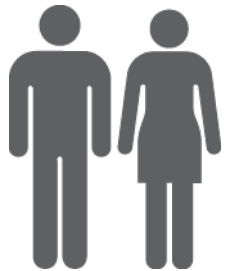
Acquired initial  
stake in  
Measurement  
Devices Ltd  
(MDL)

2011

UK Best Mid-  
Cap Business  
of the Year  
award (National  
Business  
Awards)

Miskin site  
purchased  
(South Wales)

## Our journey so far...



**2012**

3000  
employees  
worldwide

Worldwide  
sales reach  
£300 million

Woodchester  
plant wins UK  
Best Electronics  
& Electrical Plant  
award

R&R purchase

## Our journey so far...



**2013**

Created LBC Engineering GmbH following acquisition

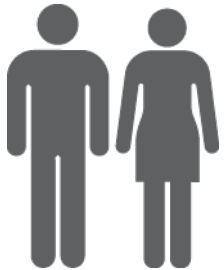
**2014**

17<sup>th</sup> Queen's Award for Enterprise, first outside metrology field (Raman spectroscopy)

Record 105 apprentices in training and intake of 68 graduates

Acquisition of ACE Engineering Inc

## Our journey so far...



**2015**

Over 4000 employees worldwide

Renishaw Innovation Centre opens at New Mills, UK

**2016**

The first Additive Manufacturing Solutions Centre opens in India

Healthcare Centre of Excellence opens in South Wales



## Our performance in 2016

**£436.6 million**

sales in 2016

**4,286**

Employees

**35**

countries with local subsidiary  
offices

**16%**

of revenue spent on R&D in 2016

### Sales by region

Far East	45%
Continental Europe	26%
Americas	21%
UK and Ireland	5%
Other regions	3%

### Employees by region

Far East	8%
Continental Europe	9%
Americas	7%
UK and Ireland	68%
Other regions	8%

### Sales by business unit

Metrology	93%
Healthcare	7%

## Now a global solution provider

We aim to provide leading-edge technology by encouraging innovation to address our customers' needs.



With subsidiary offices in over 70 locations across 35 countries, we support our customers locally before, during and after sales to build relationships with long term and lasting benefits.

**RENISHAW**  <sup>®</sup>  
**apply innovation**™