

# Welcome and strategy overview

The image shows a spacious, modern industrial showroom or laboratory. The room is characterized by its high ceiling, which is illuminated by numerous circular, recessed ceiling lights. The walls are light-colored, and there are large windows on the right side, providing natural light. In the foreground and middle ground, there are several curved, white display units or workstations. Each unit is equipped with various pieces of machinery, including what appears to be a lathe or a similar precision tool. Some units have large, flat-screen monitors mounted on them, displaying technical information or product images. The floor is made of light-colored tiles, and the overall atmosphere is clean, professional, and technologically advanced.

**William Lee, Chief Executive  
Renishaw plc**

# Agenda

**10.15 Welcome and strategy overview**

**William Lee (Chief Executive)**

**10.50 Industrial metrology**

**Dave Wallace (Director of Industrial Metrology)**

**11.20 Product demonstrations 1**

**12.10 Lunch**

**12.50 Global perspective – EMEA**

**Jean-Marc Meffre (President – EMEA)**

**Rainer Lotz (Vice-President – EMEA)**

**13.20 Product demonstrations 2**

**15.00 Q&A session**

**Board**

**15.45 Close**

**16.00 Coach departs for Bristol Parkway**

# Trading update – 9 months to 31<sup>st</sup> March 2019

- **Cumulative revenue up 0.3% to £431.1m**
- **Adjusted profit before tax for the first nine months was down 18.4% at £79.6m**
- **Forecast range for full year revenue and profit decreased:**
  - Revenue: £580m to £600m
  - Adjusted profit: £105m to £120m
  - Statutory profit: £111m to £126m

Renishaw plc  
Trading update  
14 May 2019

Renishaw plc, the global high-precision metrology and healthcare technology group, publishes this trading update for the nine months ended 31 March 2019. It contains unaudited information that covers the first three quarters of the financial year and the period since. As previously announced, the Company is hosting its annual investor day today.

#### Trading activity

Continuing operations	9 months to 31 March 2019	9 months to 31 March 2018	Change
Metrology	£404.5m	£406.6m	-0.5%
Healthcare	£26.6m	£23.3m	14.2%
<b>Total Revenue</b>	<b>£431.1m</b>	<b>£429.9m</b>	<b>0.3%</b>
<b>Adjusted* Profit before tax</b>	<b>£79.6m</b>	<b>£97.6m</b>	<b>-18.4%</b>
Statutory Profit before tax	£84.8m	£104.4m	-18.8%

Revenue from continuing operations for the first three quarters of the current financial year was £431.1m, an increase of 0.3% compared with £429.9m for the corresponding period last year.

Metrology revenue for the nine months to 31 March 2019 amounted to £404.5m compared with £406.6m for the same period last year. Revenue in our healthcare business has grown to £26.6m compared to £23.3m for the same period last year, an increase of 14.2%.

Adjusted profit before tax from continuing operations for the first three quarters amounted to £79.6m compared with an adjusted profit before tax of £97.6m for the corresponding period last year. Statutory profit before tax amounted to £84.8m (2018: £104.4m).

#### Financial position

The Group balance sheet remains strong with net cash balances of £120.5m as at 31 March 2019 (30 June 2018: £103.8m).

#### Outlook

Based on recent order trends and customer feedback, we now expect full year revenue to be in the range of £580m to £600m. Adjusted profit before tax is now expected to be in the range of £105m to £120m and statutory profit before tax in the range of £111m to £126m. We continue to focus on increasing productivity and on-going investment in the business for the long term.

Notwithstanding the current economic uncertainties, the Board remains confident in the future prospects of the Group.

The preliminary full year results for the year ending 30 June 2019 will be released on 1 August 2019.

Sir David McMurtry  
CBE, RDI, FRS, FEng, CEng, FIMechE  
Executive Chairman

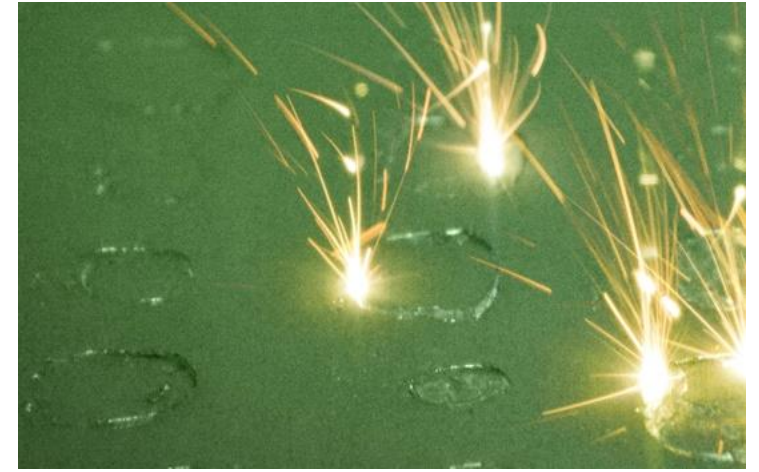
Will Lee  
Chief Executive

14 May 2019

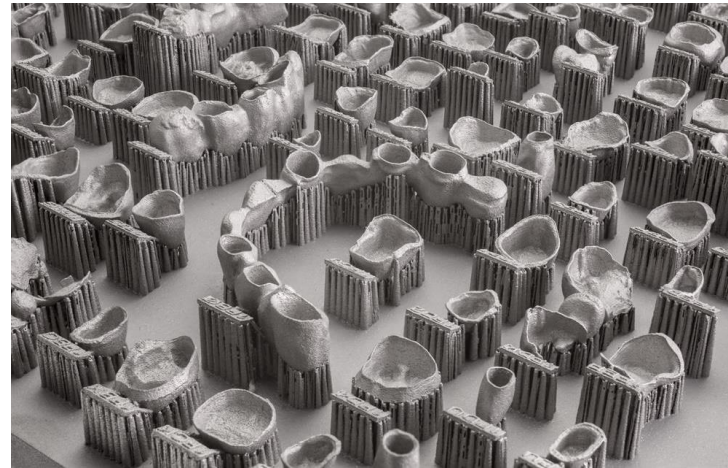
Renishaw plc  
Registered office New Mills, Wotton-under-Edge, Gloucestershire, GL12 8JR  
Registered number 01106260  
LEI number 21380048ADXM6Z67CT18  
Telephone number 01453 524524  
Website www.renishaw.com

# Our expertise

Metrology



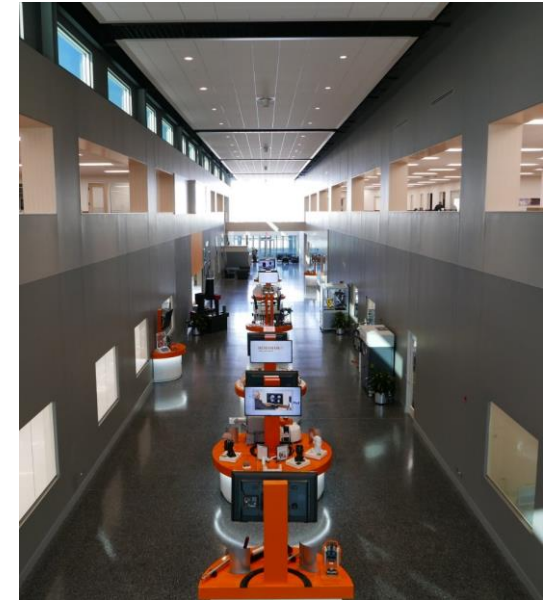
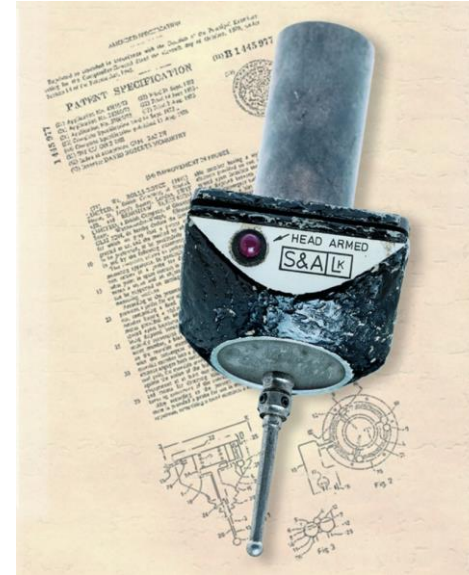
Healthcare



# Overview

**Our fundamental strategy is based on:**

- **patented and innovative products and processes**
- **high quality manufacturing**
- **providing local customer support in all our markets around the globe**



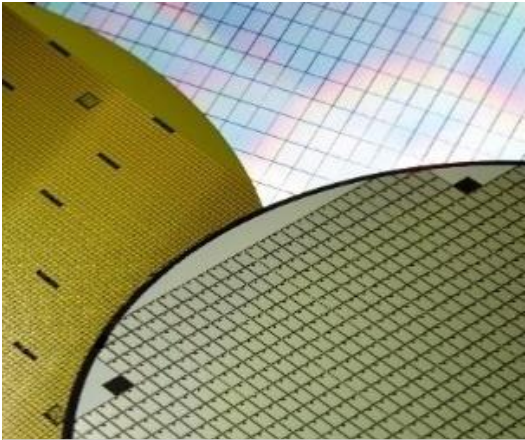
# Our key markets



**Aerospace**



**Automotive**



**Electronics**



**Energy**



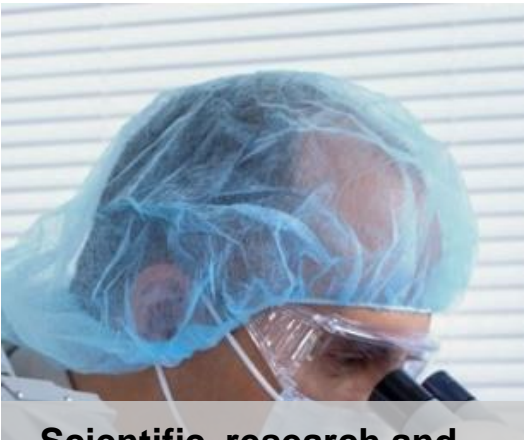
**Heavy industry**



**Medical and healthcare**



**Precision manufacturing**

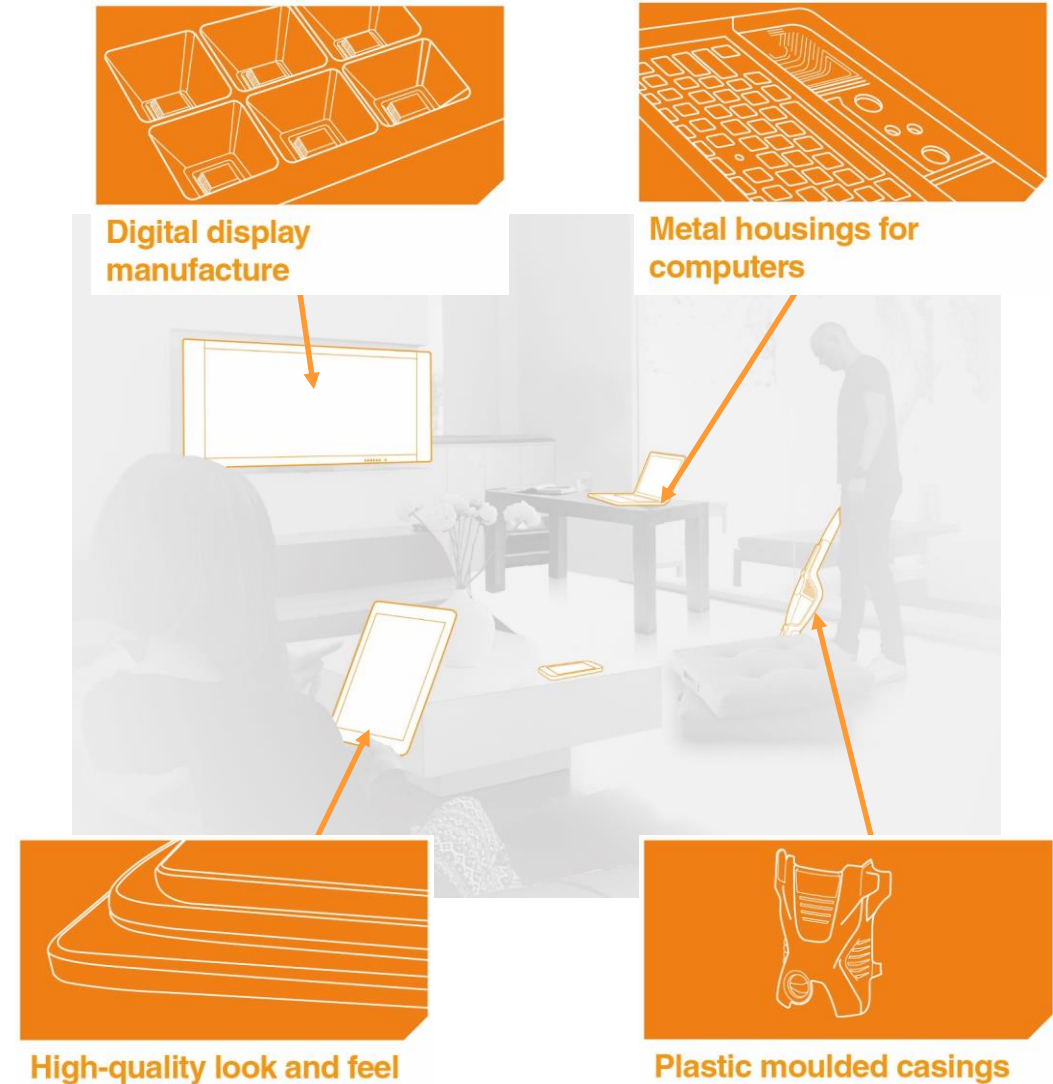


**Scientific, research and analysis**

# Consumer electronics market

## Key market drivers

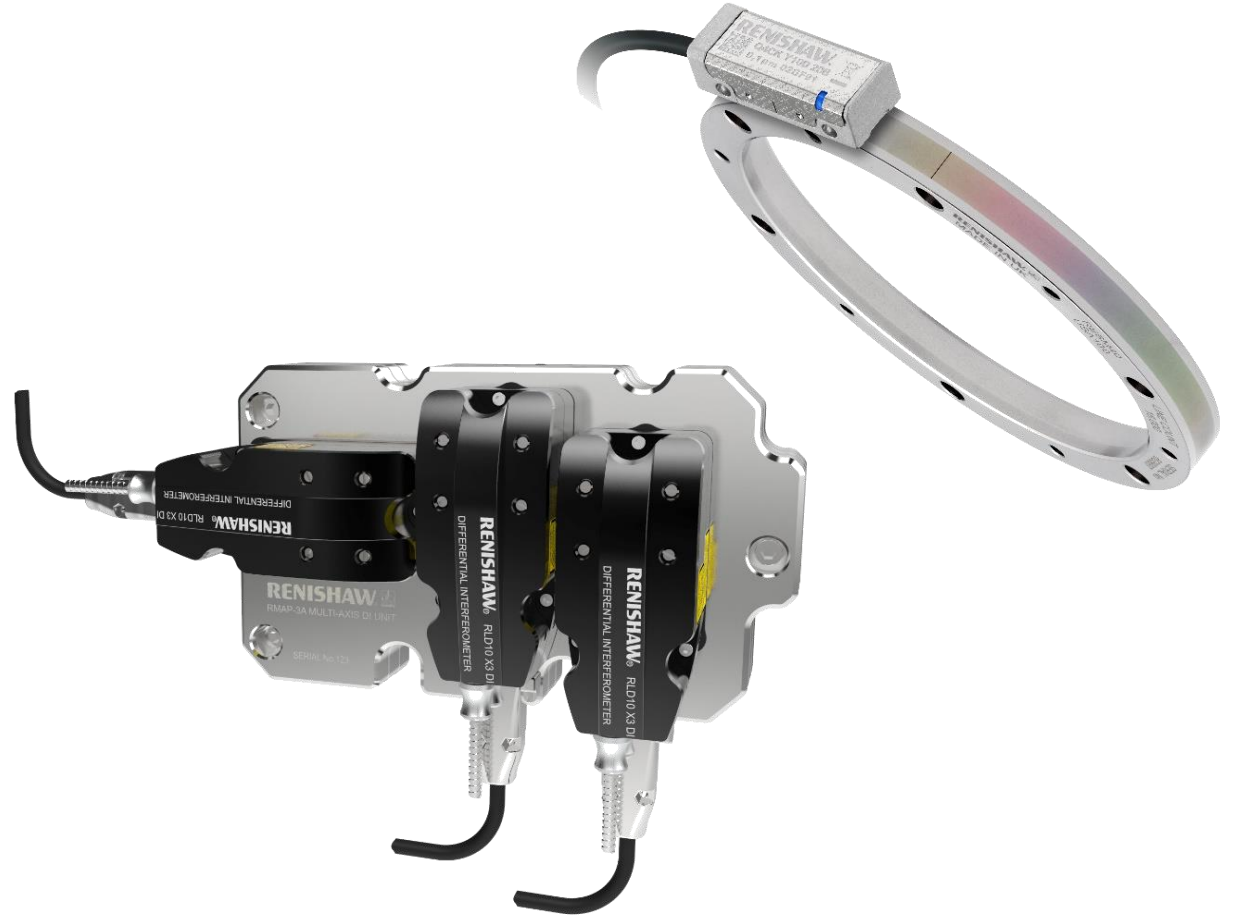
- Weaker smartphone demand and increased machining capacity in Asia
- Shorter product life cycles require flexible measurement systems
- Increasing use of automation in manufacturing and material handling due to rising labour costs in Asia
- 5G mobile products require significant investments in more complex integrated circuits



# Consumer electronics market

## Position encoder products

- Market drivers – size, speed, accuracy, ease-of-use
- Our encoders are required for machinery throughout the semiconductor, electronics and flat panel display (FPD) production process
- New multi-axis periscope meets the need for higher machine performance which requires multiple interferometer feedback axes





# Consumer electronics market

QUANTiC™ series of digital incremental encoders

Made for manufacturing

**Patented and innovative  
products and processes**

**QUANTiC™ - meeting  
market demands for size  
and ease-of-use**

# Aerospace market

## Key market drivers

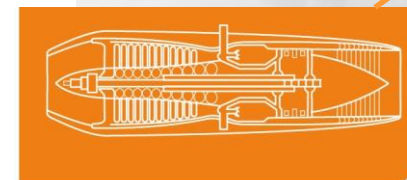
- 42,700 new aircraft by 2038 to meet growing global demand for civil air transport
- Lower emissions through fuel-efficient engines and reductions in engines and airframe weight
- Metrology and additive manufacturing opportunities
- Process stability and certification



Landing gear components



Advanced manufacture of control surfaces



Quiet and efficient aero engines



Wings and wing spars

# Aerospace market

## Key market drivers

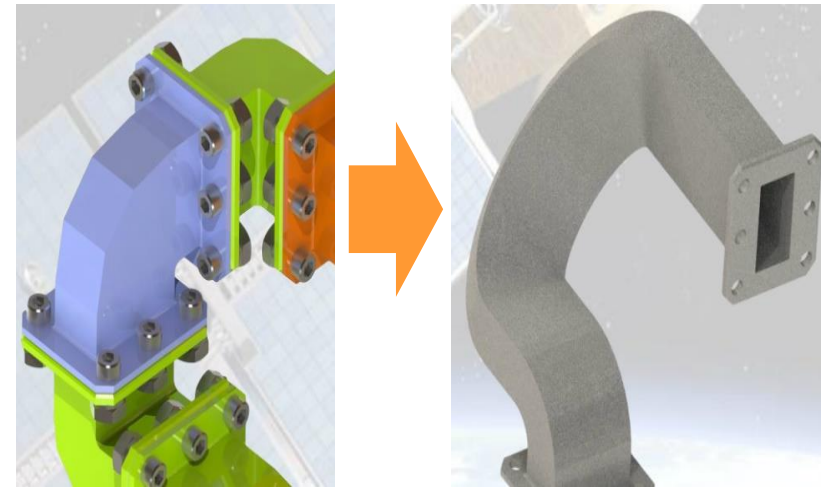
- **42,700 new aircraft by 2038 to meet growing global demand for civil air transport**
- **Lower emissions through fuel-efficient engines and reductions in engines and airframe weight**
- **Growing global market for engine maintenance, repair and overhaul (MRO) (due to increased demands on engine performance)**
- **Metrology and additive manufacturing opportunities**
- **Process stability and certification**



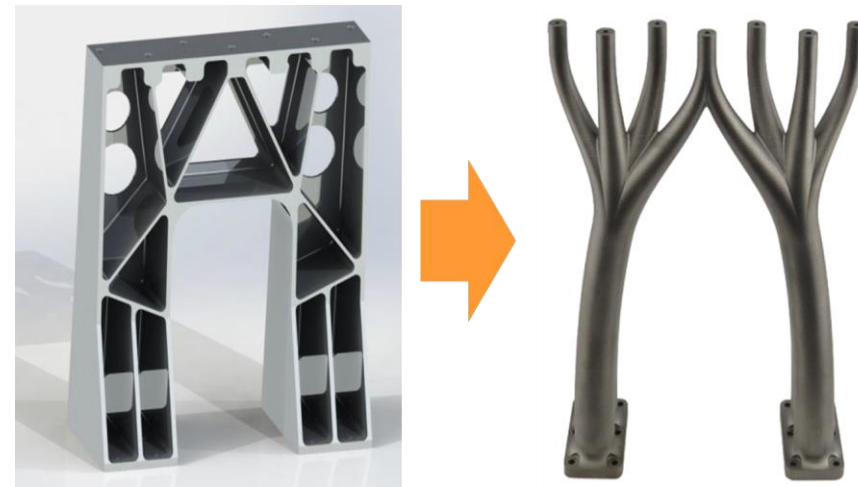
# Aerospace market

## Driving additive manufacturing (AM) innovation

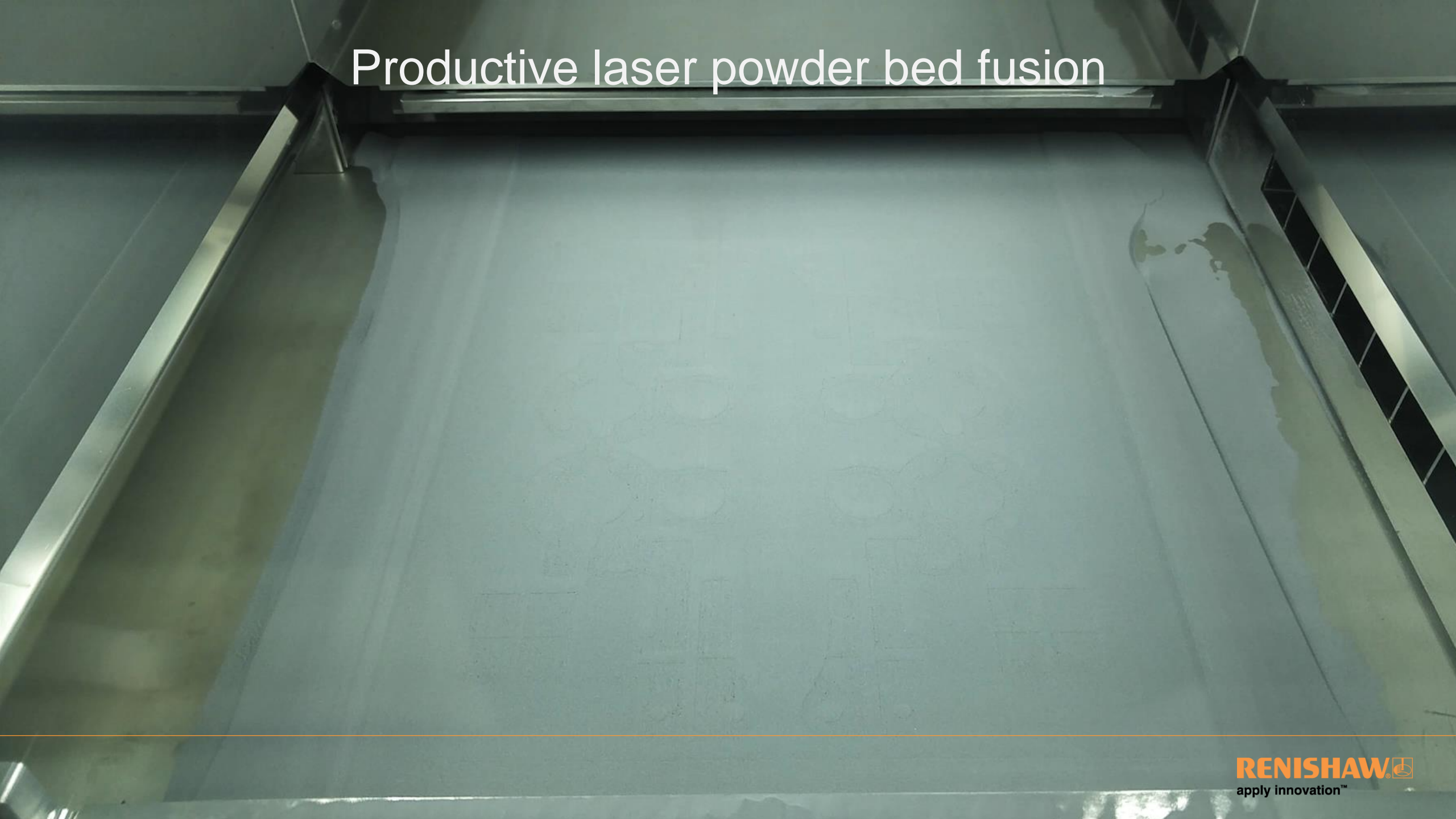
- Obvious benefits for many aerospace applications
- Reducing the cost per part opens up more opportunities



## Patented and innovative products.....

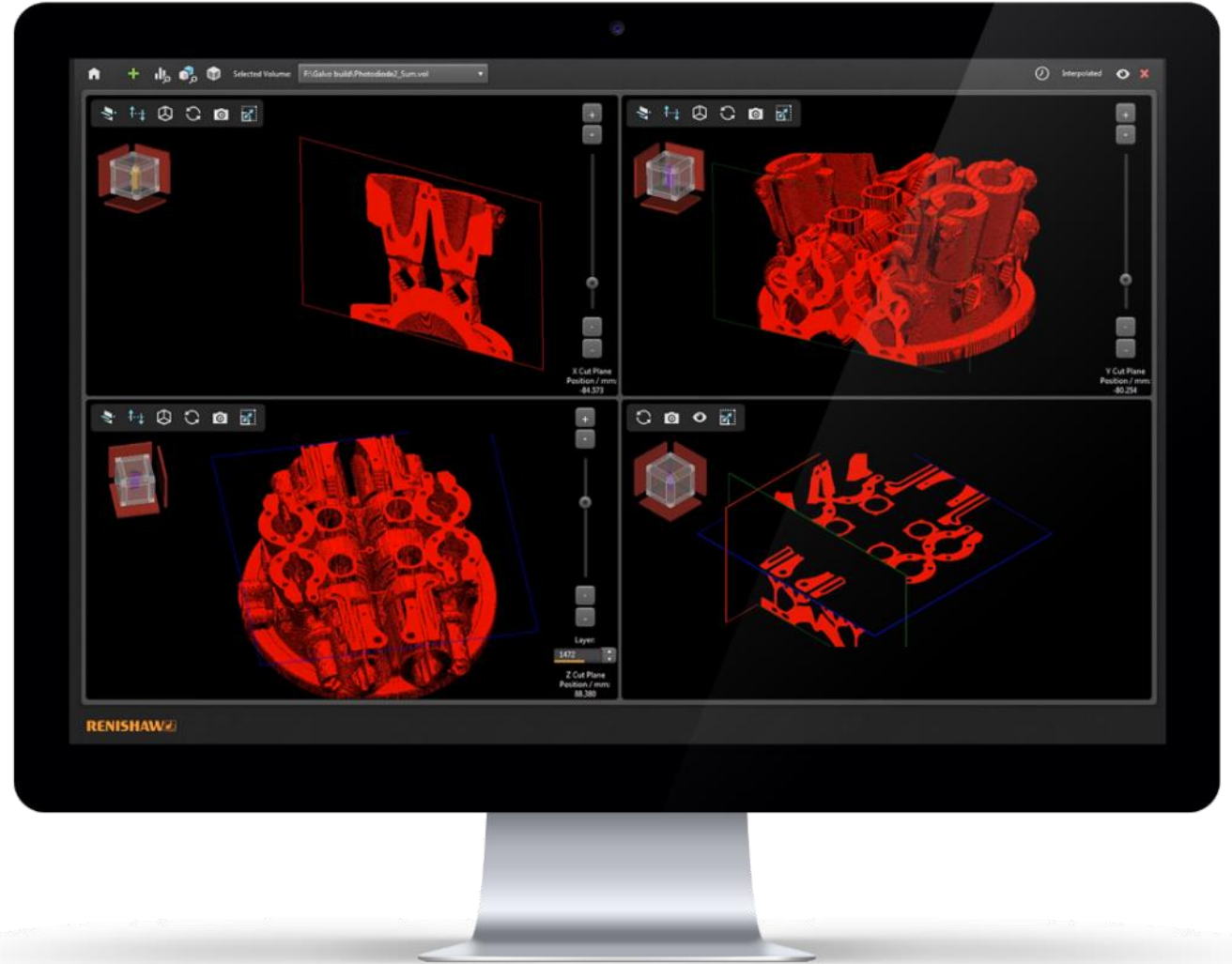


# Productive laser powder bed fusion



# AM – the drive for built in quality

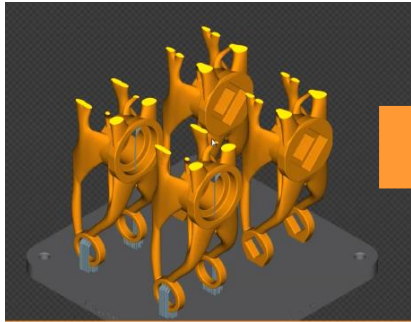
- Process anomalies can produce defects that affect fatigue performance
- Heavy reliance on post-build testing and costly production process control
- New technologies give the opportunity to detect and identify defects through process design, and possibly to repair defects during the build



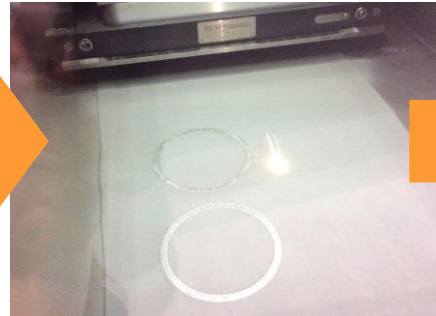
# AM process chain

Processes

Design for AM



AM build



Post process



Machining / gauging



Inspection



Tools



# Investment in people and infrastructure

Providing local customer support in all our markets around the globe



Barcelona, Spain



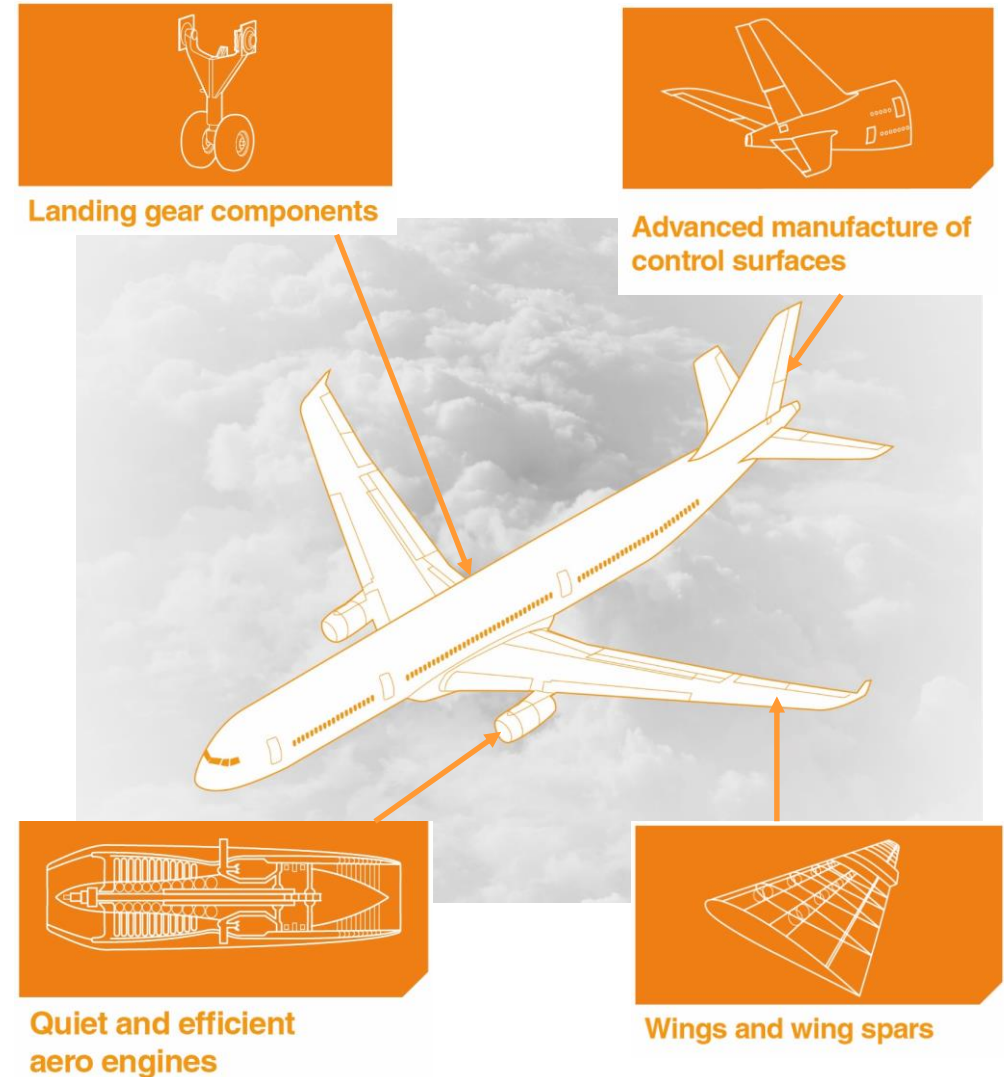
Additive Manufacturing Solutions Centre, Barcelona, Spain



# Aerospace market

## Key market drivers

- **42,700 new aircraft by 2038 to meet growing global demand for civil air transport**
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- **Growing global market for engine maintenance, repair and overhaul (MRO) (due to increased demands on engine performance)**
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# Investment in people and infrastructure

High quality  
manufacturing

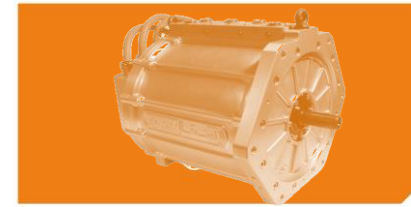


Renishaw Miskin, South Wales

# Automotive market

## Key market drivers

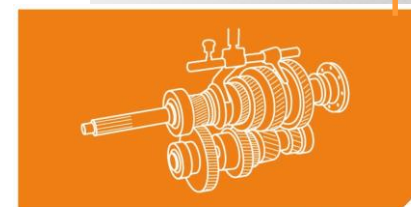
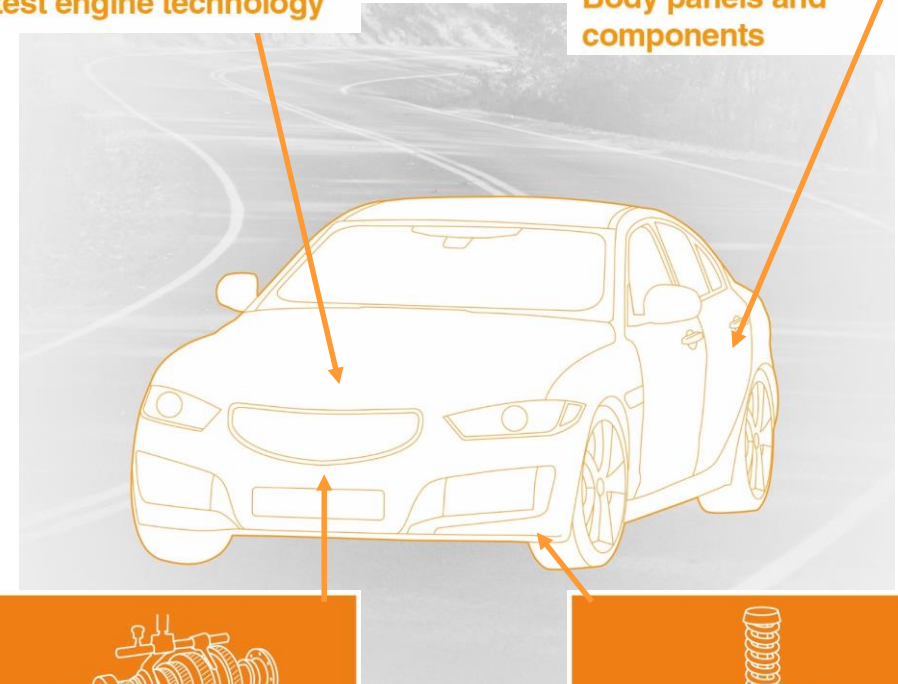
- Trend towards hybrid and electric vehicles (EV), and a focus on autonomous vehicles
- Mixed global environment for adoption of the newer technologies
- Reduced capital investment for internal combustion engines (ICE) but still a drive to make engines as efficient as possible
- Vehicle design life cycles are reducing, driving more flexible manufacturing
- AM interest focused on high-end applications



Latest engine technology



Body panels and components



Precision gears and reliable gearbox components



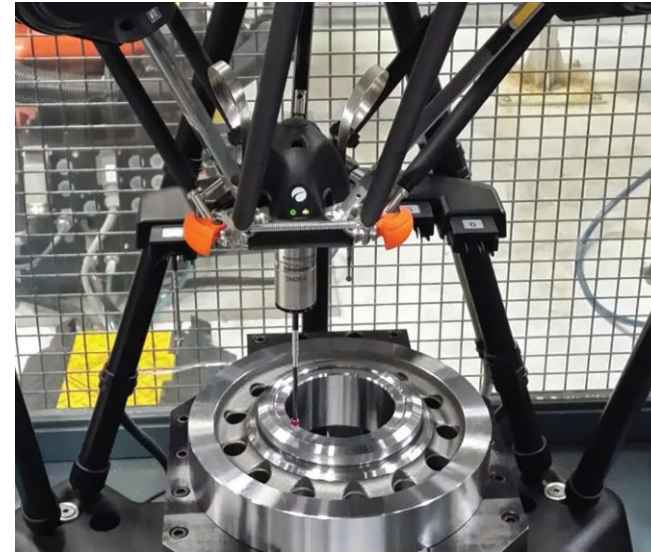
Suspension and braking components

(Electric motor image: Ricardo plc)

# Automotive market

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# Automotive market

Providing local customer support in all our markets around the globe



Auburn Hills, Michigan, USA



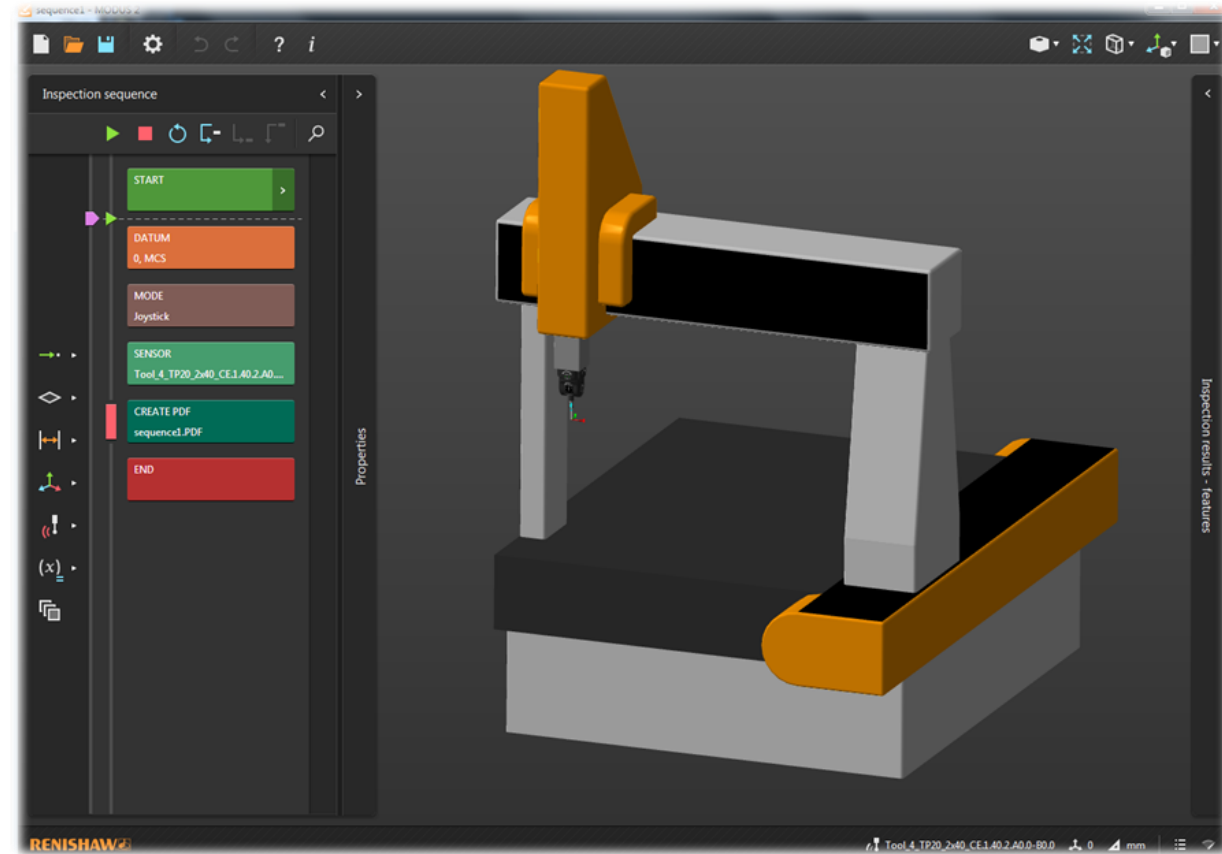
Monterrey, Mexico



Mountain View, California, USA

# Ease of use develops routes to market

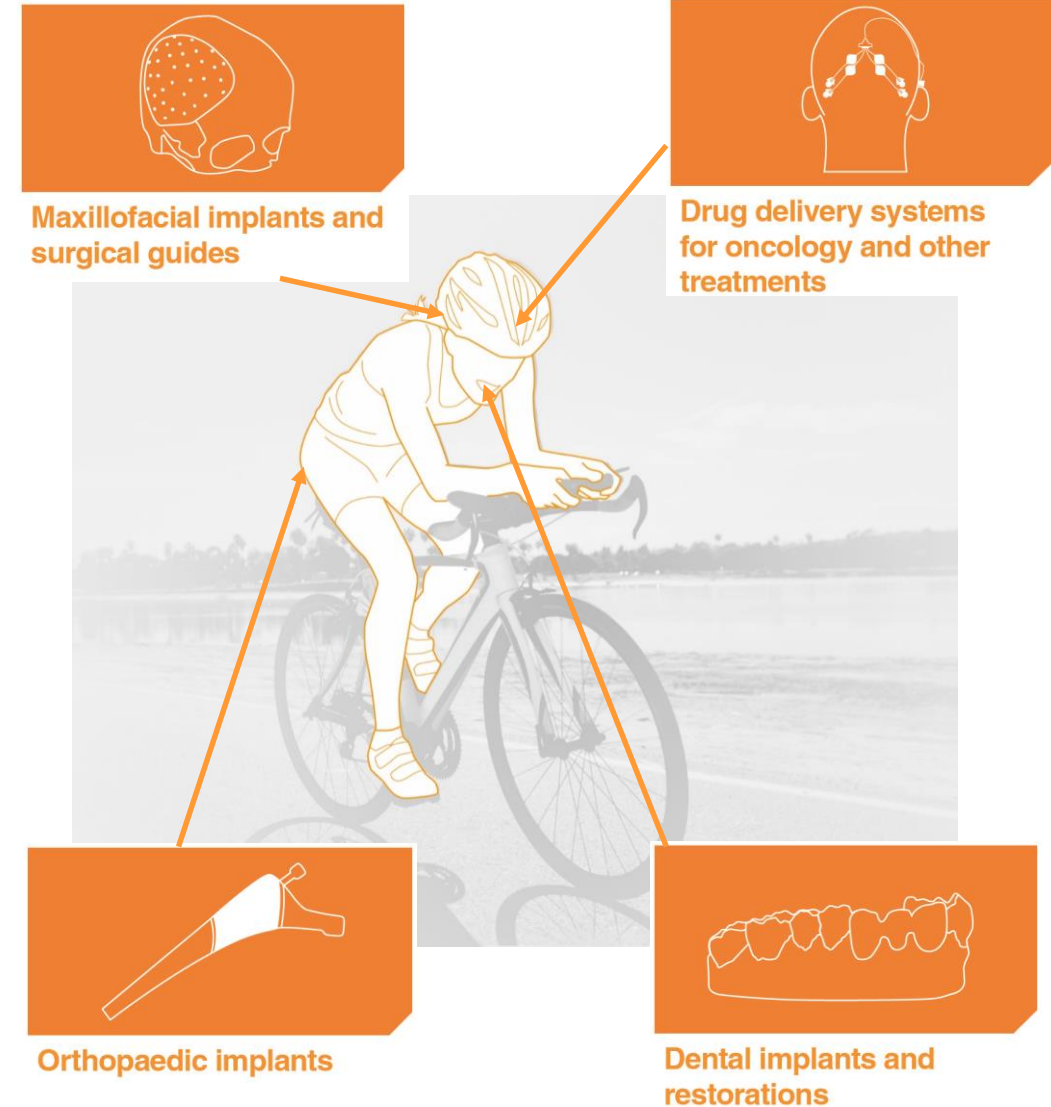
## Patented and innovative products and processes



# Healthcare market

## Key market conditions

- Average global life expectancy rising; increasing neurological disorders require faster and highly precise surgical therapies
- Demand for more economical treatments, more patient-specific treatments and safer procedures with reduced human error
- Obesity rising globally leading to growing demand for orthopaedic implants



# Healthcare market

## Neuro

- **Results of UK GDNF Parkinson's trial showed the Renishaw manufactured drug delivery system performed effectively and reliably**

**(BBC2 'The Parkinson's Drug Trial: A Miracle Cure?')**



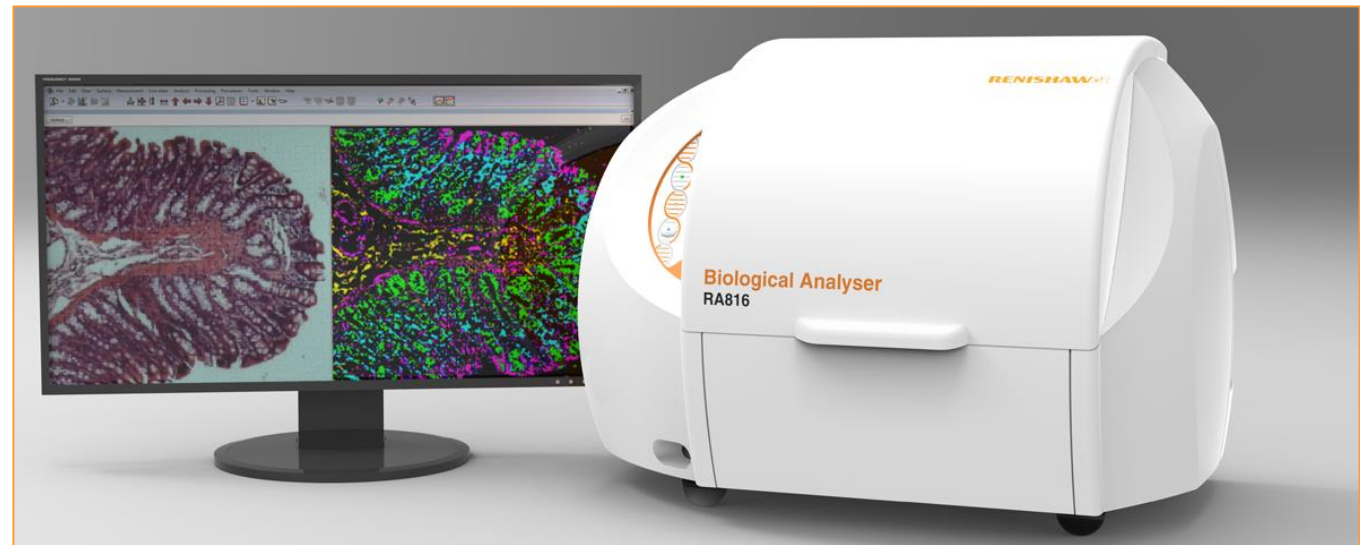
Image: Chris Marshall / Mint Motion



# Healthcare market

## Spectroscopy

- Raman systems increasingly used in industrial process control applications
- Diverse research applications including microplastic pollution, counterfeit food and battery technology
- New Biological Analyser exclusively for biological and clinical research



# Welcome and strategy overview

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Renishaw plc**