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Spectris plc

An introduction to Servomex

10 December 2024





Andrew Heath
CEO
Spectris plc



James Gravestock
President
Servomex

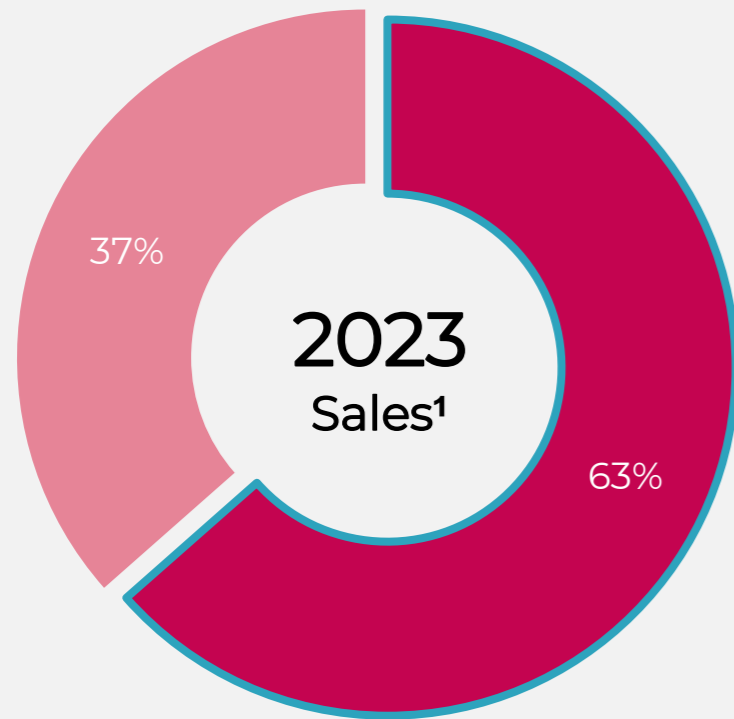


Mathew Wootton
Investor Relations Director
Spectris plc

Please submit your written questions
using the 'Questions' box that sits below
the video player

Spectris Scientific – "making the invisible, visible"

Spectris Group



Scientific Dynamics

Sales: £1.49 billion
Adj. op. profit: £270 million
Adj. op. margin: 18.2%



Spectris Scientific



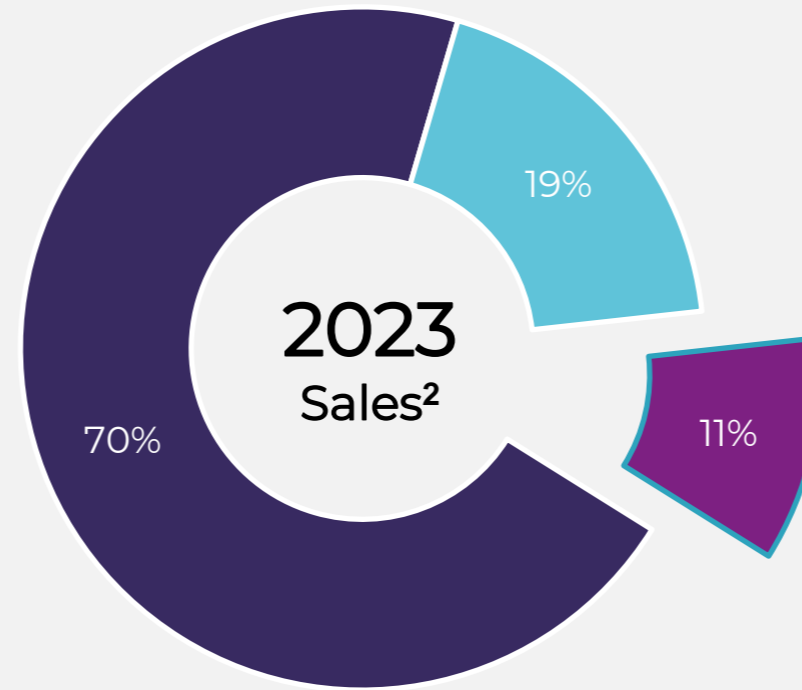
Leader in material measurement and characterisation, through the provision of high-precision instruments, workflow solutions, data science and services



Global leader in gas analysis solutions for various industries, such as industrial and medical gases, UHP gases, and semiconductors



World leader in micro-contamination monitoring solutions for ultra-clean manufacturers in life sciences and semiconductor end markets



Malvern Panalytical PMS Servomex

A division of scale, with sales over £900 million and margins in excess of 20%

All numbers presented as reported unless otherwise stated

¹Full year 2023 Group sales excluding Red Lion and including SciAps and Micromeritics

²Full year 2023 Scientific sales including SciAps and Micromeritics

Strategy for Sustainable Growth



Leading sustainable businesses



Compounding growth



Purpose-led

Delivered through our business model

Our Purpose

We are harnessing the power of precision measurement to make the world cleaner, healthier and more productive.



Our Commitment

to being a sustainable business partner, investment proposition and employer



▶ Great businesses



▶ Structural growth markets



▶ Customer centricity



▶ Investing in growth



▶ Operational excellence



▶ Investing in our people



Underpinned by Our Values

Be True

Own it

Aim High

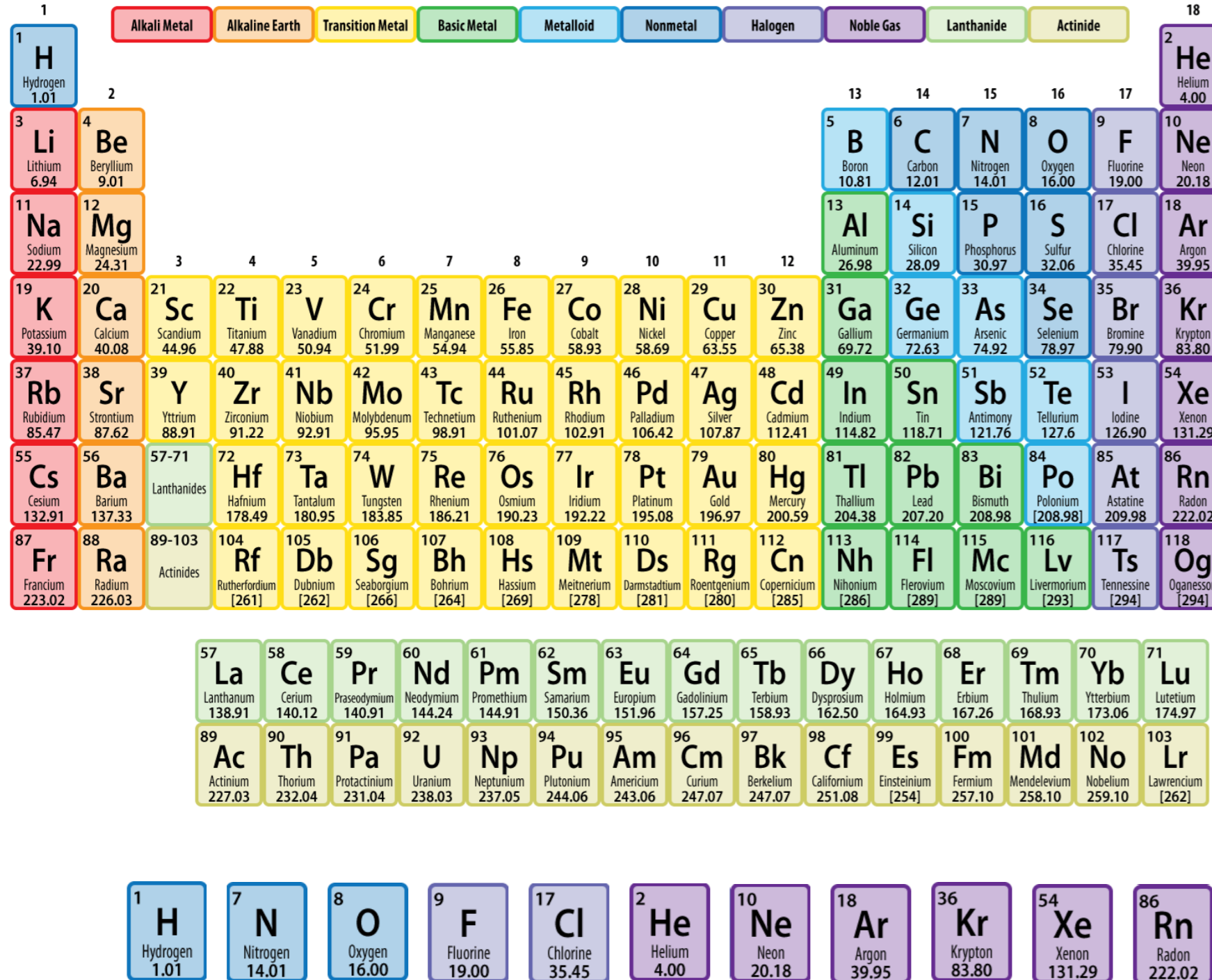
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Servomex

Analysis that empowers

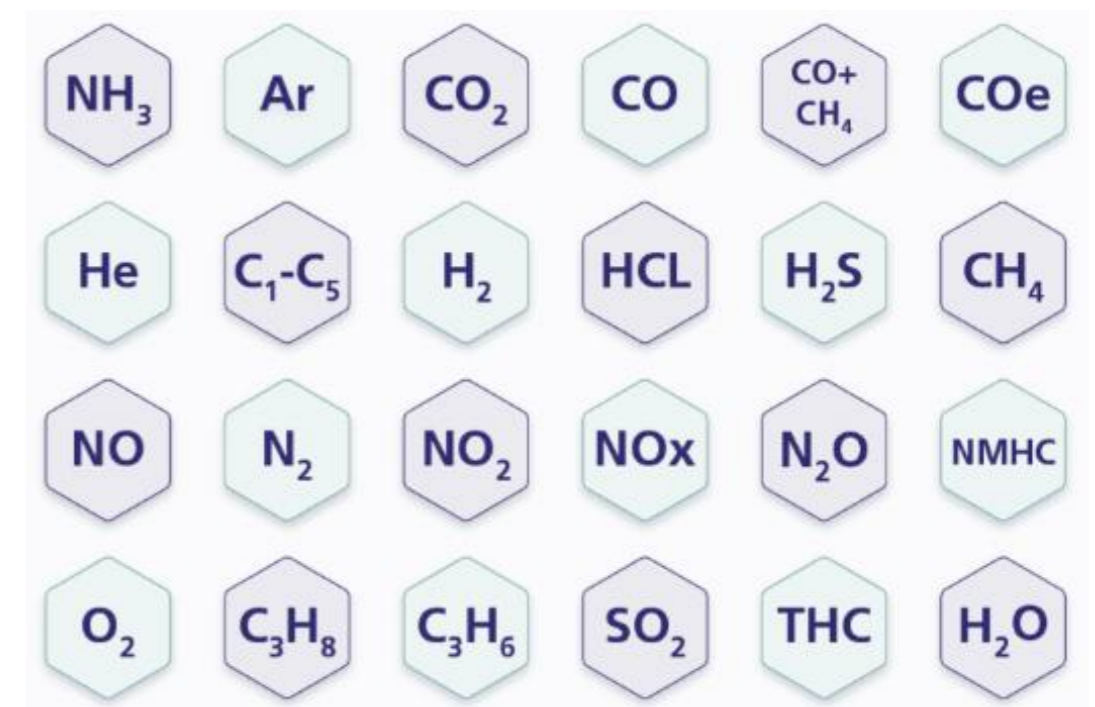


Premium, precision gas measurements for critical environments¹



- From the 11 gas elements in the periodic table, hundreds of gas compounds can be formed
- Servomex technology enables customers to detect, measure and analyse gas compounds in critical environments, where precision is essential
- Technology supports analysis to ensure ultra-high purity and across a range of sensitivity levels, down to parts per trillion

Example gas compounds that we analyse



¹Examples of critical environments include medical, industrial gas, semiconductor and energy

Providing solutions to address a number of secular growth thematics

AI and digitisation

Increasing demand for semiconductors and electronics

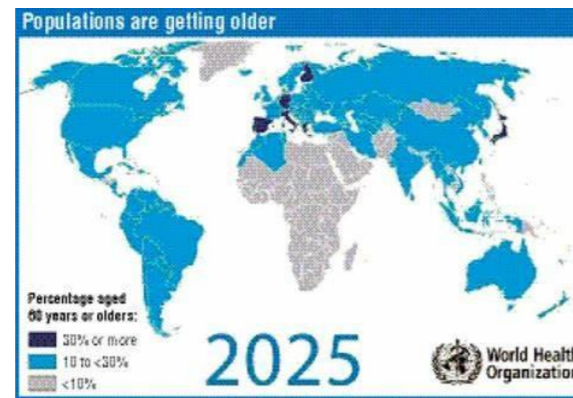


Climate change

Use fossil fuels more cleanly, minimizing environmental impact

Changing demographics

New medicines and higher demand for healthcare treatment



SERVOMEX a spectris company

Energy transition

Emerging opportunities in hydrogen and CCUS



Increasing regulation

Ensuring customers meet ever more stringent regulations



Onshoring/Reshoring

Investment to secure future supplies of critical inputs and raw materials



Purpose-led – helping customers make the world cleaner, healthier and more productive

Combustion

Emissions

Medical

Safety

Quality

Process control

Cleaner...

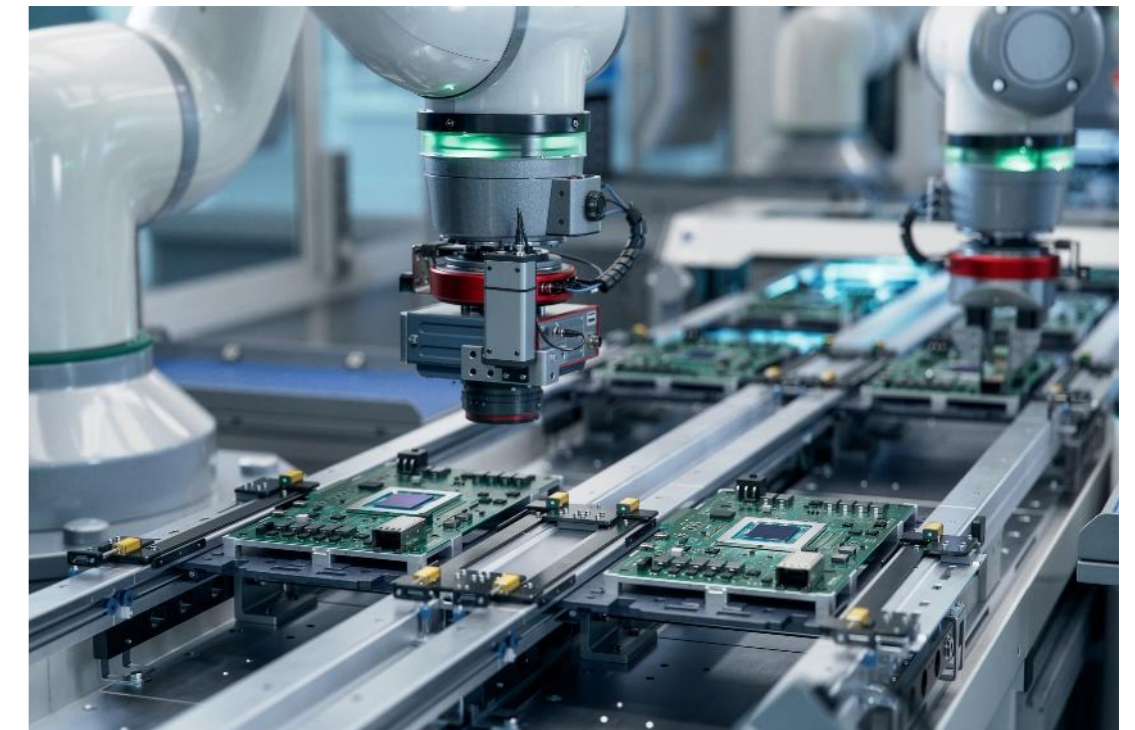
- Low-emission power generation
- Sustainable manufacturing
- Carbon-free fuels
- Cleaner air for all

Healthier...

- High-purity medical oxygen
- Ventilators and incubators
- Safer processes and plants
- Improved laboratory research

More productive...

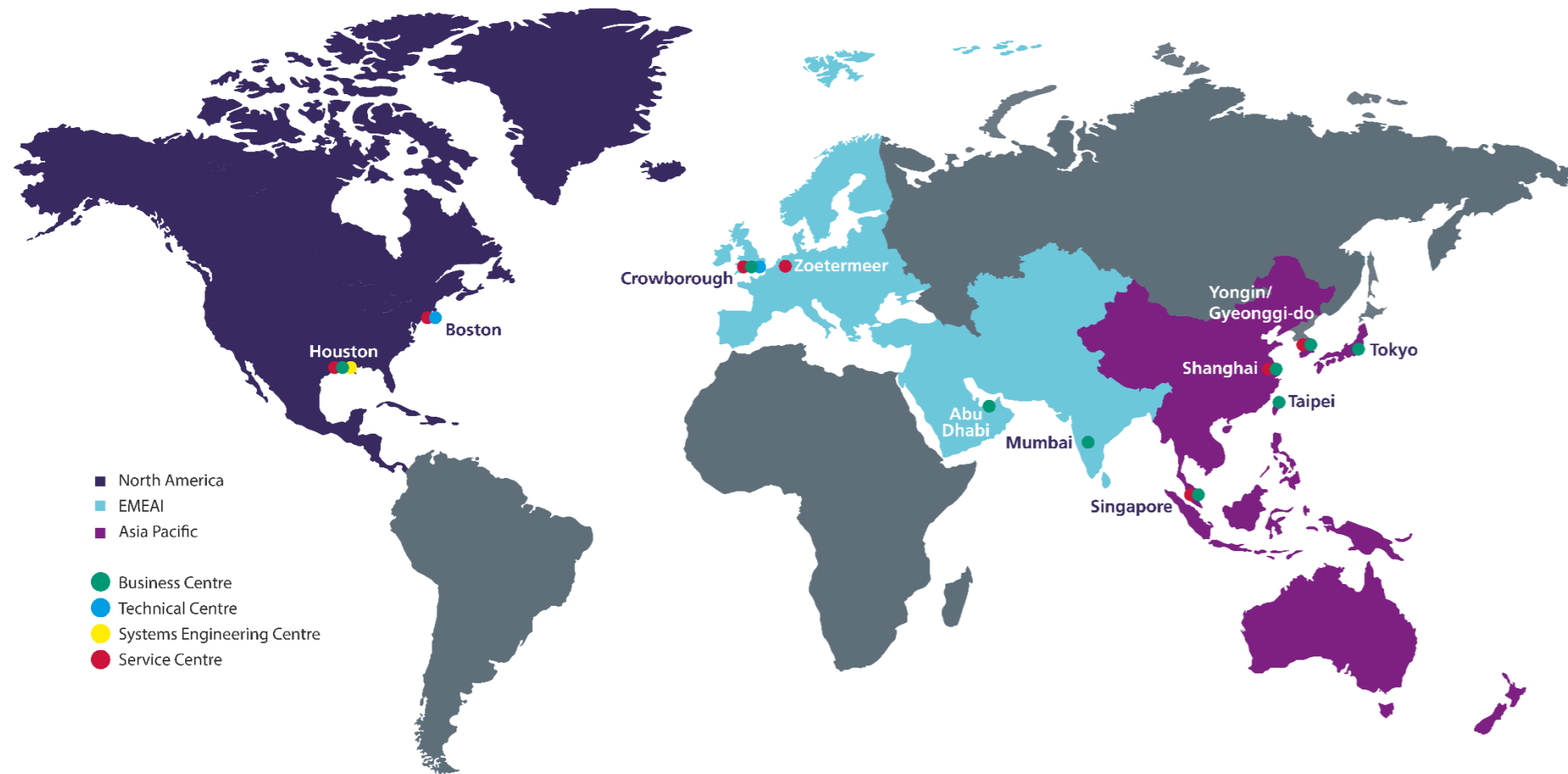
- More efficient use of resources
- Increased customer uptime
- Faster, leading-edge technology
- Higher-quality product and yield



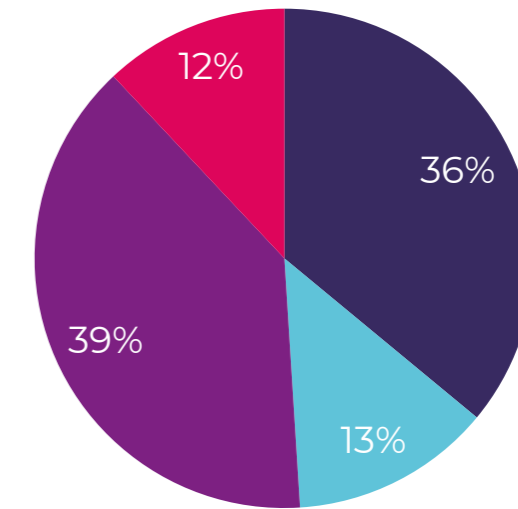
A world leader in premium gas analysis

Overview

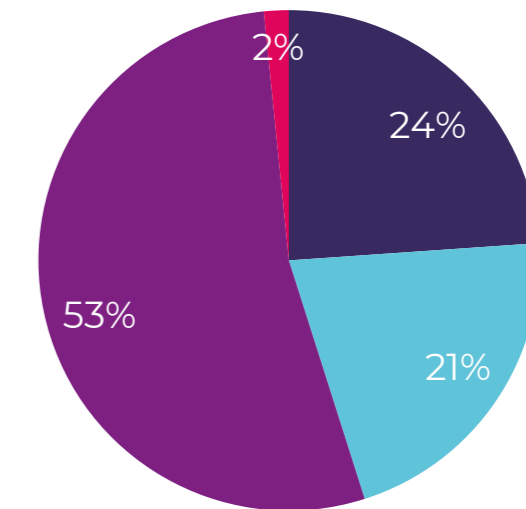
- Established in 1952, HQ in Crowborough, UK with 430 employees in over 20 countries
- Provider of premium gas analysis for critical environments and complex applications
- Global Centres of Excellence in UK and US
- Designer and developer of proprietary sensing technology, with 24 active and pending patent families
- Large installed base with ~50,000 analysers in the field



Sales breakdown FY 2023



- Air Separation
- Energy & Industrial
- Semiconductor
- OEM Sensors



- North America
- EMEA
- APAC
- RoW

Groundbreaking sensor technology, leading gas analysers and comprehensive systems

1

Sensor technology

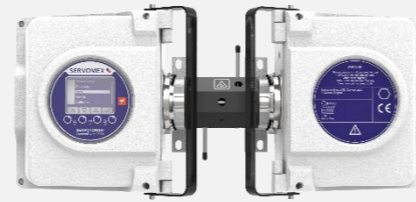
- Proprietary sensing solutions for our own gas analysers and for OEM partners in medical and industrial markets
- Our sensors power critical applications such as ventilators and anesthesia machines
- They also help monitor industrial emissions and measure gas purity in semiconductors
- Our sensing capabilities are a key differentiator versus competitors

 **Hummingbird**
SENSING TECHNOLOGY



2

Gas analysers



Gas analysis for hazardous areas



Analyzers for safe area conditions



Measurement for ultra-high-purity gases

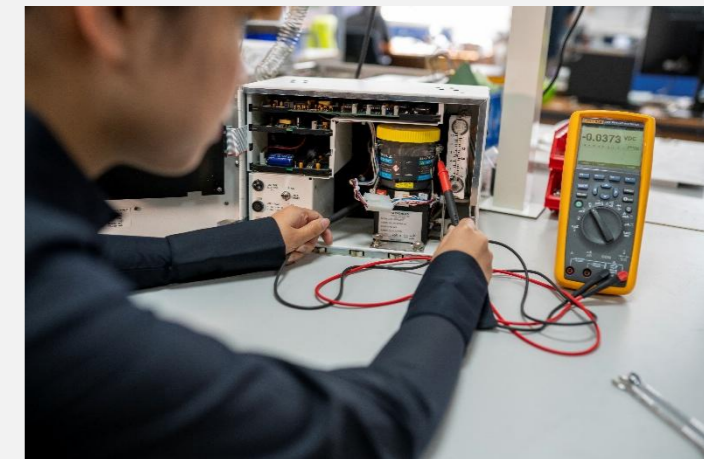


Portable solutions for easy handling

3

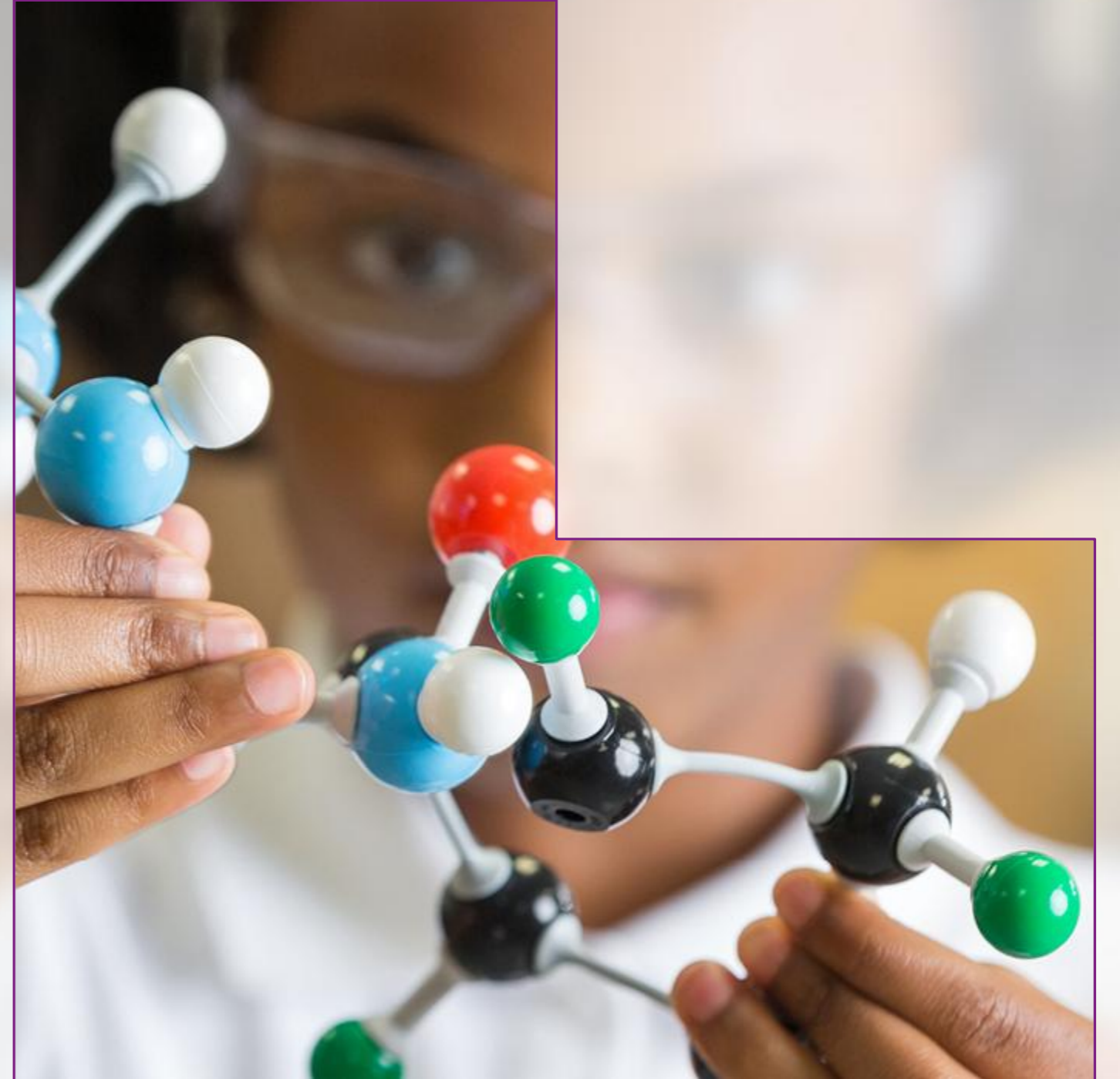
Spares, service and systems

- Stable, recurring revenues from the sale of spare parts and servicing
- Worldwide network of engineers providing rapid support and applications knowhow
- Standard and custom-built solutions using multiple gas analysers that are integrated into a complete system



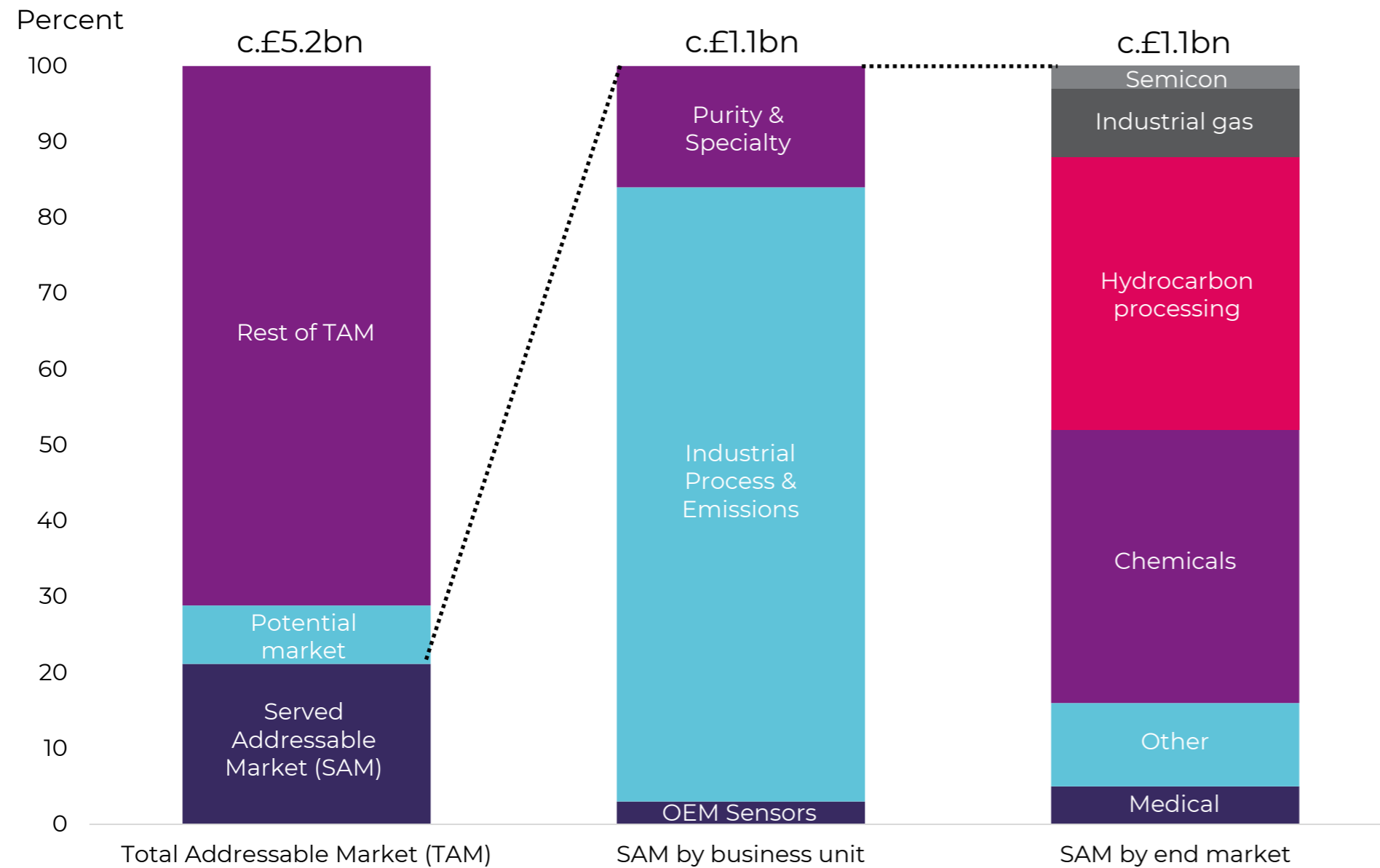
Worldwide technical expertise and support across each revenue stream

Market and capabilities



We operate in a large addressable market with significant opportunities for growth

Estimated Total (TAM) and Served Addressable Markets (SAM)



Servomex operates in a very large addressable market that provides significant future growth opportunities

- The total addressable gas sensing market is estimated to be worth in excess of £5bn and is expected to grow mid-single-digits
- Servomex targets the premium segments of gas sensing with a served addressable market of over £1bn
- There is scope to increase this further through the development of new technologies to grow market share and new markets such as CCUS and hydrogen

Source: LEK, market share/sales data extrapolated, Oxford Economics

We serve a number of critical end markets

Providing critical support to our customers

OEM Sensors



- OEM partners in critical care and industrial markets
- Market leading gas sensors for ventilators and respiratory monitoring
- Supports gas measurements in industrial settings, and controls O₂ and CO₂ for food preservation

Purity & Specialty (P&S)



- Purity and quality assurance processes in industrial gases and semiconductor manufacturing
- Ultra-High-Purity gas analysis for semiconductor manufacturing
- Purity assurance for medical gases and meeting regulations

Industrial Process & Emissions (IP&E)



- Chemical & hydrocarbon processing and power generation markets
- Advanced gas analysis for complex applications
- Enables cleaner and safer processes, and regulatory compliance through emissions monitoring

Customer purchase criteria

- Easy integration
- Total cost of ownership
- Confidence in supply chain

- Ultra-high purity
- Accurate trace measurements
- Consistency

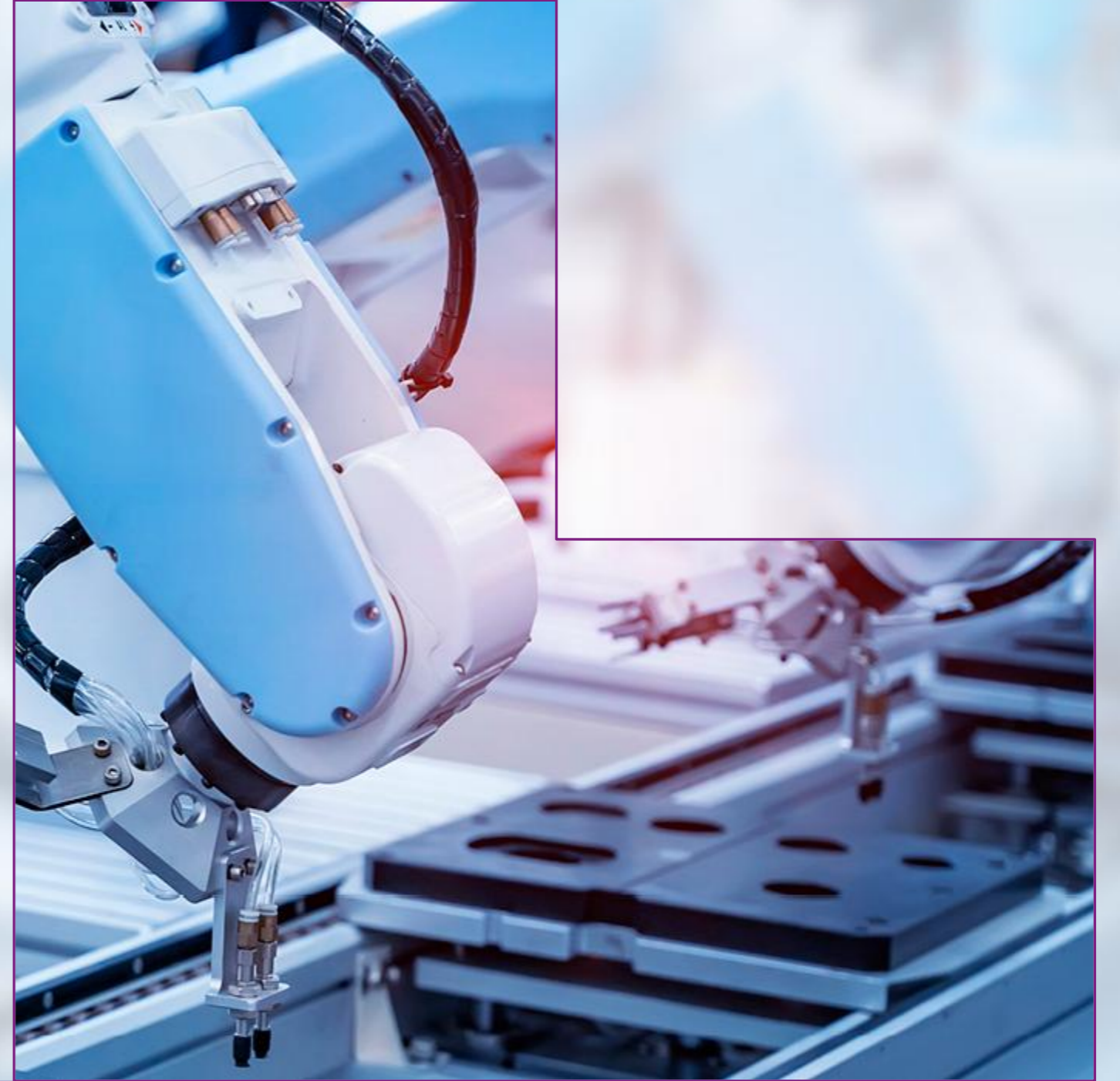
- Hazardous area
- Quick analysis response
- Application knowledge

Common to all

- Accuracy and sensitivity
- Stable & reliable measurements
- Domain expertise
- Optimal technology
- Minimum downtime
- Strong aftersales support and service

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OEM Sensors



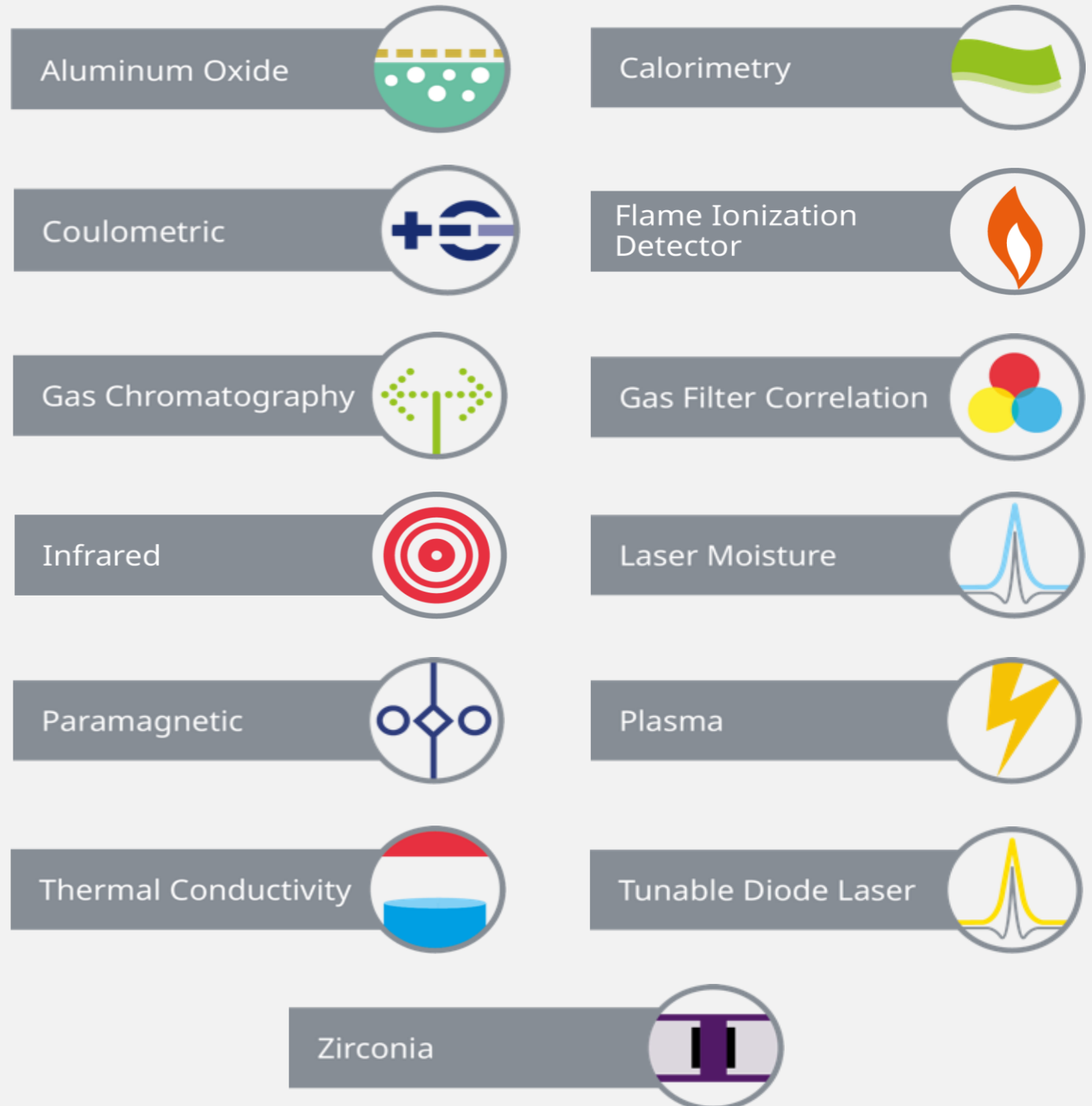
OEM sensors provide Servomex with a source of competitive advantage



- OEM sensor business provides leading sensor technology for OEM partners in medical and industrial markets
- Significant source of competitive advantage
- Breadth of technologies allows Servomex to better understand customer requirements and provide bespoke solutions
- Creating innovative sensors to meet new customer needs providing significant growth opportunities



A wide range of technologies



Medical

Operating room equipment

Patient monitoring through oxygen measurement in anesthesia machines



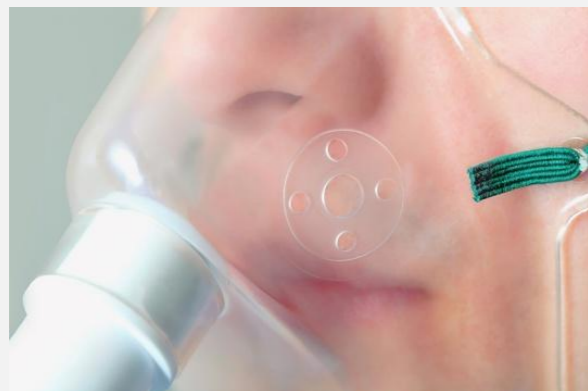
Intensive care units

Neonatal incubators, critical care ventilators and intra-hospital transport



Medical gas purity

Monitoring medical gas production and distribution (pipeline & bottle delivery)



Life science & sports medicine

Gas sensing in anesthesia systems, veterinary testing and sports monitoring



Industrial

Process & safety control

Gas analysers in industries from power generation to petrochemical production



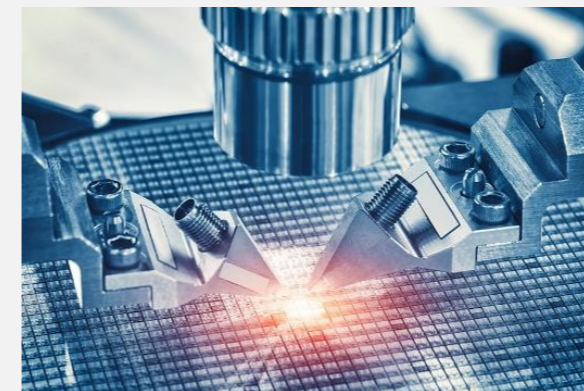
Emissions monitoring

Monitoring emissions and unwanted pollutants in CEMS and vehicles



Gas purity

Required in electronics production and semiconductor manufacturing



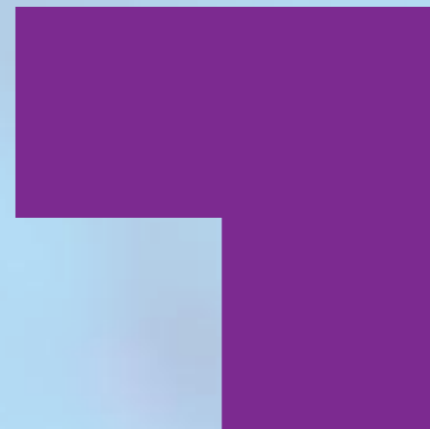
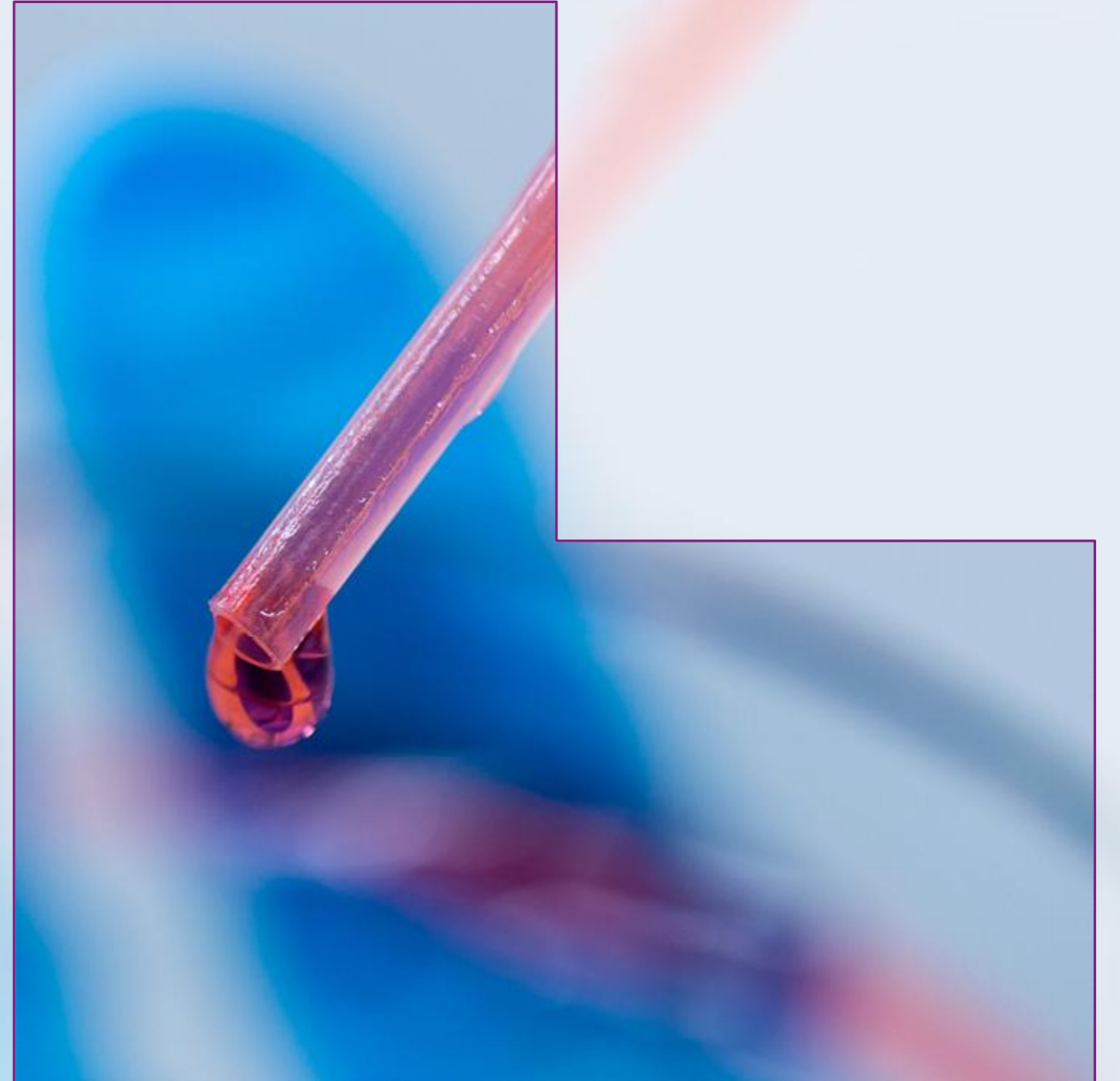
Marine-based industry

Gas analysis in industrial deep-sea diving to ensure the safety of workers



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Purity & Specialty



Purity & Specialty – providing critical analysis and measurements where ultra-high purity is essential

Bulk Production Air separation / industrial gases



Use cases: Process control, quality

Customers: Major chemical and gas handling companies

Key products:



Multi-gas analyser



Flexible trace gas analyser

Transport & custody transfer



Use cases: Quality, safety

Customers: Major chemical and gas handling companies

Key products:



Portable gas analyser

Post Purification & QC Semiconductor



Use cases: Quality, process control

Customers: Semiconductor manufacturers

Key products:



Ultra-trace gas analyser



Ultra-trace moisture analyser



Ultra-trace oxygen analyser

P&S product offering: Air Separation and Semiconductor Manufacturing

Air Separation

- Gas analysis ensures gas purity during the air separation process
- Monitoring gas purity is also vital between the separation process and product transportation
- Highly accurate trace measurements are required for a range of impurities

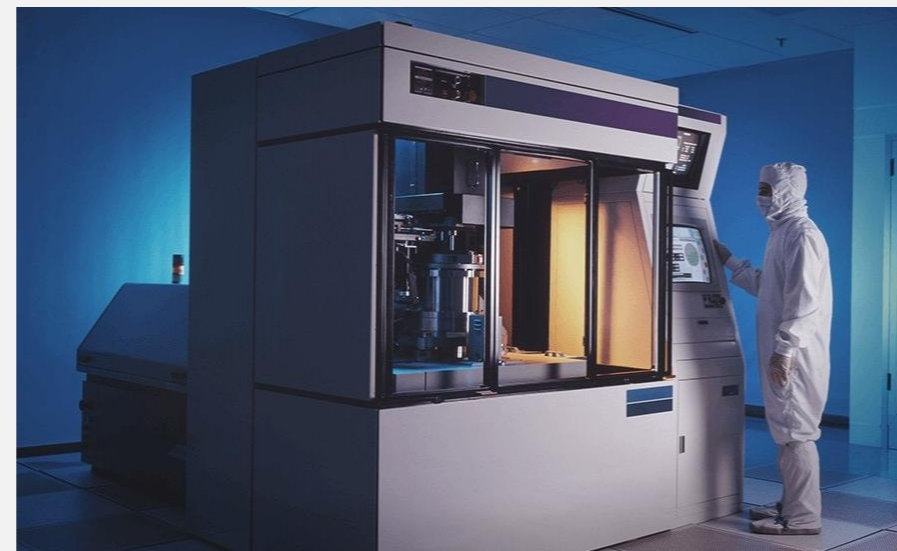


Sources of competitive advantage

- Unique in manufacturing all CQC solutions
- Ability to provide ultra-low-level measurements
- Fast readings minimise unplanned downtime
- Strong customer relationships and key account management

Semiconductor Manufacturing

- Gas monitoring at low concentration levels ensures that ultra-high-purity gases are used
- Higher purity to match semiconductor node size reduction
- Supporting industrial gas suppliers and semiconductor fabs at all stages of the process



Key products



MultiExact 4100

Provides up to four simultaneous gas stream measurements



DF-760E ULTRA

A solution for trace and ultra-trace moisture and oxygen



DF-560E NanoTrace ULTRA

Delivers industry-leading detection of 45 parts per trillion for O₂

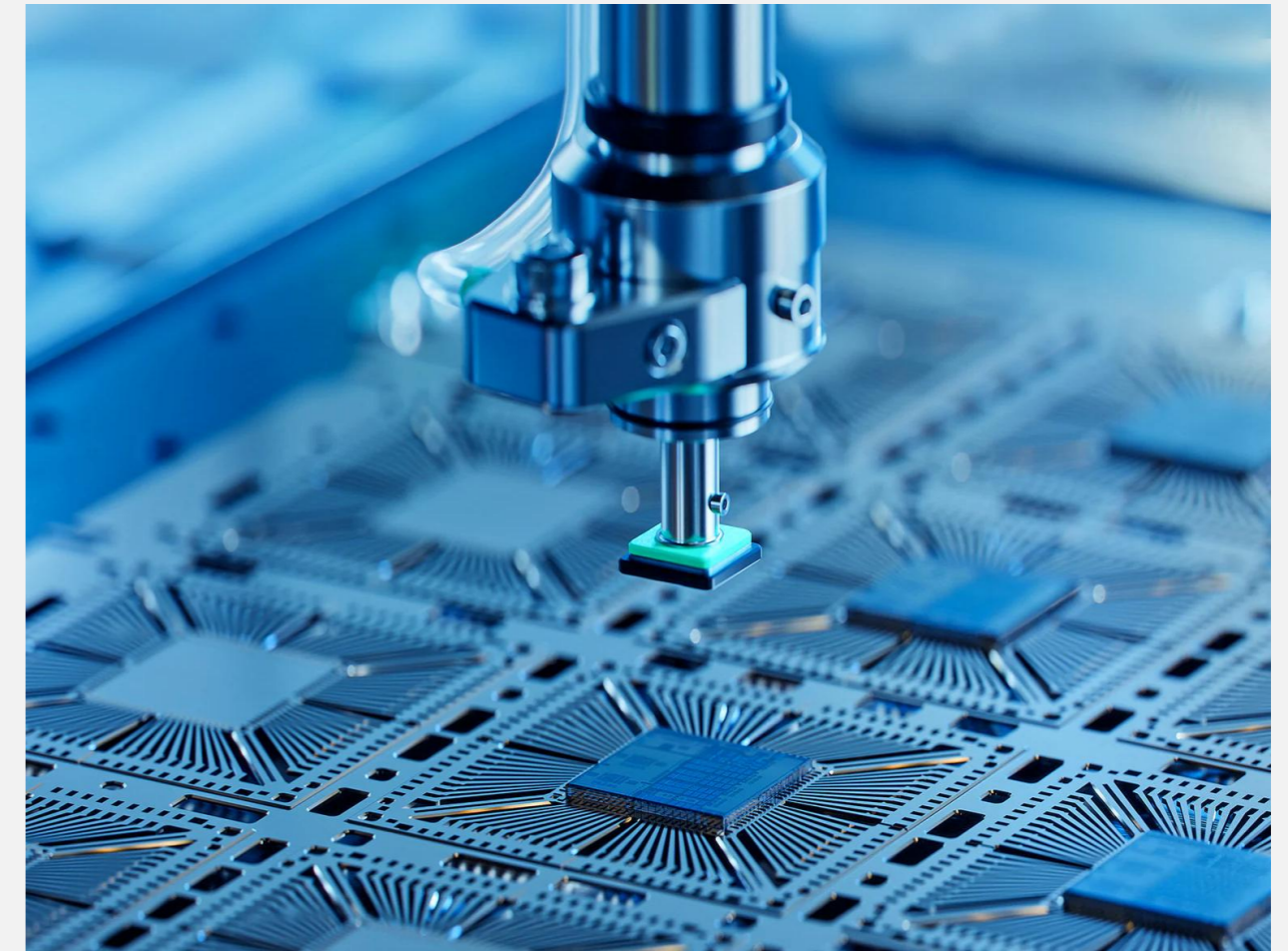
P&S customer case study: Semiconductor advanced packaging plant in Singapore

Customer requirements

- Advanced semiconductor packaging combines multiple semiconductor chips into a single electronics package
- Global semiconductor manufacturer needed reliable and highly sensitive gas analysis to ensure ultra-high-purity gases are being used in various manufacturing processes (parts per trillion)
- Ongoing quality control was also essential to minimise costly, unplanned downtime
- Best-in-class solutions and support

Servomex solution

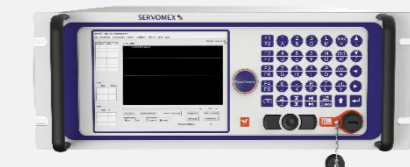
- Track record in providing best in class, in-process, highly sensitive gas analysis technologies and expertise for the Semiconductor industry:
 - Ability to measure trace oxygen, trace moisture and impurities such as N₂, H₂, CO and CO₂ down to a part per trillion level of accuracy
 - Unlike other technologies, the Servomex solution does not require hydrogen to be added to the sample stream
- Confidence in our abilities to provide Continuous Quality Control and supporting expertise
- Significant order for our "Ultra" range of gas analysers



DF700 Ultra



Nanochrome



MonoExact DF300



DF500 Ultra



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Industrial Process & Emissions



Industrial Process and Emissions (IP&E) – ensuring safety and quality across industrial applications

Pipeline & transport

Chemicals, refining & processing

Compliance storage & distribution



Use cases: Safety, quality, process control

Customers: Global oil majors

Key products:



Digital oxygen analyser for hazardous area



Portable gas analyser



Use cases: Process control, quality, emissions, safety

Customers: Global oil majors and regional tier 2 players

Key products:



Photometric analyser for water analysis



O₂, CO_e analyser for flue gases



Paramagnetic oxygen analyser



Use cases: Safety, quality, emissions

Customers: Global oil majors and regional tier 2 players

Key products:



Compact, fast-response analyser



CEMS analyser

Combustion control

- Expert solutions for the optimisation and control of combustion processes
- Gas analysis to increase the safety and efficiency of power generation while reducing harmful emissions



Process control

- Accurate, reliable gas analysis is essential for hydrocarbon processing
- Effective solutions for process control, safety and quality in a wide range of midstream and downstream applications



Emissions control

- Achieving regulatory compliance for emissions is increasingly vital for plant operators
- Accurate monitoring solutions allow for efficient operations within legislative limits



Sources of competitive advantage

- A breadth of technologies and product lines for hazardous area applications
- Non-depleting, low maintenance solutions
- Substantial expertise and experience in customer processes

Key products



SpectraExact 2500F
Flexible gas analysis for corrosive, toxic and flammable sample streams



Laser 3 Plus Process
Fast, accurate and responsive measurement of process oxygen



FluegasExact 2700
Measures O₂ and CO_e in flue gases for efficient combustion and reduced emissions.

Customer requirements

- Targeting 5m tonnes of iron and steel production with a 95% reduction in CO₂ emissions compared to traditional methods
- Needed to demonstrate that hydrogen can generate the required power to produce green steel
- Gas analysis is required throughout production in order to control the process and monitor the emissions

Servomex solution

- A strong relationship with the customer developing innovative green steel solutions in the US and North Africa
- Servomex solution and expertise specifically designed for this Direct Reduction Iron application
- Servomex provided a full suite of process and emissions management solutions to meet the premium, best-in-class analysis requirements of the plant
- Significant order included: the 1900, 2200, 2500E and our brand new SpectraExact 2500F, a hazardous area gas analyser for flammable sample stream applications



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Investing in growth

Research & Development



Significant growth opportunities

Developing new technologies

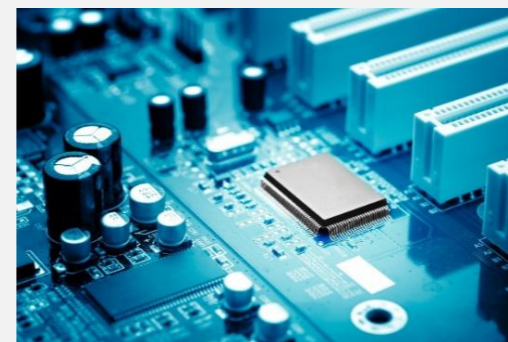
- Tunable Diode Laser (TDL)
- A completely new application of TDL sensor technology
- Fit and forget technology:
 - Minimises recalibration
 - More uptime
 - Reliable, accurate readings in mobile applications
- Expected to come to market in 2025
- Opens up a number of potential new applications for our gas analysers and expands our served addressable market



Image for illustrative purposes only

Expanding into adjacent markets

- Significant market share opportunity by selling existing products into adjacent markets
- Increase share of wallet of our current customer base
- Examples:
 - Electronic gases
 - Cleantech
 - Pharmaceuticals



Accessing new markets

Carbon capture, utilisation & storage

- Removing or utilizing carbon from industrial processes is expected to be a significant opportunity for gas analysis



Hydrogen

- The hydrogen economy will rely upon extensive gas analysis across generation, storage, transport and point of use



Operational excellence and the Spectris Business System delivering significant benefits and driving margin

- Spectris Business System (SBS) and lean mindset embedded into daily work at Servomex sites
- Increased shipping and R&D capacity; investing in automation
- Bronze certification achieved at sites in the UK and US as part of the Go For Gold programme
- Servomex recipient of five Spectris SBS awards over the last 2 years

The SBS delivers tangible and sustainable value and is embedded in our DNA so that continuous improvement is owned by everyone

Reduced lead times

Delivery performance

Line efficiency

Over £5 million of benefits through SBS over the last two years



A strong focus on sustainability



Our planet

- 100% certified renewable electricity for core global operations
- <2% of UK total waste going to landfill and driving towards zero
- 195MWh solar system installed and operational at UK site providing >15% of electricity needs
- 165MWh solar carport planned Q1 2025



Our value chain

- Full product lifecycle assessments completed to support our Scope 3 emission reduction plans
- Awarded Ecovadis Gold rating 2022 and 2023, putting us in the top 5% of all manufacturing companies
- Targeting top 25 supply partners by spend to undergo Ecovadis assessment



Our society

- Strong STEM group activities attracting talent for the future
- Working with local Green Transition Groups and sharing sustainability best practices
- Partnering with Wildlife Groups, Community Groups and Staff to protect and develop local rare habitats



- Global provider of premium gas solutions solutions for critical environments
- Leading technology and expertise helping customers solve their complex problems
- Large addressable market with significant growth opportunities
- Large and expanding installed base providing good source of recurring revenues
- Strong, long-standing customer relationships

SERVOMEX
a spectris company

Thank you for listening

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Questions

