

Key: the percentage of the Group's group revenue, associated with climate-related trend

Low: <3%

Medium: 3-10%

High: <10%

Climate-related trend

Technology - Development of additive manufacturing (AM)

We believe that AM is becoming a more mainstream option for volume manufacturing. External forecasts predict a 20% growth in the AM market by 2030 and we believe that environmental sustainability will be a key driver for this growth. To achieve global sustainability targets, there will be significant disruption to established production processes.

- AM has the potential to reduce energy and material consumption compared to established subtractive manufacturing processes, as AM uses only the material you need rather than machining it away. Using AM could help our customers lower GHG emissions associated with their direct manufacturing processes. It would also avoid the generation of waste materials such as swarf, which would reduce embodied GHG emissions related to their material consumption.
- Another significant benefit of AM is its ability to make lighter products compared to other production methods. We are already seeing the positive effects this can have on our customers' sustainability objectives within the aerospace sector, where lighter AM parts reduce the energy in use and associated Scope 3 emissions required to fly. Lighter parts also create opportunities to use alternative materials with lower embodied carbon that wouldn't be viable in other production methods.
- AM can also offer superior thermal management performance due to the design freedoms that the net shape process offers. With the ability to form complex lattice and thin-wall structures, AM can produce very high surface area components which enables enhanced heat transfer compared with traditionally-made parts. This could create growth opportunities across markets such as EV and renewable energy generation, where electrical components need cooling to maximise efficiency.
- We also believe that the more established manufacturing processes our other products support will be complementary to AM. AM applications are likely to drive demand for alternative subtractive finishing solutions for removing small amounts of metal from complex shapes at higher speeds. This may drive new opportunities for on-machine process control. We also believe that, as AM designs continue to evolve, our uniquely flexible 5-axis inspection solutions and our automated path planning software will benefit from being able to reach features which would otherwise be inaccessible.

Potential velocity under a 1.5 °C pathway

Current state	FY2024 – FY2029 (short-term)	FY2030 – FY2049 (medium-term)	FY2050+ (long-term)
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Our response and resilience

- We have established our roadmap to reduce the barriers to AM adoption with more detail in our latest Annual Report.
- We are focused on demonstrating the climate-related opportunities of adopting AM to our customers. One way in which we intend to do this is by completing life-cycle assessments on the AM components that we design into our own products.

Technology – Transition from manufacturing internal combustion engine (ICE) vehicles to electric vehicles (EVs)

The transition to EVs is creating new processes, assembly plants, supply chains, research, and customers which offers significant opportunities for all our relevant products.

- Our Position Measurement products and services are expected to benefit from this transition as EVs contain more semiconductors, sensors, and flat panel displays than ICE vehicles. An increasing demand for semiconductors and the continual miniaturisation of components could result in the need for increased performance for production and inspection equipment, which would further benefit us.

- The reduction in piece parts and the longer lifespans of EVs compared to ICE vehicles could result in a net reduction in consumption of machined parts for powertrain applications. This is a revenue risk for Industrial Metrology.

- However, we believe that our Industrial Metrology products will benefit from new EV manufacturing processes that are expected to drive an uptake in process control and inspection equipment. Shifting supply chains are also expected to create opportunities to grow our market share in areas such as the control and gauging of EV component assemblies. We expect that these additional high-value metrology systems sales will more than offset any reductions in sensor sales for ICE applications.

- We are also benefitting from increased EV research funding with our Spectroscopy products used for battery research.

The global trend towards automation and robot-use also creates opportunities for our newly launched Industrial Automation products. This will benefit from increased automation in new assembly plants for EVs.

Potential velocity under a 1.5 °C pathway

Current state		FY2024 – FY2029 (short-term)		FY2030 – FY2049 (medium-term)		FY2050+ (long-term)	
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Our response and resilience

- We will continue our engagement in EV applications development to provide the best solutions to our customers.
- This will be achieved through increasing resources dedicated to this area alongside forming and maintaining relationships with key partners to ensure our products meet their needs and will be incorporated into their future platforms.

Policy and legal – Increasing carbon taxation

- Carbon taxation will affect us globally. In the short-term, we have had to dedicate time to reporting under the European Union's (EU) Carbon Border Adjustment Mechanism (CBAM). Whilst our exposure has been low, CBAM could create risks by increasing costs in our supply chains, which may be passed on to us.
- The CBAM will initially cover a range of carbon-intensive commodities imported into the EU including aluminium and steel. While we only source 15% of our metals from outside the EU, producers within the EU will see a phasing out of the free carbon credits they have received historically. This will increase their costs.
- We have undertaken an assessment of our imports in the light of a potential UK CBAM and have concluded that even when considering high carbon price projections, we would directly pay an immaterial amount of carbon tax based on the commodities predicted to be affected.
- However, we believe that carbon taxation could ultimately create more opportunity for us. It may act as a driving force for increased use of metrology to reduce manufacturing process variation and scrap, driven by the high cost and carbon impact of input materials.
- Carbon taxation also incentivises repair and reclamation, which tends to require further automation and metrology solutions.

Potential velocity under a 1.5 °C pathway

Current state



FY2024 – FY2029
(short-term)



FY2030 – FY2049
(medium-term)



FY2050+
(long-term)



Our response and resilience

- Alongside the potential financial implications of the CBAM, we have also identified that our metal purchases are a large carbon hotspot in our Scope 3 emissions. We are investigating how we could incorporate aluminium with a higher recycled content and, therefore, lower embodied carbon into our products.
- We are also developing our approach to carbon accounting, which will help us establish our internal carbon pricing. This will help us gain more visibility of the embodied carbon in the materials we use and make more informed design and purchasing decisions.
- We will continue to promote the sustainability benefits that our products offer and the impact this could have for our customers' sustainability journeys.