# Task Force on Climate-related Financial Disclosures (TCFD)

In accordance with the UK Climate-related Financial Disclosure Regulations (CFD) and Listing Rule 6.6.6R(8) we confirm that the following pages contain disclosures consistent with the Task Force on Climate-related Financial Disclosures' (TCFD) recommendations and recommended disclosures.

Our approach is fully aligned with 10 of the 11 TCFD recommendations. For the remaining disclosure, metrics and targets b) disclose scope 1, scope 2 and, if appropriate, scope 3 greenhouse gas (GHG) emissions and the related risks, we report scopes 1 and 2, but report scope 3 with a one-year time lag, due to the complexity of collecting the data within the timeframe of the production of the Annual Report.

In 2024, we used a third-party carbon accounting specialist to support the recalculation of our scope 3 emissions to include 2022 acquisitions Vulcanic and Durex Industries. Our recalculated 2021 baseline was submitted to the SBTi and our targets re-validated in December 2024. We also calculated scope 3 emissions for the whole Group for 2023, which can be found on page 67. Scope 3 is highly complex and requires significant levels of estimation where data are not available. We are still developing our data collection processes for scope 3, during the year we undertook significant work to re-baseline for recent acquisitions and we are reliant on external support. Therefore, it was not possible to calculate full scope 3 emissions for 2024 ahead of the reporting deadline. We have disclosed a partial scope 3 figure (category 3, B and C) for 2024, which can be found on page 67.

During 2024, we further improved our data collection processes through establishing a clear timetable and reporting expectations and also increased stakeholder engagement. In 2025, we will work to further increase the efficiency and speed of these calculations. We aim to publish in-year scope 3 analysis when Spirax Group is expected to come into scope for Corporate Sustainability Reporting Directive (CSRD) disclosures in 2029, in respect of full year 2028, if not before.

We will review our disclosures against the recommendations of TCFD on an annual basis.

## Governance

### Describe the Board's oversight of climate-related risks and opportunities

In 2024, our approach to governance for the **One Planet** Sustainability Strategy evolved to reflect its successful implementation and integration into our core business strategies. The Group Executive Committee (GEC) met in early 2024 to review the strategy's governance. It was agreed that we no longer needed the GEC to act as a Steering Committee for the strategy or to sponsor each Strategic Initiative individually. Instead, in line with the governance of the new **Together for Growth** Strategy, the **One Planet** Sustainability Strategy is now overseen by a single Executive Committee Sponsor, the Group Sustainability Director, and one Business Executive Committee Sponsor. This streamlined approach ensures focused leadership and accountability for our sustainability efforts (see Sustainability governance structure on page 89).

We maintained other key elements of our governance framework, such as the Group Sustainability Management Committee (GSMC), that met five times throughout 2024 to review strategic progress and review annual improvement priorities and areas of focus for 2025. This committee oversees the implementation of the **One Planet** Sustainability Strategy and ensures alignment with our sustainability goals. Progress against strategic targets is formally reported to the GEC every quarter with a **One Planet** update, with ad hoc updates or strategic discussions embedded in the regular cadence of monthly GEC meetings, when required.

The Board of Directors continued to maintain strategic oversight of the **One Planet** Sustainability Strategy, and received four updates during 2024, at full meetings of the Board and three updates at Audit Committee meetings. These updates included progress on the Group's **One Planet** targets and preparation for the upcoming requirements of CSRD. As the overall sponsor of the **Together for Growth** Strategy, developed in 2024, the Group Chief Executive Officer also remains an overall sponsor for the **One Planet** Sustainability Strategy. This robust governance structure ensures that sustainability remains at the forefront of our business agenda, driving continuous improvement and innovation.

The Board is responsible for the overall stewardship of strategic risk management and internal controls. The Audit Committee is also directly involved in the detailed review of risks, including those outlined in these disclosures, and reports back to the Board on its findings. During 2024, the Audit Committee Chair attended a Risk Management Committee meeting and the Board oversaw the review of the Principal Risks, as well as the presence of climate change on the Group Risk Register.

Our **One Planet** Sustainability Strategy is an important mechanism by which we seek to mitigate climate-related risks and maximise climate-related opportunities, while our **Together for Growth** Strategy focuses on revenue growth, building on our strong foundations as a Group. **One Planet** supports the delivery of our Growth Drivers, enabling us to evolve for tomorrow's world.

Supporting customers on their decarbonisation journey is a significant element of both our Steam Thermal Solutions (STS) and Electric Thermal Solutions (ETS) Business strategies and is a designated Strategic Growth Driver within the **Together for Growth** Strategy. The Board provides strategic oversight and approval of Business strategies, ensuring that we have appropriate governance and oversight of any market-based risks or opportunities that could arise as a result of climate change.

Where sustainability, including carbon reduction investments, is part of a large Capex proposal, these investments are directly approved by the Board. Climate impact is considered as one of the factors when making Capex decisions, which would also include mergers, acquisitions and other business plans. No specific carbon

reduction investments were reviewed or approved by the Board in 2024. During the year we established a formal net zero Capex planning process to ring-fence net zero investments during the annual financial planning cycle, with specific net zero investments reviewed and approved by the Group Executive Committee for inclusion in Plan 2025.

We completed a Double Materiality Assessment in 2024, in preparation for CSRD reporting, and anticipate that, based on current requirements, 'ESRS E1 Climate Change' will be a material disclosure for reporting going forward.

### Sustainability governance structure


## Strategy

### Describe management's role in assessing and managing climate-related risks and opportunities

The Risk Management Committee has responsibility for managing climate-related risks. Sarah Peers, Group Sustainability Director, had specific delegated responsibility for overseeing climate-related risks and mitigation activities in 2024. Through her role as a member of the Group Executive Committee (GEC) she ensures that climate-related risks and opportunities are appropriately considered in management's day-to-day operational practices.

During 2024, we reviewed the Group's exposure to risk using a top-down approach, where the Committee sought views of the Group operating companies on the risks that they considered may affect their activities, to ensure visibility of any new or emerging risks. Following this process, the Committee reviewed and confirmed that adequate countermeasures are in place to mitigate the Principal Risks in the Group Risk Register.

During 2024, management of the Group's climate change mitigation activities was overseen by the Board, the GEC and the GSMC. The GSMC comprises the Group Sustainability Director, the Business Heads of Sustainability, Strategic Initiative and Strategic Project Leads and other relevant individuals.

Management oversight of climate-related risks and opportunities is embedded within the **One Planet** Sustainability Strategy and our **Together for Growth** Strategy. Through these, the GEC and Business Executive Committees consider climate-related risks, opportunities, strategic implementation and progress against targets.

### Describe the impact of climate-related risks and opportunities on the organisation's Businesses, strategy and financial planning

Growing awareness of climate change and customer sustainability targets will continue to provide an impetus for business growth as we provide products, services and solutions that increase efficiency and reduce customers' energy use and carbon emissions. We believe that decarbonisation provides a material opportunity for Spirax Group and, as a result, it has been identified as a Growth Driver in our new **Together for Growth** Strategy. We have quantified the size of the addressable market as £2.4 billion in relation to the decarbonisation of steam generation and £4.2 billion for the decarbonisation of thermal energy beyond steam, expanding the Group's addressable market from £10.7 billion to £17.3 billion. Providing us with the opportunity to capitalise on the decarbonisation trend ahead of us.

To mitigate the risks outlined, our **One Planet** Sustainability Strategy underpins our Business strategies, which in conjunction with the voice of the customer and understanding customer needs, allows us to develop products and services that help them achieve their own carbon reduction targets. We also ensure we are managing reputational risk by reducing our own emissions, in line with our commitments to the Science-Based Targets initiative (SBTi).

# TCFD and CFD continued

## Strategy continued

### Describe the impact of climate-related risks and opportunities on the organisation's Businesses, strategy and financial planning continued

As part of our financial planning process, we have an annual financial plan for sustainability. When considering sustainability investments, we prioritise initiatives that deliver the best value of £/t$CO_2$e saved. In 2022, we developed and commenced implementation of net zero roadmaps across our manufacturing sites and are delivering excellent progress. For more information about our net zero roadmap, see pages 69 to 71.

### Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

With customers in almost all industries worldwide and across 168 countries, steam remains the world's most efficient heat transfer medium for a wide range of applications, with multiple on site uses from the production of foods, beverages and medicines to the generation of power. Our STS products and services offerings are complemented by our ETS Business, allowing us to remain highly resilient and relevant across different climate-related scenarios.

As part of our annual viability assessment, we undertake scenario risk modelling focusing on stress testing the Income Statement and cash flow projections to determine the resulting impact on the Group's debt covenants and liquidity headroom. This enables us to ascertain the potential revenue or adjusted operating profit impacts that could arise from one, or a combination, of the Group's Principal Risks. The key risks associated with climate change are mitigated by management processes for two of our Principal Risks and other relevant risks on the Risk Register. Modelling completed as part of our viability assessment suggests that our Principal Risks do not pose a significant threat to the viability of our Group; therefore, management believes that this also applies to climate risk. For more information see pages 35 to 37 and 119 to 128.

As well as these ongoing risk management and Principal Risk Management processes, in 2023 we worked with Willis Towers Watson to complete quantified scenario analysis for a range of warming scenarios (a below 2°C scenario (1.5°C scenario), a 2–3°C scenario and a 4°C scenario), over multiple timeframes. Physical risks were assessed under current conditions and projected impact in the medium term (2030) and long term (2050). These timeframes align with our **One Planet** Sustainability Strategy targets and SBTi approved net zero targets. 2030 aligns with our financial planning for achieving net zero (scopes 1 and 2) and is also within the delivery horizon of our 10 year strategic vision, as defined by the **Together for Growth** Strategy. 2050 aligns with both our long-term net zero target (scopes 1, 2 and 3) and is also sufficiently far away to model for the longer-term climatic changes that may impact the Group in the future, without being so far out that the future is increasingly uncertain.

The chosen scenarios were in line with the Intergovernmental Panel on Climate Change (IPCC) representative concentration and shared social economic pathways (RCPs mapped to SSPs) RCP 2.6 (SSP1), RCP 4.5 (SSP2) and RCP 8.5 (SSP5) respectively. The two most extreme upper and lower scenarios were chosen in order to 'stress test' the impact to the Group under cases of maximum physical risk or transition risk impacts. RCP 4.5 was assessed as a middle scenario.

Physical risks were identified through asset 'exposure diagnostic' analysis for 239 operating locations, made up of sales and manufacturing companies and sites. The climate risks were derived from several data sources including Willis Towers Watson's Global Peril Diagnostic and Climate Diagnostic tools, data from Munich Re hazard databases and research in line with the IPCC reports. The findings were then validated in workshops.

Transition risks were identified and assessed through multiple workshops, drawing on relevant expertise from colleagues from across the Group. For this assessment, one scenario of RCP 2.6 (1.5°C scenario) was considered, as it is under these conditions that transition risks would be most relevant. Transition risk exposure was assessed on a short-term horizon of 2025 and a medium-term time horizon of 2030 with impacts being assessed as an annualised amount. Transition risks were not quantified in the longer term due to the difficulty in building assumptions around the direction of policy out to 2050 or beyond; physical risks are anticipated to be more relevant on those timeframes.

In addition, physical risk exposure diagnostic analysis was completed for 45 of the Group's suppliers, who were selected on the basis of spend, strategic importance, geographic location and business coverage.

## Risk management

### Describe the organisation's processes for identifying and assessing climate-related risks

The Risk Management Committee holds annual top-down or bottom-up reviews that provide information and evaluations that the Committee uses alongside our risk impact, likelihood, appetite and velocity ratings to create an effective system for assessing materiality, monitoring, planning and developing our Group-wide approach and culture regarding risk.

The Risk Management Committee performs a scoring exercise each year against all our documented risks, assessing impact, likelihood, control, velocity and appetite for each risk. Each member of the Committee scores each risk, which are reviewed, discussed and assessed compared to the other risks. This process is used to assign the Principal Risks and inclusion of other risks on the Risk Register. Existing and emerging regulatory requirements related to climate change are considered as part of this review.

Risk velocity was deliberated and approved as a further measure in our Group risk management framework in 2022. Risk velocity ratings were assigned and validated for all Principal Risks in 2024, as set out on pages 83 to 87 and other risks on the Risk Register, including climate change.

### Describe the organisation's processes for managing climate-related risks

Materiality for climate change risks is based on the enterprise risk management scales used to determine materiality across all of our risk management processes.

Climate change-related risks are currently deemed to be low for the Group, which is based on assessment of likelihood, velocity, impact and control, with climate change not identified as a Principal Risk on the Group's Risk Register. However, risks associated with climate change, e.g. physical risks, notably the impact of a climate-related event on our direct operations, specifically the loss of a manufacturing site and transition risks, such as failure to meet changing market or customer needs, are already managed through other Principal Risks on the Group Risk Register. We therefore believe that our risk management processes are adequate and appropriate for the level of risk applicable to our Group.

For more information about how we manage risk, see the Risk Management Committee Report on pages 119 and 120

### Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management

During 2024, we reviewed the Group's exposure to risk using a top-down approach, where the Committee received high quality input from the Group operating companies on the risks that they considered may affect their activities, to ensure new or emerging risks are not missed. Following this process, the Committee reviewed and confirmed the robustness of the countermeasures that Group operating companies have in place to mitigate the Principal Risks in the Group Risk Register.

Climate change is a risk factor that influences other risks, so control of climate risk is embedded in and managed through other Principal Risks, particularly Loss of manufacturing output at any Group facility, and Inability to identify and respond to changes in customer needs, and other risks on the Risk Register, such as Loss of a critical supplier.

Climate change is considered a serious emerging risk, though not currently one of the Group's Principal Risks.

## Metrics and targets

### Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process

We have disclosed cross-industry TCFD metrics used to manage our climate-related risks and opportunities.

Managing our GHG emissions to meet our net zero targets and helping our customers to do the same mitigates climate risk by working towards realising a low-carbon future.

- Scopes 1, 2 and 3 GHG emissions – pages 66 and 67
- Energy use – page 68
- Proportion of company vehicles that are EV – page 69
- Waste and water – page 73
- Climate-related Executive management remuneration – page 41
- Customer environmental benefits – page 75

Group GHG emissions (scopes 1 and 2) are monitored as one of our Group key performance indicators (KPIs) to measure successful progress against our strategy. See pages 40 and 41 for more information on our KPIs. Given the strong engagement with and investments in net zero initiatives across the Group, an internal carbon price is not needed. In addition, internally we monitor several opportunity metrics, for example the customer decarbonisation opportunities pipeline in the ETS Business and metrics related to our **TargetZero** solutions. These metrics are not disclosed externally as they are commercially sensitive.

In December 2023, we received approval from the SBTi for our near and long-term targets, and net zero target for 2050, in line with a 1.5°C trajectory. In 2024, we resubmitted our baseline emissions to the SBTi to include 2022 acquisitions, and the revised baseline and targets were approved in December 2024.

### Disclose scope 1, scope 2 and, if appropriate, scope 3 GHG emissions and the related risks

Scope 1, scope 2 and scope 3 disclosures can be found on pages 66 and 67

During 2022, we used a third-party to help us quantify a full scope 3 baseline figure for 2021. This figure was calculated using GHG Protocol-aligned scope 3 methodologies but is heavily reliant on estimates and assumptions. In 2024, we recalculated our 2021 baseline and calculated our 2023 scope 3 emissions to include Vulcanic and Durex Industries. In 2025, we will be working to increase the speed of these calculations, with a view to publishing an in-year scope 3 analysis when required as part of our CSRD disclosures.

### Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Through our **One Planet** Strategy, we set targets to achieve net zero GHG emissions (scopes 1 and 2) by 2030, and net zero (scopes 1, 2 and 3) by 2050. Since setting these targets, we have had additional targets validated by the Science-Based Targets initiative (SBTi) as follows:

- near-term target to reduce absolute scopes 1, 2 and 3 GHG emissions 50.4% by 2032 from a 2021 base year
- long-term targets to reduce absolute scopes 1 and 2 GHG emissions 95% by 2050 from a 2021 base year and reduce absolute scope 3 emissions by 90% within the same timeframe; to achieve net zero GHG emissions across the value chain by 2050

Reflecting the central importance of the Group-wide **One Planet** Sustainability Strategy to all of our forward-looking plans, in 2022, measures for the Performance Share Plan (PSP) changed to include a sustainability measure accounting for 20% of the PSP opportunity, dependent on reduction of GHG (scopes 1 and 2) over three-year periods. For more detail see page 133.

# TCFD and CFD continued

All risk, opportunity and Total Insured Value data on this and subsequent pages of the TCFD Report are as assessed in our 2023 climate scenario risk analysis without being updated, unless otherwise stated.

## Strategy – Acute physical risks

Acute physical risks are event driven, specific episodes that have the potential to inflict significant physical damage.

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Flooding: river and flash flooding from precipitation** | 17% of the Group's operations by total insured value (TIV), 42 of 239 locations, are currently exposed to risk of river flooding, with 28 sites (13% of TIV value) having 1% likelihood of river flooding in a year. TIV at risk is expected to increase to 19% by 2030, and then remain stable at 19% to 2050 under a high (4°C) warming scenario. The Group has some exposure to heavy rainfall and potential flash floods with 43% of the TIV located in areas exposed to high levels of precipitation, which is forecast to increase slightly to 44% by 2050 under a high warming scenario. The Steam Thermal Solutions site in Shanghai (China), is the highest value asset at the highest level of risk.<br>Although several sites have exposure to flooding, the risk and potential impact are still insignificant, with likelihood of flooding tending towards a 1-in-100-year-type event under high-warming scenario, RCP 8.5.<br>Under RCP 8.5, it is predicted that by 2050, 5% of our operations will have a 10% likelihood of flooding in a given decade. | These risks are managed through the Principal Risk: Loss of manufacturing output at any Group factory and another risk on the Risk Register: Loss of a critical supplier. To mitigate risk, annual risk assessments are conducted by our insurance partner to ensure we have appropriate insurance cover. There have been no material changes to insurance premiums as a result of climate-related risks in 2024, or recent years.<br>Business continuity planning and capacity planning are used to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.<br>During 2024, two of our operations, Spirax Sarco Spain and Spirax Sarco Mexico, experienced minor disruption (a combined total of five days) from flooding, in their local areas, which disrupted transport links. No property was damaged and business impact was minimal. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk profit impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |
| **Windstorm** | 91 locations (mostly in Europe) are in regions exposed to strong winds (accounting for 51% of TIV), with a 1% annual chance of having severe wind gusts of over 121km/h, with four sites having a risk of winds of 161–200km/h. The highest value asset currently at risk from windstorm is WMFTS' site in Falmouth (UK). TIV at risk from windstorms is expected to remain stable to 2050 under a high warming scenario, but the frequency of windstorms is likely to increase over time.<br>Even under a hothouse world scenario, the average annual modelled impact may increase slightly; however, it would still be in the insignificant range as per the Group Enterprise Risk Management (ERM) scale. | This risk is managed through the Principal Risk: Loss of manufacturing output at any Group factory and another risk on the Risk Register: Loss of a Critical supplier. To mitigate risk, annual risk assessments are conducted by our insurance partner to ensure we have appropriate insurance cover.<br>Business continuity planning and capacity planning are used to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier.<br>During 2024, two of our sites were impacted by windstorms. Spirax Sarco Taiwan was shut for 12 hours as a safety measure during a typhoon, while Spirax Sarco Brazil sustained minor damage to the fabric of the building. The site lost 12 hours of production and sustained damages in the region of £25,000. The business impact was not material in either case. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk profit impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |

**Key:**

**Hazard exposure**

| | |
|---|---|
| Very High | 5 |
| High | 4 |
| Medium | 3 |
| Low | 2 |
| Very Low | 1 |

**Residual risk impact (annual profit)**

| | |
|---|---|
| Catastrophic | >£100m |
| Major | £50m – £100m |
| Moderate | £25m – £50m |
| Minor | £10m – £25m |
| Insignificant | <£10m |

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Fire** | 12% of the Group's TIV is exposed to at least 20 days per year of fire weather, with Chromalox's Ogden, Utah (USA), site the highest value asset with some level of risk, and Chromalox's Nuevo Laredo (Mexico), site having the highest level of risk but a lower TIV.<br>As global temperatures increase, the likelihood of fire risk is expected to increase with 19% of TIV at risk by 2050 under a high-warming scenario. | This risk is managed through the Principal Risk: Loss of manufacturing output at any Group factory and another risk on the Risk Register: Loss of a Critical supplier.<br>To mitigate risk, annual risk assessments are conducted by our insurance partner to ensure we have appropriate insurance cover. We also conduct occasional inspections by local fire officers.<br>Business continuity planning and capacity planning are used to ensure we have spare capacity at alternative sites and stock is held locally in sales companies. For key commodities, where possible, we seek to maintain dual sourcing to negate the risk from the loss of a critical supplier. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |

Under current conditions, the likelihood of an acute physical risk impacting the Group's direct operations each year is deemed Unlikely, and the residual impact (post-mitigation) has been assessed as Insignificant (<£10 million).

For more information about the management of Principal Risks, see pages 83 to 87

## Strategy – Chronic physical risks

Chronic risks arise from longer-term changes in climate pattern, notably drought, heat stress and sea level rise.

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Heat stress** | Currently 45% of the TIV of the Group's operations (112 locations) is exposed to heat stress, seeing an average of >20 heatwave days in a given year with temperatures in excess of 30˚C. This is expected to increase to 55% of TIV at risk from heat stress by 2050, under a high warming scenario.<br>Examples of high TIV sites currently at risk from heat stress include Chromalox Nuevo Laredo (Mexico), Steam Thermal Solutions (Mexico) and Chromalox Tennessee (USA). Risks from heat stress include increased costs of running heating, ventilation, and air conditioning (HVAC) equipment and potential decrease in colleague productivity. | Many of the operations currently exposed to heat stress are in locations where this environment is expected and well adapted for. Changing weather location patterns mean that more sites may move into areas of heat stress that are not currently and these sites may be less prepared.<br>Operations of ETS, STS and WMFTS are exposed. This trend could mean that increased cooling of buildings and machinery might be required to reduce the risk of operational disruption and to improve working conditions for colleagues.<br>As part of continual asset management, energy audit and facilities update processes, systems will be assessed and upgraded where necessary. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant to minor residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |

**Key:**

**Hazard exposure**

| | |
|---|---|
| Very High | 5 |
| High | 4 |
| Medium | 3 |
| Low | 2 |
| Very Low | 1 |

**Residual risk impact (annual profit)**

| | |
|---|---|
| Catastrophic | >£100m |
| Major | £50m – £100m |
| Moderate | £25m – £50m |
| Minor | £10m – £25m |
| Insignificant | <£10m |

# TCFD and CFD continued

## Strategy – Chronic physical risks continued

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Drought** | Currently 12% of the TIV of the Group's operations (54 locations) is exposed to drought stress with three or more drought months per year. This is expected to increase under a high warming scenario, reaching 31% by 2050.<br>An example of a high value asset with a high exposure to drought risk today is Chromalox Nuevo Laredo (Mexico). Drought may impact the availability and quality of water, which could impact manufacturing processes including product testing.<br>Drought has the potential to impact the supply of raw materials where inland waterways are used for transportation, impact electricity availability in locations with a higher reliance on hydropower and increase the risk of wildfires. | The operations of the Group are not generally considered water intensive and therefore the potential impacts may be addressed through adaptation and risk management.<br>Supply of raw materials and electricity are managed through a risk on the Register Risk: Loss of a critical supplier. Mitigation activities under this risk include dual sourcing, managing stock levels for high-risk commodities and in-sourcing production where appropriate. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant to minor residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |
| **Sea level rise** | Risk of exposure from sea level rise is 10% of assets by value, with no change expected to 2050. The STS site in Shanghai (China), is the highest value asset at risk. | Scenario analysis shows that, due to the location of our sites, our exposure under this risk is not expected to change under a hothouse world scenario. This risk is managed under the Principal Risk: Loss of a manufacturing Output at any Group facility.<br>To mitigate risk, annual risk assessments are conducted by our insurance partner and we have appropriate insurance cover, including for total loss of a site. | **Low carbon economy** (RCP 2.6 – 2030)<br>**Hazard exposure**<br>**Residual risk impact**<br>**Hothouse world** (RCP 8.5 – 2050)<br>**Hazard exposure**<br>**Residual risk impact** | Insignificant residual risk impact means that we have not identified this as a risk that requires a specific metric or target. The Risk Management Committee reviews risks on an annual basis so a future change in the residual risk impact could lead to the implementation of a specific metric or target. |

The impacts of chronic risks are likely to differ by location, with some countries already experiencing and managing high levels of heat stress or drought, with the ability to adapt to those conditions. For other locations, historically less used to drought or heat stress, the impacts could potentially be more disruptive. However, as we are not a highly intensive user of water and chronic risks can largely be mitigated or adapted, the residual impact (post-mitigation) of chronic physical risks has been assessed as Insignificant (<£10 million).

**Key:**

**Hazard exposure**

| | |
|---|---|
| Very High | 5 |
| High | 4 |
| Medium | 3 |
| Low | 2 |
| Very Low | 1 |

**Residual risk impact (annual profit)**

| | |
|---|---|
| Catastrophic | >£100m |
| Major | £50m – £100m |
| Moderate | £25m – £50m |
| Minor | £10m – £25m |
| Insignificant | <£10m |

## Transition risks/opportunities

Transition risks arise from changes required to facilitate a low carbon economy.

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Market transition** | Increasing availability of green energy could enable electric heating solutions to replace fossil fuel-derived steam generation where carbon emission concerns override cost differences in the medium to long term (5+ years). This will provide opportunities across all geographical regions and most customer sectors for our ETS and STS Businesses as they combine forces to electrify the generation of steam and decarbonise thermal energy.<br>Increased cost of electricity provision and raw materials provides some risk, as the introduction of carbon taxes could be passed on in raw material spend. | As market leaders in the provision of thermal energy solutions, mitigating this risk and maximising the opportunity is deeply embedded in the core business strategies of both our STS and ETS Businesses. This risk is mitigated through the Principal Risk: Inability to identify and Respond to changes in customer needs. Mitigation includes regular voice of customer research and research and development/new product innovation to lead the way in providing innovative solutions to customers. For more information about the management of this Principal Risk, see page 87. | **Risk**<br>**2025**<br>**2030**<br>**Opportunity**<br>**2025**<br>**2030** | Net zero carbon<br>Sustainable products |
| **Technology transition** | Costs of upgrading and installing infrastructure to support an electric vehicle (EV) fleet, or costs to transition away from fossil fuel dependent production equipment. | The transition to low carbon technology across our operations is embedded in our net zero roadmaps developed by all manufacturing sites and at a Group level. Fossil fuel-dependent systems and processes have been identified and investment plans developed, through annual and medium-term financial planning cycles, to phase the cost of decarbonisation activities over time, reducing risk. | **Risk**<br>**2025**<br>**2030**<br>**Opportunity**<br>**2025** N/A<br>**2030** N/A | Net zero carbon<br>Environment improvements |
| **Reputation** | Risk of reputational loss of Spirax Group as a top performing, environmentally sustainable business due to association with fossil fuel-reliant systems over the medium to long term (5+ years). Or, reputational gain as we become known as a leading decarbonisation partner for our customers, as we implement our Decarbonising Thermal Energy Growth Driver through our **Together for Growth** Strategy. | This very low risk is mitigated by our strong reputation, our innovative product developments, the introduction of our Natural Technology marketing strategy, all of which correctly positions steam as a sustainable technology and our own leading net zero commitments and progress against them. | **Risk**<br>**2025**<br>**2030**<br>**Opportunity**<br>**2025**<br>**2030** | Net zero carbon<br>Sustainable products |

**Key:**

**Hazard exposure**

| | |
|---|---|
| Very High | 5 |
| High | 4 |
| Medium | 3 |
| Low | 2 |
| Very Low | 1 |

**Residual risk impact (annual profit)**

| | |
|---|---|
| Catastrophic | >£100m |
| Major | £50m – £100m |
| Moderate | £25m – £50m |
| Minor | £10m – £25m |
| Insignificant | <£10m |

# TCFD and CFD continued

## Transition risks/opportunities continued

| Risk/opportunity | Description | How we manage and mitigate this risk | Estimated financial impact | Link to metrics and targets |
|---|---|---|---|---|
| **Policy and legal transition** | **Carbon taxation:** In country or at borders, could lead to increased operational costs. For example, the EU's Carbon Border Adjustment Mechanism (CBAM) became effective in October 2023, with a two-year transition period now in operation before carbon taxation commences on high-carbon imports (such as steel, iron or aluminium) into the EU.<br>**Building code regulations:** Policy makers may promote a switch to low carbon buildings, for new builds or retrofitting old buildings, which could lead to increased costs, such as implementing Minimum Energy Efficiency Standards.<br>**Climate change litigation:** Risk arising from the increasing activism of shareholders or the public against companies for failure to adapt to climate change, greenwashing by overstating positive environmental impacts, or understating risks or insufficient disclosure around material financial risks.<br>**Waste-related laws and regulation:** Driven by an aim to increase circularity of the economy, new regulations could impact how we manage waste on our own sites and potentially impact end of life treatment of products we sell. | This risk is mitigated through our **One Planet** Sustainability Strategy, which includes net zero targets, energy reduction commitments, major decarbonisation projects, conversion to an EV fleet and supply chain management to reduce our scope 3 emissions.<br>We manage and monitor existing and upcoming legislation from a range of sources to ensure that we can proactively respond to upcoming legislating risks.<br>Climate change litigation risk is mitigated by our innovative product developments, the introduction of our Natural Technology marketing strategy, which correctly positions steam as a sustainable technology and our own leading net zero commitments and progress against them. | **Risk**<br>**2025**<br>**2030**<br>**Opportunity**<br>**2025** N/A<br>**2030** N/A | Net zero carbon<br>Environment improvements<br>Sustainable products<br>Sustainable supply chain |

**Key:**

**Hazard exposure**

| | |
|---|---|
| Very High | 5 |
| High | 4 |
| Medium | 3 |
| Low | 2 |
| Very Low | 1 |

**Residual risk impact (annual profit)**

| | |
|---|---|
| Catastrophic | >£100m |
| Major | £50m – £100m |
| Moderate | £25m – £50m |
| Minor | £10m – £25m |
| Insignificant | <£10m |