SPECTRIS BASIS OF REPORTING – GHG EMISSIONS 2023

Introduction

This document outlines the principles, methodologies, and assumptions for evaluating the operational emissions of Spectris plc and its subsidiary companies ('Spectris') in the preparation and reporting of its Greenhouse Gas (GHG) emissions inventory.
This information is publicly available to demonstrate transparency in our reporting approach.

Principles of reporting

Spectris GHG accounting and reporting follows accepted principles to ensure that an organisation's disclosure represents an accurate, veritable, and fair account of its GHG emissions. These principles are listed below:

Completeness – We aim to be as complete as possible in our GHG accounting, covering all scopes of the GHG Protocol that are material to our GHG inventory to ensure that there are no material omissions that would substantively influence the assessments of the emissions data and information.

Consistency - The credible quantification of GHG emissions requires that methods and procedures are always applied in the same manner, that the same criteria and assumptions are used to evaluate significance and relevance, and that any data collected and reported allow for meaningful comparisons over time.

Transparency - Clear and sufficient information should be available to allow for the credibility and reliability of reported GHG emissions to be assessed. Specific exclusions or inclusions should be clearly identified, and assumptions should be explained. We are committed to disclose our GHG footprint on an annual basis in our annual report. We also describe the methodologies and data sources used to build our GHG emissions report, always selecting them in line with these principles and explaining why we consider them to be the most appropriate and of highest quality available.

Reliable - In our GHG accounting we strive to be prudent and use numbers that are conservative. If the methodology has limitations or good data is not available, we select the methodology or data that is most appropriate in these circumstances. We ensure we use the highest quality data available for each business activity and improve the quality of the data over time.

Relevance – Spectris GHG inventory shall appropriately reflect the GHG emissions of the business and serve the decision-making needs of users — both internal and external to the business.

Organisational boundaries

Spectris GHG reporting organisational boundaries is based on the operational control approach, which covers owned and leased assets, as defined by the Greenhouse Gas Protocol.

Spectris' organisational boundary comprises of two divisions: Spectris Scientific (incorporating Malvern Panalytical and Particle Measuring Systems (PMS) and their subsidiary companies) and Spectris Dynamics (comprising HBK and its subsidiary companies) together with two other Operating Companies (OpCos) Servomex and Red Lion Controls (Red Lion) - with sites located across the globe (primarily Europe, Asia Pacific and the Americas) and over 7,500 employees. Spectris provide a range of services and products, specialising in premium precision measurement. Spectris manages and reports on its carbon emissions at a Group level,

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with the Scientific and Dynamics divisions being the most material.

The Spectris GHG Emissions Report is presented in the sustainability section of the Spectris plc annual report and available on our website - https://www.spectris.com/sustainability-at-our-core/environment/.

No site or geographical exclusions are made to our boundaries. Organisational boundaries are further explained metric by metric in our Summary of the key metrics and definitions.

Reporting period and frequency

Spectris' environmental metrics are reported annually and cover the period of *1st January to 31st December*. The annual report period is in line with the environmental data reported, both reporting data by calendar year; 1st January to 31st December. The report is published on an annual basis.

The baseline for environmental metrics is calendar year 2020. Emissions are recalculated when:
- structural changes occur in the company that change the inventory boundary (such as acquisitions or divestments).
- the methodology for emission calculation changes (such as improvements in data collection) and it can be implemented retrospectively without compromising the accuracy and quality of the data.
- the scope of emissions boundary changes (such as calculation of additional emissions from scope 3 categories)

Spectris reports the quantity of GHG emissions in tonnes of carbon dioxide equivalent (CO_2e). Since it is not a requirement under SECR (streamlined energy and carbon reporting) guidance, and is not a mandatory requirement under the GHG Protocol, the six greenhouse gases covered by the Kyoto Protocol — carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6) have not been reported separately, but have been combined and reported as a single CO_2e figure for simplicity. The objective behind reporting GHG emissions is to inform internal and external stakeholders on the impact Spectris' activities have on climate change. We consider reporting a single CO_2e figure is sufficient to this objective.

In order to maintain a fair and like-for-like comparison of year-on-year performance, numbers in previous years have been restated to account for changes to the business. The full list of these changes for the current year are detailed in the section 'changes in boundary' below.

Reporting System
Spectris' environmental and carbon reporting system is Envizi, an IBM company, and supporting calculations are provided by EcoAct (a Schneider Electric Business)**.**

Key metrics and definitions

Emissions are reported in the Annual Report in line with the GHG Protocol guidelines as follows:

Direct Emissions

- **Scope 1 emissions**, direct emissions from owned or controlled sources:
  - Stationary Combustion (natural gas and liquid fossil fuels) *
  - Mobile Combustion / Owned Vehicle Fleet *
  - Fugitive Emissions
  - Onsite generated renewable energy (solar) *

Indirect Emissions

- **Scope 2 emissions**, indirect emissions from the generation of purchased energy:
  - Purchased & Used Electricity *
  - Purchased Heat & Steam *
- **Scope 3 emissions**, other indirect emissions that occur in the value chain:
  - Purchased goods and services & capital goods
  - Transmission losses & Well to Tank (WTT)
  - Upstream and downstream logistics and transportation
  - Emissions arising from the treatment of waste
  - Employee business Travel
  - Employee commuting & working from home
  - Use of sold products
  - End of life treatment of sold products
  - Investments

Emissions are presented in terms of tonnes of carbon dioxide equivalent (tCO_2e) and tonnes of carbon dioxide equivalent per million GBP revenue (tCO_2e / £m).

Scope 3 categories 8, 10, 13, 14 are not included as not relevant to the Group's business model.

Energy

Sources annotated with a * above are included within our stated energy boundaries, by consolidating and summing underlying emissions drivers. Consolidated energy data is presented in megawatt hours (MWhs) as converted from volumetric data via energy conversions provided by the UK's Department for Energy Security & Net Zero (DESNZ).

Summary of the key metrics and definitions

METRIC	Scope and Calculation methodology
Scope 1	
Stationary Combustion	**Scope:** Stationary combustion at all of Spectris' sites; covering natural gas and liquid fossil fuel **Methodology:** Actual information sourced from a combination of supplier invoices and meter readings are uploaded to the Envizi platform. In absence of data, Envizi estimates according to the data hierarchy defined below. Subsequent totals values are multiplied by corresponding emissions factors as defined by the UK's Department for Energy Security & Net Zero (DESNZ). **Organisational Boundary:** All sites operated by the Spectris Group, where stationary combustion of fuels takes place.

Mobile Combustion	**Scope:** Fuels used in company owned vehicles (all fuels type) **Methodology:** Actual information sourced from a combination of travel expenses, fleet management reports and mileage readings are uploaded to the Envizi platform. In absence of data, Envizi accrues according to the most recent data value extended by day coverage. Subsequent totals are multiplied by corresponding emissions factors as defined by the UK's Department for Energy Security & Net Zero (DESNZ). **Organisational Boundary:** All sites operated by Spectris, where mobile combustion of fuels takes place.
Fugitive Emissions	**Scope:** Refrigerant gases used in cooling as part of manufacturing processes **Methodology:** Actual information sourced from replenishment records (i.e., contractors topping up assets at Spectris facilities) is uploaded to the Envizi platform. Values are multiplied by corresponding emissions factors as defined by the UK's Department for Energy Security & Net Zero (DESNZ). **Organisational Boundary:** All sites where Spectris are directly responsible for the maintenance of the refrigerant asset (primarily our manufacturing sites where the manufacturing process involve intensive use of refrigerant equipment)**.**
Onsite generated renewable energy	**Scope:** Electricity generated onsite via solar panels **Methodology:** Actual electricity data sourced from a mix of meter readings and half hourly automated meter data is uploaded to the Envizi platform. Emissions associated with onsite generated solar energy amounts to 0. **Organisational Boundary:** All sites operated by Spectris generating renewable electricity.
Scope 2	

Purchased & Used Electricity	**Scope:** Electricity imported into facilities for use in powering facilities onsite. **Methodology:** Actual electricity data sourced from a combination of meter readings, half hourly automated meter data and invoices are uploaded to the Envizi platform. In absence of data, estimations are conducted in line with that outlined in the data hierarchy section below. **Location-based** – Emissions from electricity consumption reflecting the average emission intensity of local grid mix as provided by the International Energy Agency (IEA) or sub-grid factors provided by the US Environmental Protection Agency (EPA) and appropriately sourced sub-grid factors where available. **Market-based** – Emissions from electricity consumption reflecting appropriately sourced green certification (e.g., REGOs, GoO's) and tariffs, and residual mix country factors provided by RE-DISS (Reliable Disclosure Systems for Europe) and appropriate sub-grid factors by geography, [US EPA, Canada; UNFCCC, Australia; Federal Register of Legislation]. **Organisational Boundary:** All sites operated by Spectris.
Purchased Heat & Steam	**Scope:** Emissions from the usage of heat and steam in the business operations **Methodology:** Actual data sourced from invoices and meter readings is uploaded into the Envizi platform. Emissions are determined via multiplication by an appropriately sourced supplier specific tariff where possible, or the UK's DESNZ in absence. Both the location based and market-based methodologies rely on the same emissions factor (supplier specific factors) in absence of a more appropriate country average purchased heat/steam emissions factor. **Organisational Boundary:** All sites operated by Spectris where steam and district heating is purchased.
Scope 3	
CAT 1&2 Purchased goods and services & Capital goods	**Scope:** Emissions associated with the production of purchased products, services and capital goods in the reporting period. **Methodology:** Each OpCo at Spectris provide EcoAct with a purchase ledger detailing out the details of their budget in the reporting period. After exclusions are made (spend relating to other categories such as transport and distribution or that have no tangible emissions), emissions are then calculated using the CEDA EEIO (Environmentally extended input-output) database of emission factors. In the case of Malvern Panalytical (MP) and HBK, supplier specific emission intensities, gathered through the EcoVadis platform, will be utilised where available. These intensities will be combined with total supplier spend – sourced from MP's purchase ledger – to calculate emissions per supplier. All spend related to EcoVadis disclosing suppliers will then be removed from the spend ledger before completing the CEDA calculations detailed above to ensure no double counting takes place. In the case of Servomex, the company has conducted a Product Impact Taxonomy

	exercise across its entire portfolio to provide a granular understanding of environmental impacts of products from cradle to grave. Partnering with Finch and Beak and PRé Sustainability, Sima Pro is used to analyse Servomex's entire portfolio of products using established and trusted methodologies with the support of internal and external experts. The SimaPro utilises multiple LCA inventory databases including: EcoInvent Agri-footprint, Industry Data 2.0 and the US Life Cycle Inventory database. Therefore, where available, calculated upstream emissions for product related raw materials/process will be utilised in the place of spend data. To ensure no double counting of emissions, all product related raw materials/process spend will then be removed from the spend ledger before completing the CEDA calculations detailed above to ensure no double counting takes place. **Organisational Boundary:** All operations
CAT 3 Fuel-and energy related activities	**Scope:** Emissions associated with the upstream well-to-tank and transmission & distribution losses that occur during the extraction and production of fossil fuels and transport of electricity and district heating. **Methodology:** Associated upstream emissions are automatically calculated in the Envizi system for all consumed fuels, electricity and district heating. Respective IEA or DESNZ emission factors are used in line with corresponding scope 1 and 2 sources above. **Organisational Boundary:** All operations
Cat 4&9 Upstream and Downstream transportation and distribution	**Scope:** Emissions associated with both the upstream and downstream transportation of goods to and from Spectris operations. **Methodology:** Spectris use three main distribution providers, namely UPS, FedEx and Geodis. A summary of all transport completed by Spectris in the reporting period was provided by all providers including information on transport method, distance and weight. Data referenced includes 12 months of actual data from distribution providers. Where full year data, typically November and December, is not available for the reporting year, we will utilise a rolling 12-month period starting in November year previous. This means that any seasonality present in the logistics data set is accounted for. Emissions are then calculated using the short- & long-haul DESNZ emission factors. Emissions pertaining to additional transportation data not captured in the UPS, FedEx or Geodis reports are calculated using a spend based approach. **Organisational Boundary:** All operations

CAT 5 Waste	**Scope:** Emissions associated with the disposal of waste that is produced by Spectris' own operations and collected by contractors at both manufacturing and non-manufacturing facilities. **Methodology:** Waste disposal data is directly captured in Envizi by site data owners and is grouped by disposal method, typically landfill, recycling and incineration. **Organisational Boundary:** All operations.
CAT 6 - Business Travel	**Scope:** Emissions associated with air travel **Methodology:** Air travel data is primarily captured via Spectris' AMEX Global Business Travel system. Data is then grouped by OpCo, class and haulage type before being uploaded into the Envizi platform. Emissions are then calculated by the Envizi system utilising the respective short- & long-haul DESNZ emission factors. Emissions pertaining to additional flight data not captured in the AMEX report are calculated using a spend based approach. **Organisational Boundary:** All employees claiming air travel related expenses. Rail travel, hotels and any other forms of business travel are currently deemed immaterial and thus excluded.

CAT 7 - Employee Commuting	**Scope:** Emissions generated by employee commuting to and from work as well as the emissions associated with an employee homeworking. **Methodology:** Employee surveys were used to capture the commuting/homeworking patterns of a sample of employees in each OpCo. Commuting emissions were then calculated using appropriate DESNZ factors and homeworking emissions were calculated using EcoAct's homeworking tool[1] where applicable. All data was then upscaled to cover full FTE numbers. **Organisational Boundary:** All employees journeying to and from Spectris locations and/or homeworking
CAT 11 Use of Sold Products	**Scope:** Direct-use phase emissions generated by the lifetime use of Spectris' electrical products sold in the reporting period. **Methodology:** Data concerning number of products sold and delivered, product power consumption, average lifetime of product and expected uptime of products was gathered from all OpCo's to calculate a products lifetime energy consumption. Shipping patterns were utilised to determine the final location of products and emissions were calculated utilising IEA location-based grid factors. In the case of Servomex, the company has conducted a Product Impact Taxonomy exercise across its entire portfolio to provide a granular understanding of environmental impacts of products from cradle to grave. Partnering with Finch and Beak and PRé Sustainability, Sima Pro is used to analyse Servomex entire portfolio of products using established and trusted methodologies with the support of internal and external experts. The SimaPro utilises multiple LVA inventory databases including: EcoInvent Agri-footprint, Industry Data 2.0 and the US Life Cycle Inventory database. Therefore, where available, calculated downstream use of sold product emissions will be utilised in place of EcoAct calculations. **Organisational Boundary:** All electrical products that would contribute to Spectris' direct use-phase use of sold products.
CAT 12 End of life treatment of sold products	**Scope:** Emissions associated with the disposal of Spectris' products and product packaging sold and delivered in the reporting period. **Methodology:** Data concerning units of products sold as well as product and product packaging materials and weights were gathered at the OpCo level. Disposal method was estimated using regional average benchmarks. Emissions were calculated using respective DESNZ emission factors. In the case of Servomex, the company has conducted a Product Impact Taxonomy exercise across its entire portfolio to provide a granular understanding of environmental impacts of products from cradle to grave. Partnering with Finch and Beak and PRé Sustainability, Sima Pro is used to analyse Servomex entire portfolio of products using established and trusted methodologies with the support of internal and external experts. The SimaPro utilises multiple LVA inventory databases including:

	EcoInvent Agri-footprint, Industry Data 2.0 and the US Life Cycle Inventory database. Therefore, where available, calculated downstream disposal of sold products emissions will be utilised in place of EcoAct calculations. **Organisational Boundary:** All products
CAT 15 Investments	**Scope:** Emissions associated with Spectris' Investments in equity instruments, associates and joint operations (Investments) in the reporting period. **Methodology:** Where available, publicly reported scope 1 and 2 emissions of investee companies will be collected and allocated to Spectris based upon the proportion of the investment with respect to the companies value (Share of equity %). Where scope 1 and 2 emissions from an investee company are not available, emissions are calculated using the CEDA EEIO (Environmentally extended input-output) database of emission factors. Scope 1&2 emission intensities are utilised for the specific sectors of the economy that the investments are related to. Emissions are calculated by apportioning share of equity to the companies total revenue for the reporting year and multiplying this by the respective CEDA factor. **Organisation Boundaries:** All investments in equity instruments, associates and joint operations outside of Spectris' operational control.
Additional notes	
Total energy	Reported energy consists of total energy use from electricity, liquid fossil fuels, steam and vehicle energy use.
Vehicle energy	Vehicle energy can be determined from vehicle emissions by dividing total emissions by the appropriate fossil fuel emissions factor per unit energy
Intensity energy	Intensity Energy figures are expressed in terms of megawatt hours per million GBP revenue (MWH / £m)

[1] https://info.eco-act.com/en/homeworking-emissions-whitepaper-2020

Methodology and approach

Data has been obtained from each of our relevant sources as appropriate on a site-by-site basis, including supplier invoices and consumption statements for utilities and other imported energy, fuel and distance expense claims, refrigerant replenishment records.

Site data for Building Purpose, Full Time Equivalents (FTEs) and Floor area (m^2) are sourced from internal property databases for the purposes of site-to-site comparisons and estimations (detailed below). This data has been validated by the sustainability leaders at each OpCo.

In 2021, as part of our increasing ambition to achieve environmental leadership, we moved to direct data capture through the Envizi platform to allow for a single source of all contributing data items and the subsequent emissions associated. The scope of this process has been built on in 2022 via the upskilling of Spectris employees on data capture principles and involvement of OpCo data leads to perform more localised

data checks. This has been further improved in the second half of 2023, with the addition of two manufacturing sites capturing data via automatic meters for Electricity and Gas. This data automation will further increase in 2024 to move away from the dependency of manual uploads of data.

Data owners have been requested to submit data sources as evidence in parallel to performance data to allow for review of information and internal quality assurance.

We also present performance intensity versus £m revenue achieved in the reporting year. This is to provide an indication of our emissions performance versus company performance. Revenue is sourced from relevant financial teams in line with figures reported elsewhere in our annual report and accounts.

Changes in Boundary

In accordance with GHG protocol and Science Based Targets Initiative (SBTi) guidance, emissions have been reported and historical years restated to take into account:

- Divestment of CLS

- Acquisition of MicroStrain and EMS.

Acquisitions, if relevant, are accounted for in all years the acquired entity existed prior to falling within Spectris' operational control boundary until 2020, our current baseline.

Improvements to previously reported data

Year to year, we will revisit numbers previously shared in the public domain for accuracy, replacing estimated data with actual data wherever possible. As such, numbers for previous years will also update in accordance with these data improvements. We also revisit our accruals and aim, when possible, to not accrue data based on data older than 2 years.

Restatements

In instances where data quality and accuracy can be improved retrospectively and the change is deemed material, Spectris will include the updated figures in subsequent annual reporting. A material misstatement is deemed to be that returning a variance of greater than or equal to 5%. The restatement will be accompanied with an explanation as to why the data quality has improved (such as system change, updated emission factors etc.).

https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

Data Hierarchy

For certain sites, it is not possible to acquire actual data for all periods concerned. Where this occurs, we seek to gap-fill with appropriate estimates. Subsequently, throughout our environmental reporting, we adhere to the following hierarchy of data:

1. **Actual Data** - Wherever actual data is available, we will include it in calculations. This also includes data from automatic meter reading system feeding electricity consumption data into Envizi.
2. **Accruals –** In many instances, only 10 months of actual data can be sourced prior to year-end reporting due to our necessary reporting timelines. Envizi automatically estimates missing timeframes by determining typical consumption to date per day and multiplying by the number of days where data could not be obtained.
3. **Extrapolations -** Where we know data to be relevant, yet unattainable (e.g., sites where Spectris are charged a tenancy fee only, which includes energy) we extrapolate. Spectris are responsible for the use of energy at tenanted locations and can make decisions as to when consumption occurs. As such we

consider this within operational control. To do this, we calculate an intensity of consumption per m^2 or full time equivalent (FTE) at sites with a similar business function in a similar location. Business function could be manufacturing or non-manufacturing. The benchmark used (m^2 or FTE) is dependent on the figure to be extrapolated. Floor area is used to estimate onsite electricity and thermal energy, whereas we prioritise the use of FTEs to water consumption. If the preferred data is unavailable, we will use the alternative of the two benchmarks.

4. **Accrue Extrapolations** – Extrapolations rely on enough data being known in each time period in order to determine an appropriately weighted average consumption per benchmark. In periods where there is not yet enough data coverage to determine an intensity, we will accrue based on extrapolations conducted in previous periods via the same methodology defined for point 2 of this hierarchy.

Emission factors

Emission factors are applied to the activity data associated with the business operations activities. Reported emission factors are location-based, market based, or residual mix as applicable. The emission factors are sourced from the relevant government department in each country, including International Energy Agency (IEA), US Environmental Protection Agency (EPA), UK Department for Energy Security & Net Zero (DESNZ) and localised sources, where applicable, such as imported steam. In all cases, the latest database published is applied if available for its use by the time the calculations are performed. All emissions factors account for the Global Warming Potential of all greenhouse gas emissions as defined by the Kyoto Protocol in terms of Carbon Dioxide Equivalent (CO2e). Spectris reporting complies with the methodologies outlined by the GHG Protocol "Corporate Accounting and Reporting Standard" and ISO 14064-1:2018 (Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals).

Data Validation procedures

Sites are responsible for their own validation and integrity procedures over the data submitted monthly as part of reporting. Periodic data validation is performed by both EcoAct and Spectris' sustainability team, including data integrity, reported activity, and supporting evidence checks. This also includes trend analysis, comparison with prior year data, and sample testing. For sites that represent more than 1% of total emissions, absolute variances of magnitude (regardless of % change) will be included within these checks. At the end of the reporting period, the emissions factors applied in the central GHG database are verified against the published applicable standards. Otherwise, where a site that represent less than 1% of total emissions demonstrates considerable YoY variance (90% +), site data owners are contacted to either explain or potentially amend/correct erroneous data inputs.

Assurance

Deloitte were appointed as independent third-party limited assurance providers in accordance with the International Standard for Assurance Engagements 3000 (ISAE 3000) and Assurance Engagements on Greenhouse Gas Statements (ISAE 3410) issued by the International Auditing and Assurance Standards Board (IAASB) over selected environmental metrics for the year ending 31 December 2023. The selected metrics assured by Deloitte are listed below and identified with a '*' in the FY23 annual report. Deloitte's full [unqualified] assurance opinion, can be found on our website at [weblink]

Scope 1 emissions

Scope 2 emissions – market-based
Scope 2 emissions – location based
Scope 3 emissions – category 3 – Fuel-and energy related activities
Scope 3 emissions – category 4 – Upstream transportation and distribution
Scope 3 emissions – category 6- Business Travel
Energy consumption – Global and UK – (MWh).

Criteria and description of activities

All employees recording data in the environmental data system are equipped with training materials and offered with a support training session on how the system is used and how data is uploaded. As part of this training, they are notified that supporting evidence must always be provided. The training materials are reviewed yearly and distributed alongside a training offer.

The environmental data system currently used (Envizi), does not support the functionality of making evidence attachments mandatory for manual uploads. However, even with this functionality the need of periodic data validation would persist, as no system is, at the moment, capable of distinguishing valid from invalid evidence.

Because of this limitation associated with manual uploads of data, data inputs are manually verified by qualified EcoAct and Spectris team members to ensure all data uploads have supporting evidence and the evidence is coherent with the information provided. If during the periodic data validation an evidence gap or inconsistency is found, the provider of such data is contacted and reminded of the need for providing evidence.