



RESEARCH REPORT | APRIL 2026

CSRD Manufacturing Sector Report

Aggregated sustainability report analysis

174 companies | 15 countries | FY 2024–2025

290 Reports Analysed	92% With Formal GHG Targets	52% SBTi Validated	~22 No Transition Plan
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All data sourced exclusively from the sustainability report sections of publicly available CSRD filings.

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ABOUT THE AUTHOR



KEY ESG

KEY ESG is a leading provider of sustainability and carbon reporting software designed for private equity and infrastructure investors. Our technology enables granular, asset-level data collection and harmonised reporting across frameworks such as CSRD, SFDR and ISSB. By transforming sustainability reporting from a compliance obligation into a strategic advantage, KEY ESG empowers investors and portfolio companies to unlock measurable value, enhance transparency and drive long-term sustainable growth.

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All CSRD sustainability reports analysed in this research are publicly available. The full vault of CSRD disclosures can be accessed via the KEY ESG CSRD Reports Library article, which currently covers 944 reports across 38 countries and 13 SASB industry sectors.

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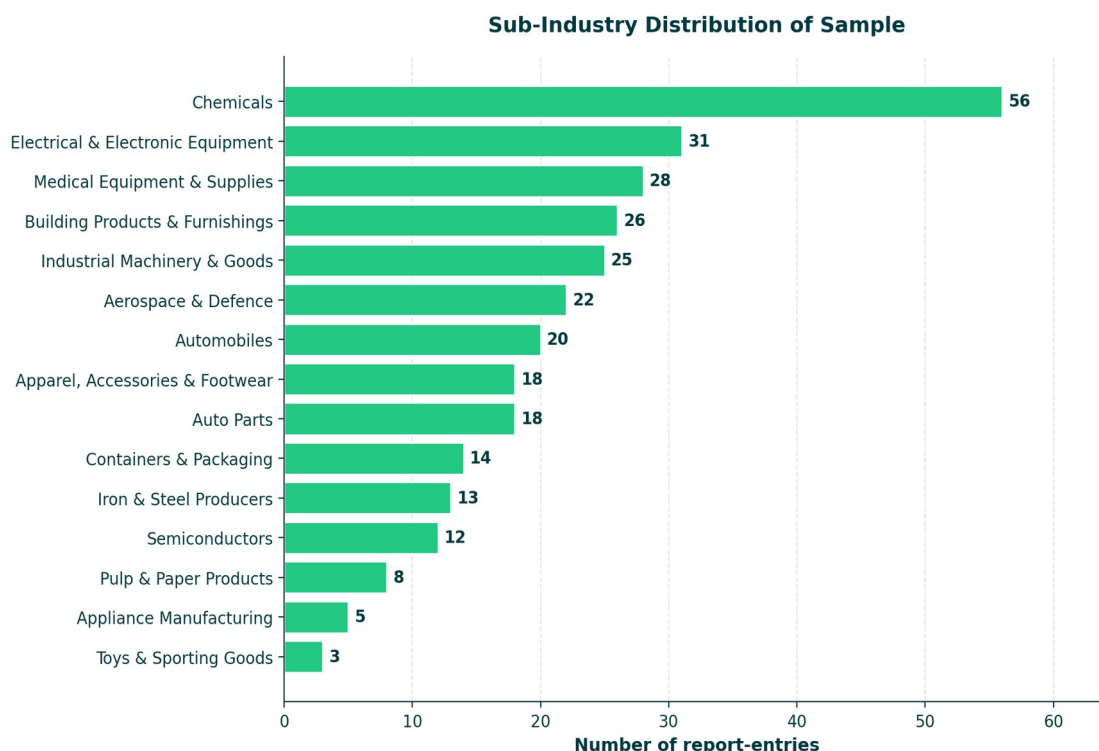
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1. Sample Overview

This analysis consolidates findings from 290 CSRD sustainability report-entries filed by Manufacturing companies. The sample covers the first mandatory wave of CSRD reporting (FY2024) together with the second-cycle submissions (FY2025) where companies have filed consecutive annual reports. 174 unique parent companies are represented, with approximately 116 contributing two consecutive reporting years treated as distinct entries throughout (290 total report-entries less 174 unique companies means 116 companies have reported twice).

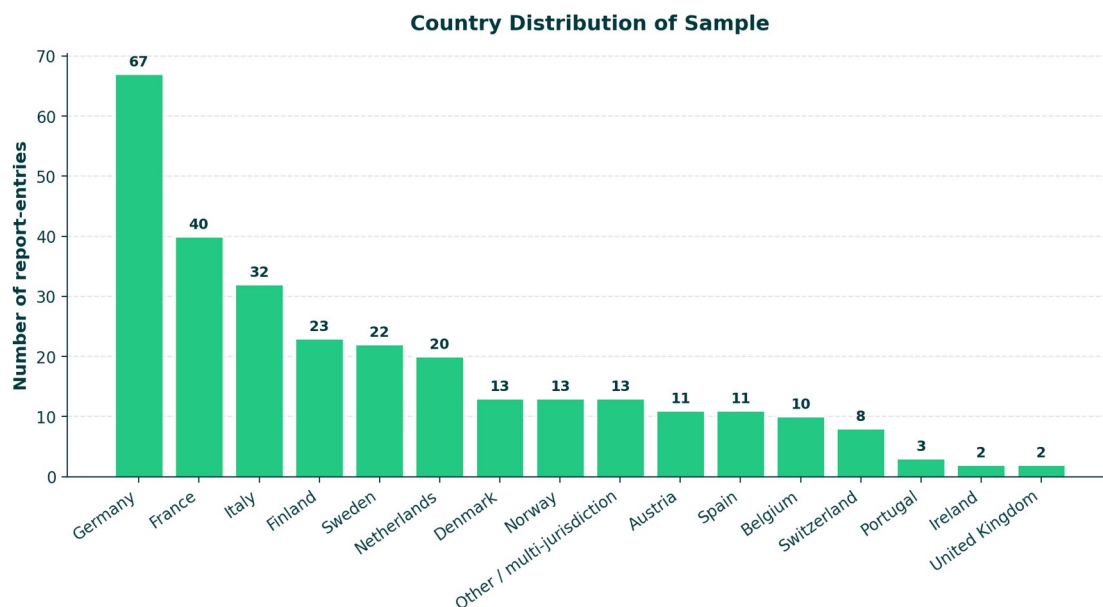
1.1 Sub-industry breakdown

The sample spans all 15 Manufacturing sub-industries in scope, with Chemicals the most heavily represented (56 report-entries, reflecting the prevalence of large European chemical groups in first-wave CSRD adoption), followed by Electrical & Electronic Equipment (31), Medical Equipment & Supplies (28), Building Products & Furnishings (26), and Industrial Machinery & Goods (25). Toys & Sporting Goods and Appliance Manufacturing are the least represented sub-industries in the sample, reflecting their smaller share of the European manufacturing base.



1.2 Country distribution

The sample is concentrated in the major continental European manufacturing economies, with Germany (67 report-entries), France (40), and Italy (32) jointly accounting for close to half of the sample. Nordic countries combined (Finland 23, Sweden 22, Denmark 13, Norway 13) account for a further 71 report-entries, reflecting the strong tradition of sustainability reporting in these jurisdictions and the inclusion of many Nordic groups in first-wave scope.



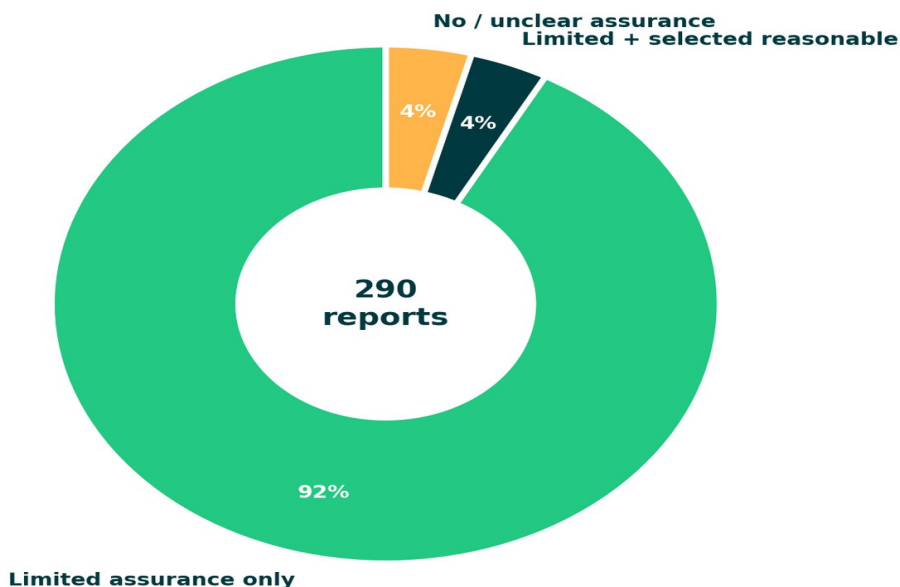
1.3 Reporting periods and ESRS maturity

Reporting periods cover fiscal years 2024 and 2025, with a small number of companies using non-calendar fiscal years (for example, thyssenkrupp, Zumtobel, and Systemair report on fiscal years ending in the first half of the following calendar year). Approximately 160 report-entries are first-time CSRD-compliant reports, while the remainder comprise second-cycle FY2025 submissions and voluntary early-adopter filings. Across the sample, every report uses the ESRS framework, although two notable sub-patterns emerge: companies such as dsm-firmenich, adidas, Lanxess, and Symrise voluntarily applied ESRS earlier than legally required, while other entities such as Symrise's 2024 report used the German CSR-RUG transposition pending full CSRD transposition in national law.

1.4 Assurance summary

External assurance on the sustainability statement is near-universal across the sample: 278 of 290 reports (96 per cent) obtained external assurance. Of these, 267 carry limited assurance only, 11 combine limited assurance on the full statement with reasonable assurance on selected metrics (typically Scope 1 and 2 GHG data, with Lanxess, dsm-firmenich, Syensqo, Schneider Electric, and Systemair providing the most prominent examples), and 12 reports either lack sustainability assurance entirely (e.g. FACC 2024, Drägerwerk 2024, Eckert & Ziegler 2024, KAP AG 2024, Thule 2024 voluntary pilot) or do not clearly disclose the scope of any assurance performed.

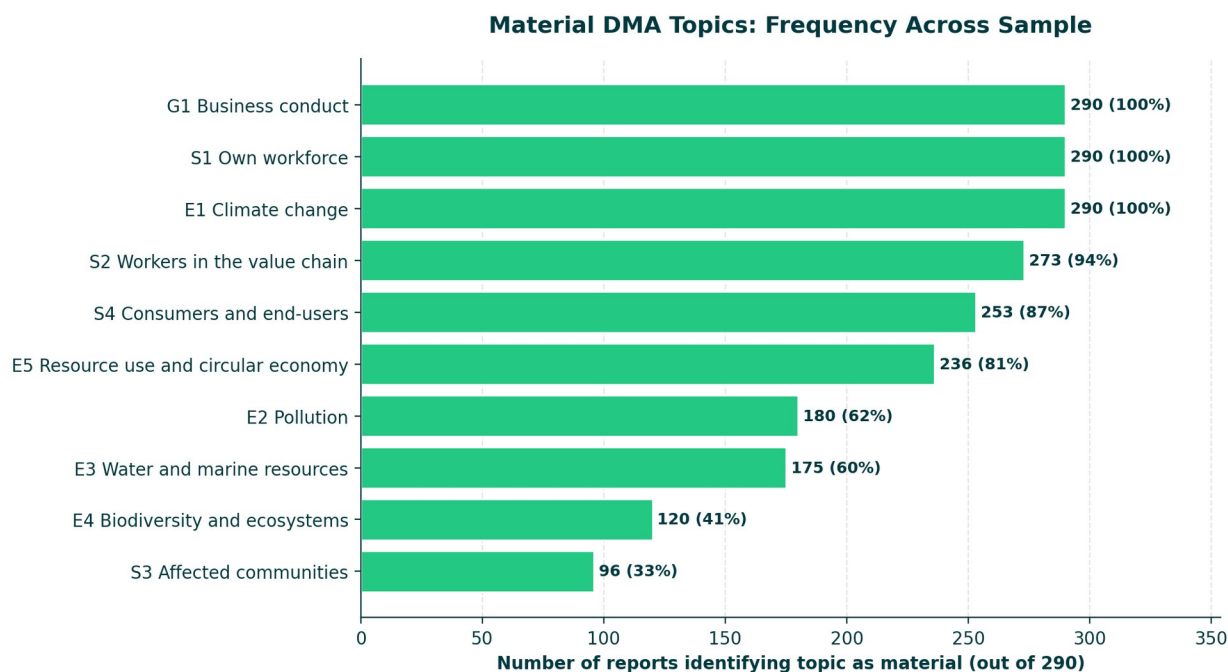
External Assurance Coverage



Assurance providers are heavily concentrated among the Big Four, with KPMG, PwC, EY, and Deloitte collectively providing assurance on more than 85 per cent of assured reports. Joint-auditor arrangements (required under French law) account for a further layer of provider diversity, with combinations such as PwC + Forvis Mazars (Schneider Electric, Legrand) and KPMG + EY (Air Liquide, LISI) recurring across French-domiciled issuers. Smaller auditors, including Grant Thornton, BDO, and Mazars sole engagements, feature predominantly in smaller mid-cap reporters.

2. Common vs. Outlier DMA Topics

The Double Materiality Assessment (DMA) results across the sample exhibit a clear convergence pattern on three topics and progressively weaker consensus on others. E1 Climate change, S1 Own workforce, and G1 Business conduct are identified as material by effectively every reporter in the sample (100 per cent), consistent with their universal relevance across all Manufacturing sub-industries and their near-automatic inclusion in ESRS materiality outcomes for industrial issuers.



2.1 Social and environmental value chain topics

S2 Workers in the value chain is identified as material by 94 per cent of reporters, reflecting strong awareness of upstream labour risks in raw material and component supply chains. S4 Consumers and end-users is material for 87 per cent, with particular emphasis in Apparel (product traceability), Medical Equipment (patient safety), Automobiles (vehicle safety and data privacy), and Electrical & Electronic Equipment (cybersecurity and product safety). E5 Resource use and circular economy is material for 81 per cent of the sample, with a clear pattern of higher salience in sub-industries with high material intensity (Iron & Steel, Pulp & Paper, Containers & Packaging, Building Products) and lower salience in advanced manufacturing (Semiconductors, Medical Equipment).

2.2 Environmental topics with lower consensus

E2 Pollution (62 per cent), E3 Water (60 per cent), and E4 Biodiversity (41 per cent) exhibit substantially lower consensus as material topics. E2 and E3 non-materiality is most often cited by companies with ISO 14001 environmental management systems who argue that pollution and water impacts are already controlled below materiality thresholds, a justification visible in Acerinox 2024, Air Liquide 2024, Mycronic, and several semiconductor reporters. E4 Biodiversity is the single most commonly excluded topic across the sample, with only 41 per cent of reporters identifying it as material. Where E4 is excluded, the reasoning is typically that facility footprints are small and not located in or adjacent to protected areas; however, this framing can underweight upstream supply-chain biodiversity impacts (timber in Pulp & Paper, cotton in Apparel, mining for metals in Automobiles and Electrical equipment), which several leading reporters (Stora Enso, Hermès, adidas) now address through separate entity-specific IROs.

2.3 S3 Affected communities: the persistent outlier

S3 Affected communities is material for only 33 per cent of the sample, the lowest of any ERSR topic. Reporters tend to exclude S3 on the grounds that their operations are sited in

industrial zones with no resident communities or that community impacts are addressed through local stakeholder engagement and health-and-safety protocols. This framing is arguably under-conservative for sub-industries with significant local environmental footprints (Iron & Steel facilities, Chemicals plants, Pulp & Paper mills) and represents a notable sector-wide disclosure gap relative to the actual S3 impact profile. A minority of reporters (Yara, voestalpine, SCA, Ence) take the opposite position, treating community relations in operating regions as a core material topic.

2.4 Entity-specific material topics

A substantial minority of reporters in the sample have defined entity-specific material topics beyond the ESRS sub-topic list, reflecting the recognition that the standard topical architecture does not fully capture the impacts, risks, and opportunities distinctive to Manufacturing sub-industries. The pattern is most developed at luxury apparel houses, aerospace and defence reporters, pharmaceutical adjacent medical equipment companies, and integrated chemicals groups, while many mid-cap reporters explicitly conclude that no entity-specific topics are required.

Cybersecurity and data protection is the single most frequent entity-specific topic across the sample, treated as a standalone material topic (rather than subsumed within G1 Business conduct) by Airbus, Legrand, Leonardo, Michelin, Mycronic, Schneider Electric, Siemens Healthineers, Evonik, Corticeira Amorim, Nokian Tyres, Nexans, Saab, and Symrise. Kongsberg Gruppen frames it more broadly as "Safety and security", and OPmobility pairs it with market dependency and risk management as four distinct entity-specific G1 topics. The prominence of cybersecurity reflects both the digitalisation of industrial operations and the growing recognition of supply chain cyber risk as a sustainability concern.

Product stewardship and patient outcomes is the dominant entity-specific topic cluster at Medical Equipment reporters. Demant defines hearing healthcare access as an S4 sub-topic linked to a 16-million-lives target by 2030. Eckert & Ziegler elevates "improving health by advancing the treatment of cancer" to entity-specific positive-impact status. Drägerwerk treats life-critical product performance in ventilators, anaesthesia workstations, and emergency personal protective equipment as entity-specific given the consequences of product failure. GN Store Nord identifies "better hearing for millions of end-users" as an IRO not covered by standard ESRS. Guerbet frames "commitment and responsibility in healthcare" covering patient access, professional enablement, and public health contribution. IBA uniquely frames product affordability and accessibility for cancer treatment as an entity-specific mission-driven topic under S4.

Defence and dual-use technology reporters use entity-specific topics to articulate the sector's distinctive social contract. Dassault Aviation explicitly adds "Sovereignty" as a major contribution to French national defence, framed as an IRO addressed outside the ESRS framework in a dedicated report section. Leonardo identifies "Global security" as an entity-specific material topic capturing both the societal impact and commercial opportunity of geopolitical instability and hybrid threats. Hensoldt frames responsible export policy, dual-use technology governance, and "sustainable defence" positioning as entity-specific matters. Saab covers information security, export compliance, sustainable innovation, and industrial cooperation and partnership. Airbus similarly treats cybersecurity, people development, and sovereignty and citizen protection as entity-specific.

Luxury and craftsmanship-driven reporters elevate heritage and supply chain provenance to material status. Hermès identifies animal welfare, savoir-faire and skills transmission, and

regional responsibility as entity-specific topics addressing its leather, silk, cashmere, and ostrich supply chains. LVMH frames "Brand Experience" as a topic of high financial materiality, plus "Support to the local community" as a distinct S3 topic. Kering stands out with the most developed entity-specific list in the sample, including animal welfare across all species in the supply chain, microplastics and microfibre pollution, and "circular luxury" as an explicit business model topic. Moncler identifies "Support to communities" tied to its 2020-2025 Sustainability Plan. Brunello Cucinelli applies craftsmanship, heritage, and responsible sourcing of natural materials.

Integrated chemicals and industrial groups use entity-specific topics to articulate portfolio transformation and regulatory exposure. Evonik tracks "Portfolio transformation" as a standalone material topic, operationalised as the proportion of Next Generation Solutions in sales targeting above 50 per cent by 2030. Covestro labels "Sustainable Solutions" as entity-specific. dsm-firmenich elevates animal welfare to an explicit G1 sub-topic reflecting its Animal Nutrition and Health business line, and is the only company to list microplastics explicitly under E2 Pollution. Lanxess frames SVHC-related revenue risk as entity-specific, disclosed at both six-to-ten-year and above-ten-year time horizons. Arkema aligns its topic groupings with its industrial-chemistry profile without declaring any topic formally entity-specific. Yara frames "regenerative agriculture" as a distinctive lens combining downstream Scope 3, product-related biodiversity, food security, and application education under a 4R framework.

Sector-distinctive product and process topics include tyre and road wear particles (TRWP) treated as a distinct E2 pollution sub-topic by Michelin; radioactive waste as a non-standard E5 sub-topic and liabilities management and site decommissioning as E2 topics for Orano; pharmaceutical residue pollution and antimicrobial resistance framing for Orion Corporation, which also explicitly flags horseshoe crab lysate use (*Tachypleus tridentatus*, *Limulus polyphemus*) as a biodiversity impact; mining-specific water and dissolved mining residues for K+S in place of the standard E3 topic; ECONYL regeneration technology as entity-specific innovation for Aquafil; the lead-free product transition programme for Rapala VMC; biomass reclassification risk under RED II and III for Lenzing, plus Zero Discharge of Hazardous Chemicals (ZDHC) programme adoption reflecting textile value chain exposure; tire-road wear particles and enabling durable, circular and fire-safe infrastructure at ROCKWOOL; radiation protection metrics at Eckert & Ziegler; and sauna access as an aspirational long-term topic at Harvia.

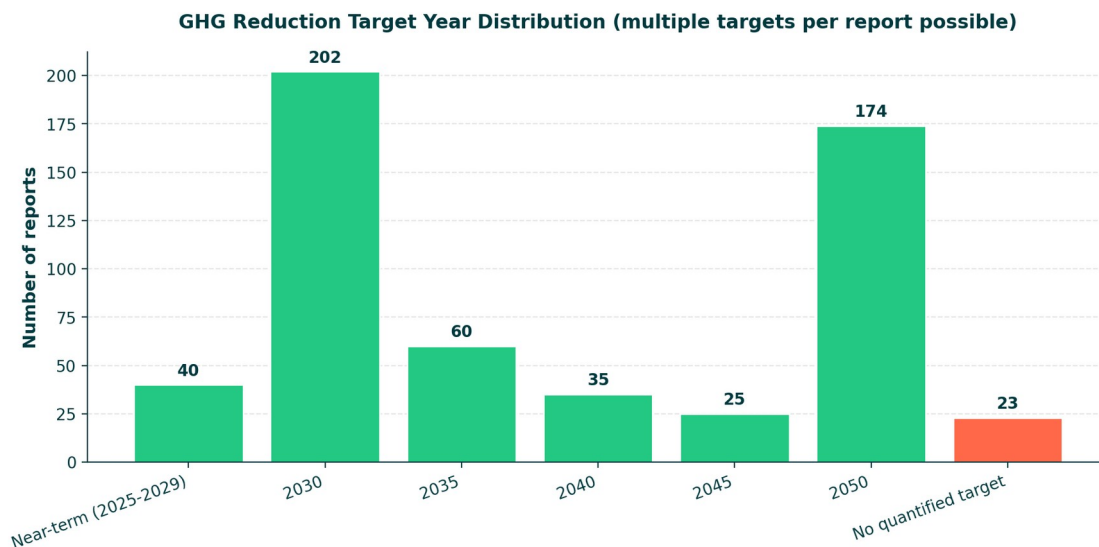
Innovation and portfolio topics beyond ESRS are visible in Aquafil ("Development and technological innovation" under G1, tied to proprietary regeneration technology), Ferrari (proprietary sustainability pillars wrapping ESRS topics, plus "Product, technology, quality, design and innovation"), Villeroy & Boch (Innovation/R&D and Taxes as entity-specific), Iveco (digitalisation and connectivity as a positive impact and driver road safety), Fagerhult ("Light and Life" framing healthy living via lighting design), BEWi (a strategic membrane for green hydrogen production disclosed as an entity-specific E1 opportunity), and AMG Critical Materials (local employment opportunities as the only entity-specific IRO identified).

Community, workforce, and governance topics beyond standard ESRS structuring include Jacquet Metal Service (retroactive taxation of steel imports reflecting distribution business exposure to trade policy), DiaSorin (locally-rooted philanthropy and Saluggia community commitments), Airbus Defence (responsible export policy), Kendrion (adequate wage separated from S1), Hermès (regional responsibility under S3), and Schindler (entity-specific governance topics including data/cybersecurity, market dependencies, risk management, and unused optimisation potentials, notably without identifying anti-corruption as material).

The proliferation of these entity-specific topics is sector-relevant evidence that ESRS, as currently constructed, under-specifies several material issues for Manufacturing, particularly in defence, luxury goods, medical equipment, and specialty chemicals.

3. GHG Target Summary

Nearly all reporters in the sample disclose at least one quantified GHG reduction target, with only 23 report-entries (8 per cent) having no quantified reduction target at all. The dominant pattern is a near-term target with 2030 as the target year, combined with a longer-term net-zero or carbon neutrality commitment anchored on 2050.



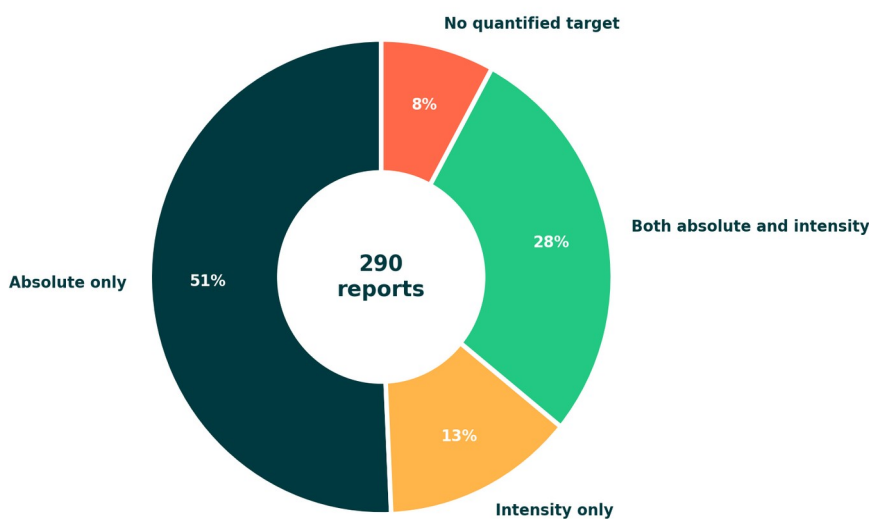
3.1 Target year distribution

2030 is by far the most common target year, appearing in 202 report-entries (70 per cent of the sample), reflecting the SBTi-aligned convention of setting near-term targets against a 2030 horizon. 2050 is the second most common at 174 report-entries (60 per cent), consistent with the widespread adoption of net-zero-by-2050 commitments. Intermediate target years (2035, 2040, 2045) are disclosed by a meaningful minority of companies, typically as interim milestones or sectoral alignment points (for example, Airbus’s 2035 Scope 3 Cat 11 intensity target, aligned with sector-level commercial aviation trajectories).

3.2 Absolute versus intensity targets

Absolute targets dominate the sample (147 reports, 51 per cent disclose absolute-only targets), with a further 81 reports (28 per cent) disclosing both absolute and intensity targets. Pure intensity-only targets (39 reports, 13 per cent) are more common in sub-industries where physical output is the preferred denominator and revenue-based intensity is considered misleading: Iron & Steel producers (tCO₂ per tonne of steel), automotive OEMs (gCO₂ per kilometre driven or per vehicle produced), and Semiconductors (per wafer or per unit). Some reporters, notably Ence and Dassault Aviation, argue explicitly that revenue-based intensity is not representative for their business model.

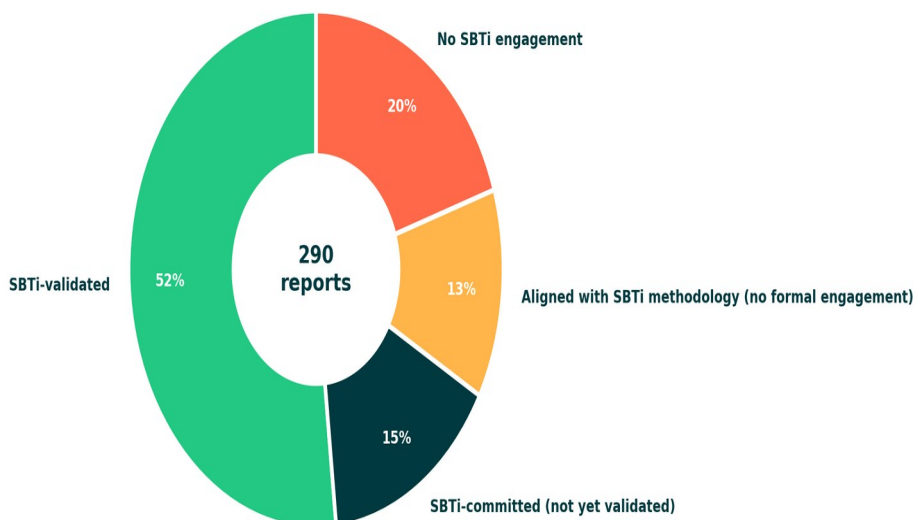
Target Structure: Absolute vs Intensity



3.3 SBTi validation status

SBTi engagement is widespread but not universal: 150 report-entries (52 per cent) carry formally SBTi-validated targets, a further 44 are SBTi-committed but not yet validated, 38 describe alignment with SBTi methodology without formal engagement, and 58 (20 per cent) have no SBTi engagement at all. SBTi validation rates are highest in Apparel (adidas, Hermès, LVMH, Moncler, Kering, Van de Velde), Consumer Electronics-adjacent Electrical & Electronic Equipment (Signify, Schneider Electric, ABB), and larger Chemicals groups (BASF, Solvay, Syensqo, Evonik), and lowest in Defence (Leonardo, Dassault Aviation, Frequentis), Building Products (Lindab, Cabka), and smaller mid-cap Industrial Machinery issuers.

SBTi Validation Status Across Sample



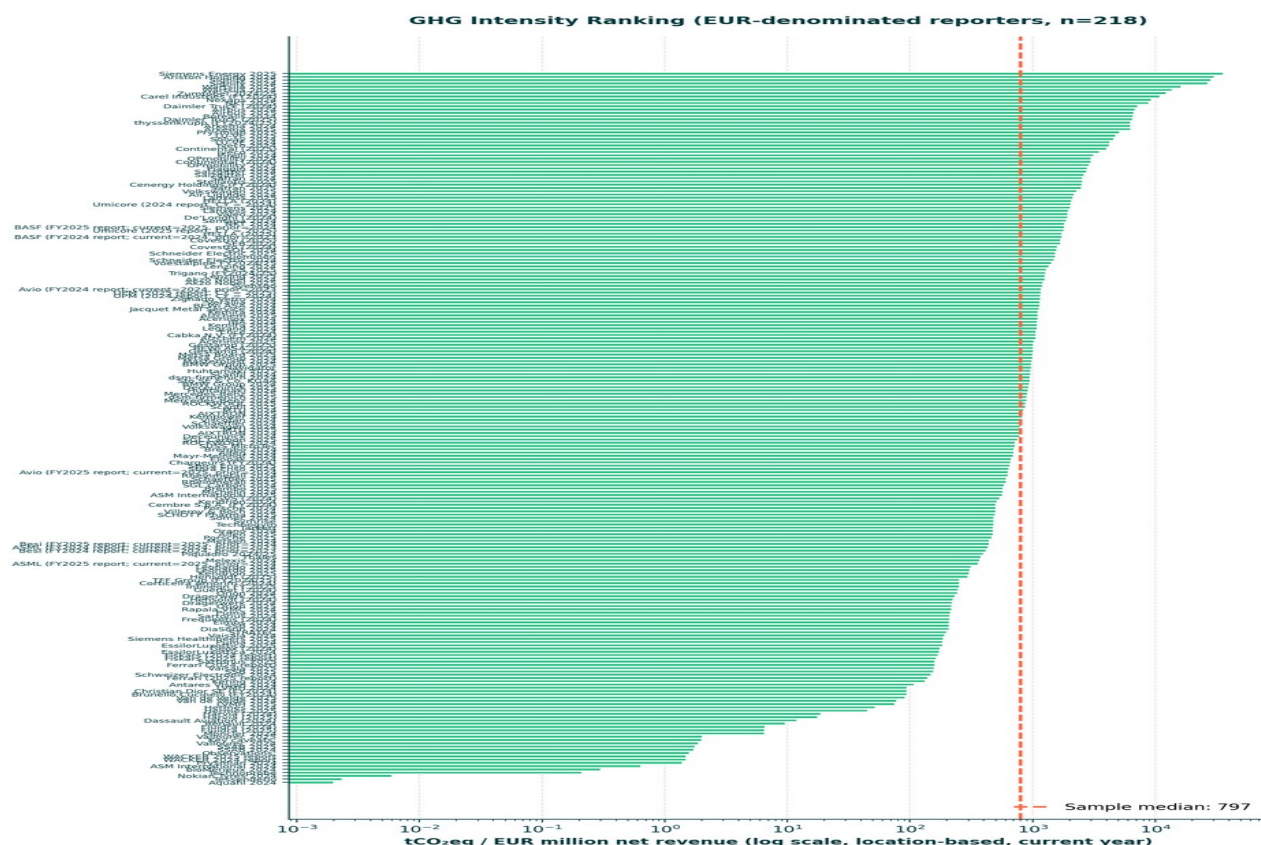
The divergence between SBTi-validated and SBTi-adjacent targets is most visible in language: several reporters state that their targets are "aligned with" or "consistent with" SBTi methodology without submitting for validation, most commonly citing either resource constraints or lack of a validated sectoral pathway (Air Liquide and several Aerospace & Defence issuers explicitly reference the absence of an SBTi-recognised 1.5°C pathway for their sub-industry). For research purposes, SBTi validation status is a useful but imperfect proxy for target credibility, because validated SBTi targets themselves vary materially in Scope 3 coverage.

4. GHG Intensity Benchmarking

The consolidated GHG intensity dataset comprises 297 company-year intensity entries. Of these, 263 disclose at least one location-based or market-based intensity value, and 250 disclose both. 34 entries disclose no intensity per revenue metric at all, either because the company reports only absolute emissions, uses an alternative non-revenue denominator (per tonne produced, per vehicle, per wafer), or discloses GHG intensity solely in internal KPI form without publishing the ratio.

4.1 Spread of intensity values

The spread of reported intensities is extreme, spanning roughly four orders of magnitude within the EUR-denominated sub-sample alone. After filtering for EUR-denominated reporters with complete location-based current-year values and excluding obvious extraction artefacts, the sample comprises 145 unique companies with a median intensity of 909 tCO₂eq per EUR million net revenue. The minimum (below 10) is reported by luxury brands with very high revenue per unit of production (Moncler, Fluidra, Dassault Aviation, Harvia, Kering) and the maximum (above 30,000) is reported by heavy industrial equipment manufacturers whose Scope 3 Category 11 use-phase emissions overwhelmingly dominate total emissions (Siemens Energy, Ariston Holding, Signify).



4.2 Cross-sub-industry heterogeneity

Cross-sub-industry benchmarking of GHG intensity is fundamentally constrained by the diversity of emission profiles within the Manufacturing sector. Apparel luxury houses (Hermès, LVMH, Moncler, Christian Dior, Brunello Cucinelli, Kering) consistently report among the lowest intensities because revenue per unit is high and direct operational emissions are modest. Heavy industrial equipment manufacturers whose products embed substantial in-use energy consumption (Siemens Energy, Signify lighting, Ariston heating, Wärtsilä marine engines) consistently report among the highest intensities because Scope 3 Category 11 dominates. Iron & Steel producers and Chemicals companies fall in the middle of the distribution, typically in the 1,000 to 8,000 tCO₂eq per EUR million range, reflecting a combination of material Scope 1 process emissions and meaningful Scope 3 upstream. These structural differences are not directly remediable through decarbonisation actions in the short term and render like-for-like intensity comparison unreliable across sub-industry boundaries.

4.3 Currency and denominator diversity

A recurring practical challenge in consolidating intensity data is currency and denominator diversity. Within the full sample of 297 entries, 249 report in EUR, 19 in SEK, 13 in USD, 9 in DKK, 6 in NOK, and 1 in CHF. Some reporters use EUR thousand rather than EUR million as the denominator (K+S, Kemira, Acerinox, Lanxess), requiring unit conversion for cross-company comparability. Others disclose intensity per physical unit (per tonne of steel for Acerinox, voestalpine, Salzgitter; per vehicle for Ferrari; per wafer for ASM International, Besi; per lens for EssilorLuxottica) or a mixed KPI (per revenue and per physical unit in parallel). A handful of reporters use unusual denominators including per kilometre driven

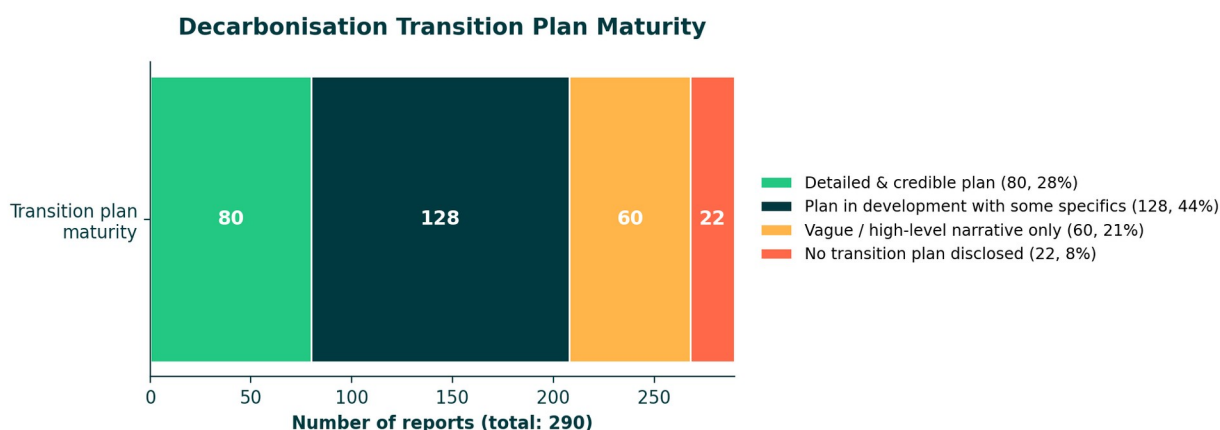
(Renault, Michelin), per passenger-kilometre (Airbus Scope 3 Cat 11), and per connection-hour (Infineon). Where relevant, the consolidated ranking in Section 4.1 uses location-based current-year intensity in tCO₂eq per EUR million, converted from other units only where the reported data enables a defensible conversion.

4.4 Location-based versus market-based reporting

Location-based and market-based disclosure is the dominant pattern, with 250 of 263 value-reporting entries (95 per cent) disclosing both methods. However, market-based intensity is consistently lower than location-based intensity, reflecting companies' renewable energy procurement strategies. The median gap between location-based and market-based intensity across the sample is approximately 4 per cent, but specific reporters with heavy renewable PPA or REC purchasing (Schneider Electric, ABB, Signify, Siemens Healthineers) achieve market-based intensities materially below their location-based values, with gaps exceeding 15 per cent. The reporting pattern raises a methodological concern about comparability: without disclosed Scope 2 methodology details, cross-company rankings using market-based intensity can reward REC-purchasing strategies that may not correspond to additional renewable generation.

5. Decarbonisation Trajectory

Assessing the credibility of decarbonisation plans across the sample requires calibration to sub-industry context: a detailed plan for a luxury fashion house is qualitatively different from a detailed plan for an integrated steel producer. Using a cross-sector rubric based on the specificity of near-term milestones, the credibility of assumptions regarding process-emission abatement, the coverage of Scope 3 Category 11 (where material), and the existence of disclosed capital allocation, the sample divides approximately as follows.



5.1 Detailed and credible plans

Approximately 80 report-entries (28 per cent) disclose transition plans that are both quantitatively specific and operationally credible. Leading examples include ABB (detailed avoided-emissions pathway with disclosed capex), Schneider Electric (comprehensive SSI pathway including supplier engagement), Volkswagen (detailed fleet decarbonisation with BEV penetration milestones), voestalpine (greentec steel programme with disclosed hydrogen DRI investment of €1.5bn), Stora Enso (fossil-free production by 2030 with disclosed boiler conversion projects), and BMW (electrification pathway with disclosed battery cell production capacity). These reporters typically disclose both near-term capital commitments and the scenario analysis underlying the pathway.

5.2 Plans in development

The largest cohort, at roughly 128 report-entries (44 per cent), disclose transition plans that are quantitatively specific on emission reduction targets but less developed on the action plan or the Scope 3 dimension. Typical reporters in this cohort have SBTi-validated Scope 1 and 2 targets and a Scope 3 target that is either partial (covering only selected categories) or focused on supplier engagement without quantified supplier reduction commitments. The cohort includes a majority of mid-cap industrial reporters (for example, Sartorius, Scanfil, Fiskars, Huhtamaki, Hermès) for whom the fundamental reduction pathway is articulated but the implementation detail remains in development.

5.3 Vague or high-level plans

Approximately 60 report-entries (21 per cent) disclose transition plans that fall short on both the quantitative and qualitative dimensions. Characteristic features include: commitments to "be carbon neutral by 2050" without disclosed interim milestones; references to renewable energy procurement without disclosed volumes or supply arrangements; vague circular

economy commitments without product-level targets; and reliance on statements such as "we are in the process of developing a transition plan" without an accompanying roadmap. This cohort contains a higher proportion of first-time CSRD reporters who have not yet worked through detailed transition planning under the ESRS framework.

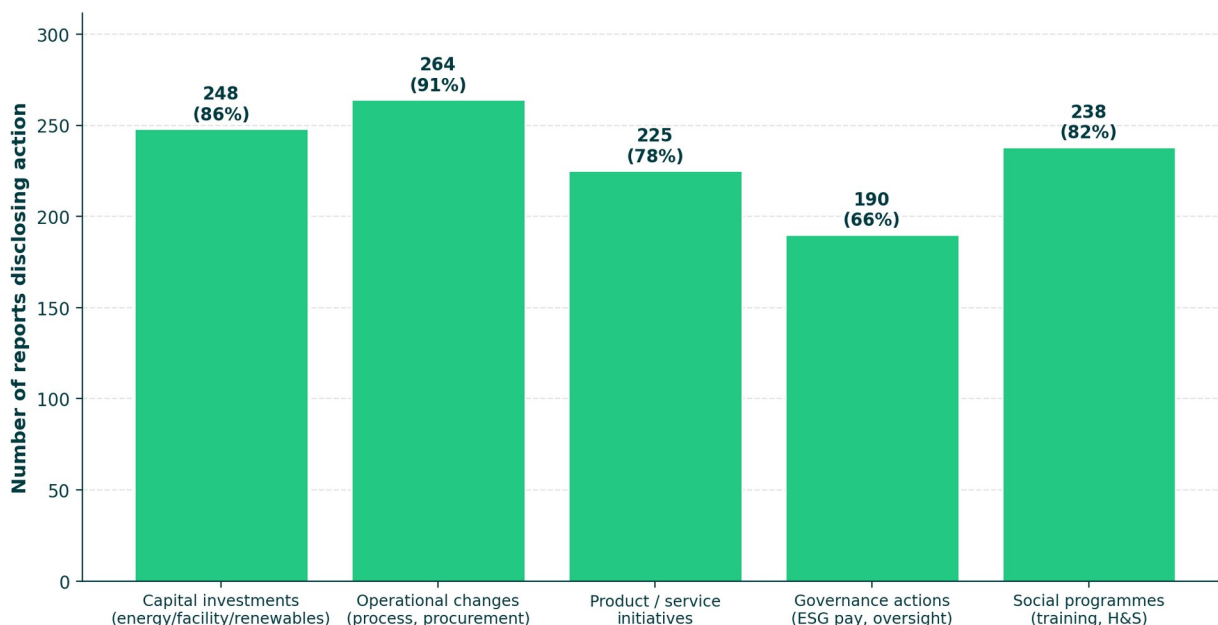
5.4 Sector-specific concerns

For hard-to-abate sub-industries, specific concerns emerge. In Iron & Steel, plans at thyssenkrupp, voestalpine, Salzgitter, and SSAB are strongly capital-dependent and reliant on hydrogen availability; Acerinox and Klöckner & Co articulate lower-ambition near-term pathways that may understate eventual stranded-asset exposure. In Automotive, the credibility gap is most visible around Scope 3 Category 11: while OEMs disclose BEV penetration targets, the link between BEV mix and absolute Scope 3 Cat 11 reduction is rarely quantified with supporting assumptions. In Chemicals, plans vary widely from highly detailed (Evonik, BASF, Covestro) to notably unspecific (Lanxess, Alzchem), reflecting the heterogeneity of product portfolios and process chemistry. In Apparel, the most credible plans integrate supplier decarbonisation with explicit coal phase-out timelines (adidas, LVMH), while weaker plans rely on generic supplier engagement without supplier-level targets.

6. CSRD Action Plans

Across the sample, reporters disclose concrete actions spanning five principal categories: capital investments (typically in energy efficiency, renewable electricity, and facility electrification); operational changes (process redesign, procurement policies, logistics optimisation); product and service initiatives (eco-design, circular economy programmes, low-carbon product lines); governance actions (ESG-linked executive remuneration, board committees, new oversight structures); and social programmes (training, health and safety, DEI, living wage rollouts).

CSRD Action Plan Types Across Sample (n=290 reports)



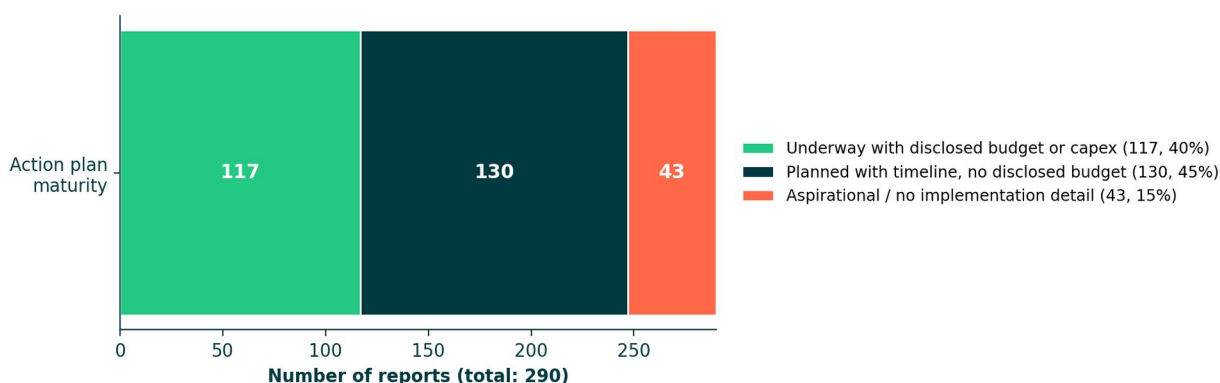
6.1 Most commonly disclosed action types

Operational changes and social programmes are the most widely disclosed action categories (91 per cent and 82 per cent of reports respectively), reflecting their relative ease of disclosure and lower capital intensity. Capital investments are disclosed by 85 per cent of the sample, with roughly half of these disclosing a budget or capex figure. Product and service initiatives (78 per cent) typically focus on eco-design, recycled content targets, and circular business models. Governance actions (65 per cent) are less universally disclosed, with the most common concrete governance action being the introduction of ESG-linked executive compensation, reported by approximately one-third of the sample.

6.2 Action plan maturity

Of the actions disclosed across the sample, approximately 40 per cent are already underway with a disclosed budget or capex allocation, 45 per cent are planned with a defined timeline but no disclosed budget, and 15 per cent are aspirational statements without clear implementation specifics. This is a meaningful deterioration from the SBTi-validation rate noted earlier: while 52 per cent of reporters have SBTi-validated targets, only around 40 per cent of action disclosures meet the budget-with-timeline threshold.

Action Plan Maturity: Implementation Specificity



6.3 Action plans with disclosed budgets

Capital commitments disclosed alongside specific actions are most commonly visible in heavy industry: voestalpine discloses €1.5bn for greentec steel; thyssenkrupp discloses €2bn for direct reduction facilities; Salzgitter discloses €2.3bn for SALCOS hydrogen-based steel; BMW discloses multi-billion euro battery cell production investments; and Volkswagen discloses comparable figures. In Chemicals, BASF, Covestro, and Evonik disclose multi-year capex allocated to decarbonisation retrofits. In Containers & Packaging, Stora Enso, SCA, and Huhtamaki disclose specific investments in fossil-fuel phase-out at paper mills. Smaller mid-cap reporters more commonly disclose ranges rather than specific figures, or describe capital allocation as a percentage of total capex earmarked for sustainability.

6.4 Social programmes

Social action disclosures are dominated by occupational health and safety programmes (nearly universal), training and skills development linked to the green and digital transitions, and diversity and inclusion initiatives. Living wage disclosure is less common than might be expected, with notable strong disclosures at adidas, Hermès, LVMH, and Schneider Electric.

Human rights due diligence disclosures are more structured among larger groups with global supply chains (Volkswagen, BMW, Continental, adidas, Hermès) and weaker among mid-cap specialists operating in narrower geographies.

7. Sector-Specific Risks and Opportunities

Aggregating the risk and opportunity disclosures across the sample reveals a consistent set of themes whose relative prominence varies predictably by sub-industry.

7.1 Most frequently flagged risks

Carbon pricing and CBAM exposure is the single most frequently flagged risk, disclosed by approximately 75 per cent of the sample and with particular salience for Iron & Steel, Chemicals, Cement-adjacent Building Products, and energy-intensive Industrial Machinery reporters. Raw material supply security and price volatility is the second most common risk theme (approximately 65 per cent), with particular emphasis on critical raw materials (rare earths, lithium, cobalt, nickel) in Automotive, Electrical & Electronic Equipment, and Semiconductors, and on bulk commodities (steel, polymers, aluminium) in Containers & Packaging and Appliance Manufacturing.

Chemical regulation tightening (including the evolving REACH programme, the PFAS restriction proposal, and individual SVHC listings) is flagged by approximately 55 per cent of reporters, with highest salience in Chemicals, Apparel (textile chemistry), and Electrical & Electronic Equipment (semiconductor gases, flame retardants). Physical climate risk to facilities and supply chains is disclosed by approximately 50 per cent of the sample, with noticeable variation in analytical depth: leading reporters (Schneider Electric, Michelin, Volkswagen, ASML) use third-party platforms and disclose quantified exposure, while weaker disclosures consist of qualitative narrative only. Trade policy and reshoring pressures are visible primarily in export-exposed sub-industries (Semiconductors, Aerospace & Defence, Automobiles).

7.2 Most frequently flagged opportunities

Green products and eco-design is the most frequently flagged opportunity, disclosed by nearly 80 per cent of the sample, typically as a growth thesis for low-carbon product lines, recycled-content offerings, or solutions enabling customers' decarbonisation. Circular economy business models (take-back, refurbishment, product-as-a-service) are disclosed by approximately 55 per cent, with particular depth in Building Products (Kingspan), Packaging (Huhtamaki, Stora Enso), Apparel (Hermès repair programmes, adidas end-of-life), and Electrical & Electronic Equipment (Signify circular lighting).

Industrial electrification and green hydrogen are most prominent in heavy industry pathways but remain capex-contingent. Recycled and bio-based materials opportunities are most articulated in Packaging, Apparel, and Chemicals. Digital manufacturing efficiency (predictive maintenance, process optimisation) is disclosed across multiple sub-industries but rarely quantified in terms of expected emission reduction. Product-as-a-service business model shifts are flagged by a minority of reporters, most prominently Schneider Electric, Signify, and Atlas Copco.

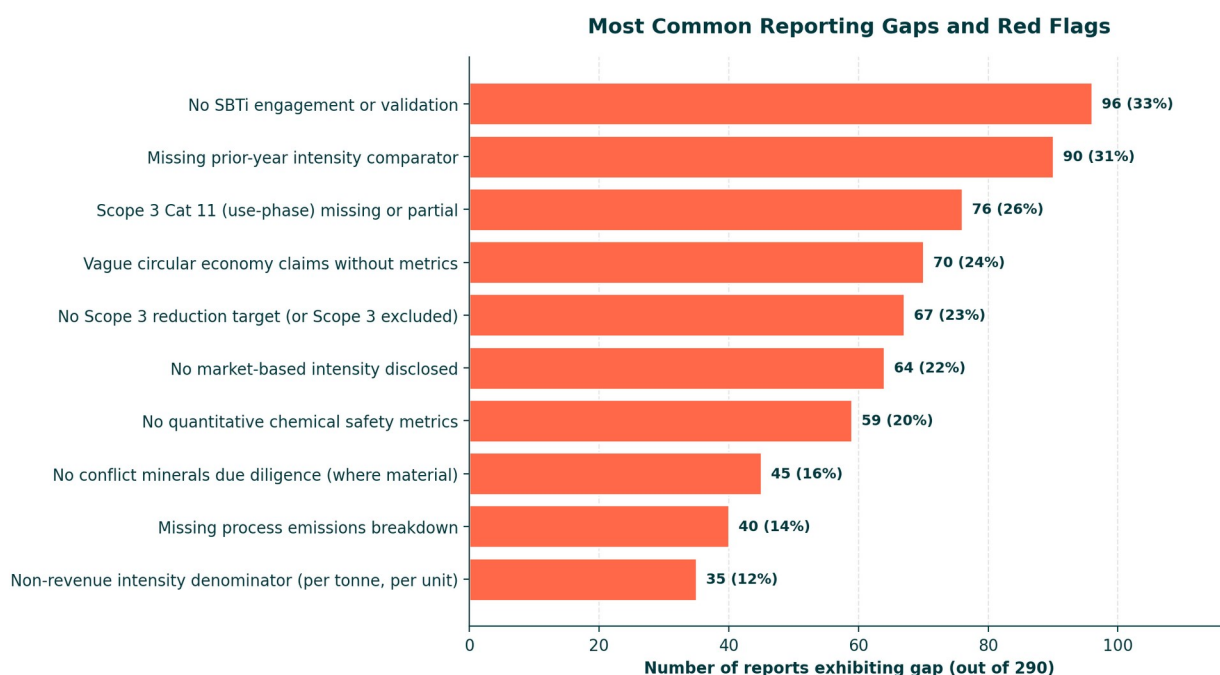
8. Best Practices

Standout disclosures across the sample exemplify what strong Manufacturing CSRD reporting can look like in 2024 and 2025.

- ABB's avoided-emissions ambition of 600 Mt CO₂e cumulative through 2030 illustrates how companies whose products enable customer decarbonisation can articulate a positive-impact ambition alongside conventional Scope 1, 2, and 3 reduction targets, with SBTi-validated near-term and long-term pathways backing the claim.
- Stora Enso's detailed pathway to fossil-free production by 2030, with identified boiler conversion projects at specific mills and disclosed capital budgets, represents one of the most operationally concrete heavy-industry transition plans in the sample.
- adidas's integration of supplier decarbonisation into its Scope 3 target through explicit coal phase-out requirements on Tier 1 and Tier 2 garment suppliers, combined with living-wage disclosures at the factory level, sets a benchmark for Apparel supply-chain reporting.
- Schneider Electric's supply-chain Sustainability Supplier Index (SSI) programme, which sets individual emission-reduction KPIs for the company's top 1,000 suppliers and reports achievement rates annually, demonstrates how mid-to-large B2B manufacturers can drive Scope 3 Category 1 reductions through structured procurement.
- Michelin's quantitative linkage between rolling resistance product performance and Scope 3 Category 11 intensity, with transparent calculation methodology, is a rare example of a product-attribute-to-emission-attribute causal chain disclosed at the metric level.
- voestalpine's greentec steel programme combined with a transparent interim steel-grade roadmap demonstrates how a hard-to-abate heavy-industry producer can publish a Paris-aligned pathway with disclosed capital requirements and technology assumptions.
- Evonik's "Next Generation Solutions" portfolio framing, with a disclosed target of over 50 per cent of revenue from next-generation solutions by 2030, translates the transition plan into a commercial portfolio shift that links sustainability performance to strategic growth planning.
- Lanxess's application of reasonable assurance on a defined subset of metrics (Scope 1 and 2 GHG data and selected social indicators) in addition to limited assurance on the full statement demonstrates a pragmatic path beyond universal limited assurance within the first-wave reporting cycle.
- Airbus's 2035 intensity target for Scope 3 Category 11 use-of-sold-products, expressed in gCO₂ per revenue-passenger-kilometre, is a rare example of a product-level sectoral intensity target aligned with an external sector-level pathway and SBTi-validated under the aviation sector guidance.
- Kingspan's restated historical emissions data, published alongside the updated 2024 baseline, is a strong example of transparency on methodology revision under ESRS and represents best practice for handling re-baselining.

9. Red Flags and Reporting Gaps

Consolidating the most common omissions, vague commitments, and potential greenwashing indicators across the sample reveals systematic weaknesses that cut across sub-industries.



9.1 SBTi engagement gap

Approximately one-third of the sample (96 report-entries) have no SBTi engagement or validation. While some of these reporters articulate cogent reasons, most commonly the absence of a recognised sectoral pathway, the pattern indicates that a significant share of Manufacturing CSRD reporters have not subjected their targets to external methodology validation. Within this group, reporters who describe targets as "science-based" or "aligned with 1.5°C" without SBTi engagement are particularly exposed to greenwashing criticism, given the absence of external review.

9.2 Scope 3 coverage gaps

Scope 3 Category 11 (use of sold products) is missing or only partially disclosed in 76 report-entries (26 per cent), a particularly significant gap given that Category 11 is typically the dominant emission category for durable-product manufacturers. The most common partial-disclosure patterns include: absolute Category 11 disclosed without a reduction target (Signify, Ariston Holding, Wärtsilä); Category 11 excluded from Scope 3 intensity because "use-phase emissions are highly product-mix dependent" (OPmobility, Nexans, Legrand); and Category 11 disclosed at the product-category level without roll-up to total emissions (several Electrical & Electronic Equipment reporters).

Absolute Scope 3 targets are absent in 67 report-entries (23 per cent). This pattern is particularly pronounced in smaller mid-cap reporters (Elmos, Frequentis, Exel Composites, Cabka) and in reporters whose Scope 3 is dominated by the value chain of highly heterogeneous products. Missing prior-year intensity comparators, visible in 90 report-entries (31 per cent), further constrain year-on-year trend analysis.

9.3 Conflict minerals and chemical safety gaps

Despite the high material relevance of 3TG and emerging critical-minerals due diligence for Electrical & Electronic Equipment, Semiconductors, Automotive, and Aerospace & Defence,

approximately 45 report-entries (16 per cent) in sub-industries where conflict minerals are clearly material either make no conflict-minerals disclosure or reduce it to a one-line policy reference. Chemical safety disclosures are similarly inconsistent: 59 report-entries (20 per cent) in Chemicals, Apparel, Electrical & Electronic Equipment, and Semiconductors lack quantitative metrics on SVHC phase-out, PFAS substitution, or similar chemical-management KPIs, despite the regulatory direction of travel under REACH.

9.4 Vague circular economy claims

Circular economy disclosures range from quantitatively specific (disclosed recycled content percentages, product-level closed-loop ratios, take-back volumes) to entirely qualitative ("we are committed to circular economy principles"). Approximately 70 report-entries (24 per cent) include circular economy language without accompanying quantitative targets or metrics. This is a material greenwashing risk given the increasing regulatory weight of the EU Circular Economy Action Plan and the forthcoming Ecodesign for Sustainable Products Regulation.

10. Notable Quotes

The following quotations, drawn from across the 290 report-entries analysed, illustrate the range of commitment, candour, and disclosure quality observable in first-wave Manufacturing CSRD reporting. Each quotation is reproduced with its source and page reference for traceability back to the original sustainability statement.

"To achieve net zero, ABB has set near-term and long-term targets aligned with the Corporate Net-Zero Standard of the Science Based Targets initiative (SBTi), which guide our Climate Transition Plan."

Source: ABB, Sustainability Statement 2025, p. 52

"For the execution of this Plan, Acerinox allocated CAPEX exceeding €5 million in 2025 (€2 million in 2024). Of this investment, 67% corresponds to energy efficiency projects."

Source: Acerinox, 2025 Consolidated Management Report, p. 155

"AIXTRON aims to achieve net-zero emissions by 2045. For the medium-term horizon, AIXTRON is committed to setting existing science-based climate targets with the Science Based Targets Initiative (SBTi)."

Source: AIXTRON, Annual Report 2025, p. 154

"76% of the reduction in AMG's overall Scope 1 and 2 GHG emissions between 2024 and 2025 is due to the site's reduced operational output."

Source: AMG Critical Materials, 2025 Annual Report, p. 98

"The target is aligned with limiting global warming to a global average of 1.5°C, and is thus science-based. It has not been externally audited."

Source: BASF SE, FY2025 Report, p. 189

"A limited assurance review of the Sustainability Report has not been conducted."

Source: Arjo AB, 2024 Annual and Sustainability Report, p. 35

"At present, we do not track the percentage of primary data used in scope 3 calculations."

Source: Elopak, Annual Report 2024, p. 91

"We aim to increase the proportion of sales from Next Generation Solutions to over 50 percent by 2030."

Source: Evonik, Financial and Sustainability Report 2024, p. 97

"The targets are therefore not science based."

Source: FACC AG, Annual Report 2024, DR E1-4, p. 85

"We do not have a net-zero target, but only a carbon neutrality one."

Source: Ferrari N.V., 2024 Annual Report and Form 20-F, footnote 18, p. 213

"The higher the share of BEVs, the harder it is to reach the target set for Scope 3 upstream."

Source: Ferrari N.V., 2024 Annual Report and Form 20-F, Sustainability Statement, p. 213

"The Directive (EU) 2022/2464 as regards corporate sustainability reporting (CSRD) entered into force on January 5, 2023. Although the CSRD had not been implemented in national law in Germany by December 31, 2024, the LANXESS Group voluntarily and fully applied the ESRS as a framework for its Sustainability Report."

Source: Lanxess, 2024 Sustainability Report, p. 87

"Leonardo's near-term goal of reducing GHG Scope 1 and 2 emissions has been classified by SBTi as in line with keeping global warming within the 1.5°C threshold and is being pursued through financial planning and investment decisions that take into account environmental parameters."

Source: Leonardo, 2024 Sustainability Statement, p. 114

"Scope 3 Category 11 "Use of Sold Products" increased in 2023 and 2024, with a rise in revenue from products sold to datacenters, which increasingly require higher power products. Thus, the increase in emissions associated with the use phase of our products grew more significantly than revenue, explaining the rise in Legrand's intensity."

Source: Legrand, 2024 Universal Registration Document, p. 139

"Elkem was planning to launch an absolute scope 3 target in 2025, but this has been postponed due to the strategic review."

Source: Elkem, Annual Report 2025, p. 109

"The ratio of emissions intensity to turnover is not a representative KPI for Ence's activity. From an operational point of view, the emissions intensity is related, for the pulp business, to the volume of pulp produced while for the renewable electricity generation business it is related to the volume of electricity produced."

Source: Ence Energía y Celulosa, 2024 Sustainability Report, p. 74

"As of 2025, Evonik's portfolio includes no GHG emissions that cannot be technically reduced by 2050. At this time, it is not possible to forecast the economic viability of actions that are technically feasible by 2050."

Source: Evonik, Financial and Sustainability Report 2025, p. 114

"GHG emissions and their intensity per net gain (revenue) are presented below, with the exception of scope 3 emissions. This non-publication was decided by the Management Board."

Source: Dassault Aviation, 2024 Annual Financial Report, section 4.2.2.7, p. 130

"Scope 3 use-phase emissions represent more than 90 per cent of Michelin's carbon footprint (115 million tonnes of CO2 in 2024). Michelin is a leader in rolling resistance performance."

Source: Michelin, 2024 Universal Registration Document, pp. 188–189

"The majority of Nexans carbon footprint is related to Scope 3 and the use of sold products. The GHG emissions during the products' use phase are associated with the cable's energy losses related to the operating voltage and the load."

Source: Nexans, 2024 Universal Registration Document, p. 113

"Kingspan explicitly ring-fences its GHG-Protocol-aligned restated historical data and its Scope 3 figures as "Outside the scope of the CSRD assurance"."

Source: Kingspan, Annual Report 2025, pp. 170–171

11. Sector-Level Conclusions

11.1 CSRD and ESRS adoption maturity

First-wave CSRD adoption across the diverse Manufacturing sub-industries has produced a corpus of 290 report-entries that meet the basic structural requirements of the ESRS framework: all reports in the sample follow the ESRS architecture, conduct a Double Materiality Assessment, and disclose material IROs across the ten topical standards to some degree. The sample exhibits significant heterogeneity, however, in the depth of disclosure per topical standard. Reporters who were already voluntary adopters of structured sustainability reporting prior to CSRD (adidas, BASF, Schneider Electric, Volkswagen, ABB, Stora Enso, Hermès, Evonik, Signify) generally enter the first CSRD cycle with materially more developed disclosures than reporters for whom the 2024 sustainability statement is both a first CSRD report and the first structured climate disclosure (typical of smaller mid-cap industrial reporters in sub-industries like Industrial Machinery, Building Products, and Auto Parts).

11.2 External assurance

External assurance on sustainability statements is near-universal at 96 per cent of the sample, but the level of assurance is almost uniformly limited rather than reasonable. Only 11 reports (4 per cent) combine limited assurance on the full statement with reasonable assurance on selected metrics, and no report in the sample obtains reasonable assurance on the full sustainability statement. The correlation between assurance level and disclosure quality is weak: several reporters with the most developed disclosures (adidas, Volkswagen, BMW) carry standard limited assurance, while reporters with comparatively thinner disclosures (FACC 2025, Eckert & Ziegler) have moved to limited assurance only in the second cycle. The dominant assurance standard is ISAE 3000 (Revised); French issuers additionally reference H2A guidelines; German issuers reference IDW-AsS 990 or comparable national standards. Assurance provider concentration among the Big Four is pronounced.

11.3 Disclosure gaps relative to impact profile

The most material disclosure gaps, relative to the actual impact profile of each sub-industry, are: Scope 3 Category 11 use-phase emissions for durable-product manufacturers (Signify, Wärtsilä, Siemens Energy, Ariston Holding in particular); conflict minerals due diligence at the required level of specificity for Electrical & Electronic Equipment and Semiconductor reporters; SVHC phase-out metrics for Chemicals and Apparel; and biodiversity in upstream supply chains for Apparel, Pulp & Paper, and Automotive. These gaps are structural rather than idiosyncratic and represent the principal areas where ESRS, as currently constructed, permits disclosures that are formally compliant but substantively incomplete.

11.4 Credibility of decarbonisation commitments

For hard-to-abate sub-industries (Iron & Steel, Chemicals, cement-related Building Products), decarbonisation commitments in the sample are plausible at the level of stated ambition but remain heavily capital-contingent and technology-dependent. voestalpine, thyssenkrupp, Salzgitter, and SSAB have disclosed the most concrete capital commitments in Iron & Steel; however, the realisation of these commitments depends on the availability of

affordable green hydrogen and grid decarbonisation at pace. In Chemicals, integrated producers (BASF, Evonik, Covestro) disclose detailed but portfolio-specific pathways, while specialty chemicals reporters provide more modular disclosures. In all hard-to-abate sub-industries, the Scope 3 dimension of decarbonisation remains materially less developed than Scope 1 and 2 pathways.

11.5 Category 11 use-phase emissions in Automotive and Appliances

Automotive OEMs (BMW, Volkswagen, Stellantis, Ferrari, Daimler Truck, Iveco, Renault) and Appliance Manufacturers (De'Longhi, Ariston Holding) universally acknowledge that Scope 3 Category 11 dominates their emission footprint, typically in the 80 to 99 per cent range of total emissions. The decarbonisation response is essentially homogeneous: electrification of the product portfolio, with disclosed BEV penetration targets and associated milestone years. The quality of disclosure varies materially, however, on the link between the electrification target and the quantified Category 11 reduction: leading disclosures (BMW, Volkswagen) integrate fleet-mix assumptions with grid decarbonisation scenarios, while weaker disclosures stop at the BEV percentage target without quantifying the emission consequence. Ferrari uniquely argues that its luxury-performance positioning makes BEV transition more difficult than for volume OEMs, and discloses a carbon-neutrality (not net-zero) long-term commitment.

11.6 Conflict minerals and responsible sourcing

Conflict minerals disclosure is structurally strongest in Automotive (BMW, Volkswagen, Stellantis, Iveco, OPmobility), Aerospace & Defence (Airbus, Leonardo, MTU Aero Engines), and the largest Electrical & Electronic Equipment issuers (ABB, Schneider Electric, Signify), with each typically disclosing 3TG due diligence programmes, smelter-level auditing, and emerging cobalt and lithium due diligence. Mid-cap Semiconductor reporters (Elmos, AIXTRON) and smaller Electrical & Electronic Equipment issuers disclose markedly less detail. The pattern suggests that the distinction between leading and lagging reporters on responsible sourcing correlates with size and OEM-customer pressure rather than with reporting maturity per se.

11.7 Chemical safety and hazardous substances

Chemical safety disclosures under E2 Pollution are structurally strongest at the integrated chemical groups (BASF, Evonik, Lanxess, Arkema, Covestro, Solvay, Syensqo, Symrise), each of which discloses SVHC exposure at the product or revenue level. Apparel reporters vary: leaders (adidas, Hermès, LVMH) disclose chemical management via ZDHC programme participation, while laggards reduce chemical safety to a policy statement. Electrical & Electronic Equipment reporters almost uniformly reference RoHS and REACH compliance without disclosing quantitative SVHC phase-out metrics. The forthcoming PFAS restriction proposal at EU level is visible in a growing number of 2025 reports as a regulatory risk, but very few reporters disclose their quantitative PFAS exposure.

11.8 Circular economy approaches

Circular economy disclosures vary from substantive product redesign (Kingspan's closed-loop insulation programmes, Hermès's craftsmanship-heritage-anchored repair services,

adidas's recycled polyester commitments, Stora Enso's recycled-content targets, Signify's circular lighting programmes) to marginal recycling claims with limited supporting data. The overall pattern is that circular economy in Manufacturing CSRD reports remains more articulated in vision than in measured product outcomes, with the strongest disclosures concentrated in sub-industries where regulatory requirements (EPR for Packaging, WEEE for Electrical & Electronic Equipment, ELV for Automotive) have forced structured action over multiple years.

11.9 What distinguishes leaders from laggards

Across the sample, the consistent distinguishing features of leading Manufacturing reporters are: (i) SBTi-validated near-term and long-term targets with explicit Scope 3 coverage; (ii) disclosed capital commitments aligned with the transition plan, expressed as specific multi-year capex figures rather than ranges; (iii) quantitative Scope 3 Category 11 treatment for durable-product manufacturers, with product-mix assumptions disclosed alongside the target; (iv) integration of sustainability metrics into executive remuneration with disclosed weightings; (v) year-on-year consistency in material topic scope rather than frequent DMA revisions; and (vi) reasonable assurance on at least a subset of high-impact metrics. Laggards typically exhibit the inverse pattern: unvalidated targets described as "science-based", absent or vague capital commitments, no quantitative Scope 3 Cat 11 coverage, sustainability as a qualitative module in executive pay, material DMA revisions without clear justification, and limited assurance only with selective metric scope.

11.10 Implications for investors, regulators, and the sector

For investors, the sample suggests that within Manufacturing, the cross-sub-industry intensity comparisons that dominate quantitative ESG analysis are structurally misleading without sub-industry normalisation. A luxury apparel house reporting below 50 tCO₂e per EUR million cannot be meaningfully benchmarked against a wind turbine manufacturer whose Category 11 exposure drives intensity above 10,000 tCO₂e per EUR million. Investor analytics frameworks that rank Manufacturing issuers on aggregate intensity without sub-industry adjustment risk misclassifying leading and lagging performers. The more robust signals are qualitative disclosure characteristics: SBTi validation; disclosed capital commitments; Scope 3 Category 11 treatment; and transition plan specificity.

For regulators, the sample indicates that the ESRS framework has achieved its structural objective of producing comparable disclosures across a large sample of issuers. However, several material gaps persist that warrant either guidance clarification or standard revision: the treatment of Scope 3 Category 11 at the product-group versus issuer level; the requirements for quantitative circular economy and chemical safety KPIs under E5 and E2; the threshold for community affectedness under S3 for large industrial sites; and the extent to which Scope 3 intensity methodology variation undermines intensity comparability across issuers within the same sub-industry.

For the Manufacturing sector itself, the sample suggests a clear divergence between sub-industries where first-wave CSRD reporting has produced near-complete and comparable disclosures (Chemicals integrated groups, Apparel luxury houses, Automotive OEMs) and sub-industries where first-wave reporting remains materially incomplete relative to sectoral impact (smaller Industrial Machinery & Goods, mid-cap Semiconductors, smaller Medical Equipment & Supplies issuers). For the second and third reporting cycles, the critical improvement areas are Scope 3 Category 11 quantification for durable-product

manufacturers, supply-chain emission reduction translated into supplier-level KPIs, and the shift from limited to reasonable assurance on high-impact metrics.

Reference Index: Companies Analysed

All 290 CSRD sustainability reports analysed in this research are publicly available. The full library of CSRD disclosures, including all reports referenced below, can be accessed via the KEY ESG CSRD Reports Library at keyesg.com/article/access-the-first-wave-of-csrd-reports. The library currently covers 944 reports across 38 countries and 13 SASB industry sectors.

944 reports | 38 countries | 13 SASB sectors | 3 reporting years

Company	Country	Sub-industry	Period
ABB Ltd	Switzerland	Electrical & Electronic Equipment	FY 2024–2025
Acerinox S.A.	Spain	Iron & Steel Producers	FY 2024–2025
adidas AG	Germany	Apparel, Accessories & Footwear	FY 2024–2025
Air Liquide S.A.	France	Chemicals	FY 2024
Airbus SE	Netherlands/France	Aerospace & Defence	FY 2024–2025
AIXTRON SE	Germany	Semiconductors	FY 2024–2025
Akzo Nobel N.V.	Netherlands	Chemicals	FY 2024–2025
Alfen N.V.	Netherlands	Electrical & Electronic Equipment	FY 2024–2025
Altri SGPS S.A.	Portugal	Pulp & Paper Products	FY 2024
Alzchem Group AG	Germany	Chemicals	FY 2024–2025
Ambu A/S	Denmark	Medical Equipment & Supplies	FY 2024
AMG Critical Materials N.V.	Netherlands	Chemicals	FY 2024–2025
Andritz AG	Austria	Industrial Machinery & Goods	FY 2024
Antares Vision S.p.A.	Italy	Industrial Machinery & Goods	FY 2024
Aquafil S.p.A.	Italy	Chemicals	FY 2024
Ariston Holding N.V.	Netherlands	Industrial Machinery & Goods	FY 2024
Arjo AB	Sweden	Medical Equipment & Supplies	FY 2024
Arkema S.A.	France	Chemicals	FY 2024–2025
ASM International N.V.	Netherlands	Semiconductors	FY 2024–2025
ASML Holding N.V.	Netherlands	Semiconductors	FY 2024–2025
ASSA ABLOY AB	Sweden	Building Products & Furnishings	FY 2024–2025
Avio S.p.A.	Italy	Aerospace & Defence	FY 2024–2025
BASF SE	Germany	Chemicals	FY 2024–2025

Company	Country	Sub-industry	Period
BE Semiconductor Industries (Besi)	Netherlands	Semiconductors	FY 2024–2025
BEWi ASA	Norway	Containers & Packaging	FY 2024–2025
Billerud AB	Sweden	Pulp & Paper Products	FY 2024
bioMérieux S.A.	France	Medical Equipment & Supplies	FY 2024
BMW Group	Germany	Automobiles	FY 2024–2025
Borealis AG	Austria	Chemicals	FY 2024
Borregaard ASA	Norway	Chemicals	FY 2024
Brembo N.V.	Netherlands/Italy	Auto Parts	FY 2024–2025
Brunello Cucinelli S.p.A.	Italy	Apparel, Accessories & Footwear	FY 2024
Cabka N.V.	Netherlands	Containers & Packaging	FY 2024
Carel Industries S.p.A.	Italy	Industrial Machinery & Goods	FY 2024
Carl Zeiss Meditec AG	Germany	Medical Equipment & Supplies	FY 2023/24
Cembre S.p.A.	Italy	Electrical & Electronic Equipment	FY 2024
Cenergy Holdings S.A.	Belgium/Greece	Electrical & Electronic Equipment	FY 2024
Chargeurs SA	France	Apparel, Accessories & Footwear	FY 2024
Christian Dior SE	France	Apparel, Accessories & Footwear	FY 2024
Coloplast A/S	Denmark	Medical Equipment & Supplies	FY 2023/24–2024/25
Continental AG	Germany	Auto Parts	FY 2024–2025
Corticeira Amorim SGPS	Portugal	Building Products & Furnishings	FY 2024
Covestro AG	Germany	Chemicals	FY 2024–2025
Daimler Truck Holding AG	Germany	Automobiles	FY 2024–2025
Dassault Aviation S.A.	France	Aerospace & Defence	FY 2024
De'Longhi S.p.A.	Italy	Appliance Manufacturing	FY 2024
Deceuninck NV	Belgium	Building Products & Furnishings	FY 2024–2025
Demant A/S	Denmark	Medical Equipment & Supplies	FY 2024
DiaSorin S.p.A.	Italy	Medical Equipment & Supplies	FY 2024–2025
Drägerwerk AG & Co. KGaA	Germany	Medical Equipment & Supplies	FY 2024
dsm-firmenich AG	Switzerland	Chemicals	FY 2024–2025
Eckert & Ziegler SE	Germany	Medical Equipment & Supplies	FY 2024
Elkem ASA	Norway	Chemicals	FY 2024–2025
Elmos Semiconductor SE	Germany	Semiconductors	FY 2024
Elopak ASA	Norway	Containers & Packaging	FY 2024

Company	Country	Sub-industry	Period
Ence Energía y Celulosa	Spain	Pulp & Paper Products	FY 2024
EssilorLuxottica S.A.	France/Italy	Medical Equipment & Supplies	FY 2024–2025
Evonik Industries AG	Germany	Chemicals	FY 2024–2025
Exel Composites Plc	Finland	Industrial Machinery & Goods	FY 2024–2025
FACC AG	Austria	Aerospace & Defence	FY 2024–2025
Fagerhult Group	Sweden	Electrical & Electronic Equipment	FY 2024
Ferrari N.V.	Netherlands/Italy	Automobiles	FY 2024–2025
Fiskars Group	Finland	Building Products & Furnishings	FY 2024
Fluidra S.A.	Spain	Building Products & Furnishings	FY 2024–2025
Forvia SE	France	Auto Parts	FY 2024–2025
Frequentis AG	Austria	Aerospace & Defence	FY 2024
Gefran S.p.A.	Italy	Industrial Machinery & Goods	FY 2024
Geox S.p.A.	Italy	Apparel, Accessories & Footwear	FY 2024
Gestamp Automoción S.A.	Spain	Auto Parts	FY 2024–2025
GN Store Nord A/S	Denmark	Medical Equipment & Supplies	FY 2024–2025
Guerbet S.A.	France	Medical Equipment & Supplies	FY 2024
GVS S.p.A.	Italy	Medical Equipment & Supplies	FY 2024
Harvia Plc	Finland	Building Products & Furnishings	FY 2024–2025
HELLA GmbH & Co. KGaA	Germany	Auto Parts	FY 2024
Hensoldt AG	Germany	Aerospace & Defence	FY 2024–2025
Hermès International	France	Apparel, Accessories & Footwear	FY 2024–2025
Huhtamaki Oyj	Finland	Containers & Packaging	FY 2024–2025
Infineon Technologies AG	Germany	Semiconductors	FY 2024
Ion Beam Applications (IBA)	Belgium	Medical Equipment & Supplies	FY 2024
Iveco Group N.V.	Netherlands/Italy	Automobiles	FY 2024–2025
Jacquet Metal Service	France	Iron & Steel Producers	FY 2024
K+S AG	Germany	Chemicals	FY 2024–2025
KAP AG	Germany	Industrial Machinery & Goods	FY 2024
Kemira Oyj	Finland	Chemicals	FY 2024–2025
Kempower Oyj	Finland	Electrical & Electronic Equipment	FY 2024

Company	Country	Sub-industry	Period
Kendrion N.V.	Netherlands	Industrial Machinery & Goods	FY 2024–2025
Kering S.A.	France	Apparel, Accessories & Footwear	FY 2024
Kingspan Group plc	Ireland	Building Products & Furnishings	FY 2024–2025
Klößner & Co SE	Germany	Iron & Steel Producers	FY 2024–2025
Knaus Tabbert AG	Germany	Automobiles	FY 2024
Kongsberg Automotive ASA	Norway	Auto Parts	FY 2024
Kongsberg Gruppen ASA	Norway	Aerospace & Defence	FY 2024–2025
Lanxess AG	Germany	Chemicals	FY 2024–2025
Legrand S.A.	France	Electrical & Electronic Equipment	FY 2024
Lenzing AG	Austria	Chemicals	FY 2024–2025
Leonardo S.p.A.	Italy	Aerospace & Defence	FY 2024–2025
Lindab International AB	Sweden	Building Products & Furnishings	FY 2024
LISI Group	France	Industrial Machinery & Goods	FY 2024
LU-VE S.p.A.	Italy	Industrial Machinery & Goods	FY 2024–2025
LVMH Moët Hennessy Louis Vuitton	France	Apparel, Accessories & Footwear	FY 2024–2025
Masterplast Nyrt.	Hungary	Building Products & Furnishings	FY 2024
Mayr-Melnhof Karton AG	Austria	Containers & Packaging	FY 2024
Melexis NV	Belgium	Semiconductors	FY 2024
Metsä Board Oyj	Finland	Containers & Packaging	FY 2025
Metsä Group (Metsäliitto)	Finland	Pulp & Paper Products	FY 2024
Michelin (CGEM)	France	Auto Parts	FY 2024
Moncler Group	Italy	Apparel, Accessories & Footwear	FY 2024
MTU Aero Engines AG	Germany	Aerospace & Defence	FY 2024
Mycronic AB	Sweden	Electrical & Electronic Equipment	FY 2024
Nexans S.A.	France	Electrical & Electronic Equipment	FY 2024
NKT A/S	Denmark	Electrical & Electronic Equipment	FY 2024–2025
Nobia AB	Sweden	Building Products & Furnishings	FY 2024–2025
Nokian Tyres plc	Finland	Auto Parts	FY 2024
Nordic Paper Holding AB	Sweden	Pulp & Paper Products	FY 2024
Nordic Semiconductor ASA	Norway	Semiconductors	FY 2024
OPmobility SE	France	Auto Parts	FY 2024–2025
Orano SA	France	Industrial Machinery & Goods	FY 2024

Company	Country	Sub-industry	Period
Orion Corporation	Finland	Medical Equipment & Supplies	FY 2024–2025
Outokumpu Oyj	Finland	Iron & Steel Producers	FY 2024
Pirelli & C. S.p.A.	Italy	Auto Parts	FY 2024
Porsche AG	Germany	Automobiles	FY 2024–2025
Prismian S.p.A.	Italy	Electrical & Electronic Equipment	FY 2024–2025
Puma SE	Germany	Apparel, Accessories & Footwear	FY 2024–2025
Rapala VMC Corporation	Finland	Toys & Sporting Goods	FY 2024
Renault Group	France	Automobiles	FY 2024
Rheinmetall AG	Germany	Aerospace & Defence	FY 2024–2025
Robertet SA	France	Chemicals	FY 2024
ROCKWOOL A/S	Denmark	Building Products & Furnishings	FY 2024–2025
Saab AB	Sweden	Aerospace & Defence	FY 2024–2025
Safran S.A.	France	Aerospace & Defence	FY 2024
Salzgitter AG	Germany	Iron & Steel Producers	FY 2024–2025
Sandvik AB	Sweden	Industrial Machinery & Goods	FY 2024
Sartorius AG	Germany	Medical Equipment & Supplies	FY 2024–2025
Sartorius Stedim Biotech	France	Medical Equipment & Supplies	FY 2024–2025
Scanfil Oyj	Finland	Electrical & Electronic Equipment	FY 2024–2025
Schaeffler AG	Germany	Auto Parts	FY 2024–2025
Schindler Holding AG	Switzerland	Industrial Machinery & Goods	FY 2024
Schneider Electric SE	France	Electrical & Electronic Equipment	FY 2024–2025
SCHOTT Pharma AG	Germany	Containers & Packaging	FY 2024/25
Schweizer Electronic AG	Germany	Electrical & Electronic Equipment	FY 2024
Siemens Healthineers AG	Germany	Medical Equipment & Supplies	FY 2024/25
Signify N.V.	Netherlands	Electrical & Electronic Equipment	FY 2024–2025
Solvay SA	Belgium	Chemicals	FY 2024–2025
Stadler Rail AG	Switzerland	Industrial Machinery & Goods	FY 2024
Stellantis N.V.	Netherlands	Automobiles	FY 2024
STMicroelectronics N.V.	Netherlands	Semiconductors	FY 2025
Sto SE & Co. KGaA	Germany	Building Products & Furnishings	FY 2024

Company	Country	Sub-industry	Period
Stora Enso Oyj	Finland	Pulp & Paper Products	FY 2024
STRATEC SE	Germany	Medical Equipment & Supplies	FY 2024
SUSS MicroTec SE	Germany	Semiconductors	FY 2024
Svenska Cellulosa Aktiebolaget (SCA)	Sweden	Pulp & Paper Products	FY 2024
Syensqo SA	Belgium	Chemicals	FY 2024–2025
Symrise AG	Germany	Chemicals	FY 2024
Systemair AB	Sweden	Industrial Machinery & Goods	FY 2024/25
Technip Energies N.V.	Netherlands	Industrial Machinery & Goods	FY 2024
Tessenderlo Group NV	Belgium	Chemicals	FY 2024
Thule Group AB	Sweden	Toys & Sporting Goods	FY 2024
thyssenkrupp AG	Germany	Iron & Steel Producers	FY 2024/25
Tonnellerie François Frères	France	Building Products & Furnishings	FY 2024/25
Trigano S.A.	France	Automobiles	FY 2024
Umicore SA	Belgium	Chemicals	FY 2024
Vaisala Oyj	Finland	Electrical & Electronic Equipment	FY 2024–2025
Valeo SE	France	Auto Parts	FY 2024
Vallourec S.A.	France	Iron & Steel Producers	FY 2024–2025
Van de Velde NV	Belgium	Apparel, Accessories & Footwear	FY 2024
Verallia SA	France	Containers & Packaging	FY 2024
Villeroy & Boch AG	Germany	Building Products & Furnishings	FY 2024
Viscofan S.A.	Spain	Containers & Packaging	FY 2024
voestalpine AG	Austria	Iron & Steel Producers	FY 2024/25
Volkswagen AG	Germany	Automobiles	FY 2024–2025
WACKER Chemie AG	Germany	Chemicals	FY 2024–2025
Yara International ASA	Norway	Chemicals	FY 2024
Zignago Vetro S.p.A.	Italy	Containers & Packaging	FY 2024
Zumtobel Group AG	Austria	Electrical & Electronic Equipment	FY 2024/25