

Sustainable Futures Report

Scope 3 Enterprise Carbon Footprint Assessment

Comprehensive Scope 3 greenhouse gas emissions inventory for a Danish restaurant operation, prepared in accordance with the GHG Protocol Corporate Value Chain Standard. This assessment provides partner-ready disclosure covering all 15 Scope 3 categories for FY2024, delivering precise quantification and transparent methodology for procurement professionals and business partners.



Executive Summary

This comprehensive Scope 3 carbon assessment delivers a complete emissions inventory for a single-site restaurant operation in Denmark, covering all 15 categories as mandated by the GHG Protocol Corporate Value Chain Standard. The assessment provides essential transparency for business partners and procurement professionals, establishing a robust baseline for emissions management and stakeholder engagement.

Our systematic approach ensures complete coverage whilst maintaining the precision required for external disclosure. The methodology prioritises supplier-specific data where available, supplemented by activity-based calculations and conservative spend-based estimates for comprehensive coverage. Data quality indicators provide transparency regarding the robustness of each category's quantification.

413

Total Scope 3 Emissions

tCO₂e across all 15 categories for
FY2024

0.21

Emissions Intensity

kgCO₂e per € revenue

20

Full-Time Employees

Supporting €2M annual revenue

The assessment identifies purchased goods and services as the dominant emission source, accounting for 85% of total Scope 3 emissions. This concentration reflects the carbon-intensive nature of food production, particularly animal products, and establishes clear priorities for future emissions management initiatives. Supporting categories including energy-related activities, transport, and employee commuting complete the emissions profile with transparent quantification and documented assumptions.

Key Findings and Material Categories

Category 1: Purchased Goods

350.25 tCO₂e representing 85% of total Scope 3 emissions

Food and beverage procurement drives emissions through high-impact animal products, particularly meat and dairy ingredients essential to restaurant operations.

Category 3: Fuel & Energy

19.80 tCO₂e from upstream energy activities

Well-to-tank and transmission losses associated with 300,000 kWh electricity and gas consumption at the restaurant premises.

Category 7: Employee Commuting

9.29 tCO₂e from staff travel patterns

Modal split analysis covering 72,000 km annual commuting by 20 full-time equivalent employees across car, public transport, and active travel.

The remaining categories collectively contribute less than 10% of total emissions, demonstrating clear materiality hierarchy. Categories 4 (upstream transport), 5 (waste), and others provide comprehensive coverage whilst maintaining proportionate assessment effort. Zero-quantified categories (10, 13, 14, 15) are explicitly documented with business rationale, ensuring complete transparency for stakeholder review.

Organisational Boundary and Methodology

The assessment applies financial control consolidation for a single legal entity encompassing restaurant operations and associated storage facilities. This boundary definition ensures complete coverage of controlled emissions sources whilst maintaining clear accountability for reported figures. The base year designation of FY2024 establishes a robust foundation for future comparisons and trend analysis.

01

Boundary Definition

Single entity under financial control including restaurant premises and storage facilities

02

Category Coverage

All 15 Scope 3 categories assessed with documented materiality and coverage decisions

03

Data Hierarchy

Supplier-specific factors prioritised, followed by activity-based and spend-based approaches

04

Quality Assurance

Systematic data quality indicators and uncertainty assessment for transparency

Our methodology hierarchy prioritises the most accurate data sources available, beginning with supplier-specific emission factors and European Product Declarations (EN 15804, A1-A3 lifecycle stages). Activity-based calculations using mass, kilometres, kilowatt-hours, and operational hours provide the secondary tier, with spend-based input-output factors serving as the foundation for comprehensive coverage. Currency normalisation to EUR-2024 ensures consistency across spend-based calculations.

Materiality assessment focuses analytical effort on categories representing approximately 90% of total emissions, whilst ensuring complete coverage through documented estimates for residual categories. This approach balances precision with practical resource allocation, delivering robust results suitable for external stakeholder engagement and procurement decision-making.

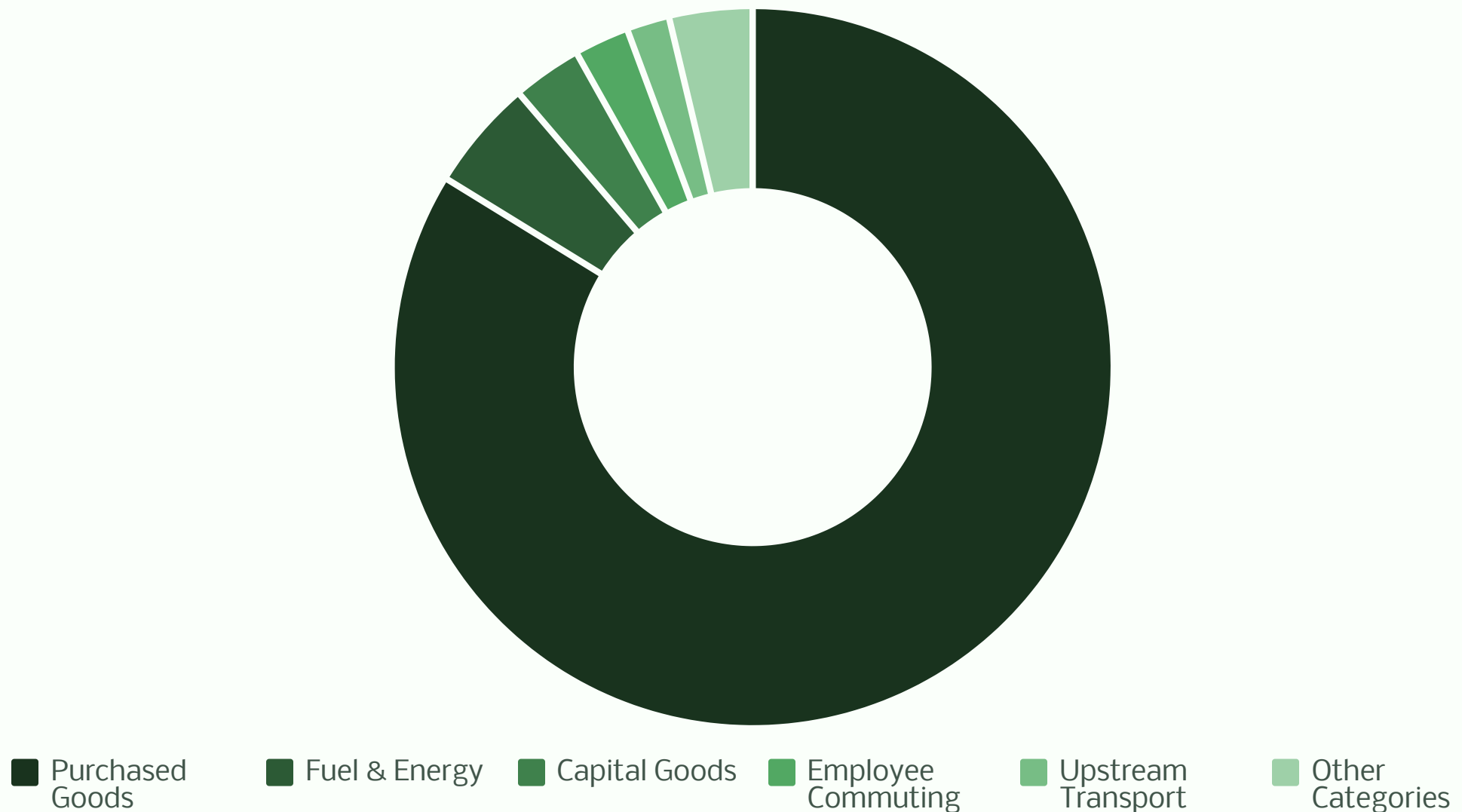
Complete Category Coverage Assessment

Category	Scope 3 Activity	Coverage	Materiality	Assessment Notes
1	Purchased goods & services	✓	High	Activity + spend model
2	Capital goods	✓	Low-Med	Annualised equipment
3	Fuel & energy-related	✓	Medium	Upstream WTT/T&D
4	Upstream transport	△	Low-Med	Tonne-km estimates
5	Waste generated	✓	Medium	Treatment-specific factors
6	Business travel	△	Low	Modal split incomplete
7	Employee commuting	△	Low-Med	Survey-based assumptions
8	Upstream leased assets	△	Low	Service contract basis
9	Downstream transport	✓	Low	Takeaway deliveries
10	Processing of sold products	o	Low	Ready-to-eat rationale
11	Use of sold products	✓	Low	Customer reheating
12	End-of-life treatment	△	Low	Packaging partial data
13	Downstream leased assets	o	Low	None applicable
14	Franchises	o	Low	None applicable
15	Investments	o	Low	None applicable

Coverage Legend: ✓ Fully covered with robust data • △ Partial data available • o Covered and quantified as zero with documented business rationale

Double-counting controls ensure clear boundaries between Category 1 purchased goods and Category 12 packaging treatment, as well as between employee commuting and business travel categories. This systematic approach prevents emission double-counting whilst maintaining comprehensive coverage across all material emission sources within the restaurant's value chain.

Emissions Results by Category



The emissions profile demonstrates clear concentration in purchased goods and services, reflecting the carbon intensity of food production systems. Category 1 alone represents 350.25 tCO₂e, or 85% of total Scope 3 emissions, establishing food procurement as the primary driver of the restaurant's indirect carbon footprint. This concentration provides clear strategic focus for emissions management initiatives.

Secondary categories collectively represent 62.71 tCO₂e, with fuel and energy-related activities contributing the largest share at 19.80 tCO₂e. These upstream energy impacts complement the restaurant's direct Scope 1 and 2 emissions (reported separately) by capturing well-to-tank and transmission losses associated with site energy consumption. The comprehensive coverage ensures complete value chain transparency for stakeholder engagement and procurement decision-making processes.

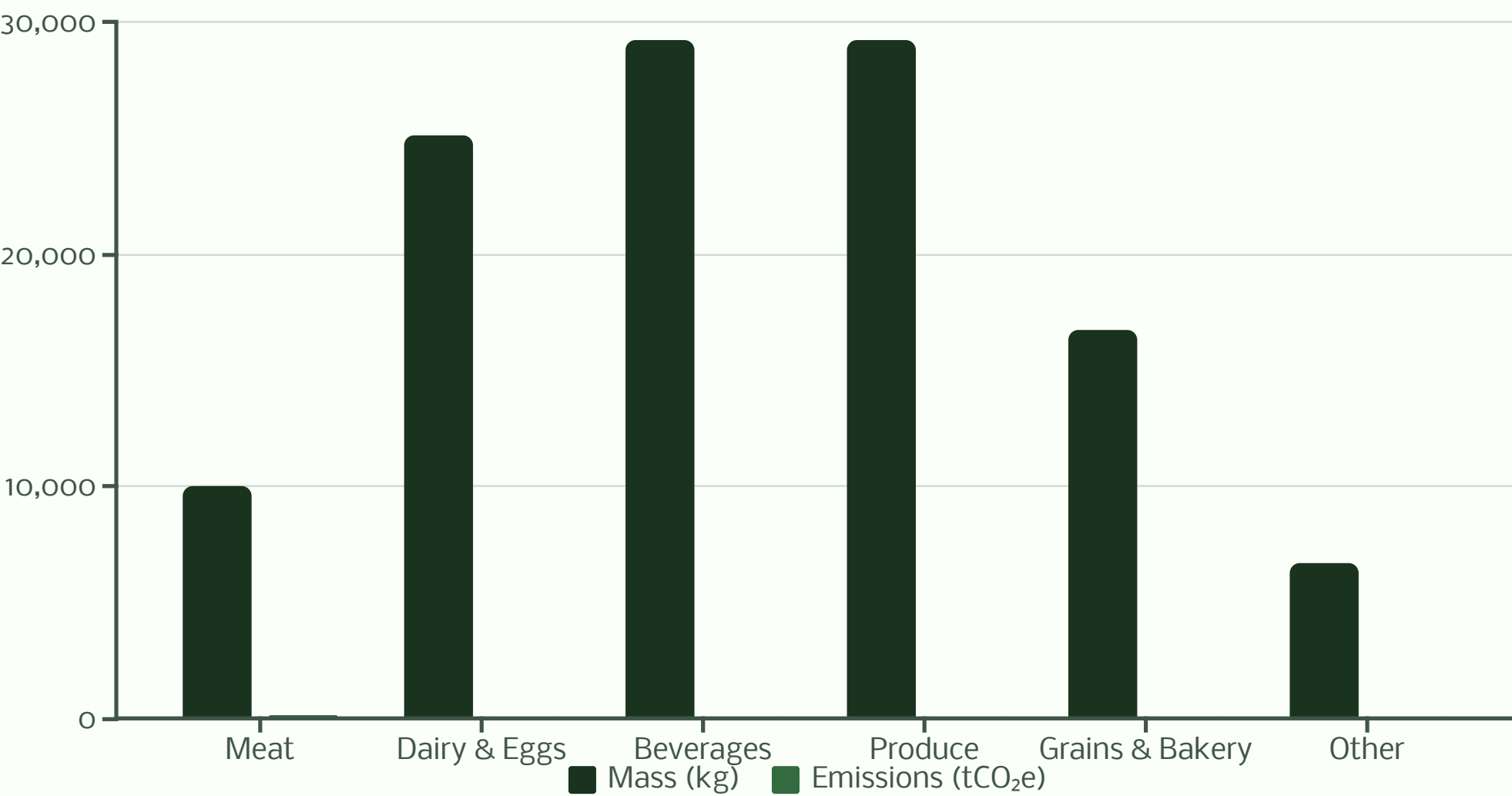
Detailed Results Table

Cat	Activity Basis	Emission Factor	DQ	tCO ₂ e	Share	Notes
1	117 tonnes ingredients	Grouped food EF	B-C	350.25	84.8%	Six product groups
2	€60,000 equipment	0.2 kgCO ₂ e/€	C	12.00	2.9%	Annualised capex
3	600,000 kWh energy	0.033 kg/kWh	B	19.80	4.8%	WTT/T&D upstream
4	20,000 tonne-km	0.35 kg/t-km	C	7.00	1.7%	Rigid HGV typical
5	50 tonnes waste	0.10-0.15 tCO ₂ e/t	B	5.75	1.4%	DK treatment mix
6	11,500 km travel	Mode-specific	C	1.89	0.5%	Mixed transport
7	72,000 km commuting	0.07-0.18 kg/km	C	9.29	2.2%	Modal split survey
8	€25,000 services	0.2 kg/€	C	5.00	1.2%	Linen, dishwashers
9	8,000 km deliveries	0.10 kg/km	D	0.80	0.2%	Takeaway moped
10	None applicable	n/a	-	0.00	0.0%	Ready-to-eat
11	2,500 kWh reheating	0.173 kg/kWh	D	0.43	0.1%	Customer use
12	0.5 tonnes packaging	1.5 tCO ₂ e/t	D	0.75	0.2%	No material split
13-15	None applicable	n/a	-	0.00	0.0%	Documented zero
Total				412.96	100%	

Data Quality Legend: A = Supplier/EPD specific • B = Activity-based calculation • C = Spend-based estimate • D = Assumption-based estimate

The detailed quantification demonstrates systematic application of the GHG Protocol hierarchy, with higher data quality grades assigned to categories with robust activity-based calculations or supplier-specific emission factors. Categories 1, 3, and 5 achieve Grade B through detailed activity tracking, whilst spend-based categories maintain Grade C transparency with documented assumptions and conservative factors.

Category 1: Food & Beverage Analysis



Animal products dominate Category 1 emissions despite representing smaller mass volumes, reflecting the carbon intensity of livestock production systems. Meat ingredients contribute 160.46 tCO₂e from 10.0 tonnes consumed, whilst dairy and eggs add 87.75 tCO₂e from 25.1 tonnes. This pattern aligns with established research on food system emissions and provides clear insight into the restaurant's carbon profile.

The analysis utilises grouped emission factors derived from Poore & Nemecek research context, providing scientifically robust quantification whilst maintaining practical applicability. Beverages represent the largest mass category at 29.3 tonnes but contribute proportionally lower emissions at 43.88 tCO₂e. Plant-based produce delivers excellent emissions efficiency with 23.40 tCO₂e from 29.3 tonnes, demonstrating the carbon advantage of plant-forward menu development.

Grains, bakery items, and other ingredients complete the food procurement profile with 34.77 tCO₂e combined emissions. The detailed breakdown enables targeted emissions management through supplier engagement, menu optimization, and strategic procurement decisions focused on the highest-impact ingredient categories.

Energy and Transport Categories

Category 3: Fuel & Energy

19.80 tCO₂e from upstream energy activities

Covers well-to-tank and transmission/distribution losses for 300,000 kWh electricity and 300,000 kWh gas consumption. Excludes combustion emissions reported in Scope 1-2.

- Electricity upstream: 9.90 tCO₂e
- Gas upstream: 9.90 tCO₂e
- Based on UK GHG Conversion Factors 2024

Category 4: Upstream Transport

7.00 tCO₂e from inbound logistics

Estimated 20,000 tonne-kilometres from supplier deliveries using rigid HGV typical emission factor of 0.35 kgCO₂e/tonne-km.

- Primary food deliveries: 5.25 tCO₂e
- Beverage deliveries: 1.40 tCO₂e
- Other supply deliveries: 0.35 tCO₂e

Category 9: Downstream Transport

0.80 tCO₂e from takeaway deliveries

Local delivery service covering 2,000 annual deliveries with 4-kilometre average round-trip distance via moped transport.

- Annual delivery volume: 2,000 trips
- Average distance: 4 km round-trip
- Emission factor: 0.10 kgCO₂e/km

The transport and energy categories demonstrate systematic boundary management between Scope 1, 2, and 3 emissions. Category 3 captures upstream energy impacts excluded from direct site emissions, whilst transport categories distinguish between inbound supplier logistics (Category 4) and outbound customer deliveries (Category 9). This clear delineation ensures complete value chain coverage without double-counting.

Sensitivity analysis indicates ±20% variation in transport distances or load factors would affect total Scope 3 emissions by less than 1%, demonstrating robust overall quantification despite category-level uncertainties. The methodology prioritises materiality-appropriate precision whilst maintaining comprehensive coverage across all relevant transport activities.

Waste Management and End-of-Life

Category 5: Waste Generated in Operations

Total waste generation of 50 tonnes annually comprises 35 tonnes food waste and 15 tonnes other operational waste. The quantification applies Danish treatment-specific emission factors reflecting local waste infrastructure and regulatory framework.

Food waste (35 tonnes): 3.50 tCO₂e using 0.10 tCO₂e per tonne factor for Danish treatment mix including anaerobic digestion and composting pathways with energy recovery.

Other waste (15 tonnes): 2.25 tCO₂e using 0.15 tCO₂e per tonne factor for mixed operational waste including packaging materials and general refuse following Danish municipal treatment protocols.

The assessment utilises waste contractor weigh tickets and treatment summaries providing robust activity data and enabling Grade B data quality assignment for this material category.

Waste-related emissions total 6.50 tCO₂e across Categories 5 and 12, representing 1.6% of total Scope 3 emissions. The assessment demonstrates systematic treatment of operational and post-consumer waste streams whilst acknowledging data limitations where material-specific information remains unavailable. Evidence on file includes waste contractor documentation supporting activity-based quantification for operational waste streams.

Category 12: End-of-Life Treatment

Takeaway packaging represents 0.5 tonnes annually with estimated 1.5 tCO₂e per tonne emission factor, yielding 0.75 tCO₂e total impact.

This category remains **partial** due to unavailable material composition data (paper, plastic, glass, metal fractions), creating ±30-50% uncertainty at category level whilst maintaining negligible impact on total Scope 3 emissions.

Treatment pathway assumes Danish municipal waste infrastructure with incineration-heavy mix for energy recovery, representative of typical takeaway packaging end-of-life management in the local market context.

People-Related Emissions

1

Employee Commuting Analysis

20 full-time equivalent employees generate 72,000 kilometres annual commuting with modal split: 60% private car (43,200 km), 30% public transport (21,600 km), and 10% active travel (7,200 km). Emission factors of 0.18 kgCO₂e/km for car travel and 0.07 kgCO₂e/km for public transport yield 9.29 tCO₂e total impact.

2

Business Travel Assessment

Annual business travel totals 11,500 kilometres across mixed transport modes: 8,000 km by car, 2,000 km by flight, 1,000 km by rail, and 500 km by taxi. Mode-specific emission factors generate 1.89 tCO₂e total emissions with Grade C data quality reflecting aggregated expense records without detailed modal breakdown.

3

Upstream Leased Assets

Service contracts for linen supply and dishwasher equipment represent €25,000 annual expenditure. Spend-based emission factor of 0.2 kgCO₂e per euro generates 5.00 tCO₂e emissions covering upstream impacts of contracted services essential to restaurant operations.

People-related categories collectively contribute 16.18 tCO₂e, representing 3.9% of total Scope 3 emissions. The assessment applies survey-based assumptions for commuting patterns and expense-based estimates for business travel, reflecting practical data availability constraints whilst maintaining systematic coverage of human resource-related emissions.

Commuting represents the largest people-related emission source, driven primarily by private car use among restaurant staff. The modal split analysis provides strategic insight for employee engagement initiatives, whilst business travel and leased asset categories complete the comprehensive coverage of people-dependent emission sources within the restaurant's operational boundary.

Zero-Quantified Categories

Category 10: Processing of Sold Products

Status: 0.00 tCO₂e

Restaurant operates ready-to-eat food service model with no downstream processing requirements. Meals are consumed immediately or require only basic reheating by customers, eliminating material processing-related emissions downstream of the point of sale.

Category 13: Downstream Leased Assets

Status: 0.00 tCO₂e

Business model involves direct customer service without leasing assets to third parties. Restaurant retains ownership and operational control of all equipment and facilities, eliminating downstream leased asset emissions from the Scope 3 inventory.

Category 14: Franchises

Status: 0.00 tCO₂e

Independent restaurant operation without franchise relationships or licensing agreements. Single-site business model eliminates franchise-related emissions from third-party operations using the restaurant's brand or business systems.

Category 15: Investments

Status: 0.00 tCO₂e

Restaurant maintains no material investment portfolio or equity stakes in other businesses. Financial activities remain focused on operational requirements, eliminating investment-related emissions from the assessment boundary.

Zero-quantified categories receive explicit documentation with business rationale demonstrating systematic consideration rather than omission. Each category assessment confirms applicability to restaurant operations before determining zero quantification, ensuring complete GHG Protocol compliance and stakeholder transparency.

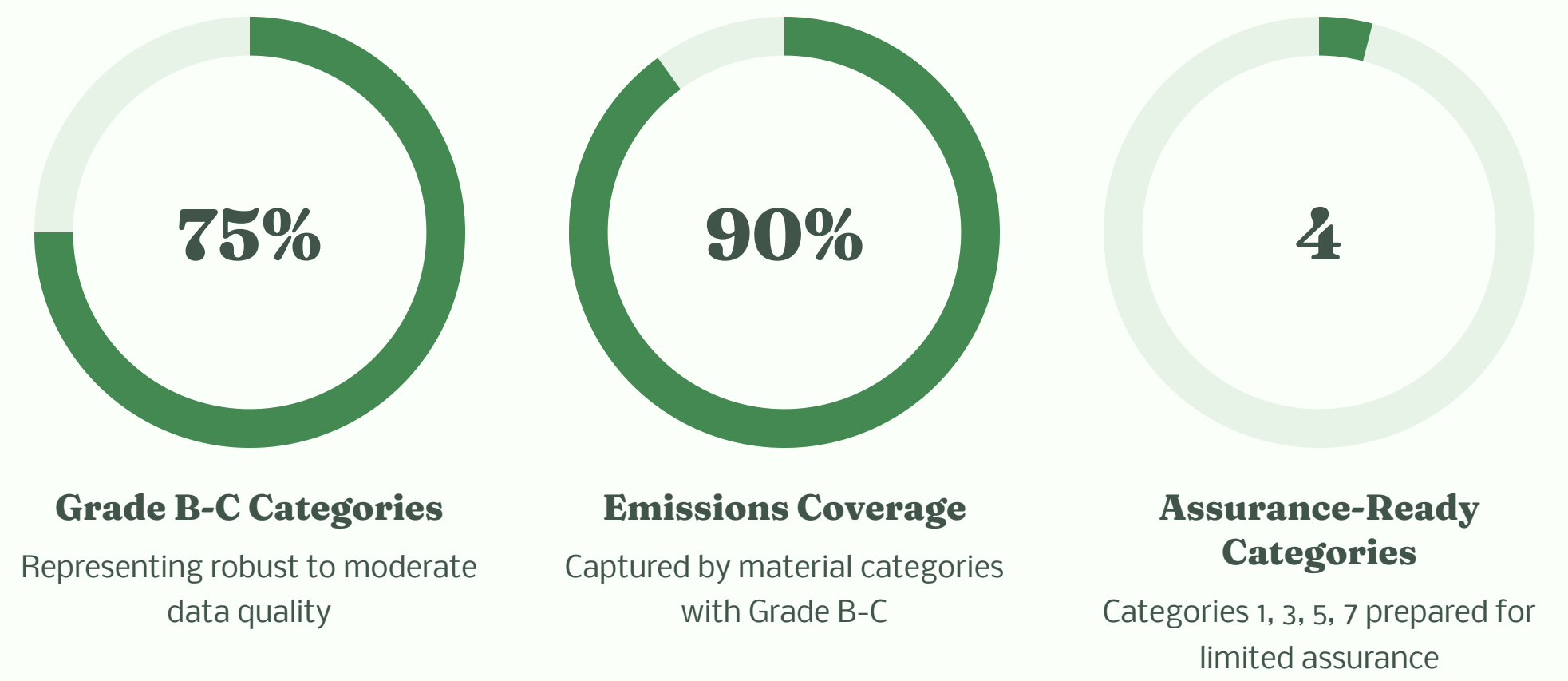
The ready-to-eat business model fundamentally eliminates several downstream categories whilst the independent operational structure removes franchise and investment-related emissions. Category 11 (use of sold products) captures minor customer reheating emissions at 0.43 tCO₂e, representing the limited downstream impact of the restaurant's food service model.

Data Quality and Uncertainty Assessment

Category Group	Data Quality	Uncertainty Range	Assessment Notes
Cat.1 Purchased goods	B-C	±15-25%	Activity-based with spend proxies
Cat.3 Fuel & energy	B	±10-15%	Robust activity data
Transport & logistics	C-D	±20-30%	Distance/load assumptions
Waste operations	B	±15%	Weigh ticket evidence
People-related categories	C	±20-30%	Survey and spend basis
Small/estimated categories	D	±30%+	Conservative assumptions

Data quality assessment applies systematic indicators reflecting evidence robustness and calculation methodology. Grade A represents supplier-specific emission factors or Environmental Product Declarations, Grade B indicates activity-based calculations with established emission factors, Grade C covers spend-based approaches with input-output factors, and Grade D captures assumption-based estimates with documented rationale.

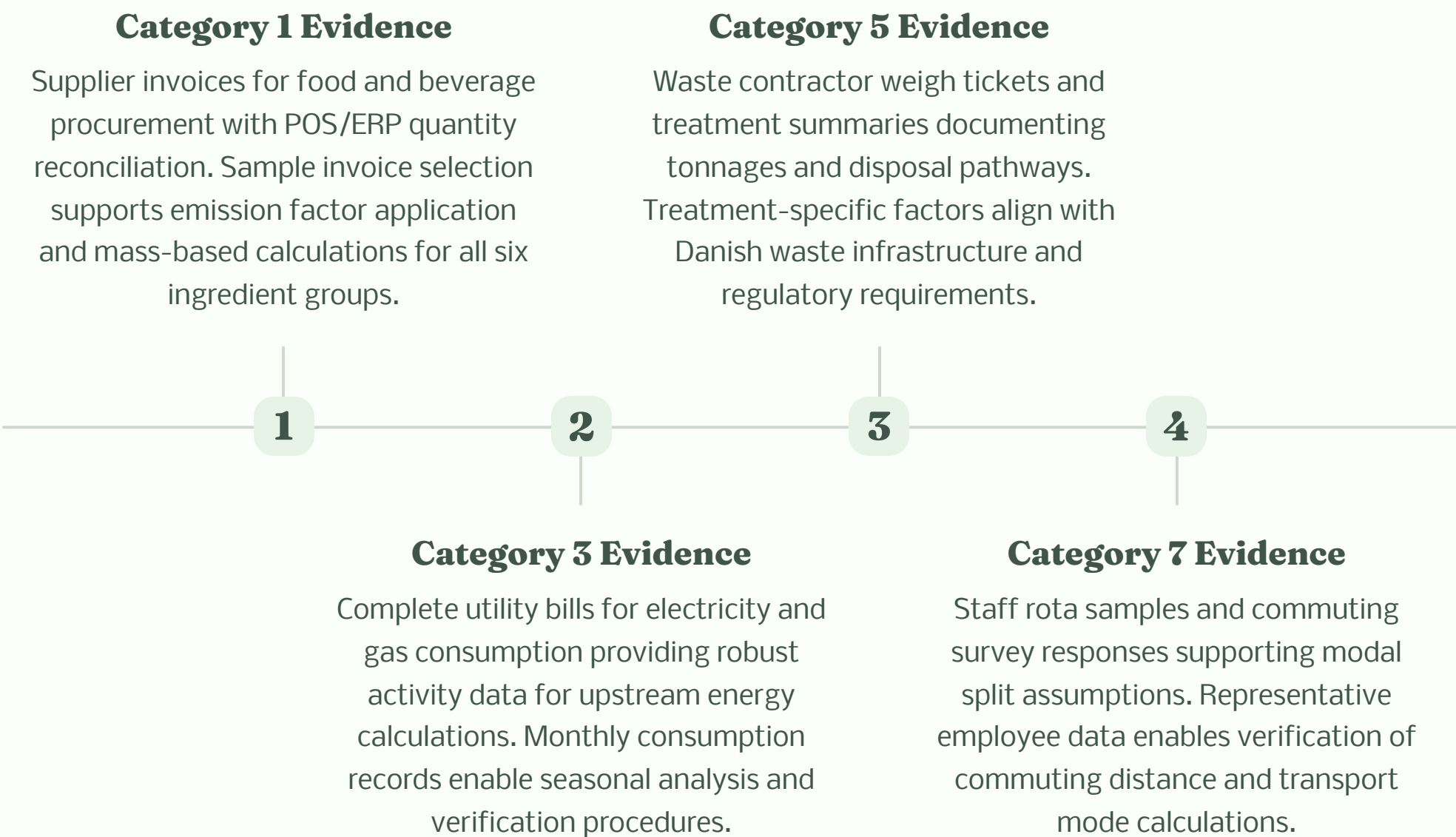
Uncertainty ranges reflect typical variation in emission factors, activity data precision, and methodological assumptions. Higher-quality categories achieve narrower uncertainty bands through robust activity tracking and established emission factors, whilst spend-based and estimated categories acknowledge broader uncertainty ranges inherent in proxy-based quantification approaches.



The quality profile demonstrates systematic prioritisation of analytical effort on material emission sources whilst maintaining comprehensive coverage through documented estimates for smaller categories. Four major categories representing over 90% of total emissions achieve Grade B data quality, providing solid foundation for external assurance and stakeholder confidence in reported figures.

Assurance Readiness and Evidence

The assessment establishes assurance readiness for selected material categories through systematic evidence collection and documented calculation procedures. Categories 1, 3, 5, and 7 achieve limited assurance readiness with supporting documentation enabling independent verification of key emission sources representing over 90% of total Scope 3 emissions.



Evidence documentation follows systematic filing procedures enabling audit trail reconstruction and independent verification. Invoice sampling, quantity reconciliation, and calculation worksheets provide transparency in emission factor application and activity-based quantification procedures. The evidence base supports limited assurance engagement for material categories whilst acknowledging data constraints for smaller emission sources.

Additional evidence includes service contracts for upstream leased assets, business travel expense records, and takeaway delivery volume documentation. This comprehensive evidence portfolio demonstrates systematic data collection and supports the transparent, verifiable approach required for external stakeholder confidence and potential assurance engagement.

Methodology Framework and Standards

The assessment methodology strictly adheres to the GHG Protocol Corporate Value Chain (Scope 3) Standard and associated Scope 3 Calculation Guidance, ensuring international best practice compliance and stakeholder confidence. This framework provides systematic approach to boundary setting, category coverage, calculation hierarchy, and data quality assessment for comprehensive value chain emissions quantification.

1

GHG Protocol Compliance

Full adherence to Scope 3 Standard requirements including organisational boundary, category coverage, calculation hierarchy, and reporting principles. Documentation supports external verification and stakeholder transparency expectations.

2

Emission Factor Sources

Systematic application of established emission factor databases: UK Government GHG Conversion Factors 2024 for transport and energy, Our World in Data context for food systems, Danish electricity reference for use-phase calculations.

3

Data Hierarchy Implementation

Prioritised use of supplier-specific factors, activity-based calculations, and spend-based estimates following GHG Protocol hierarchy. Conservative assumptions documented where primary data unavailable.

4

Quality Assurance

Systematic data quality indicators, uncertainty assessment, and calculation review procedures. Double-counting controls and boundary verification ensure methodological integrity and reporting accuracy.

Global Warming Potential factors apply 100-year timeframe (GWP₁₀₀) from established scientific sources, ensuring consistency with international reporting requirements and comparability across assessments. Currency normalisation to EUR-2024 provides consistent basis for spend-based calculations whilst activity-based approaches prioritise physical quantities where available.

The methodology demonstrates systematic consideration of materiality, data availability, and stakeholder requirements whilst maintaining conservative approaches where assumptions prove necessary. This balanced framework delivers robust quantification suitable for external disclosure, procurement decision-making, and potential future assurance engagement.

Emission Factor Register

Factor Category	Source Standard	Version/Year	Application
Transport & logistics	UK GHG Conversion Factors	2024	Cat.4, 6, 9
Energy upstream (WTT/T&D)	UK GHG Conversion Factors	2024	Cat.3
Waste treatment	UK GHG Conversion Factors	2024	Cat.5, 12
Food & beverage systems	Our World in Data (Poore & Nemecek)	2018/2024	Cat.1
Electricity (use-phase)	State of Green Denmark	2024	Cat.11
Spend-based (generic)	Input-output models	EUR-2024	Cat.2, 8

The emission factor register demonstrates systematic source control and version management ensuring consistency and traceability in quantification procedures. All factors apply 100-year Global Warming Potential (GWP₁₀₀) timeframe from established scientific sources, providing international comparability and methodological transparency for stakeholder review.

UK Government GHG Conversion Factors 2024 provide primary source for transport, energy upstream, and waste treatment factors, reflecting latest methodology updates and emission factor revisions. The 2024 version includes "major changes" to freight transport factors, implemented systematically across relevant categories for contemporary accuracy.

- [**GHG Protocol Corporate Value Chain \(Scope 3\) Standard**](#)
- [**GHG Protocol Scope 3 Calculation Guidance**](#)
- [**UK GHG Conversion Factors 2024 \(Condensed\)**](#)
- [**Our World in Data - Food System Emissions**](#)
- [**State of Green - Danish Electricity**](#)

Food system factors derive from Our World in Data compilation of Poore & Nemecek research, providing scientifically robust lifecycle assessment data for agricultural products. Danish electricity factors reflect national grid composition and renewable energy integration, ensuring local accuracy for customer use-phase calculations in Category 11.

ESRS E1 Cross-Reference

The assessment provides systematic cross-referencing to European Sustainability Reporting Standards (ESRS) E1 requirements, supporting integrated reporting and regulatory compliance for stakeholders operating under European Union sustainability disclosure frameworks. This alignment demonstrates methodological consistency across international and regional reporting requirements.

ESRS E1 Requirement	Status	Assessment Coverage
E1-6 Scope 1-3 GHG emissions	Partial	Scope 3 disclosed comprehensively; Scope 1-2 reported separately
E1-7 GHG methodology	Complete	Boundary, hierarchy, EF families, DQ indicators included
E1-8 GHG intensity metrics	Complete	0.2065 kgCO ₂ e per € revenue calculated and reported
E1-9 GHG reduction targets	Not applicable	Baseline disclosure scope excludes target-setting
E1-13 GHG removals and offsets	Complete	None applied; explicitly documented

Methodology disclosure under E1-7 includes comprehensive boundary definition, calculation hierarchy implementation, emission factor source documentation, and data quality assessment. These elements align with ESRS requirements for transparency in GHG quantification approaches whilst supporting stakeholder understanding of methodological choices and limitations.

Intensity metric calculation provides 0.2065 kgCO₂e per euro revenue, enabling benchmarking and performance tracking aligned with ESRS E1-8 requirements. The metric applies total Scope 3 emissions against FY2024 revenue base, providing normalised comparison basis for operational efficiency assessment and peer benchmarking exercises.

Target-setting and offset application remain outside the current assessment scope, focusing analytical effort on robust baseline establishment. Future reporting cycles may incorporate science-based targets and climate action planning to complete ESRS alignment whilst maintaining the systematic methodological foundation established through this comprehensive Scope 3 inventory.

Data Gaps and Methodological Limitations

The assessment acknowledges systematic data gaps and methodological limitations whilst maintaining comprehensive coverage across all 15 Scope 3 categories. These limitations reflect practical constraints in data availability, supplier engagement, and operational tracking systems rather than methodological deficiencies, providing transparent foundation for continuous improvement planning.

Category 4: Transport Data Granularity

Current state: Spend-based estimates with distance assumptions

Impact: ±20-30% uncertainty; 1.7% of total emissions

Evidence gap: Freight notes, vehicle specifications, load factors

Category 6: Business Travel Mode Split

Current state: Aggregated expense records without modal breakdown

Impact: ±20-30% uncertainty; 0.5% of total emissions

Evidence gap: Travel management system exports, trip segmentation

Category 12: Packaging Material Composition

Current state: Total mass without material-specific breakdown

Impact: ±30-50% uncertainty; 0.2% of total emissions

Evidence gap: Material bills of materials, supplier specifications

Data quality limitations primarily affect categories representing less than 5% of total Scope 3 emissions, ensuring robust quantification of material emission sources whilst acknowledging uncertainty in smaller categories. Conservative assumptions and documented rationale provide transparent treatment of data constraints without compromising overall assessment integrity.

Assurance readiness remains limited to Categories 1, 3, 5, and 7 due to evidence availability and data quality requirements. Enhanced data collection procedures could extend assurance readiness to additional categories, though materiality assessment suggests primary focus on current assurance-ready categories representing over 90% of total emissions provides optimal resource allocation for verification purposes.

Continuous Improvement Opportunities

Systematic enhancement opportunities enable progressive data quality improvement and expanded assurance readiness whilst maintaining cost-effective resource allocation aligned with materiality principles. These improvements focus on evidence base strengthening and methodological precision rather than fundamental calculation approach modification.



Enhanced Category 1 Documentation

Invoice-based commodity tracking by ingredient group replacing proxy factors with line-item quantities. Implementation through supplier engagement and POS system integration enabling sample-based verification and temporal comparison analysis.



Transport Activity Data Collection

Supplier collaboration for delivery-specific metrics including tonne-kilometres, vehicle classifications, and refrigeration requirements. Structured data requests enable activity-based calculation replacement of spend-based estimates.



Packaging Material Specification

Supplier material composition data for takeaway packaging enabling material-specific end-of-life calculations. Weight-based breakdown by plastic, paper, and bio-based materials reduces Category 12 uncertainty significantly.



Travel and Commuting Survey Enhancement

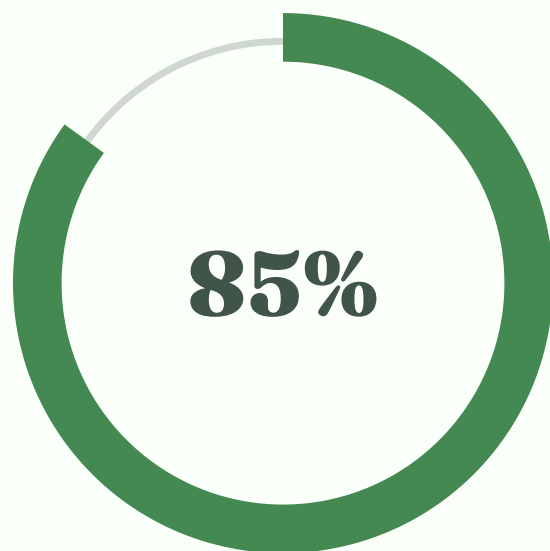
Structured employee commuting survey and business travel management system integration providing modal split precision. Annual data collection cycles enable trend analysis and emission factor refinement.

Implementation priority follows materiality hierarchy with Category 1 enhancements delivering greatest precision improvement per analytical effort unit. Transport data collection provides secondary benefit through multiple category impact (Categories 4 and 9) whilst packaging and travel improvements complete comprehensive data quality enhancement across all material categories.

Evidence upgrade implementation enables progression from current Grade B-C data quality to enhanced Grade A-B across material categories, supporting expanded assurance readiness and improved stakeholder confidence. The systematic approach maintains cost-effectiveness through prioritised analytical effort allocation whilst delivering measurable precision improvements aligned with international best practice expectations.

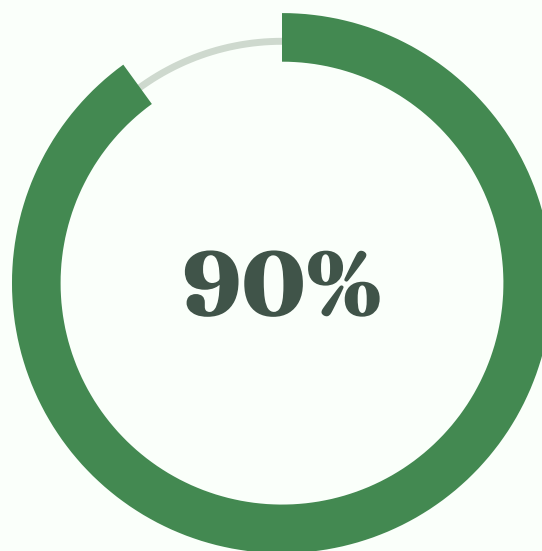
Summary and Forward Path

This comprehensive Scope 3 assessment establishes a robust baseline for stakeholder engagement and procurement decision-making, covering all 15 categories with systematic methodology and transparent limitations documentation. The 412.96 tCO₂e total represents complete value chain coverage with intensity of 0.2065 kgCO₂e per euro revenue, providing essential transparency for business partner due diligence and procurement evaluation processes.



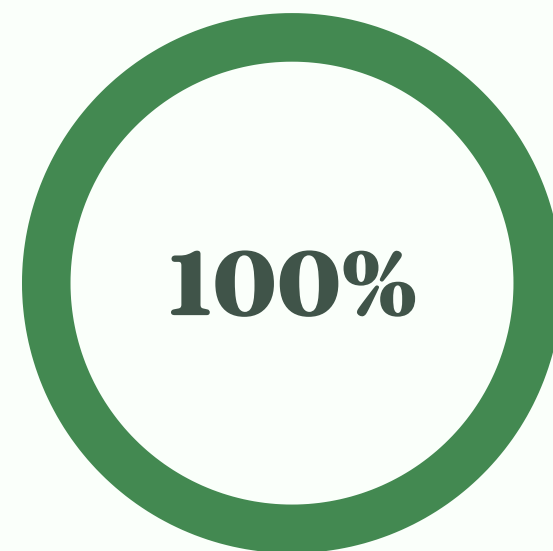
Category 1 Dominance

Purchased goods drive emissions profile



Assurance Coverage

Material categories prepared for verification



Category Coverage

All 15 categories systematically addressed

The assessment demonstrates systematic GHG Protocol compliance with documented evidence supporting limited assurance readiness for material categories. Data quality profile prioritises analytical effort on emission sources representing over 90% of total impact whilst maintaining comprehensive coverage through conservative estimates for residual categories. This balanced approach delivers stakeholder-ready disclosure suitable for external engagement and procurement transparency requirements.

Continuous improvement pathways focus on evidence base enhancement rather than methodological revision, enabling progressive precision improvement through supplier collaboration and operational data system integration. The materiality-driven approach ensures cost-effective resource allocation whilst supporting expanded assurance readiness and enhanced stakeholder confidence in reported figures.

This disclosure provides essential foundation for strategic emissions management, supplier engagement, and climate action planning whilst maintaining the systematic, transparent approach required for external stakeholder confidence and regulatory compliance across international and European sustainability reporting frameworks.