IBM Envizi ESG Suite

Scope 3 Solution Overview

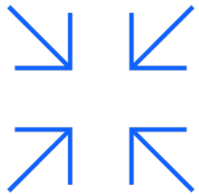
Organizations are facing increasing pressure to disclose Scope 3 emissions performance

Investor disclosures

- TCFD & CDP

Regulatory disclosures

- CSRD & SEC (proposed)



ESG disclosures

- Science Based Targets

Software can help by providing

Broad Scope 3 coverage – across categories and calculation methods

Investor-grade scope 3 accounting – auditable and GHG protocol compliant

Granular data capture and management – to support benchmarking and performance reporting

ESG Frameworks increasingly demanding Scope 3 disclosures

GRI

- Procurement Policies
- Disclosure 305-3 Other indirect (Scope 3) GHG emissions
- Disclosure 305-4 GHG emissions intensity
- Disclosure 305-5 Reduction of GHG emissions
- Products ad Services – Use Phase

CDP

- Climate Change and Supply Chain Modules- Scope 3
  - Weights across all 15 categories individually
  - Targets

TCFD

- TCFD- Supply chain risks and impacts
- Reduce Supplier GHG Emissions
- Carbon Neutrality Goals

SEC

Scope 3 reporting required when deemed material to investors OR when the company has emissions targets that encompass Scope 3 emissions

EU CSRD

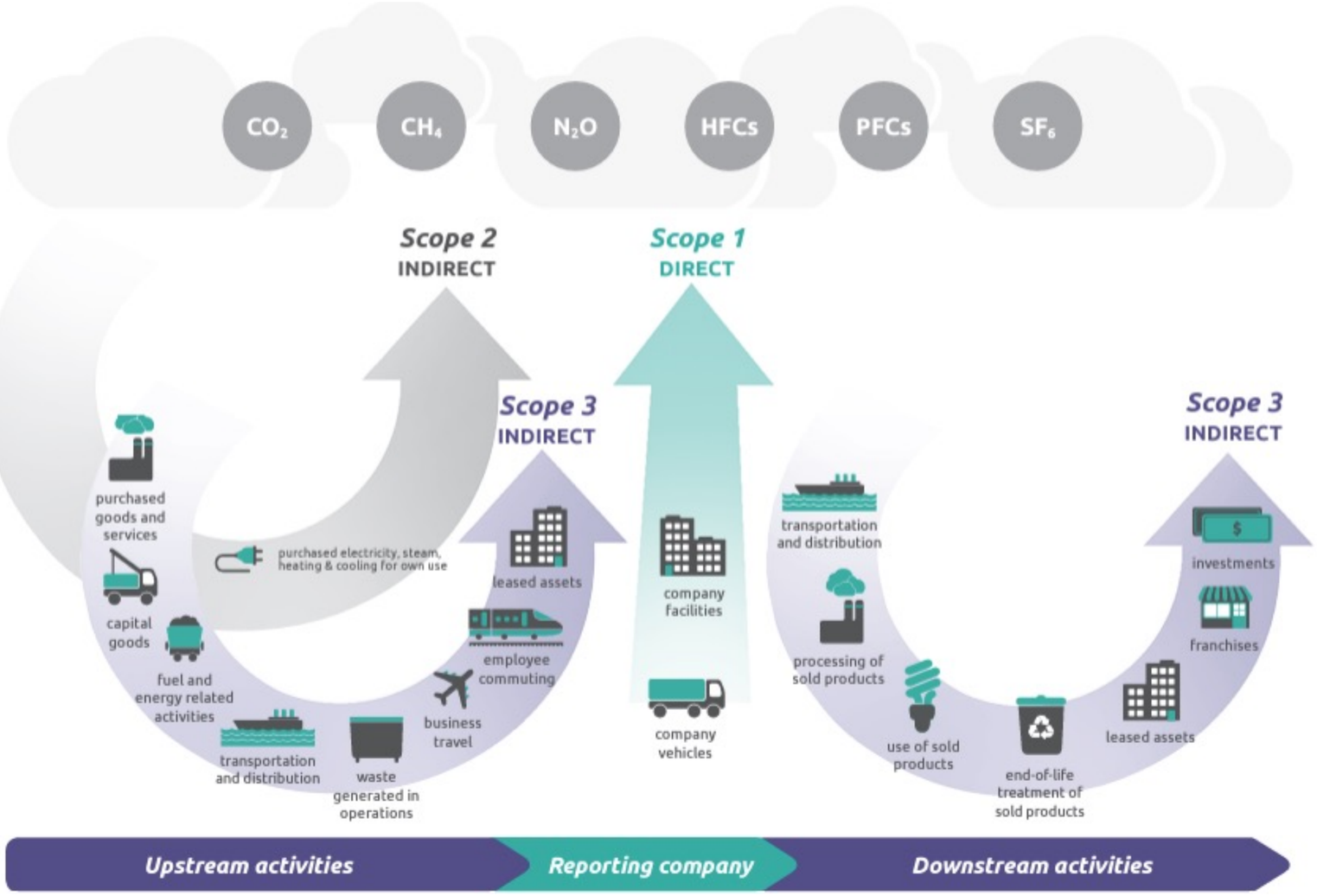
Scope 3 reporting required (ESRS E1-9) in these categories:

- (i) upstream purchasing (Cat 1&2)
- (ii) downstream sold products (Cat 11)
- (iii) goods transportation (Cat 4 & 9)
- (iv) travel (Cat 6)
- (v) financial investments. (Cat 15)

Targets required for Scope 1,2 and 3 in accordance with limiting global warming to 1.5C

Importance of Scope 3

For most companies Scope 3 emissions represent >70% of overall CO2 footprint across 15 categories



Scope 3 Categories managed for performance by:

Procurement teams:
1. Purchased Goods & Services
2. Capital Goods
3. Fuel & Energy (outside of Scope 1&2)
4. Upstream Transportation & Distribution
6. Business Travel
8. Upstream Leased Assets
9. Downstream Transportation & Distribution

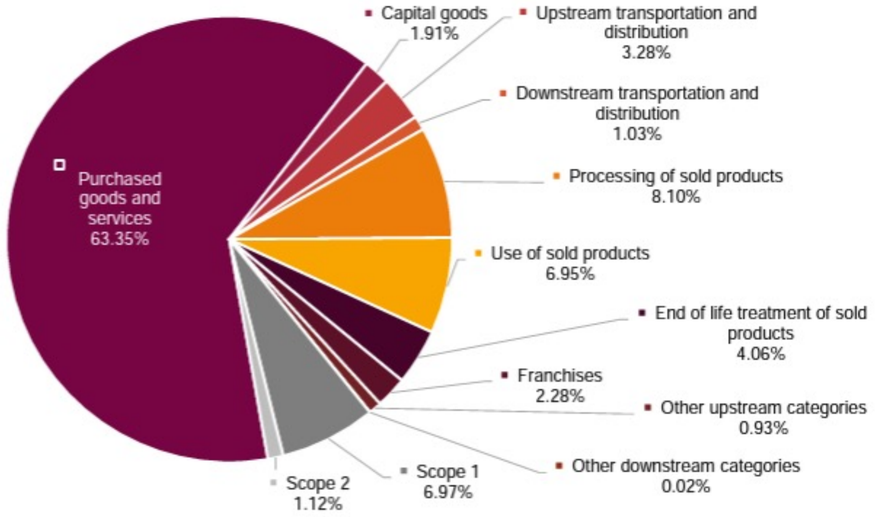
Operational Teams:
5. Waste Generated in Operations
7. Employee Commuting
14. Franchisees

Product Design Teams:
10. Processing of Goods Sold
11. Use of Goods Sold
12. End of Life Treatment of Goods Sold
13. Downstream Leased Assets

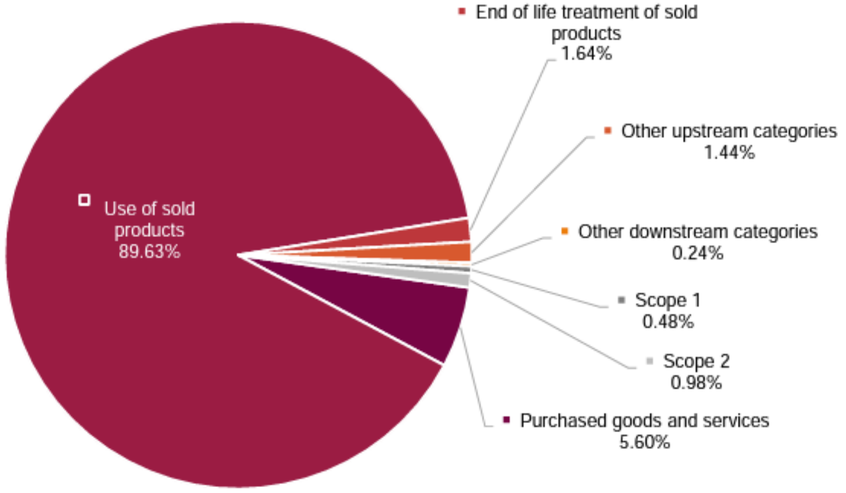
Investment Managers
15. Financed Emissions

Different scope 3 categories are material and important to different industry segments

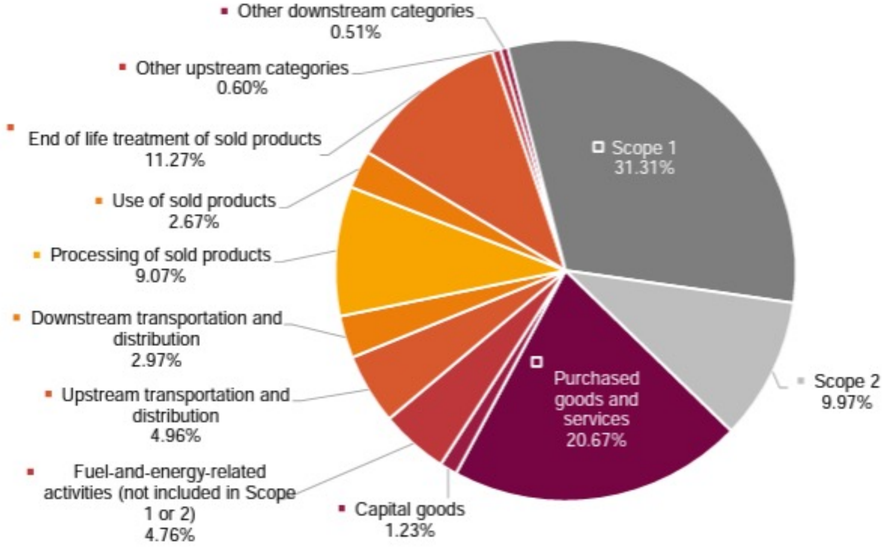
Scope 3 Categories as % Total Scope 1+2+3 Emissions - Agricultural Commodities Sector



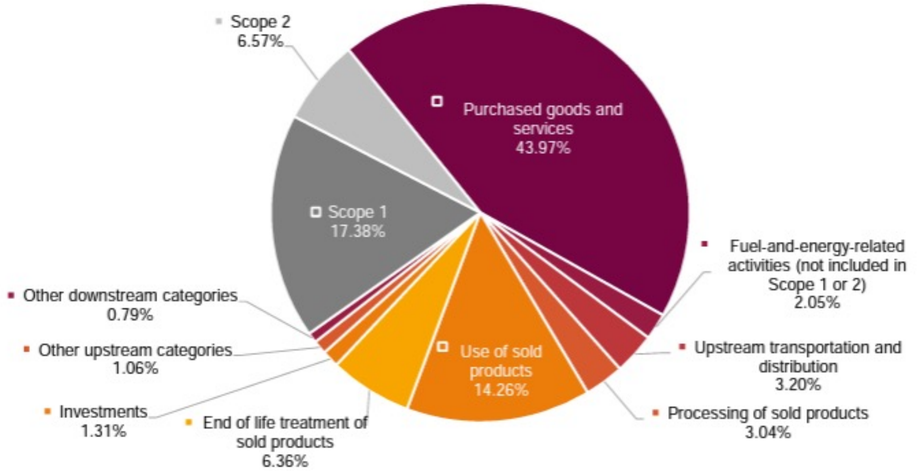
Scope 3 Categories as % Total Scope 1+2+3 Emissions - Capital Goods Sector



Scope 3 Categories as % Total Scope 1+2+3 Emissions - Paper & Forestry Sector

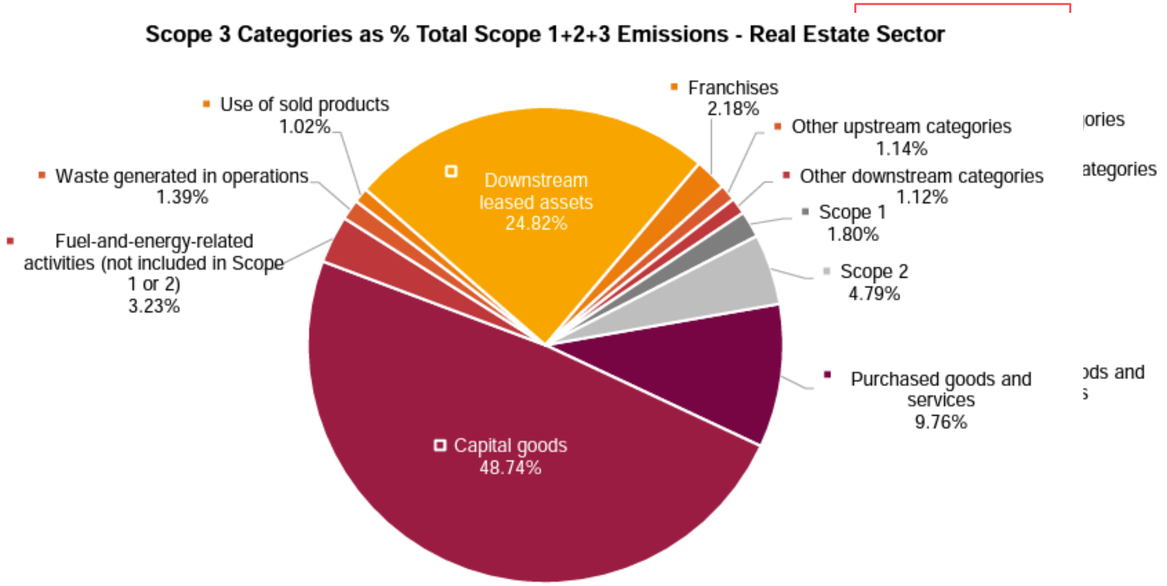


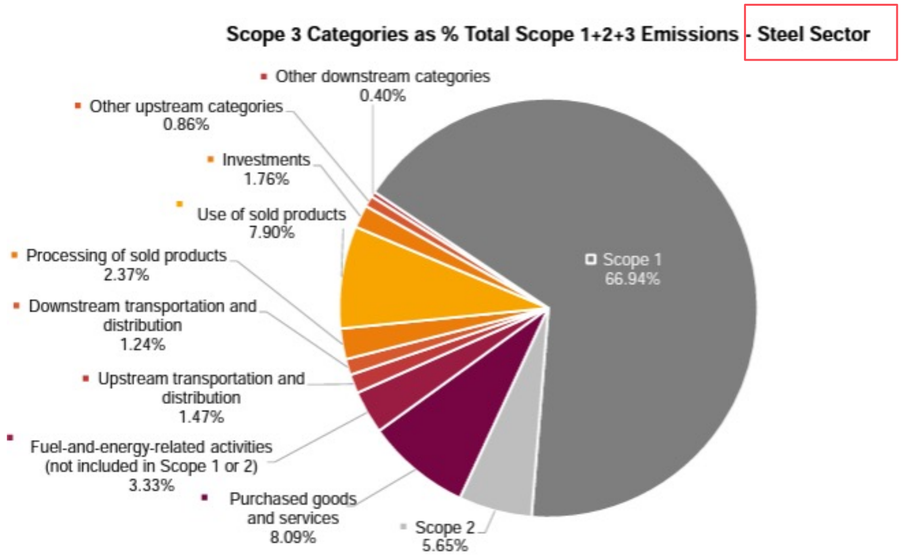
Scope 3 Categories as % Total Scope 1+2+3 Emissions - Chemicals Sector

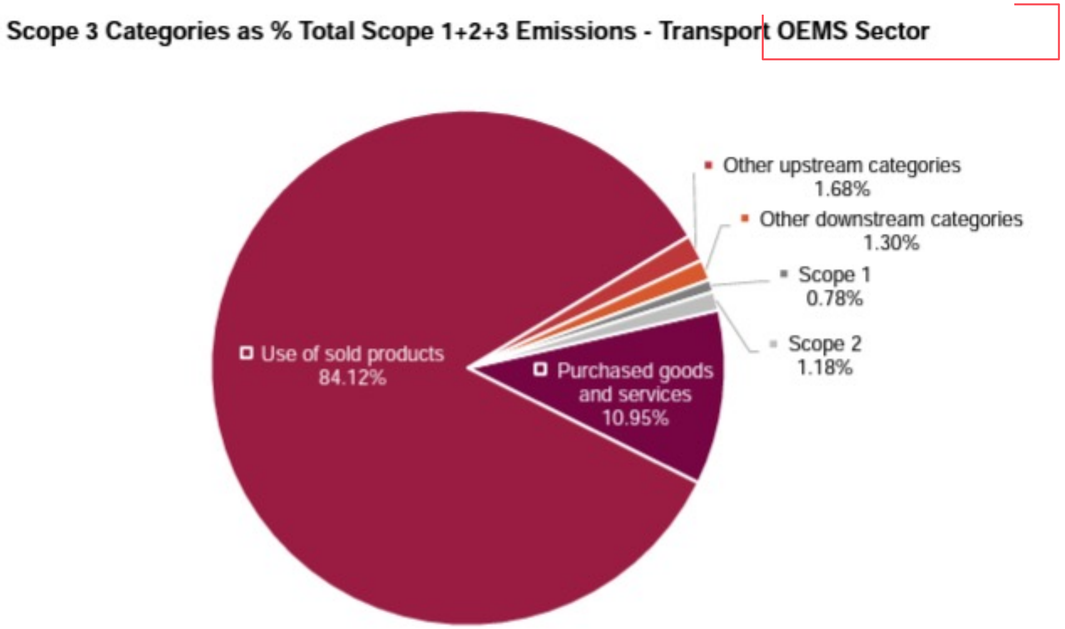


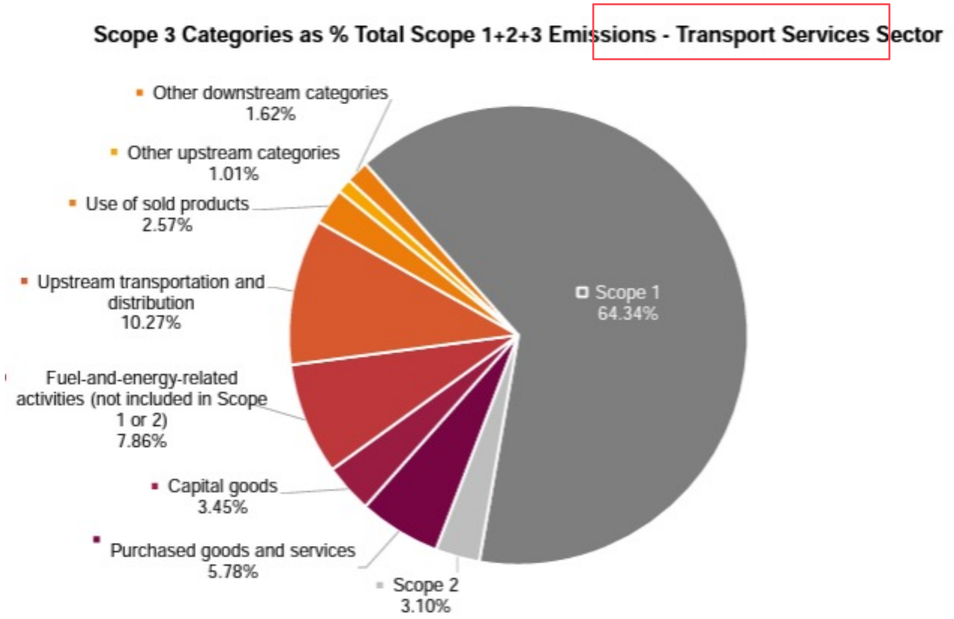
https://cdn.cdp.net/cdp-production/cms/guidance_docs/pdfs/000/003/504/original/CDP-technical-note-scope-3-relevance-by-sector.pdf?1649687608

Different scope 3 categories are material and important to different industry segments









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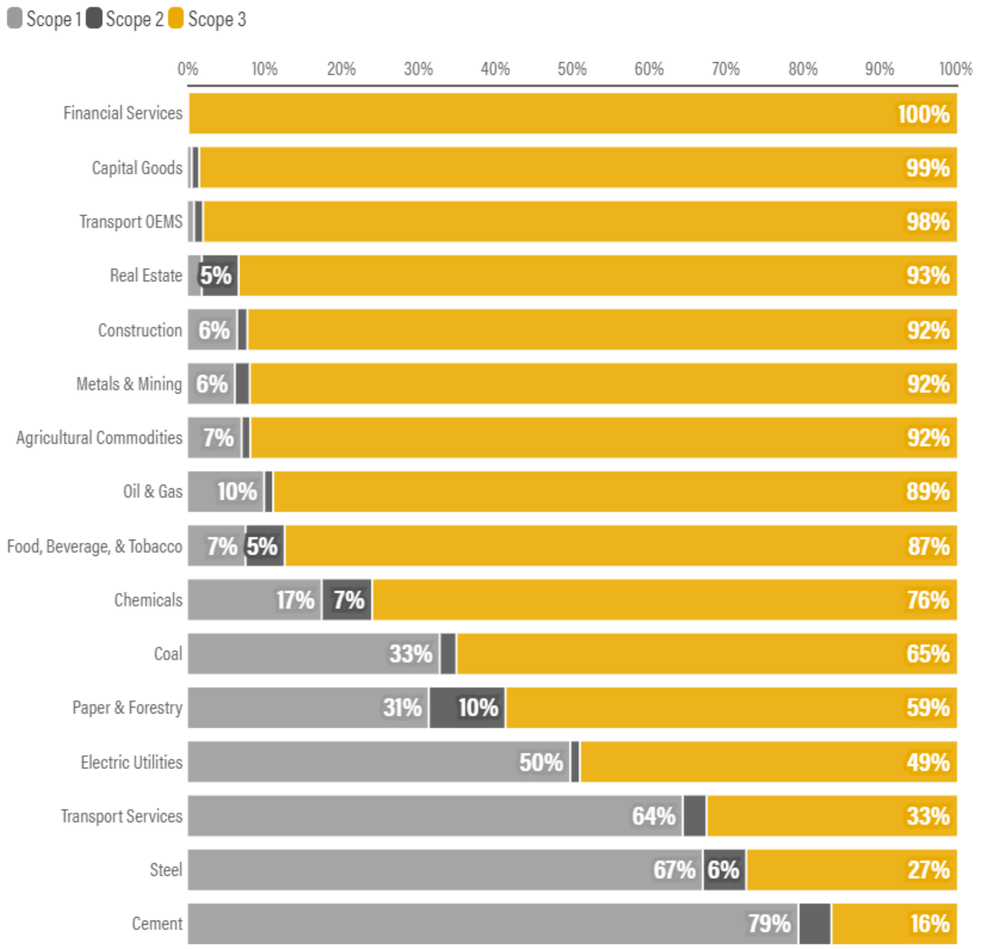
Scope 3 challenges that organizations face

1. Scope 3 data landscape is more complex than Scope 1&2

A bigger data set, with broader set of data types and more difficult to source



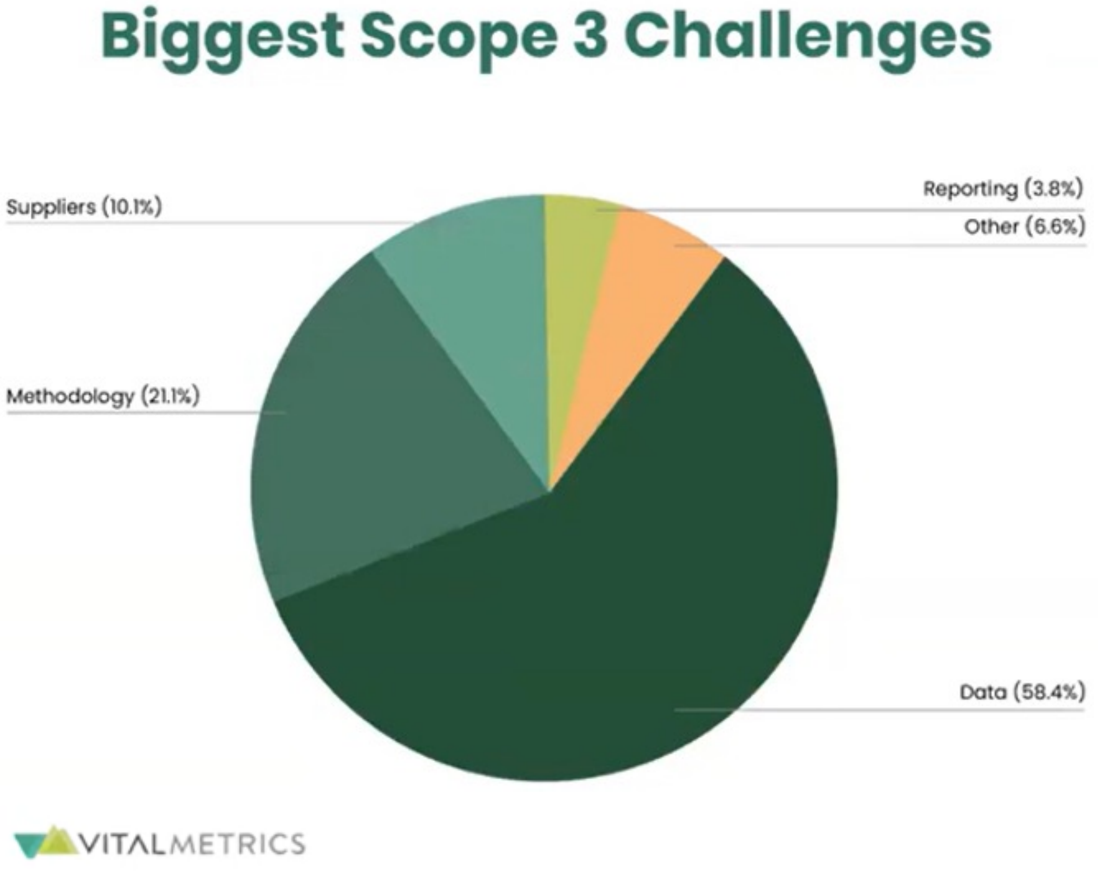
Source: Data is from CDP. Research and analysis of the data was conducted by Concordia University.

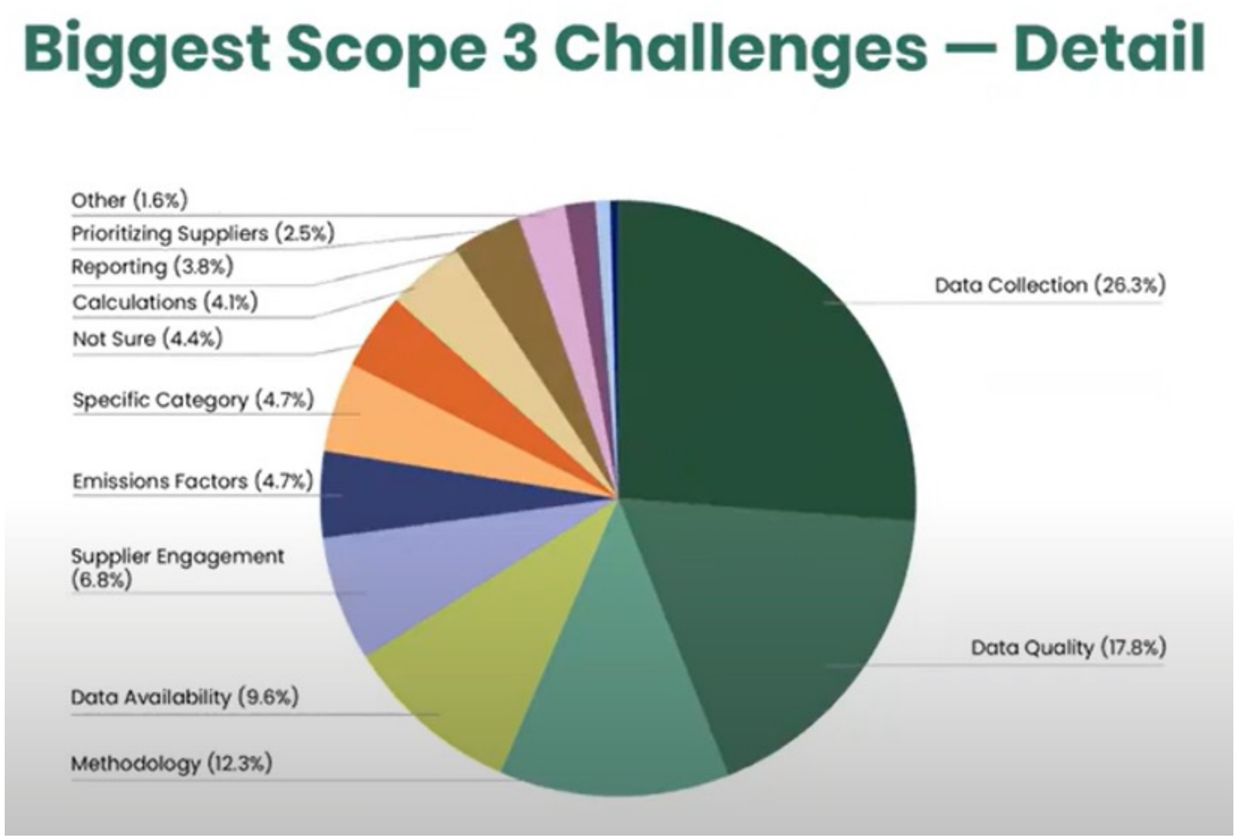
WORLD RESOURCES INSTITUTE

https://www.wri.org/update/trends-show-companies-are-ready-scope-3-reporting-us-climate-disclosure-rule#:~:text=Scope%203%20emissions%20account%20for%2075%25%20of%20companies'%20greenhouse%20gas,quarters%20of%20a%20company's%20emissions

2. Companies struggle mainly with data and methodology

Data capture | data quality | choosing a methodology | consistent availability of data

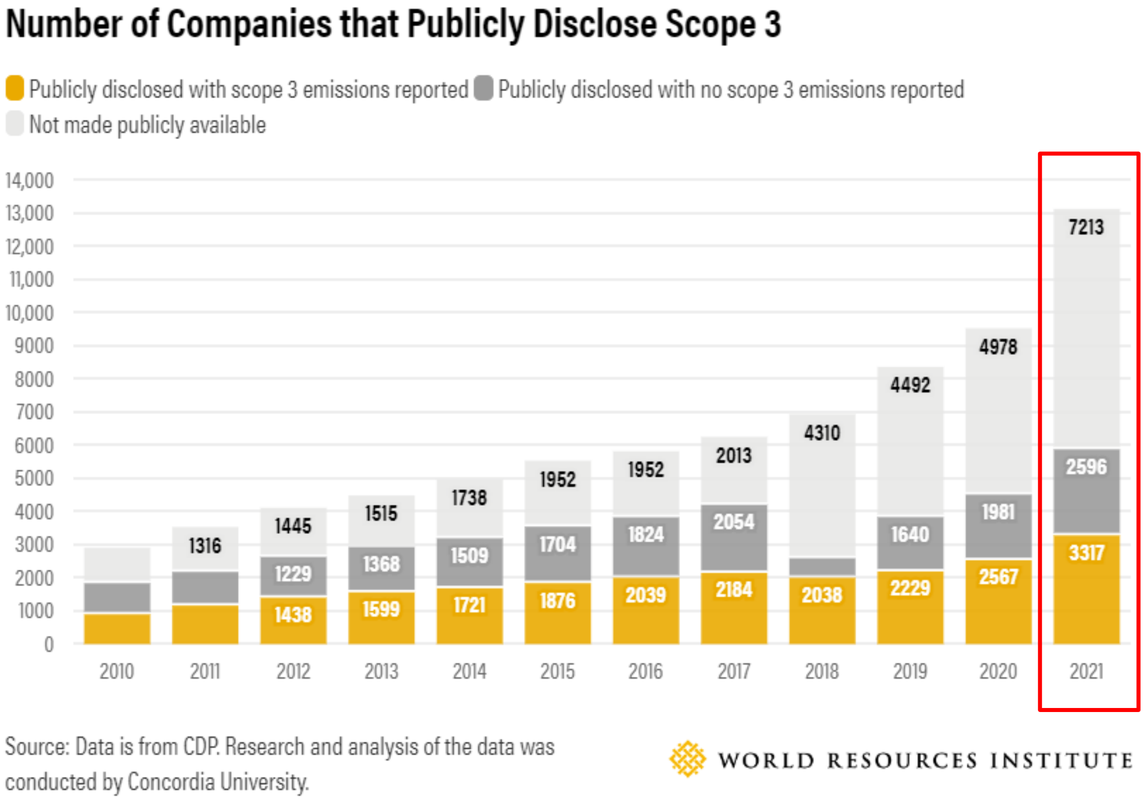




Preparers identified Scope 3 emissions as one of the more difficult metrics to disclose, with 39% specifying it as very difficult, 42% as somewhat difficult, and only 20% as not at all or not very difficult. The most common challenges identified included difficulty accessing relevant data (83%), challenges selecting or applying calculation methodologies (60%), and lack of internal expertise or resources for calculating Scope 3 emissions (29%). Almost all respondents (90%) expressed support for Scope 3 disclosure (47% irrespective of materiality and 43% based on materiality).

3. Most companies are just getting started

Only 25% disclosing today



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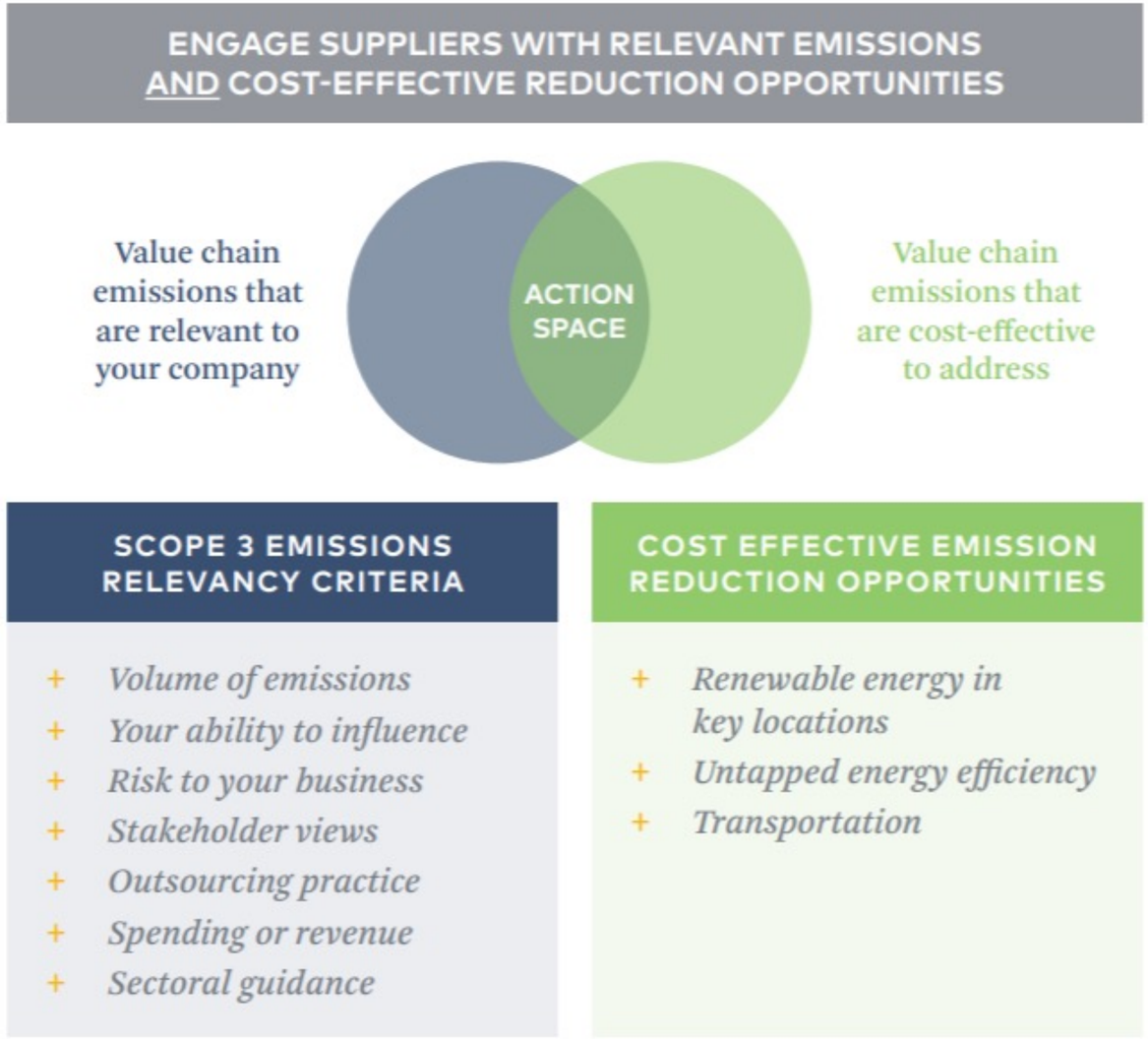
4. Engaging suppliers on decarbonization targets and execution

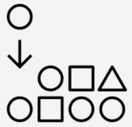
Decarbonizing the supply chain requires engagement and influence vs. direct action within your own organization for Scope 1 & 2



Envizi Scope 3 Solution Summary

1.

Build ↷
Data Foundation



A single system of record that delivers auditable, robust ESG data and GHG calculations

- Automated data capture
- Supplier survey data capture
- GHG Accounting engine – all S3 categories
- Scope 3 emission factor libraries
- Universal Scope 3 data load templates
- Virtual accounts to support hybrid method
- Enhanced Scope 3 emission factor libraries
- Supply chain optimization solution
- AI Spend data categorization

2.

Streamline ↷
Reporting + Disclosure

Flexible reporting tools to meet internal and external requirements for comprehensive ESG reporting and disclosure

- ESG framework library with Scope 3
- Customizable reporting via PowerBI
- Audit tools
- Supplier benchmarking & visualization
- Enhanced Scope 3 analytics
- SKU-level analytics & reporting

3.

Accelerate ↷
Decarbonization

Analytical tools to identify opportunities to reach low carbon goals and track performance to sustainability commitments

- Programs: prioritize Scope 3 initiatives
- Forecasting & scenario planning (Coming soon)

Scope 3

Data Foundation

Automated Scope 3 Data Capture

Data Foundation

Powerful ESG data capture

500+ data types

Automatic data capture:

- Organizational systems
  Spend data from ERP & financial systems
- Data aggregators
  Waste & recycling data
- Third-party providers
  Business travel data
  Supplier ESG data

Envizi managed:

- Emission factor libraries
- Currency exchange data

Manual data capture:

- Spreadsheets, Kanban boards, web forms
- Envizi Value Chain Module
  Survey data

Email, SFTP
S3

enVizi
an IBM Company

Streamlined ESG data consolidation

Auditable single system of record

- Data service hub
- Flexible organization hierarchy

Intelligent data analysis

Dynamic reporting tools

- Standard dashboards
- PowerReport (embedded Power BI)
- Extract reports
- Raw data API

Customizable ESG reporting

Reports for every audience

Driving ESG performance improvements:

- Executive reporting
- ESG performance reporting
- Benchmarking
- Flexible reporting granularity

Meeting disclosure and stakeholder requirements:

- Location and market-based GHG
- Trace back to source
- Reporting templates

ESG reporting framework

SASB · SUSTAINABLE DEVELOPMENT GOALS · GRI · CDP DISCLOSURE INSIGHT ACTION · TCFD

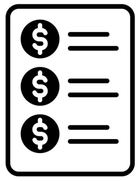
Data Foundation

Automated Scope 3 Data Capture

Setting up the process to bring data into Envizi can follow two pathways

Client / Business Partner

IBM Envizi



Client spend data (typically from ERP)

CLIENT DATA

Manual or automated file transformation (by client, business partner, eco-system)

DATA TRANSFORMATION

Provisioning of client S3 buckets, configuration of data pipelines etc.

DATA FLOW AUTOMATION

ENVIZI SERVICES PATHWAY

Data file transformation and monitoring services by IBM Integration Services (via Expert Labs)

DATA TRANSFORMATION SERVICE

SELF SERVICE PATHWAY

Requires client/partner to send data to match Envizi universal file format (CSV)

ENVIZI ESG SUITE

Universal Account Connector

Universal Meter Connectors

Automatically categorize scope 3 spend data

Using Watsonx.ai to categorize transaction data to spend categories

Data Foundation

Client spend data

Transaction records from ERP and financial accounting systems containing transaction descriptions, cost and currency information relating to purchased goods and services, including capital goods.

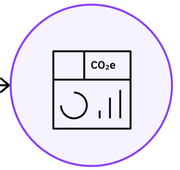
PROBLEM

Client transaction data typically adopts client-specific descriptions and spend categorizations.

How do we efficiently categorize client transaction data to align with Envizi's standard library of categorized spend-based emissions factors?

Manual data mapping processes are very time consuming, particularly when mapping very large datasets. This is not a scalable solution.

Envizi



Envizi supports EORA spend-based emissions factors, covering 66 industry categories harmonized for 189 countries, to enable spend data to be converted to scope 3 emissions:

- **Purchased Goods & Services** (cat 1)
- **Capital Goods Purchased** (cat 2)

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Automatically categorize scope 3 spend data (con’t)

Data Foundation

Using Watsonx.ai to categorize transaction data to spend categories

Client spend data

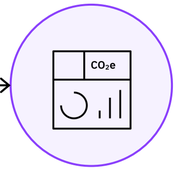
Transaction records from ERP and financial accounting systems containing transaction descriptions, cost and currency information relating to purchased goods and services, including capital goods.

Watsonx.ai

Natural language model developed by IBM Research to automatically process and classify client transaction data to match EORA spend categories.

Spend data is automatically categorized at the time of data ingestion and appended to the correct Accounts in Envizi.

Envizi



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Automatically categorize scope 3 spend data (con't)

Mapping Example

Data Foundation

Individual spend transactions from ERP/financial systems – automatically mapped to most appropriate emission factor

General ledger coding from financial system

Created D	Count	PO Number	Vendor Name	Total_Amt	Curren	Description	Commodity Name_Final
3/12/2021	US	POSGP000294228	LIBERTY HEALTH INSURANCE LTD	16529842	USD	RENEWAL BILLING (GHS AND GOP)-GMD06000065	Staff Benefits-Staff Insurance-GPA & Term Life_OPEX
12/16/2021	CAN	POSGP000355490	Sinclair Telecommunications Ltd.	2178992	CAD	3 Years Maintenance Support Services, Back-to-Back S	HW-Network Maint Support_OPEX
4/5/2021	MEX	POIDN000235936	Hudson IT Global Mexico	28338834200	MXN	Renewal Maintenance Hardware IBM & Lenovo (Perio	HW-Network Maint Support_OPEX

Based on date, country, spend and description, map to:

*** Account Style:**

Cat 1 - Insurance carriers and related activities - USD or local

… with US-specific emission factor in USD

Based on date, country, spend and description, map to:

*** Account Style:**

Cat 1 - Broadcasting and telecommunications - USD or local

… with Canada-specific emission factor in CAD

Based on date, country, spend and description, map to:

*** Account Style:**

Cat 1 - Data processing, internet publish, other IT - USD or local

… with Mexico-specific emission factor in MXN

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Scope 3 emission factor libraries

Data Foundation

July 2023

Spend-based factors

Eora Global Supply Chain Database

Breadth: 66 spend categories in 188 countries, published annually from 2015

Alignment: Spend categories aligned with US EPA EEIO categories.

Applicability: factors can be used for the spend-based GHG calculation method for the following scope 3 categories:

- Category 1, purchased goods and services
- Category 2, capital goods
- Category 4, upstream transport and distribution
- Category 6, business travel
- Category 9, downstream transport and distribution
- Category 15, investments (financed emissions)

https://knowledgebase.envizi.com/home/managed-emission-factors-eora-mrio-multi-region-in

Data Foundation

Virtual Accounts provide the flexibility needed to support Category 1 & Category 13 calculation requirements

Account-level arithmetic for emission or activity data

Use Case 1: Hybrid Calculation Method

Category 1 Purchased Goods and Services, Category 2 Capital Goods

Survey: self reported

OR

3rd party ESG data provider: publicly reported and verified

Supplier
- A. Scope 1 Emissions
- B. Scope 2 Emissions
- C. Total revenue

Reporting Company
- D. Spend on supplier
- E. **Virtual Account**:
  Scope 3 emission for supplier = (A+B)*D/C

Use Case 2: Building-level apportionment

Category 13 Downstream Leased Assets

Utility billing data

OR

15/30 min interval data

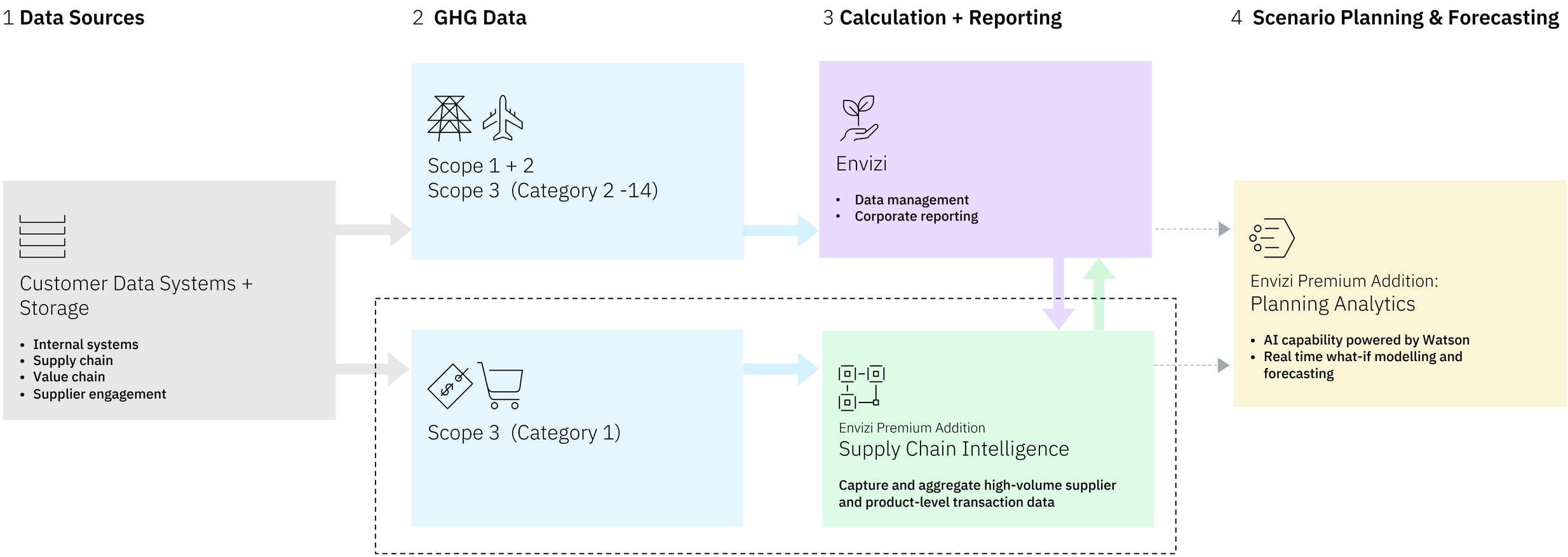
Building level – available data
- A. Whole building consumption data
- B. Tenant 1,2,3…N consumption

Building level – calculated data
- **Virtual accounts**:
  - C. Aggregated tenant consumption
  - D. Base Building: consumption = A-C

Most commonly done for electricity but could be done for gas, water, waste

Supply Chain Optimization

For high volume, SKU-level, capture and reporting of Category 1 data



Scope 3

Reporting & Disclosure

Envizi Support for all GHG Calculation Methods

		GHG Calculation Methodology												
	Calculation accuracy	**poor**	**fair**	**average**			**average-excellent**				**excellent**			
	Scope 3 Category	Spend	Hybrid	Average	Distance-based	Waste-type specific	Fuel-based	indirect Emissions	Asset-specific	Site-specific	Direct emissions	Franchise-specific	Investment-specific allocation	Supplier-specific
Upstream	1. Purchased goods & services													
	2. Capital Goods													
	3. Fuel and energy-related activities													
	4. Upstream transporation & distribution													
	5. Waste generated in operations													
	6. Business travel													
	7. Employee commuting													
	8. Upstream leased assets													
Downstream	9. Downstream transporation & distribution													
	10. Processing of goods sold													
	11. Use of goods sold													
	12. End-of-life treatment of sold products													
	13. Downstream leased assets													
	14. Franchises													
	15. Investments													

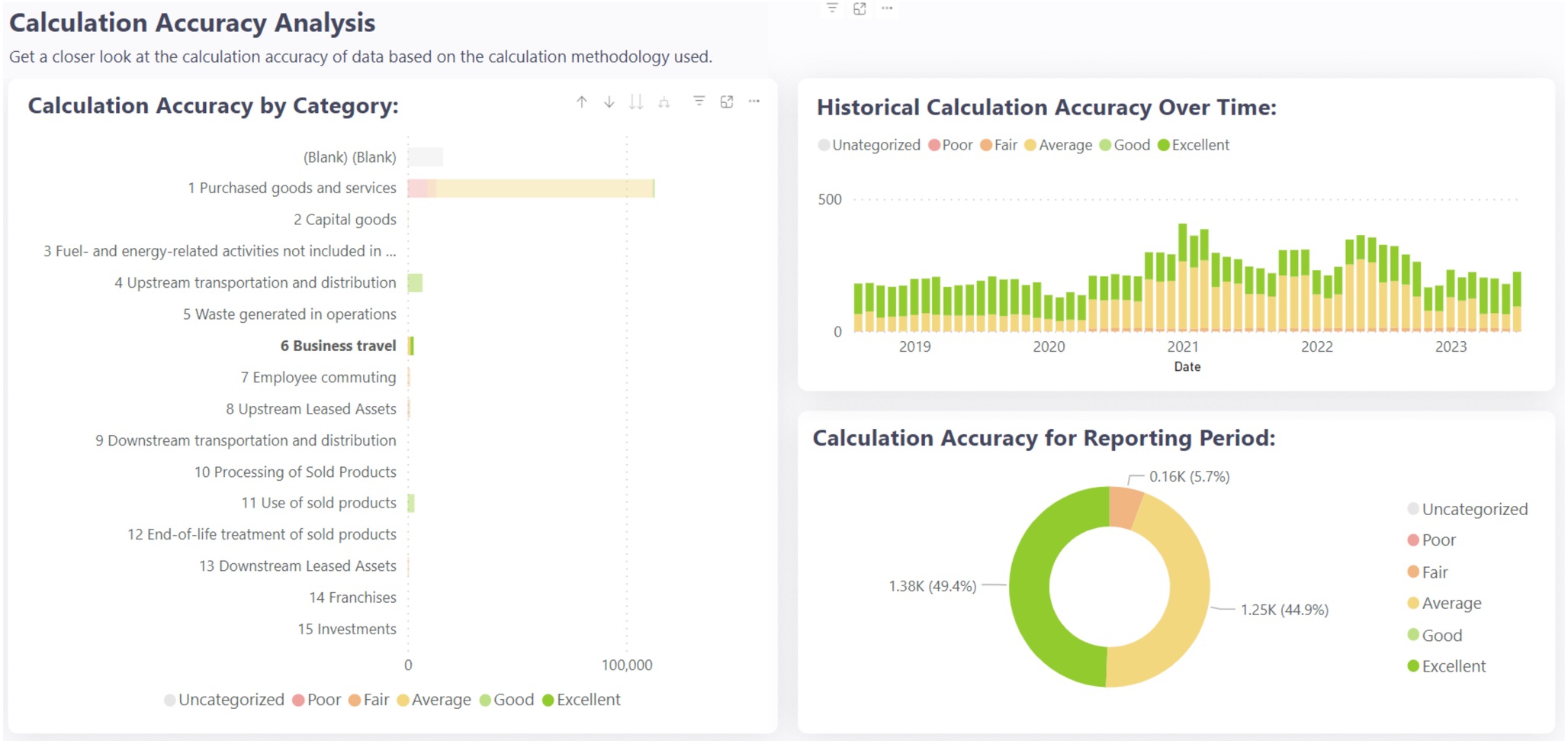
Legend

- Calculation method not supported by the GHG protocol
- Factor from Envizi emisison factor library
- Apportioned, no emission factor used
- Emission factor provide by supplier

Reporting on Calculation Accuracy

Support audit commentary | Qualify data-driven decisions | Highlight calculation liabilities

Reporting & Disclosure



Scope 3 Audit Tools

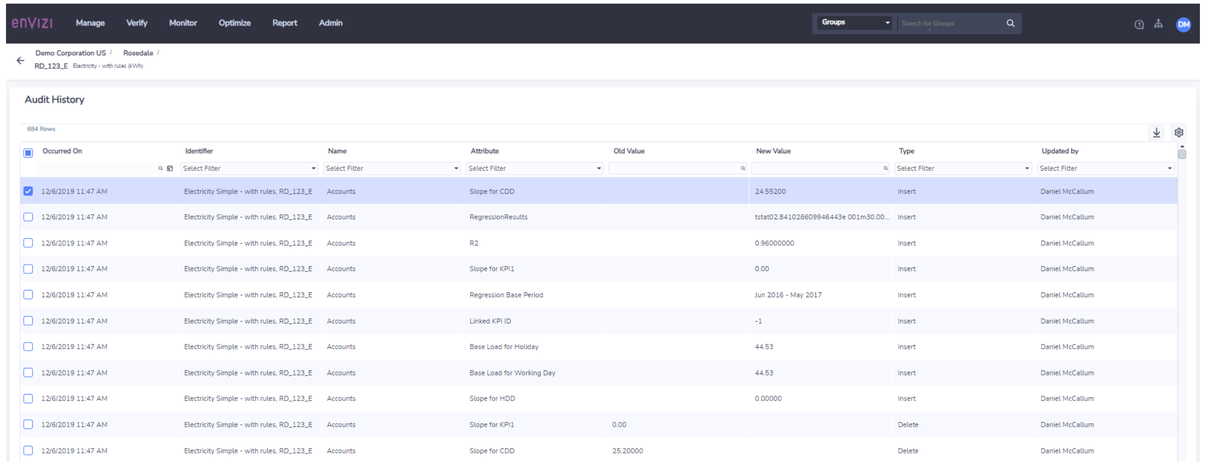
Audit history | Audit reports | Data Health

Reporting & Disclosure

Audit history

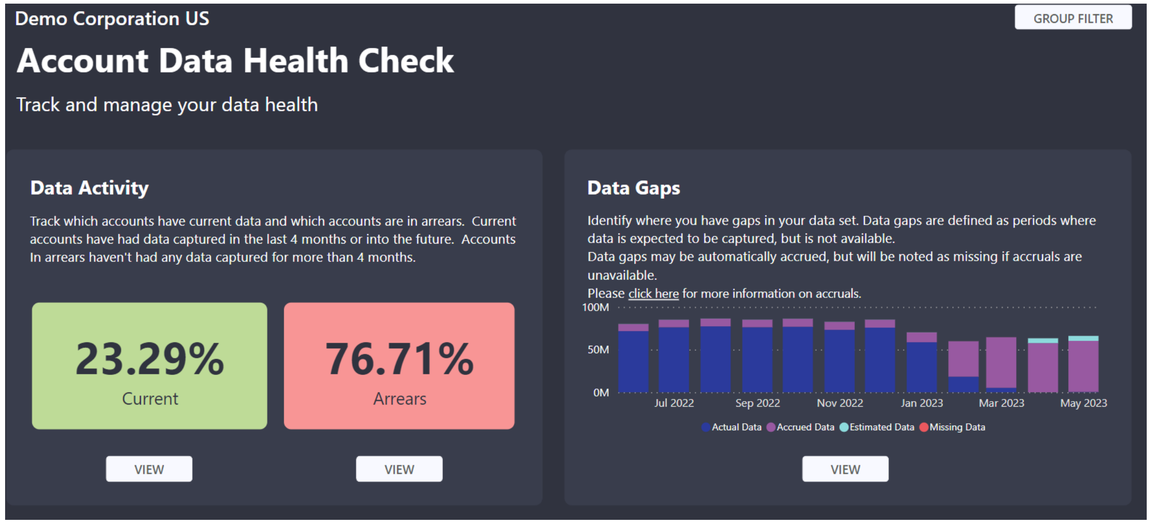
Detailing changes – who, what, when, previous values - on client master data (e.g. account, location, group etc.) and records within accounts.

A suite of audit reports spanning: emission and energy factors, audit history, data extracts including attachments, usage details of reports, open and close dates of accounts,



Data health dashboards

Summarizing data health by data type, scope 3 category, scope 3 data types. Drill down to any level in the organizational hierarchy and down to account level.

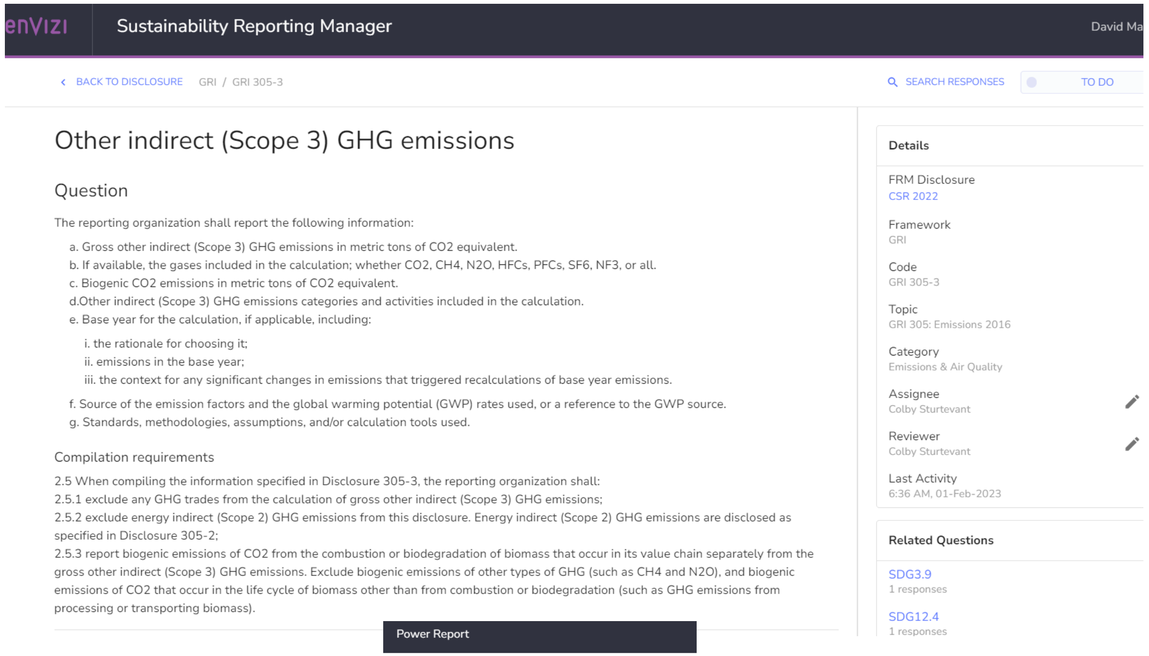


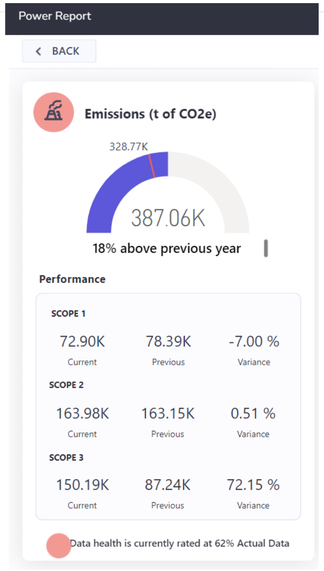
*Verdantix ESG Data Management & Reporting Green Quadrant 2023 for carbon accounting capability,

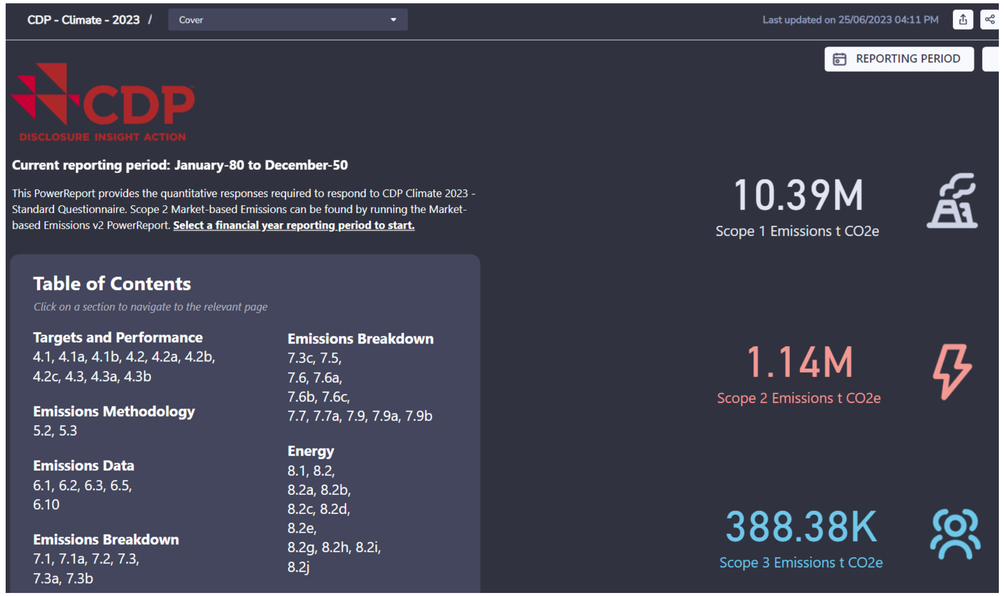
Integration with ESG Frameworks

via the Sustainability Reporting Manager and PowerReports

Reporting & Disclosure







6.5 Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

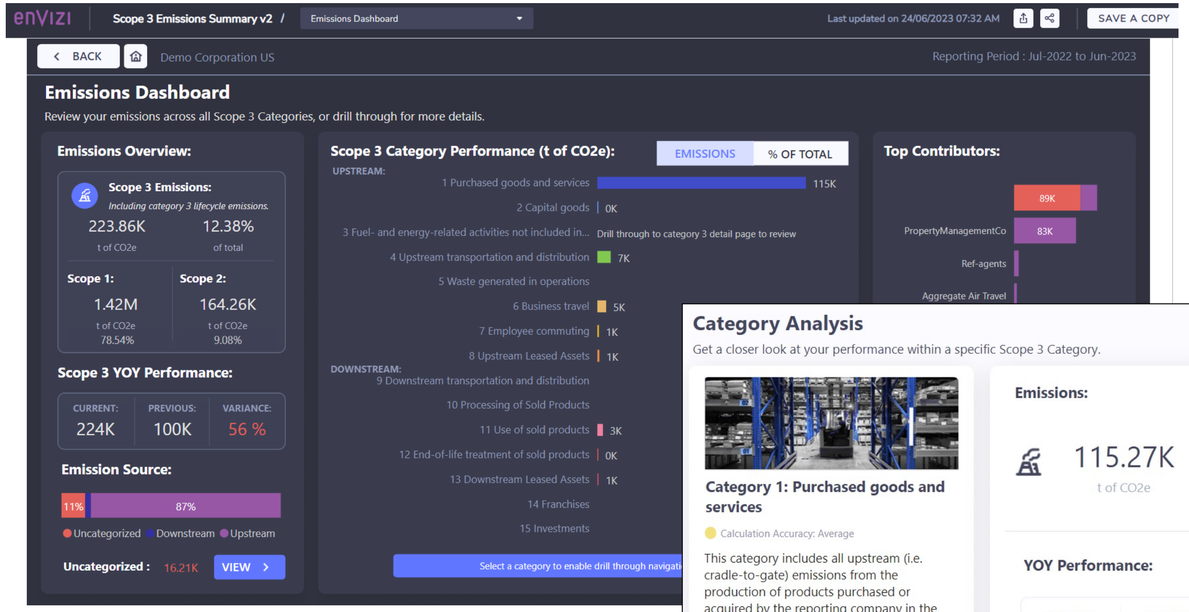
Guidance: Table below showing Scope 3 emissions by Data Type Category and Data Type. Responses for 'Evaluation status', 'Emissions Calculation Methodology' and 'Percentage of emissions calculated using data obtained from suppliers or value chain partners' is sourced from outside Envizi. Also note that Envizi adheres to the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard for all Scope 3 sources.

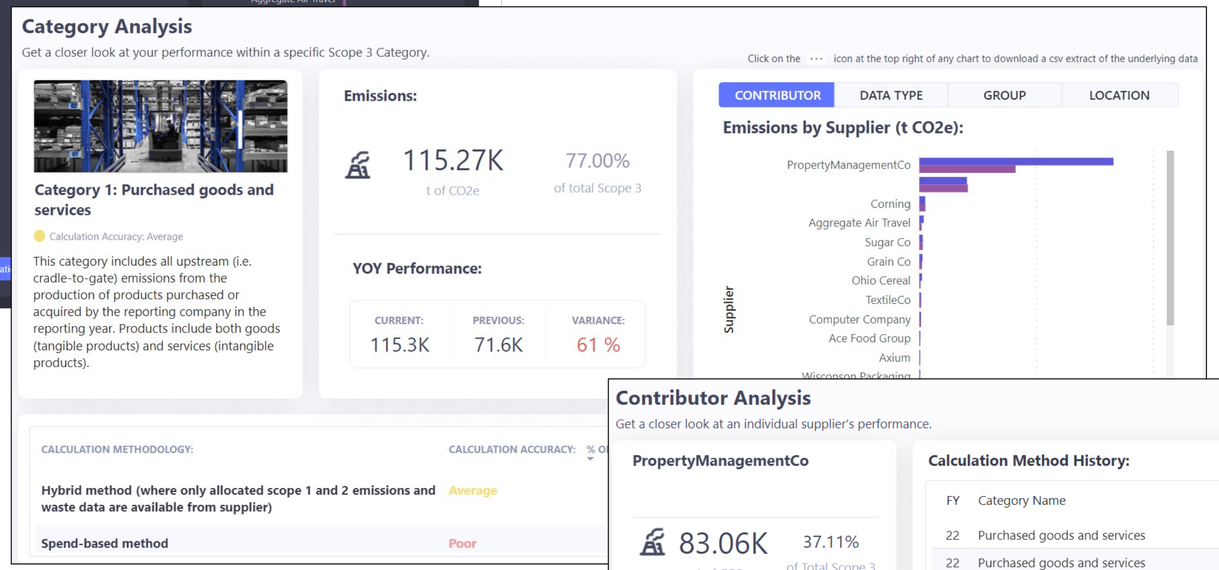
Data Type Category	Data Type	Scope 3 Emissions (tCO2e)
Scope 3 Spend-based	Accommodation [USD]	1,174.86
Scope 3 Spend-based	Air transportation [USD]	11,641.22
Scope 3 Spend-based	Computer and electronic products [USD]	195.74
Scope 3 Spend-based	Computer systems design [USD]	52.40
Scope 3 Spend-based	Computer systems design and related s...	8.47
Scope 3 Spend-based	Copper, nickel, lead, and zinc [USD]	0.27
Scope 3 Spend-based	Fabricated metal products [USD]	1.25
Scope 3 Spend-based	Food and beverage and tobacco produc...	9,299.80
Scope 3 Spend-based	Furniture and related products [USD]	61.08
Scope 3 Spend-based	Motion picture, sound recording industr...	819.84
Scope 3 Spend-based	Other plastic products [USD]	383.32
Scope 3 Spend-based	Other services, except government [USD]	26.13

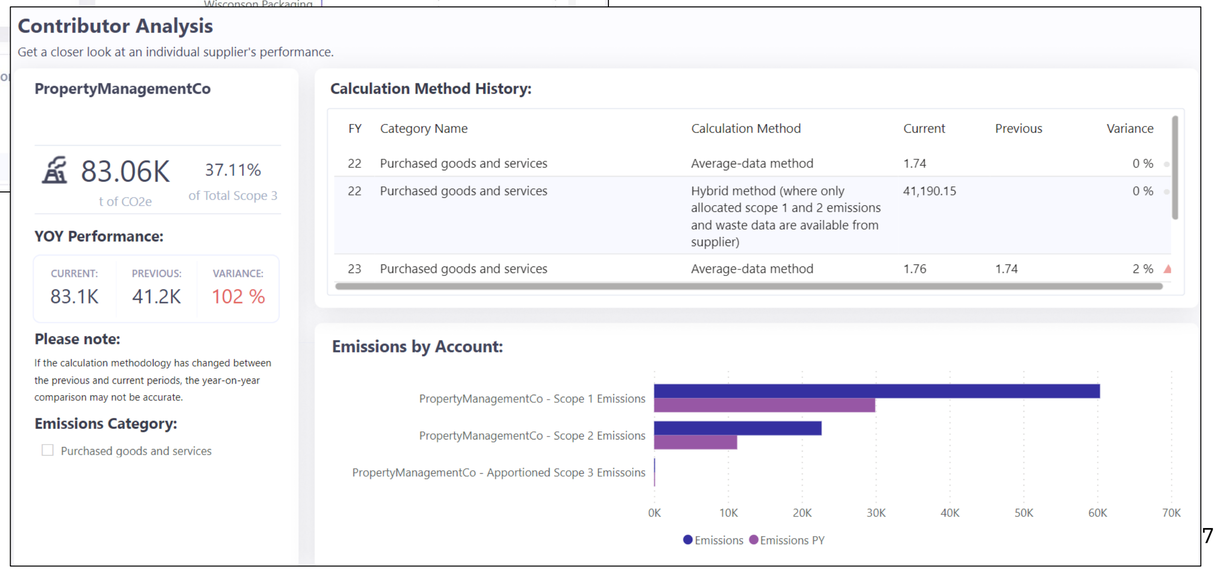
Scope 3 Analysis and Performance Reporting

Reporting & Disclosure

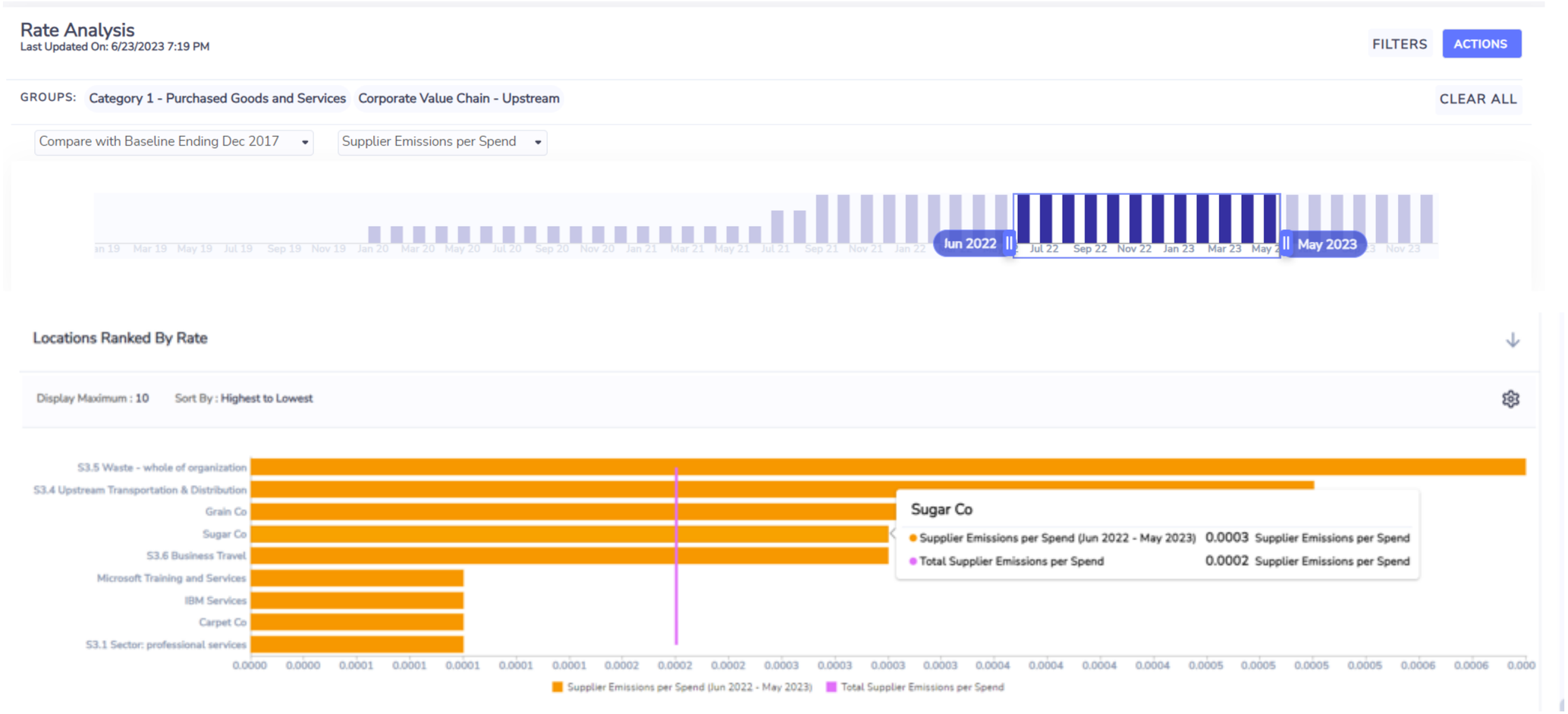
July 2023







Supplier Benchmarking



Scope 3

Accelerate Decarbonization

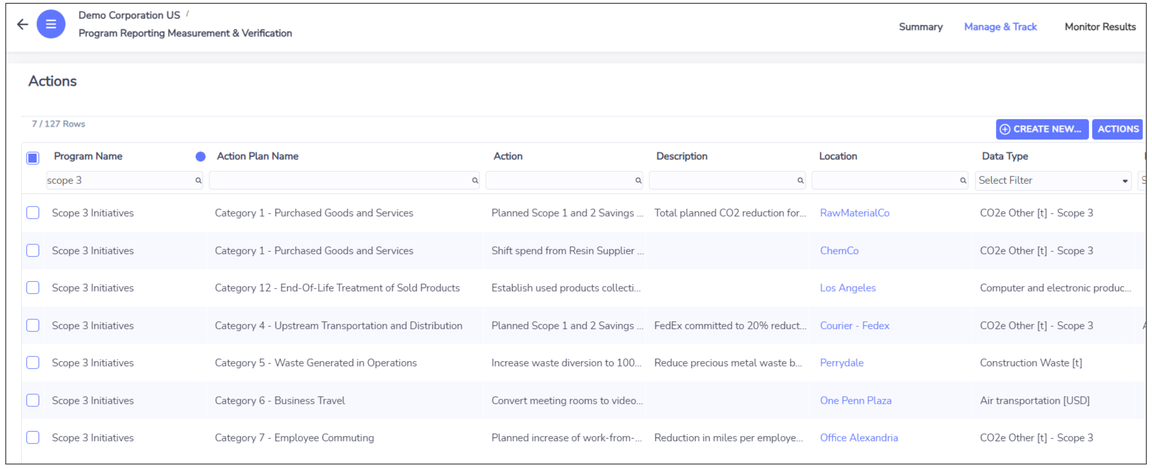
Prioritize Scope 3 decarbonization initiatives

Via Envizi Programs Module

Accelerate Decarbonization

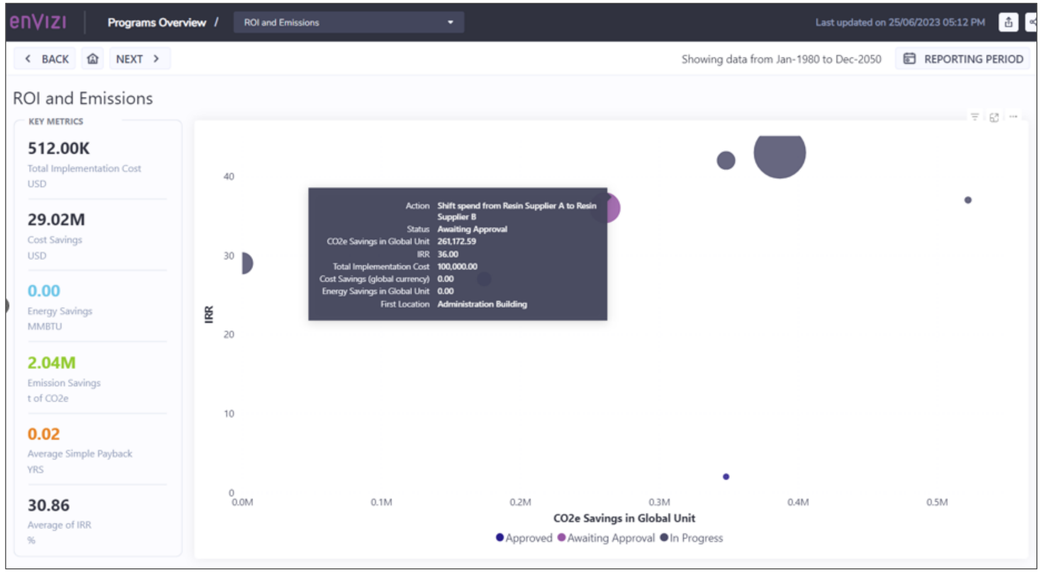
Define Candidate Scope 3 Decarbonization Initiatives

Expected CO2 reductions over time, cost savings, cost of implementation, implementation timeline.



Compare & Rank Initiatives

Through multiple lenses according to corporate guidelines, both financial and CO2 impact.



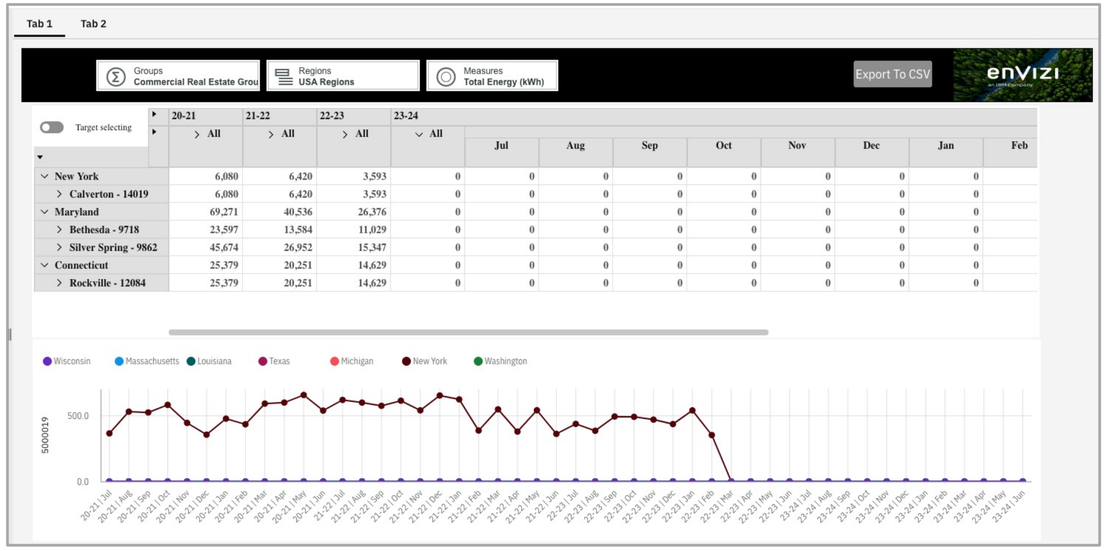
Planning & Forecasting : On Roadmap

Envizi + Planning Analytics

Accelerate Decarbonization

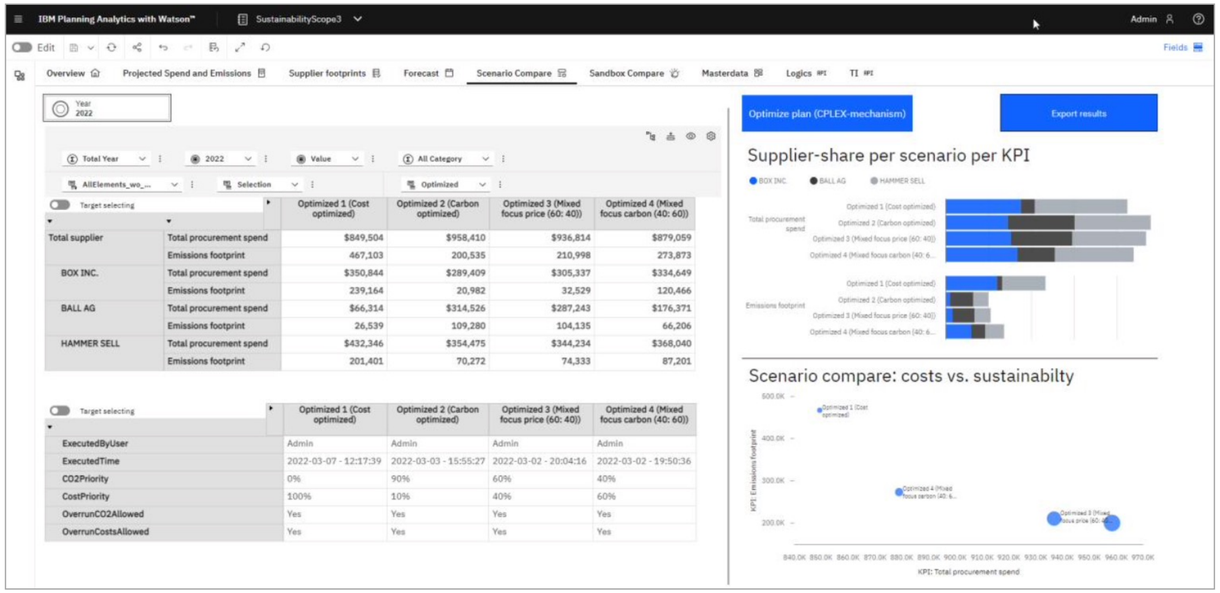
Performance Forecasting

Establish emission targets. Forecast future performance: can we meet targets?



Carbon Reduction & Program Planning

Understand how to achieve carbon reduction goals. Bring outcomes into Envizi to develop actions to meet those targets.



Calculation Methods for various Categories

Calculation methodologies: S3.7

Employee Commuting

MOST COMMON METHOD

	AVERAGE	DISTANCE	FUEL
DESCRIPTION	EEIO emissions factor X Value of purchased goods & services	Distance X emission factor based on passenger-km or vehicle-km	Emission factor per unit of fuel consumed X Quantity of fuel consumed
INPUTS	Transport-specific factor X Distance travelled	Transport-specific factor X Distance travelled	Fuel Emission Factor X Quantity of fuel consumed
SOURCE	From secondary / Gov't avg Statistics	From secondary / From Employee	From secondary / From Employee
	Data sources include: DEFRA, EPA, Industry associations, 3rd party libraries	Data sources include: DEFRA, EPA, Industry associations, 3rd party libraries	Data sources include: DEFRA, EPA, Industry Associations
	ENVIZI FACTOR LIBRARY	**ENVIZI FACTOR LIBRARY**	**ENVIZI FACTOR LIBRARY**

Source Key:

- From employee
- Published statistics
- From Secondary source
- Example sources

Calculation methodologies: S3.7

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