

# Leverage the power of AI to accelerate Scope 3 emissions calculations for ESG reporting and disclosures

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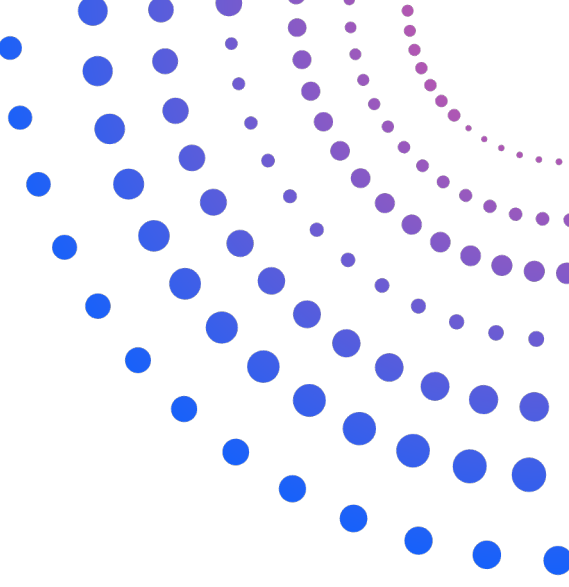
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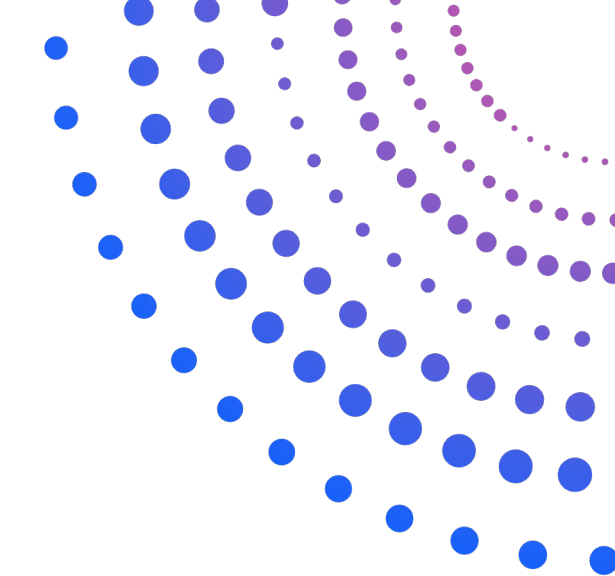




# Agenda

- Importance of Scope 3 Emissions
- Challenges in Scope 3 Emissions Calculation
- IBM Envizi ESG Suite: The Solution
- Harnessing the Power of AI
- Case Study: Celestica Inc.
- Conclusion

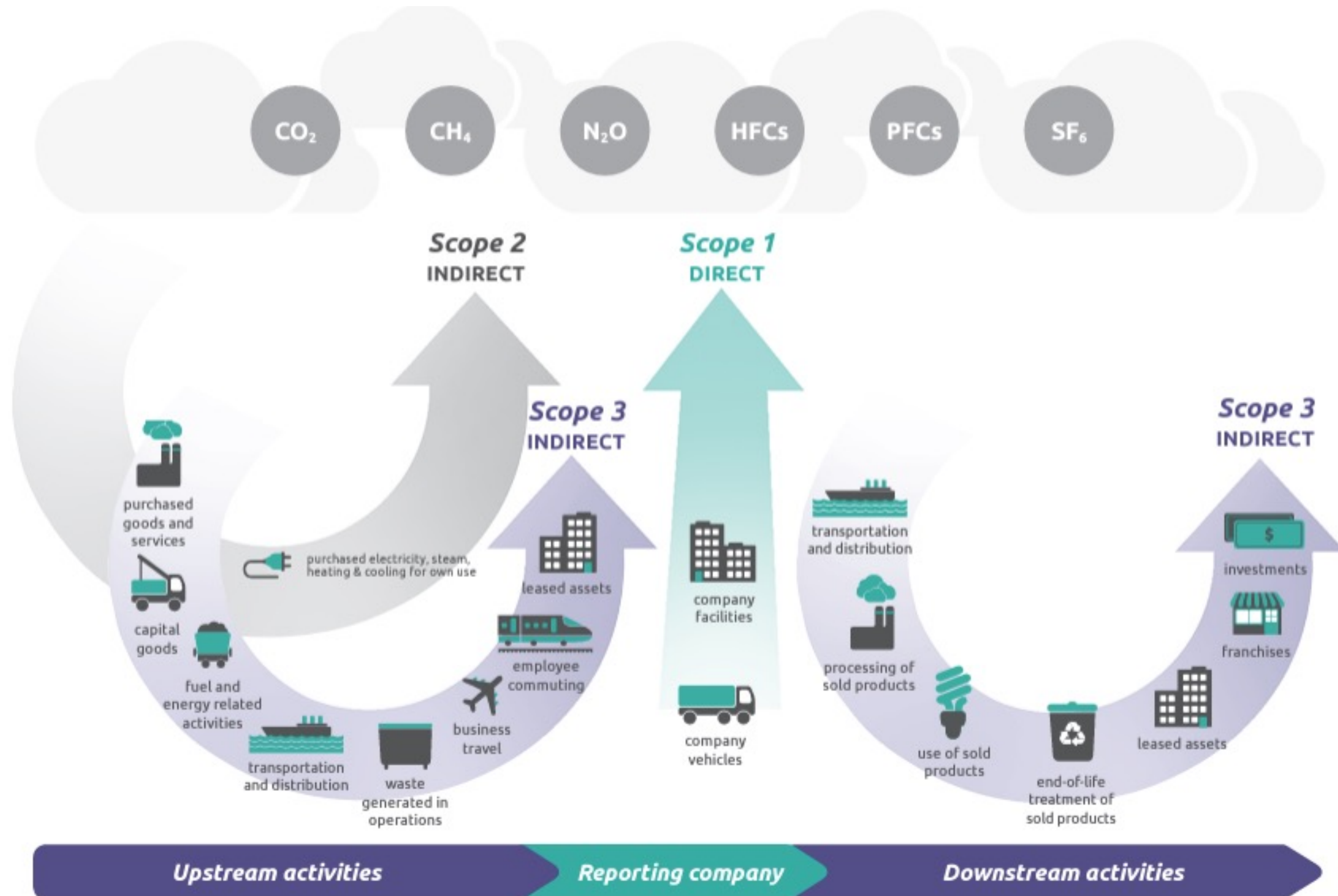




# What is Scope 3 & why is it important for you?

# 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



# ESG Frameworks increasingly demanding Scope 3 disclosures



- 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 and Services – Use Phase



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



- 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

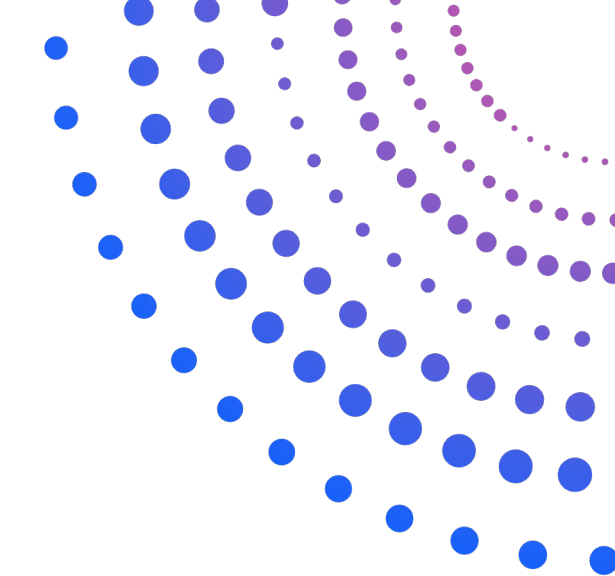


## EU CSRD

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



# Scope 3 challenges that organizations face

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

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

- Data capture
- Data quality
- Choosing a methodology
- Consistent availability of data

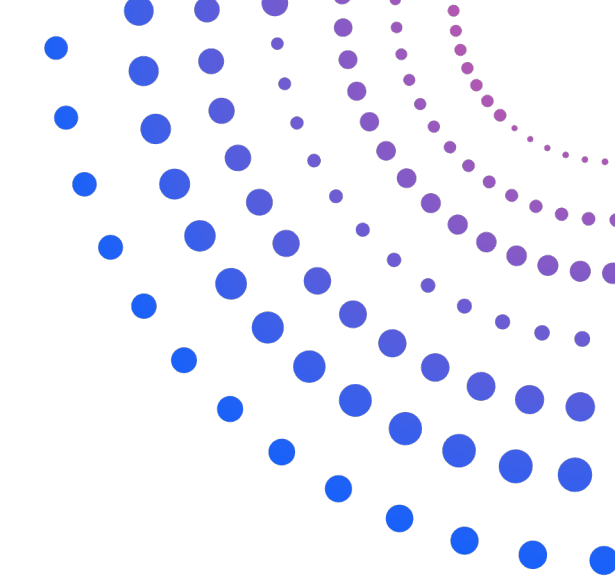
Companies  
struggle mainly  
with data and  
methodology

Only 25% disclosing  
today

Most companies  
are just getting  
started

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

Engaging  
suppliers on  
decarbonization  
targets and  
execution

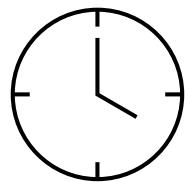


# IBM Envizi ESG Suite: The Solution



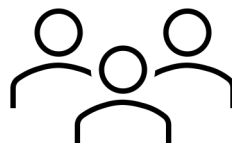
# Envizi snapshot

The world's most comprehensive data, analytics and insights platform for Sustainability and ESG



15 yrs.

time in market



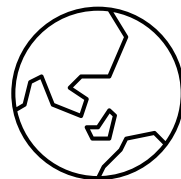
200+

active clients



247k

locations connected



175

countries reached



The world's largest corporations and governments are accelerating decarbonization commitments, and increasing scrutiny of ESG disclosure

Envizi harnesses the power of data, analytics and insights to transition to a low carbon future

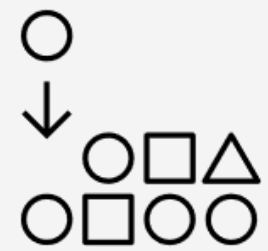


# Envizi help organizations harness the power of data and analytics to achieve their sustainability goals

The building blocks that accelerate sustainability performance

1.

**Build** ↻  
Data Foundation



A single system of record that delivers auditable, financial grade sustainability data

2.

**Streamline** ↻  
Reporting + Disclosure



GHG calculation and flexible reporting tools to meet internal and external requirements

3.















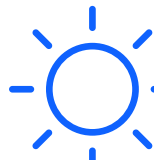
**Accelerate** ↻  
Decarbonization



Unlock insights to inform the fastest and most cost-effective pathway to low carbon goals



# 500+ sustainability and energy data types

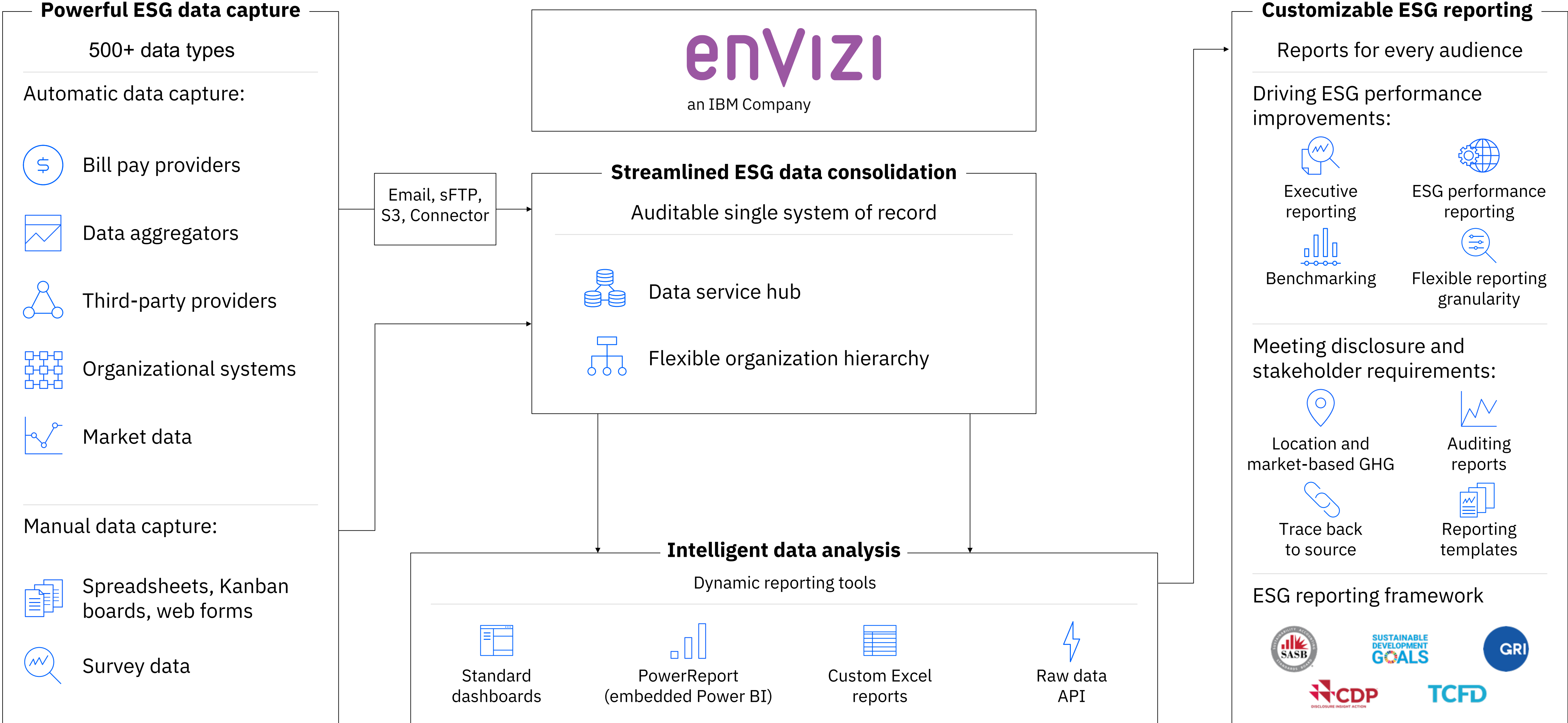
<p><b>Utility billing data</b></p>  <p>Electricity Gas Water</p>	<p><b>Transport and stationary fuels</b></p>  <p>Diesel, petrol, LPG, propane aircraft fuel, LNG, bio-fuel</p>	<p><b>Refrigerants &amp; fugitive gases</b></p>  <p>100+ gas types</p>	<p><b>Electricity produced</b></p>  <p>Solar, wind, bio-gas, hydro, thermal</p>	<p><b>Meter data</b></p>  <p>NMI meters, smart meters, sub-meters</p>
<p><b>Certificates &amp; offsets</b></p>  <p>RECs, carbon effects</p>	<p><b>Waste &amp; recycling</b></p>  <p>300+ waste &amp; recycling data types</p>	<p><b>Materials</b></p>  <p>100+ material types, construction and building</p>	<p><b>Transportation</b></p>  <p>Air travel, taxi, train, car</p>	<p><b>BMS and IoT data</b></p>  <p>Control signals, sensors</p>
<p><b>Social &amp; environmental</b></p>  <p>Community investment, donations, volunteer hours</p>	<p><b>Company metrics</b></p>  <p>Headcount, rooms, beds, meals, sales</p>	<p><b>Production metrics</b></p>  <p>Unit, tonnes, \$, litres, hours</p>	<p><b>Building metrics</b></p>  <p>m2, FTEs, occupant hours, building ratings, visits</p>	<p><b>Weather data</b></p>  <p>HDD, CDD, rainfall, humidity, irradiation</p>

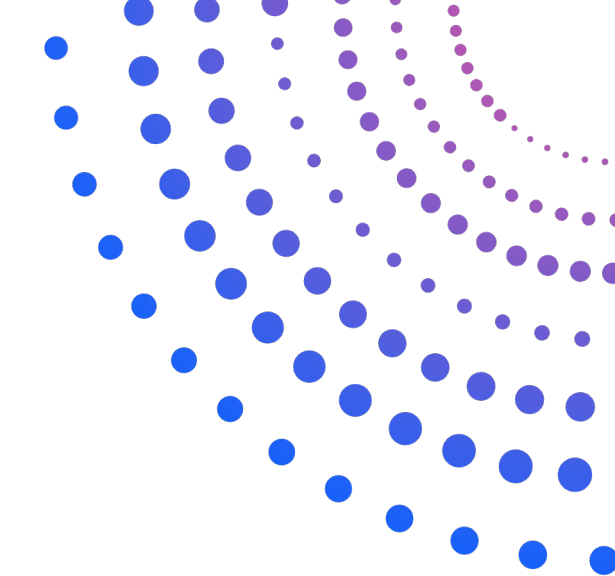
# A world-class solution supporting major framework





# Envizi consolidates sustainability data



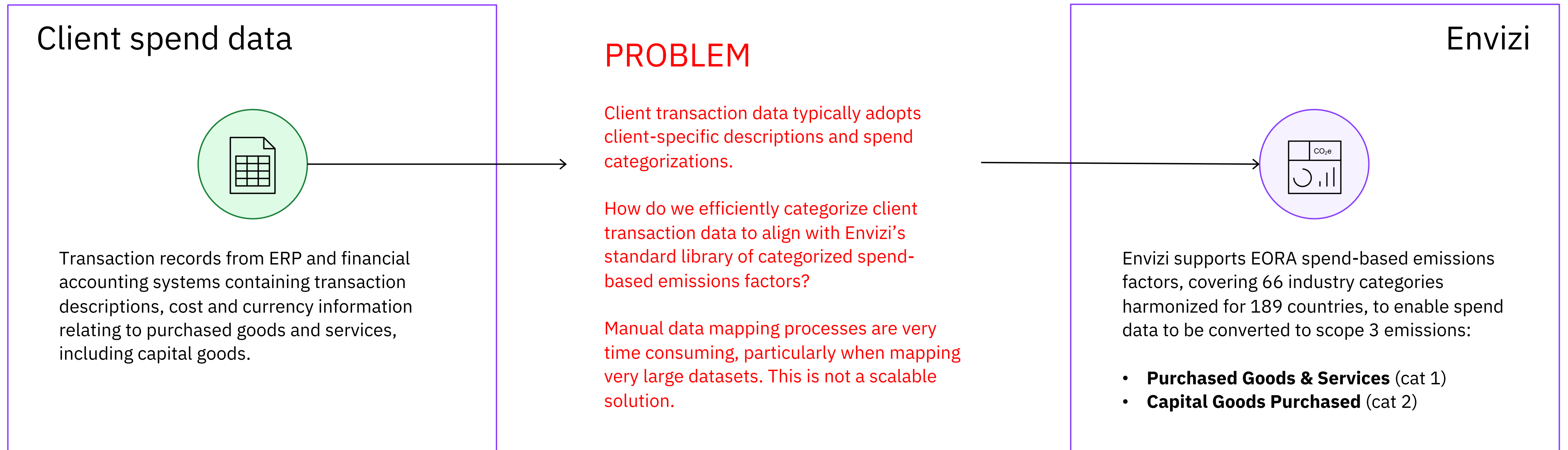


# Harnessing the Power of AI



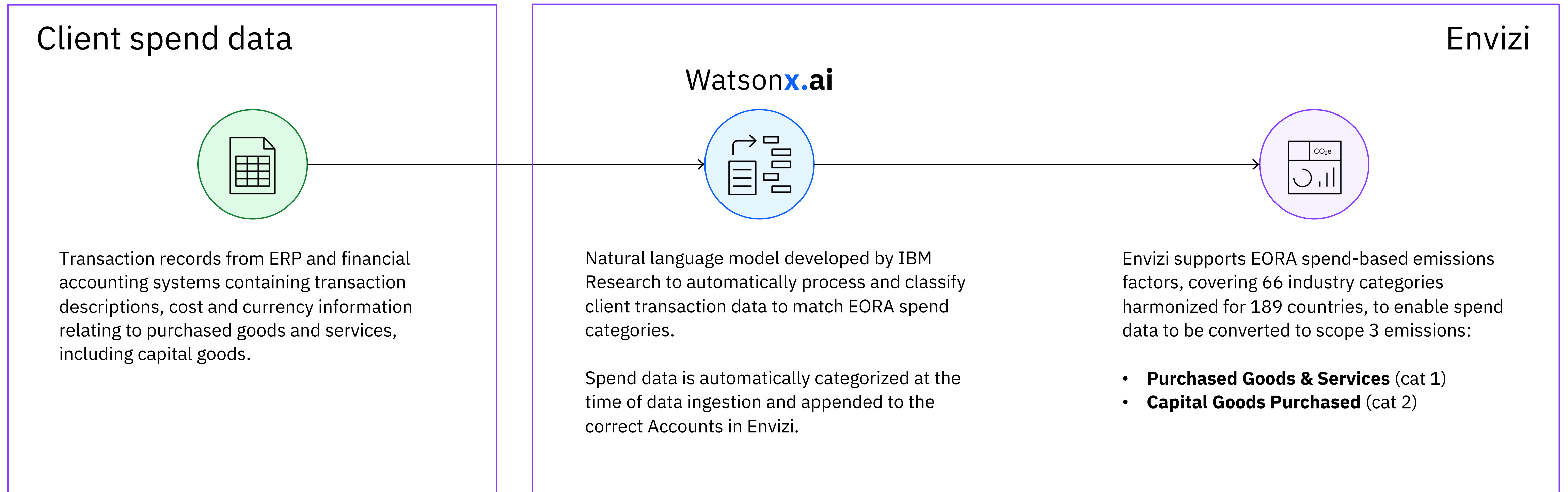
# Automatically categorize scope 3 spend data

Using Watsonx.ai to categorize transaction data to spend categories



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Using Watsonx.ai to categorize transaction data to spend categories





# Automatically categorize scope 3 spend data

## Mapping Example

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

General ledger coding from financial system

Created Date	Country	PO Number	Vendor Name	Total_Amt	Currency	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 (Period	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

# Supply Chain Optimization

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

## 1 Data Sources

Customer Data Systems + Storage

- Internal systems
- Supply chain
- Value chain
- Supplier engagement

## 2 GHG Data

Scope 1 + 2  
Scope 3 (Category 2-14)

Scope 3 (Category 1)

## 3 Calculation + Reporting

Envizi

- Data management
- Corporate reporting

Envizi Premium Addition  
Supply Chain Intelligence

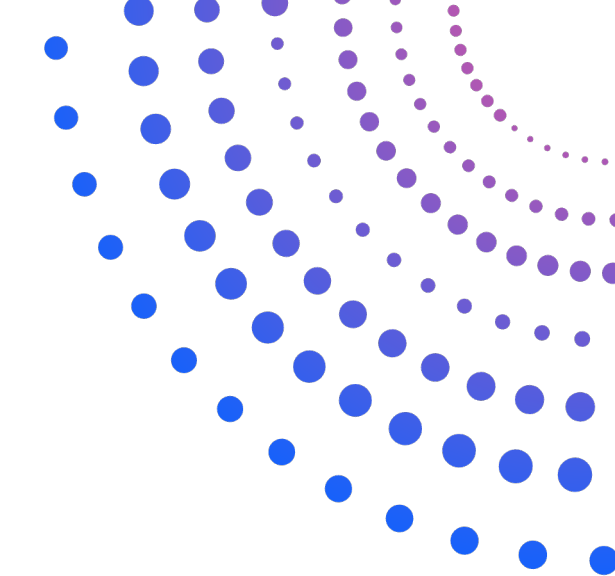
Capture and aggregate high-volume supplier and product-level transaction data

## 4 Scenario Planning & Forecasting

Envizi Premium Addition:  
Planning Analytics

- AI capability powered by Watson
- Real time what-if modelling and forecasting





# Client Success Story

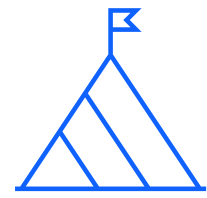


## The Customer



- A global provider of manufacturing and supply chain solutions.

## The Challenge



- With sites spread across 15 countries, Celestica Inc had found its environmental, social and governance (ESG) efforts to be cumbersome and difficult to audit.
- Sustainability team members were manually gathering data from its 50 worldwide facilities into spreadsheets.

## The Solution

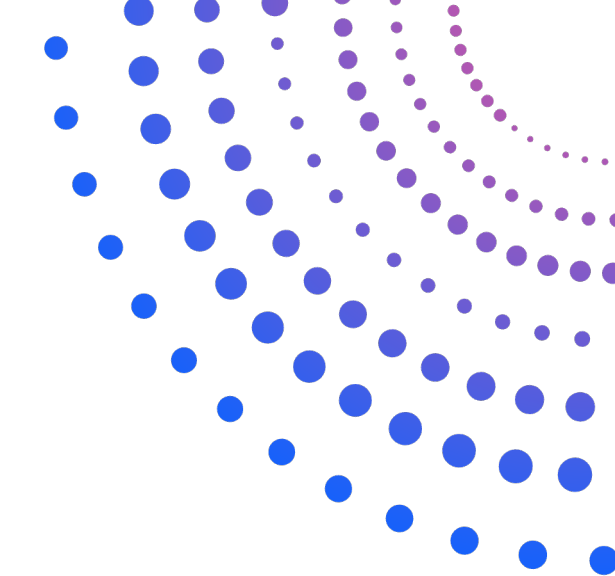


- With IBM Envizi, the business can now more easily monitor ESG practices, as well as track performance with real-world data and against science-based standards.
- Data from each of Celestica's sites is automatically captured, compiled and transformed into usable outputs.

## The Benefits



- Compiles and transforms data into usable outputs and helps eliminate errors from manual data entry.
- Automation of complex calculations and reporting produces finance-grade, auditable data.
- The new process not only saves countless hours of work, but has also helped Celestica decrease its scope one and two greenhouse gas emissions by more than 21% in one year.

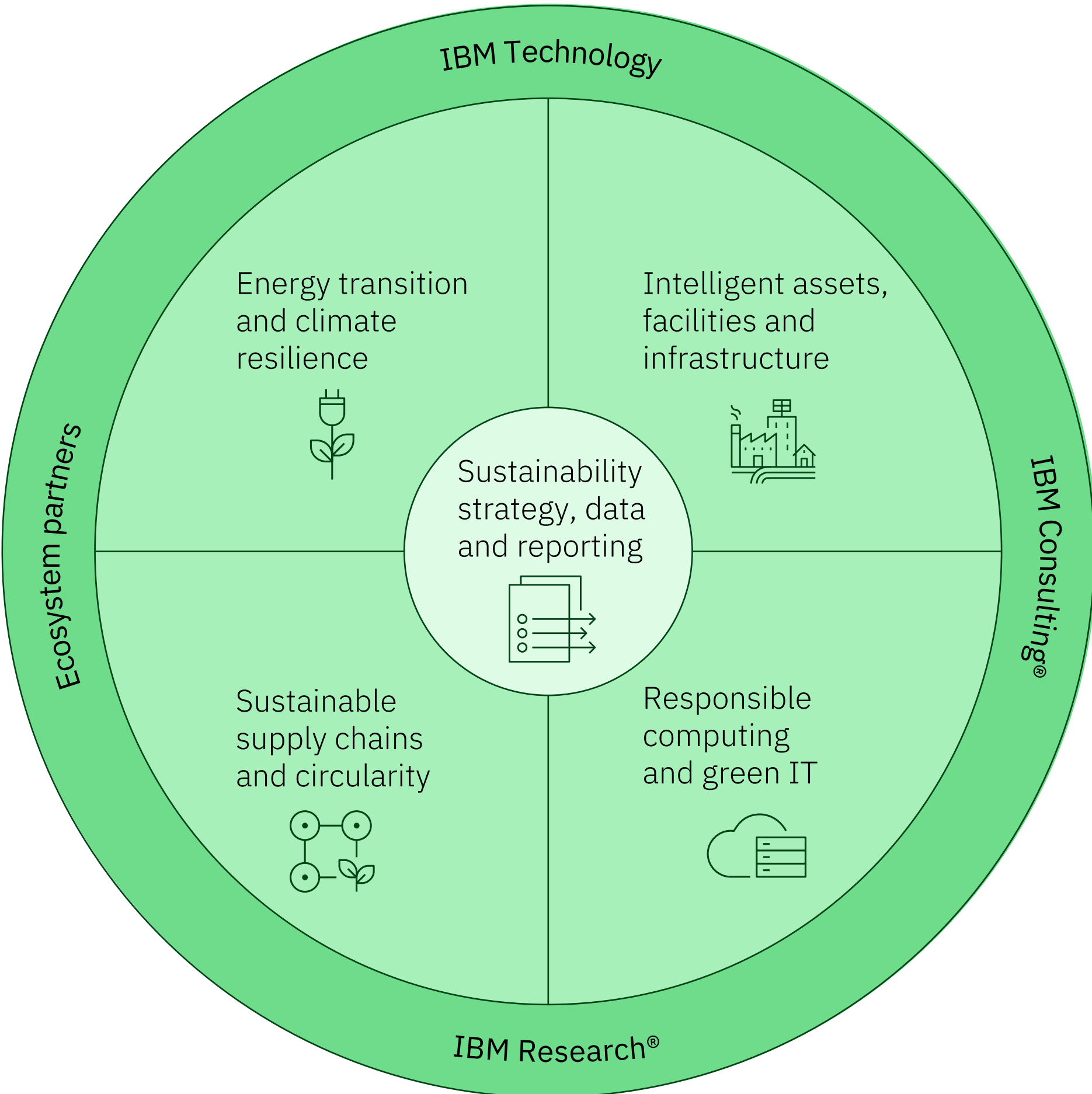


# IBM Sustainability POV



# IBM Sustainability: Turning ambition into action

IBM helps companies achieve their sustainability goals by infusing data with AI into daily operations enabled by expertise to deliver profit and purpose.



### Sustainability strategy, data and reporting

Co-create roadmaps that capture business value and leverage the power of generative AI to accelerate clients' realization of their sustainability agendas. Curate, report and operationalize data to unlock competitive insights, improve performance and meet regulatory requirements.

### IBM® Envizi™ ESG Suite

IBM OpenPages® platform | IBM Planning Analytics

#### Energy transition and climate resilience

Support electrification with grid efficiency and modernization of energy infrastructure to expedite transition to renewables and build resilience to climate impacts.

IBM Environmental Intelligence  
IBM Maximo®

#### Intelligent assets, facilities and infrastructure

Build more efficient physical operations to increase productivity, advance decarbonization and reduce cost, waste and emissions.

IBM Maximo®  
IBM TRIRIGA®

#### Responsible computing and green IT

Optimize infrastructure and computing with AI at the core to enable more efficient, less energy-intensive IT and drive social impact.

Apptio  
IBM Turbonomic®  
IBM z16™ mainframes  
IBM LinuxONE  
IBM Power® servers  
IBM Storage  
IBM Cloud®

#### Sustainable supply chains and circularity

Design and manage intelligent workflows for transparent and trusted supply chains to enable just transition, circularity and Scope 3 emissions management.

IBM Sterling® Order Management  
IBM Engineering Lifecycle Management: DOORS Next  
IBM Envizi Scope 3 Supply Chain Intelligence

#### IBM Technology

Scale and accelerate impact with hybrid cloud and the IBM watsonx™ platform.

#### IBM Consulting®

Embed strategy, experience, technology, thought leadership and provision of managed services.

#### IBM Research®

Explore AI and climate research and accelerated sustainable materials discovery.

#### Ecosystem partners

Collaborate with a diverse network of strategy, technology and services partners.



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