

IBM Sustainability Software

Turn sustainability  
ambition into action

—  
2022



Tons of greenhouse gasses emitted per year

**50B**



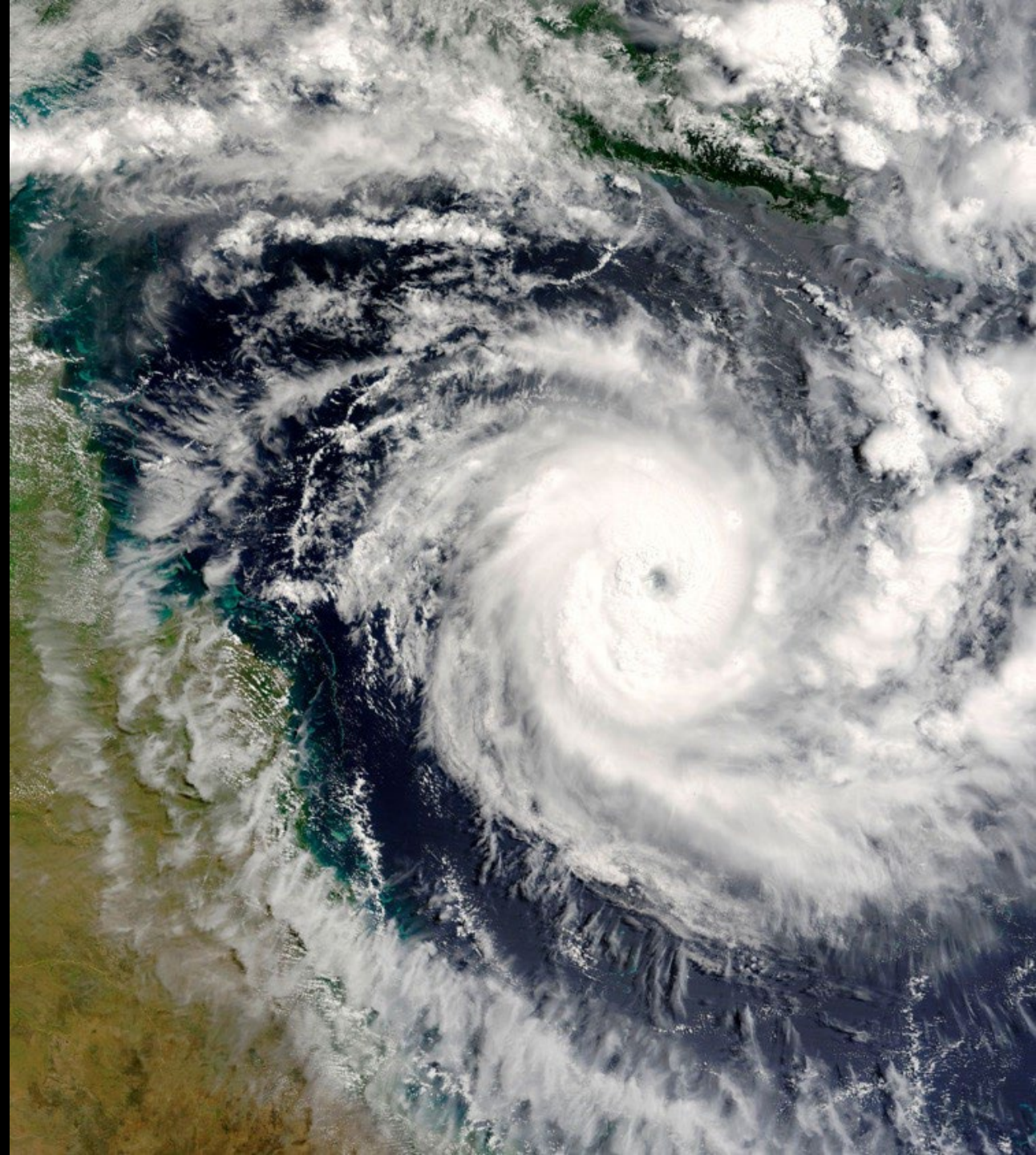
Emissions from energy used in industry,  
buildings & transportation

80%



2021 cost of weather and  
climate disasters

**\$148B**





# What's driving sustainability?

- 2015: hundreds of nations adopted the [Paris Agreement](#) – a legally binding international treaty on climate change
- Goal: [limit global warming](#) to 1.5 degrees Celsius
- To achieve this, nations must drastically reduce global greenhouse gas emissions
- [Sustainable Development Goals](#) (SDGs) were established by the United Nations, which set out 17 objectives



# Sustainability isn't just about compliance, it's an opportunity to innovate, make a difference, and grow

60%

of CEOs see significant demand from investors for greater transparency on sustainability

64%

of CEOs are confident they'll achieve sustainability goals

**42%** of CIOs believe Sustainability is the business area digital technologies will have *the greatest impact over the next 3 years.*

80%

of CEO expect sustainability investments to improve business results in the next five years



# Investors are using ESG criteria to evaluate companies...

## Businesses that fail to consider ESG metrics are at risk

### What is ESG?

- 'Environmental, Social and Governance' refers to the three central **factors** used to **measure** the **sustainability** & **ethical impact** of an investment

### How is it used?

- Investors use these non-financial factors to screen potential investments and evaluate their **material risks** & **growth opportunities**

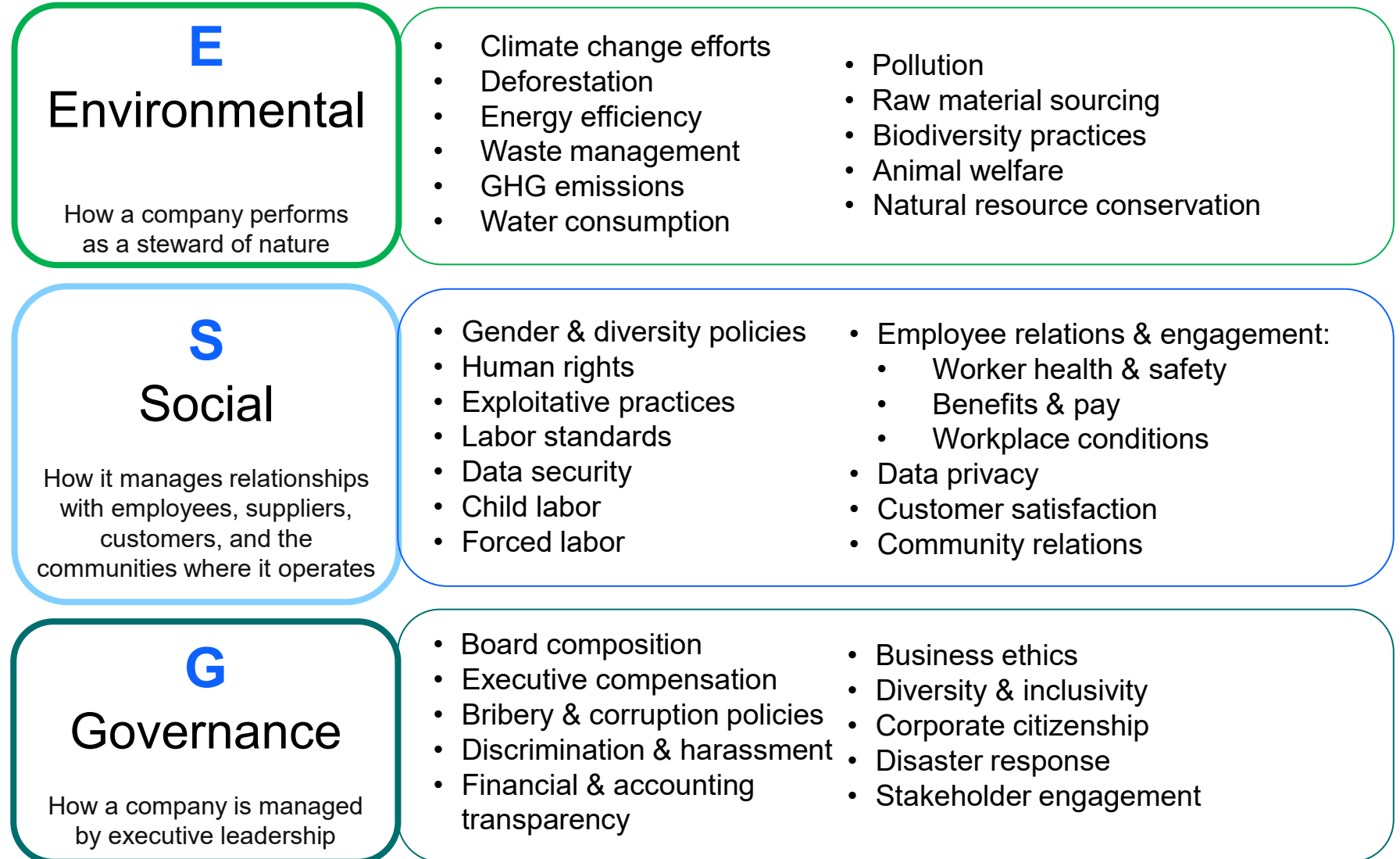
High ESG scores = More Sustainable

→ **Lower** Risk

Lower costs of capital,  
focused on long-term value creation

Low ESG scores = Less Sustainable

→ **Higher** Risk



# Businesses face mounting risks and pressure to help avert the worst of climate change

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Who are they feeling the most pressure from?

Large institutional investors are taking increasingly bold positions on ESG



- 57% percent of executives said their organization is facing significant pressure from investors to report on climate-related risk and management

Consumers are increasingly seeking products and brands that align with their values



- 77% of consumers surveyed said that buying from sustainable or environmentally responsible brands is important

US & EU governments are pushing for bold commitments, and more transparency



- Over the last three decades, there has been an almost tenfold rise in the number of climate-related policies and regulations passed globally

Sustainability efforts have strong positive impact on recruitment and retention



- 45% percent of surveyed millennial employees would look to change jobs if their company didn't implement sustainable business practices



Trailblazers are driving growth by aligning sustainability initiatives and digital transformation

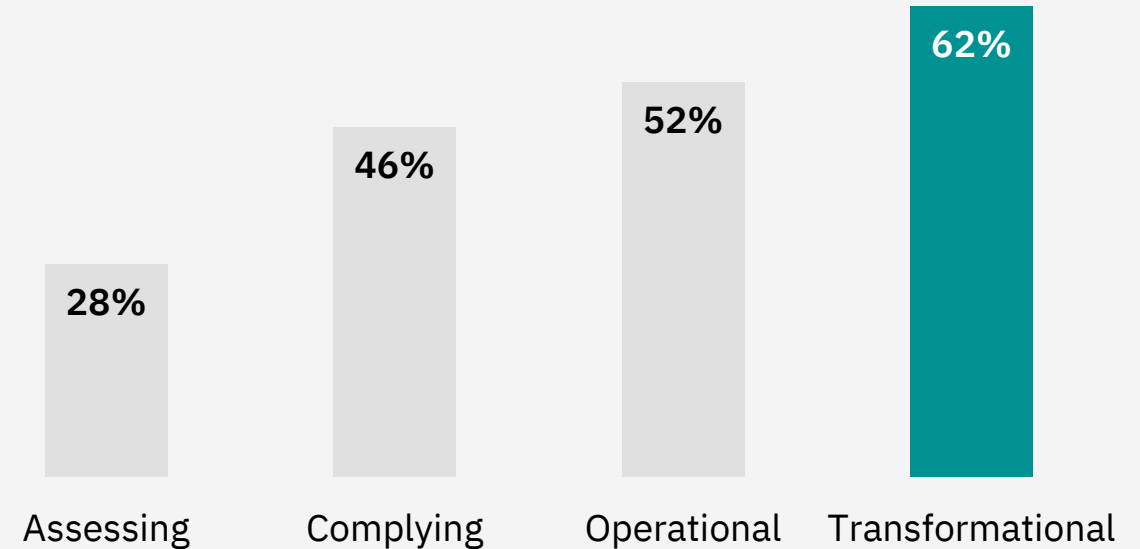
72%

are piloting or implementing only parts of their sustainability strategy

30%

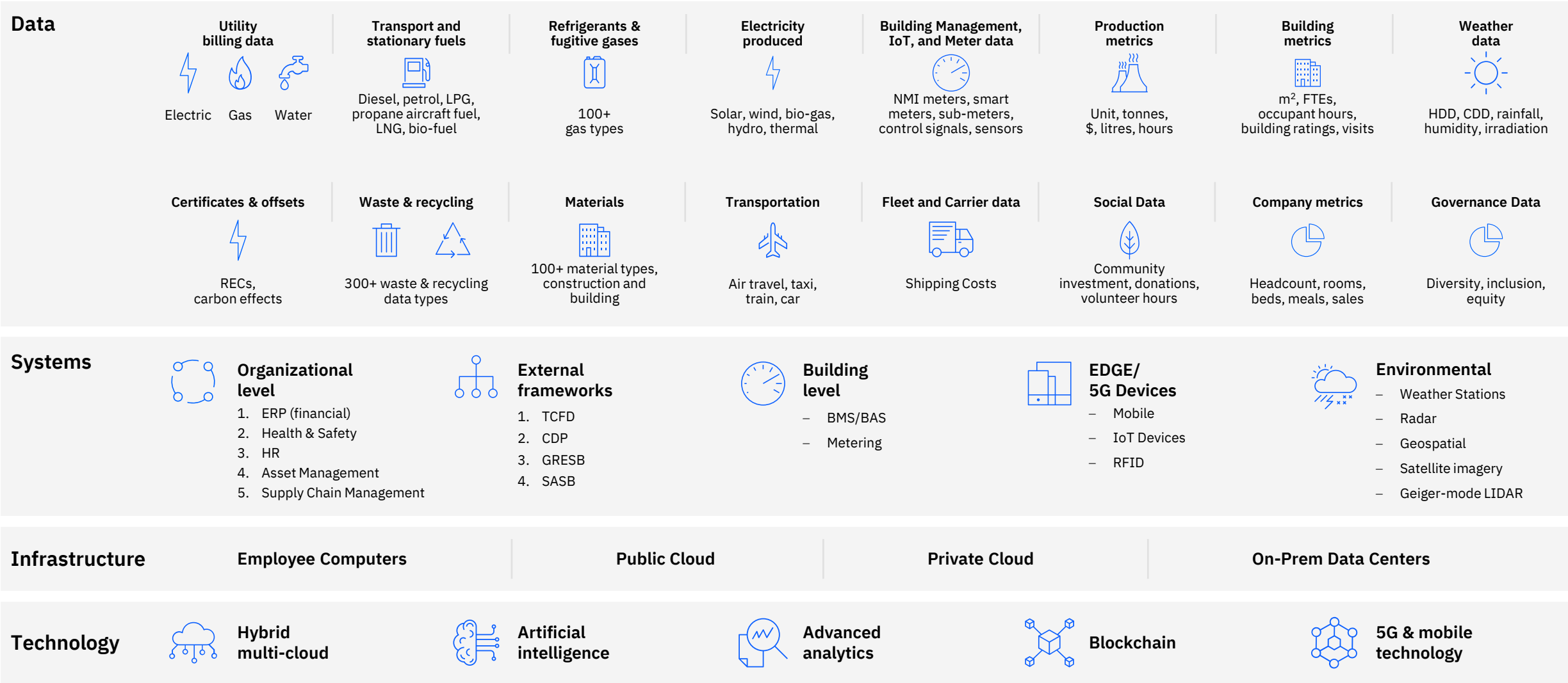
report explicitly aligning their sustainability and digital transformation efforts

% reporting sustainability outperformance



**Transformational CEOs who go “all in” on sustainability are achieving better sustainability outcomes and better business performance**

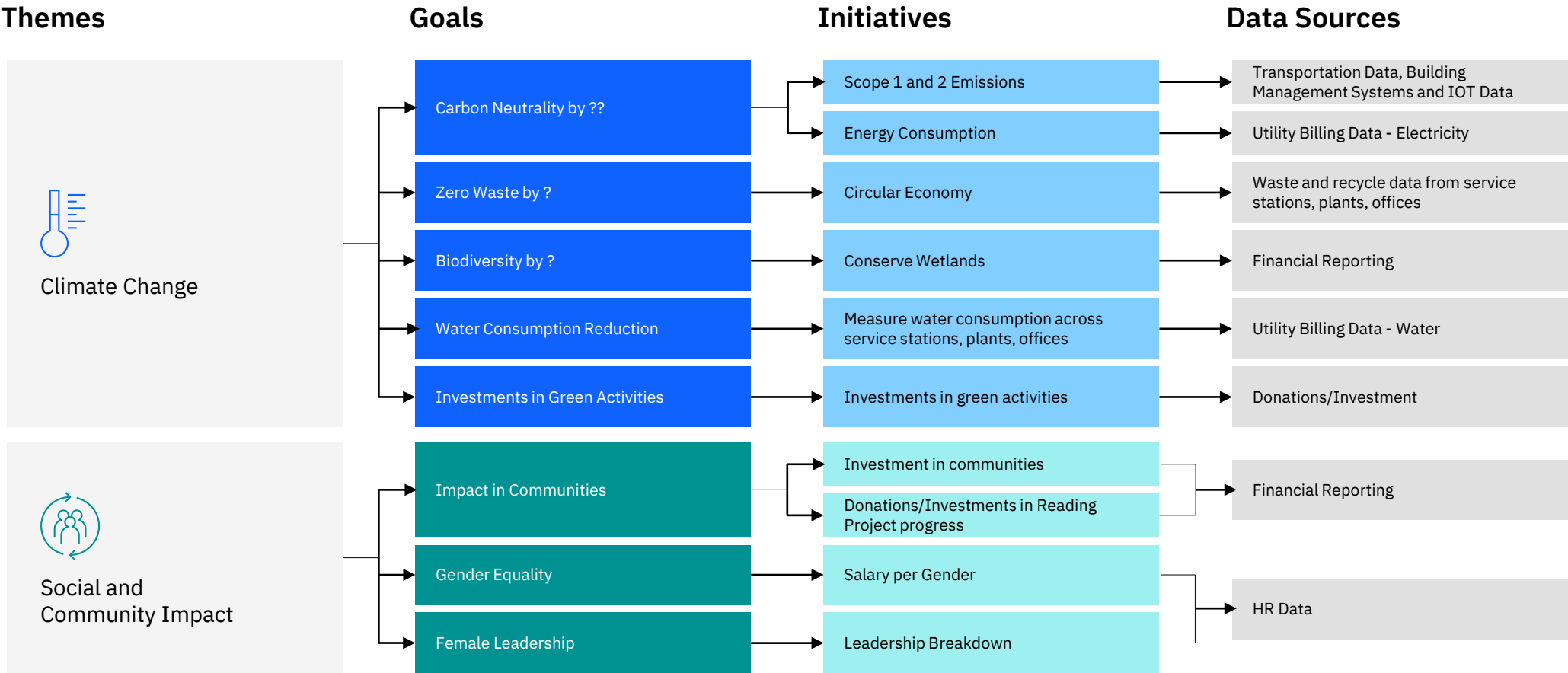
# How are you capturing, consolidating, and analyzing your sustainability data?





# Sample: Operationalizing on sustainability

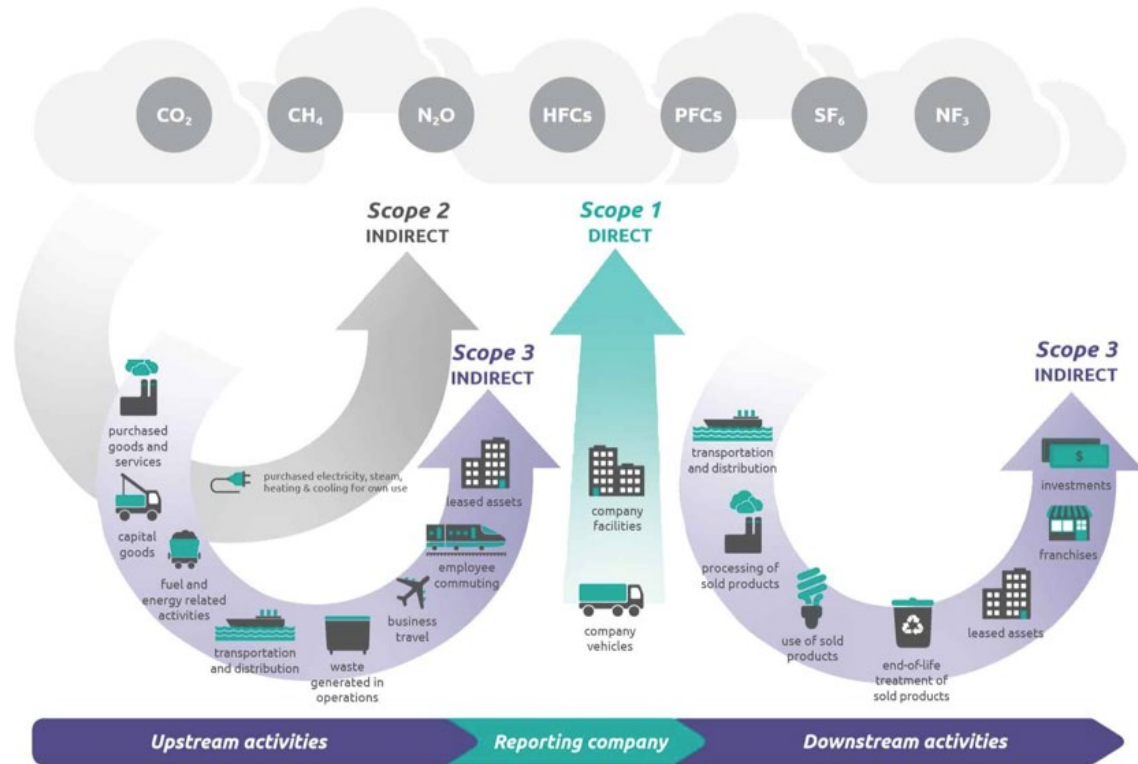
ILLUSTRATIVE



# What is Carbon Accounting?

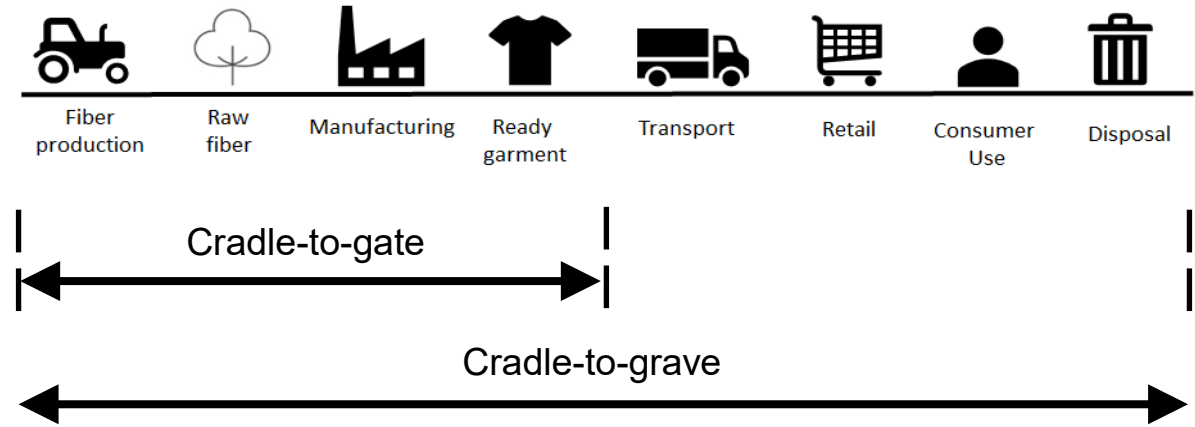
Accounting for the total carbon footprint of all emission-producing activities at a given level

## CORPORATE



## ORGANIZATION-LEVEL

## PRODUCT LIFECYCLE



Product specific (per functional product unit):

- Cradle-to-gate: Cumulative emissions from cradle (e.g. fiber production) to the reporting-company's gate
- Cradle-to-grave: Cumulative emissions from cradle to grave (disposal)

## PRODUCT-LEVEL



# What are scope 1, 2, and 3 emissions?

## GHG PROTOCOL CORPORATE ACCOUNTING AND REPORTING STANDARD

### SCOPE 3

All other indirect emissions that occur in a company's complete value chain

### SCOPE 2

Indirect emissions from the generation of purchased energy consumed by the reporting company

### SCOPE 1

Direct emissions from owned or company controlled sources

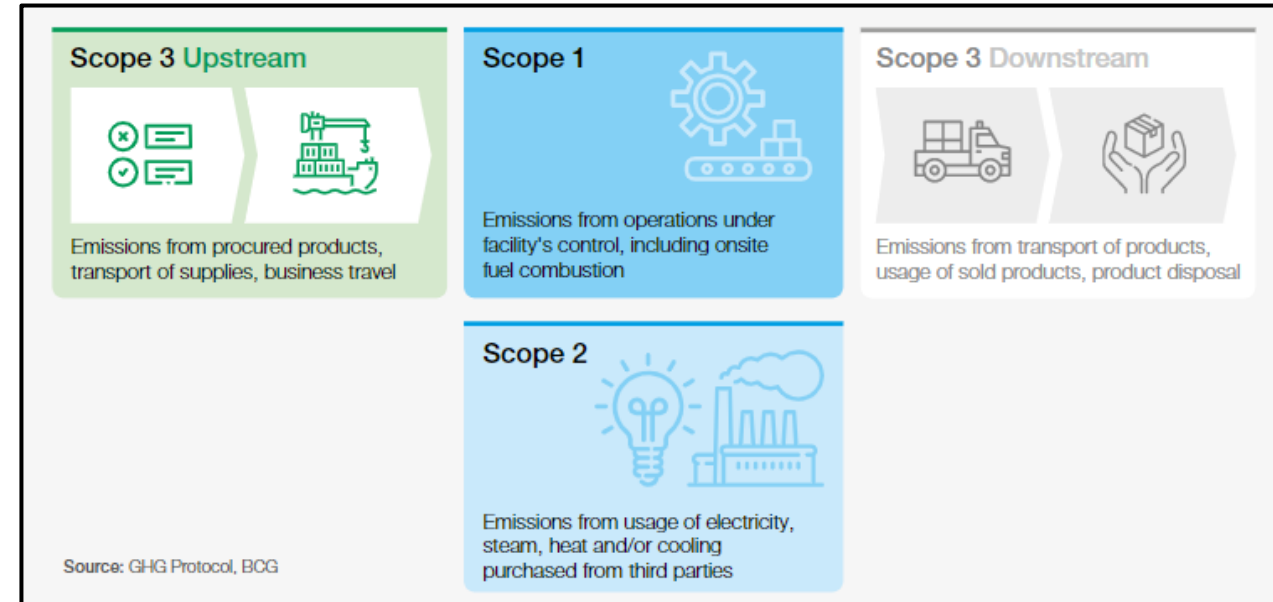
### SCOPE 3 CATEGORIES

#### UPSTREAM ACTIVITIES

1. Purchased goods and services
2. Capital goods
3. Fuel- and energy-related activities
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets

#### DOWNSTREAM ACTIVITIES

9. Downstream Transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investments



- Organizations are tracking three types of emissions
- Scope 3 emissions usually account for the greatest share of emissions; however, they pose the biggest challenge when it comes to measuring and reporting

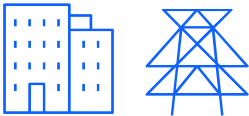
# Turn sustainability ambition into action

**Sustainability Strategy  
and Roadmap**

Co-creating a sustainability agenda and pathways towards delivering corporate social impact and business value

**ESG Data, Reporting  
and Risk Management**

System of record for ESG data and insights to measure, report, operationalize and achieve your sustainability roadmap



**Intelligent assets, facilities  
and infrastructure**

Operational insights to drive clean energy transition, efficient waste management, and decarbonization



**Responsible computing  
and green IT**

Responsible computing to enable sustainable IT and drive social impact

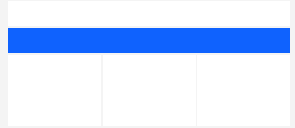


**Sustainable supply  
chains and circularity**

Intelligent workflows for equitable, transparent, and carbon regenerative supply chains



# Envizi Sustainability Performance Management...



- [Build a data foundation](#) and integrated system of record that delivers auditable, finance-grade ESG and sustainability data
- [Streamline reporting](#) to meet internal and external ESG and sustainability reporting requirements
- [Integrate internal and external stakeholders](#), process and technology to embed sustainability into daily operations
- [Accelerate decarbonization](#) by unlocking insights to inform the fastest and most cost-effective pathway to decarbonization

# ... for ESG Data Management, Reporting and Analytics

Automate the collection and consolidation of **500+ data types**, **analyze and identify efficiency opportunities and sustainability risks**, and **report** against major, internationally recognized ESG reporting frameworks.

## Emissions Management

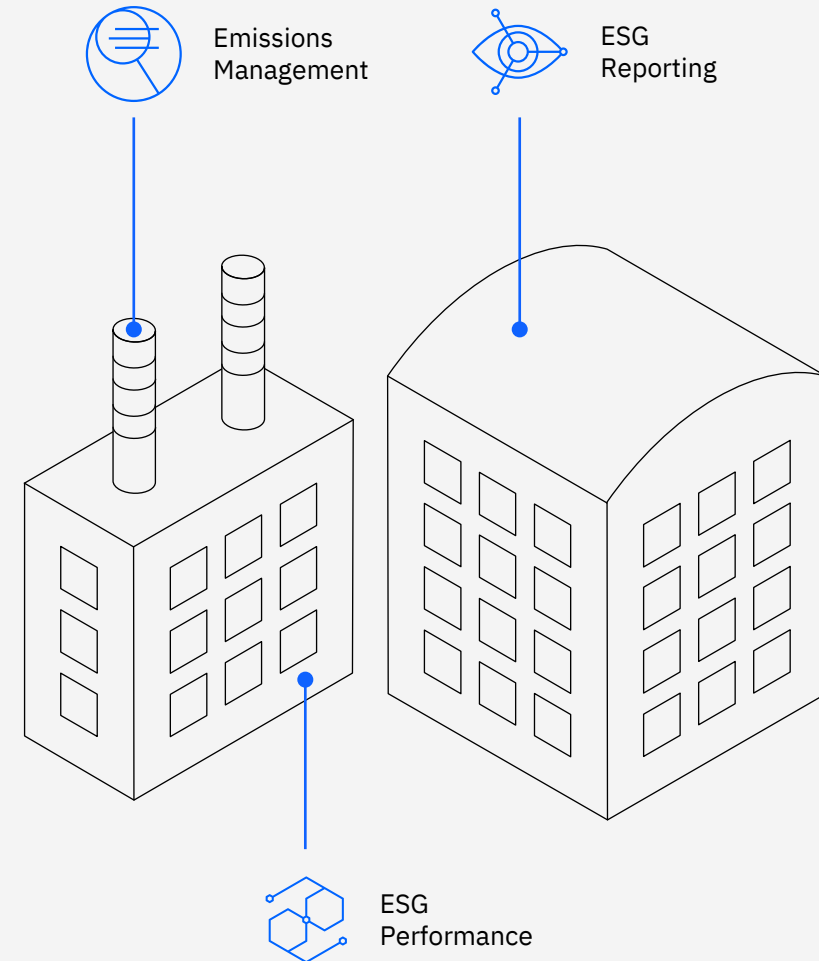
Measure Scope 1, 2, and 3 emissions to identify excessive energy usage or other inefficiencies

## ESG Reporting

Streamline ESG disclosures to reduce complexity of ESG reporting and minimize disclosure risk

## ESG Performance

Stand up and track programs for net zero emissions target, analyze utility/energy consumption to identify hotspots



# 500+ Sustainability & Energy data types

## Utility billing data



Electricity Gas Water

## Transport and stationary fuels



Diesel, petrol, LPG, propane  
aircraft fuel, LNG, bio-fuel

## Refrigerants & fugitive gases



100+ gas types

## Electricity produced



Solar, wind, bio-gas,  
hydro, thermal

## Meter data



NMI meters, smart  
meters, sub-meters

## Certificates & offsets



RECs,  
carbon effects

## Waste & recycling



300+ waste & recycling  
data types

## Materials



100+ material types,  
construction and building

## Transportation



Air travel, taxi,  
train, car

## BMS and IoT data



Control signals,  
sensors

## Social & environmental



Community investment,  
donations, volunteer hours

## Company metrics



Headcount, rooms,  
beds, meals, sales

## Production metrics



Unit, tonnes, \$,  
litres, hours

## Building metrics



m2, FTEs, occupant hours,  
building ratings, visits

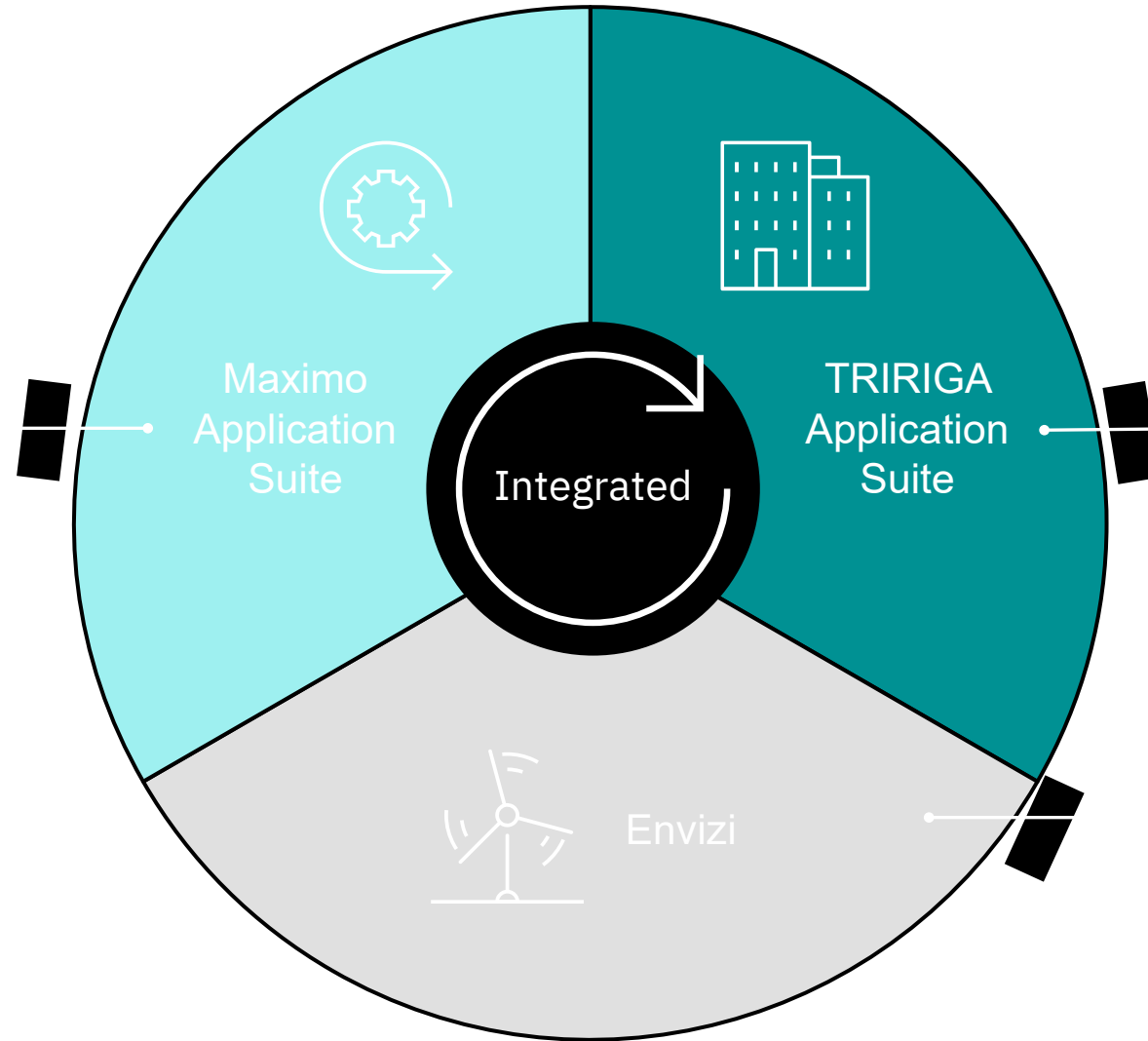
## Weather data



HDD, CDD, rainfall,  
humidity, irradiation

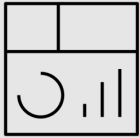


# Enterprises Need Integrated Solutions to Define and Achieve their Sustainability Targets



# Sustainability and Operational Workflows across an organization

## Sustainable Enterprise



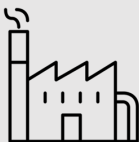
Aggregate operational, product, supply and social metrics to produce enterprise level KPIs on corporate sustainability goals.

## Sustainable Operations



Aggregate operational and environmental data to track asset performance KPIs.  
Investigate root causes of emissions, act on outliers, and manage operational change programs.

## Sustainable Processes



Extend locations, assets, spare part inventories, incidents and maintenance workflows with environmental profiles to manage operational data and environmental impact.

- **Maximo workflows with a sustainability impact**

- **Environmental conservation programs**

- Identification, management and reporting on operational change driving sustainability and environmental conservation targets.

- **Consumption**

- Operational continuous consumption of resources with environmental impact and carbon footprint, e.g., Power, Fuel, and Water.

- **Incident**

- Events with health, safety and environmental impact resulting in e.g., spill, venting, leak . Often causing an investigation on potential certificate breach and regulatory reporting.

- **Maintenance and Extend Asset Life**

- Maintain and improve operational reliability and environmental performance

- **Inventory and Waste**

- Handling of general and hazardous items with carbon footprint and their waste and recycling, e.g., refrigerants.

Additional processes are available for further review

# Manage ESG related incidents

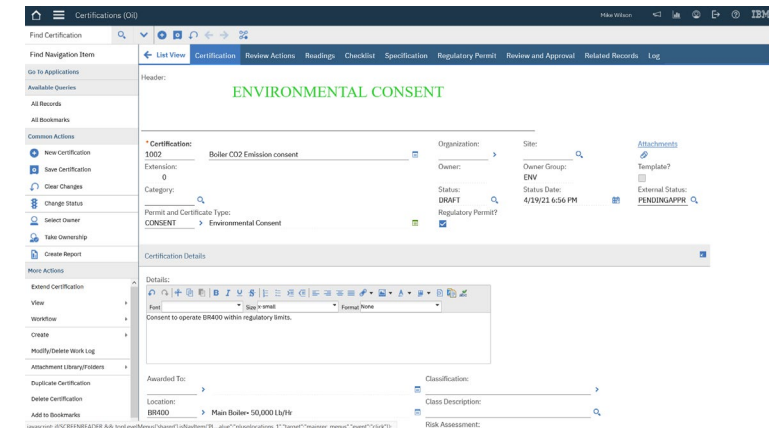
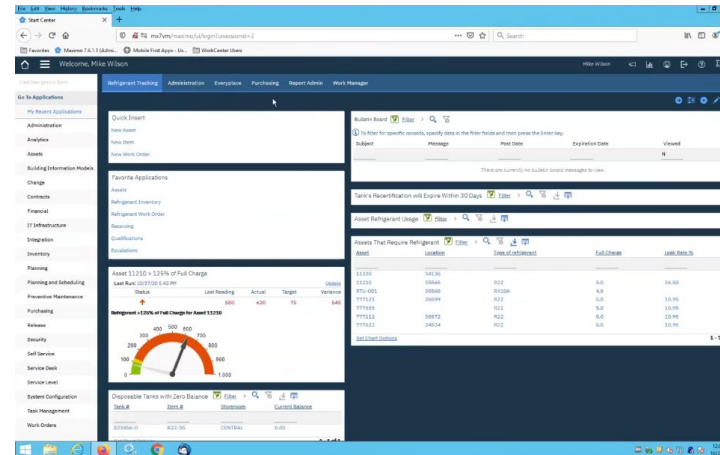
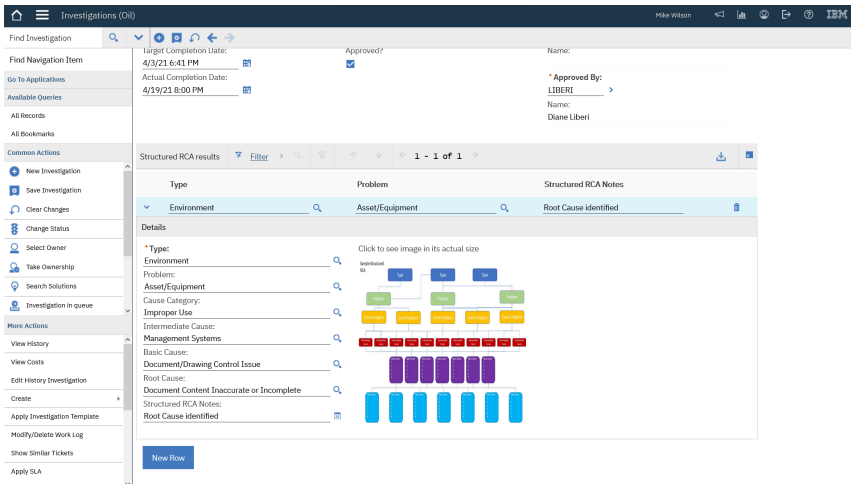
Track ESG related events and take both preventive and corrective action to meet and improve upon performance goals

# Report and manage ESG compliance

Improve regulatory compliance and maintain licenses to operate

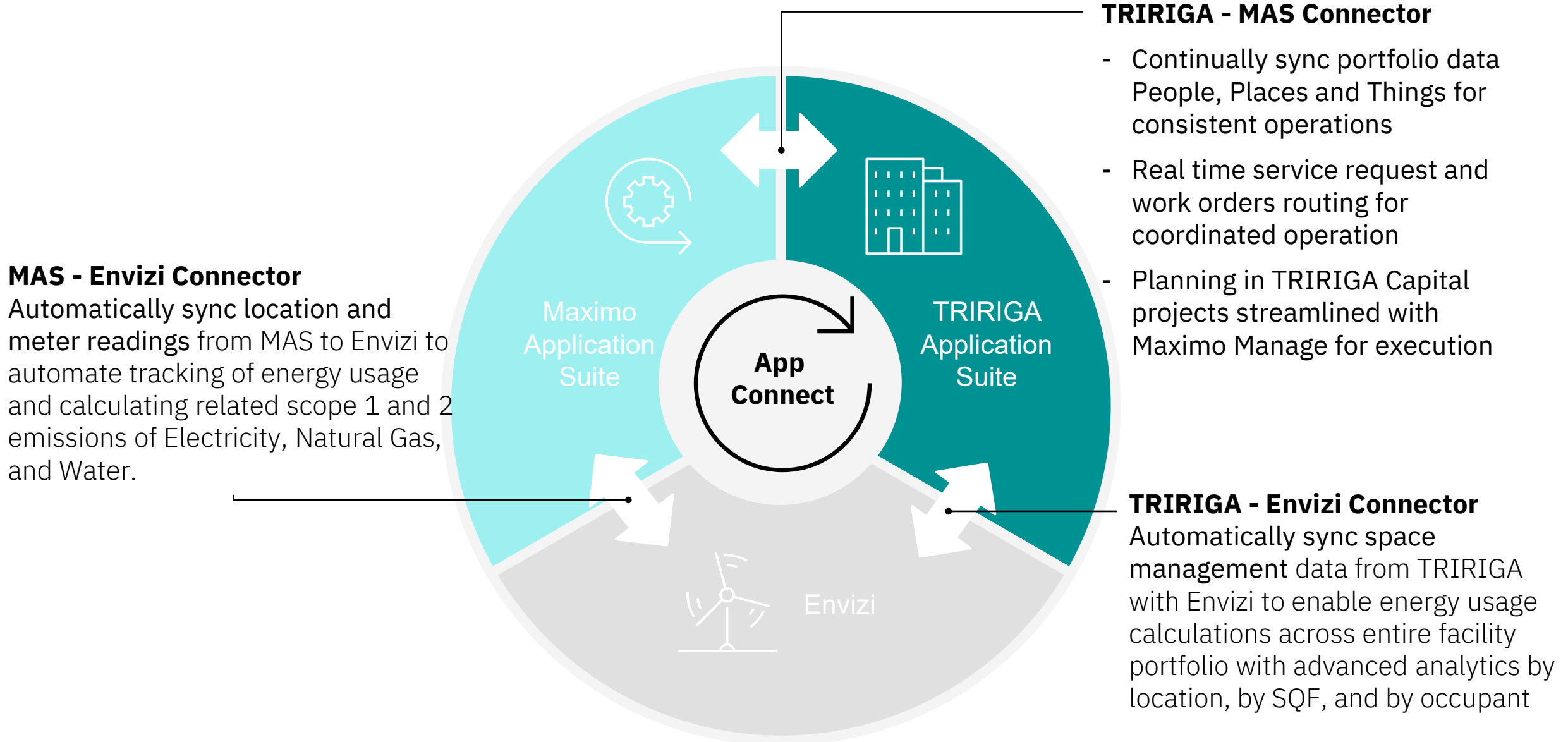
# Improve ESG visibility in the Maintenance Repair and Operations (MRO) supply chain

Incorporate ESG certification requirements into the inventory management and purchasing process





# TRIRIGA – Maximo – Envizi Connectors

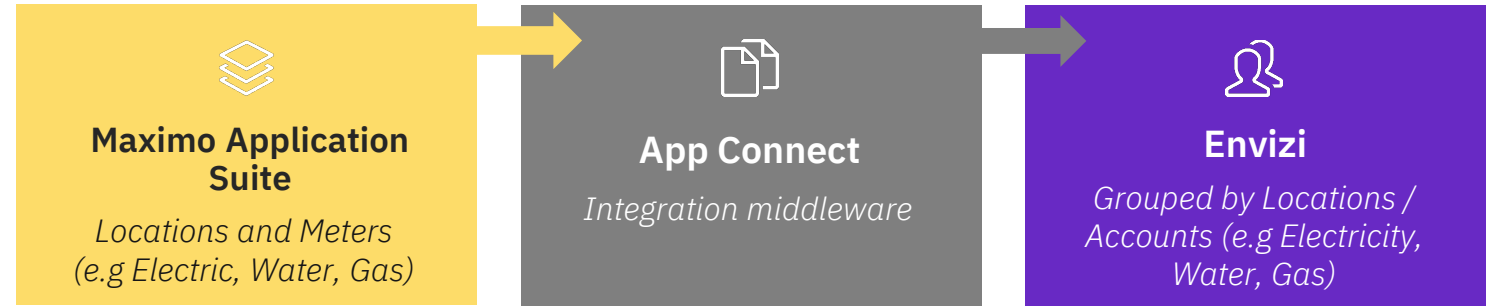


# Envizi + Maximo **Working Together**

## Connector to Envizi **\*New in MAS 8.9\***

First release enable one-way push of **Locations** and **Meter Reading** data from Maximo to Envizi systems enabled by IBM App Connect.

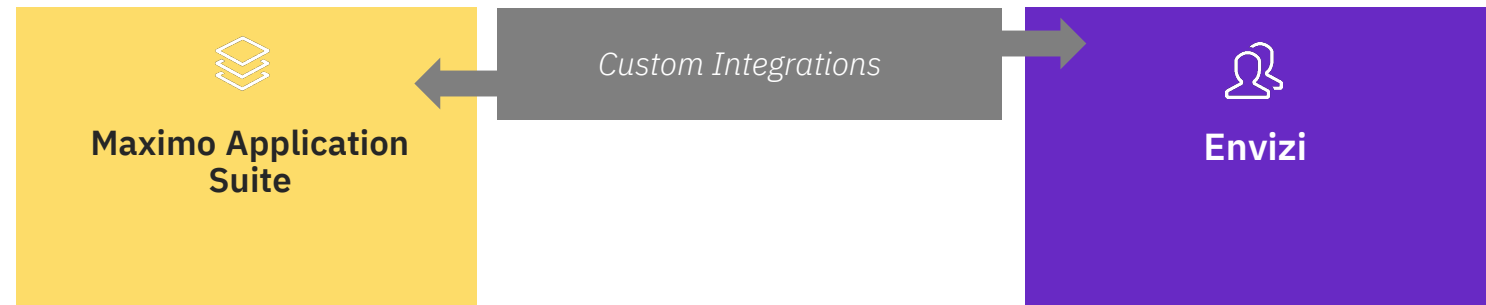
This enables **automated capture** of energy usage data directly from Maximo to calculate scope 1 and 2 **emissions such as Electricity, Natural Gas, and Water.**



## Custom Integration

Customers and service providers familiar with the Maximo Integration Framework can build custom bidirectional integrations. The code pattern for the above connector is also available for customers that have App Connect.

- E.g. Sync additional data from Maximo (incidents, inspections, asset performance, IoT Monitoring )
- E.g Create Service Requests directly from Envizi



# Envizi + Maximo Value Proposition

Sustainability Synergies

**Envizi:** The building blocks that accelerate your sustainability performance

1.  
**Build** ↻  
Data Foundation



2.  
**Streamline** ↻  
Reporting + Disclosure



3.  
**Accelerate** ↻  
Decarbonization



Envizi + Maximo:

Get **transparency of your operations** and use this to **drive efficiencies** across your management of assets and **elevate overall sustainability practices**



Feed data from your entire portfolio of assets and plug them into Envizi for reporting



Leverage out-of-the-box tools to simplify reporting (compliance and performance)

1.  
**Maximize** ↻  
Asset Service Life



2.  
**Automate** ↻  
Operational Processes



3.  
**Transform** ↻  
Operating Model



4.  
**Differentiate** ↻  
Industry Best Practice



**Maximo:** Simplify and scale the maintenance of all your critical assets

# Thank You!