Wie kann die Cloud zu mehr Nachhaltigkeit in der IT und Supply Chain beitragen?

Ulf Köster
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Accenture DACH

Accenture's Sustainability Value Promise

Through technology and human ingenuity, we are making sustainability a force for change

The Accenture Sustainability Value Promise is to embed sustainability into everything we do, with everyone we work with, creating both business value and sustainable impact.

Sustainability by design

World-first commitment to embed sustainability into every product and service offering

Sustainability services

Sustainability is a vehicle for creating value. Our offerings consider sustainability as integral to helping achieve your business goals.

Responsible company

Be our own best credential: The world's leading company across all ESG elements, while maintaining stellar performance at scale

Responsible citizen

Sharing our knowledge and spreading our impact across all the communities and environments we operate in globally

READ MORE: https://www.accenture.com/us-en/about/sustainability/sustainability-value-promise

Accenture leads the thinking on Sustainability and Sustainable Value Chains

Our Capabilities

Sustainability strategy & Value
- Corporate Purpose, Sustainability Strategy and Assessment
- Materiality & Stakeholder Assessment
- Sustainable Value Analysis

Circular Economy
- Renewable Energy Strategy & Procurement
- Resource Efficient Manufacturing
- Sustainable Packaging & Plastics

Trust and Transparency
- Digital Trust and Responsibility
- Sustainable Supply Chain (Product Traceability Strategy/ Blockchain)
- Sustainable Sourcing and Procurement

New Business Models
- Circular Business Models
- Smart City Strategy & Governance
- Operating Model & Digital Factory
- Continuous Loop Product Life

Our Team

1000+
- Sustainability Practitioners Globally

350+
- Projects in sustainability in the last two FYs

Ranking by Financial Times, 2020

FT

Sustainability

Company	Stars
Accenture	★★★★★★
KPMG Advisory	★★★★★★
PwC Consulting	★★★★★★
AccountAbility	★★★★★
Atkins	★★★★★
Deloitte Consulting	★★★★★
EY Advisory Services	★★★★★
McKinsey & Company	★★★★★

Our Alliances & Partnerships

- We are uniquely positioned to engage global business leaders and NGOs
- Cooperation with renowned international organizations
- Strategic alliances with leading companies & research institutions
- Analytics partnerships

UN GLOBAL COMPACT · wbcsd · WORLD ECONOMIC FORUM · GeSI

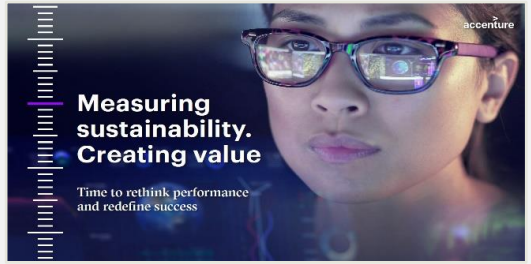
Accenture leads the thinking on Sustainability and Sustainable Value Chains

Selection

The Supply Chain is the Key to Winning the Fight Against Climate Change , 2021
This report highlight the role supply chains play a major both in the climate crisis and its solution. As per the Accenture CEO Study, nearly half of CEOs globally report they are grappling with supply chain disruptions due to extreme weather, and more than a quarter say that supply chain disruptions pose.

The Sustainable Last Mile | Accenture, 2021
Accenture modeled the impact of fulfilling 50% of e-commerce orders via micro-fulfilment centres, used to make "fast" deliveries, defined as same or next day. Model outputs included decreases in congestion and decreases in emissions (CO_2, NO_x and PM10).

Accenture CEO Study on Sustainability, 2021
The latest United Nations Global Compact – Accenture CEO Study on Sustainability offers a candid look at the perspectives of more than 1,230 CEOs across 113 countries and 21 industries. It outlines the urgent opportunities and challenges for business leaders to address now and in the future from the climate crisis.



Measuring sustainability. Creating value, 2022
Accenture analyzed responses from over 640 finance leaders in 12 industries and six countries to understand how companies can better measure, manage and report ESG performance to fully deliver on their sustainability commitments.

Delivering on the Promise of Sustainability, 2021
The report describes the scale of the challenges we face to rebuild for the better and outlines the opportunities for business to contribute to a more resilient and sustainable world. It serves as a guide for CEOs to identify paths to industry - specific reinvention and cross-sector collective action in the journey toward responsible business.

Reaching Net Zero by 2050 - Europe Research, 2021
New Accenture research shows that 9% of European companies have been able to cut their emissions in half over the past decade. But much more needs to be done. Our report outlines the state of the race to net zero and offers critical recommendations for companies that must up their pace to meet the deadline.

Green Cloud Areas

A. Sustainable Journey to Cloud

1. **Quantify sustainability value** (e.g. carbon reduction).

2. **Optimize** public, hybrid, and edge hardware and software **architecture** for more sustainable performance.

3. **Develop cloud-based sustainability use cases** that create value from new business, functional and customer enablement, e.g. cloud based blockchain solutions for sustainable procurement.

B. Sustainable Cloud and Business Operations

4. Optimize hybrid cloud and business operations with **circular economy principles** and application of systems-level thinking across facilities, network, compute.

5. Actively **manage public, hybrid, and edge workloads** to address rapid business growth and technology change.

6. Align **business and societal partners** on vision for ecosystem change and invest in opportunities for pre-competitive partnerships.

ESG: Environmental, Social, Governance; HW: Hardware; SW: Software

Sustainable Journey to Cloud:
Cloud Migration Value

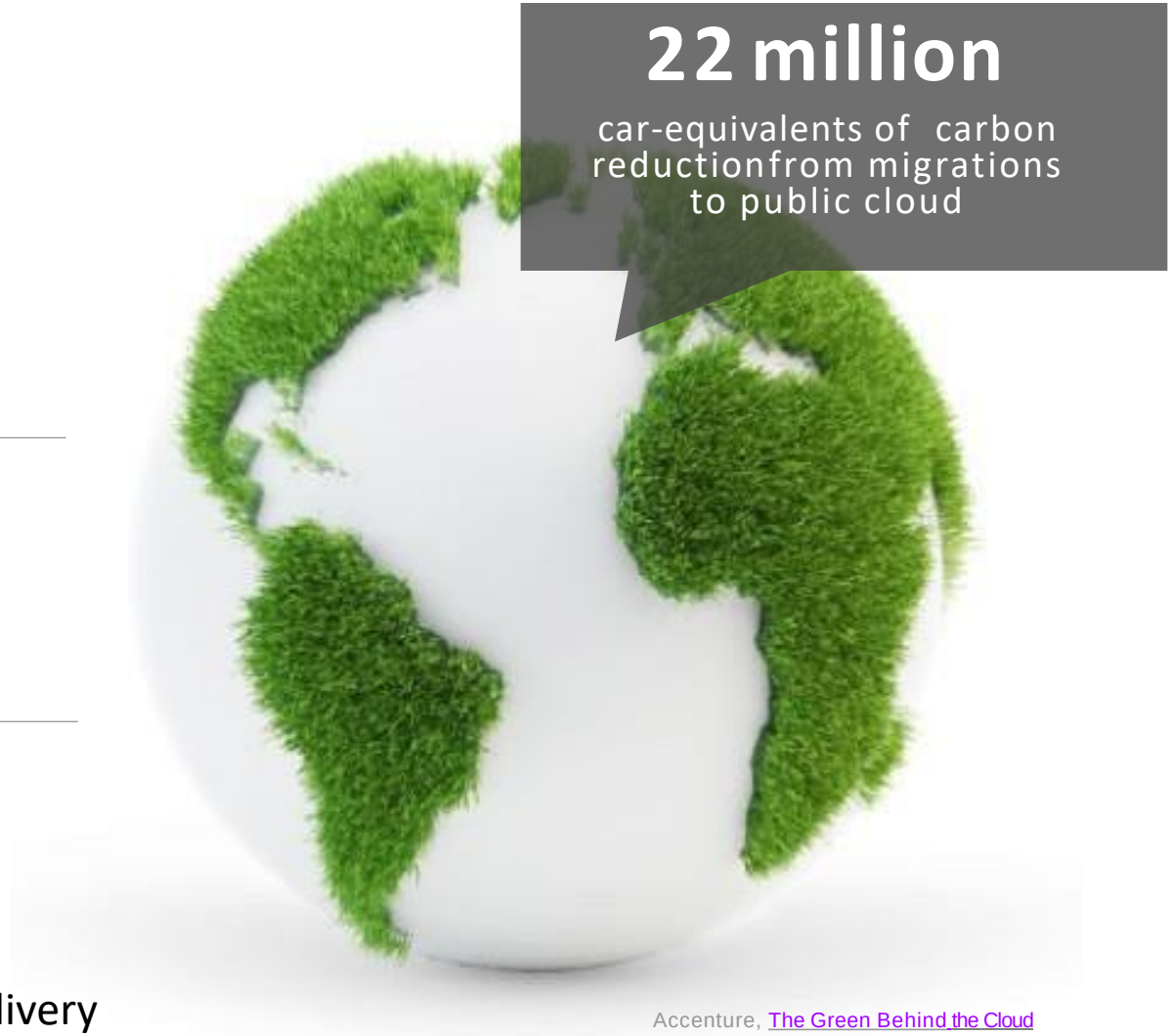
Eliminating direct greenhouse emissions by moving to the cloud

Shifting from on-premises to public cloud can **reduce carbon emissions by more than 84% and energy usage by 65%.**

Migrations to public cloud can **reduce CO^2 emissions by 59 million tons per year,** the same as taking 22 million cars off the road.

98% carbon reduction potential
from optimizing apps for cloud architecture.

Professionalized reuse and recycling of retired IT assets
Reduced emissions resulting from equipment and spare parts delivery



Accenture, The Green Behind the Cloud

Sustainable Cloud and Business Operations: Sustainable SCM

Supply chains are at the core of the climate solution

60%

of global emissions generated by supply chains[1]

The gap between ambition and action is increasing

63%

of CEOs call out the difficulty in measuring ESG data across the value chain as a barrier to achieving their sustainability in their industry[4]

Stakes for CEOs have never been higher

28%

increase in investor activism in 2021, with rising focus on ESG[2] theses[3]

Increasing regulation forces supply chain re-design

38x

The number of prevailing environmental regulations has increased 38-fold globally since 1972[7]

Consumers demand trustworthy products

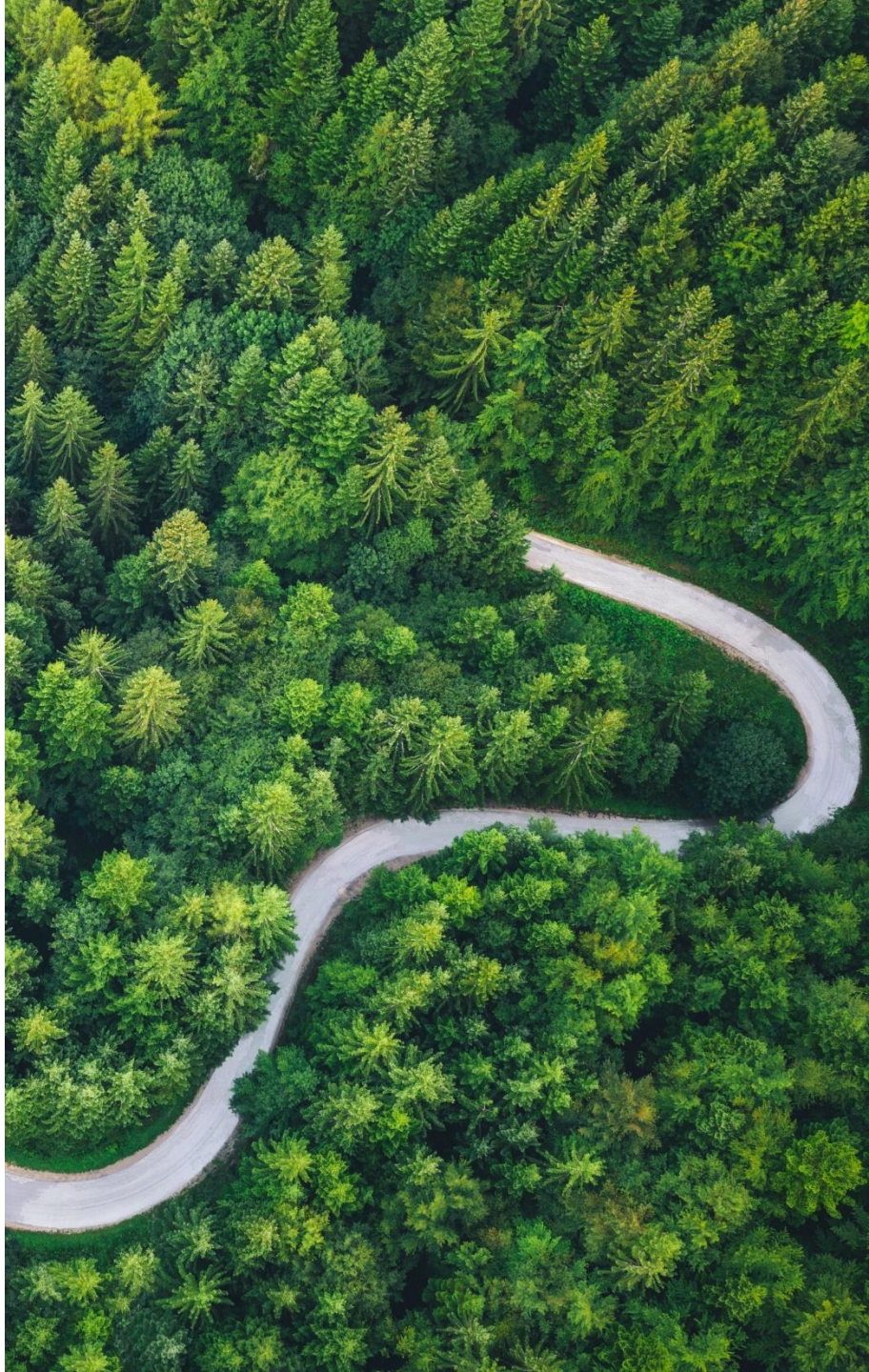
66%

of customers want companies to be transparent with where they source their materials, how they treat their employees, etc.[4]

The way ahead is unchartered

57%

of CEOs believe that they are working towards a 1.5°C temperature rise trajectory, yet only 2% have SBTi[8]-validated targets[5]



1. Accenture 2021: Link; 2. ESG – Environmental, Social & Governance 3. Sullivan & Cromwell 2021: Link; 4. Accenture, 2022: Link; 5. UNGC CEO Study, 2021: Link; 6.Accenture, 2018: Link; 7.UNEP, 2019: Link; 8.SBTi – Science Based Targets initiative

What if you could drive end-to-end visibility and sustainability outcomes across supply chain?

A sustainable value chain is balancing traditional and new value chain priorities

TRADITIONAL VALUE CHAIN OBJECTIVES

COST SAVINGS

Reduce Cost

Reduce spend and capital through product and service innovation and efficiency

TOP-LINE GROWTH

Increase Revenue

Deliver innovative and differentiated products and services

COMPLIANCE

Reduce Risks

Mitigate risks related to fraud, corruption, rogue spending, export controls, etc.

+

INTEGRATED SUSTAINABLE VALUE CHAIN OBJECTIVES

TRUSTED

Reduce Social Risk

Secure customer and employee trust, resilience, health and wellbeing

NET ZERO

Reduce Carbon Emissions

Achieve carbon neutral products, production & supply chains

CIRCULAR

Reduce Value Leakage

Drive resource efficient business models & ecosystems

But traditional supply chains are not designed to support the organization's sustainability ambitions

…understanding of sustainability impacts and KPIs

…end-to-end sustainability performance visibility, sustainability monitoring is done reactively

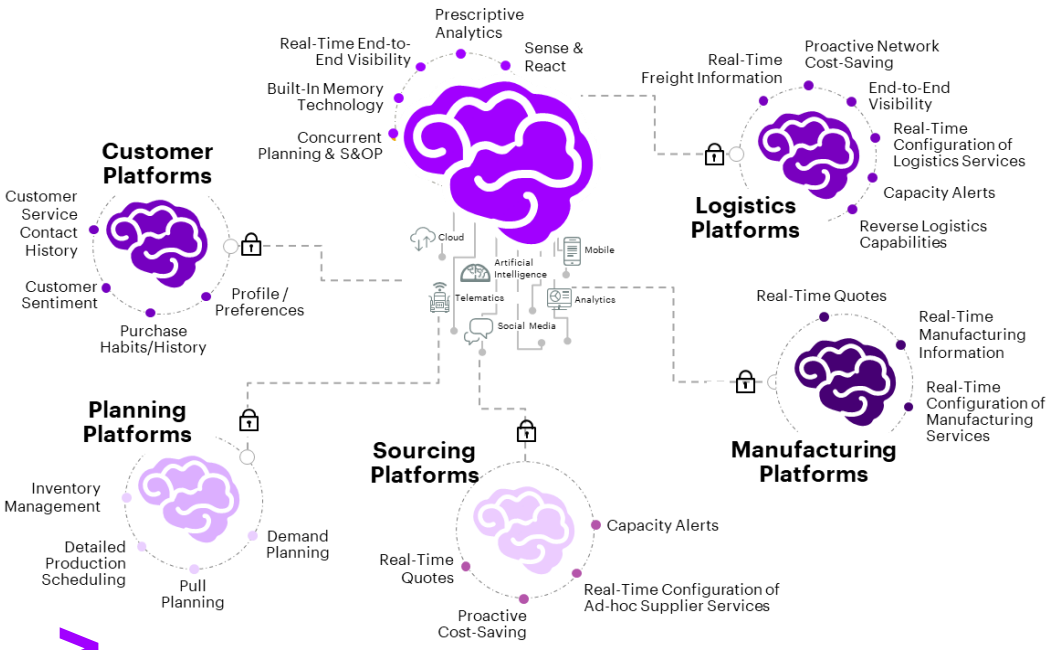
…sustainability impacts incorporation into supply chain planning, and hence no linkage to business outcomes

…data and analytics to predict risks, respond to disruptions and make better decisions

Sustainability Enhanced Supply Chain Control Tower for 360 Value

What?

SCCT combines end to end visibility across the integrated value chain (people, process, systems, and data) with an insight-driven decision-making capability to drive speed and optimization of results, enabling orchestration across supply chain functions, proactively and reactively as needed, to increase enterprise value, drive sustainability outcomes and to manage near-term disruptions.



Capabilities

EXECUTION
Seamless system integration: let's make it happen.

INTELLIGENT RESPONSE
What should I (or machine) do about it?

PREDICTIVE ALERTS
How's the Supply Chain performing & where are issues?

VISIBILITY
What is happening now, and where?

DATA INGESTION
Are we getting reliable and timely data?

Business Outcomes and 360 Value

Key financial benefits:

- ↓ Inventory (5-15%)
- ↓ Cost to serve (3-5%)
- ↓ Lost sales (5-7%)
- ↑ Org efficiency (5-10%)

Operational benefits:

- Transparency and collaboration
- Revenue uplift
- E2E optimization
- Agility and responsiveness

Sustainability benefits

- ↓ Carbon emissions (5-25%)
- ↓ Waste Reduction (up to 50%)

4 key building blocks to bring SCCT to life

1. Use-case driven capabilities

- Not just a “plug-and-play” technology solution
- Encompasses a set of capabilities that are combined to address use cases that create real business and sustainability outcomes for specific companies’ needs
- Structured to enhance multi-party collaboration

2. New ways of working

- New role definitions to resolve cross-functional and cross-entity tradeoffs and align execution as needed
- Leverage managed services partner with human+talent to operate the control tower
- Requires new customer-centric performance metrics that drive maximum benefit for the supply network

3. Flexible technology architecture

- Built on decoupled system architectures
- Enables to expand to additional entities and use cases

4. Robust data strategy and governance

- Harvest, ingest, and process structured and non-structured data, as well as internal and external data

A multi-year control tower journey starts with an MVP to build the foundation and add use-cases over time

ILLUSTRATIVE

CRAWL Get the basic capabilities needed to support overall supply chain monitoring.

What is my emissions baseline?

What are my Supplier ESG Scores?

Are social compliances fulfilled across supply chain?

Are Global Trade Compliance met?

Is there visibility of key ESG KPIs across supply chain?

WALK Provide incremental monitoring & exceptions management.

Where are my emissions hotspots in supply chain?

Which trade lanes contribute to maximum emissions?

How vulnerable is the supply chain for social risk factors? Where are the hotspots?

What is are the supplier ESG targets?

What is the water/waste intensity of supply chain?

Are the material/products traceable to the source?

RUN Enable a foundation for more advanced analytics including ability to optimize the network.

What is the emissions performance against emissions target?

Which products contribute to maximum returns and wastage?

What is the emissions forecast?

What is the supplier performance against ESG targets?

What are the alternate routes and modes of transport for low carbon transportation?

Key steps to drive SCCT end-to-end journey for clients – start with few use-cases as MVP, then scale and operate

	1. Define 'North Star Vision'	2. Evaluate & Prioritize	3. Design & Implement	4. Scale & Operate
Key activities	▌Identify existing sustainability pain points for supply chain ▌"As-is" assessment to gauge existing supply chain capabilities for sustainability ▌Map existing reporting mechanisms / metrics ▌Identify the gaps in existing supply chain sustainability capabilities ▌Define Control Tower vision and North Star narrative, and roadmap ▌Identify requirements to attain desired capabilities	▌Evaluate value chain and relevant metrics that should be incorporated into the control tower ▌Define metric definitions, scope, and success criteria for desired capabilities ▌Develop high-level value case for desired capabilities and prioritize ▌Evaluate technology landscape and fit / gap analysis ▌Pick the pilot use-cases to start with ▌Build detailed value case for pilot use-cases	▌Identify key data needs and data sources ▌Generate architectural design based on identified use-cases ▌Identify action owners ▌Identify MVP dashboards and network views for approval ▌Define process and operating model changes to enable the capability ▌Identify new roles needed or new skills ▌Design, build, test, and deploy MVP	▌Scale Control Tower to additional capabilities & regions ▌Stabilize Control Tower operations ▌Develop business case for managed services ▌Accenture operates Control Tower as a managed service ▌Track performance to ensure realization of business case
Outputs	▌"As-is" assessment and gap analysis ▌SCCT North Star and roadmap ▌Desired capabilities	▌Metrics definition, scope and success criteria ▌Technology evaluation ▌Value case for desired capabilities	▌SCCT architectural design ▌Process and operating model ▌MVP deployed	▌SCCT scaled for additional capabilities ▌Business case for managed services and realization of business case

Accenture's advantages in supporting our clients is in our people, partners and capabilities

Accenture expertise

- End-to-end capabilities from design to consumption
- 40k+ Sustainability and Supply Chain practitioners globally
- +25 Ecosystem partnerships
- +$500B in Sourcing capacity
- 350+ sustainability engagements in the past 24 months
- Multiple Fortune 500 and FTSE 100 client engagements supporting sustainable value chain transformation

Ecosystem of partners

Market recognition

- Recognized as a leader in supply chain and digital business transformation
- Top rated sustainability practice, ranked #1 by Financial Times, 2020
- Ranked #4 Top 10 Global Champions for Supplier Diversity and Inclusion 2021

Thank you!

Based on typical sustainability pain points, we have developed sustainability use cases repository

	PLAN	SOURCE		MANUFACTURING	FULFILL			SERVICE	
	Demand & Supply Planning	Sourcing & Procurement	Inbound Logistics /Raw Material Inventory	Manufacturing	Warehousing / Inventory Management	Outbound Logistics / Transportation	Customer Order Fulfillment	Returns / Reverse Logistics	Service
Execution	• Connected and optimized supply response planning to account for sustainability KPIs	• Red-flag/drop suppliers based on ESG scores • Monitor supplier Improvement Plans • Choose alternate supplier meeting ESG criteria	• Re-route with lowest possible emissions • Fleet maintenance execution • Issue PO with alternate supplier complying with traceability requirements	• PO creation of alternative material • GHG optimization for various assets • Monitory GHG emission compliance	• Monitor impact of steps to reduce consumption • Choose better suppliers based on sustainability scores • Operator training and skills upgrade	• Create new shipment with alternate carrier • Automatic re-routing with lowest emissions impact • Carrier investigation on delays/ESG incidents	• Sustainability se mentation driven order prioritization for reduced wastage	• Real time configuration of bi-directional returns activities (e.g. replacement, repair, etc.) based on sustainability objectives and segmentation	• Service level management • On site/location maintenance • Call center management
Intelligent Response	• Product/demand/supply segmentation, based on sustainability KPIs • Scenario modeling for sustainability risk mgmt. • Planning response to avoid demand spikes impact on sustainability KPIs	• Supplier ESG scores/performance considered for selecting supplier or taking corrective actions • Supplier Improvement Plans	• Alternate route with lowest possible emissions • Fleet maintenance analysis • Variance analysis on PO and materials receipt for traceability	• Alternate material recommendation based on sustainability scores • Scenario simulation for modern labor issues • GHG emission RCA and simulations	• Automated suggestions on reducing energy, water, carbon consumption • Alternate materials and energy recommendation based on sustainability scores	• Alternate carrier sourcing with best possible/acceptable ESG score • Alternate fulfillment modelling with lowest emissions/ESG impact	• Variance analysis • Damages/Wastage analysis	• Segmentation of returns inventory, based circularity potential and disposition • E2E intelligent response / routing of returns / repair processing centers	• Warranty services • Corrective maintenance activities & remote resolution
Predictive Alerts	• Prediction of supply chain sustainability risk • Forecast accuracy / overordering alerts and potential sustainability impact (env./emissions footprint) • Demand spike over forecast and potential sustainability impact (eg, overtime hours)	• Alerts on supplier non-compliance / negative media reports • Alerts on change in Supplier ESG risks	• Route congestion / delay alerts • Fleet maintenance alerts • Alerts on materials receipt without traceability	• Predictive alerts for Social and env KPIs • Emission forecasts • GHG twins	• Predict alerts for consumpti on of energy, water • Alert for packaging usage • Maintenance alerts for MHE at DC • Alerts for necessary skills training	• Simulation of carbon emissions at shipment level • Route congestion / delay alerts • DC/Dock capacity alerts • Fleet maintenance alerts • Global Trade Compliance	• Forecast vs. orders vs. actuals alerts • Damages/Wastage alerts	• Returns environmental/emission footprint projection • Reasons for return • Alerts on returns inventory that are diverted to landfill • Partner channel capacity for disposition (recycle, repair etc.)	• Customer ticket requests management • Equipment failure prediction models • Spare parts forecasting
Visibility	• Supply chain sustainability risk overview – supplier/product/geographical level • Product level environmental/emisisons KPIs	• Supplier ESG Score Visibility • Supplier ESG targets and performance visibility	• Carbon emissions visibility of inbound shipment • Safety incidents / delays visibility • Materials visibility for traceability	• Production visibility own plant • Production visibility co-man and CM • GHG Inventorization accounting and visibility at asset level	• Energy/Water consumption/Carbon footpri nt • Waste Management / use of green material for packaging • MHE health monitoring • Safety monitoring	• Carrier carbon emissions visibility • Safety incidents / delays visibility • Rest times and shipment compliance visibility	• Sales of sustainable labelled products • Products damage/wastage	• E2E visibility to customer returns inventory status • Environmental/emissions footprint of the returns inventory • Returns transport emissions footprint	• Replacement parts availability • Customer ticket detail • Real time service level measurement

DATA INGESTION & INTEGRITY

SAMPLE Use Case List – Non-Exhaustive