Creating positive impact in Supply Chains with the help of Blockchain Technology

EUBOF Panel Keynote

Joerg Walden, iPoint-systems

Generational transformation

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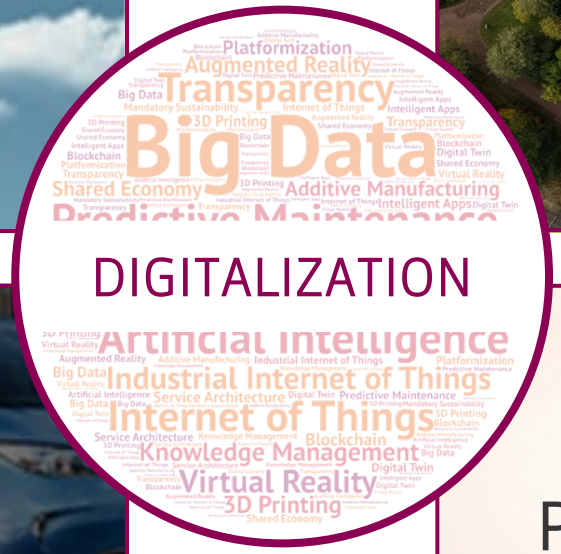

Sustainable Materials

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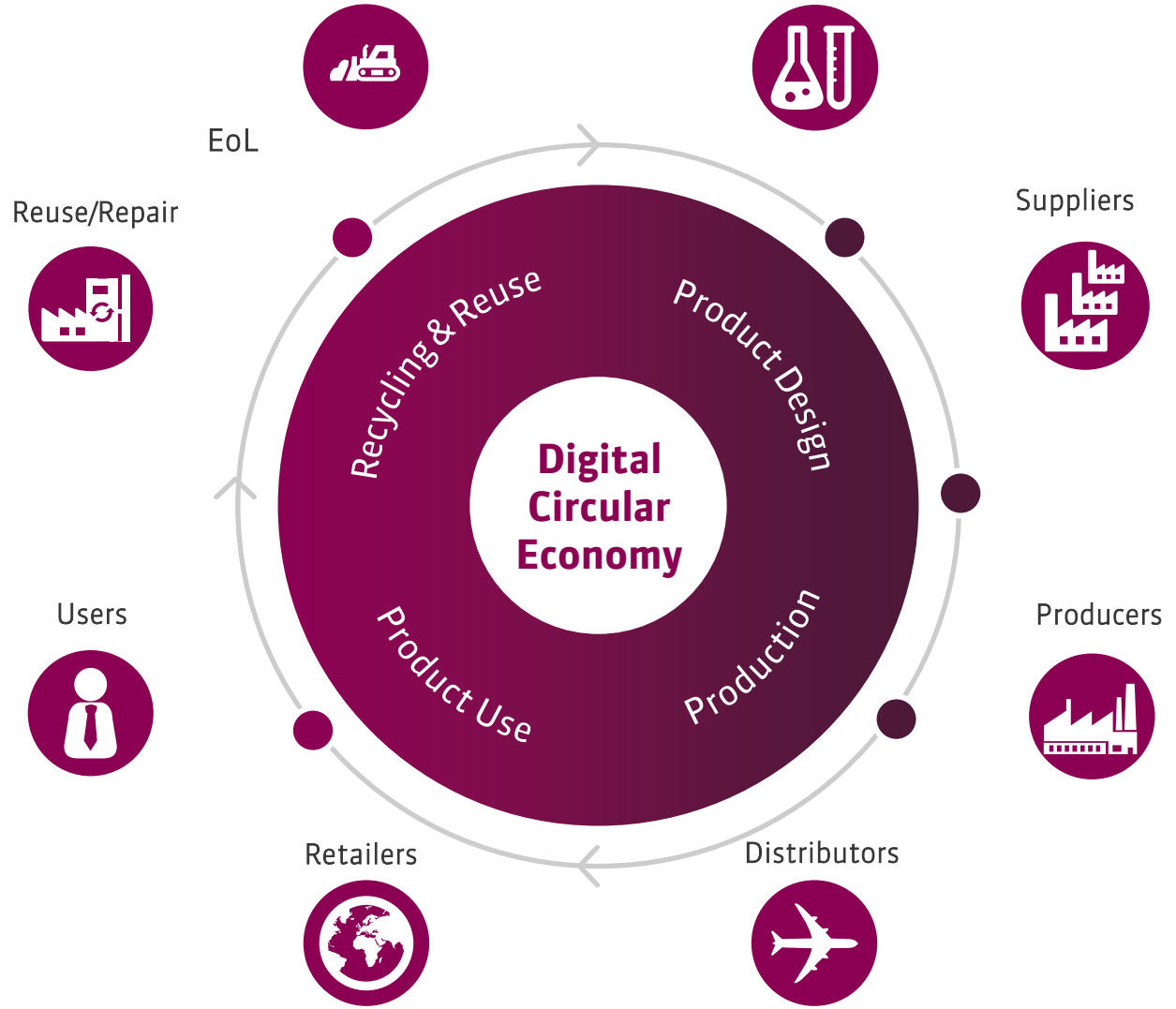
Sustainable Recycling

Sustainable Supply Chain



Sustainable Use

Sustainable Manufacturing

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The impact of supply chains is massive

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Greenhouse gas emissions comprise three scopes:

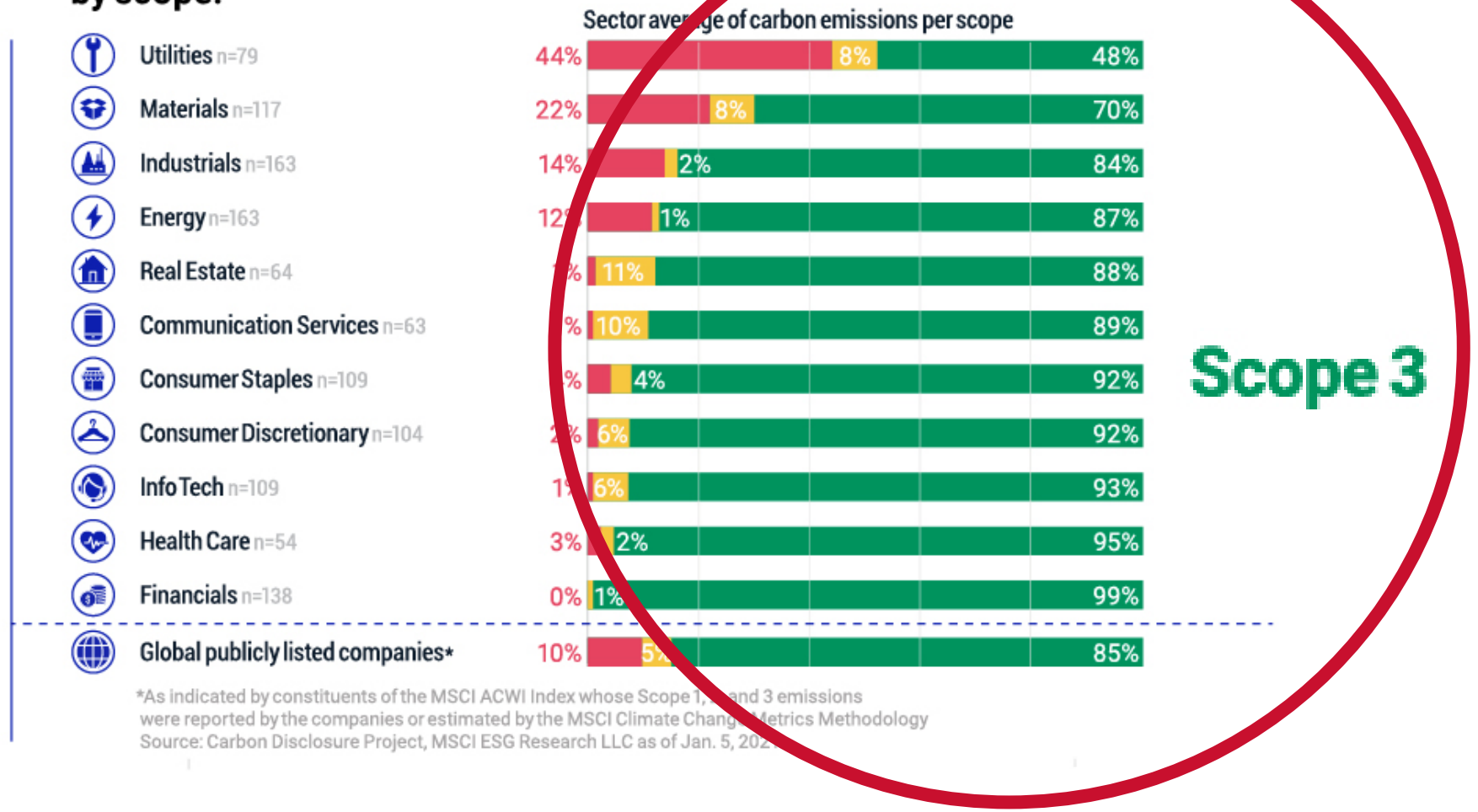
Scope 1
Direct emissions

Scope 2
Indirect emissions from purchased energy

Scope 3
Value-chain emissions, both upstream (supply chain) and downstream (use of a company's products)

Sector emissions by scope:

Scope 3 emissions dominate most companies' carbon footprints



*As indicated by constituents of the MSCI ACWI Index whose Scope 1, and 3 emissions were reported by the companies or estimated by the MSCI Climate Chang Metrics Methodology
Source: Carbon Disclosure Project, MSCI ESG Research LLC as of Jan. 5, 202

Globally, it is an “information & coordination” problem

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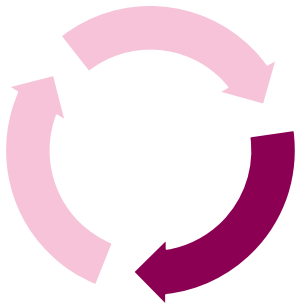
Material Flow

RAW MATERIALS

Only a small portion of information is shared upstream.

Most information is lost by the time the raw materials are turned into a product.

Material Flow

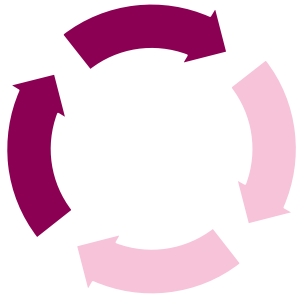


SUPPLY CHAIN

Current “1- up / 1-down” visibility can’t support today’s data requirements.

Only a handful of mandatory data points are shared end-to-end.

Material Flow

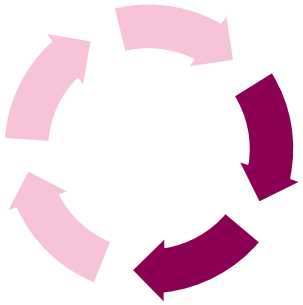


MANUFACTURING

Price & specification data isn’t enough to make better material & design decisions.

Due diligence, compliance, and sustainability processes are extremely complex & time consuming. High Risk!

Material Flow

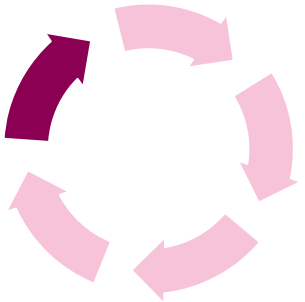


USE/REUSE

Use-stage data is essential for re-use, repair & recycling, as well as design decisions.

Critical information is lost before product reaches its end-of-life.

Material Flow



RECYCLING/RECOVERY

Unknown presence of toxic substances puts the quality of recycled materials at risk.

Unknown value of “waste” makes recycling markets difficult to establish.

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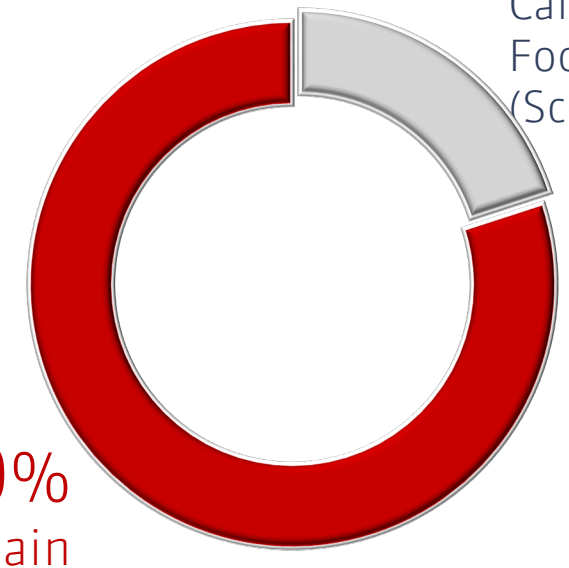
CarbonBlock

Accounting for real primary carbon footprint of supply chains

The Challenge

Product Carbon Footprint



20%
Company Carbon Footprint (Scope 1+2)

80%
Supply chain emissions (Scope 3)

Lack of calculation standards

Lack of data exchange standards

Primary emission data from supply chain not available

No levers to reduce Scope 3

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How it works

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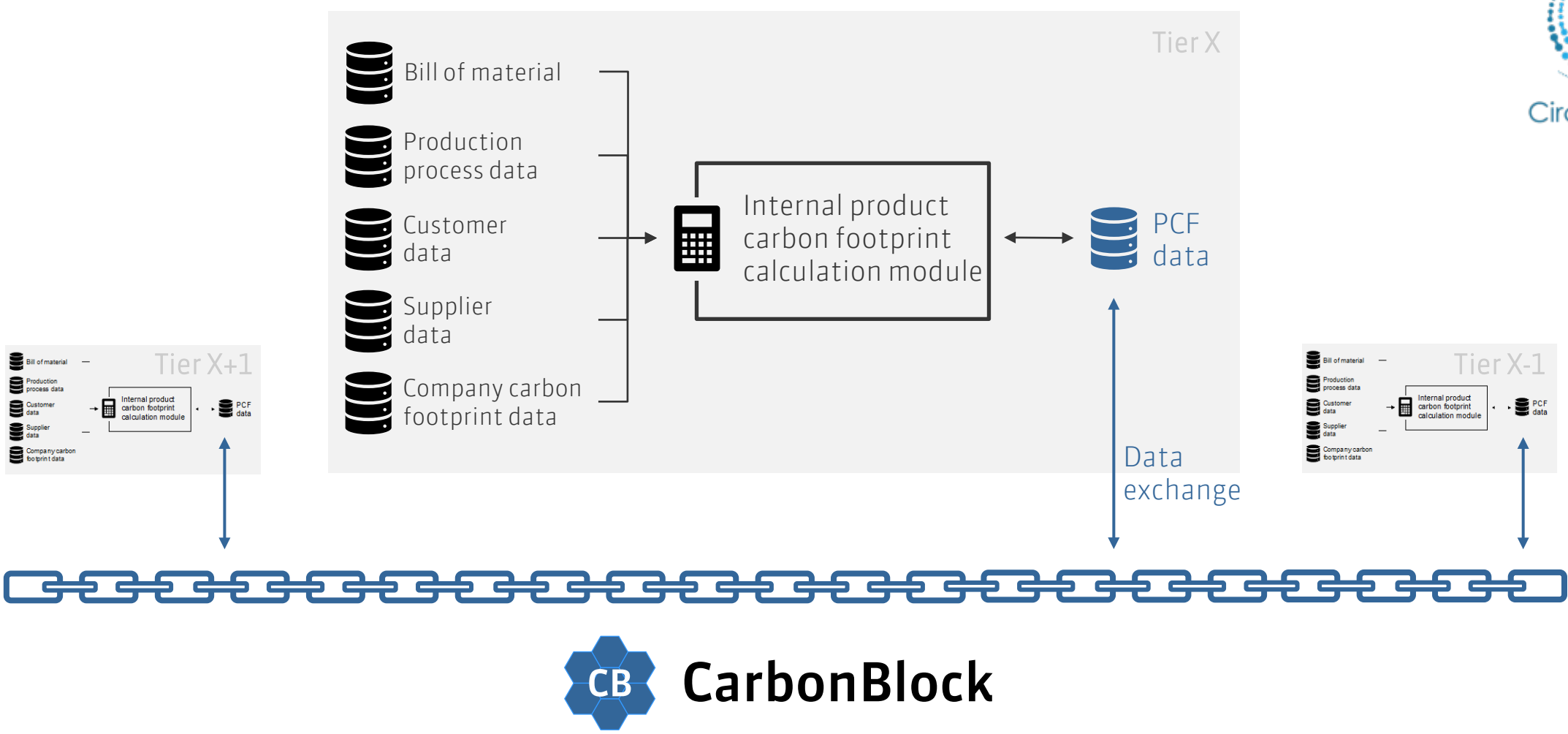

CB CarbonBlock

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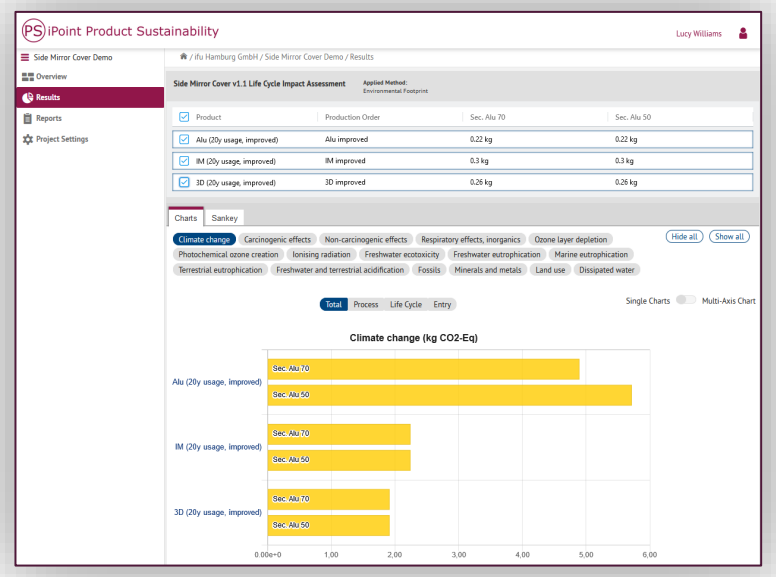
How it works



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BASF
We create chemistry

motherson

PORSCHE

PCF
Granulate

PCF
Bumper

PCF
Porsche

CB CarbonBlock

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CarbonBlock Ecosystem

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wbcsd

Solution providers

CircularTree

iPoint

SAP

IBM

Supply chain actors

Aptar

BAYER

Nestlé

HONDA

Unilever

SOLVAY

Shell

DOW

Colgate

Givaudan

BASF
We create chemistry

Chevron

DANONE
ONE PLANET. ONE HEALTH

Methodology
Building a consistent methodology that enables generation of comparable, verified product-level primary emissions data

Technology / interoperability
Developing open technology standards that allow for secure data exchange across different technology solutions

Ecosystem
Reaching a wide ecosystem – piloting in the Fast-Moving Consumer Goods sector and scaling to multiple industry value chain

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SustainBlock

Blockchain-based supply chain accountability, traceability and data reporting system

SustainBlock

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SustainBlock is a platform for supply chain accountability, traceability and data reporting.

It enables supply chain participants to:

- demonstrate supply chain accountability from (ASM) mine sites all the way to mineral and metal end-users, and in turn
- provide downstream companies with access to information on the provenance of minerals contained in their products;
- unlock value from upstream due diligence data and generate incentives for responsible procurement of minerals from CAHRAs, in compliance with the OECD Due Diligence Guidance.

SustainBlock pilot involves a Tungsten mineral supply chain starting in the African Great Lakes Region.

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betterchain

CircularTree

European Partnership for Responsible Minerals

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SustainBlock

betterchain

CircularTree

European Partnership for Responsible Minerals

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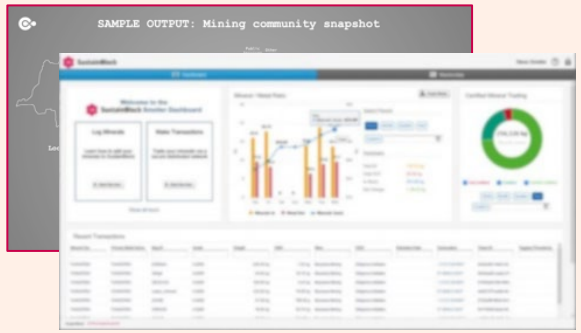
"Blockchain-based supply chain accountability, traceability and data reporting system"

Upstream Mineral Supply Chain | Smelter | Downstream Metal Supply Chain

Blockchain-verified Supply Chain

Mining | LocalTrader | Exporter | International Trader | Smelter | Trader | Manufacturer | Final Product



Monitor SustainBlock footprint at each supply chain step – Mass Balance?

Measure & rank Impact

90% | 60% | 60%

of verified SustainBlock Sustainable Metal
(Traceability based on Mass Balance)

Blockchain of Custody

Access to relevant upstream due diligence impact data

Remuneration of due diligence data incentivizing local best practices

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Diverse and impactful ecosystems are forming around blockchain technology

Ecosystems are forming

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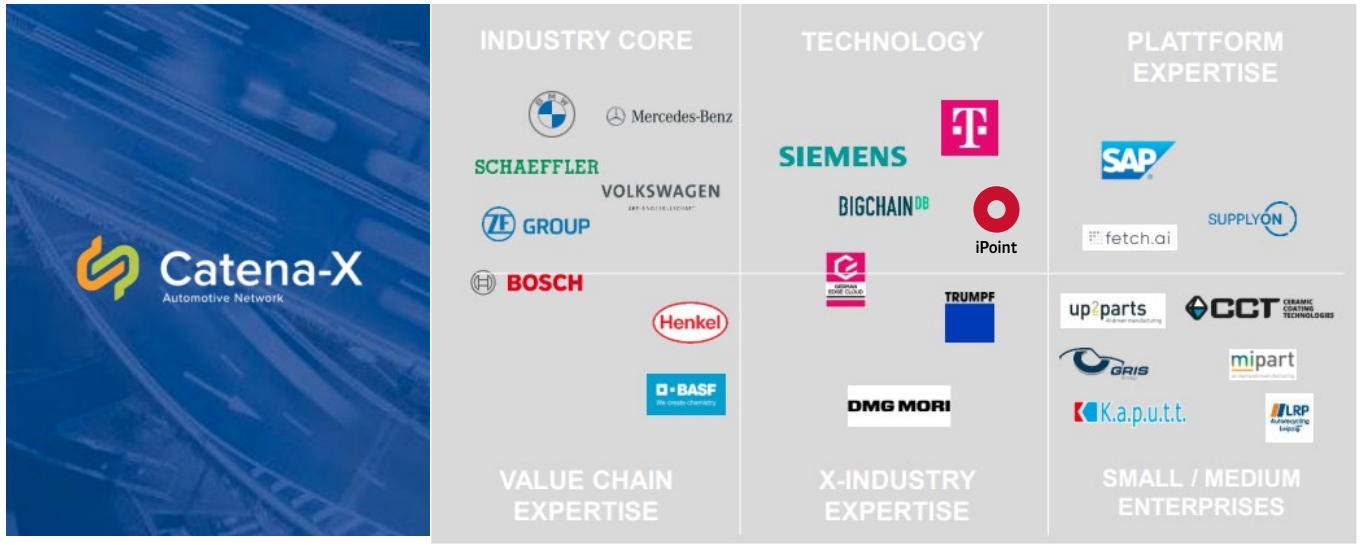

wbcsd
Pathfinder

Solution providers

CircularTree
iPoint
SAP
IBM

Supply chain actors

Aptar
HONDA
BAYER
Nestlé
Unilever
SOLVAY
DOW
Colgate
Givaudan
BASF
We create chemistry
Chevron
DANONE

MOBI
Board of partners

achmea
MS&AD Aioi Nissay Dowa Insurance
BMW
BOSCH
CarBlock
dashride
Ford
GM
GROUPE RENAULT
MOVE co
RIDE AUSTIN
SHIFT
ZF
CARVERTICAL
DENSO Crafting the Core
EVELOZCITY
Faraday Future
飛馳鎂物 FutureMove Automotive
TESLOOP

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Building a digital circular economy

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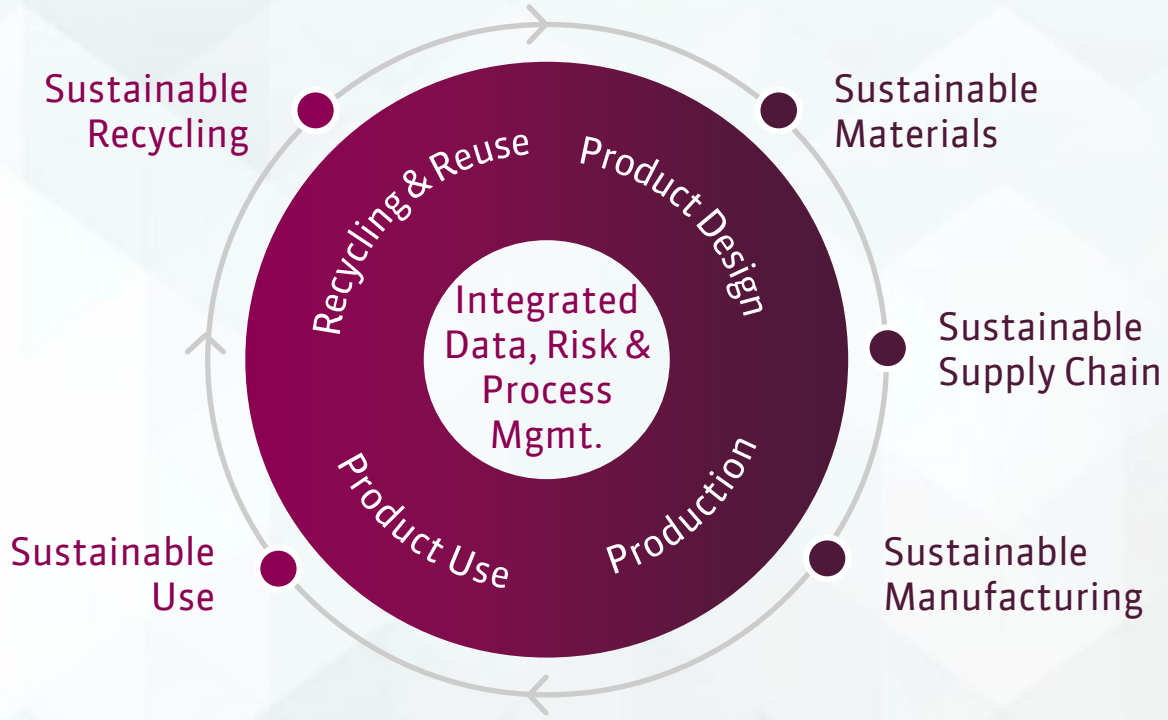

Our Purpose

Advancing digitalization for sustainable change.

Our Vision

To be the best partner for fully digitalized life cycles of truly sustainable products.

Our Mission

To accelerate the transition to the circular economy.

2001	14	170+	250	70,000	ISO
20+ years experience in compliance and sustainability	locations worldwide	employees and growing	global manufacturers among customers	users from 100+ countries	ISO 9001:2015 and ISO/IEC 27001:2013; more than 30 awards

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Thank you !

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