The Journey to PCF- and LCA-Automation for complex products and production systems

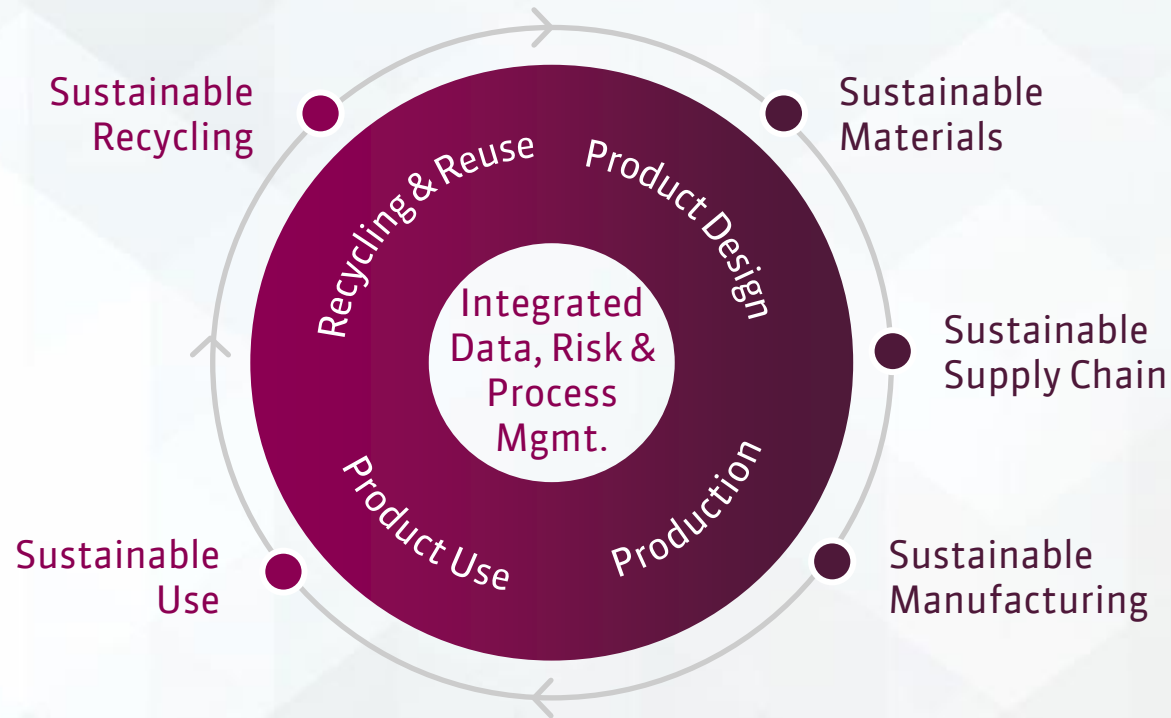June 7th, 2023 | LCA-Discussion-Forum| Martina Prox

iPoint

iPoint-systems
Building a digital decarbonized circular economy

iPoint

Sustainable Recycling

Sustainable Materials

Recycling & Reuse

Product Design

Integrated Data, Risk & Process Mgmt.

Sustainable Supply Chain

Product Use

Production

Sustainable Use

Sustainable Manufacturing

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

iPoint develops software for…

Compliance, Sustainability, Circularity and Risk Management

iPoint's customers (selection)
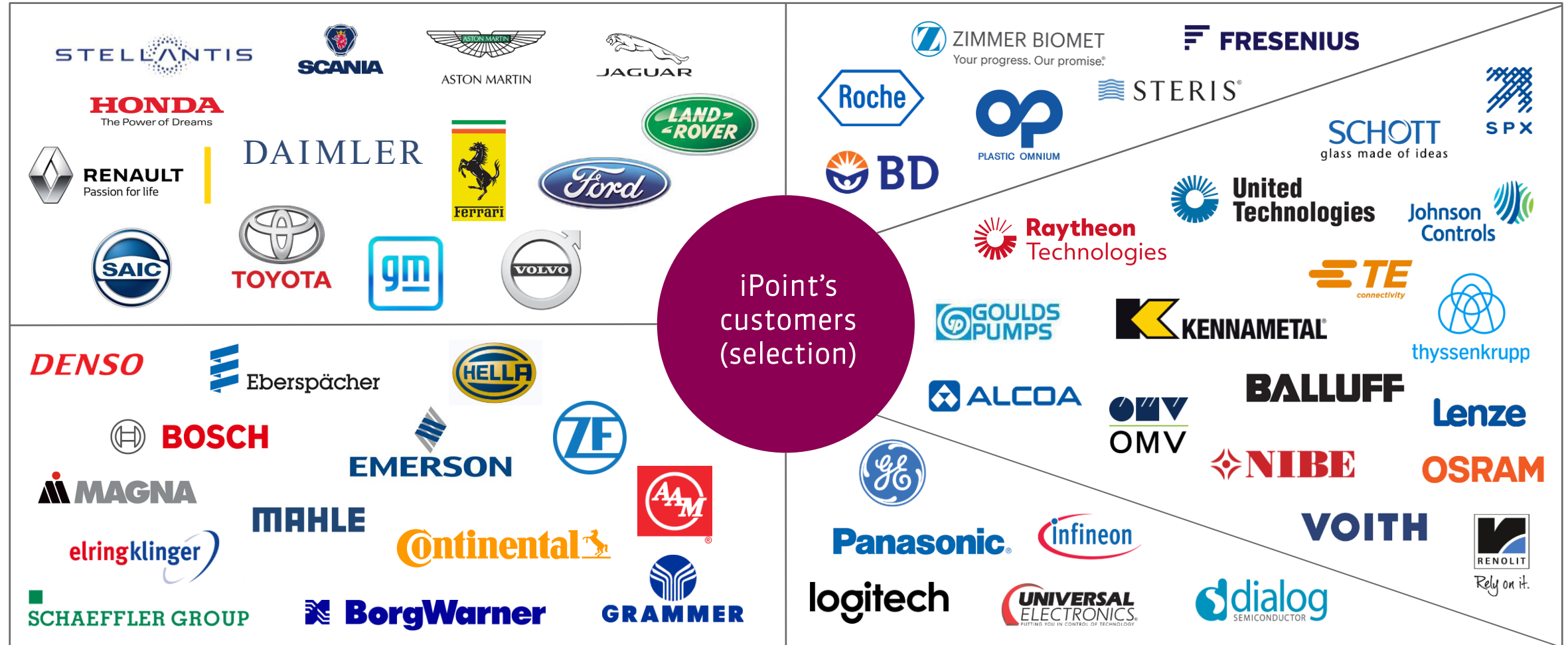
Carbon Reduction/NetZero Commitments
Sustainability Target #1 „Net Zero" by 2050, 2035, 2040 …

13 CLIMATE ACTION

iPoint

FORD MEDIA CENTER

Building a Better World – Ford Announces Steps Towards Carbon Neutrality, Sets Significant Emissions Goals for 2035

Microsoft will be carbon negative by 2030

Jan 16, 2020 | Brad Smith - President & Vice Chair

Carbon negative by 2030

Remove our historical carbon emissions by 2050

$1 billion climate innovation fund

Global

BASF We create chemistry

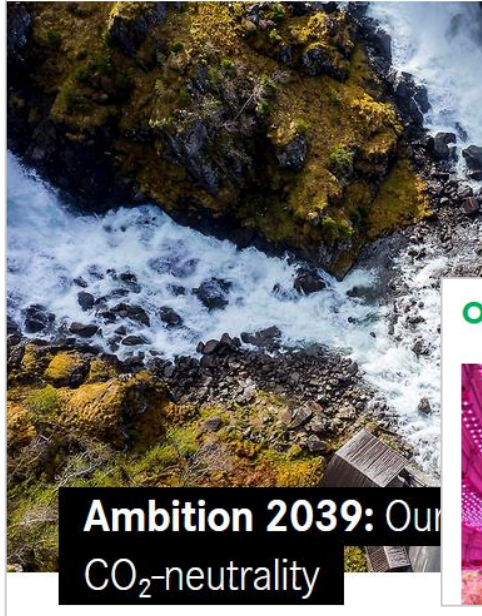BUSINESS & FINANCIAL NEWS | March 26, 2021

Media

BASF presents roadmap to climate neutrality

DAIMLER

SUSTAINABILITY — CLIMATE / RESOURCES / CITIES / SAFETY / DATA / HUMAN RIGHTS / BASICS

VOLKSWAGEN
AKTIENGESELLSCHAFT

GROUP   BRANDS & MODELS   SUSTAINABILITY   INVESTOR REL

zero CO₂

Magna commits to carbon neutrality in global operations by 2030

Magna enters a new era in the company's sustainability journey with its announcement to achieve carbon neutrality in its operations by 2025 in Europe and by 2030 globally

April 22,

PRESS RELEASE
October 27, 2021

Apple charges forward to 2030 carbon neutral goal, adding 9 gigawatts of clean power and doubling supplier

bally by 2050[1]

O₂ emissions already by 2030

ed by 2030

s goals on its journey to climate

emissions by 2050. Based on the most

Osram commits to becoming climate ne

Osram inte
ten years.
fully awar
We have s
by 2030 a
society," s
Starting in
reduce its
to achievin

Protect the climate

As part of our action plan to put us on a
neutrality by 2050, we are committed to
and advancing technologies to manufac
products using less resources.

Our target

By 2030, Dow will reduce its net annual carbon
emissions by 5 million metric tons versus its 2020
baseline (15% reduction). By 2050, Dow intends t
carbon neutral (Scopes 1+2+3 plus product bene

Philips wants its suppliers to get serious about climate change

Companies

Philips Says It is Carbon-Neutral Now

Published on: 10 June 2022

Ambition 2039: Our CO₂-neutrality

explains the measures the company is taking to achieve this.

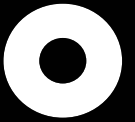targets to reduce carbon dioxide emissions by 2025.

The health technology company said yesterday that the
initiative would be seven times more impactful than Philips'
own carbon dioxide emission reductions.

"Over the last few years, we have made major progress in
reducing our own greenhouse gas emissions. We have been carbon neutral in our operations since 2020

PHILIPS

Climate Change Impact - the #1 KPI
Challenges to address Product Carbon Footprints at Scale

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Lack of Experts

Pressure from Stakeholders

Manual Effort

Time Consuming

Limited immediate Benefits

Complex Products & Supply Chains

Several Industry Standards

Lack of product specific Data

Initiatives and Activities – Aiming to Scale PCF
,PCF Rulebooks', Exchange Formats, Digital Infrastructure

iPoint

Carbon footprint rules

A uniform methodology that specifies existing standards and procedures is needed to record and compare carbon data. Catena-X describes this in a carbon-specific set of rules, the "Catena-X Product Carbon Footprint Rulebook."

Catena-X Automotive Network

wbcsd Pathfinder

Home / Climate & Energy / Climate / SOS 1.5 / Resources

Value Chain Carbon Transparency Pathfinder: Enabling decarbonization through Scope 3 emissions transparency

TOGETHER FOR SUSTAINABILITY

Launch of Greenhouse Gas Rulebook

PRESS RELEASES

5th October 2022

Global Battery Alliance launches Greenhouse Gas Rulebook for Battery Passport

GLOBAL BATTERY ALLIANCE
BATTERIES POWERING SUSTAINABLE DEVELOPMENT

Press release: New Expert Guideline enables chemical sector to tackle Scope 3 emissions

September 22, 2022 — Maria de Rycke — News Articles, Press Release

Together for Sustainability launches the open-source PCF Guideline, a new global guidance for calculating Product Carbon Footprints (PCFs) in the chemical industry and beyond.

Workflow iPoint Product Sustainability

Combining Compliance & Sustainability

iPoint

Collect

Supply Chain primary data

Output

Workflow automated LCAs/PCFs with Supply Chain

iPoint
Product Sustainability

iPoint

Collect	Analyse	Report & Evolve

Collect

Data Sources

CAD
Material Weight

ERP
Part Lists Material Weight

LCA Data
ecoinvent, CarbonMinds, other …

.xls, .csv, .xml
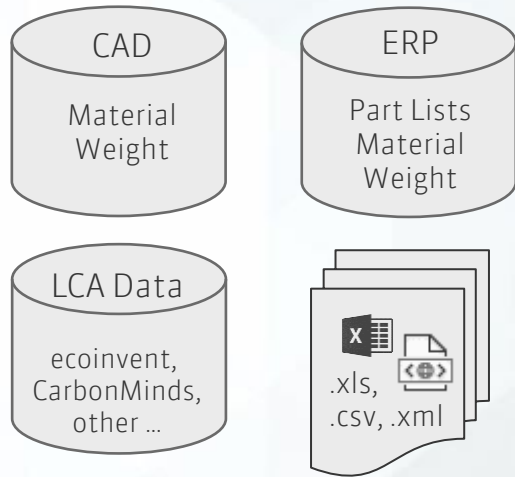
Supply Chain
Primary Data collection

Catena-X
Automotive Network

wbcsd
Pathfinder

TOGETHER FOR SUSTAINABILITY

Analyse

iPoint
Product Sustainability

Basic Cloud System

BOM

LCA Results

Mapping Library

LCA Data

Calculation

Model Repository

PCR validated LCA models

Material

API

Desktop

umberto®
know the flow.

Report & Evolve

Web Application

Engineering User

iPoint
Product Sustainability

LCA Expert

iPoint
Product Sustainability

API

Auto-verified PCF

Catena-X
Automotive Network

wbcsd
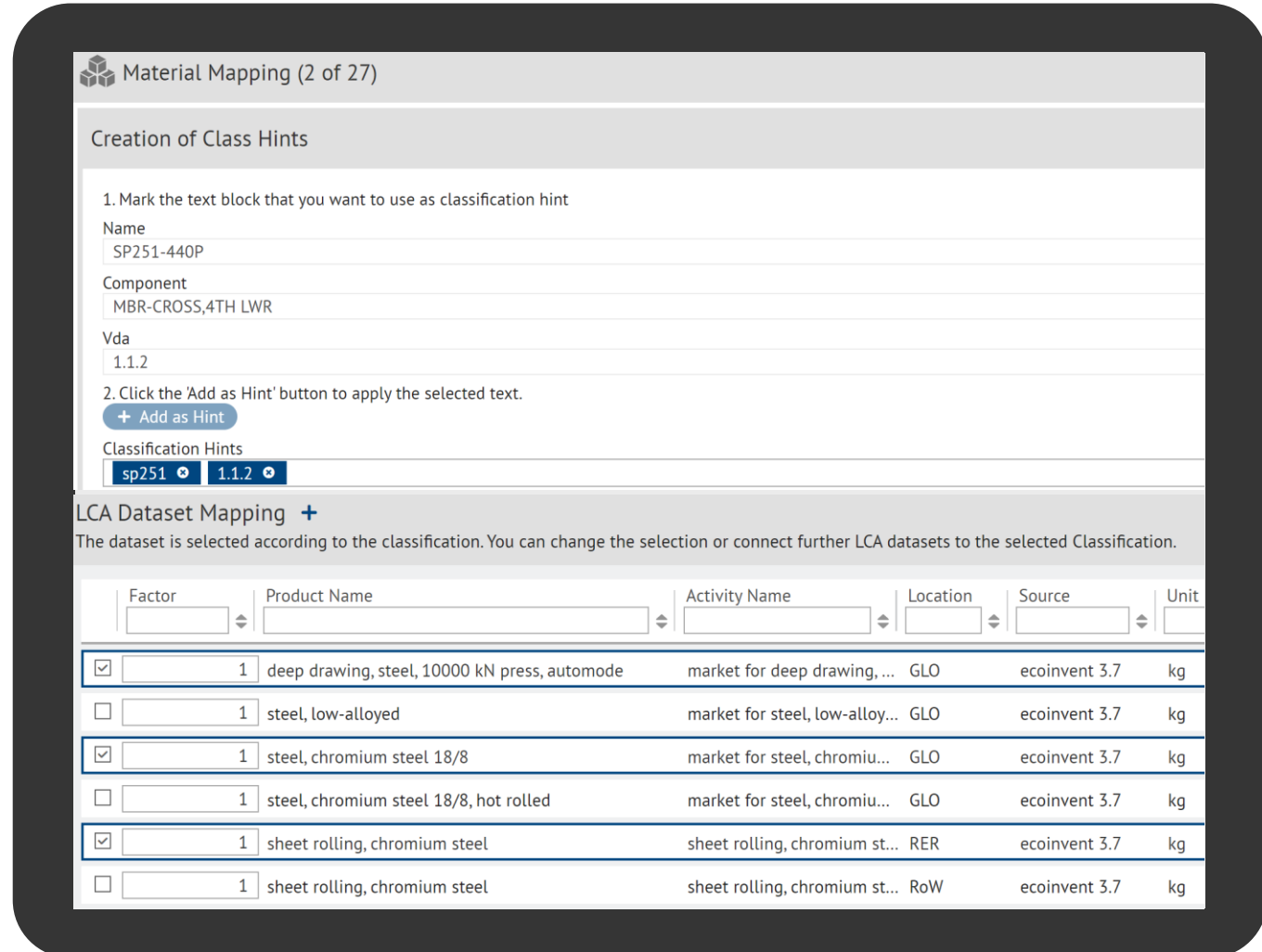Pathfinder

TOGETHER FOR SUSTAINABILITY
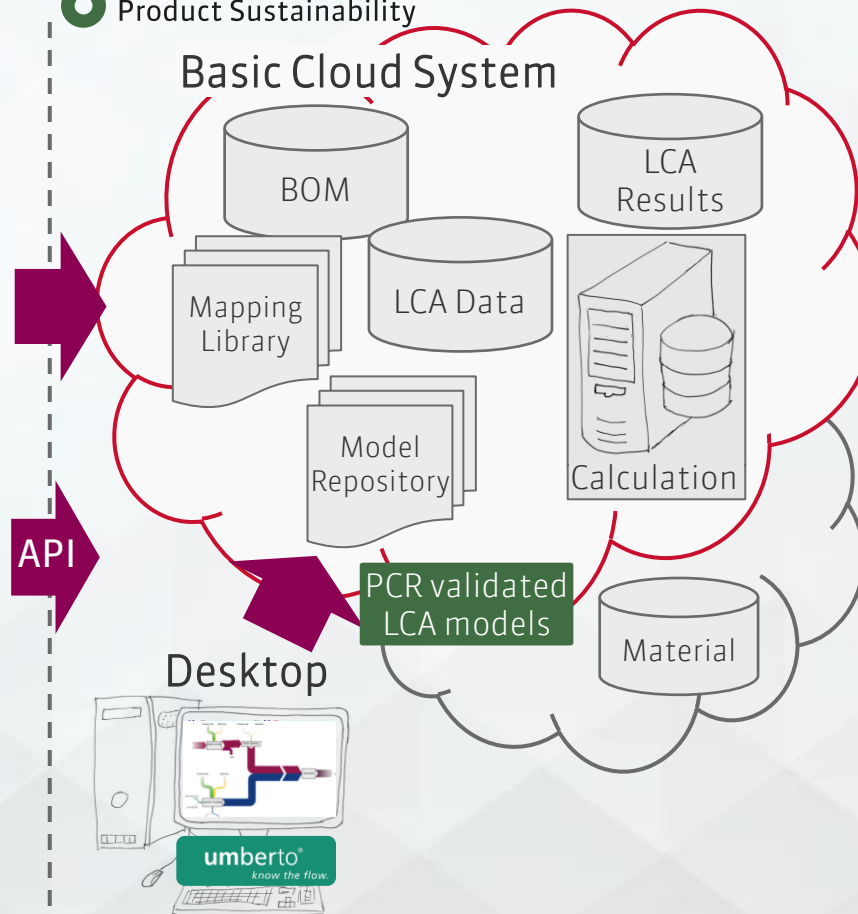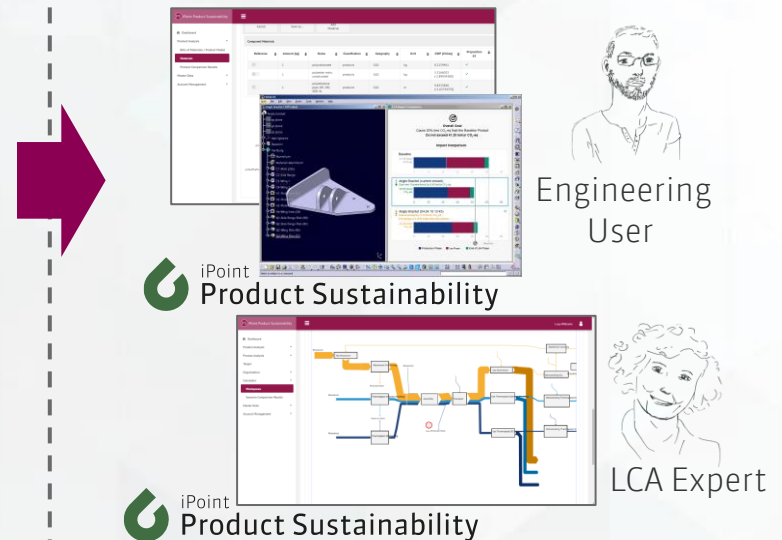
Automation of Life Cycle Assessments / PCFs

Mapping materials to LCA datasets

- Smart Mapping

- Machine learning system

- Import of BOM information

- Selection/confirmation of LCA datasets

- 80% of materials can typically be mapped automatically

Automation of Life Cycle Assessments

Based on Generic Modelling
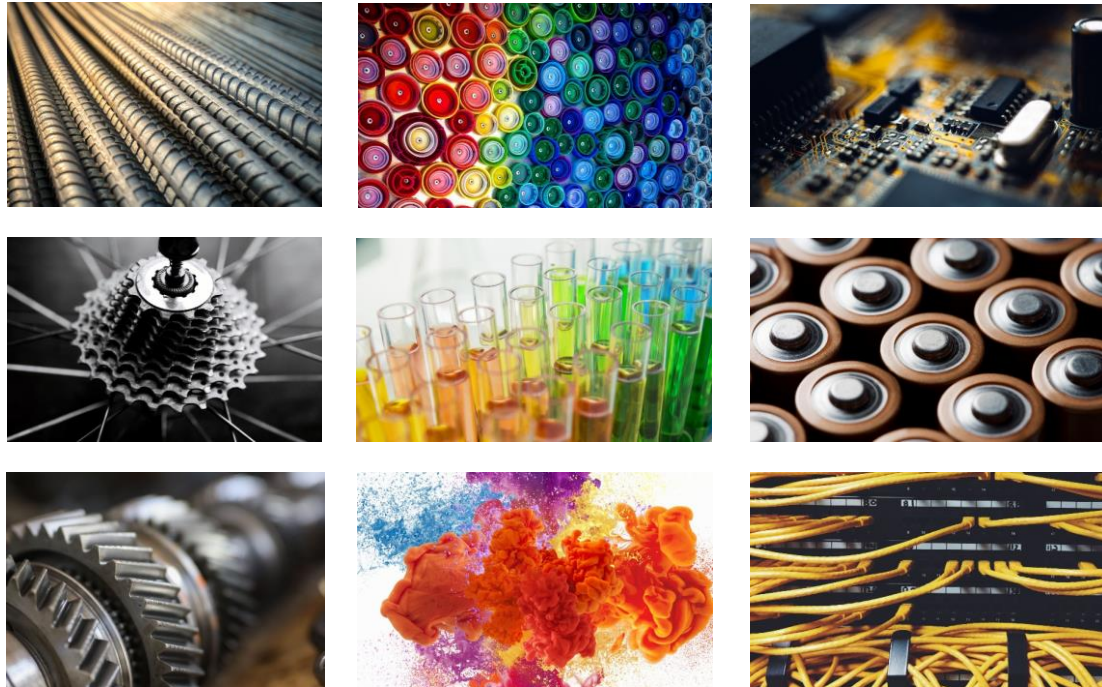
iPoint

Product specific models
1 model → 1 product

Generic Modelling
1 model → n products
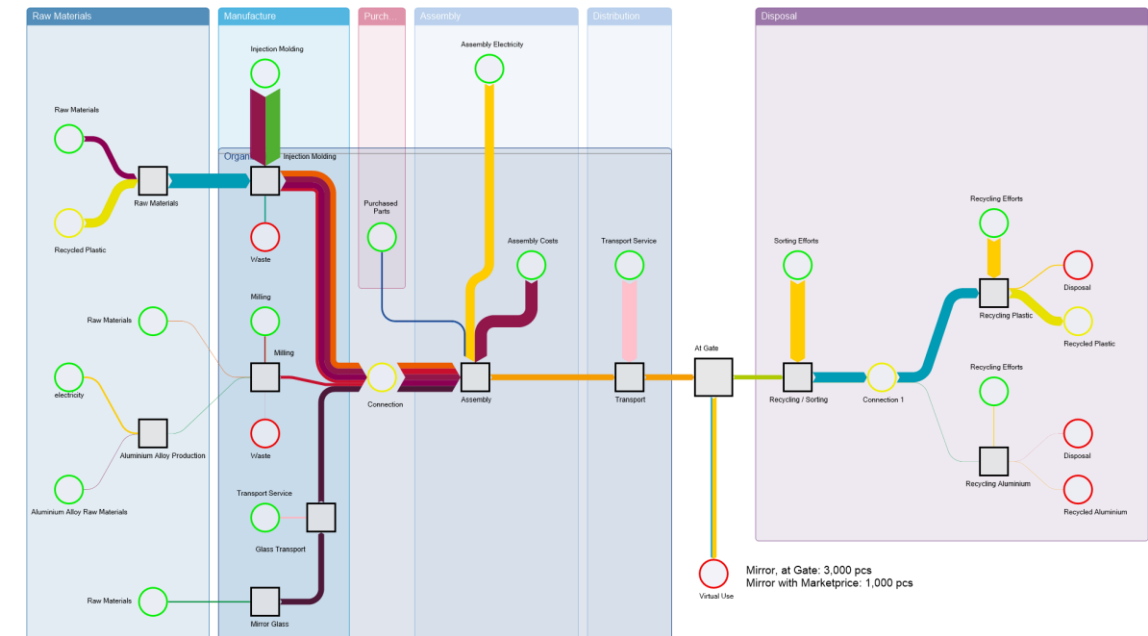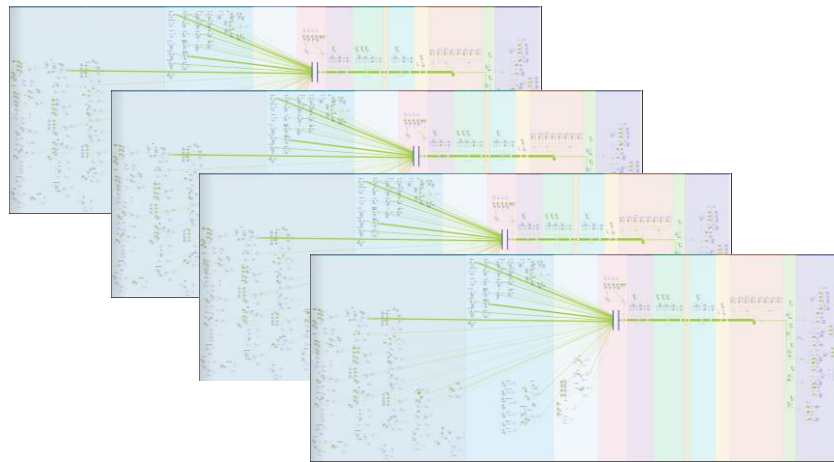
Automation of Life Cycle Assessments

Addressing Product Categories with Generic Models

Utilities & Services

Materials & Components

Various Products

Outlook: Digital Product Passport
Initially only required for Batteries

iPoint

iPoint Compliance	iPoint Product Sustainability	iPoint Compliance	iPoint Product Sustainability	iPoint Compliance
Material/Product Summary	Recycled content & Circularity	Compliance Status	Carbon Footprint & LCA Results	Document repository (SDS, PDS, etc.)

Key Metrics

Project Name: PHEV2 NCM 622 96s3p
Owner: EV Motor Company
Contact: adminh@greenmark.com

VDA-PHEV2 NCM 622 96s3p

Share Story

Recycled Content

Co	✓	21%
Pb	⚠	75%
Li	✓	6%
Ni	✓	70%
Misc		53%

Scroll to Details

Compliance

✓ **Battery Regulation**
Product meets regulation requirements

✓ **ELV**
Product meets regulation requirements

✓ **SCIP Submissions**
All parts are completed

Scroll to Details

Carbon Footprint

12.2t CO_2 eq

According to PCR BAT (GWP IPCC 2013)
Scope: Cradle-to-Grave

Scroll to Details

Documents

CoC LAB LCIA

✓ Certificates of Conformity
✓ Laboratory Test Report
✓ Life Cycle Impact Assessment

Scroll to Details

Vielen Dank! Thank you for your attention!

Martina Prox, iPoint Group
Director Expert Services
martina.prox@ipoint-systems.de

iPoint Worldwide: The iPoint Group

iPoint

Germany

iPoint-systems gmbh
Headquarters
Reutlingen
Ludwig-Erhard-Str. 58
72760 Reutlingen
T: +49 7121 14489-60
F: +49 7121 14489-89

iPoint-systems gmbh
Berlin
Fehrbelliner Str. 50
10119 Berlin

iPoint-systems gmbh
Hamburg
Max-Brauer-Allee 50
22765 Hamburg
T: +49 40 480 009-0
F: +49 40 480 009-22

iPoint-systems gmbh
Munich
Rosa-Bavarese-Str. 3
80639 Munich

Austria

iPoint-Austria GmbH
Vienna
Ignaz-Koeck-Str. 10
Top 4209
1210 Vienna

Nordics & Baltics

iPoint-systems AB
Stockholm
Bookwise & Co
Tegelbacken 4a
SE-11152 Stockholm

USA

iPoint Inc.
Ann Arbor
255 East Liberty
Suite 287
Ann Arbor, MI 48104

UK

iPoint Ltd.
Manchester
Unit 10135
PO Box 4336
Manchester, M61 0BW
T: +44 161 265 0060
F: +44 161 265 0060

Japan

iPoint Japan Co Ltd
Tokyo
Nittochi Nishi-Shinjuku Building, 8 Floor,
6-10-1 Nishi-Shinjuku, Shinjuku-ku,
Tokyo, 160-0023, Japan
T: +81 3 5325 3047 | info-japan@ipoint-systems.com

China

iPoint Software and Information Technology (Shanghai) Ltd.
Shanghai
Room No. 331, Catering Part 2, 3F Huadu Building,
Zhangyang Road 828 – 838,
China (shanghai) Free Trade Pilot Zone
Shanghai, China
T/wechat: +86 130 6505 3813 | info-china@ipoint-systems.com

www.ipoint-systems.com ● contact@ipoint-systems.com