



Battery Passport: Ein Werkzeug zur Sicherstellung der Nachverfolgbarkeit in der Lieferkette

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Agenda

1. Catena-X – Motivation & Architektur
2. Battery passport



Our motivation

How everything started...



Collaborative, must win-battles for the global automotive industry

SUPPLY RESILIENCY



“Plan and ensure material flow and availability across multiple value chain steps”

SUSTAINABILITY



“Put targets into action by working with real PCF data to de-carbonize the value chain”

SYSTEMATIC COVERAGE



“Create interoperability standards and SME readiness for digitalization of processes”

COST OF INNOVATION



“Boost innovation and adoption by sharing network foundation & services built upon open source”

and “close the loops for circularity”

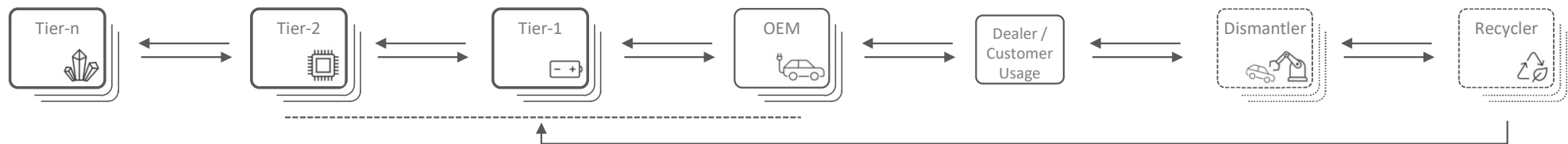
→ No market player, neither an OEM nor supplier nor outfitter can solve these problems on its own ←



Catena-X value proposition

First time offer of a sovereign, multi-tier data exchange and use case collaboration across the entire value chain

Optimization of „our“ industry value chain processes



- Addressing the **entire problem** (end to end workflow)
- **Creating flow** of information for all participants
- **Scaling** across the industry and beyond

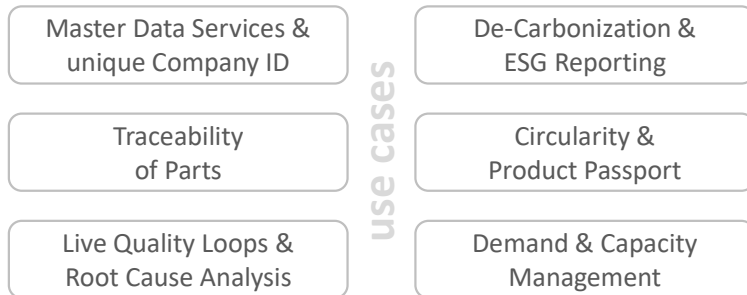


What is new about Catena-X, compared to previous solutions

Catena-X does not replace existing market offerings, Catena-X fills gaps and redirects existing activities and forces towards a common GOAL and by enabling them to collaborate within a data ecosystem towards a shared global DATA SPACE.

Common GOAL

Solve top industry problems together and now



... many more to come 2024

Shared global DATA SPACE

- One **operating model** and **federated operating system** for the data space
- **Customer value journeys** for common GOALS enabled by open, multi vendor marketplaces



- Foundational services and **standards** built upon **OSS (KITS)** with dedicated **developer journeys**



- **Neutral governance**, incl. conformity assessment body

We simply call this „NETWORK of NETWORKS“

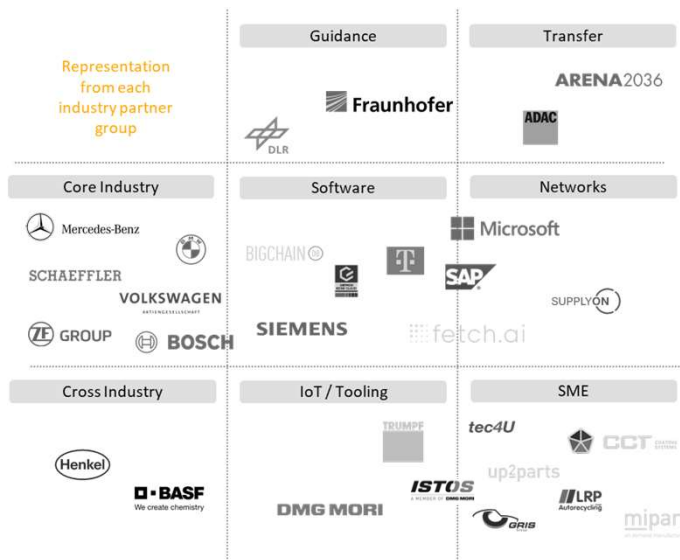
Enabling a data driven value chain collaboration for the first time



Starting and scaling the Catena-X data ecosystem

It takes the right balance of partners to start with and a global way forward to foster adoption.

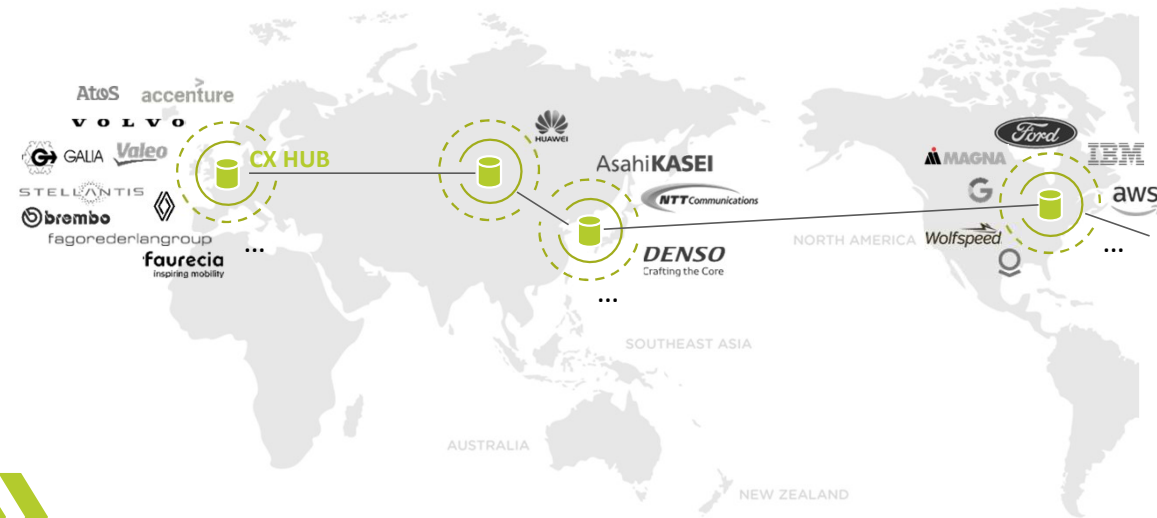
KICK START - TEAM to build and launch the initial foundation; all interest groups are represented



28 initial development partner started in 08 / 2021



Implementation of the **CX HUB-CONCEPT** empowers regional adoption and ensures flow of data across regions



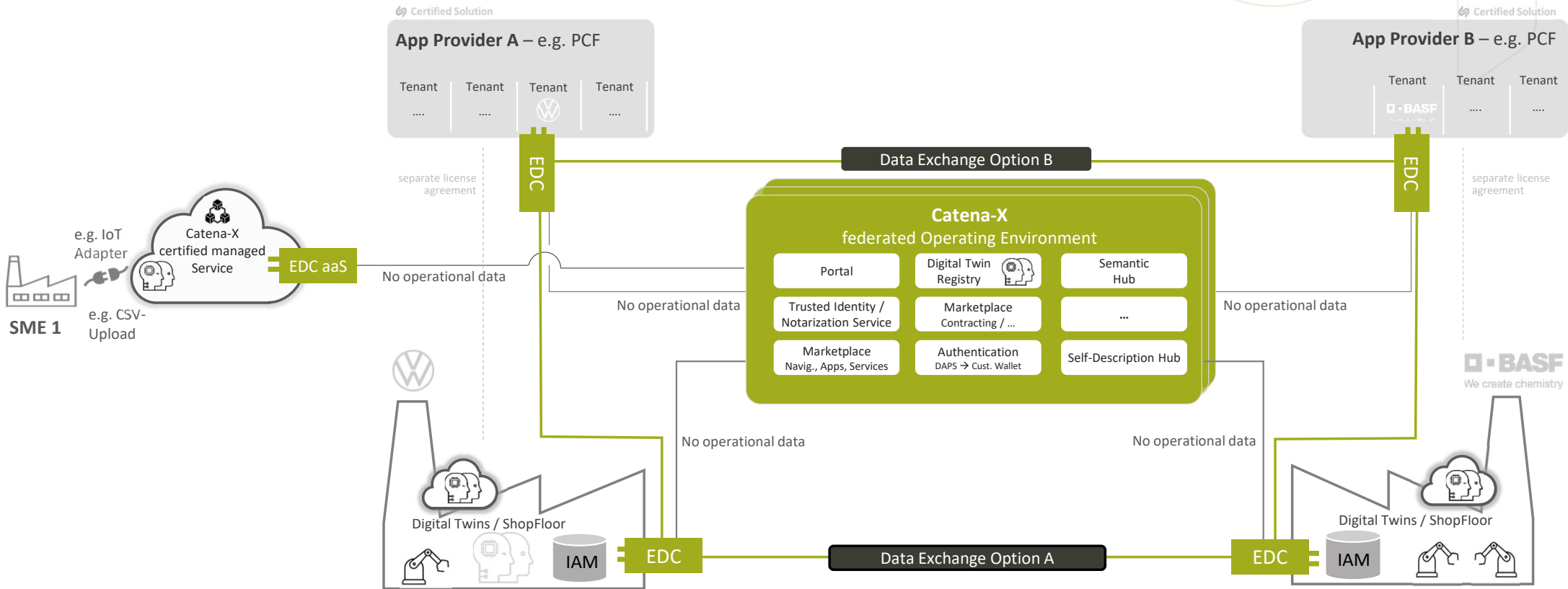
152 global partner in Catena-X association (05/2023)

examples of international Catena-X members; for a complete list click [here](#)



How the Catena-X data space works

Sovereign, federated and interoperable. Incorporating GAIA-X principals and frameworks.



Note: EDC = Eclipse Data Space Connector (OSS)

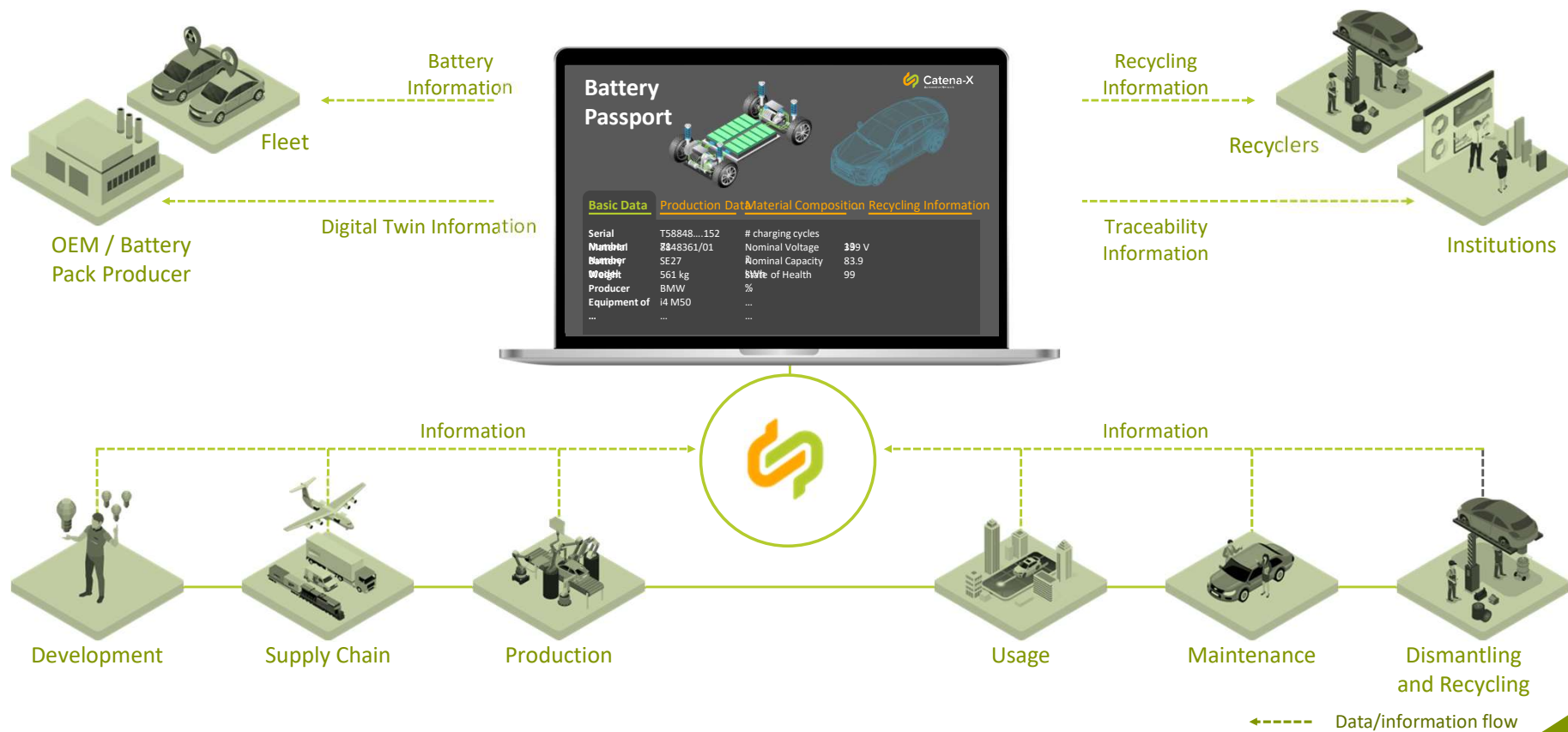
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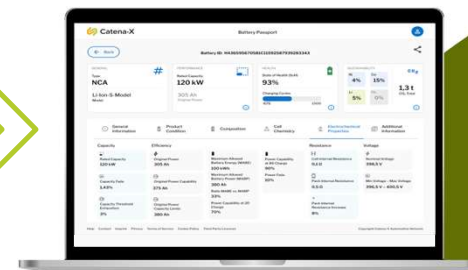
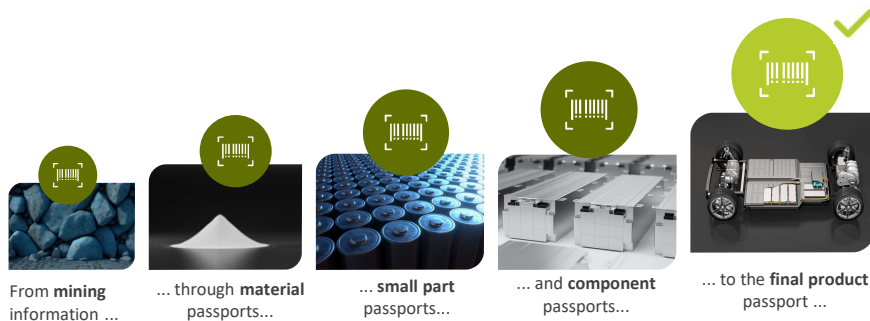
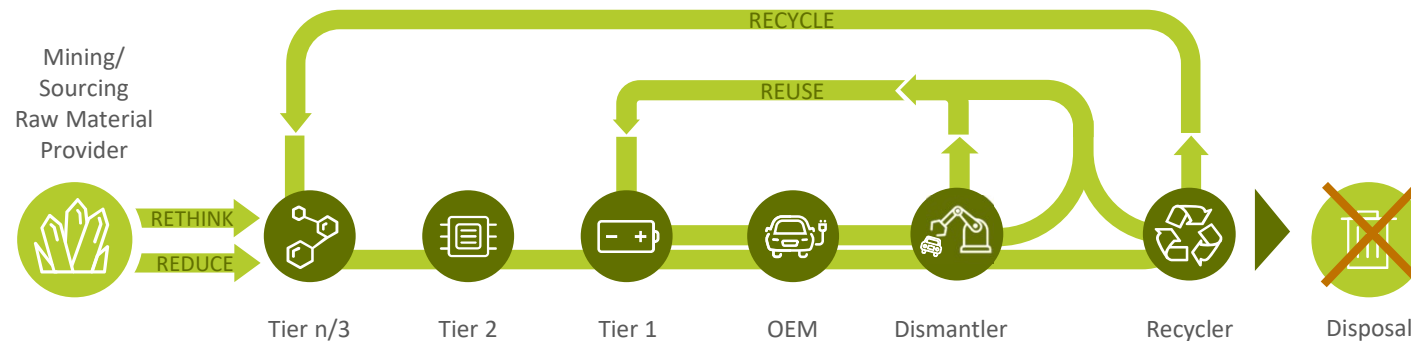


The battery passport is a digital twin and key enabler for a circular economy.





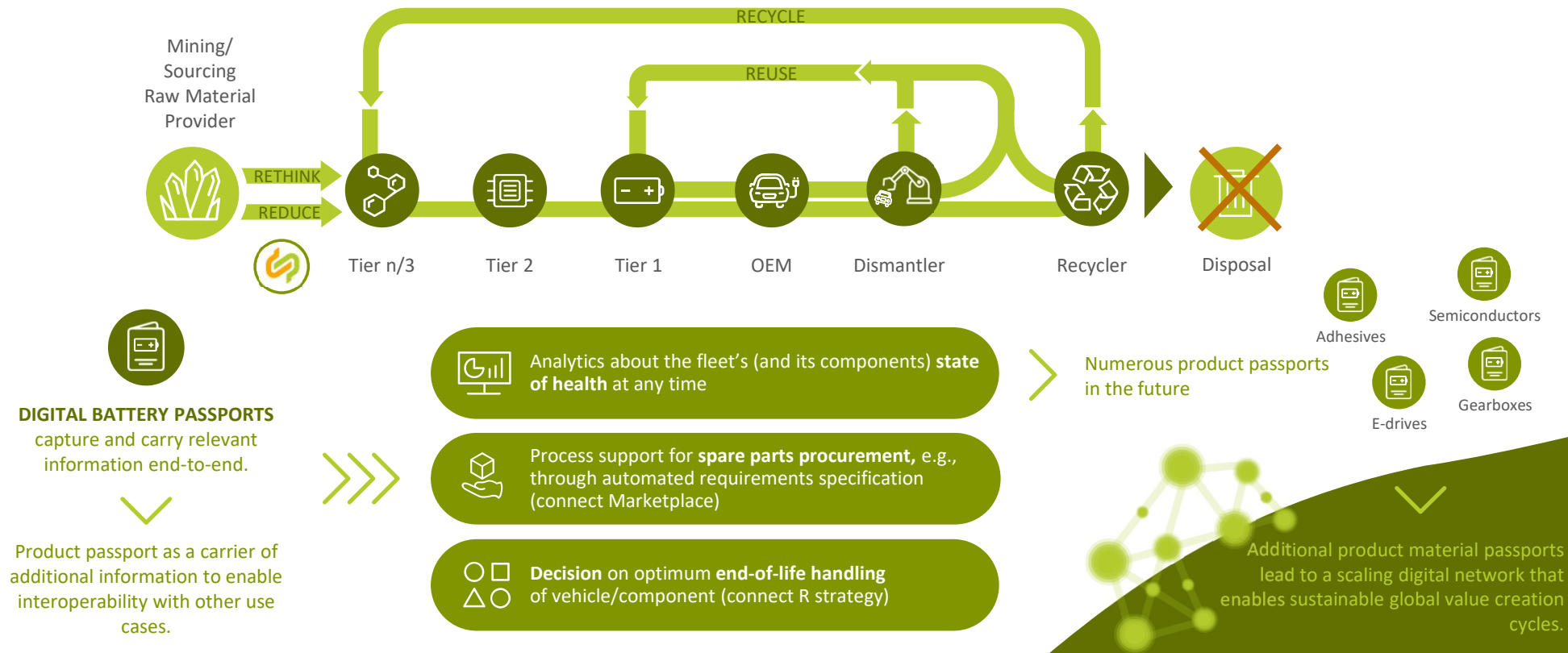
In order to generate a product passport, each supplier aggregates their data and provides it to their customers on request.



... which can then be provided by the OEM.



The product passport will be a carrier of additional information and expanded by additional functionalities.





Scan Battery Code



Show Battery Pass

Type ID alternatively



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Battery ID: H436595670581C11592587939283343



GENERAL

Type
NCA

Li-Ion-S-Model
Model

PERFORMANCE

Rated Capacity
120 kWh

305 kW
Original Power

HEALTH

State of Health (SoH)
93%

Charging Cycles

675 1500

SUSTAINABILITY

Ni 4%	Co 15%
Li 5%	Pb 0%

Recycle Content

1,3 t
CO₂ Total

[General Information](#) [Product Condition](#) [Composition](#) [Cell Chemistry](#) [Electrochemical Properties](#) [Additional Information](#)

Battery ID H436595670581C11592587939283343	Warranty 60 months	Date of Manufacturing 2022-01-24	Manufacturer Information Company A , 81345 Munich, Germany +49 89 1234567893 www.oem-a.com info@companyA.com
Battery Type NCA	Battery Model Li-Ion-S-Model	Place of Manufacturing Munich, Germany	
Dimension L: 1800 mm, H: 200 mm, W: 1000 mm	Weight 545,4 kg	Date of Market Placing 2022-03-27	CO ₂ Footprint 1,3 t CO₂ Total



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GENERAL #

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PERFORMANCE 📈

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HEALTH 🔋

State of Health (SoH)
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Charging Cycles
675 / 1500

SUSTAINABILITY ♻️

Ni 4%	Co 15%
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Recyclate Content

1,3 t
CO₂ Total

- General Information
- Product Condition
- Composition**
- Cell Chemistry
- Electrochemical Properties
- Additional Information

Aluminium 84.5 kg 15,5%	Copper 54.7 kg 10,0%	Polyamid 43.6 kg 8,0%	Nickel 16.4 kg 3,0%	Manganese 16.4 kg 3,0%	Cobalt 16.4 kg 3,0%	Others 197.4 kg 36,2%
	Steel 51.8 kg 9,5%		Insulator 10.9 kg 2,0%	5.4 kg Lithium 1,0%	5.4 kg Graphite 1,0%	
			2.7 kg Sealant 0,5%	1.1 kg UV Varn. 0,2%		



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Battery ID: H436595670581C11592587939283343



GENERAL Type NCA Li-Ion-S-Model Model	PERFORMANCE Rated Capacity 120 kWh 305 kW Original Power	HEALTH State of Health (SoH) 93% Charging Cycles 675 / 1500	SUSTAINABILITY Ni 4% Co 15% Li 5% Pb 0% Recyclate Content 1,3 t CO ₂ Total
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General Information | **Product Condition** | Composition | Cell Chemistry | Electrochemical Properties | Additional Information

State of Health (SoH) 93%	State of Charge (SoC) 54%	Charging Cycles 675 / 1500	Battery Life Status 1st life
Cycle Life Test C-Rate 2C	Cycle Life Test Depth of Discharge 20%	Temperature Range (Idle State) -22°C to +45°C	