

114-6

### Catena-X Automotive Network Product Carbon Footprint Certified Solutions Pitch Session

07.04.2025 | 13:00 – 14:00

## Agenda

1. Into to Catena-X	13:00 - 13:05
2. Motivation behind Catena-X PCF Use Case	13:05 – 13:15
3. Certified Applications for PCF	13:15 – 13:45
4. Q&A	13:45 – 13:55
5. Summary & Wrap-Up	13:55 - 14:00

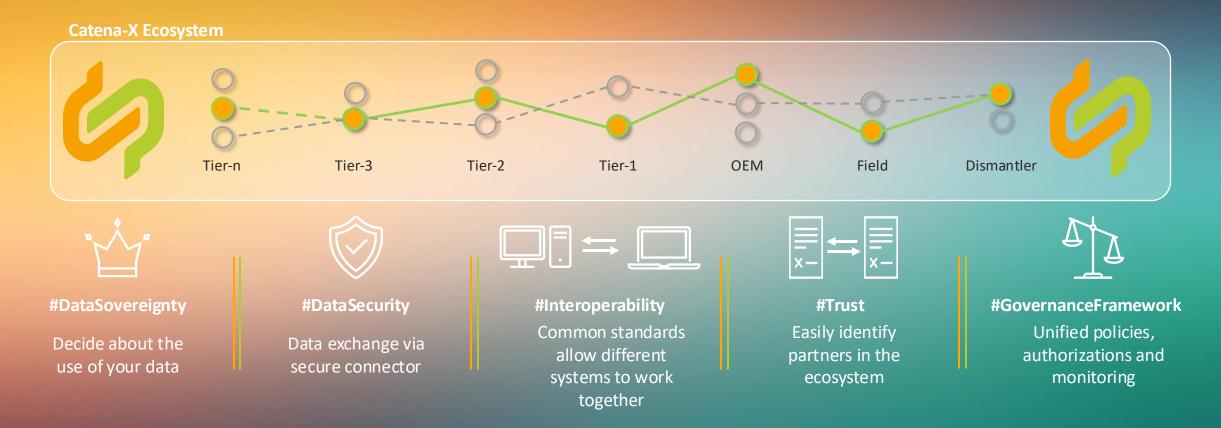




## **1. Into to Catena-X**

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## Catena-X: The Open, Collaborative Ecosystem for Data Exchange along the Value Chain



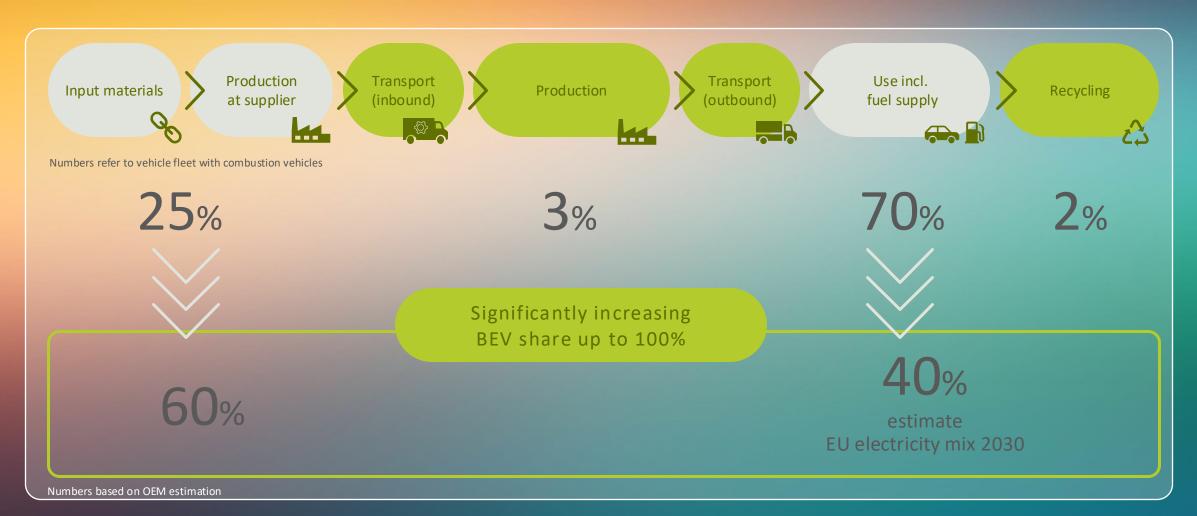




## 2. Motivation behind the Catena-X PCF Use Case

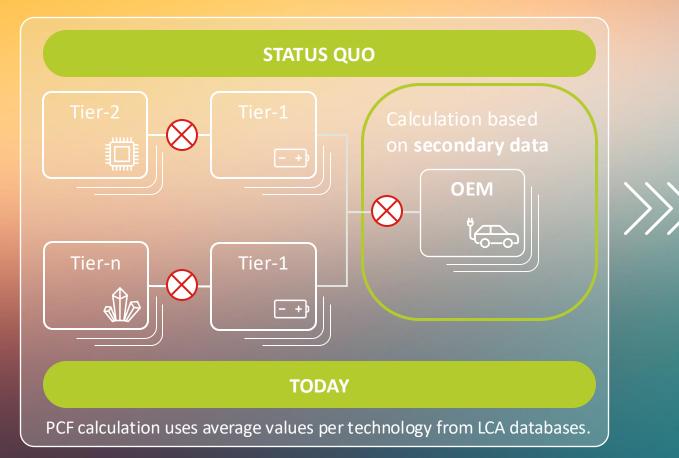


### Supply chain emissions will be the most important area for CO<sub>2</sub> reductions in the automotive value chain for electromobility.





## PCF challenge: No access to accurate, specific primary data on PCF in the supply chain.





Limited specific information on Product Carbon Footprint in the supply chain.



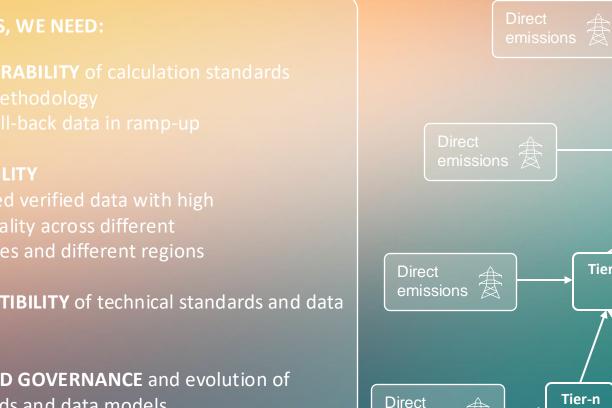
Inconsistent methodology/ standards for PCF calculation.

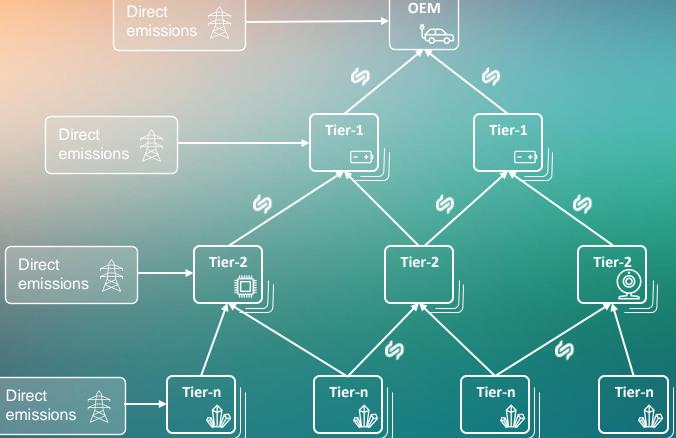


No standard for Verification of PCF Values.



## Catena-X captures PCF along the supply chain by recording and aggregating primary data from every partner involved.





#### TO DO THIS, WE NEED:

- **COMPARABILITY** of calculation standards

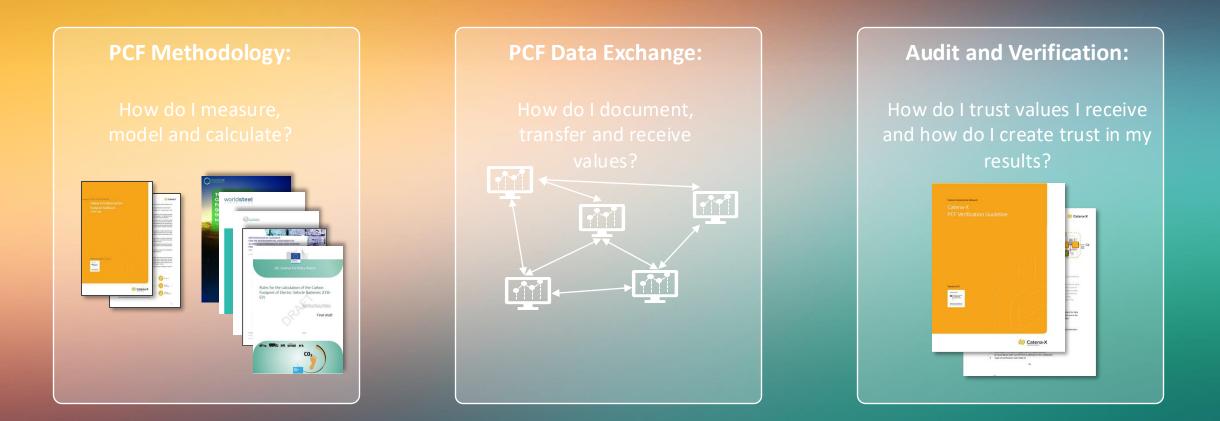
#### RELIABILITY

industries and different regions

- **COMPATIBILITY** of technical standards and data models
- ALIGNED GOVERNANCE and evolution of standards and data models



## In a nutshell: Product Carbon Footprint (PCF)



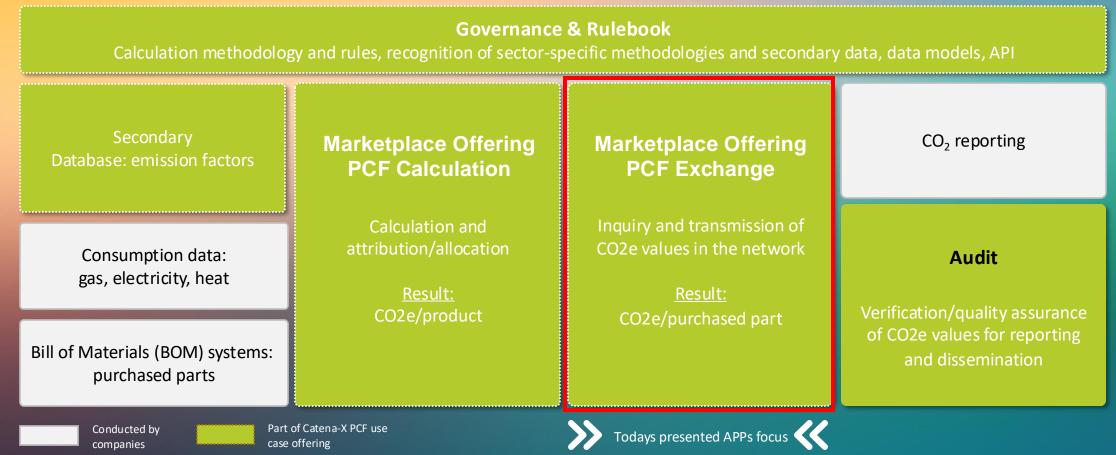


The combination of Catena-X PCF Methodology and Technical Standards, CX certified-Solutions and the PCF Verification Framework enable trusted PCF data from the supply chain.



### Catena-X fills in the relevant gaps to calculate a real PCF

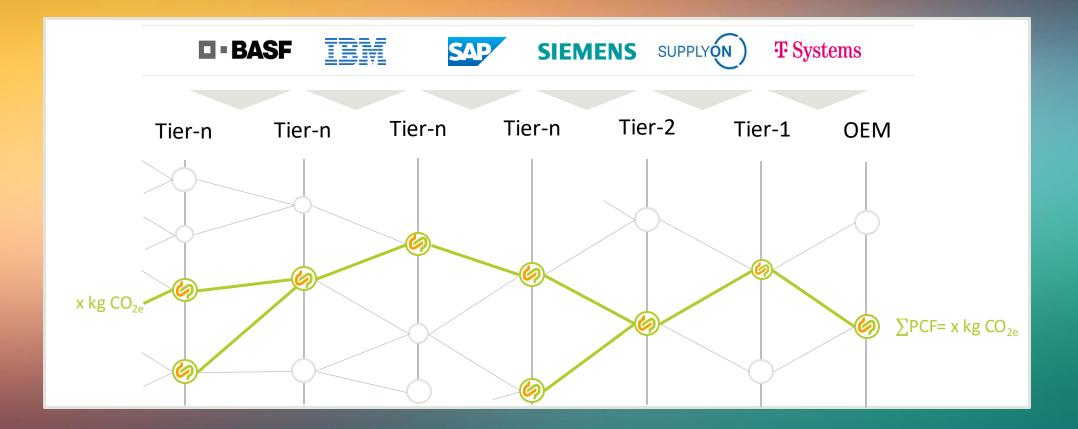
A solid portfolio of solutions for large and small companies to calculate, exchange and verify PCF.



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## **Current Offering of PCF Exchange Solutions**



All interoperable APPs to enable standardized PCF data exchange between APPs without vendor lock in.





## **3. Certified Applications for PCF**

Q&A Poll



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## **BASF - Pacific**





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## **BASF – Pacific Product Vide**

De

Person Size Invite In The Design METRO

Mercedes-Benz





## **Dacific** a brand from BASF SE, powered by CircularTree GmbH

<b>D</b> • BASF We create chemistry	2	😪 Produ	cts 📲 Compo	nents ያე Tasi	ks	<b>수</b> 환 鹶
My Components	6					
						Bulk PCF Export Bulk PCF Request
Biogenic Emissions and Removals	Include Exclu	ide Filters: State	us: Complete X	Locations 🗸	Q Type to	o search
Component Name 1	Component ID $\uparrow\downarrow$	Supplier Name ↑↓	Location $\uparrow\downarrow$	PCF Value ↑↓	PCFs 🕕	Status
ELASTAN 6581/135	30731059	BASF SE	Europe	<b>0.1</b> kg CO₂e/kg	PDF JSON	Complete
ELASTOLIT D 8710/200/EV	30839682	BASF SE	Europe	<b>2.4</b> kg CO₂e/kg		Complete
ELASTURAN C 2600 C-A	30356194	BASF SE	Asia Pacific	<b>3.1</b> kg CO₂e/kg		Complete
FW647C5E COLORBRITE	30741745	BASF SE	Europe	<b>2.1</b> kg CO₂e/kg		Complete
ISO 113/1	30182999	BASF SE	Europe	<b>2</b> kg CO₂e/kg	PDF JSON	Complete
+ Request PCF for Additional C	component		$\searrow$			

15





**Our expertise:** TÜV certified calculation for BASF products, we can offer PCFs for more than ~ 50.000 Products **Our target group:** Reseller and SMEs

#### Our features:

- ✓ Maintain PCFs of your own products and share with your customers.
- ✓ Your customers will get automatically updates, when your product PCF has been changed.
- $\checkmark\,$  Receive PCFs from BASF synchronously for products in your portfolio.
- $\checkmark\,$  Request PCFs of additional products from BASF and other suppliers.
- $\checkmark$  Easy understand and manage your PCFs along the supply chain.
- ✓ Calculation of discrete products coming soon



# IBM Envizi Supply Chain Intelligence for Catena-X

Nicole Roik Account Technical Leader Manufacturing Executive IT Architect

<u>roik@de.ibm.com</u> 0175-5703684









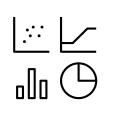
## IBM - Envizi





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# IBM Envizi Supply Chain Intelligence for Catena-X



Integrated yet open, centralized system to bring together supply chain data and broader ESG data to scale Scope 3 accounting and reporting

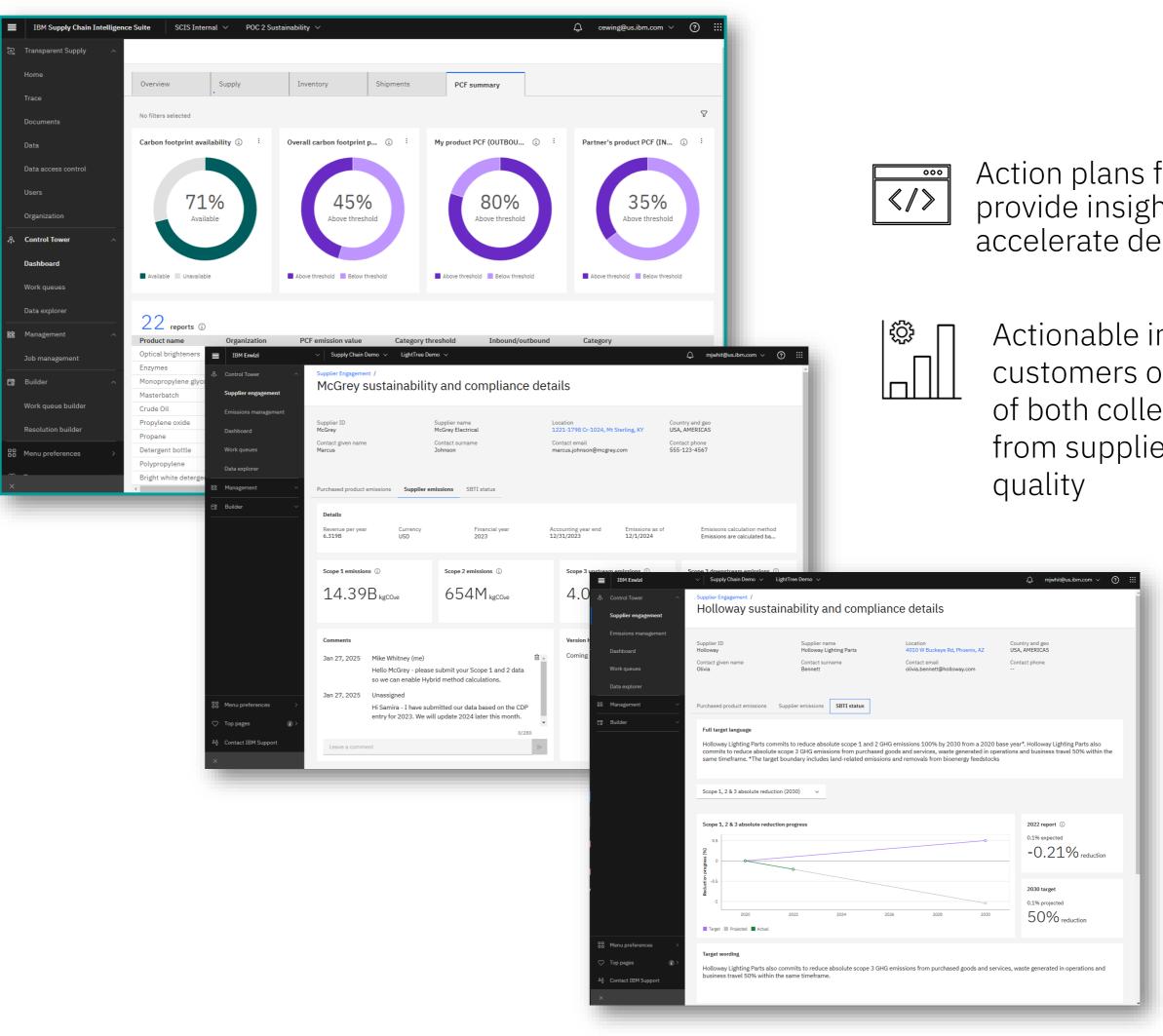
Automated product-level data request, collection and analysis that enables faster, easier collaboration between suppliers to get product level data.



Engage suppliers through Catena-X, custom surveys and forms as they respond to requests on Product Carbon Footprint data, ESG survey data, emissions data and targets.



Supports all types of emission Calculations, including Hybrid and supplier-specific methods that are product level-based systems.

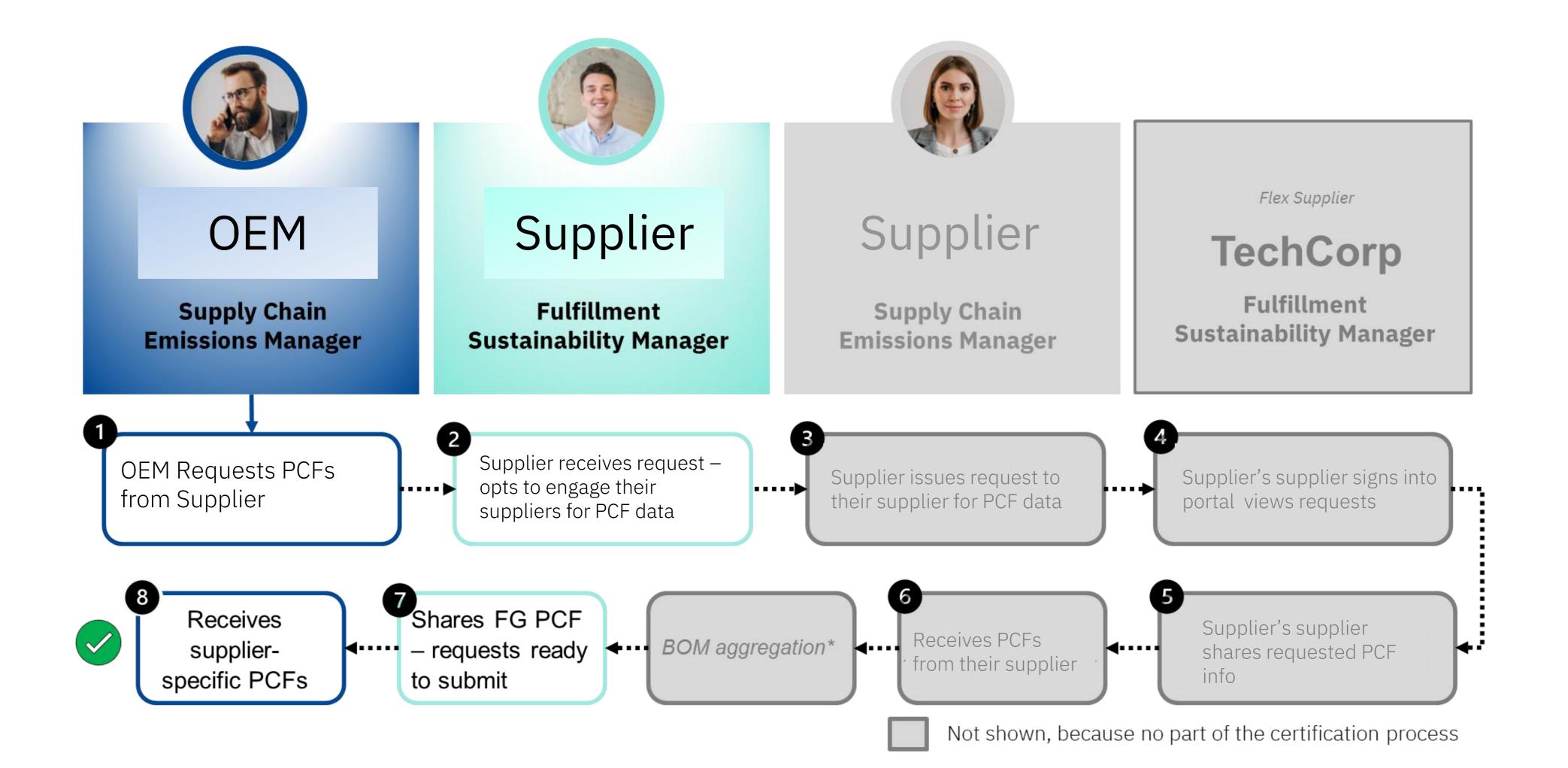


Action plans for emissions reduction that provide insights and guidance to accelerate decarbonization efforts.

Actionable insights to help customers operationalize the process of both collecting product-level data from suppliers and improving its

2

## PCF Request Data and Process Flow



3

# IBM Supply Chain Intelligence Suite - Data Flow according to Catena-X Standard

## OEM

IBM Supply Chain Intelligence Suite for Catena-X

Product Carbon Footprint Data Management

### GEC OnCite CX-Gateway

Digital Twin Registry

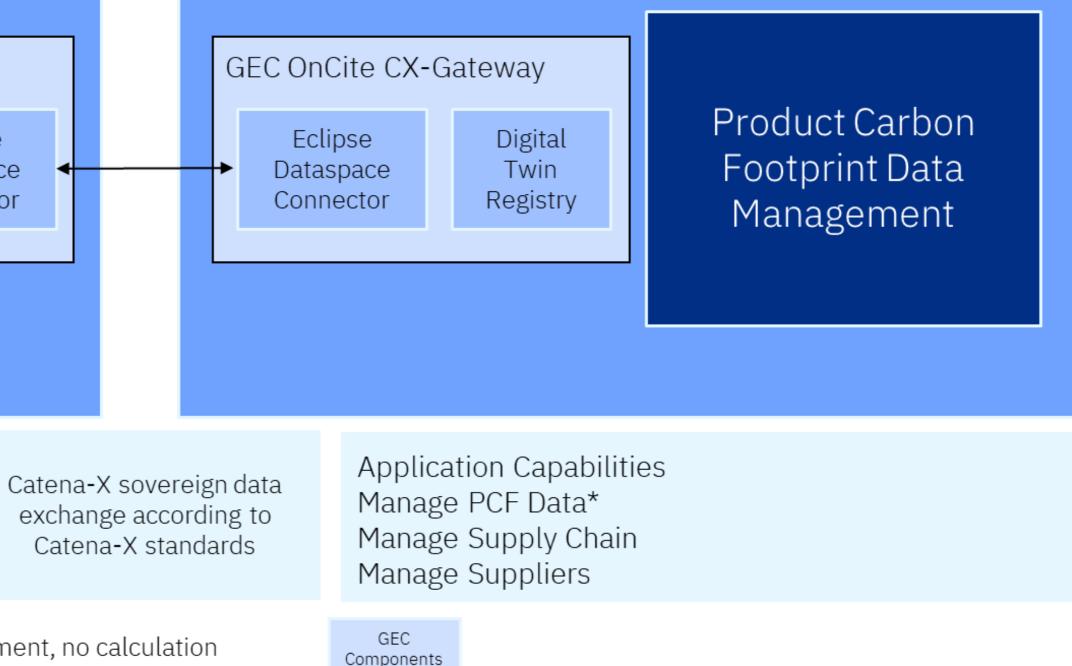
Eclipse Dataspace Connector

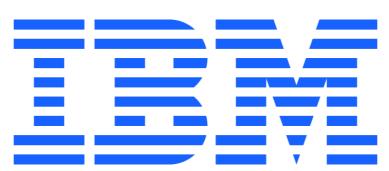
**Application Capabilities** Manage PCF Data \* Manage Supply Chain Manage Suppliers

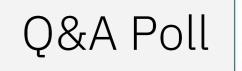
\*) management, no calculation



IBM Supply Chain Intelligence Suite for Catena-X











## **SAP - Sustainability Data Exchange**

Q&A Poll



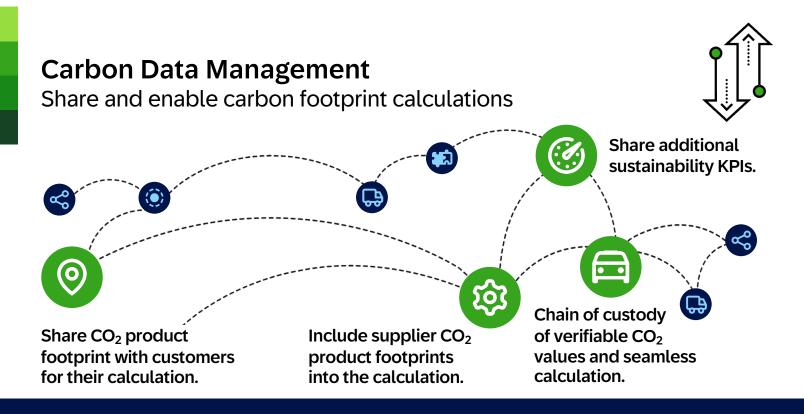
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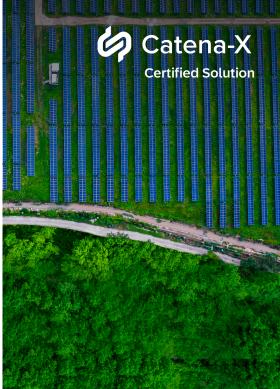




# Navigating sustainable mobility transformation in Automotive with SAP

**INTERNAL SAP and Customer Only** 





#### Create

transparency into verifiable CO<sub>2</sub> footprints of parts and components across the entire value chain. SAP Sustainability Data Exchange

SAP Sustainability Footprint Mgmt. **Create** higher precision in  $CO_2$  product lifecycle assessments through collaboration based on primary data. **Identify** products or processes with high potential for  $CO_2$  reduction and optimization scenarios. **Meet** regulatory requirements across regions (e.g., European Green Deal, Batteries Directive, SC Act).

#### SAP Sustainability Data Exchange

**Report:** 

Uniform reporting and accounting standards

• Improved interoperability

Standard data models

and workflow based on BOM helps to exchange

information seamlessly and confidentially.

to make auditable, trusted

decisions on climate action.

Catena-X Certified Solution

Achieve carbon neutral supply chains by sharing and enabling carbon footprint calculations

#### Record:

#### Standardized exchange of carbon emissions

- Ease of exchange of Scope 3 supplier emissions to improve business and climate action setting goals.
- **Transparent value chains:** Enable accumulation and sharing of actual product carbon footprints in the supply chain (*scope 3*).
- Integration with SAP Sustainability Footprint Management: Create higher precision in CO<sub>2</sub> product life cycle assessments.

#### 3 Act:

#### Comparable and transparent reporting addresses increased scope

- Collective action through consistent supplier data sharing improves decarbonization efforts and accelerates climate action.
- Accelerating Net-Zero goals: Identify products or processes with high potential for CO2 reduction and optimization scenarios.



Supplier	Customer Standard ~				Reset F
Footprint	Supplier	Exchange St	atus Footp	rint Status	
	*	✓ All	✓ All	*	
			^ \$\$ <sub>x</sub>		
> Ov	verview				Supplier Exchange
				Apply Bill of Materia	al ⑦ A Module Supplier LMO
Suppl	ier Footprint Exchanges			Hide Supplier Exchar	nge Y Product Carbon Footprint
- Fo	ootprint	Supplier	Exchange Status	Footprint Status	Footprint
	<ul> <li>Battery Pack</li> </ul>	V My Company (OEM)	Associated not requested	No Data	Battery Module
	Battery Module	Module Supplier LMO	Not requested	No Data	Footprint Status
	Housing Cover (aluminium)	E Parts Inc.	Received	Valid	No Data
	Aluminium crash structure	ALUCo GmbH	Received	Valid	<ul> <li>Supplier Process</li> </ul>
	Housing Tray (aluminium)	E Parts Inc.	Requested	No Data	
	Battery Frame	Gamma Parts	Received	Valid	Exchange Status Not requested
	Cooling System	Cooling Beta Parts	Received	Valid	Comment
	Lower Protection Cover	Gamma Parts	Received	Valid	Send a comment to your supplier
	Battery Management Controller	E Parts Inc.	Requested	No Data	
					Request Footprint C
					<ul> <li>Activity</li> </ul>

#### In collaboration with:



🕼 Catena-X 🛛 🕸 Wbcsd

#### **Request and Share Accurate Product Carbon Footprint Data**



across your supply chain for a clear, actionable picture

SAD

PUBLIC



#### Manage Current Product Carbon Footprint Data

to create a comprehensive picture of product carbon footprints





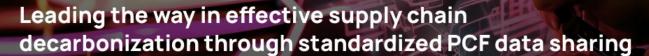
PUBLIC

Catena-X

**Certified Solution** 

 $\bigcirc$ 

#### WITTE AUTOMOTIVE Leads the Way in Supply Chain Decarbonization with Catena-X Network, Empowered by SAP Sustainability Solutions



WITTE

To meet the need for standardised sustainability practices, WITTE Automotive has implemented advanced solutions with SAP and can calculate its PCF according to the Catena-X framework.

Learn more

3-5x

more efficient calculation\* compared to manual, excel-based method (\*with interface to ERP system)

+10T€

Savings per PCF calculation compared to hiring external calculation experts

 Automated data flow from the S/4HANA ERP system

 SAP Sustainability Data Exchange enables seamless management and exchange of PCF data

Public

#### Start your Catena-X journey now with SAP Sustainability Data Exchange!

#### 👗 SAP commitment to Catena-X

- SAP as founding member of Catena-X has a high commitment
  - Actively involved in the Catena-X e.V. and Catena-X NEXT
  - SAP as leading provider of Catena-X certified business applications, first Catena-X certified PCF calculator
  - Interoperability confirmed in official Catena-X E2E Test and multiple customer projects

#### Easy to consume

- · SaaS application
- PACT conformant solution
- No installation required & quick setup



#### **Multiple integration options**

- · Integration with the SAP Sustainability Footprint Management solution
- Plug-in solution for SAP IS DSI (Data Space Integration)
- Flexible Usage: Integrated either with SAP S/4 (or custom) and Standalone no SAP ERP like R/3 or S/4

#### >>>> Fast time to value

- Start small with a PoC to quickly experience the value of Catena-X with SDX and scale up.
- · Get access to your 30-day basic trial experience

ootprint	Supplier	Exchang	e Status Ecoto	rint Status	
ootprint	• Supplier	✓ All	✓ All	×	
			×		
> 0	Dverview				Supplier Exchange
				💽 Apply Bill of Mate	erial ③ A Module Supplier LMO
Supp	plier Footprint Exchanges			Hide Supplier Exch	nange v Product Carbon Footp
	Footprint	Supplier	Exchange Status	Footprint Status	Footprint
	✓ Battery Pack	V Company (OEM)	Associated not requested	No Data	Battery Module
	Battery Module	Module Supplier LMO	Not requested	No Data	Footprint Status
	Housing Cover (aluminium)	E Parts Inc.	Received	Valid	No Data
	Aluminium crash structure	ALUCo GmbH	Received	Valid	<ul> <li>Supplier Process</li> </ul>
	Housing Tray (aluminium)	E Parts Inc.	Requested	No Data	
	Battery Frame	Gamma Parts	Received	Valid	Exchange Status Not requested
	Cooling System	Cooling Beta Parts	Received	Valid	Comment
	Lower Protection Cover	Gamma Parts	Received	Valid	Send a comment to your su
	Battery Management Controller	E Parts Inc.	Requested	No Data	
					Request For
					<ul> <li>Activity</li> </ul>



## Thank you.

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Contact information:

Nadine Kanja nadine.kanja@sap.com

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## **Siemens - SiGreen**



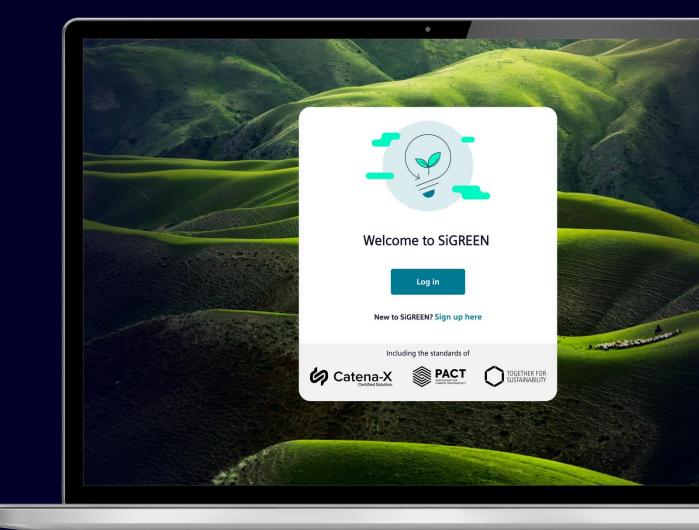


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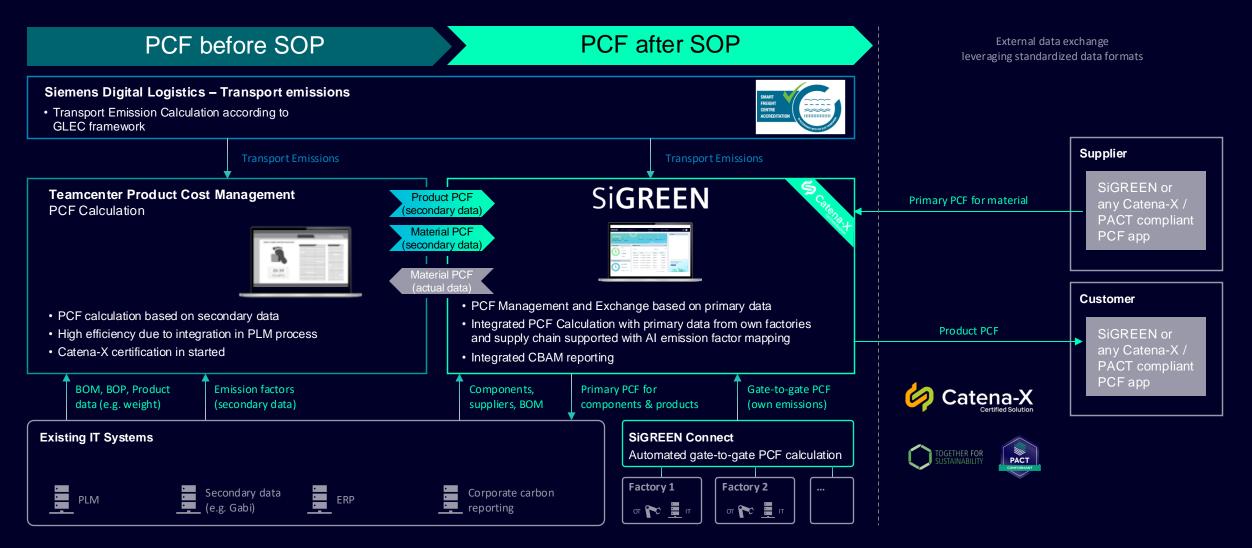
# Sigreen

**Dynamic Product Carbon Footprints** 





#### Siemens offers PCF Exchange and Calculation with connection to Catena-X Siemens solutions are integrated via APIs into customer IT

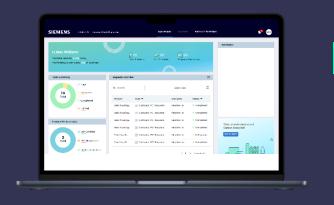


#### SIEMENS

#### Integrated Catena-X and EDC services

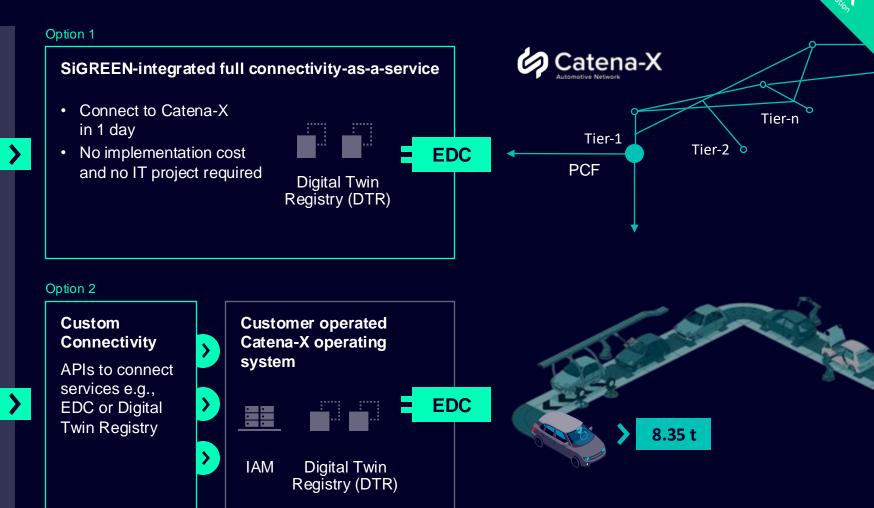
Easy access to Catena-X with full connectivity-as-a-service including EDC

## Sigreen



#### Gain access to

- Catena-X certified PCF Application
- Catena-X data model
- Catena-X related user support e.g., Catena-X PCF rulebook access
- Connectivity to PCF calculation tools
- EDC & full connectivity-as-a-service
- Custom connectivity



S

SIEMENS

Carena

#### Website



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siemens.com/sigreen

Demo https://app-demo-ext.sigreenplayground.siemens.cloud/

Get started app.sigreen.siemens.com

Your contact

albrecht.florian@siemens.com



#### Disclaimer

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## SigREEN Siemens SigREEN PCF Management

**Our expertise:** Full-featured PCF management including CBAM reporting with support of the whole product lifecycle from development to production

Our target group: OEMs and suppliers of all industries

**Our features:** 

- ✓ Comprehensive PCF Management: Request, calculate, and share PCF
- ✓ Integrated PCF Calculation supported with AI and access to emission databases
- ✓ Automated gate-to-gate PCF calculations based on factory data
- Easily up-/download data via Excel or APIs to ERP, PLM, and third-party calculation tools
- ✓ Connect to our advanced PCF calculation based on Teamcenter PCM for PCF Management supporting the full product lifecycle (also before SOP)
- Integrated EDC: connect to Catena-X in 24h, no implementation project, no technical enablement provider needed
- ✓ Further PCF networks: PACT and Together for Sustainability

Link: <u>www.siemens.com/SiGREEN</u> App: <u>app.sigreen.siemens.com</u>

Component Name *
Carbon Fiber Reinforced Polymer Structural Su
d
or Activity Name : Region
Search 🔻 \Xi Search
> Glass Fiber Reinforce Northwest Pacifi
C > Carbon Fiber Reinfor Midwestern Unit
> Aramid Fiber Reinfor Central European
> High-Density Carbon Northwest Pacifi
> Kevlar Reinforced Co Midwestern Unit
> Carbon Fiber Reinfor Central Europea
> Multi-Layer Carbon F Northwest Pacifi
> High-Density Carbon Eastern Africa
> Multi-Layer Carbon F Eastern Africa
> High-Density Carbon Northwest Pacifi
Glass Fiber Reinforce     Central European
> Multi-Layer Carbon F Midwestern Unit
> Glass Fiber Reinforce Northwest Pacifi
> Multi-Layer Carbon F Central European
> Glass Fiber Reinforce Central European
<ul> <li>Glass Fiber Reinforce Northwest Pacifi</li> </ul>
,



#### **T-Systems – Connect & Integrate**

Q&A Poll



## **Next-generation PCF solution** For large enterprises and SMEs

April 7<sup>th</sup>, 2025 | Catena-X Pitch Session |

Michaela Drost





### Magenta Automotive, your leading partner for Catena-X

#### Automotive's Nº 1

**#1** Service IT provider in DACH **#1** In the IT Germany Automotive sector for 12 years in a row

#### Dataspace market leader

10 years of thought leadership. Founding member of Catena-X, Manufacturing-X and Gaia-X. IDSA board member

Cofinity• <mark>X</mark>	gaia-x	SIMPL	IPCEI-CIS	Mobility Data Space
I.C.OXY4	ROX Eventing Al Robustics	RealLab	-	Cesa Insertier deny

#### Grow with us, longterm

Flexible upgrades One solution for all your use cases Special packages for SMEs

**T**-Systems

#### **Complete dataspace** portfolio

**Onboarding Consulting Technical Enablement** Dataspaces aaS Gaia-X Clearing House Data products

#### **Top security** Cloud flexibility

Some of our

customers



aDIS tachou

muRata

INOVATOR IN ELECTRONICS

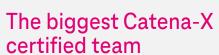
UNO MINDA

16 ultra secure data centers **TISAX 3 certification** Sovereignty+Options



flex

**Witte** 



Over 30 qualified advisors End-2-end qualified solutions

	ena-X	9	
Cate Certified Pro	ena-X	6.	

*I***LRP** 

Autorecycling

**KNORR-BREMSE** 

-**\_** TE

((**K**)))



dih\_sales@ telekom.de

100 +Organizations onboarded and empowered with dataspaces

20+ Countries with active data exchange customers & apps

85% Faster onboarding through standardization & automation

99.9% Uptime for all solutions over last 12month period

DENSO

Crafting the Core

TÜV

#### Reduce CO<sub>2</sub> footprint



Use case example | PCF

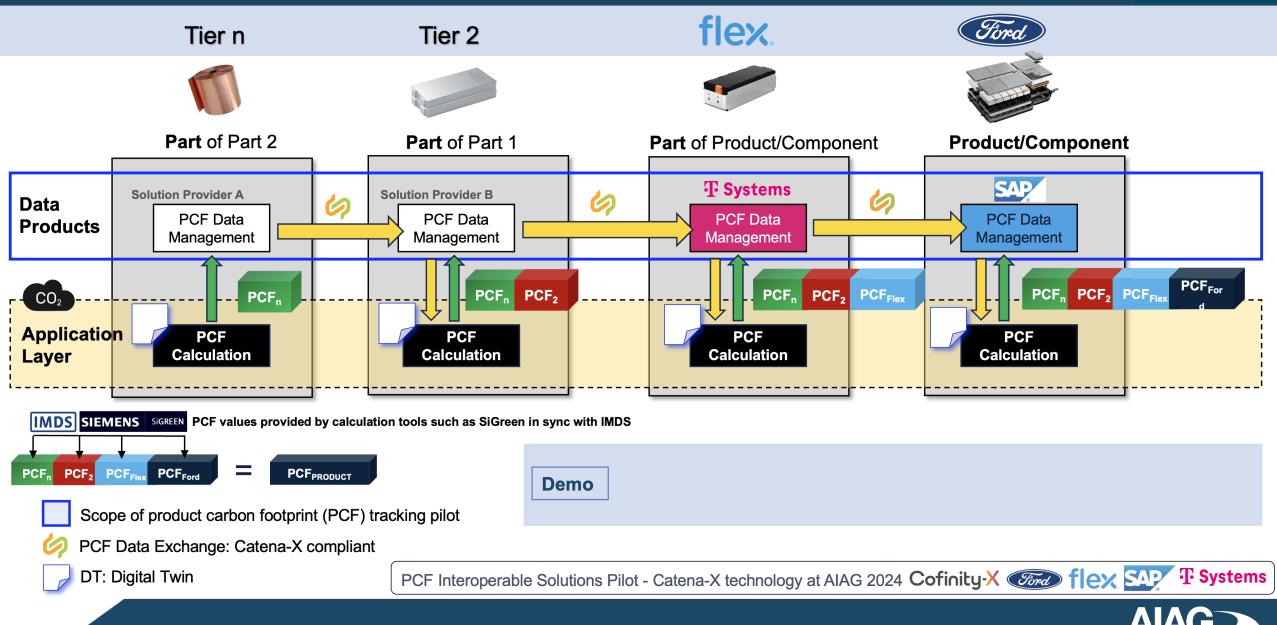
Part 2: PCF Calculation (app) Compliance, e.g., IFRS S1, S2



### Data Chain: Solutions' Interoperability Focus

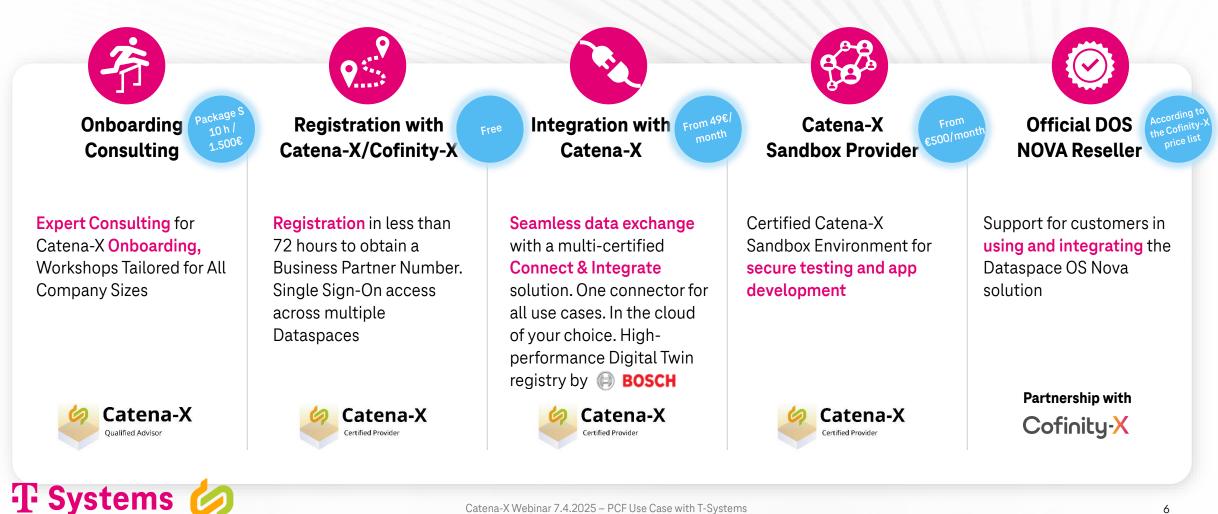


ADVANCING MOBILITY

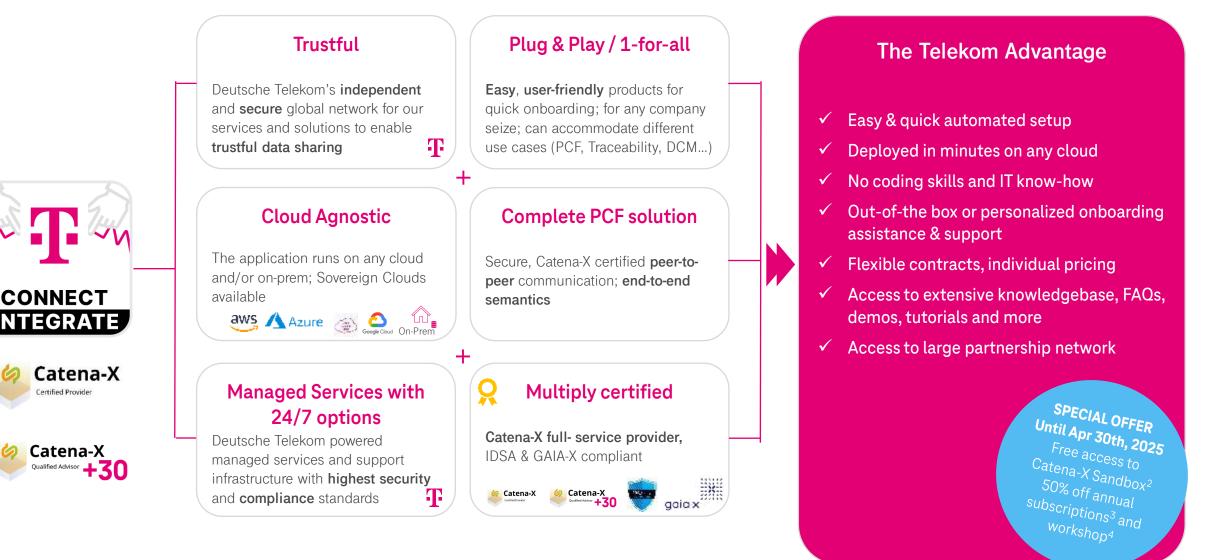


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DTAG bookmarks	🗁 C&I 🏆 yam 💿 PI 13 Epics 💽 (DIH) PI 12 Epics 🍸 PI13 🏆 PI12 🐺	Active sprint Pi12 👩 Tenant::Connect&I 💽 Connect & Integra 💽 Update Ordering P 🐺 Dil	H 2.0 - Design 厳 SDE capabilities 👹 Data Space Comp 🍃 T-GPT 🛛 >>
CONNECT & INTEGRATE	Home		Q Mehran Roshandel 🗸
යි Home	Connect & Integrate		
Provide ~			
🛆 Consume 🗸	Need help getting started?		Use cases (1)
Govern ^			DCM ECU-TEST Sustainability & CO2-Footprint Traceability
My policies Provided contract agreements 00:37 Consumed contract agreements	Assets 86 My policies 27	ents 73 Consumed contract agreements 100+	③ Help Get to know your Connect & Integrate 2
📋 Model Management 🗸			
OD Applications ^			
PCF exchange		Need help in finding the right plan, more info, technical questions?	
Monitor			
Process logs	Integrator documentation Get API documentation to get started	Tutorials     Find use cases and demos relevant to your Industrial sector	Glossary Find the Terms and Definitions related to Data Intelligence Hub, IDSA, Catena-X, Gaia-
			X and more.
	Browse >	Browse >	Browse >
	Need more help?		Contact us
(?) Help ~			
Collapse sidebar			
3.1.4 Privacy policy			

### We realize your PCF use case from start to finish, worldwide



### **Our USP: One interoperable solution for small & large companies**





CONNECT

Certified Provider

Catena-X

<sup>1</sup>Information and conditions – This offer is only valid for business customers. All prices are exclusive of VAT and any travel expenses and will be calculated as applicable. This document is for informational purposes only and does not constitute a binding offer. If you are interested, we will be happy to send you the corresponding contract documents. It also lists the exact contents of the service and the specific conditions. <sup>2</sup>First come first served, limited to first 10 pioneers, Validity for 3 months, 3 Minimum contract term for this offer is 2 years and paid upfront and 50% off is applied to 2nd year costs, 45k instead of 10k €/2 Days,

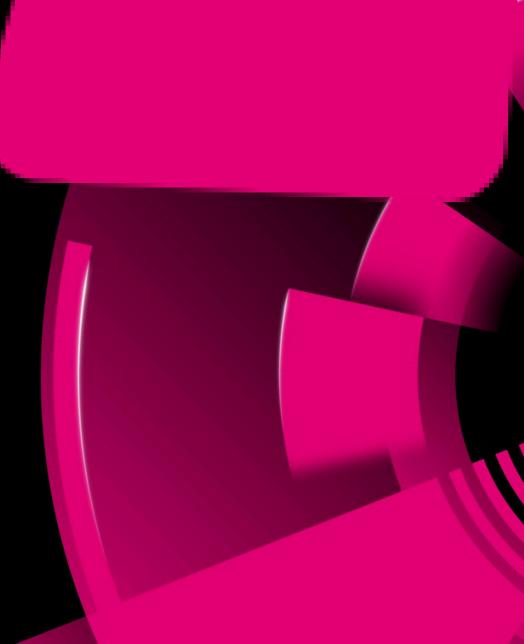
### AN EXCLUSIVE OFFER FROM T-SYSTEMS

Free access to our Catena-X Sandbox<sup>2</sup> 50% off your annual subscriptions<sup>3</sup> and workshop<sup>4</sup>



#### dih\_sales@telekom.de

<sup>1</sup>Information and conditions – This offer is only valid for business customers. All prices are exclusive of VAT and any travel expenses and will be calculated as applicable. This document is for informational purposes only and does not constitute a binding offer. If you are interested, we will be happy to send you the corresponding contract documents. It also lists the exact contents of the service and the specific conditions. <sup>2</sup>First come first served, limited to first 10 pioneers. Validity for 3 months. <sup>3</sup>Minimum contract term for this offer is 2 years and paid upfront and 50% off is applied to 2nd year costs. <sup>4</sup>5k€ instead of 10k€/2 Days.



### **T** Systems

### **Connect & Integrate** | Dataspace participation in minutes

The Telekom Advantage

- ✓ Easy & quick automated setup
- ✓ Multi-use-case: PCF, Traceability, DCM
- ✓ Deployed in minutes on any cloud
- ✓ Ready to use and out-of-the-box dataspace bundles for Catena-X
- $\checkmark\,$  No coding skills and IT know-how
- ✓ E-2-E data sovreignty with Google sovereign cloud (add-on)
- ✓ Flexible contracts, individual pricing
- ✓ Enhanced service by Telekom
- ✓ Personalized onboarding assistance & support
- $\checkmark\,$  Access to extensive knowledgebase, FAQs, demos, tutorials and more



### **Next steps | Contact us!**



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**T** Systems



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# Thank you!







### 4. Q & A

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#### slido

Please download and install the Slido app on all computers you use





### **Audience Q&A**

(i) Start presenting to display the audience questions on this slide.



### **5. Summary and Wrap-Up**

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### Want to learn more?



The **PCF Exchange KIT** on Tractus-X ...

- To **understand fundamentals** of the PCF Use Case
- To find goals and **metrics for Use Case adoption**



The Cofinity-X Marketplace ...

- X Where to find the certified APPs and start PCF sharing
- X Where to **reach out** to the APP providers



- The Catena-X Association ...
- To **build & govern** the data eco-system with us
- Where to get in touch and **register for the Information Webinar**



### App Provider vCard Contacts



#### Nicole Ro

Principal Account Technical Leader, Executive IT Architect



#### Michaela Drost

enior Dataspace Consultant, European Markets T-Systems



#### **Thomas Kiciak**

Solution Head of SAP Industry Network for Automotive and Catena-X BASF



#### Nadine Kanja

Solution Head of SAP Industry Network for Automotive and Catena-X SAP SE



#### **Dr. Florian Albrecht**

Director Automotive and Data Ecosystems, Foundational Technologies Siemens AG



Reach out to the presenters and App providers on the Marketplace **directly** to receive a quote.



## **End of Session**

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