

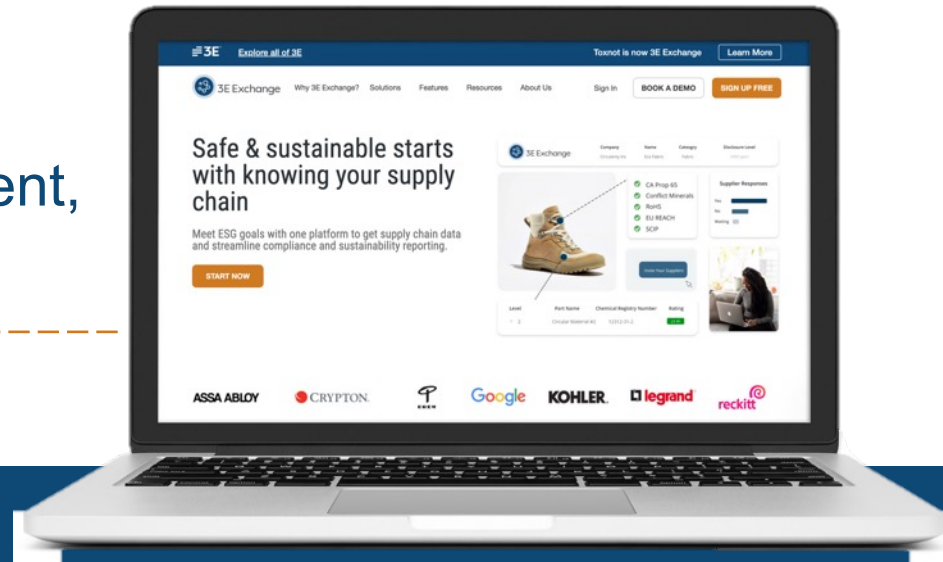


# Digital Product Passports and Supplier Data Exchange

# Safe and Sustainable Starts with Knowing Your Supply Chain

 **toxnot** IS NOW  **3E Exchange**

Advancing Connection,  
Supply Chain Management,  
and Sustainability



# Empowering Safety & Sustainability with Intelligent Compliance Solutions

Manage the exchange of material, product and supplier information across the global supply chain, creating transparency from source to sale.



## CHEMICAL & WORKPLACE SAFETY

Make the world safer – one product, workplace and community at a time – with award winning SDS and chemical management solutions and live 24-7-365 EHS support.



## SUPPLY CHAIN TRANSPARENCY



3E Exchange



## PRODUCT SAFETY & STEWARDSHIP

Leverage reliable, global regulatory content and solutions to accelerate the development and launch of safer products.

# Agenda

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- Overall Product Passport Concept
- Regulatory Framework
- Case Studies



# Digital Product Passport

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- Similar to a country passport
  - Travels with the product
  - Includes necessary information
- Information much beyond a passport
  - Expandable digital framework
  - Circularity
  - Sustainability
  - Compliance and Chemicals of Concern

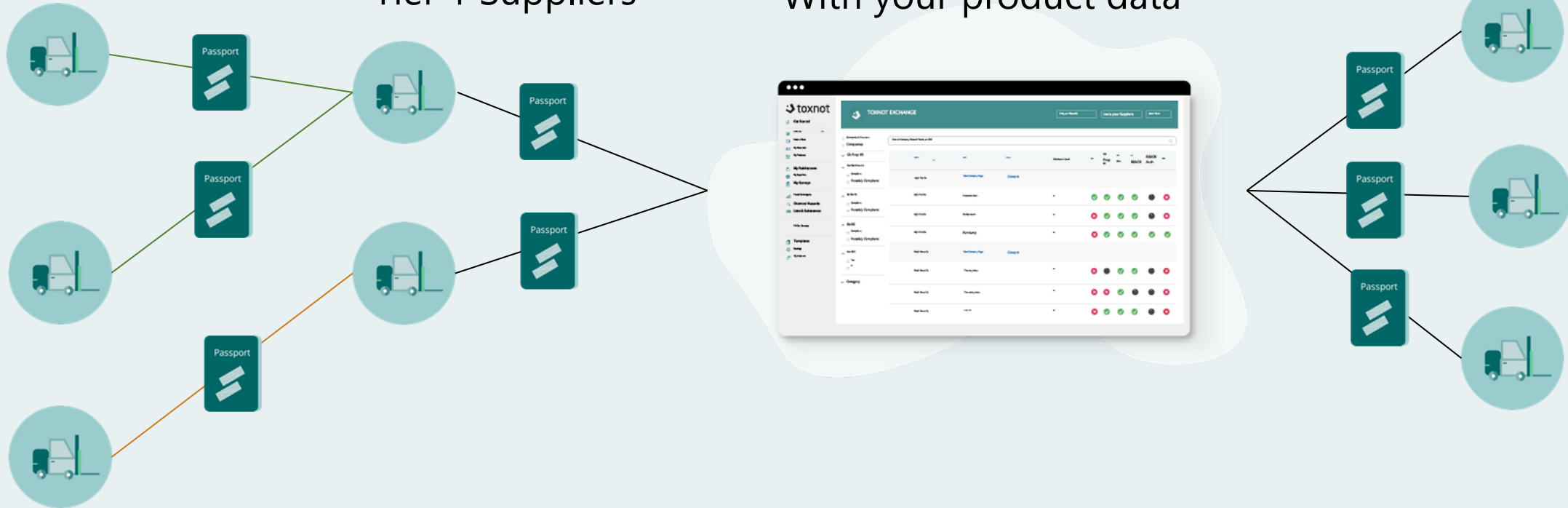
# Understanding the Supply Chain

Tier 2 Suppliers

Tier 1 Suppliers

Manufacturer  
With your product data

Customers



# Regulatory Context

- European Green Deal (EGD)
  - Circular Economy Action Plan (CEAP)
    - Specific regulations within this
    - Still finalizing regulations and requirements
- Framework and requirements
  - Framework will be the same for all Product Passports
  - Requirements will be distinct for based on product type
    - Batteries have been established
    - All other product types still in progress
  - Different levels of access to the data

European Green Deal

Circular Economy Action Plan

EU Battery Regulation

Ecodesign for Sustainable Products

EU Strategy for Sustainable and Circular Textiles

Construction Products Regulation

# Digital Battery Passport

- On 9.12.22, the EU Parliament and Council agreed on key points of the [new EU Battery Regulation](#) to replace the Battery Directive 2006/66/EC.
- The aim of the legislative amendment, is to promote the circular economy and reduce environmental and social impacts throughout the entire battery life cycle

## How is it regulated?

- All Batteries will carry labels and QR codes with information
  - Capacity, performance, durability, chemical composition, as well as the “separate collection” symbol.
- Industrial batteries with a capacity above 2 kWh and EV batteries will also be required to have a “digital battery passport” including information on the battery model as well as information specific to the individual battery and its use.
  - LMT (light means of transport): e-scooters, e-bikes, etc.
  - EV (electric vehicles) batteries for electric vehicles.

## Who?

- Responsibility of the party placing the battery on the market, to ensure that all data required is entered in the digital record and that the information is correct and up to date
- Batteries are pilot product; Other products (construction, textiles) likely to follow

- 1st July 2023 outline a set methodology for calculating battery carbon footprint to be published
- End of 2024: The exact requirements and information that the battery passports must contain will be established in delegated act
- 2026: all rechargeable industrial and electric vehicle batteries with a storage capacity above 2 kWh to have their own battery passports

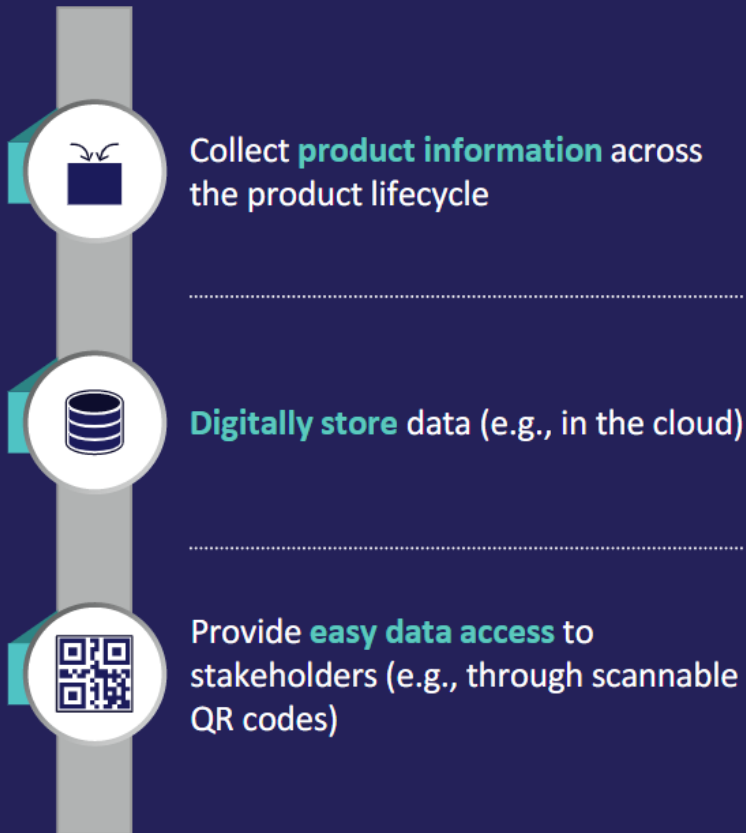
## Commercial Information

- Coming for additional product types shortly



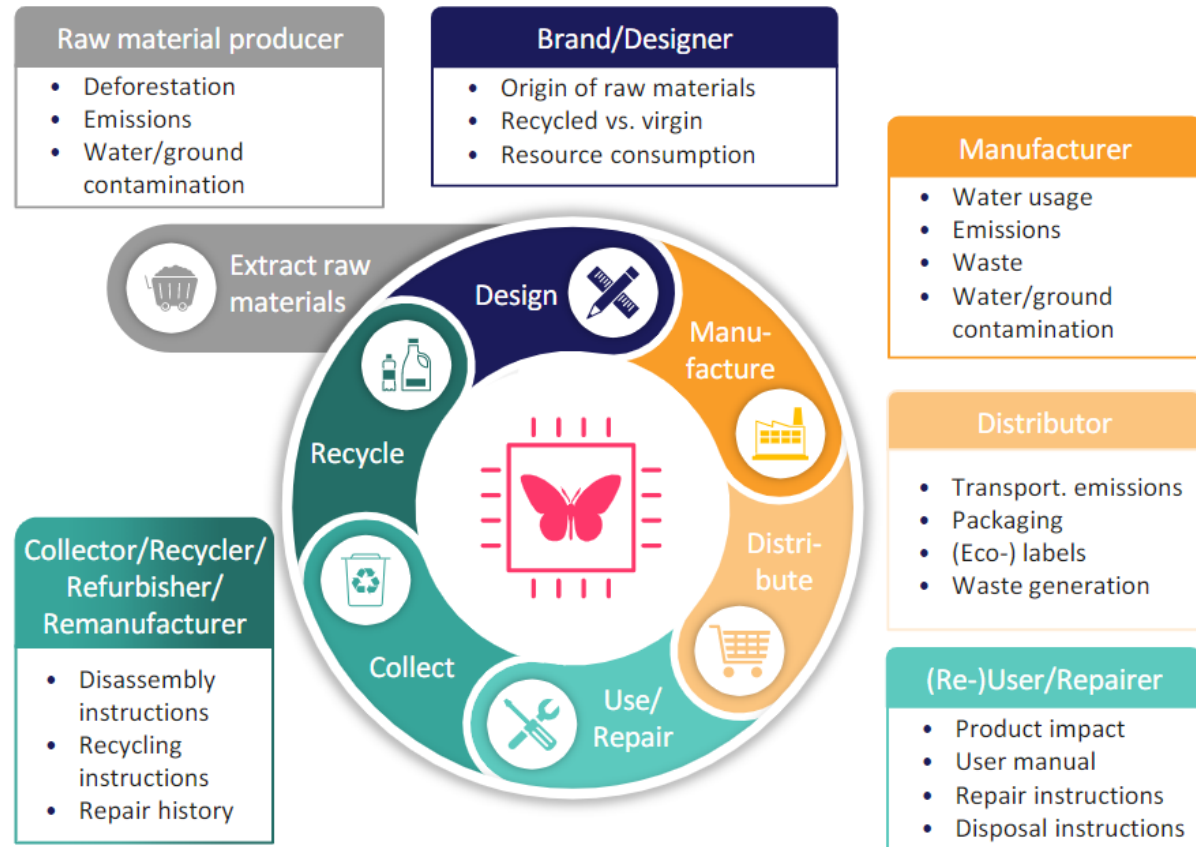
# Value to Stakeholders

## DPPs have several functionalities



## They share product information across the product lifecycle

Exemplary information shared in a DPP across the product lifecycle<sup>1</sup>



# Value Drivers

## DPP could be a key tool to improve circularity ...



Empowers informed, **more environmentally conscious decision-making** across the value chain (VC)



Facilitates **effective management of waste flows and EoL<sup>1</sup> treatment**, thereby increasing recycling rates and access to recycled materials and products



Enables **traceability of environmental impact and thus more accurate measurement** (e.g., scope 3 emissions)



Provides **common foundation and clear requirements** for becoming circular



Enables setting and digitally tracking **regulatory circular economy targets and verifying compliance** with them

## ... and thereby drive economic value

Creates **corporate value through collaboration** (e.g., operational efficiency improvements and innovation of new materials/products, business models, and markets)

Leads to **higher value retention** from waste, **longer material lifetime, job creation, and lower raw material dependency**, thus mitigating impacts of supply shocks and price volatilities

Enables **more efficient energy and resource consumption** and thereby reduces associated costs for economy, society and env.

Ensures an **equal level playing field**, enhances visibility and credibility of sustainable products, and decreases VC deficiencies

Spurs digital **capability development** of authorities, thereby increasing the efficiency of regulatory processes and reducing resource spending

# Supplier Benefits

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- Reuse responses to multiple customers
- Centralized compliance data
- Clear, defined requirements
- Customer will be notified anytime the data changes
- Automated screening against regulatory lists (Toxnot by 3E only)

# Privacy Protections

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## ■ Types of Passports

### □ Public

- All users on the Toxnot Exchange can view data

### □ Restricted

- Customers request access and are granted by client

### □ Unlisted

- Only client listed customers have access

## ■ Proprietary Chemical Disclosures on a Unique Chemical Basis

### □ Mark chemicals as proprietary

### □ Use ranges to protect specific formulations

# Privacy Protections

## Supplier View

Level	Part Name	Chemical Registry Number	Chemical Name
Summary	Nylon 12345		
1		25038-54-4	Nylon 6
1		1763-23-1	Perfluorooctane sulfonic Acid (PFOS, C-8)
1		13463-67-7	Titanium dioxide

## Manufacturer view

Level	Part Name	Chemical Registry Number	Chemical Name	Overall Rating	Custom Flag
Summary	Coffee Mug for Compliance™			BM - 1	🚩
1	Nylon 12345			BM - 1	🚩
2		25038-54-4	Nylon 6	LT - UNK	
2		1763-23-1	Perfluorooctane sulfonic Acid (PFOS, C-8)	LT - 1	
2		Proprietary	Proprietary	BM - 1	🚩

# Privacy Protections

## Supplier View

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## Manufacturer view

Level	Part Name	Chemical Registry Number	Chemical Name	Overall Rating	Custom Flag
Summary	Coffee Mug for			BM - 1	

List Data

Chemical Registry Number	List Name	Reason for Inclusion
Proprietary	ChemSec - SIN List	CMR or PBT
Proprietary	EU - SVHC Candidate List	Endocrine Activity
Proprietary	IEC 62474 - Declarable Substance List	
Proprietary	EU - SVHC Candidate List	Endocrine Activity
Proprietary	TSCA Active	
Proprietary	EU - SVHC Candidate List	Reproductive Toxicity
Proprietary	RoHS	

[Done](#)

# Covestro Niaga – Supplier Data Exchange

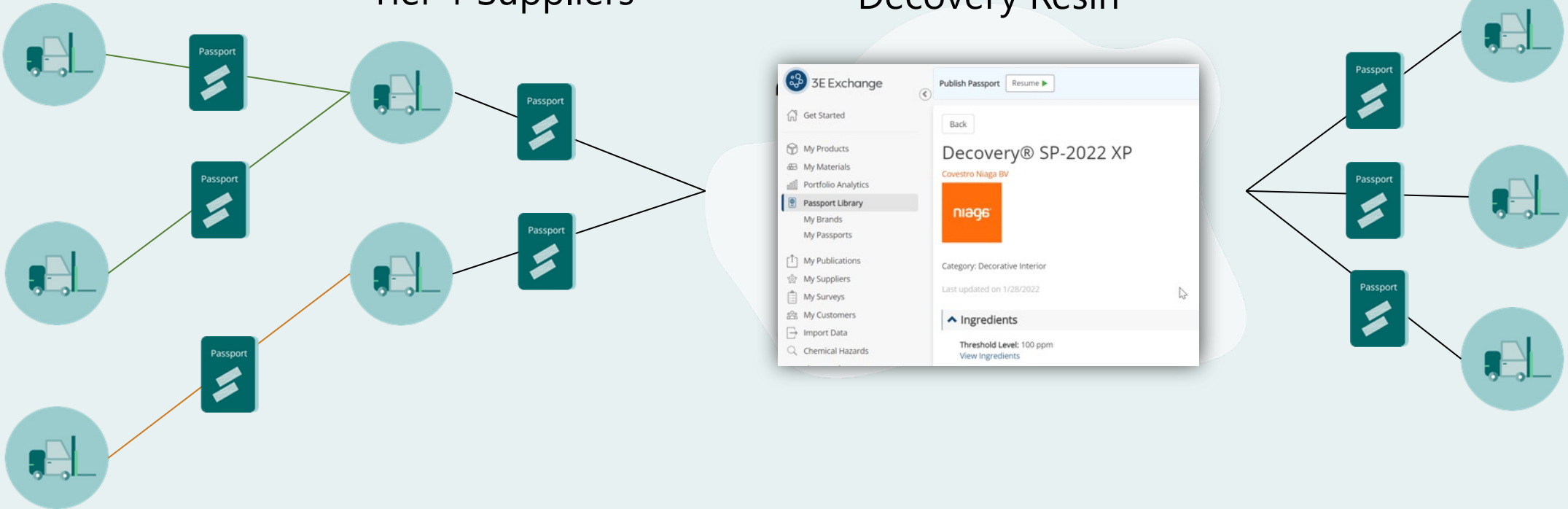
Tier 2 Suppliers

Tier 1 Suppliers

Covestro Niaga  
Decovery Resin

Customers

Auping  
Retailer



# Novalis Product Passports

- Passport contains:
  - Maintenance and Warranty Information
  - End-of-life Options
  - Chemical Composition and Compliance
  - Embodied Carbon
  - Sustainability Certifications
- QR code printed on product links back to passport
- Linked on product website and as key customer documentation





# What does this translate to for manufacturers?

## ■ Product Identifiers

- Image, Name and SKUs



## ■ Documents

- TDS
- Compliance
- Warranty
- Specification Sheets

## ■ Embodied Carbon and EPD

## ■ Chemical Content

- Red List Free Status

## ■ Sustainability Certifications



## ■ Instructions

- Installation Guidance
- Maintenance
- Repair
- Removal and Reuse



**Questions?**  
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