Data gathering for DPP: operational guidelines for industry from a new CEN CWA

ECHT Traceability Conference
Brussels, 19/11/2025

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Motivation

The path

From TRICK project to a pre-standardization initiative

TRICK Project
EU-funded initiative pioneering digital passport frameworks

Ecosystex Initiative
Collaborative ecosystem uniting European textile projects

CEN CWA 18291:2025 “TRICK - Guidelines on Data Collection from Textile Supply Chains for the Digital Product Passport”
Official guidelines supporting data gathering from supply chain for the DPP

What is a CWA and why a CWA?
CEN Workshop Agreements (CWAs) are experimental technical documents developed rapidly with the discussion and contribution of all interested parties, with the same mechanisms of transparency and consensus as in voluntary standardisation.
They are therefore particularly suitable for sharing innovative know-how and quickly transferring the results of Research and Innovation projects to the market.

Sources: https://www.cencenelec.eu/, https://www.uni.com/en/standardisation/innovation/

Why a new CWA?

The current reference scenario:
ESPR + DPP, EPR, CSDDD, ...

Sector fragmentation, opacity, and complexity of the textile supply chain

Increasing demand for traceability and sustainability data from companies

Limited transparency and data sharing due to confidentiality issues

Traceability as key enabler for sustainability

Lack of harmonization and standardization in data collection and sharing

It is the result of a pre-standardization iniziative, published by CEN and developed with the technical secretariat of UNI, Italian Standards Body, based on the results of three European Projects (TRICK, PESCO-UP, CISUTAC)

The TRICK project

EMPOWER CIRCULAR ECONOMY WITH BLOCKCHAIN DATA TRACEABILITY

30+ Partners **11** Countries **42** months **2** Pilots

Start date

1 May 2021

Duration

42 months

Funding

8 Mln

Grant Agreement

N° 958352

TRICK

TRICK Initiative
Project introduction

About

The TRICK project aims to provide an affordable, standardized platform for SMEs to support **sustainable fashion**.

The platform ensures **traceability** for origin certification and measures recycling, material circularity, and environmental performances and is aligned to support the **Digital Product Passport.**

Using **Blockchain** and **data portability**, TRICK ensures data security, confidentiality, and stakeholder-specific access to information through the value chain

Website

Goals

1. **Circular Economy Roadmap**
   Based on stakeholders' requirements
2. **Standardised Commercial Service**
   For traceability and transparency
3. **Data Trustworthiness & Sharing**
   Through blockchain-based network
4. **Open Marketplace**
   With add-ons for certified solutions
5. **Demonstration & Replication**
   For industry-wide adoption of TRICK solutions

Technologies

BLOCKCHAIN BASED SOLUTIONS

ARTIFICIAL INTELLIGENCE

INTEROPERABILITY SOLUTIONS

PLATFORM TO COLLECT DATA

TRICK Initiative

Evolution of the Key objectives

1. **Circular Economy Roadmap**
   Based on stakeholders' requirements
2. **Standardised Commercial Service**
   For traceability and transparency
3. **Data Trustworthiness & Sharing**
   Through blockchain-based network
4. **Open Marketplace**
   With add-ons for certified solutions
5. **Demonstration & Replication**
   For industry-wide adoption of TRICK solutions

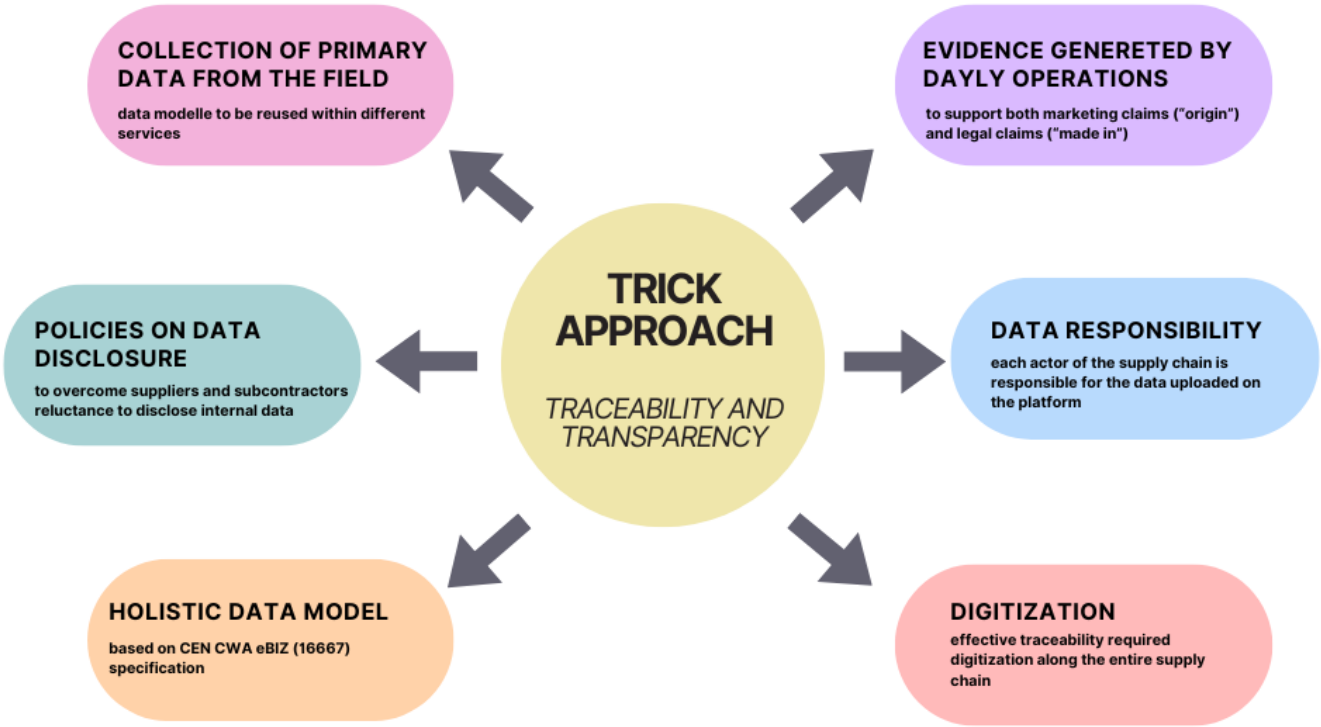
Support holistic and standardized data collection for traceability and sustainability from the raw material to the final product, and related claims with faithful pieces of evidence, notarized by Blockchain

Management of **confidentiality** and **responsibility of data**, in order to overcome the barrier of data sharing among the actors of the supply chain, together with data accuracy and integrity

Match the **requirements** arising from the **upcoming regulations**, like the ESPR and EPR, with a focus on DPP

Provide companies with **shared and standardized tools** that help them to **reduce costs** related to the investments needed to set up internal traceability systems necessary to comply with the upcoming regulations

TRICK approach
Traceability and transparency



Collaborations

Collaboration among projects and initiatives

Scope of the collaboration

- Alignment with the regulatory landscape with a focus on ESPR, DPP and EPR implementation.
- Cross-project cooperation to avoid overlaps and enhance knowledge transfer.
- Active participation on the ECOSYSTEX initiative to identify gaps, create synergies and share the achieved results.
- Address the current challenges from a holistic and interdisciplinary perspective.
- Implement additional pilot test to further analyze the adoption and scalability of circularity, sustainability and traceability approaches in the long term.

Collaboration among projects and initiatives

Regulatory alignment

Circ Thread

TRICK

- Event based traceability and sustainability open data model
- Data groups evaluation from the pilots

CISUTAC
Circular and Sustainable Textiles and Clothing

- Data points for effective guidance of post-consumer products and materials
- Textile waste decision support tool

ECOSYSTEX

- Minimum data requirements for waste management
- Data points related to feedstocks of sorted waste

PESCO UP

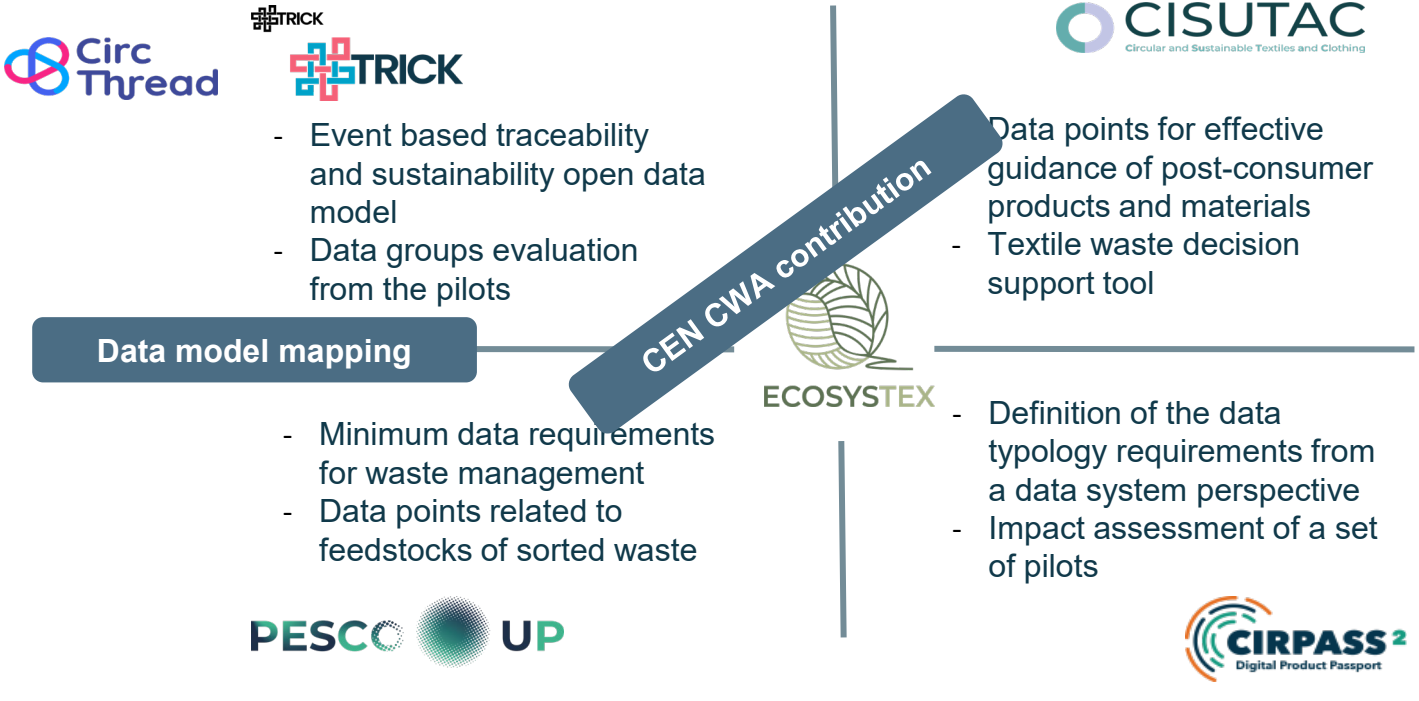
- Definition of the data typology requirements from a data system perspective
- Impact assessment of a set of pilots

CIRPASS 2
Digital Product Passport

CIRPASS
Digital Product Passport

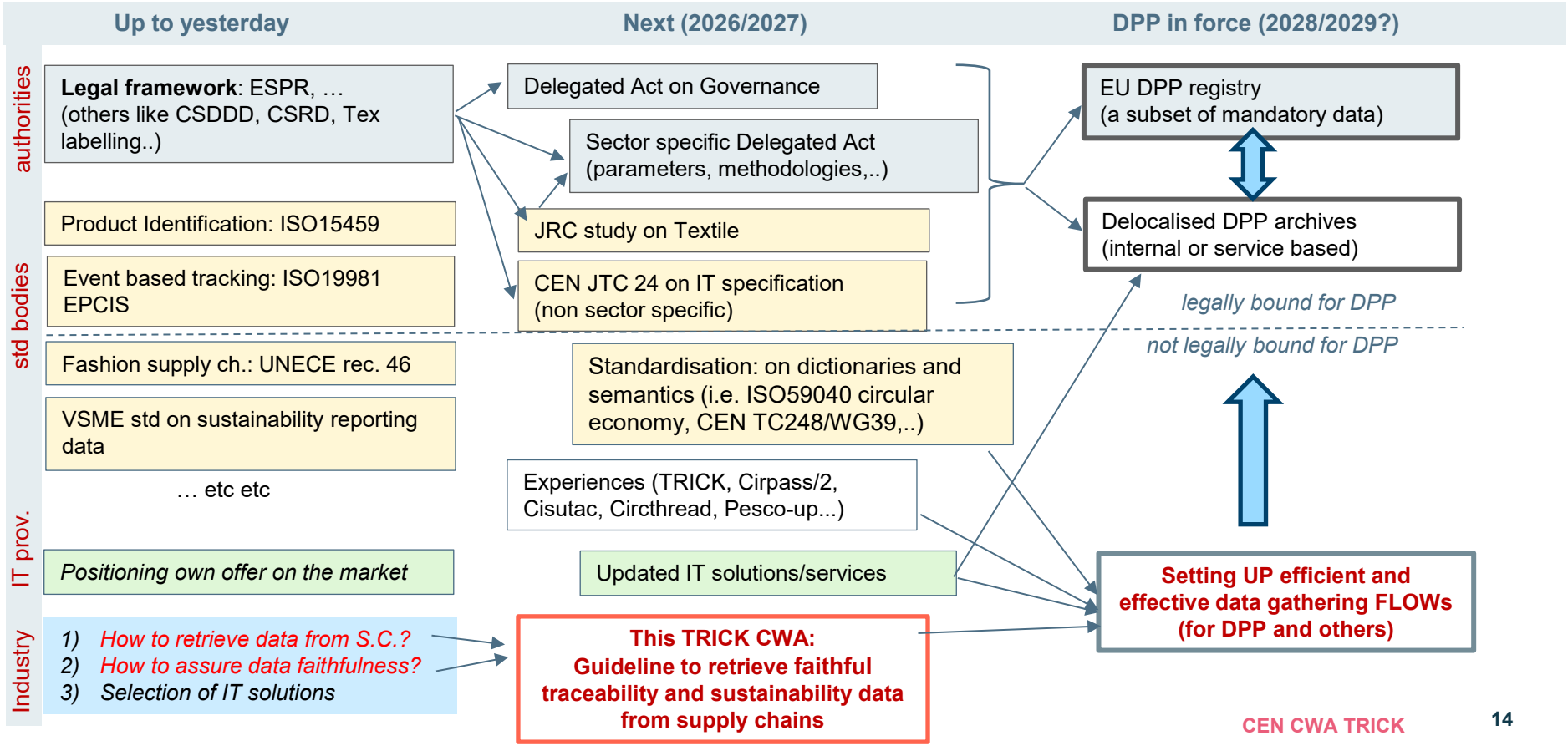
Collaboration among projects and initiatives

Regulatory alignment

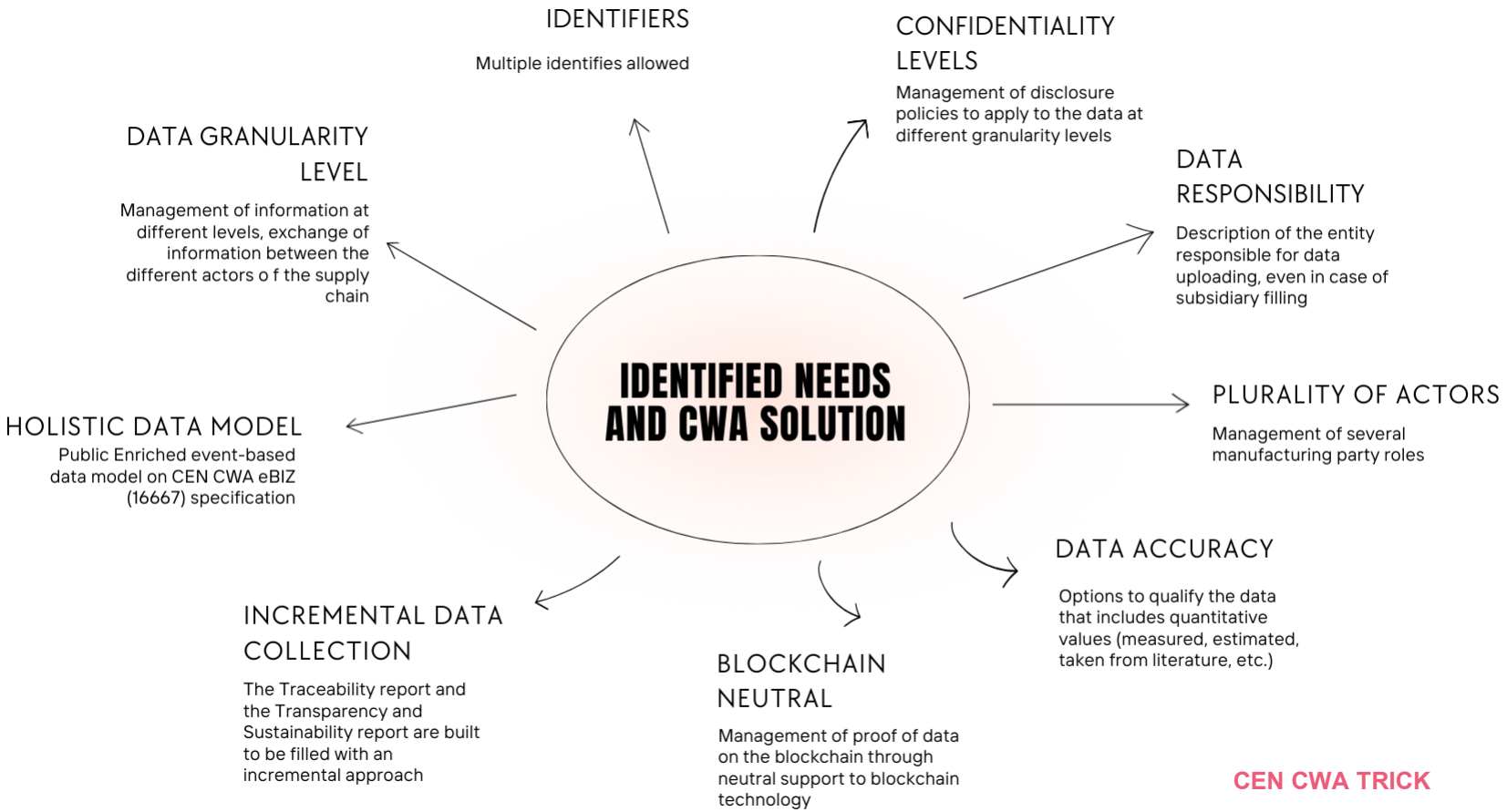


The normative context (DPP, etc.)

The context: where does this CWA fit?



The context: Identified needs and CWA solutions



DPP data requirements (normative in progress)

Basically, independently from the sector, DPP will require three main kinds of information:

1. **Ecodesign requirements** relating to the intrinsic characteristics of the product
2. **Identification information** for the product as such and for the operator responsible for placing it on the European market, etc.
3. Information on the **history** of product placed on the market (production facilities, etc.; other information, like batches, production steps, etc, might be required or not according to the choice about the granularity of the DPP and the sectorial delegated act -to be published in 2026-).

DPP requirements vs CEN CWA TRICK data structures

ECODESIGN	PRODUCT IDENTIFICATION	TRACEABILITY
<productComponent>	<TRCProduct>	<TRCProduct>
<Certificate>	<tracedObject>	<tracedObject>
<ProcessStepList>	<organisationDescriptor>	<organisationDescriptor>
<BillOfChemical>	<facilityDescriptor>	<facilityDescriptor>
<BillOfEnergy>	<ProcessStepList>	<ProcessStepList>
<BillOfWaste>	<Certificate>	<TRCEventList>
<BillOfDirectEmissions>		
<BillOfUsedWater>		
<BillOfTreatment>		
<BillOfTransport>		
<ProductSustainabilityCharacteristics>		
<FacilitySustainabilityCharacteristics>		
<sustainabilityIndicatorGroup>		

Data structures proposed in the CWA data model
to be collected from the supply chain
in order to be able to obtain information to fulfill the DPP.

NOT ALL of this information will be likely required
BUT it might be needed for other impact assessments or compliancy schemes (such as PEF, etc.)

TRICK

CEN CWA 18291:2025

TRICK Guidelines on Data Collection from Textile Supply Chains for the Digital Product Passport

Published: October 2025

CEN CWA overall goals

Guidelines & Resources

Establish guidelines and provide open resources to enable and optimize data collection along textile and clothing supply chains, improving traceability, transparency and sustainability claims

Common Semantics

Propose a common language to enhance interoperability, reducing costs of new collaborations within fragmented supply chains

Standardized approach

Support companies with a standardized approach in traceability and sustainability data collection necessary to fill the Digital Product Passport

Share Experience

Share TRICK project experience with stakeholder, including its public holistic data model and its implementation as massive extension of the CEN CWA eBIZ specification (16667).

CWA Table of Content

Core Sections

1. Scope
2. Normative references
3. Terms and definitions
4. Needs and approach to traceability and sustainability data collection along the supply chain towards the DPP
    1. Introduction to the textile supply chain
    2. Role of traceability and sustainability data for the creation of the DPP and consequent needs
    3. Steps for setting up the data gathering
5. Guidelines for traceability and sustainability data gathering

Annexes

- The TRICK project example: how to set up a data gathering for DPP
- The activity diagram of the traceability workflow in TRICK traditional pilot
- The Traceability Report in TRICK project
- The Events identified as relevant in TRICK project traditional pilot
- Standardization baseline

CWA main topics

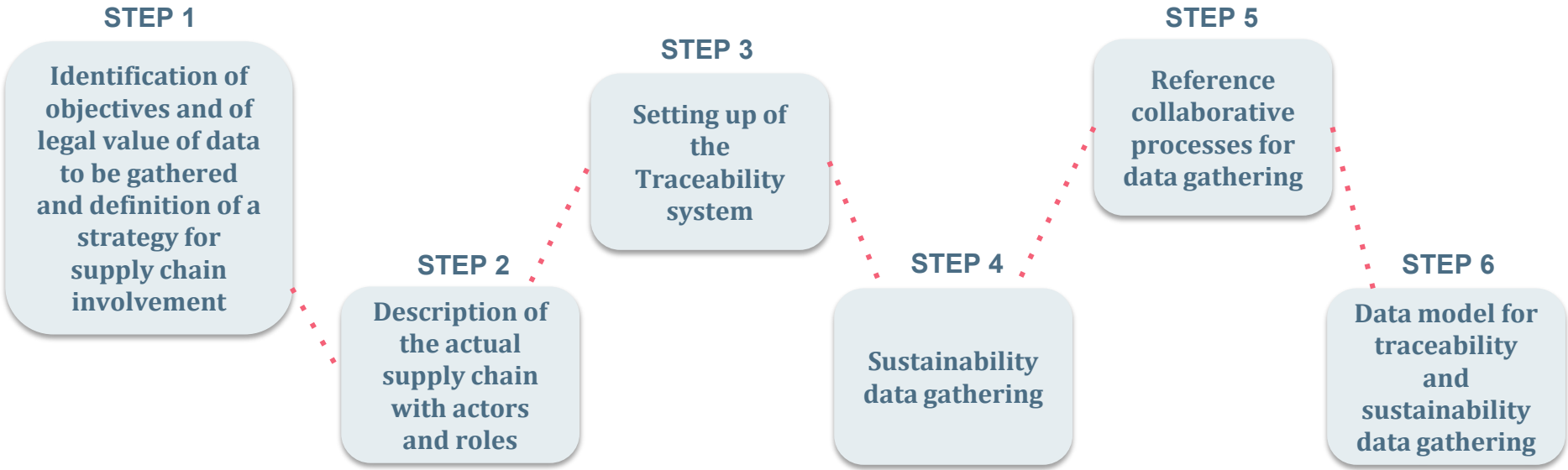
The context
(needs)

The approach to the data gathering supporting the DPP
(roles, supply chain description, set up of the traceability system, etc.)

The reference collaborative processes and the proposed data model with related examples and resources

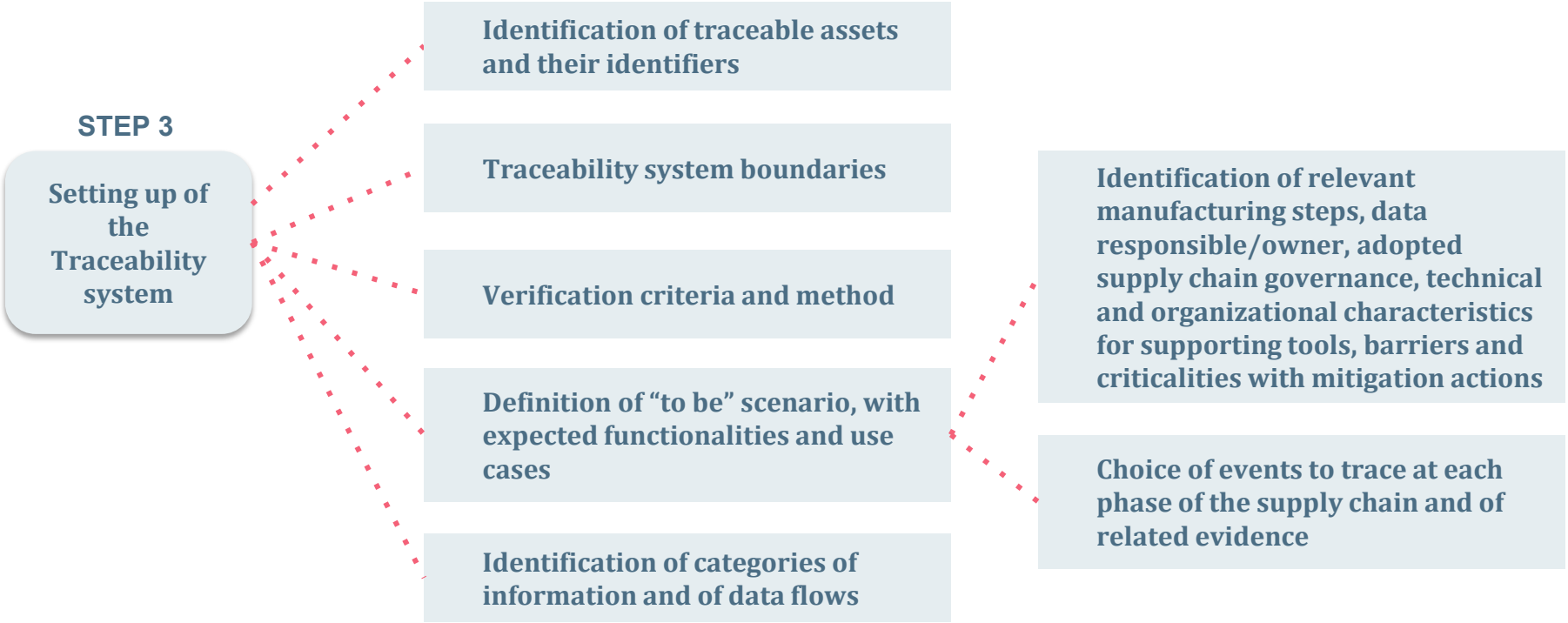
The approach

The data gathering path: preparing data for filling the DPP



The approach

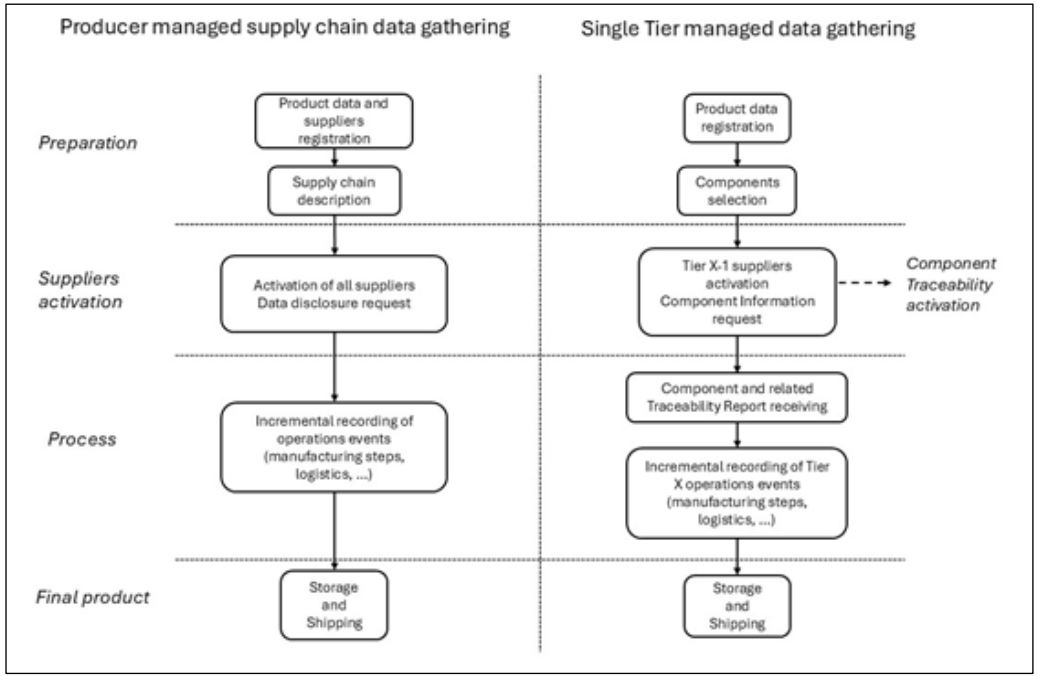
A focus on Step 3: Setting up of the Traceability system*



*based on UNECE methodology for Sustainable and Transparent fashion supply chains

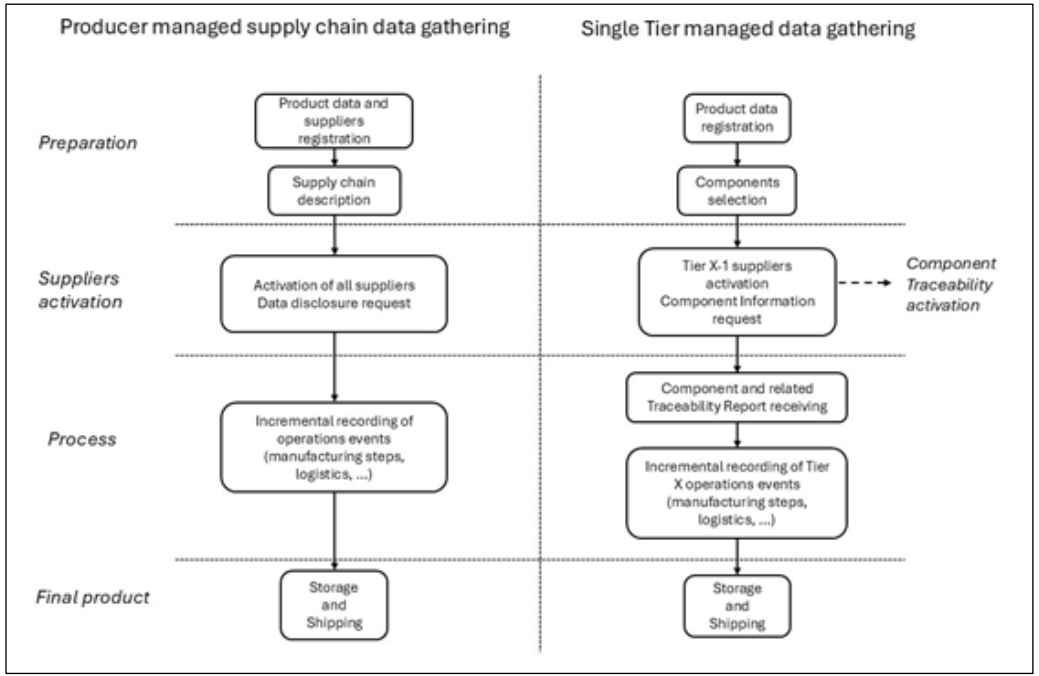
The approach

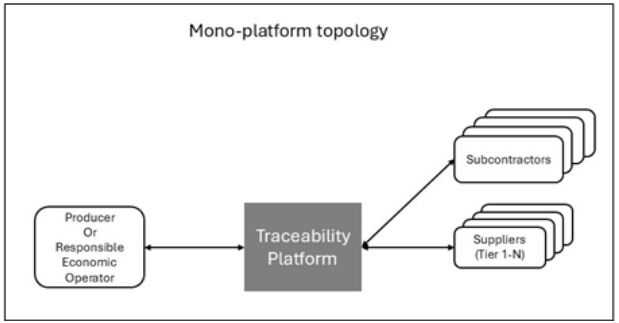
Governance: two possible approaches to data gathering

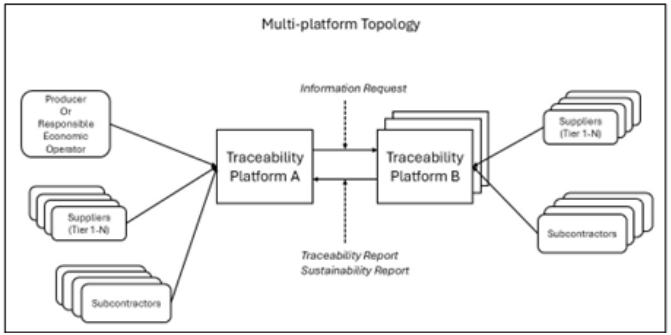


The approach

Governance: two possible approaches to data gathering

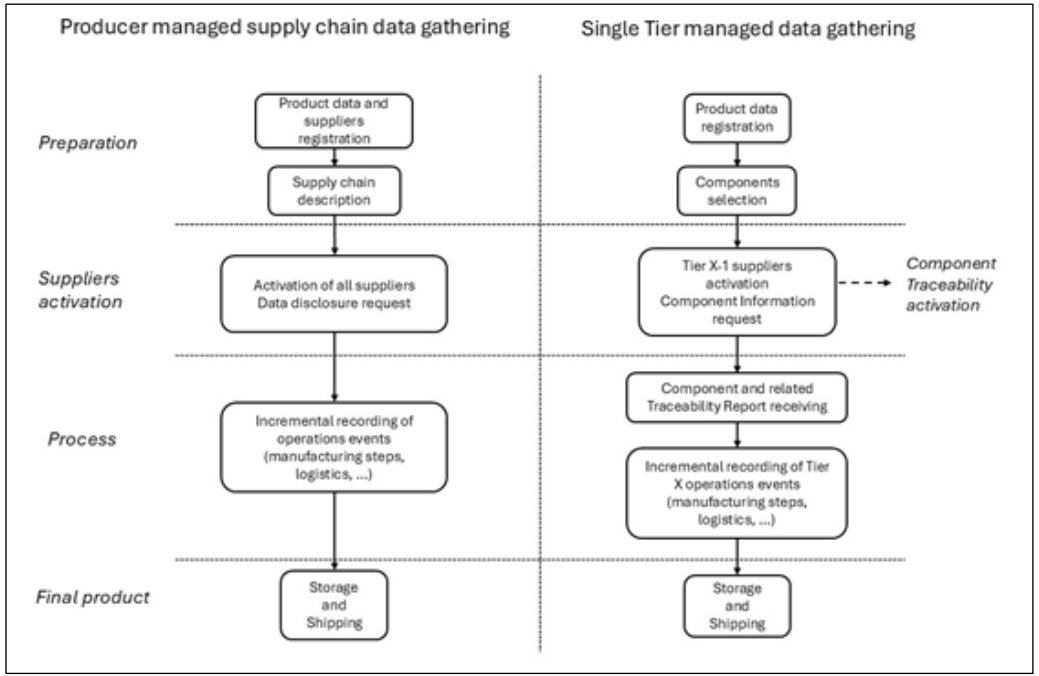




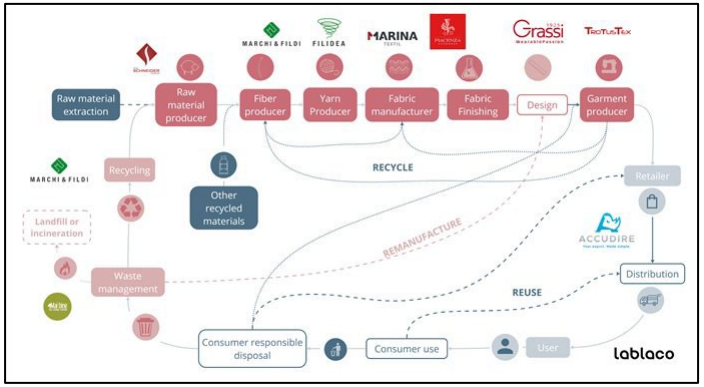


The approach

Governance: two possible approaches to data gathering



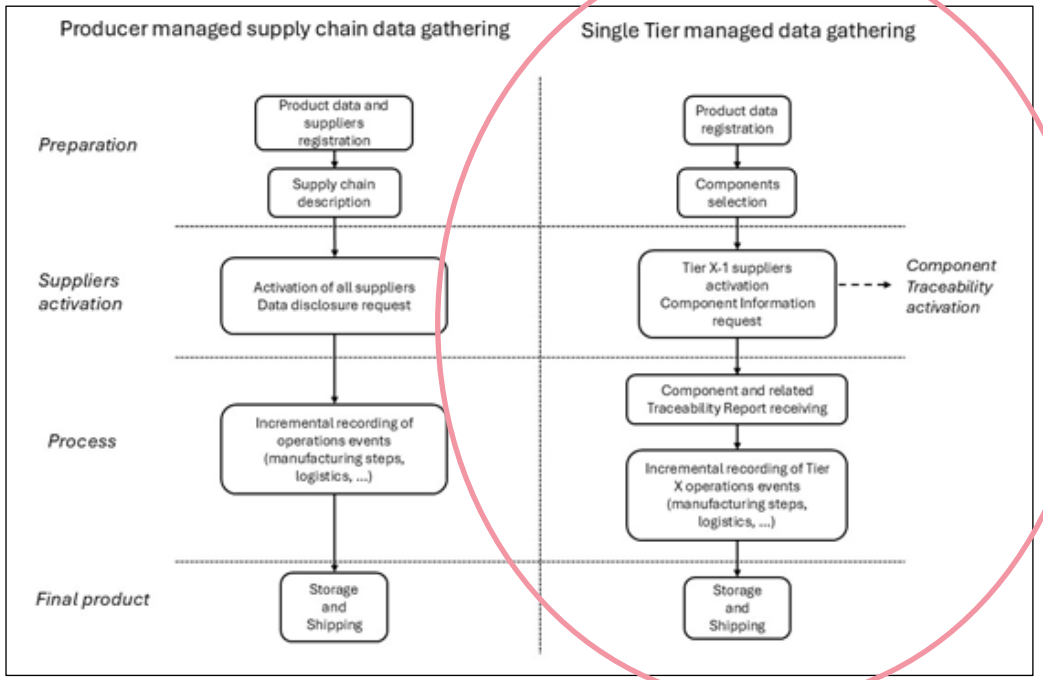
TRICK Fashion pilot



TRICK Workwear pilot

The approach

Governance: two possible approaches to data gathering



TRICK Fashion pilot

TRICK Workwear pilot

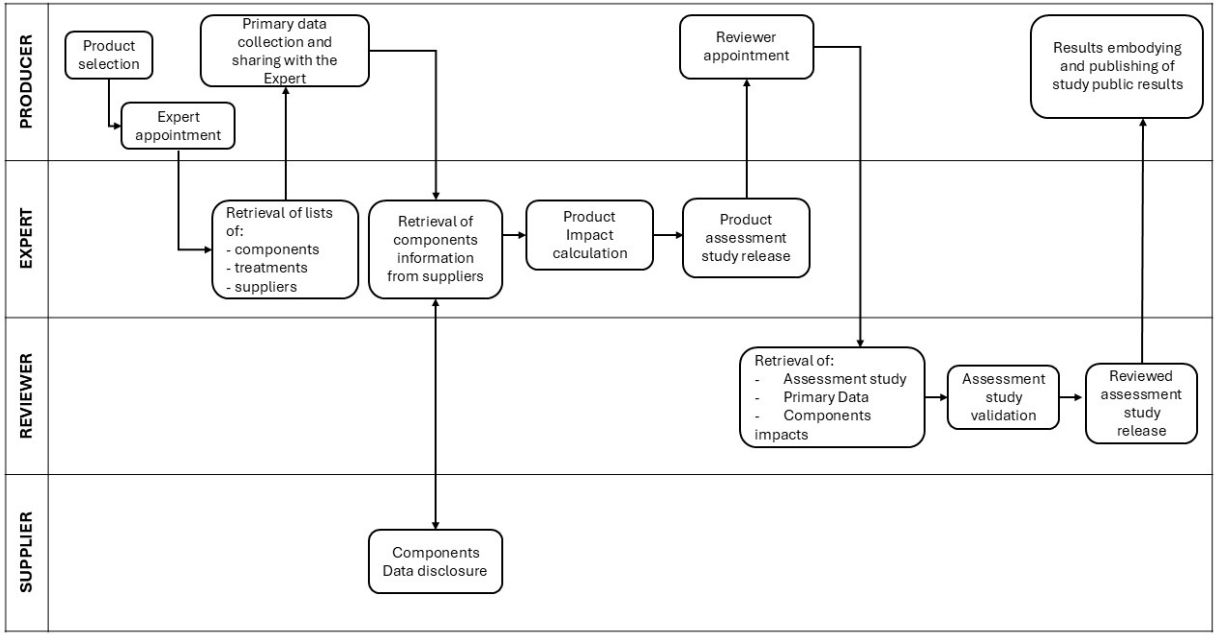
Data exchanged as the baton in a relay race

The approach

Step 4 – Sustainability data gathering - Example of ‘consultancy pattern’ scenario

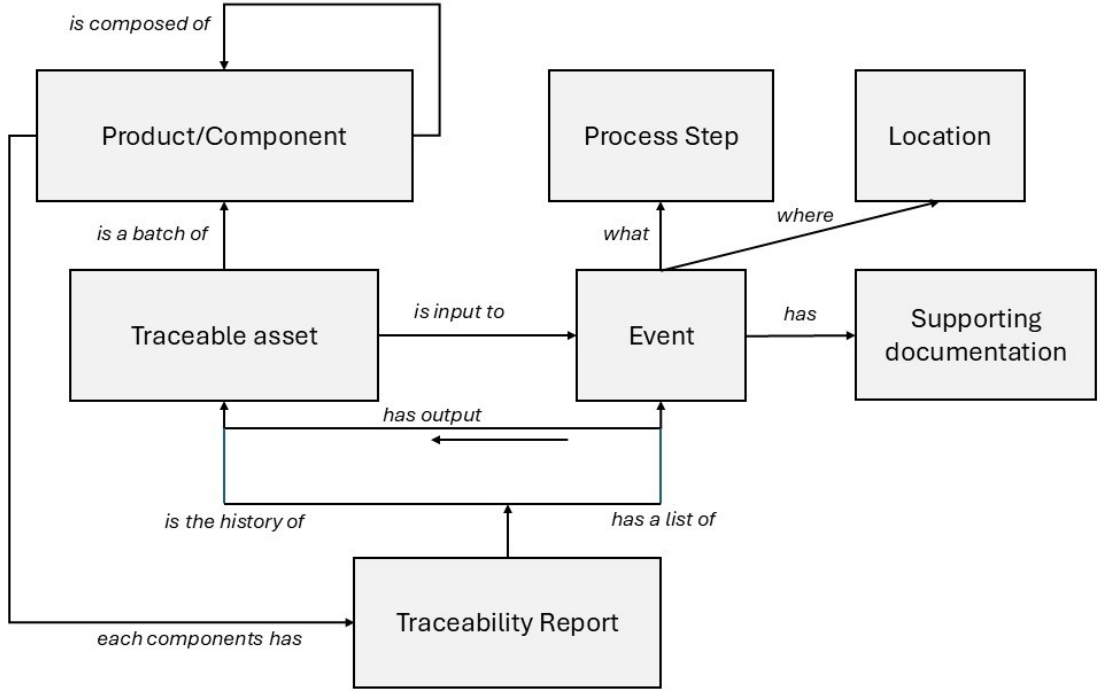
Model developed starting from the use case of PEF and PEF-CR as one of the most complete, and of SA8000 for ethical/social aspects

Example of ‘**consultancy pattern**’ scenario in sustainability data gathering from a whole (and fragmented) supply chain



Reference collaborative processes and data model

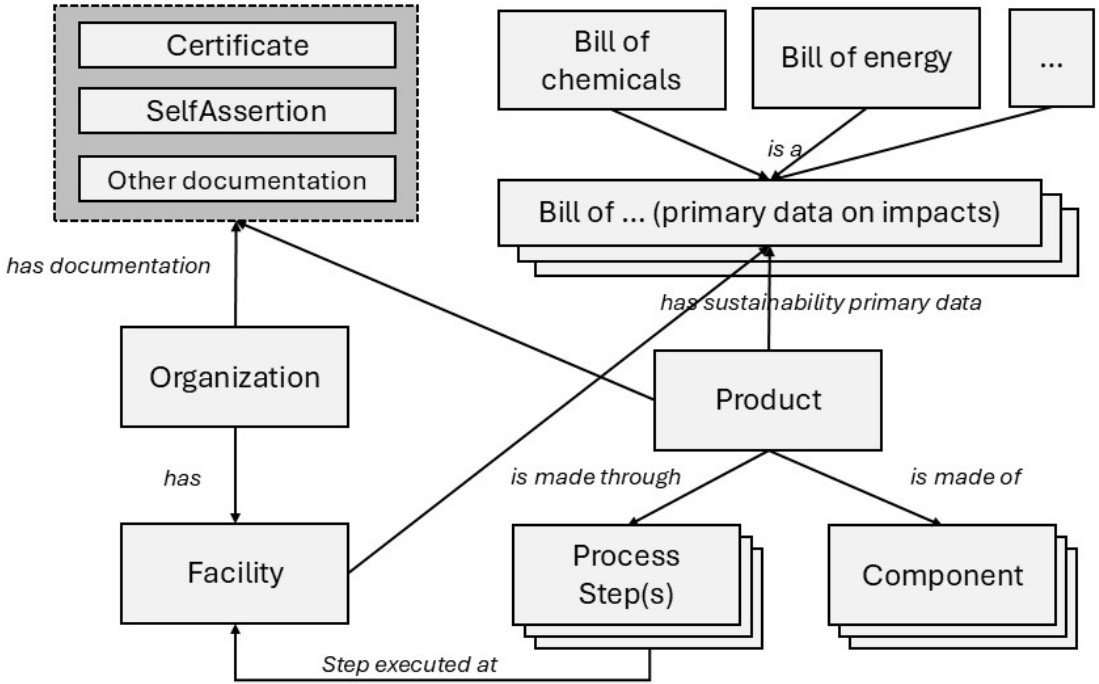
The most relevant entities on traceability and their relationships



Traceability report

Reference collaborative processes and data model

The most relevant entities on sustainability and their relationships



Transparency and Sustainability report

Reference collaborative processes and data model

Why identify reference collaborative processes?

Need to standardize the collaborative aspect by identifying the methods by which the sequence of data exchange between the parties occurs

The CWA identifies two main reference collaborative processes with related activities and transactions

Reference collaborative processes and data model

Traceability fo sustainability process

Reference collaborative processes and data model

Example of activity from TRICK project*

Each activity specifies:

- when to exchange data
- under which preconditions and results
- with which data groups (documents/messages).

(*) https://www.trick-project.eu/

Table 8 "Incoming material" activity

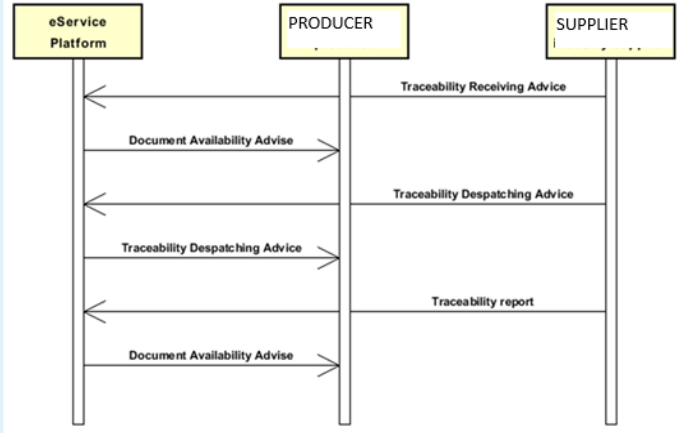
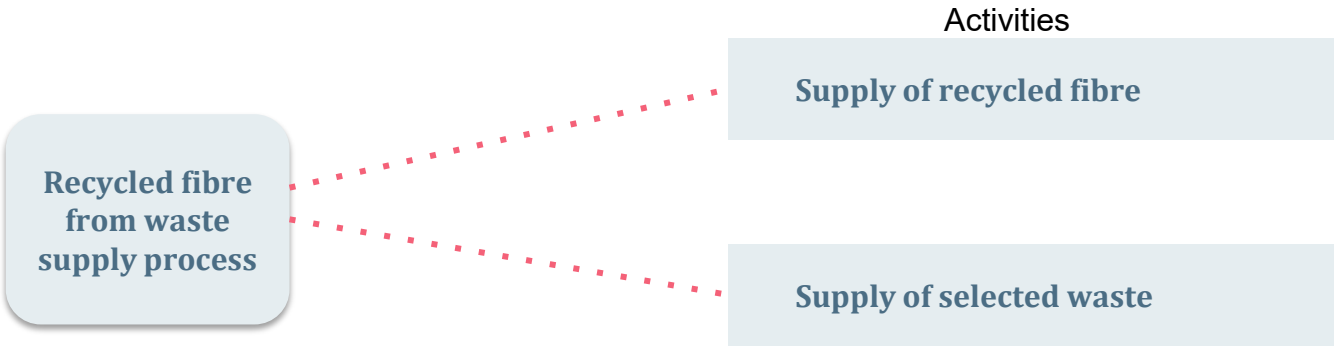
Process activity	Incoming material
Description	Data exchange between Material Producer, the eService Platform and the Producer (for example Fabric producer or Yarn supplier) related to the information of the supplied material. Precondition: A supply order should exist. The supplied material should be known by the recipient system
Transactions	1. Traceability Receiving advice 2. Document availability advice 3. Traceability Despatching advice 4. Traceability Despatching advice 5. Traceability Report 6. Document availability advice
Activity Diagram	

Figure 10 "Incoming material" activity diagram

Reference collaborative processes and data model

Recycled fibre from waste supply process



Ongoing work, based on the PESCO-UP and CISUTAC projects, still in progress. Initial indications already available have allowed to define two distinct activities, with the related involved actors.

Resources

Example of data structure from TRICK project

Table 26 <processStep> data structure

Child	Min	Max	Description
processStepID	1	1	Internal identifier of the single manufacturing operation needed to produce the product
manufacturingOperationCode	1	1	Single manufacturing operation type
description	0	9	Free text description. The content of the element must be unique, it might be translated and repeated into more languages (thus no more than one instance for each language). Only one instance of this element for each different value of "In" attribute (language)
activityLocation	0	99	Data relating to a place where activities take place (indicate at least element location or address, city and country). Here filling location, country and subcountry is enough. When the activity is carried out in more than one location, indicate what percentage of the total is carried out at each one.
note	0	99	Free text structured (computer processing) note. For note structuring use the attributes *@noteLabel* and *@codelist*.

Resources

Taxonomy of manufacturing operation types

Taxonomy of manufacturing operation types in eBIZ

Code	Table values
0	Fibres production
0.1	Animal fibres production
0.2	Plant fibres production
0.3	Production of man-made filaments and fibres
0.3.1	Raw materials for man-made filaments and fibres
0.3.2	Extruders
1	Yarn manufacture
1.1	Spinning Preparation for cotton fibers
1.1.1	Opening for cotton
1.1.2	Cards
1.1.3	Drawing machines for cotton
1.1.4	Lap winders
1.1.5	Combing machines for cotton
1.1.6	Roving frames
1.2	Spinning Preparation for wool fibers
1.2.1	Opening lines for raw wool
1.2.10	Back washing machine
1.2.11	Finishers
1.2.12	Roving frames for worsted yarn
1.2.2	Raw wool scouring lines
1.2.3	Carbonising lines
1.2.4	Opening for wool
1.2.5	Worsted cards
1.2.6	Semi-worsted cards
1.2.7	Woollen cards
1.2.8	Drawing machines for wool
1.2.9	Combing machines for wool
1.3	Spinning preparation for blended fibres
1.3.1	Blending
1.3.2	Mechanical Blending
1.4	Spinning
1.4.1	Mechanical Spinning
1.4.1.1	Ring-spinning

Resources

Example of Traceability Report in TRICK project

An example of the Traceability report

Traceable asset(s) report n.1
Report about primary Item: true
Content limited by disclosure policy: false
Exhaustive information about the mentioned item(s): false
Accomplished Production: false

Final traced assets list (of the whole report)
- limited by disclosure: false
- exhaustive information: false

#	Traced asset description
1	**LOT** fabric (finished) (non knitted) **id:** IT01606600029$C83335 *(cod. TRICK)* **made of** IT01606600029$70236/T13/41929 *(cod. TRICK)* **Quantity:** 42.5 (mtr)
2	**LOT** fabric (finished) (non knitted) **id:** IT01606600029$T207365 *(cod. TRICK)* **made of** IT01606600029$70236/T13/41929 *(cod. TRICK)* **Quantity:** 25 (mtr)
3	**LOT** fabric (finished) (non knitted) **id:** IT01606600029$T207721 *(cod. TRICK)* **made of** IT01606600029$70236/T13/41929 *(cod. TRICK)* **Quantity:** 25 (mtr)
4	**LOT** fabric (finished) (non knitted) **id:** IT01606600029$T207722 *(cod. TRICK)* **made of** IT01606600029$70236/T13/41929 *(cod. TRICK)* **Quantity:** 25 (mtr)

Note:
- Note about this report in the whole.

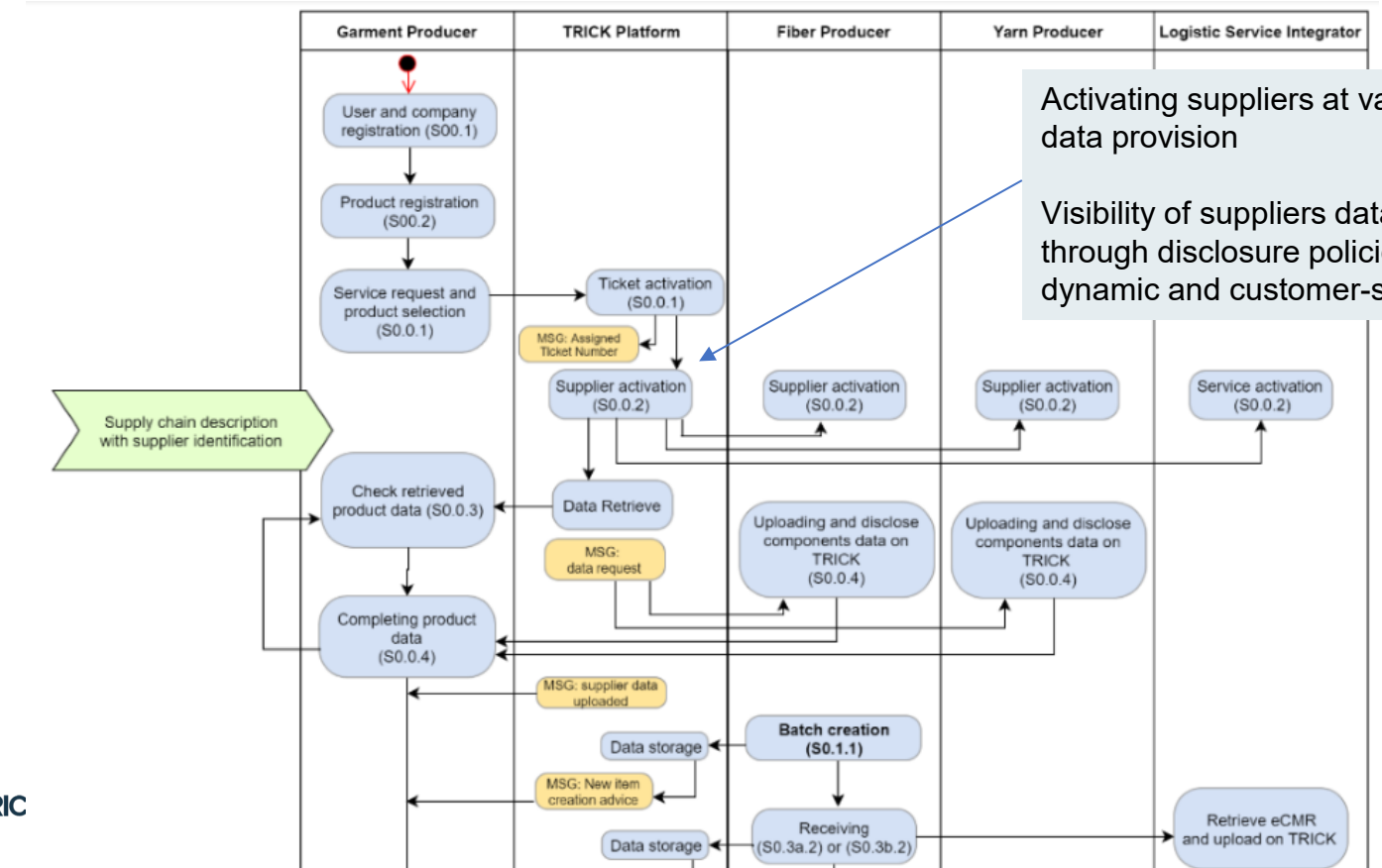
Event(s) list

#	Event description
1	**Event ID:** TRICK-EVENT-4b-finishing *(cod. SU)* **Event type:** TRCTransformationEvent, **Action:** addition **Event date:** 16/12/2023 **Event registration date:** 17/12/2023 **Performed Business Step:** Manufacturing step *(no:Application Platform cl:http://www.ebiz.enea.it/moda-ml/repository/codelist/Draft/gc_TRK03.xml ln:TRK03 lv:1.0)* **Manufacturing step:** 3 - Finishing and Dyeing Description: (English) Finishing and cut into small pieces ***- Traced assets local to the event:*** ***- Where, Who, Why:*** **Note about the event:** - Finishing and cutting of the second piece of dyed greige fabric; note that the original pieces have been cut and originated 3+3 new shorter pieces, furthermore the original pieces now have different type (finished fabric) and different lenght (after cutting the new ones)

Note:
- Note that the events of this list are registered by the garment producer, other events might be registered by subcontractors and suppliers. This list of events contains the full history of the product, up to selling them (association

Resources

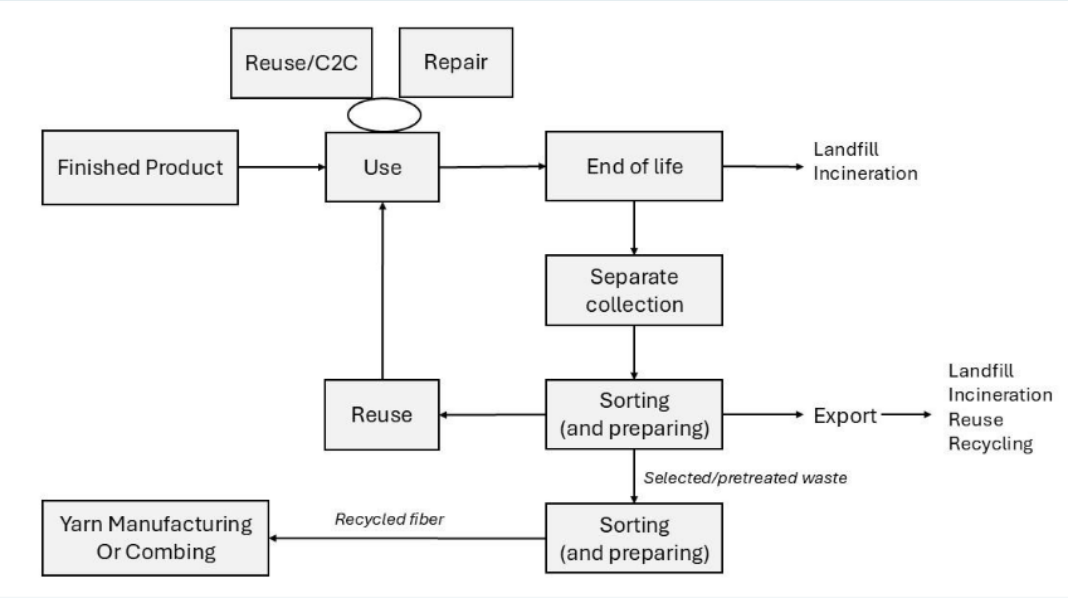
Activity diagram of Traceability workflow in TRICK project



Activating suppliers at various stages for data provision

Visibility of suppliers data, managed through disclosure policies (including dynamic and customer-specific policies)

Downstream processes for post-consumer textile waste



In collaboration with

PESCO UP

CISUTAC
Circular and Sustainable Textiles and Clothing

Downstream processes for post-consumer textile waste

CISUTAC
Circular and Sustainable Textiles and Clothing

Recommended 17 datapoints for scaling – Reuse, Repair, Recycling

Condition	**Repairability**	**Recycle content**
Product construction	**Durability**	**Textile finishing**
Multilayer	**Fibre composition**	**Fabric colour**
Chemical content	**Product type**	**Disruptors**
Production year	**Brand**	**Product disassembly**
	Price	
	Product gender	

Downstream processes for post-consumer textile waste

PESCO UP

PESCO-UP minimum data requirements

Entity and facility data	Batch data	Input & output specification	Interpreted sensor data
Geographic locations	Batch weight	Accuracy of specification	Sensor type
Entity + facility names	Production date	Colour	Sensor accuracy
Business registry + number	ID number	Contaminants	Colour
Activities carried out by location	Chain of custody validation	Fibre composition	Contaminants
	Activities carried out in processing	Format of the materials	Fibre composition
	Packaging for shipment	Physical properties	Physical properties

Future collaboration pathways

- The results of the TRICK CEN CWA continue to contribute in different initiatives as the **ECOSYSTEX Target group TG5 – "Circular Textile Data"**
- **Lead** by: TEXroad, VTT & Reverse.Resources.
- **Include**
  - **TRICK CEN CWA, eBIZ updates and pilot results**
  - **PESCO-UP minimum data requirements and data exchange developments**
  - **CISUTAC decision support tool and Open data standard**
  - **CIRPASS-2, SAGE, TREX, textended... data related deliverables**
- **Scope**: bringing together data related needs, developments and results from ECOSYSTEX projects and deploying useful resources for research industry and policy.
- **Objectives**: prioritization of data uses, align minimum data requirements and establish semantic interoperability to scale up circular textile

How to use this CWA

01

Follow the proposed steps
as a checklist on how to proceed (internally and with your supply chain) and evaluate whether the identified needs are appropriate for your situation.

02

Refer to the modeled collaboration processes
to understand how to collaborate and share a common approach across the supply chain.

03

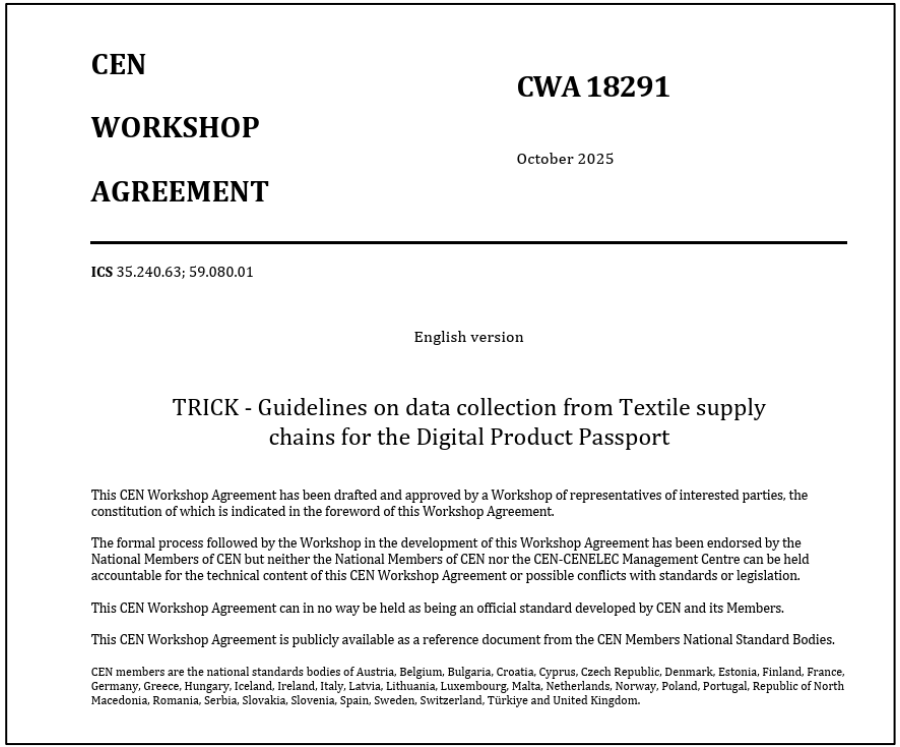
Look at abstract, yet comprehensive, data models
to understand relationships and dependencies between entities and not re-invent the wheel.

04

Use examples
The CWA annexes and references contain examples of data structures implemented in XML and JSON, based on eBIZ extensions. These are complete and ready to use.
(Regulatory standards for reference data formats may soon be released, but in the meantime, these can be used to prepare and test abstract data models.)

Download the CWA

https://www.cencenelec.eu/media/CEN-CENELEC/CWAs/RI/2025/cwa18291_2025.pdf



CEN

WORKSHOP

AGREEMENT

CWA 18291

October 2025

ICS 35.240.63; 59.080.01

English version

TRICK - Guidelines on data collection from Textile supply chains for the Digital Product Passport

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

The formal process followed by the Workshop in the development of this Workshop Agreement has been endorsed by the National Members of CEN but neither the National Members of CEN nor the CEN-CENELEC Management Centre can be held accountable for the technical content of this CEN Workshop Agreement or possible conflicts with standards or legislation.

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Thank you for your attention!

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