



41st UN/CEFACT FORUM

2-5 OCTOBER 2023 | BANGKOK | THAILAND

Digital Product Conformity Certificate Exchange BRS - High Level Process

Project Launch
3 October 2023



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Project Introduction



B Hyland
Project Lead

Testing Inspection Certification (TIC) Sector

For the products we consume and interact with, TIC provides the basis for assuring:

- ✓ Safety
- ✓ Quality
- ✓ Environmental impact
- ✓ Social impact

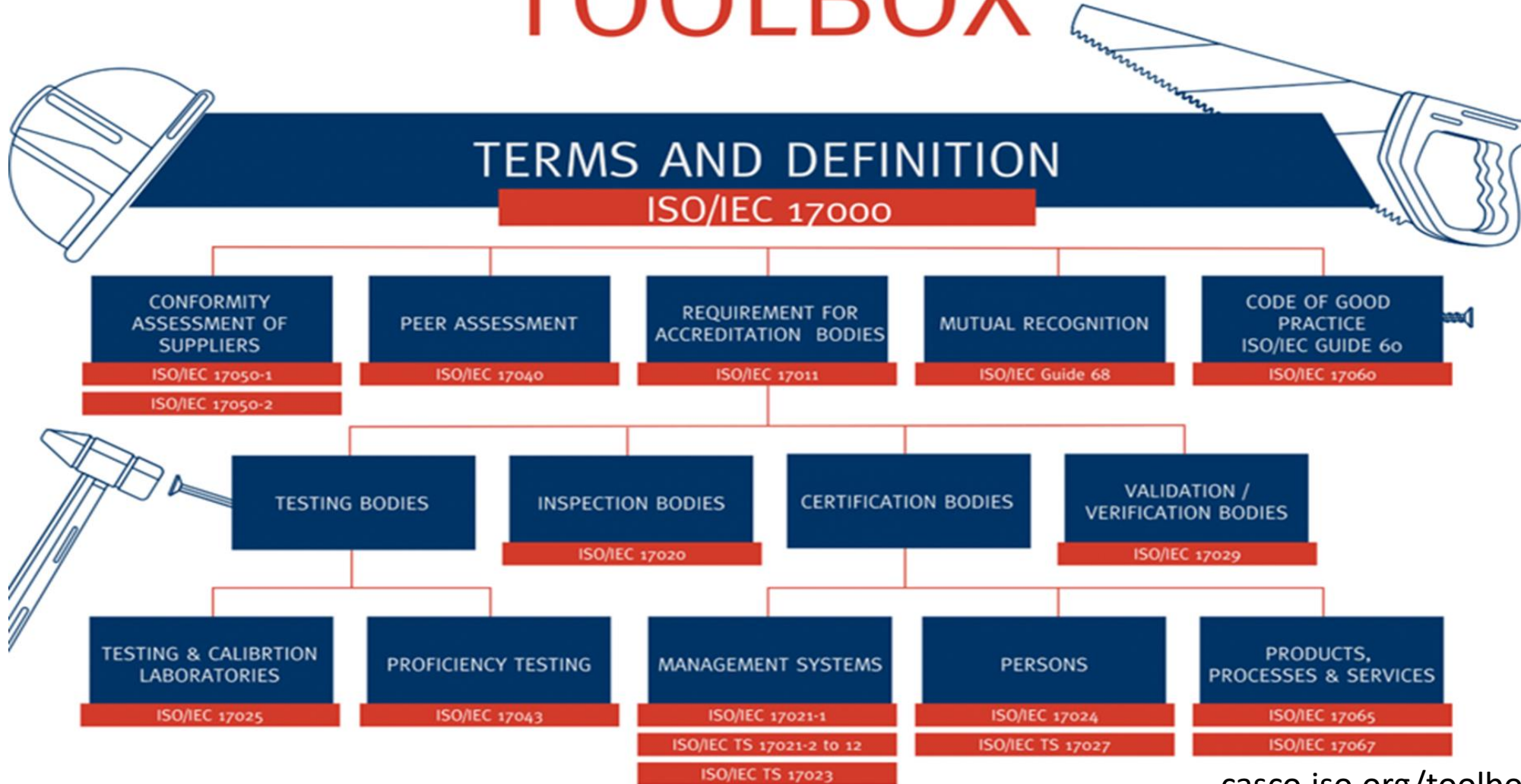
The sector is fundamental to the facilitation of global legitimate trade:

- Global accreditation arrangements ensure cross-border recognition
- Involves a global network of approximately 1M employees*
- Operating under a well-established framework of ISO standards

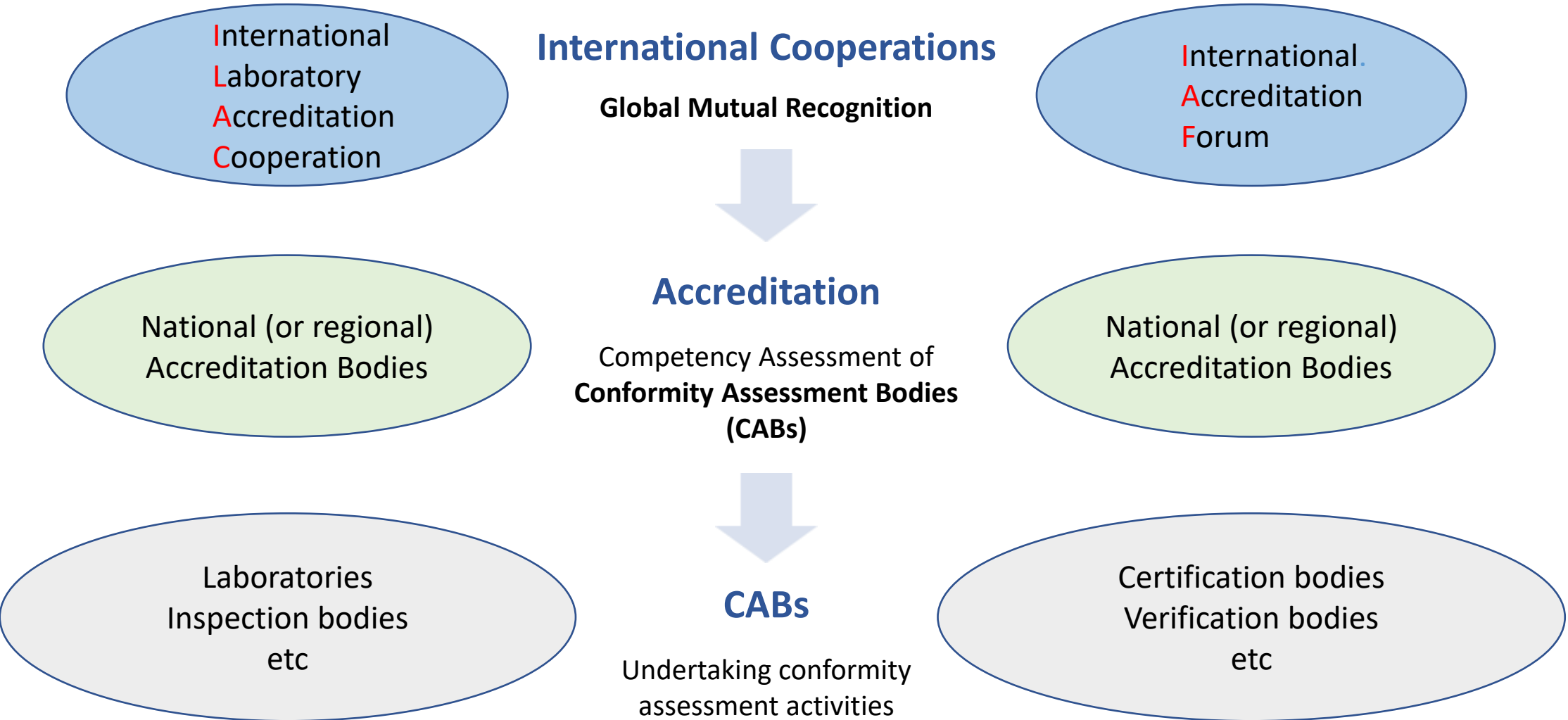
**Source <https://www.tic-council.org/about-us/what-is-the-tic-sector>*

ISO CASCO – Our critical point of reference

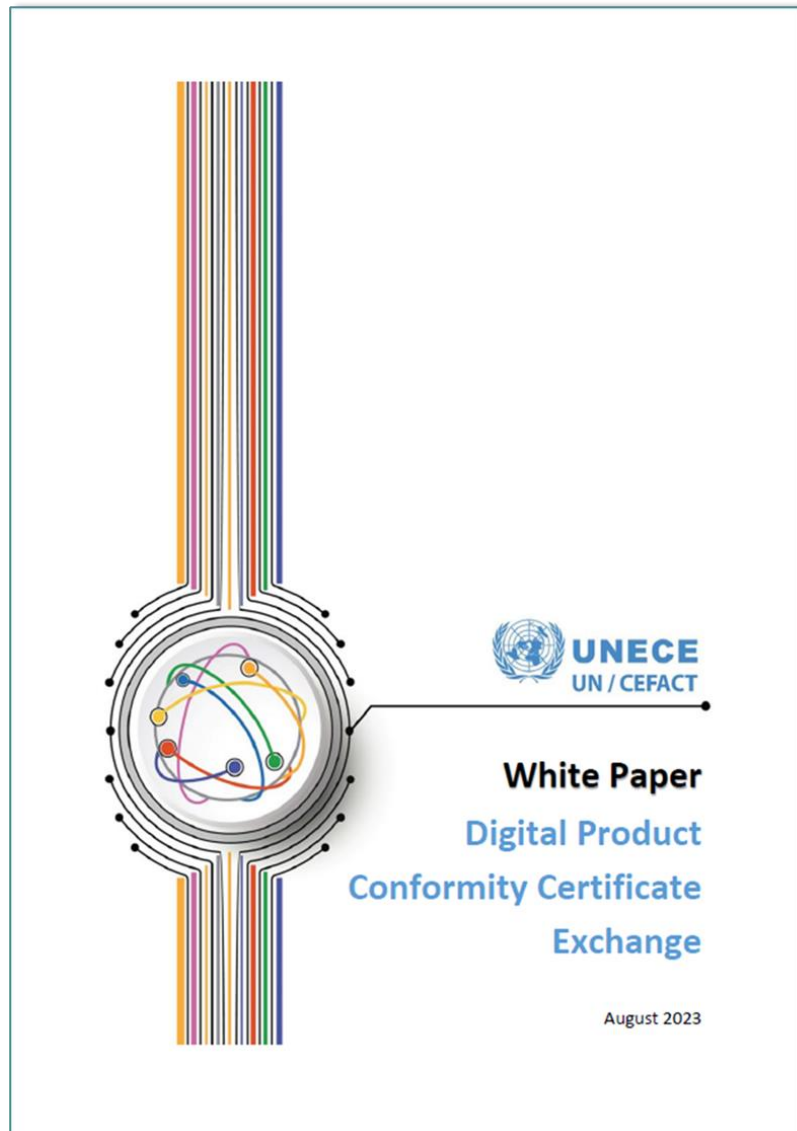
TOOLBOX



Facilitating trade through global mutual recognition



Prior exploration of key principles



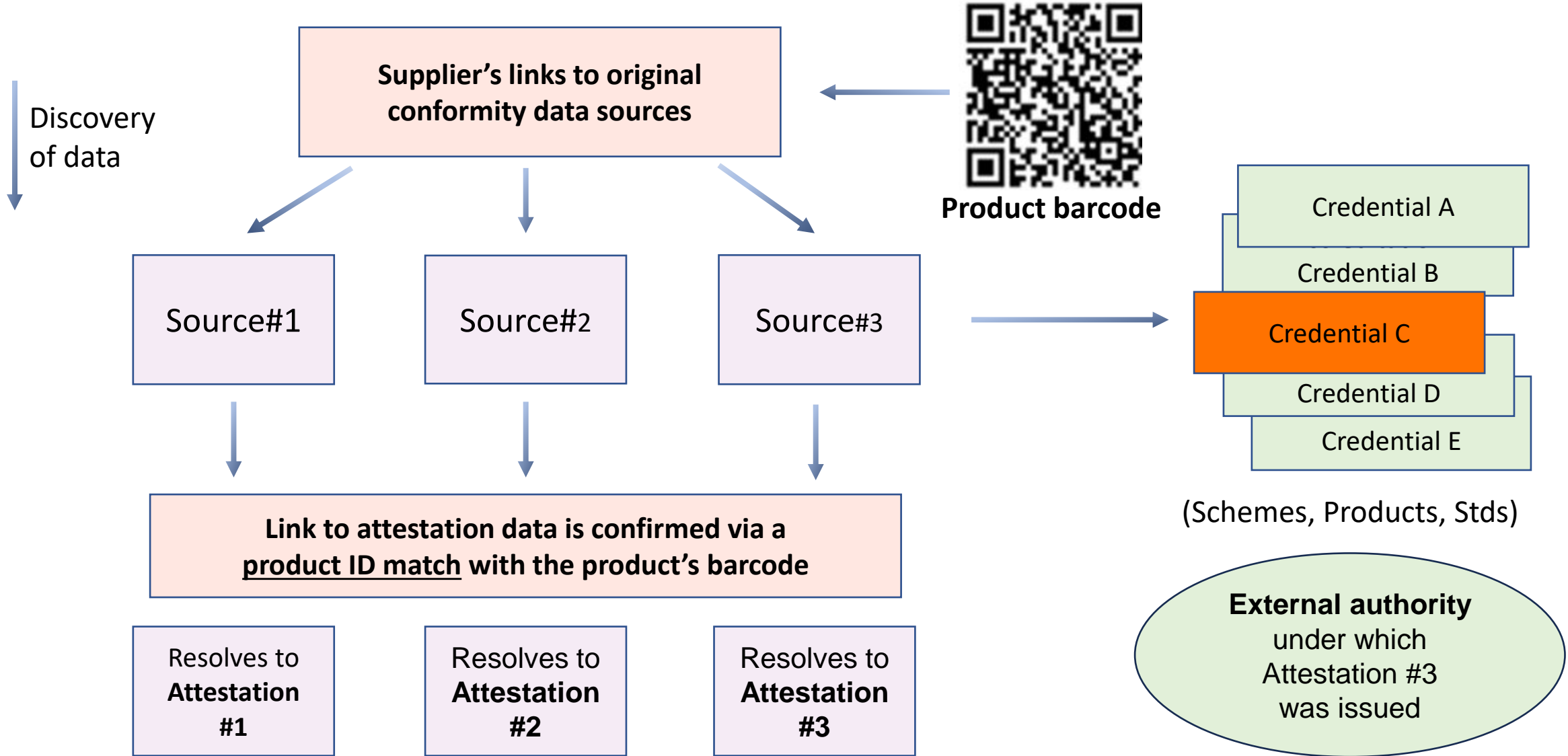
Challenges with conformity data exchange

1. Conformity attestations are **subject to revision**, but paper/PDF copies don't automatically update themselves
2. Vulnerability to **false connections** being asserted between conformity data and physical product supply
3. The rigor of some product approvals may be open to question, with the **connection to global recognition** not always obvious (or non-existent).
4. A single commercially sensitive data point means the entire **attestation is removed** from the pool of available data

Potential ways to strengthen traceability

1. Identifying attestations **in a discoverable way** and having these verifiable **back to the issuer** (or to an authoritative repository of attestations)
2. CABs making an **independent record** of any visible **global physical identifier** for the product that was the subject of the attestation
3. Linking attestations to the **external authority** under which they were issued
4. Approaches do exist for suppressing **commercially sensitive** data elements (simplified CAB reports, access permission, redactable self-sovereign objects)

Data discovery schematic



Supply chain Use Case #1

Building products – Example of structural steel, from mill to as-built

Problem(s) to be solved:

“While noting that regulatory practices differ around the world, in many circumstances the authority having jurisdiction **cannot effectively establish the validity and relevance of information submitted to support compliance** with national building codes and referenced standards, including those relating to ESG performance, due to the lack of robust linkages to physical product supply and potential lack of clarity regarding the authority under which conformity information had been issued.”

Supply chain Use Case #2

Textiles products – Example of cotton garments - spinning to recycling

Problem(s) to be solved:

“The complexity and current intractability for tracking textile sustainability data will be examined from the perspective of conformity assessment practices.... The purpose of the analysis will be to **ascertain how conformity assessment bodies (CABs) might facilitate the availability and authenticity of data, to progress pre-existing work by UN/CEFACT in this area**”

Note: A new CEFACT BRS on Textile Circularity will shortly go to Public Comment - which represents a very important new input for our project!



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Thank you!

Brett Hyland
Project Lead
UNCEFACT

Date: 03 | 10 | 2023



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UN/CEFACT Product Circularity Data Project

Extension of BRS part 2 of Textile Traceability & Transparency



Gerhard Heemskerk
UN/CEFACT Lead editor of Product Circularity Data Project

PART 1

What is the Textiles Circularity Use Case seeking to achieve



Scope and Objectives

- **Scope:**

- Improving sustainability through product circularity.
- Supporting digital product data exchange:
 - from the point the final product gets an ID and/or label attached.
 - for resale, rental, collections, sorting, recycling
 - circular lifecycle management (especially post-consumption)

Supporting circular
business models and
government requirements

- **Objectives:**

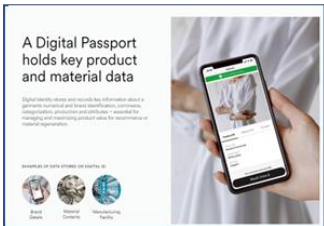
- Global scope
- Cross-Industry
- Reuse existing standards
- Align with EU DDP
- Use of the UN Core Component Library subset

Harmonizing the product circularity data

Existing initiatives

EU DPP

UNECE



Circular Product Data Protocol

1

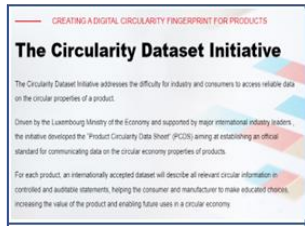
Textiles
44 fields



Circularity. ID

2

Textiles
111 fields



Product Circularity Data Sheet

3

Textiles
80 fields



Shaping EU Digital Product Passport

4

Electronics, Batteries,
Textiles

common rules, principles,
taxonomy, and standards



Product Circularity Data

5

Textiles & Leather

Covering at least EU data requirements for textile.

Identifying commonalities and areas for harmonization

What are the tasks to do?

1. Describe the **requirements** for the product circularity use case.
2. Create data **definitions** for a digital identity of a product and its materials supporting a circular economy.
3. Create a **submission file** for the UN/CCL to include possible new data components.
4. Create **XML messages** and/or standardized **API/JSON files** to enable data exchange between stakeholders.

BRS

UNCCL

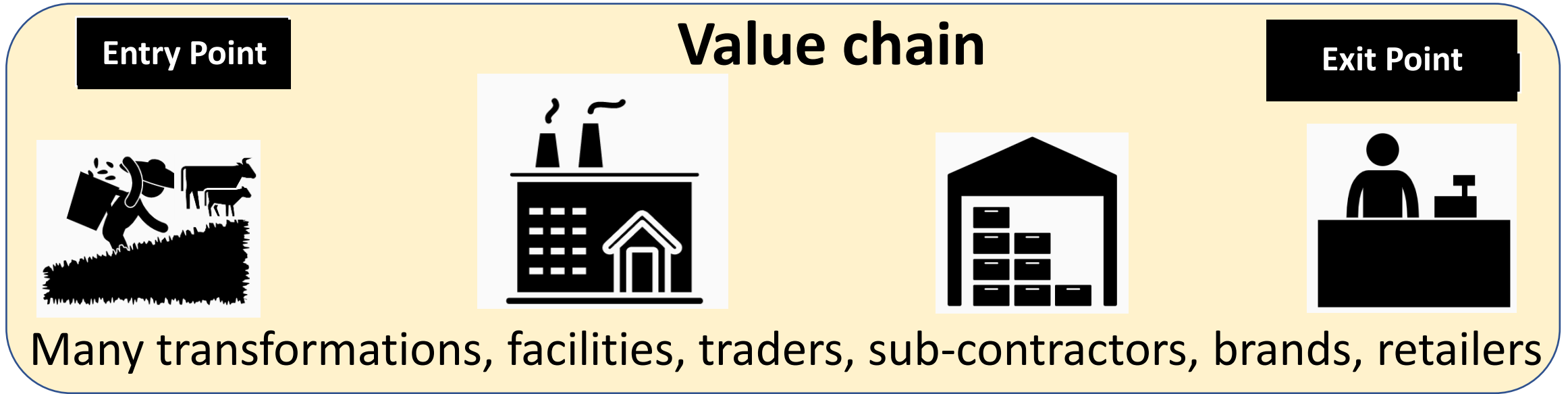
Schemas

PART 2

What steps are involved in the textile lifecycle of a cotton product?



Cotton Value Chain



What conformity issues aggregate along the supply chain?



SLIM SHIRT
Season SS21



CLASSIC TAPERED JEANS
Season SS21



CLAIMS

Traceability of Origin

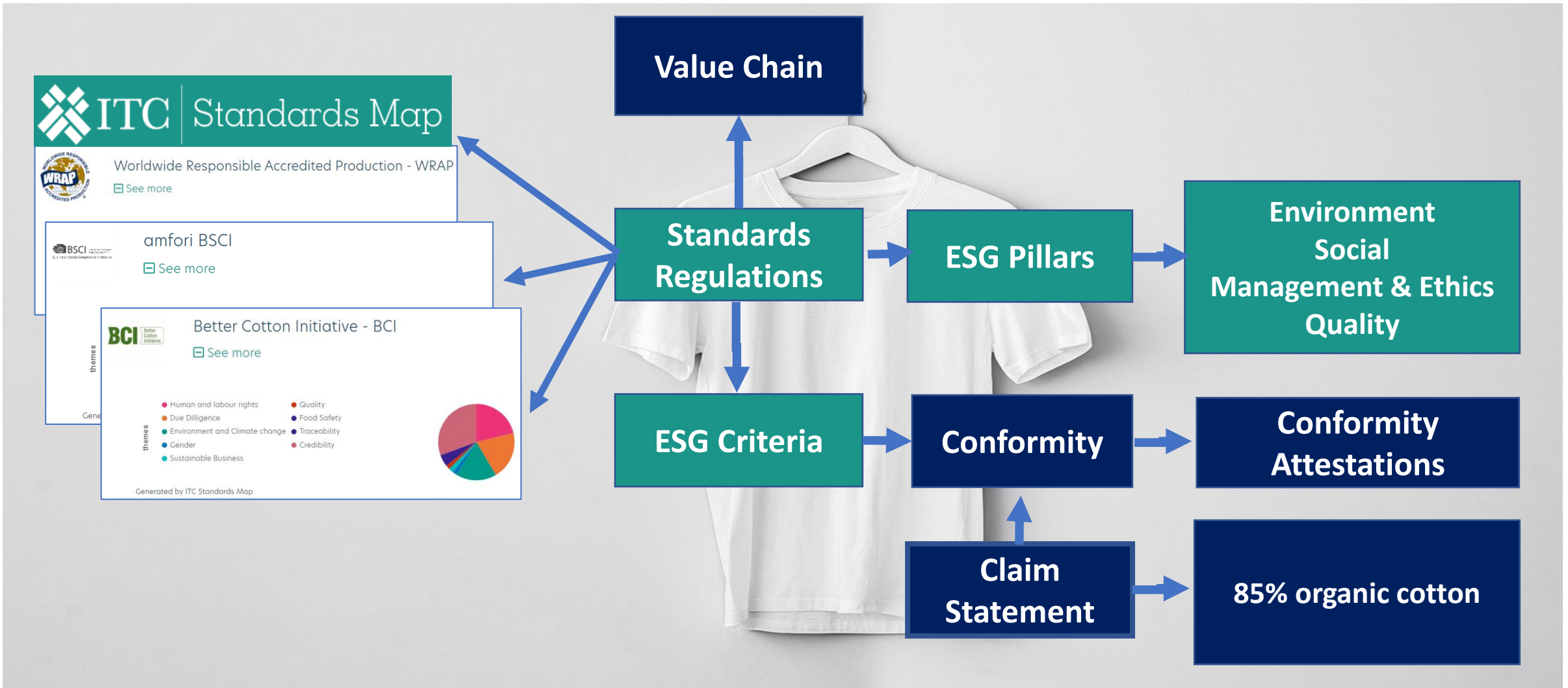
Traceability of Origin

Organic Content

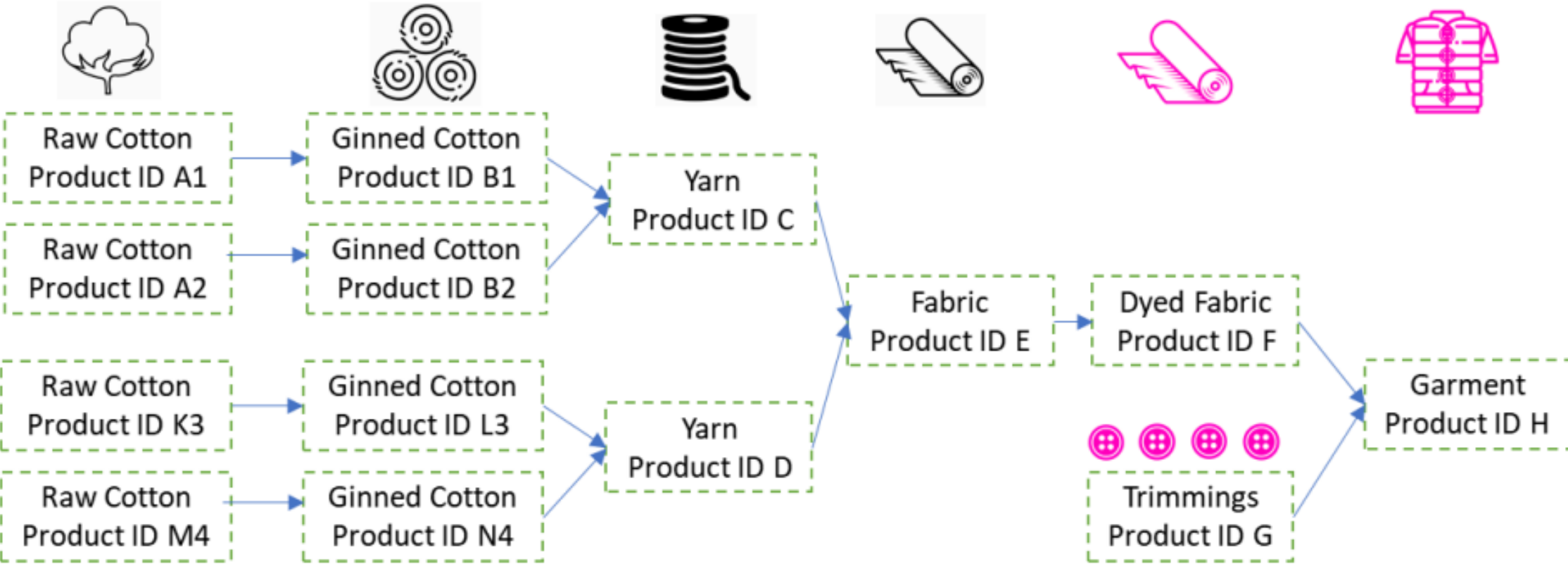
Recycled Content

Chemical Compliance

Criteria and requirements of voluntary standards & regulations



Harmonizing the product circularity data



Different standards, different criteria

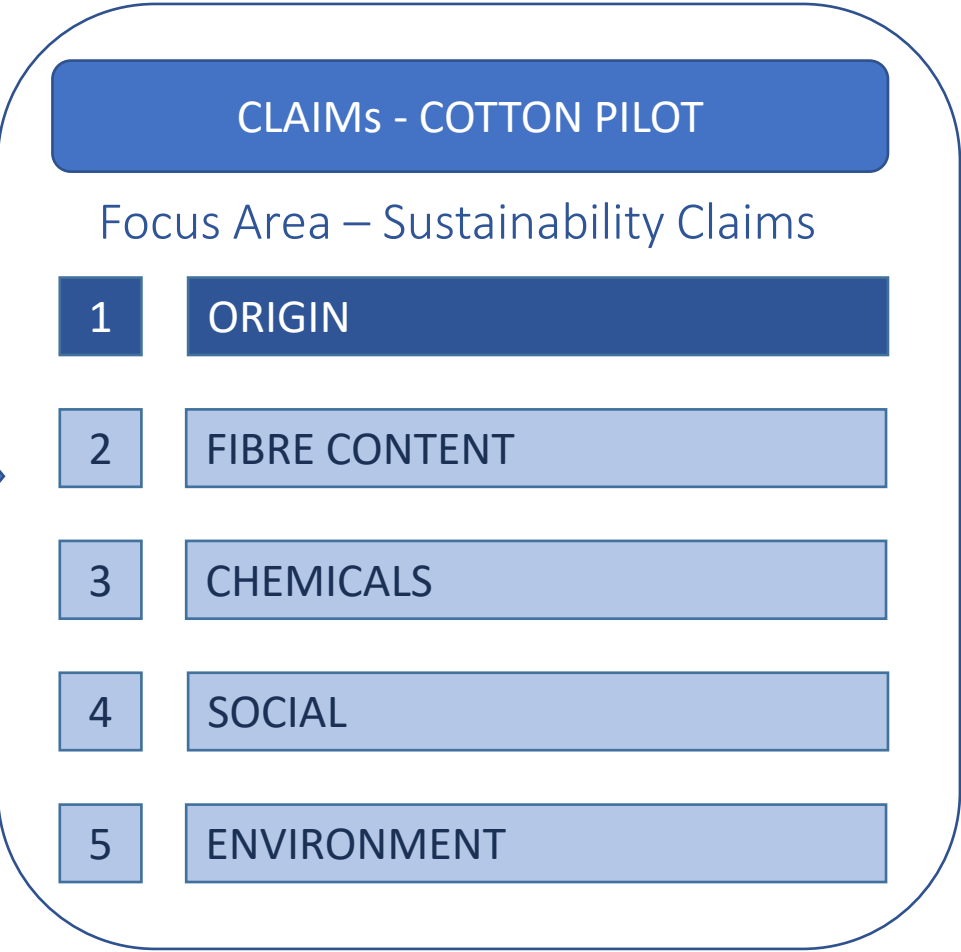
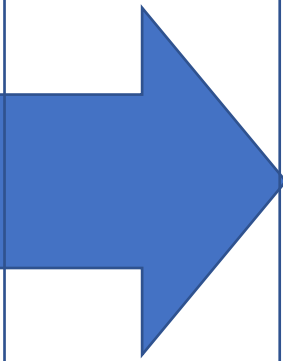
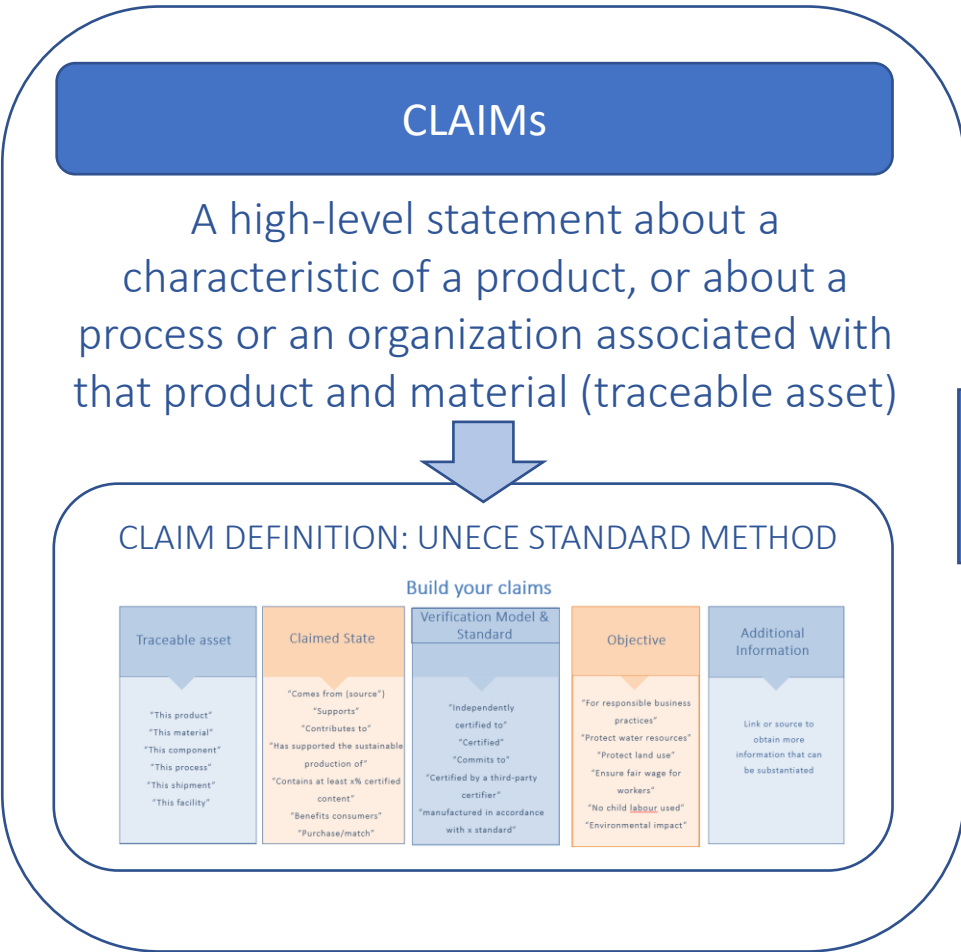


PART 3

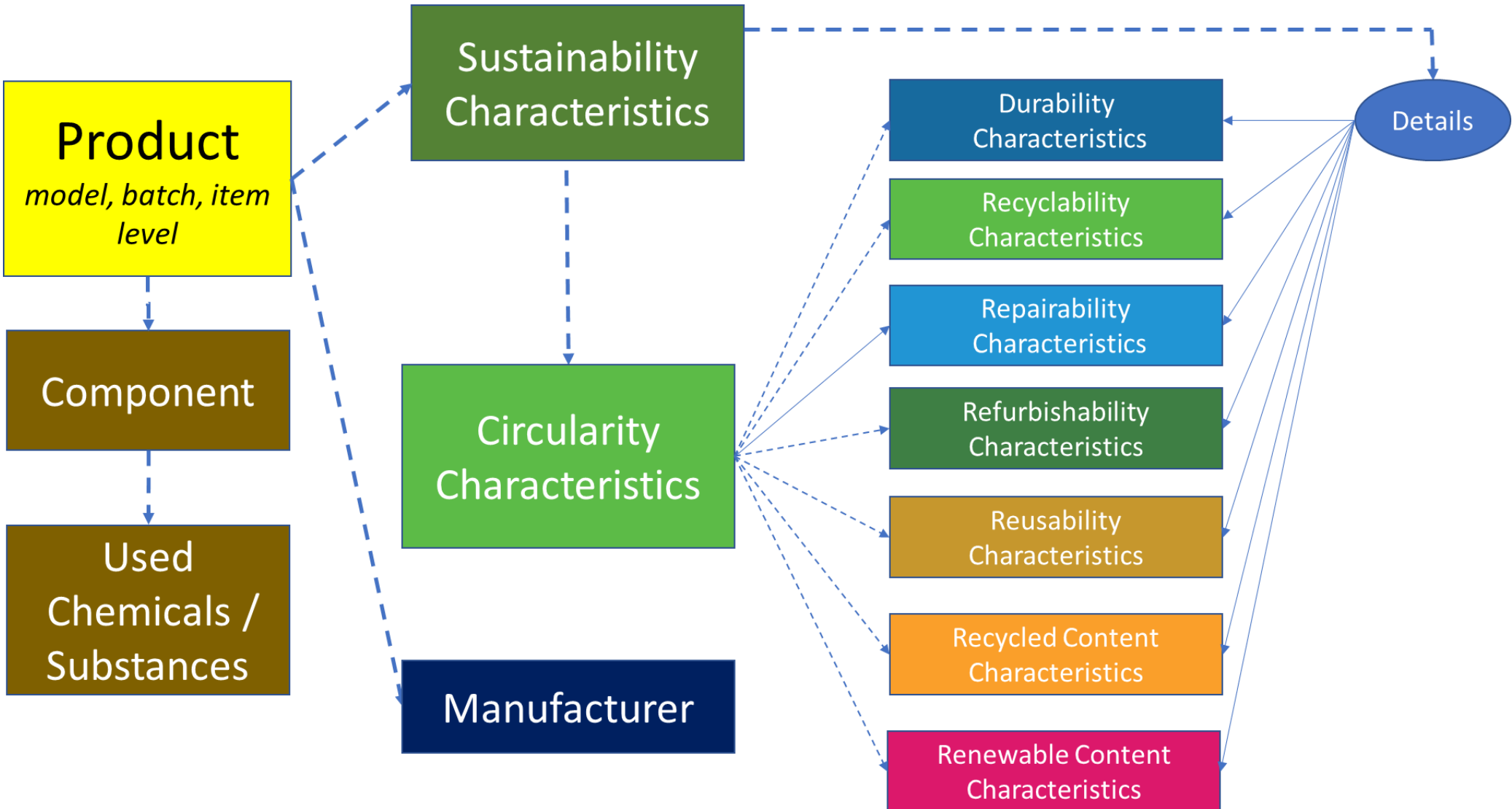
What conformity issues aggregate along the supply chain



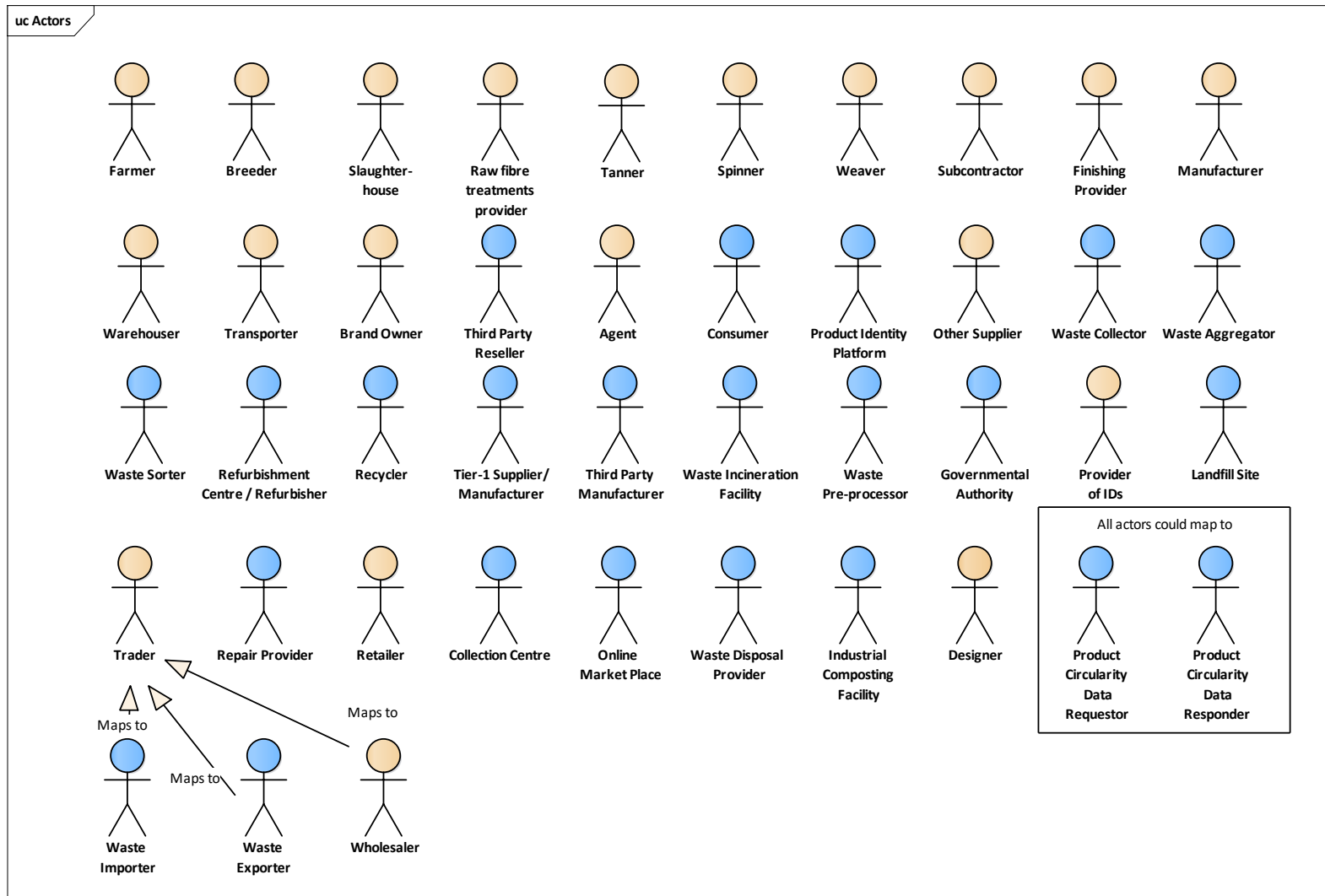
Claims statements and different criteria along the value chain



Sharing more data than only transactions and attestations



Supporting actors within the circular economy (blue)



PART 4

Implementation challenges



Implementation challenges

1. Using a generic and flexible approach
2. Using predefined values (code lists)
3. Using profiles for different actors
4. Trusting conformity attestations
5. Using ESG Performance data
6. Using Substances of Concern data
7. Using ESG Score Indices if available
8. Referencing to waste transports

Connecting to the circular economy actors

Generic

Cross-Industry

**Post-Consumer
value chain**

Circular Aspects

Products/Materials

Performances

Product/Economic Operator

Waste Management

**Providing conformity data and
Related attestations (trust)**



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Thank you!

Gerhard Heemskerck

Lead editor of the Product Circularity Use Case,
Extension of BRS

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