I. Outcomes of the 27th session UN/CEFACT plenary and 69th ECE session 13:30-13:50

II. Next steps 2021 and 2022 13:50 – 15:15
   a) Training plan, capacity-building
   b) The Sustainability pledge: communication actions, visual identity
   c) Business Process Analysis for textile and leather
   d) Business Requirement Specifications for textile and leather
      o Code Lists and Identifiers
      o XML messages
   e) Project’s blockchain applications in cotton and leather

IV. Q&A and wrap-up 15:15-15:30
I. Outcomes of the 27th session UN/CEFACT plenary and 69th ECE session

- Recommendation No. 46 – Maria Teresa Pisani
- Call to Action – Francesca Romana Rinaldi
- Executive Summary and Mapping Policy Developments on Traceability and Transparency – Claudia di Bernardino
- Policy Brief – Harnessing the Potential of Blockchain Technology for Due Diligence and Sustainability in Cotton Value Chains - Olivia Chassot
TOOLBOX

Policy model

- Policy Recommendation
- Guidelines
- Action plan

Business and data model

- Business Process Analysis
- Business Requirements Specifications
  - Business & Data Model
  - Use Cases & CCBDA
  - Code lists, IDs and e-messages

Technology model

- Blockchain Pilots
  - Cotton
  - Leather
  - ... 

Call to Action/Sustainability Pledge

TARGETS/BENEFICIARIES

- Policymakers
- Opinion makers
- Garment & footwear makers
- Sustainability analysts
- Business analysts
- Data analysts
- Data system designers
- Tech solution providers
- Service providers

Capacity-building and outreach

SUPPORTING INSTRUMENTS

- Ecosystem mapping and multi-stakeholder policy dialogue platform
- Mapping of supporting policies, legislations and initiatives and policy brief
<table>
<thead>
<tr>
<th>DOCUMENT TITLE AND DOCUMENT SYMBOL</th>
<th>Status</th>
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<tbody>
<tr>
<td>Recommendation No. 46: Enhancing Transparency and Traceability of Sustainable Value Chains in the Garment and Footwear Sector ECE/TRADE/C/CEFACT/2021/10 (EN – FR – RU)</td>
<td>Adopted*</td>
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<td>Call to Action for Recommendation No. 46: Enhancing Transparency and Traceability of Sustainable Value Chains in the Garment and Footwear Sector ECE/TRADE/C/CEFACT/2020/6/Rev.1 (EN – FR – RU)</td>
<td>Endorsed*</td>
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<td>Executive Summary for Policymakers: Enhancing Transparency and Traceability of Sustainable Value Chains in the Garment and Footwear Sector and Report on Policy Developments on Traceability and Transparency ECE/TRADE/C/CEFACT/2021/11 (EN) &amp; ECE/TRADE/C/CEFACT/2021/INF.3 (EN)</td>
<td>For information</td>
</tr>
<tr>
<td>Policy Brief – Harnessing the Potential of Blockchain Technology for Due Diligence and Sustainability in Cotton Value Chains ECE/TRADE/C/CEFACT/2021/12 (EN)</td>
<td>For information</td>
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</table>
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• Policy Brief – Harnessing the Potential of Blockchain Technology for Due Diligence and Sustainability in Cotton Value Chains - Olivia Chassot
Civil society collaboration initiative

Establishes a mechanism to support the implementation of the measures laid out in the Recommendation No. 46

Accelerates action for sustainable and circular value chains in garment and footwear

Invites all actors in the garment and footwear industry

Private initiative

Public initiative

Public-private initiative

Civil society collaboration initiative

Foundation/Association initiative
Call to Action: next steps

**NEXT KEY DATES**

By May 10th
Letter inviting actors to submit the Pledges

By September 10th
Deadline to submit Pledges

September 21st
Presentation of Pledges
I. Outcomes of the 27th session UN/CEFACT plenary and 69th ECE session

- Recommendation No. 46 – Maria Teresa Pisani
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Mapping of policies, regulations and guidelines – Desk research

From February 2020 Until February 2021

+ 100 Policies, Regulations, Guidelines Mapped

Publication of Mapping and Executive Summary for Policy Makers

---

Industries

Cross-industry (85)
Garment and Footwear (12)
Agri-Food (26)
Minerals (3)
Cosmetics (2)
Timber (3)

Geographical Area

Europe (75)
USA (16)
Oceania (3)
Asia (8)
Africa (2)
Global (15)
Finding 1
- Tackling the Presence of Hazardous Chemicals
- Empowering Consumers and Companies to Sustainable Consumption and Production

Finding 2
- Methodology to Assess Companies' Impacts
- Guidelines and Standards
- Stronger Monitoring and Enforcement System

Finding 3
- Common Approach to Create a Level Playing Field
- Minimum Requirements

Finding 4
- Tracking the Journey of Products and Processes
- Making Data Securely Accessible

Finding 5
- Participation of their Representatives
- Reliable Data also through Leveraging Digital Technologies
- Transparency and Accountability

Finding 6
- Financial and Non-Financial
- Tailor-made Support for SMEs

Report on Policy Developments on Traceability and Transparency — To Be Published
Mapping of policies, regulations and guidelines – Next steps

- Monitoring of Policy and Regulatory Frameworks
- Continuous Inputs from UNECE Experts
- Digital Mapping Update
- Open Stakeholders Forum
- Interactive Platform
- Reports on Policy and Regulatory Developments
I. Outcomes of the 27\textsuperscript{th} session UN/CEFACT plenary and 69\textsuperscript{th} ECE session

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6. Weaving and transfer to fabric finisher
7. Garment or product production & transfer to enablement
8. Product Enoblement & packaging and transfer to “retailer”
9. Placement of product in stores or on-line for sale
10. Consumption and disposal
11. Post consumption recycling

MATERIAL VALUE CHAINS
- US cotton
- Egyptian cotton
- Recycled denim
- ....

PARTNER
- Producer
- Trader
- Supplier
- Retailer

Services
- Blockchain-based solution
- Physical tracers
- Certification bodies
- Academia, Think-tanks
Preliminary considerations and recommendations on the way forward

Commitment and collaboration of all the stakeholders in the value chain is a requirement for traceability.

The benefits of digital technology can outweigh the costs for consumers, regulators, companies, investors.

Ensuring interoperability with other evolving technologies (AI, IoT, machine learning, etc.) is key.

Regulators and policy makers to spur a coordinated action for open source, inclusive solutions and capacity building for scaling up.

---

**Table 2**

Benefits of a blockchain-based solution in support of traceability and due diligence

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td>• Increased trust in sustainability claims for products and materials</td>
</tr>
<tr>
<td>Businesses</td>
<td>• Cost efficiency led by digital archiving, reduced auditing, facilitated documents sharing</td>
</tr>
<tr>
<td></td>
<td>• Enhanced trust and communication with business partners and customers</td>
</tr>
<tr>
<td></td>
<td>• Immutable and trustworthy data storage with distributed access</td>
</tr>
<tr>
<td></td>
<td>• Interoperability with existing data management systems (based on APIs)</td>
</tr>
<tr>
<td>Investors, financial operators</td>
<td>• Enhanced visibility and accountability for impact investment decisions</td>
</tr>
<tr>
<td>Regulators</td>
<td>• Improved visibility/access to reliable information on compliance with policy and regulatory requirements for sustainability and due diligence</td>
</tr>
</tbody>
</table>
II. Next steps 2021 and 2022

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   - Code Lists and Identifiers
   - XML messages

e) Project’s blockchain applications in cotton and leather – Andrea Redaelli, Giacomo Poretti, Claudia di Bernardino, Deborah Taylor
Training plan, capacity-building

6 workshops          3 days duration each          key beneficiaries          in focus regions/countries

When and Where (tbc)

21-23 Sept 2021
W1 Europe/Milan

Nov 2021
W2 Africa/ Addis Ababa

Feb 2022
W3 Latin America/ Santiago

Mar 2022
W4 North America/ New York

Apr 2022
W5 South East Asia/ Bangkok

May 2022
W6 SE Central Asia/ Tashkent

Module 0: The UNECE initiative and toolbox for transparency and traceability (TT)

Module 1: Scaling-up: the Sustainability pledge and Toolbox branding

Module 2: Traceability and transparency as enablers of sustainability and circularity

Module 3: Principles and components of a traceability system

Module 4: Making TT work for small actors and vulnerable groups

Module 5: Formulation and implementation of a traceability and transparency action plan

Module 6: The business process analysis (BPA) for sustainable and circular textile and leather value chains

Module 7: The business and data model (Part I) and the use cases and core components business data assembly (CCBDA) structures (Part II) for traceability and transparency of sustainable and circular value chains in textile and leather

Module 8: The Technology Model for TT and due diligence in textile and leather
- Blockchain systems
- Markers
- Data privacy and security

Garment and footwear makers
Policymakers
Opinion makers
First workshop

When: September 21-22-23
Where: SDA Bocconi School of Management, Milan - Italy

Training plan, capacity-building

6 workshops 3 days duration each key beneficiaries in focus regions/countries

Garment and footwear makers
Policymakers
Opinion makers

Module 0: The UNECE initiative and toolbox for transparency and traceability (TTI)
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May 2022

September 21st 2021
h9-9.30 Registration
h9.30-10 Institutional intro
h10-10.45 UNECE Policy Recommendation + Call to Action
h10.45-11.15 Coffee break
h11.15-11.45 Circular Fashion Manifesto
h11.45-12.15 Monitor for Circular Fashion 2021: research findings
h12.15-13 Round tables with companies of the Monitor for Circular Fashion
h13-14.30 Lunch
h14.30-18 UNECE workshop day 1

September 22nd 2021
h9-18 UNECE workshop day 2

September 23rd 2021
h9-18 UNECE workshop day 3
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Communication actions

The Sustainability Pledge

Tell a Story

Track it, Trace it, Wear it!

United for greater transparency, circularity and sustainability in the garment and footwear sector

An industry where marketing and communication are prized

The tools are ready, it's time to implement

12 Responsible Consumption and Production

Guidelines

Policy

Toolbox
Where are we now?

- Cittadellarte
  An Italian NGO with credentials in the sector contracted for creative input and design work, including website and logo
- Consultations with stakeholders on-going
What’s next?

• A Press Release is currently scheduled for **11 May**
  - Update on member State endorsement
  - Opening of Call to Action, and submissions
  - Consultation and launch of The Sustainability Pledge

• Commitments to be gathered ready for Multi-Stakeholder Dialogue
  **21-23 September** in Milan, Italy.
  - Coincides with Milan Fashion Week
  - Opportunity for Press Conference and outreach

Reach out at [sustainabilitypledge@un.org](mailto:sustainabilitypledge@un.org)
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Creating the Value Chain BPAs

• Both textile and leather BPAs use the same methodology, just applying it to different processes which use different materials:
  1. Identify the processes and actors
  2. Identify the risks
  3. Identify the data and information exchanges required for traceability and transparency

• All 3 steps in the methodology look at what exists now and seek to identify gaps which need to be filled in order to fully support traceability and transparency

Textile Value Chains

Leather Value Chains
Business Process Analysis for Sustainability and Circularity in the Leather Value Chain

Leather Value Chain

1. Planting and cultivation of cotton
2. Cotton harvest identification & transfer from farmer to ginner
3. Ginning & transfer to spinner
4. Spinning & transfer to dyer, bleacher, washer
5. Dyeing, bleaching, washing & transfer to weaver
6. Weaving & transfer to fabric finisher
7. Garment or product production & transfer to enablement
8. Product enablement & packaging and transfer to "retailer"
9. Product assembly
10. Fulfilment & Retail
11. Post consumption
12. Consumption and disposal
13. Post consumption recycling
14. Placement of product in stores or on-line for sale

Contents

Part I. BPA for implementation of traceability and transparency
1. What is a BPA?
2. BPA traceability and transparency objectives
3. The generic traceability and transparency BPA model
4. Using BPA to identify where and when to collect TT information

Part II. The Leather Value Chain BPA
1. Processes and actors
2. Sustainability risks and risk reduction
3. Data points for collection of traceability and transparency information

1. Planting and cultivation of cotton
2. Cotton harvest identification & transfer from farmer to ginner
3. Ginning & transfer to spinner
4. Spinning & transfer to dyer, bleacher, washer
5. Dyeing, bleaching, washing & transfer to weaver
6. Weaving & transfer to fabric finisher
7. Garment or product production & transfer to enoblement
8. Product Enoblement & packaging and transfer to “retailer”
9. Placement of product in stores or on-line for sale
10. Consumption and disposal
11. Post consumption recycling

1. Farming of Livestock
2. Slaughter
3. Preservation
4. Tanning (raw to tanned)
5. Splitting, shaving and sorting
6. Retanning, fatliquoring and crusting
7. Dyeing, setting out and sammying
8. Drying, conditioning, softening and finishing
9. Product assembly
10. Fulfilment & retail
11. Post consumption recycling
Sustainability risks

- Deforestation
- Biodiversity
- Animal Welfare
- Air Pollution
- Water Pollution
- Hazardous Chemistry / Salt
- Solid Waste
- Energy Consumption
- Greenhouse Gas Emissions
- Health & Safety / PPE
- Human Rights
- Labour Risks
- Water Use

Value Chain Processes – Textile or Leather
Traceable Assets
Transformations and IDs

Tracing back IDs to the Raw Hide:
Later in the agenda, the connection of how the work of the BPAs is used practically within the blockchain pilot system to create the traceability and transparency of the value chain will be demonstrated.

1. Establish value chain processes and actors
2. Establish risks and mitigation options
3. Establish information and data required
4. Use the above within a system of traceability & transparency to provide a more sustainable value chain
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The BPA report helps to identify the processes, conditions and data, which are reflected in the BRS.

The BPA describes the events happening in all processes through the whole supply chain. Only particular events are required to gain traceability and transparency. As a result, in the BRS we created one standard structured format for event data and transparency information.

<table>
<thead>
<tr>
<th>Process</th>
<th>Input</th>
<th>Output</th>
<th>Location</th>
<th>Party</th>
<th>Transaction</th>
<th>Quantities</th>
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</tr>
</tbody>
</table>

The BPA describes the events happening in all processes through the whole supply chain. Only particular events are required to gain traceability and transparency. As a result, in the BRS we created one standard structured format for event data and transparency information.
Benefits of having data, codes, messages

<table>
<thead>
<tr>
<th>Able to exchange what’s in ERP</th>
<th>Shared what’s in ERP</th>
<th>Reduce costs</th>
<th>BC Pilot shows need</th>
<th>Sector needs standards &amp; tools</th>
</tr>
</thead>
</table>

- Information for traceability / transparency and sustainability already exists and is stored in many different proprietary systems in ERP's of the supply chain partners or in the many sustainability platforms and organisations.
- Due to missing data exchange standards and tools for automatized information exchange, the data are not shared, e.g., slaughterhouses pass all information to the meat industry but not to the leather sector due to high work for a low value product.
- Automated data exchange is required to reduce additional costs for transparency / traceability, especially for a sector in which the high volumes of products are manufactured in low-cost or developing countries. Enter the data once and use it multiple times.
- The pilot shows that especially the manufacturing part also in Europe cannot support a manual data input and document upload.
- The pilot partners expressed clear concerns that the many systems for sustainability claims are already today too costly and no additional costs for transparency / traceability can be supported and therefore standards and toolboxes for the whole textile and leather sector need to put in place.
We added sustainability data based on requirements in the BRS

- **Library**
  - **Reference Data Models**
    - Architecture Layer
    - SC RDM: Buy/Ship/Pay (BSP) RDM
      - BSP Cross Industry Supply Chain View
    - MMT RDM: BSP Multi Modal Transport View
    - CBM RDM: BSP Cross-Border Management View
    - SDCE RDM: BSP Sustainable Development & Circular Economy View

- **Business Standards Layer**
  - Data Models
    - Mining Industry?
    - Road Transport?
    - Textile & Leather sector

- **Messages**
  - 1. Traceability Event Message
  - 2. Product Transparency Message
  - 3. Facility Transparency Message
  - 4. .....?
Moving towards a selective business message context – profiling to what is needed

<table>
<thead>
<tr>
<th>BSP context</th>
<th>TL Data Model context</th>
<th>Message context</th>
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</thead>
<tbody>
<tr>
<td>Trade Product *</td>
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<td>Trade Product *</td>
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<td>* A, Seller Assigned Extension ID **</td>
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<tr>
<td>* A, Buyer Assigned Extension ID **</td>
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<td>* A, Net Volume</td>
<td>* A, Net Volume</td>
</tr>
</tbody>
</table>

* Same principle can be applied for code list values
Why using codes and identifiers?

Codes and identifiers are an essential component of any Machine-To-Machine information flow. They have been developed over time to facilitate the flow of standardized data that can be easily validated for correctness to ensure consistent semantics, being relieved from any ambiguity and inconsistency. It enhances accessibility and findability of information much more efficient (data resources).

Information flows → accessibility - clarity – comparable – easy validated – consistent - flexible

- **Traceability**
  
  “…to ensure the reliability of sustainability claims” (UN Global Compact 2014)
  
  “…and the conditions in which they were produced through the supply chain” (OECD, 2018).

- **Transparency**
  
  “…relevant information being made available... in a harmonized way..
  
  “… which allows common understanding, accessibility, clarity and comparison” (EU 2017).

- **Sustainability**
  
  “… all activities, throughout a product’s life cycle, take into account their environmental, health, human rights and socio-economic impacts, and their continuous improvement (UNECE 2019).

- **Circularity**
  
  “…the ability of this process to retain the value of products, materials and resources in the economy for as long as possible.”
Harmonized data, code lists and identifiers

Traceability | Transparency | Sustainability | Circularity

standardized data

Code Lists & Identifiers

Data Components

Messages

Understandable data (definitions) Clear data (use of codes) Comparable data (codes vs text)

Traceability

Transparency

Sustainability

Circularity

UNECE UN/CEFACT
Recommended code lists and identifiers

- A reference guide to code lists and identifiers for the textile & leather sector
- Includes a reference to the information entities in the data model
- Is based on desk research and still needs to be reviewed, updated and completed
- The accessibility, processability of codes and identifiers differs strongly. A hyperlink to the source in this document can be a webpage, pdf etc. or a reference.
Grouped on key information entities

**Key Information Entities**

- Product / Batch / Material
- Party
- Facility
- Location
- Process
- Transportation

**Code Lists and Identifiers**

- Product Category
- Product Types
- Product Sub Types
- Material Type
- Material Characteristic
- Classification
- Indicative crop classification
- Product Characteristic
- Product Characteristic Market
- Technical Characteristic Category
- Technical Characteristic
- Picture Resolution
- Picture Intended Use
- Chemical
- Colour
- Colour Light Source (ISO)
- Gender (ISO)
- Apparel Product Section
- CITES Codes
- Agricultural Species

- Party Role
- Language (ISO)
- Gender (ISO)

- Location Function
- Country (ISO)
- UN/LOCODE
- Location Function
- Inventory Types
- Hazardous Pesticides

- Process
- Fabric Fault Category
- Fabric Fault
- Machine Type
- Technology
- Method
- Parameter
- MRSIL

- Inventory Movement Reason
- Transport Equipment Category
- Transport Means
- Transport Mode
- Package Type
- Packaging Marking Type

**Status**
- Sustainability Standard
- Sustainability Criteria
  (metric characteristic)

**Document Type**
- Sustainability Themes
  (characteristic category)
- Sustainability Sub-Area (Sub-Chapter)
  (characteristic type)

**Document Status**
- Unit of Measure
- Date/Time Formats
- Code List Responsible Agency

**Assessment Types**
- Inspection Types
- Action
### Codes requested at UN/CEFACT

<table>
<thead>
<tr>
<th>Party Role Code</th>
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<th>Status Code</th>
<th>Assement Type</th>
<th>Inspection Type</th>
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<tbody>
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<td>Defected</td>
<td>Self Declared</td>
<td>Organizational Inspection</td>
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<td>Consumer</td>
<td>Farm</td>
<td>Recycled</td>
<td>Self Assessed</td>
<td>Process Inspection</td>
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<td>Manufacturing facility</td>
<td>Reused</td>
<td>Peer Reviewed</td>
<td>Product Batch Inspection</td>
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<tr>
<td>Recycler</td>
<td>Animal farm</td>
<td>Registered</td>
<td>Verified by second party</td>
<td>Product Inspection</td>
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<tr>
<td>Retailer</td>
<td>Tannery</td>
<td>Returned</td>
<td>Certified by third party</td>
<td>Inventory Inspection</td>
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<tr>
<td>Second Party</td>
<td>Textile mill</td>
<td></td>
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<td>Labelling inspection</td>
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<tr>
<td>Trader</td>
<td>Dyeing mill</td>
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<td>Quality inspection</td>
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<tr>
<td>Waste Disposal Provider</td>
<td>Forrest Management Unit</td>
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<td>Animal Inspection</td>
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<td>Tanner</td>
<td></td>
<td></td>
<td></td>
<td>Packaging inspection</td>
</tr>
<tr>
<td>Service Provider</td>
<td></td>
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<tr>
<td>Ginner</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Spinner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaver</td>
<td></td>
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<table>
<thead>
<tr>
<th>Process Type Code</th>
<th>Inventory Type Code</th>
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<tr>
<td>Setting Out</td>
<td>Finished goods</td>
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<tr>
<td>Shaving (hides)</td>
<td>Maintenance, repair &amp; operations (MRO)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Shearing (animals)</td>
<td>Packing materials</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Reeling (silk)</td>
<td>Raw materials</td>
<td></td>
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<tr>
<td>Softening</td>
<td>Unfinished Products.</td>
<td></td>
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<tr>
<td>Sorting</td>
<td>Work in progress (WIP)</td>
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<tr>
<td>Spinning</td>
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</tr>
<tr>
<td>Splitting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanning (leather)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermo Mech. Recycling</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Warehousing</td>
<td></td>
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</tr>
<tr>
<td>Weaving</td>
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These data maintenance requests will be processed during this forum.
### Code lists and Identifiers

#### Grouped by organization/agency

<table>
<thead>
<tr>
<th>Agency/Organization</th>
<th>Code List Reference</th>
<th>Related Information Entity</th>
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<tbody>
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<td>BCI</td>
<td>Pesticides Classification</td>
<td>Toxicological Hazardous Material</td>
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<tr>
<td>CAS</td>
<td>CAS Chemical Compound</td>
<td>Distinct Chemical</td>
</tr>
<tr>
<td>CITES</td>
<td>CITES Endangered Species of Wild Fauna and Flora</td>
<td>Species</td>
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<td>Agricultural Produce (plants)</td>
<td>Crop Produce Batch</td>
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<td>Agricultural Species</td>
<td>Species</td>
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<tr>
<td>Leather classification</td>
<td>Product Classification</td>
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<tr>
<td>Raw Material Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fibre Types</td>
<td>Trade Product</td>
<td></td>
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<tr>
<td>Raw Material</td>
<td>Product Characteristic</td>
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<tr>
<td>Raw Material Process</td>
<td>Production Process</td>
<td></td>
</tr>
<tr>
<td>Yarn Production</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yarn Category</td>
<td>Trade Product Category</td>
<td></td>
</tr>
<tr>
<td>Yarn Characteristics</td>
<td>Product Characteristic</td>
<td></td>
</tr>
<tr>
<td>Yarn (kind)</td>
<td>Trade Product</td>
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</tr>
<tr>
<td>Yarn (dyed)</td>
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<td>Yarn Process</td>
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<td>Technology</td>
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<tr>
<td>Yarn Operation Parameters</td>
<td>Specified Parameter</td>
<td></td>
</tr>
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<td>Yarn Quality Parameters</td>
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<td></td>
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<td>Fabric Production</td>
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<td>Fabric Fault Type</td>
<td>Specified Fault</td>
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<td>Fabric Faults Category</td>
<td>Specified Fault</td>
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<td>Technology</td>
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<td>Fabric Operation Parameters</td>
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<tr>
<td>Weave Type</td>
<td>Product Characteristic</td>
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<tr>
<td>Colour Type</td>
<td>Product Colour</td>
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#### Pre/Finishing treatments & Dyeing/Printing

<table>
<thead>
<tr>
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<th>Related Information Entity</th>
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<tbody>
<tr>
<td>Chemical Elements</td>
<td>Distinct Chemical</td>
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<td>Print Material</td>
<td>Specified Material</td>
</tr>
<tr>
<td>Print Process</td>
<td>Specified Production Process</td>
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<tr>
<td>Print Parameter</td>
<td>Specified Parameter</td>
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<tr>
<td>Printing Technology</td>
<td>Technology</td>
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<tr>
<td>Fast Test</td>
<td>Specified Method</td>
</tr>
<tr>
<td>Colour Test</td>
<td>Specified Method</td>
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</table>

#### Apparel Production, transportation

<table>
<thead>
<tr>
<th>Code List Reference</th>
<th>Related Information Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Attributes</td>
<td>Product Characteristics</td>
</tr>
<tr>
<td>Garment Attributes</td>
<td>Product Characteristics</td>
</tr>
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<td>Apparel Section</td>
<td>Product Characteristics</td>
</tr>
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<td>Market Segment</td>
<td>Target Market</td>
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<tr>
<td>Darning Process</td>
<td>Specified Product Process</td>
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<tr>
<td>Knitting/Clothing Process</td>
<td>Specified Product Process</td>
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<td>Knitting/doing Machine</td>
<td>Production Machine</td>
</tr>
<tr>
<td>Value Base System (for size)</td>
<td>Product Characteristics</td>
</tr>
<tr>
<td>Intended Use Codes</td>
<td>Photographic Picture</td>
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<tr>
<td>Resolution Type</td>
<td>Photographic Picture</td>
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<tr>
<td>Reason for Transportation</td>
<td>Specified Inventory</td>
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</table>
* GRI and SASB standards could be added as additional indicators for sustainability data
## 4.4 Classification

### 4.4.1 Crop

<table>
<thead>
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<th>Code List #13</th>
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<tr>
<td>Indicative Crop Classification for the agricultural</td>
<td>Food and Agriculture Organization of the United Nations</td>
<td>FAO 1.1 (World Programme for the census of Agriculture 2020)</td>
<td>PDF</td>
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<table>
<thead>
<tr>
<th>Code TAG</th>
<th>Code Name</th>
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<tbody>
<tr>
<td>9.02.01.01</td>
<td>Cotton</td>
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<tr>
<td>9.02.01.02</td>
<td>Jute, kenaf, and other similar crops</td>
</tr>
<tr>
<td>9.02.01.04</td>
<td>Flax</td>
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<tr>
<td>9.02.01.05</td>
<td>Hemp</td>
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<tr>
<td>9.02.01.90</td>
<td>Other temporary fibre crops</td>
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<td>ETC</td>
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<table>
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<td>Textile Exchange ASR-213-V1.0</td>
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<table>
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<th>Code Name</th>
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<tbody>
<tr>
<td>PC0001</td>
<td>Men’s apparel</td>
</tr>
<tr>
<td>PC0002</td>
<td>Women’s apparel</td>
</tr>
<tr>
<td>PC0003</td>
<td>Babies’ apparel</td>
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<td>ETC</td>
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# Key Identifiers

<table>
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<tr>
<th>Identifier</th>
<th>#</th>
<th>Global Identification Schemes</th>
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<tr>
<td>Animal ID</td>
<td>#1</td>
<td>- ICAR, NAIS (USDA)</td>
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<tr>
<td>Product ID / Material ID</td>
<td>#2</td>
<td>- GTIN (Global Trade Item Number)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The GSMP General Merchandise Work Team validated the original Global Trade Item Number (GTIN) allocation rules and concluded that they are applicable to the apparel and home fashions product category (GS I General Specifications 2.1.6.1, Ratified June 2021).</td>
</tr>
<tr>
<td>Batch ID</td>
<td>#3</td>
<td>- GTIN + batchNo, no serial no</td>
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<tr>
<td>Chemical ID</td>
<td>#4</td>
<td>- CASRN (CAS Registry Number)</td>
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<td>Consignment</td>
<td>#5</td>
<td>- WCO Unique Consignment Reference (UCR)</td>
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<tr>
<td>Delivery (shipment)</td>
<td>#6</td>
<td>- GSIN (Global Shipment Reference Number)</td>
</tr>
<tr>
<td>Device ID / Machine ID</td>
<td>#7</td>
<td>- GMN (Global Model Number)</td>
</tr>
<tr>
<td>Location ID / Sub-Loc ID / Production Unit / Plot ID / Facility ID</td>
<td>#8</td>
<td>- GLN / SGLN (Global Location Number, Sub-GLN)</td>
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<tr>
<td></td>
<td>#9</td>
<td>- Global G.A.P. GLN</td>
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<td></td>
<td>#10</td>
<td>- OAR ID (Open Apparel Registry ID for facility)</td>
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<td>Organization ID</td>
<td>#11</td>
<td>- LEI (Legal Entity Identifier)</td>
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<td>- SSSC (Serial Shipping Container Code)</td>
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<td>Package ID (product package)</td>
<td>#13</td>
<td>- GTIN</td>
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<tr>
<td>Party ID</td>
<td>#14</td>
<td>- GLN</td>
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<tr>
<td></td>
<td>#15</td>
<td>- OAR ID</td>
</tr>
<tr>
<td></td>
<td>#16</td>
<td>- VAT ID</td>
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<tr>
<td>Produce ID</td>
<td>#17</td>
<td>- GTIN (IEPS Product Identification – Fresh Produce)</td>
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<tr>
<td>Product Instance ID</td>
<td>#18</td>
<td>- SCON (Serialized GTIN)</td>
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<td>Raw Material ID</td>
<td>#19</td>
<td>- GTIN</td>
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<td>Transport Equipment ID</td>
<td>#20</td>
<td>- GIAI (Global Individual Asset Identifier)</td>
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<td>Transport Means ID</td>
<td>#21</td>
<td>- IMO (International Maritime Organization, SOLAS)</td>
</tr>
<tr>
<td></td>
<td>#22</td>
<td>- VIN (Vehicle identification number, ISO 3779)</td>
</tr>
</tbody>
</table>
The first messages

Messages

Traceability

- Object Event
- Transformation Event
- Transaction Event
- Aggregation Event

Basic shared data

Transparency

- Product Certificates
- Inspection results
- Sustainability data

Additional shared data on request by partner

Traceability Event Message

- Object ID
- Date/time
- Location ID
- Process/Status
- Party ID

First use case, others might follow...

Most data elements are optional
Declaring an event, request for additional info:

- **Declare Event**
  - Receive Event Data
  - Process Event Data
  - Send Acknowledgement Data
  - Receive Acknowledgement Data
  - Processing error-free example

- **Receive additional information**
  - Send Response with additional information

On the basis of event data, the transparency information requestor can retrieve additional information from the involved business partner.
Traceability Event Message can contain different types of events.

### Type of traceability events

#### EPCIS
- **Electronic Product Code Information Services**

#### Business Step
- harvesting, breeding, shipping, receiving, producing, slaughtering, etc.

#### Trade Transaction List
- order, bill of lading, despatch advice, point of sale transaction etc.

#### Disposition
- active, in progress, in transit, sold, recycled, reused etc.

### Event Details

- **Date Time**
  - date time, time zone offset, record time

- **Location**
  - source/destination, type and ID, read point and business location

- **Party**
  - source/destination, type and ID etc, farmer, spinner, dyer, manufacturer, retailer etc

- **Object**
  - product, product batch, product instance (serialized) etc.

- **Event Element**
  - quantity, Input quantity, output quantity, child quantity, unit of measure

- **Action**
  - add (e.g. born, create), deleted (e.g. waste, destroy), observe (all others)

### Events

- **Harvesting**
  - Shipping
  - Destroying

- **Transformation**
  - Input material
  - Output material

- **Aggregation**
  - Packing
    - parent/child

- **Transaction**
  - Dis-/Associate object to a transaction
A small flow of events – shipping/receiving

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Event 01</th>
<th>Data Element</th>
<th>Event 02</th>
<th>Data Element</th>
<th>Event 03</th>
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<td>Object Event</td>
<td>Event Type</td>
<td>Object Event</td>
<td>Event Type</td>
<td>Object Event</td>
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<tr>
<td>Action</td>
<td>OBSERVE</td>
<td>Action</td>
<td>OBSERVE</td>
<td>Action</td>
<td>OBSERVE</td>
</tr>
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<td>Shipment Reference AB1</td>
<td>What (asset)</td>
<td>Shipment Reference AB1</td>
<td>What (asset)</td>
<td>Shipment Reference BC1</td>
</tr>
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<td>(Content)</td>
<td>Product / Batch 1 10PCS</td>
<td>(Content)</td>
<td>Product / Batch 1 3PCS</td>
<td>(Content)</td>
<td>Product / Batch 1 3PCS</td>
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<tr>
<td>Where</td>
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<td>Where</td>
<td>Date Time 16-01-2021 12:00:00</td>
<td>Where</td>
<td>Date Time 19-01-2021 12:00:00</td>
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<td>Facility B</td>
<td>Destination List</td>
<td>Facility B</td>
<td>Destination List</td>
<td>Facility C</td>
</tr>
</tbody>
</table>

* Simplified view
The Product Transparency message

• Certificate(s) details
• Certification details
• Sustainability characteristic(s)
  • Type Code
  • Value Text
    • Inspection results
    • Referenced Standard
• Sustainability Inspection details
  • Event details
  • Executing party
  • Status
  • Inspection results
    • Sustainability characteristic(s)
      • See above
      • Preventive Actions
  • Attachment
• Sustainability assertion (claim) details
• Related trade transaction(s)

Much is optional in the message by this supporting levels of complexity: from simple to complex.
A part of its structure, high level presentation
The XML example, only exchanging certificate details

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<xml version="1.0" encoding="UTF-8">
    <rsm:ExchangedDocument>
      <rsm:IssueDateTime>
        <udt:DateTimeString>2021-04-11T12:37:38.7041375+01:00</udt:DateTimeString>
      </rsm:IssueDateTime>
      <rsm:TradeProduct>
        <rsm:GlobalID>8736667213210879</rsm:GlobalID>
        <rsm:SpecifiedProductCertificate>
          <rsm:IssueDateTime>
            <udt:DateTimeString>2021-04-11T12:37:38.7041375+01:00</udt:DateTimeString>
          </rsm:IssueDateTime>
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          </rsm:ExpiryDateTime>
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          <rsm:Description>Certificate of sustainability</rsm:Description>
          <rsm:IssuingPartyID>2197933798</rsm:IssuingPartyID>
          <rsm:ApplicableReferencedStandard>
            <rsm:VersionID>6.0</rsm:VersionID>
            <rsm:Name>GOTS ORGANIC</rsm:Name>
          </rsm:ApplicableReferencedStandard>
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            <rsm:FileName>MyCertificate.PDF</rsm:FileName>
            <rsm:URI>https://Certificates/MyCertificate.PDF</rsm:URI>
          </rsm:AttachedSpecifiedBinaryFile>
        </rsm:SpecifiedProductCertificate>
      </rsm:TradeProduct>
    </rsm:ExchangedDocument>
  </rsm:ProductTransparencyMessage>
```

Certificate

Envelope: sender/receiver

Product ID

Certificate ID

Standard Reference

Attachment
The Textile & Leather data model contains rich structures around key information entities:

- Product
- Product Batch
- Party
- Facility
- Production Process
- Location
- Consignment
- Shipment
- Trade Transaction
- Transport Movement
II. Next steps 2021 and 2022

a) Training plan, capacity-building – Maria Teresa Pisani
b) The Sustainability pledge: communication actions, visual identity – Sarah Harris
c) Business Process Analysis for textile and leather – Virginia Cram Martos and Deborah Taylor
d) Business Requirement Specifications for textile and leather – Gerhard Heemskerk
   o Code Lists and Identifiers
   o XML messages
e) Project’s blockchain applications in cotton and leather – Andrea Redaelli, Giacomo Poretti, Claudia di Bernardino, Deborah Taylor
e. Project’s blockchain applications in cotton and leather

- Implementation status: dry run, pilot run and training, Andrea Redaelli
- Blockchain system update, Giacomo Poretti
- Overview and Next Steps on Sustainability Claims and Data Management and Disclosure, Claudia di Bernardino
- Pilot#2 Leather value chain, Deborah Taylor
### Cotton Value Chain (Natural plant-based fibre)

1. Planting and cultivation of cotton
2. Cotton harvest identification & transfer from farmer to ginner
3. Ginning & transfer to spinner
4. Spinning & transfer to dyer, bleacher, washer
5. Dyeing, bleaching, washing & transfer to weaver
6. Weaving & transfer to fabric finisher
7. Garment or product production & transfer to enablement
8. Product Enablement & packaging and transfer to "retailer"
9. Placement of product in stores or on line for sale
10. Consumption and disposal
11. Post consumption recycling

### Leather Value Chain

1. Farming/Hunting of Livestock
2. Slaughter
3. Hide/Skin preservation
4. Raw to Tanned
5. Splitting, Shaving, Sorting
6. Retanning, Fatliquoring & Crust
7. Dyeing, Setting Out, Samming
8. Drying, Conditioning, Softening & Finishing
9. Product Assembly, Dispatch
10. Fulfillment and Retail
11. Post consumption

### Human-made synthetic fibres

1. Chemical transformation from petro-chemicals or biomass into fibre
2. Spinning
3. Finishing (i.e. Dyeing, bleaching, washing & other finishing processes)
4. Weaving
5. Garment collection development
6. Garment manufacturing
7. Retailing: placement of product in stores or on-line
8. Consumption, disposal and post-consumption, recycling

### Natural animal-based fibres (wool & cashmere)

1.B1 Raising of animals or silk worms
1.B2 Shearing or combining of animals or silk cocoons reeling
1.B3 Cleaning, scouring, washing
1.B4 Combing or carding (straightening & final cleaning)
2. Spinning
3. Finishing (i.e. Dyeing, bleaching, washing & other finishing processes)
4. Weaving
5. Garment collection development
6. Garment manufacturing
7. Retailing: placement of product in stores or on-line
8. Consumption, disposal and post-consumption, recycling

### Human-made cellulose-based fibres

1.C1 Extraction of cellulose (primarily from wood)
1.C2 Chemical transformation from cellulose to fibre
2. Spinning
3. Finishing (i.e. Dyeing, bleaching, washing & other finishing processes)
4. Weaving
5. Garment collection development
6. Garment manufacturing
7. Retailing: placement of product in stores or on-line
8. Consumption, disposal and post-consumption, recycling

Linear Value Chains are the starting point, Circular Value Chains could be also considered.
Cotton blockchain pilot

The Pilots - blockchain technology in the garment and leather value chain
## Pilot Scenario(s) preparation: Working Groups

### Roundtable Organization

- **WG 1** – US Cotton: from field to finished goods
- **WG 2** – Recycled Denim
- **WG 3** – Egyptian Cotton 1
- **WG 4** – Egyptian Cotton 2
- **WG 5** – Egyptian Cotton 3
- **WG 6** – Egyptian Cotton 4
- **WG 7** – Cotton for Denim
- **WG 8** – LAM Cotton
- **WG 9** – Asian Cotton (tbc)

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**Weekly update roundtable**

**“Benchmark based on Standard Cotton Value Chain”**

- **farm**
- **harvest**
- **ginning**
- **spin**
- **dye**
- **weave**
- **produce**
- **finish**
- **sell**
- **consume**
- **recycle**
Zoom in: ongoing activities

2021

Development & Infrastructure
Consolidation
User Support

1. IT support
2. Business Process Support

Pilot Run

Requirements
Testing
Trainings

DNA marker

April
May
June
July

Pilot #1 – COTTON
e. Project’s blockchain applications in cotton and leather

- Implementation status: dry run, pilot run and training, Andrea Redaelli
- Blockchain system update, Giacomo Poretti
- Overview and Next Steps on Sustainability Claims and Data Management and Disclosure, Claudia di Bernardino
- Pilot#2 Leather value chain, Deborah Taylor
The BC pilot EPCIS 1.2
+ EPCIS 2.0 (not yet ratified)

EPC Information Services (EPCIS) Standard enables disparate applications to create and share visibility event data, both within and across enterprises.

The BC pilot provides a document based product traceability and transparency using Blockchain technology.
1. BC client - Web App for manual data entry

2. BC client backend
   - Google Cloud
   - MySQL off chain
   - Database MS

3. Blockchain architecture
   - Ethereum
   - Testnet
   - public - permission less
   - Smart contracts
   - data structures and automations
   - public-private key cryptography
   - protected privacy & confidentiality
High level off chain logical data model

Document based transactions registration

EPCIS compliant
On-chain Data Model

Owner Smart Contract

Owner_name
- location
- region

List of Certificates

List of TRU
- List of TRU
- Nodes Certificates

SC Nodes
- List of TRU
- Nodes Certificates

Arrows
- Contractor_node, Contractor_TRU,
- Consignee_node,
- percentage

Transformations
output_TRU, List of [Contractor, Input_TRU, percentage]
The BC pilot client Web App

BC Pilot Home Page

List of already registered events

Registration of new events
- Trade events
- Certification events
- Transformation events

Search and filter capabilities
Contractor
Insert trade transaction (shipping)

Consignee
Email notification

Transaction verification /rejection

Confirmation / Rejection

Blockchain

Inserted document
Shipping trade registration

WHO

Name3
Ginner3
Ginner Company 3
Ginner street, New York NY

User email
user4@spinner4.com

Consignee
Spinner Company 4

User information:
Name: Sundane Sundale Sundane
Address: Shanghai

WHY

Company information:
Name: Spinner Company 4
Address: Shanghai

Document type
380 - Commercial invoice

Shipping date
30/04/2021

Shipping reference number
003/30-04-2021

WHAT

Quantity
1000

Unit
BL - Bales

Material
Blended cotton

Weight (kg)
200
Shipping trade registering process

1. Contractor insert information

   Consignee, Document Type, Upload document
   Shipping date, material and quantities

2. Email sent to Consignee

3. Consignee confirm / reject registered event

4. If confirm data are sent to the blockchain
Certification (EPCIS 2.0 verification event)

**Certifier**
Offline: The company send to the certifier the list of transactions he wants to certificate
The certifier insert the certificate with the list of transactions

**Contractor**

**Consignee notification**

**Certificate visualization / verification**

**Confirmation / Rejection**

**Blockchain**
1. Certification party insert information

*Company, Document Type, Upload certificate, Issue date, processing standard, assessment mode*

*Certification reference object: company, process, transaction*

2. Email sent to Company

3. Company confirm / reject reception

4. Data are sent to the blockchain
Asynchronous Manual data entry

- Farmer
- Ginner
- Spinner
- Finisher
- Weaver
- Dyer
- Certification parties
Supply chain representation

Traceability & Transparency against different predefined claims
Traceability & Transparency against different predefined claims

Filters on Certificates / claims
Ready for a future automatic data entry

EPCIS <XML> compatible file exchanges within and across enterprises
e. Project’s blockchain applications in cotton and leather

- Implementation status: dry run, pilot run and training, Andrea Redaelli
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- Overview and Next Steps on Sustainability Claims and Data Management and Disclosure, Claudia di Bernardino
- Pilot#2 Leather value chain, Deborah Taylor
Overview and Next Steps on Sustainability Claims and Data Management and Disclosure
The Pilot(s) – Sustainability claims

What Has Been Done: Methodology for the Partners’ Use Cases

Types of Claims
- Origin
- Fiber Content
- Chemicals
- OECD Due Diligence Requirements

Claim Content
- Traceable Asset
- Claim Statement
- Verification Criteria
- Objective

Types of Evidences
- Certifications
- Audit Reports
- Delivery Notes
- Shipping Documents

Assurance Models
- Self Declared
- Self Assessed
- Second Party Verified
- Third Party Certified
The Pilot(s) – Sustainability claims

What Next: Guidelines on Sustainability Claims

What Information Do Users Need? What Are The Challenges Around Using And Communicating Sustainability Information?

Starting Point

UNECE Policy Recommendation and Implementation Guidelines

EU Initiatives

Legislative Proposal on Substantiating Green Claims
Textile Strategy
New Consumer Agenda
Circular Economy Action Plan
European Green Deal
Unfair Commercial Practices Directive

What
Tool for Developing Claims

Why
To Support different Stakeholders

Who
Partners/Tech Providers-Businesses/Consumers

How
Methodology

Guidelines on Sustainability Claims
What We Need From You

Experts Inputs

- Rules to Be Followed
- Policies and Studies to Consider
- Approach to Be Adopted
- Information Tools to Be Used

The Pilot(s) – Sustainability claims

The Pilots - blockchain technology in the garment and leather value chain
What Has Been Done: Methodology for the Collection, Sharing, Availability and Use of Data

Data Collection
- Information on Traceable Assets, Claims and Partners
- Evidences to Substantiate Partners Claims

Data Sharing
- Partners/UNECE
- B2B Level
  - B2C Level

Data Use
- Develop Use Case
- Assess Procedure

End-of-Life Policy for Post Project Data Management

Data Availability
- Bilateral Meetings
- Data Collection Template
The Pilot(s) – Data management and disclosure

What Next: Rules Book on Data Management and Disclosure

- Data Collection
- Data Availability
- Data Sharing
- Data Use
What Has Been Done: Analysis of Privacy & Confidentiality and Transparency Issues

Trade-Off between Privacy & Confidentiality and Transparency
The Pilot(s) – Data management and disclosure

What Next: Implementation of the Privacy by Design Solution

Requirements of Blockchain Privacy Preservation

- **Confidentiality**
  - Transaction Content Cannot Be Accessed by Unauthorized Entities

- **Unlinkability**
  - Parties Cannot Distinguish the Particular Individual From a Set of Real Identities

- **Anonymity**
  - Users Require that the Transactions Related to Themselves Cannot Be Linked

- **Efficiency**
  - Efficiency in Communication, Computation and Storage

- **Fairness**
  - Interests of Either Party Will Not Be Damaged in the Blockchain Transaction

- **Compatibility**
  - Capacity of the Methods Applied in Different Systems

Encripted Approach

- Only information Encrypted for a Specific Party Are Stored in the Blockchain

- Encrypted Information Can Be Seen by Everyone but Understood Only by the Permitted Party

- Permissions Are Enforced through Encryption
What Next: Identification of Transparency Layers

B2B

B2C

Availability of Different Supply Chain Data Visibility

Definition by the Partners of the Data Disclosure

Five Levels of Disclosure

01 Certificates

02 + Country

03 + Region

04 + Company or Subsidiary

05 + Name of Subsidiary

The Pilot(s) – Data management and disclosure

The Pilots - blockchain technology in the garment and leather value chain
What We Need From You

- Availability of Disclosure
- Bilateral Sessions
- Levels of Supply Chain Data Visibility
- Update Results

The Pilot(s) – Data management and disclosure
e. Project’s blockchain applications in cotton and leather

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Leather Blockchain Pilot

• Early stages of development
• Benefit of learning from the Cotton Blockchain Pilot
• Participating in the dry runs / testing of the cotton to aid understanding and progress for the leather pilot
• Established a group of project partners and held a welcome meeting
Step 1: Value Chain(s) Selection: Materials, Partners and Processes

Standard Leather Value Chain

1. Farming of Livestock
2. Slaughter
3. Preservation
4. Tanning (raw to tanned)
5. Splitting, shaving and sorting
6. Retanning, fatliquoring and crusting
7. Dyeing, setting out and Sammying
8. Drying, conditioning, softening and finishing
9. Product assembly
10. Fulfilment & retail
11. Post consumption

Value Chain
- Farms
- Tanneries
- Traders
- Product Manufacturers

Material
- Leather
- Components
- Finished Goods

Partner
- Farmers
- Manufacturers
- Retailers

Process (VC Step)
- Farming
- Tanning
- Production (incl. transformation phases)
Step 2: Identify the information exchanges / data within the Value Chain(s) Selection

Standard Leather Value Chain

1. Farming of Livestock
2. Slaughter
3. Hide/skin preservation
4. Tanning (raw to tanned)
5. Splitting, shaving & sorting
6. Retanning, fatliquoring, crusting
7. Dyeing, setting out, sampling
8. Drying, conditioning, softening, finishing
9. Product assembly
10. Fulfillment & Retail
11. Post consumption

5 Ws | Definition
---|---
WHO | Value Chain Partner
WHAT | Event Type Material
WHY | Verification Criteria & Validation Process
WHERE | Business Location
WHEN | Business Event Time

STANDARD DATA COLLECTION TEMPLATE available to be used in all the business steps of the value chain - for all type of sustainability claims
Step 3: Identify the User Story – What do you want to achieve?

Cotton Value Chain
1. Planting and cultivation of cotton
2. Cotton harvest identification & transfer from farmer to ginner
3. Ginning & transfer to spinner
4. Spinning, bleaching, weaving & transfer to weaver
5. Dyeing, bleaching, washing & transfer to weaver
6. Weaving & transfer to fabric finisher
7. Garment or product production & transfer to enablement
8. Product Enablement & packaging & transfer to "retailer"
9. Placement of product in stores or on-line for sale
10. Consumption and disposal
11. Post consumption recycling

Leather Value Chain
1. Farming/Hunting of Livestock
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8. Drying, Conditioning, Softening & Crust
9. Product Assembly, Dispatch
10. Fulfillment and Retail
11. Post consumption recycling

What is your core business? How does it impact the leather value chain?
Where do you position your user story in the leather value chain?
Who are the most relevant business partners in your value chain?
# How to build the User Story - Example

<table>
<thead>
<tr>
<th>User story #10 –</th>
<th>AS A</th>
<th>I WANT TO</th>
<th>SO THAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinning mill</td>
<td>Upload the organic cotton certificates I receive from agricultural partners and certification entities</td>
<td>I can show the traceable origin of the cotton fibers I use</td>
<td></td>
</tr>
<tr>
<td>Spinner</td>
<td>Upload the GOTS Transaction certificate issued by the certification body in the blockchain</td>
<td>I can demonstrate that the fabric maker receives GOTS certified yarns matching with GOTS certificate approved on-site by the third-party certification body.</td>
<td></td>
</tr>
</tbody>
</table>

**User Story LVC: Complete**

<table>
<thead>
<tr>
<th>AS A</th>
<th>I WANT TO</th>
<th>SO THAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather Manufacturer</td>
<td>Ensure that leather manufactured in my tannery does not contain hazardous chemistry by buying chemicals from suppliers who are compliant with REACH regulations</td>
<td>No adverse health effects are suffered by people who use or wear products manufactured with leather produced at my tannery. Testing of the leather will be conducted by 3rd party verified testing companies to demonstrate this compliance and test reports will be uploaded to the blockchain platform in order to create transparency.</td>
</tr>
</tbody>
</table>
Step 5. To enable your user story – select your claim and validation method (this example is origin)

Leather Value Chain

- Value Chain Step: Tanning
- User Story: In order to prove the transfer of ownership of the wet-blue tannery to the finishing tannery, the wet-blue tannery issues an invoice and a shipping list that confirms the transaction. Assurance Process: Second Party verified.

- WHO:
  - From Tannery Name “ABC”
  - To Tannery Name “XYZ”

- WHAT:
  - Event (transformation): Tanning
  - Material: Bovine Wet-Blue “A” grade, full substance
  - Verification Criteria (Evidence/Standard): Invoice from Tannery “ABC” to Tannery “XYZ”

- WHERE
  - Operation Location Tannery Location “ABC” address

- WHEN
  - Event Date and Time: Date and Time

- WHY
  - Business Operation: Continuation of process to complete leather manufacture
Pilot Scenario(s) preparation: Working Groups

Roundtable Organization: a phased-in expanding series of working groups as the pilot develops

<table>
<thead>
<tr>
<th>Gap Analysis</th>
<th>Pilot Scoping</th>
<th>Support</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working group to undertake a gap analysis for cotton vs leather, and investigation on physical markers (PRO and CONs analysis, tender(?)): Team to be determined from cotton and leather pilots</td>
<td>Working Group for scoping the pilot objectives and desired outcomes: Made up of Direct Project Partners plus Secretariat and Consultant Team</td>
<td>Working Group to assist with gaps in value chains and expert input Made up of Direct Project Partners, Support Project Partners, plus Secretariat and Consultant Team</td>
<td>Working Group to provide physical pilot run and validation Direct Project Partners, Support Project Partners, Validation Partners, plus Secretariat and Consultant Team</td>
</tr>
</tbody>
</table>
Next steps

Consultation: training plan, communication strategy, outreach plan

Press Release 11 May
- Update on member State endorsement
- Opening of Call to Action, and submissions
- Launch of The Sustainability Pledge

Multi-Stakeholder Dialogue 21-23 September, Milan
(hybrid format)

Enhancing Transparency and Traceability for Sustainable Value Chains in the Garment and Footwear Industry

In partnership with
IV. Q&A and wrap-up

Maria Teresa Pisani
| POLICY | UNECE Policy Recommendation and implementation Guidelines N°46 (April 2021)  
The Call to Action / Sustainability Pledge - FR version – RU version (April 2021) |
| STANDARD | The Business Requirements Specifications (BRSs) for Traceability and Transparency for Textile and Leather (April 2021)  
Part I High Level Process and Data Model  
Part II Use cases and CCBDA  
The Business Process Analysis for Textile (ongoing)  
Business Process Analysis for Sustainability and Circularity in the Leather Value Chain  
Code Lists and Identifiers Recommendation for Leather and Textile (ongoing) |
| PILOT | Policy brief – Harnessing the potential of blockchain technology for due diligence and sustainability in cotton value chains (April 2021) |
| GUIDELINES AND STUDIES | Mapping of policies, regulations and guidelines: Report, Policy developments on traceability and transparency and its Executive summary for policymakers (April 2021) |

**Webpage**
https://unece.org/trade/traceability-sustainable-garment-and-footwear

**CUE SPACE**
Connexion - UN/CEFACT Collaboration Environment (unece.org)