Learning Series: Traceability in the Leather Supply Chain



Webinar 1: Understanding traceability and the UNECE guidelines

May 4th, 2021



Anti-Trust Statement

Textile Exchange convenes the textile community and values diversity of views, expertise, opinions, backgrounds, and experiences. It is expected that members of this community will collaborate by sharing ideas, information, and resources of publicly available information only and avoid discussions on price, strategic plans or other private and sensitive information.





Disclaimer

The goal of the Responsible Leather Round Table is to be a platform for stakeholders in the leather industry to engage with each other, share information, and identify common challenges and opportunities. To this end, we offer opportunities for diverse stakeholders to share their knowledge and perspectives.

The views, thoughts, and opinions expressed in this webinar belong solely to the speakers. As the leader of the RLRT, Textile Exchange strives to maintain a neutral role.





5 webinars on Traceability in the Leather Supply Chain

Understanding Traceability and the UNECE May 4th 10 - 11am Webinar 1: 4 – 5pm Guidelines Webinar 2: May 20th Traceability Expectations of Sustainability 11am – 5-6pm 12pm **Standards in the Leather Supply Chain** Webinar 3: 10 - 11am **Traceability Solution Providers in the** May 25th 4 – 5pm Leather Supply Chain Webinar 4: June 1st 4 – 5pm Joint webinar with NWF and GRSB 10 - 11am Traceability at the farm level: focus on Brazil Webinar 5: June 8th The Implementation of Traceability Solutions 10 - 11am 4 – 5pm in Leather Supply Chains: Brand Experience

Speakers









NICOLE LAMBERT

Textile Exchange

Tool Development Coordinator

JOSEFINA EISELE Global Roundtable for Sustainable Beef (GRSB) Director for Latin America Textile Exchange Farm Impacts Lead

DEBORAH TAYLOR United Economic Commission for Europe (UNECE) UN Consultant Sustainable Leather Foundation

Managing Director

CALLIE WELDON Textile Exchange Standards Specialist



Traceability Webinar 1 Agenda:

- Introduction to traceability: what is traceability and how can it be addressed in a supply chain? Callie Weldon, Standards Specialist, Textile Exchange
- Challenges for traceability at the farm level: from birth farm to slaughterhouse. Josefina Eisele, Director for Latin America at the Global Roundtable for the Sustainable Beef and Farm Impacts Lead at Textile Exchange
- Updates from the UNECE on traceability in the garment and footwear sector. Deborah Taylor, Managing Director at the Sustainable Leather Foundation and UN Consultant at the United Economic Commission for Europe (UNECE)
- Q&A



Introduction to traceability: what is traceability and how can it be addressed in a supply chain?

Callie Weldon, Standards Specialist, Textile Exchange

Managing Supply Chain Complexity







Traceability

The ability to verify the history, location, or application of an item by means of documented recorded identification.



Chain of Custody

'The custodial sequence that occurs as ownership or control of the material supply is transferred from one custodian to another in the supply chain'.

Source: ISEAL "Chain of custody models and definitions"



Types of Tracers



In Product

The identifier is embedded into the product at its place of origin, and the unification with the product can typically only be dissolved by physically destroying the product.

E.g. DNA, dyes, particle markers.



On Product

The identifier is supplied 'onto the product' at its place of origin, and going forward forms a unit with the product. It can however be removed through physical force or chemical process.

E.g. RFID, barcodes, NFC

E.g. Certificates, digital trace



Off Product

The identifier is supplied on a medium that is provided alongside the product at its place of origin, and accompanies it going forward.

In Product



Tracer type	Examples Brands
Fluorescent	IntegriTex, In-Code, Stardust, FiberTrace
DNA molecule	Haelixa, AppliedDNA, Identigen
Isotopes	Oritain
Microbiome	CoreBiome, Phylagen
Ink	Stardust, DigiMarc

On Product



Tracer type	Examples Brands
NFC	SMART Textiles, In-Code,
RFID	Arfidex, UBSolutions,
Barcodes	GS1

Off Product – Digital Solutions



Tracer type	Examples Brands
Distributed (Blockchain)	Bext360, TrusTrace, InfiniChain, Astratum, MonoChain, Lukso Blockchain, Consensys, Convergence, Provenance, Textile Genesis,
Centralized	SupplyShift, ChainPoint, SourceTrace,
Visualization	SourceMap, Open Apparel Registry

Chain of Custody Options



Chain of Custody for Textile Exchange Standards

The aim of chain of custody, is to preserve the identity of the claimed material, and to track its movement through the supply chain up to the final product. This is done through <a>Scope Certificates (SC) and <a>Transaction Certificates (TC)



Methods of Verification





Traceability at the Farm Level in Argentina, Brazil, Paraguay & Uruguay

Josefina Eisele, Textile Exchange

Meaning of traceability



Traceability systems are designed to enable **identification** of any issue related to quality, damage or any deficiency that the product presents, with the consequent opportunity to take corrective measures at the very link of the process and -and in a preventive manner - for the coming production.

Traceability for livestock requires a proper **identification** of the animal. **Identification** is a step that combined with other important and already existing data allows us to speak of a livestock production with traceability.

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Meaning of traceability

The benefits of traceability therefore include:

- □ process control;
- error correction,
- □ origin of the products (who made it and how),
- □ reliability of the value chain and the product itself,
- □ sharing of information and,
- joint work between the different links of production and marketing.



Why traceability?

- Traceability is increasingly required in livestock production.
- Beef is a basic food product, with obvious health implications, acquired by consumers who are evolving: consumers are now informed about the benefits of healthy diets and nutritional requirements.
- ✓ With leather , consumers concerns are related to the animal treatment, pollution of the processing, and other environmental concerns.



Traceability in Latin America



For beef from Latin America, European Union regulations in this area have raised the requirements and necessitated implementation of measures in this regard. Initial concerns about the traceability of beef arose in Europe as a result of trans boundary diseases including Foot and Mouth Disease and later Bovine Spongiform Encephalopathy (BSE), which produced an abrupt drop in consumption.

According to these regulations and their current application in the different countries mentioned above, traceability in livestock is an attribute that allows the cuts, quarters or pieces of beef to be properly identified with each animal or with each group of animals, if this group identification is presented as sufficient to guarantee the veracity of the identification tag of the cut

Argentina

No socioenvironmental or Animal Welfare requirements No UNIQUE software system with data from different governmental departments (AFIP, SENASA, Min. if Agriculture, etc)

Land that has been illegally deforest can still have livestock or other

Since 2007 all animals have individual traceability



FARMS are registered in **RENSPA** (SENASA's registration) (area, number of animals of all species, etc)

No environmental information, mostly on farm production.

Identification of the animal (yellow ear tag) CUIG: Unique Livestock Identification Code

The identification tag must be applied: to the first movement/change of ownership /performance of sanitary tasks or treatments with medications that require it (<u>whichever comes</u> <u>first</u>).



SIGSA: All animal movements are registered in Senasa's Local Offices through the Integrated Animal Health Management System (Sigsa).

DTA: Documento de Transito Animal **DT-e SIGSA**

TRI: Tarjeta de Registro Individual de Tropa

Libro de Registro de Movimiento y existencias (where tags, births, deaths, entries, and exits must be registered)

Slaughter house





Sisbov system in Brazil is used to authorize exports to the EU. Individual Animal Traceability- NO Sustainability criteria, only sanitary issues are covered (vaccinations, diseases, etc)

GTA - which is the **animal transit guide** and tracks batches of animals whenever they move to a different farm

CAR (Rural environmental Registry of properties) all farms in Brazil are registered in CAR and update the information every year.

Solution for a national traceability system with sanitary + environmental issues

Link the GTA (animal transit guide) with the CAR (rural environmental registry of properties)



and Certification of Cattle Origin)

- Socio- Environmental traceability is not included in these traceability systems.
- **PRODES** is the official monitoring system for deforestation in the Amazon and Cerrado.

Possible solutions



Public info from GTA+CAR+PRODES (or other social/labor information)+ a system/tool to process the data (Blockchain):

- They are both national systems so they have immediate scale across Brazil
- They are already in use so no additional cost or management burdens for producers (that's a huge benefit)
- Much more cost-effective than ear tags, RFID, etc.
- Much faster to deploy than an individual tracking system at scale
- Besides environmental information the following can also be added: slave labor list, embargoes, protected areas, conservation units, indigenous territories

ViSIPEC: and add-on traceability tool that Works with existing monitoring systems used by Brazilian meatpackers to provide the cattle sector with enhanced supply chain visibility and more effective deforestation monitoring



Paraguay





- Information on the farms, owner of the animals and animal movements.
- Basic sanitary requierements
- Batch level information
- Same information than SIGOR.
- Individual animal traceability
- Sanitary and nutritional events are registered
- At slaughter each animal/carcass is identified



Paraguay

- **SIGOR II** (Livestock information system of Paraguay): it's the obligatory system for all farms and livestock in Paraguay
 - batch level information from origin to destination.
 - Very basic information. Its useful for health emergencies.
 - Its managed by SENACSA and The Rural Association
- **SITRAP** (Voluntary, only establishments registered for export) Provides information on INDIVIDUAL TRACEABILITY, more detailed information, provides the guarantees for Export certification.

Uruguay: Traceability from Farm to Fork





Farm and individual animal information is registered. Breed, genetics, vaccines, land use. **Ownership and movement Guide** (breed, brand, means of transport, cattle movement)

DICOSE (Self declaration)

- Name and location fo the farm
- Land Use
- Number of cattle
- Birth and disease of animals

SNIG National Livestock Information System (Data based system)

SNIG became the information database used for the operation of the **SIRA** (Sistema de Identificacion y Registro Animal) since 2006 National System, not voluntary

Ear tags and electronic chips

Includes environmental and Animal Welfare information

Conclusion



- The only countries with full traceability at **individual animal** level is Uruguay and Argentina, all the rest is at **batch level**. The individual traceability is voluntary according to market requirements
- **Costs of** the traceability system: Ear tags and electronic chips and a national system that can concentrate all the information have a high cost. , producers are not willing to pay that cost.
- Socio-environmental and Animal Welfare information is not provided by most of the traceability systems, only Uruguay.
- Only a few markets demand full traceability, and none of them require socio-environmental traceability. Its a B2B requirement
- Many traceability systems are still paper based, for this reason, information cannot be made rapidly available and cannot be used to improve the quality of beef processing or correct other problems in time.

Traceability and Transparency for more sustainable value chains in garment and footwear sectors

Enhancing Traceability and Transparency for sustainable value chains in the garment and footwear sector

Presentation prepared for Textile Exchange 4th May 2021

Deborah Taylor UN/CEFACT UNECE Consultant





Traceability and Transparency for more sustainable value chains in garment and footwear sectors

An Overview of work to date:

- Creation and formal adoption of Policy Recommendations and Guidelines
- 2. Creation and formal adoption of Call to Action
- 3. Creation of Business Process Analyses (BPAs) Generic, Textile and Leather
- 4. Creation and harmonisation of code lists for the CCL and other data repositories
- 5. Blockchain Pilots
- 6. Capacity Building and Training
- 7. Communication



UN / CEFACT



1. Toolbox

	TOOLBOX	DELIVERABLES	TARGETS/BENEFICIARIES	
2019-2021	Policy model	Policy Recommendation Guidelines Action plan✓Call to Action/Sustainability Pledge✓	 Policymakers Opinion makers Garment & footwear makers 	
	$\mathbf{\Sigma}$ Business and data	Business Process Analysis		
2020-2021	(the info exchange standard)	 Business Requirements Specifications Business & Data Model ✓ Use Cases & CCBDA ✓ Code lists, IDs and e-messages Σ 	Sustainability analystsBusiness analystsData analysts	
	stanuaru)		Data system designers	
	Technology	Blockchain Pilots Cotton 	Tech solution providersService providers	
2020-2022	model	• Leather		
2021-2022		Capacity-building and outreach		
Ļ	SUPPORTING INSTRUMENTS			
	, , , , ,	i-stakeholder policy dialogue platform es, legislations and initiatives and policy br	ief	



1. Outcomes of the 27th UN/CEFACT Plenary and 69th ECE Session



27th UN/CEFACT Plenary 19 April - 20 April 2021



69TH SESSION OF THE COMMISSION PROMOTING CIRCULAR ECONOMY AND SUSTAINABLE USE OF NATURAL RESOURCES IN THE UNECE REGION

20-21 APRIL 2021 | ROOM XVII | PALAIS DES NATIONS | GENEVA

UNECE 69th Commission Session 20 April - 21 April 2021



UNECE

At the twenty-seventh UN/CEFACT Plenary **UNECE Member States embraced a series** of policy recommendations, implementation guidelines and an information exchange standard that together make it possible to assert and verify sustainability claims in the highly globalised garment and footwear sector.

Olga Algayerova

Executive Secretary of UNECE

#UNECE4circularity UN/#CEFACT

DOCUMENT TITLE AND DOCUMENT SYMBOL	Status
Recommendation No. 46: Enhancing Transparency and Traceability of Sustainable Value Chains in the Garment and Footwear Sector ECE/TRADE/C/CEFACT/2021/10 (EN $- FR - RU$)	Adopted*
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 (<u>EN</u> – <u>FR</u> – <u>RU</u>)	Endorsed*
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) & ECE/TRADE/C/CEFACT/2021/INF.3 (EN)	For information
Policy Brief – Harnessing the Potential of Blockchain Technology for Due Diligence and Sustainability in Cotton Value Chains	For information

Due Diligence and Sustainability in Cotton Value Chains ECE/TRADE/C/CEFACT/2021/12 (EN)



2. Call to Action



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 Draft: <u>https://unece.org/sites/default/files/2021-01/E320_BPA-SVC-textile.pdf</u> Leather Value Chains Draft: https://unece.org/sites/default/files/2021-04/E320_BPA-SVC-leather.pdf

Enhancing Traceability and Transparency of Sustainable Value Chains in th **Corment and Footwear Sector** UNECE **Business Process Analysis for Sustainability** and Circularity in the Leather Value Chain


3. Processes and Actors





3. Risks





3. Information / Data Requirements

Traceable Assets Transformations and IDs



Tracing back IDs to the Raw Hide: K-H-F-E-C-B1-A1 or K-H-F-E-C-B2-A2 or K-H-F-E-D-L3-K3 or K-H-F-E-D-N4-M4



• 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.





4. Why use 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).











Pilot #1 – COTTON Pilot #2 – LEATHER



Step 1: Value Chain(s) Selection: Materials, Partners and Processes

Standard Leather value Chain





Step 2. Identify the information exchanges / data within the Value Chain(s) Selection

Standard Leather Value Chain





Step 3. Identify the User Story – What do you want to achieve?





Step 3 cont. How to build the User Story - Example

User story #10 –					
AS A		I WANT TO		SO THAT	
Spinning mill	Ş	Upload the organic cotton certificates I receive from agricultural partners and certification entities	A state of the	I can show the traceable origin of the cotton fibers I use	₩ T
Spinner	Ş	Upload the GOTS Transaction certificate issued by the certification body in the blockchain		I can demonstrate that the fabric maker receives GOTS certified yarns matching with GOTS certificate approved on-site by the third-party certification body.	ж Т
User Story LVC: Complete					
AS A		I WANT TO		SO THAT	
Leather Manufacturer		Ensure that leather manufactured in my tannery does not contain hazardous chemistry by buying chemicals from suppliers who are compliant with REACH regulations		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 3 rd party verifi companies to demonstrate this con test reports will be uploaded to the platform in order to create transpa	npliance and blockchain



Step 4. To enable your user story – select your claim and validation method (this example is origin)



- 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

Gap Analysis	Pilot Scoping	Support	Validation
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	Working Group for scoping the pilot objectives and desired outcomes:	Working Group to assist with gaps in value chains and expert input	Working Group to provide physical pilot run and validation
	Made up of Direct Project Partners plus Secretariat and Consultant Team	Made up of Direct Project Partners, Support Project Partners, plus Secretariat and Consultant Team	Direct Project Partners, Support Project Partners, Validation Partners, plus Secretariat and Consultant Team
pilots		-	



6. Training plan, capacity-building





7. Project Communication











Secretariat: Maria-Teresa Pisani at: maria-teresa.pisani@un.org

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

Thank you



Thank you



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