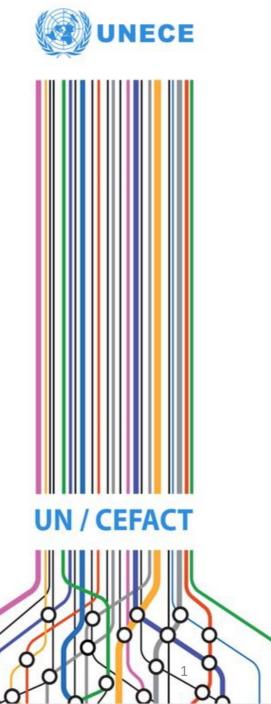
Enhancing Transparency and Traceability for Sustainable Value Chains in the Garment and Footwear Industry

Project Experts' Meeting

General update on project progress

Maria Teresa Pisani and project team 25 | 03 | 2021, WebEx Meeting







I. Capacity-building and outreach

Maria Teresa Pisani, Sarah Harris

II. Policy

Maria Teresa Pisani, Francesca Romana Rinaldi, Claudia Di Bernardino

III. Information exchange standard

Gerhard Heemskerk, Virginia Cram-Martos, Deborah Taylor, Marco Ricchetti

IV. Blockchain system

Andrea Redaelli, Giacomo Poretti

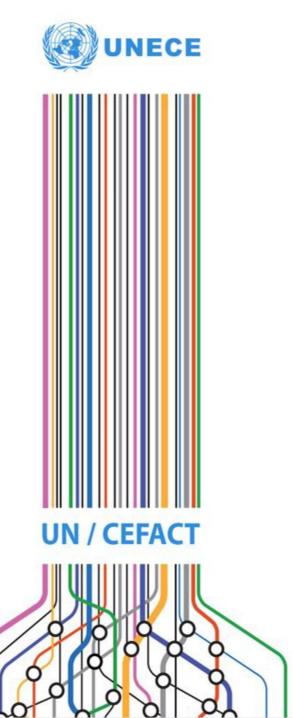
	 <u>UNECE Policy Recommendation and implementation Guidelines N°46 (finalized)</u>
	The Call to Action / Sustainability Pledge (finalized)
	• The Business Requirements Specification (BRS) for Traceability and Transparency in the Textile and Leather Sector
Background	 Part I High-Level Process and Data Model (finalized);
documents	 Part II Use Cases and CCBDA Data Structures (finalized)
	The Business Process Analysis for Textiles (about to be finalized)
CUE SPACE	The Business Process Analysis for Leather (about to be finalized)
	Project document cotton blockchain pilot and progress report
	Code Lists and Identifiers Recommendation for Textile and Leather (about to be finalized)
	Report Third Multi-Stakeholder Policy Dialogue 27&28 November 2020
	 Minutes October Conf-Call: Subgroups Policy, Textile&Leather, Capacity Building&Pilots (CUE space)
Webpage	https://unece.org/trade/traceability-sustainable-garment-and-footwear



	TOOLBOX	DELIVERABLES	TARGETS/BENEFICIARIES
2019-2021	Policy model	Policy Recommendation✓GuidelinesAction planCall to Action/Sustainability Pledge✓	 Policymakers Opinion makers Garment & footwear makers
2020-2021	Business and data model (the info exchange standard)	Business Process Analysis☑Business Requirements Specifications• Business & Data Model ✓• Use Cases & CCBDA ✓• Code lists, IDs and e-messages ☑	 Sustainability analysts Business analysts Data analysts Data system designers
2020-2022	Technology model	Blockchain Pilots Cotton Leather 	 Tech solution providers Service providers
2021-2022 Capacity-building and outreach SUPPORTING INSTRUMENTS			
 Ecosystem mapping and multi-stakeholder policy dialogue platform Mapping of supporting policies, legislations and initiatives and policy brief 			

I. Capacity-building and outreach

- The communication strategy and toolbox brand identity Sarah Harris
- The training plan for the toolbox: Q4 2021/Q1 2022 Maria Teresa Pisani

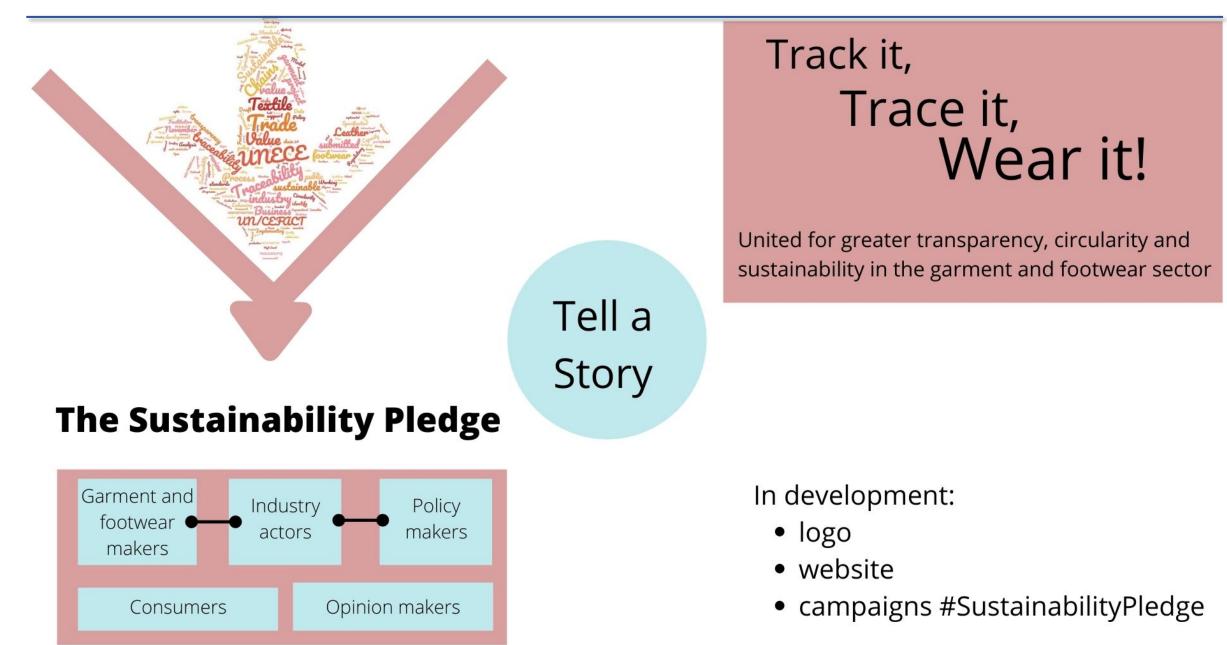




Garment & Footwear Industry = Sustainability Issues

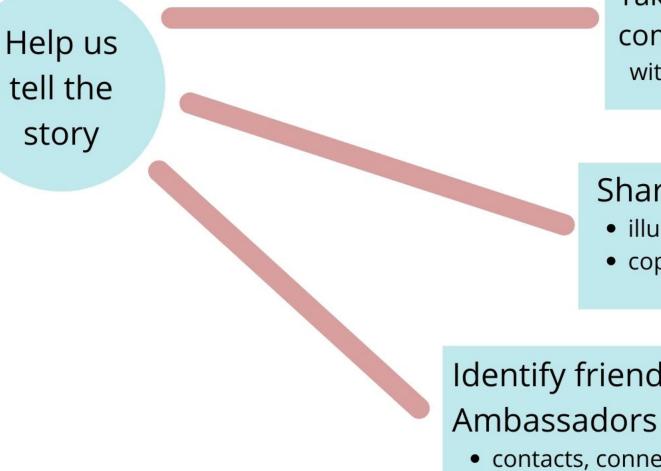






Outreach for the Toolbox





Take part in communication campaigns with a first expected 19/20 April

Share images and video

- illustrative
- copyright-free

Identify friends and

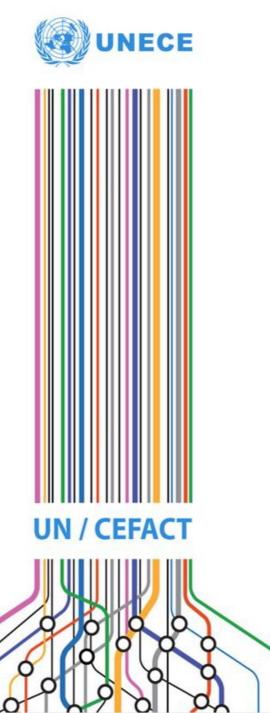
contacts, connections

UNECE

sustainabilitypledge@un.org

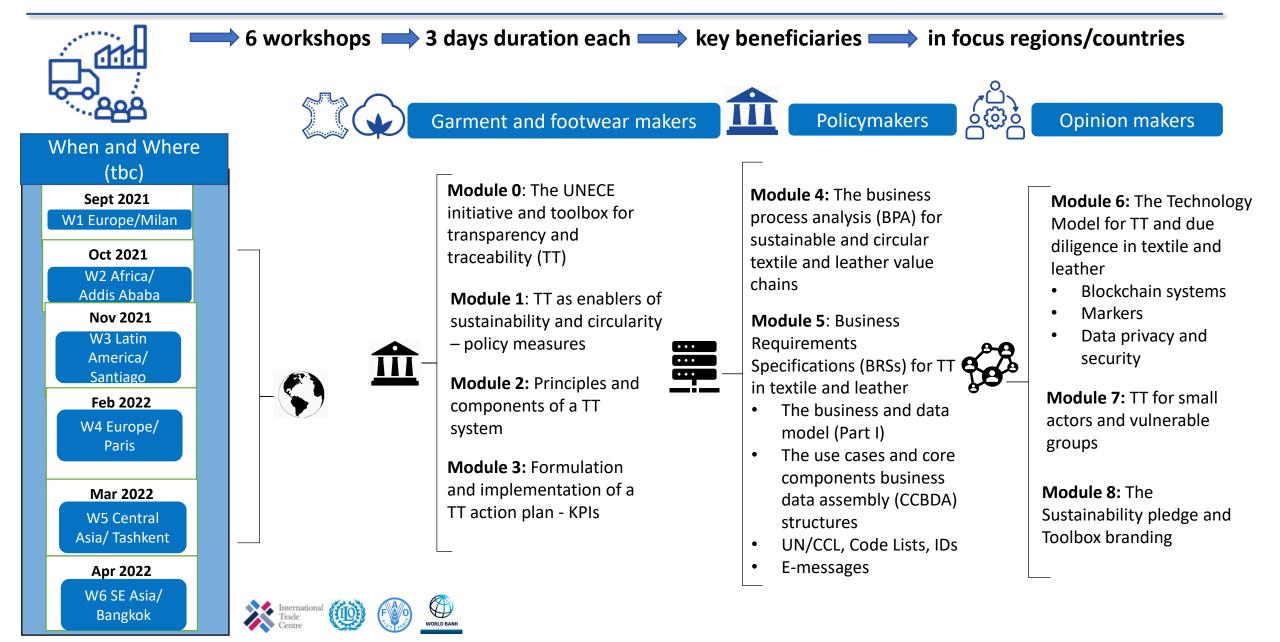
I. Capacity-building and outreach

- The communication strategy and toolbox brand identity Sarah Harris
- The training plan for the toolbox: Q4 2021/Q1 2022 Maria Teresa Pisani





Training plan



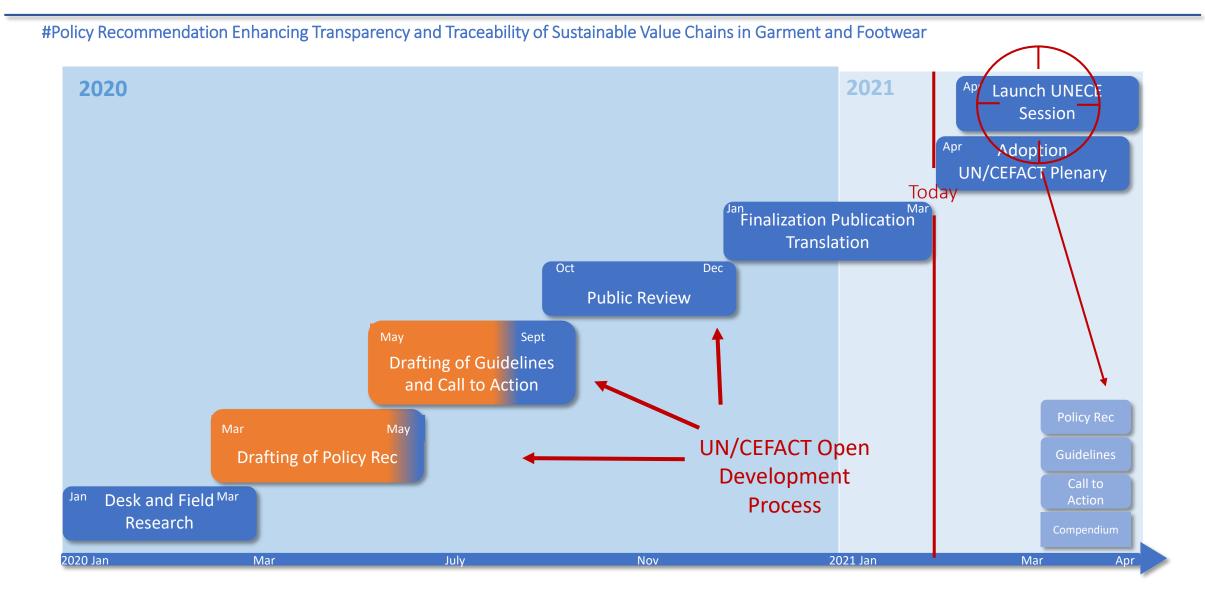
II. Policy

- The UNECE Policy Recommendation and Implementation Guidelines N° 46 Maria Teresa Pisani
- The Call to Action/Sustainability Pledge Francesca Romana Rinaldi
- The policy and legal report based on the desk and field research and instruments mapping *Claudia Di Bernardino*





UNECE Policy Rec & Guidelines N° 46 – Timeline







UNECE Policy Recommendations (Part I)

8 DECENT WORK AND ECONOMIC GROWTH

RESPONSIBLE Consumption

17 PARTNERSHIPS FOR THE GOALS

AND PRODUCTIO

A. Introduction

 Transparency and traceability: key enabelers for compliance with policy/regulators/ corporate objectives for sustainability and circularity and for solid claims

B. Scope

- Whole Value Chain: from raw material production, through manufacturing, to consumption and post-consumption
- Action areas: for Recommendations

C. Target audience

- Public-sector policymakers
- And: Business and industry associations; Consumers and consumer associations; IGO; Investors/shareholders; Local authorities; NGOs; Scientific and technological community; Workers and trade unions

D. Purpose & Benefits

- A level playing field: incentive for good actors
- Globally recognized approach: for data sharing
- Better access to remedies: for workers and consumers
- Fight to counterfeiting and illegal trade

E. Challenges

- Organizational & technological complexities
- **Data:** privacy and security, reliability and authenticity
- Investments in advanced technologies: e.g. blockchain, RFID

F. Recommandation

 5 cluster areas and 9 recommendations: norms and standards and reference to minimum data set; Incentives; R&D scaling up innovation; Awareness and education of consumers; Multistakeholders collaborative initiatives

UNECE-UN/CEFACT "Enhancing Transparency and Traceability for Sustainable Value Chains in Garment and Footwear"

UNECE Policy Recommendation on Transparency and Traceability for Sustainable Value Chains in Garment and Footwear

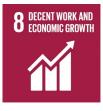
II. Guidelines for Recommendation nº46 on enhancing transparency and traceability for sustainable garment and footwear value chains

А.	INTRODUCTION		
α.	TRACEABILITY PRINCIPLES		
с.		KEY TRACEABILITY SYSTEM CONCEPTS	5
ο.		THE TRACEABILITY SYSTEM ARCHITECTURE - A MORE IN-DEPTH APPROACH	9
	1.	C.Amri	9
- 2	2.	TRACEARER Assets	0
		2.1 Granularity of the traceoble asset	σ
		2.2 Maintenance of Referential Integrity	1
		2.3 Traceable Assets and Product Transformations	
	1.	Unique Identifieres (IDs)	1
		3.1 Maintaining the integrity of IDs across product transformations	2
	١.	TRACHABILITY MODIKS	1
		4.1 Product segregation (most demanding model)	1
		4.2 Mass balance (moderately demanding model)	4
		4.3 Book and Claim (least demanding model)	ar i
	5.	ENTRY AND EXIT POINTS	5
	5.	TRACEABILITY INFORMATION AND DATA COLLECTION INFORMOUSING	5
- 7	τ.	Verimication Oriteria	15
	ι.	INDICATORS (TO BE DRAWING)	6
	ι.	Vertification processes: The role of audit and certification	6
		9.1 Audit	7
		9.2 Gertification	
ε.		CDST ALLOCATION AND INCENTIVE SYSTEMS	
ε.		SUPPORTING ROLE OF ADVANCED TECHNOLOGIES	0
G.		DATA ANALYSIS	2
н.		FORMULATION AND IMPLEMENTATION OF A TRACEABILITY AND TRANSPARENCY ACTION PLAN 2	-
1	1.	Define a vision statement	3
2	2.	Set the oreactives and related performance indicators	3
1	1.	PLAN THE ACTIVITIES AND DEPINE THE TIMING	4
. 4	١.		
	5.	Ашослть вызочиска	5
- 0	5.	Mowrow wasuth	
7	Τ.	COMMUNICATING THE RESULTS AND RELATED RECOMMENDATIONS	7
I.		CREATING INCLUSIVENESS IN TRACEABILITY SYSTEMS	7
1	1.	INTEGRATING DEVELOPING COUNTRIES AND SMALL STAKEHOLDERS	8
- 2	2.	Gentler considerations	9
- 1	1.	Support to Small and Medulm-sized Enterprises	0

Link to Call to Action – Mechanism to monitor impact and facilitate sharing of experiences and good practices







2 RESPONSIBLE CONSUMPTION

AND PRODUCTION

PARTNERSHIPS For the goals

A. Introduction

- Purpose: Practical guidance on the development of traceability systems To Support Claims and Regulatory Compliance For Sustainable and Circular Garment and Footwear Value Chains
- Target audience: High-level Government and Private Sector Managers with implementation responsibility

B. Traceability principles

 9 Principles: Awareness, Knowledge, Riskbased Analysis, Commitment, Engagement, Structured implementation, Norms & Standards, Appropriate technology, Inclusiveness

C. Key traceability systems concepts

- Claims
- Traceable Assets
- Logistics Units
- Unique Identifiers (IDs)
- Entry & Exit Points
- Traceability models
- Verification criteria
- Verification processes

D. Cost allocation & incentive systems

- **Costs related to traceability and transparency:** e.g. costs for development of the system; data collection and exchange, certification, inspections, audits, etc.
- Type of incentives: financial and non-financial, public vs private
- Criteria of cost structure for value-chain partners

E. Supporting role of advanced technologies

- Opportunities and challenges
- Type of supporting technologies: e.g. Al, IOT, Blockchain, Internet Cloud Services, Advanced product labelling (QR, RFID, DNA markers, NFC labels)
- Criteria for their selection and impact

F. Creating inclusiveness in traceability systems

- The digital divide
- Gender considerations
- Small and medium-sized enterprises
- Integrating developing countries

UNECE-UN/CEFACT "Enhancing Transparency and Traceability for Sustainable Value Chains in Garment and Footwear"

UNECE Policy Recommendation on Transparency and Traceability for Sustainable Value Chains in Garment and Footwear

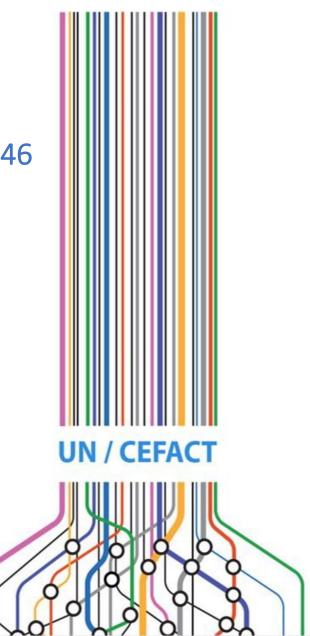
II. Guidelines for Recommendation n 46 on enhancing transparency and traceability for sustainable garment and footwear value chains

-	INTRODUCTION
	TRACEABILITY PRINCIPLES
	KEY TRACEABILITY SYSTEM CONCEPTS
L	THE TRACEABILITY SYSTEM ARCHITECTURE – A MORE IN-DEPTH APPROACH
1	Classes
2	Tentinama Asiani
	2.1 Granularity of the traceoble asset
	2.2 Maintenance of Referential Integrity
	2.3 Traceable Assets and Product Transformations
1	analia analia tana fasi
	3.1 Maintaining the integrity of IDs across product transformations
4.	Телсьлецту Морыз
	4.1 Product segregation (most demanding model)
	4.2 Mass balance (moderately demanding model)
	4.3 Book and Claim (least demanding model)
5.	
б.	
7.	
1	
9.	
	9.1 Audit
	9.2 Certification
	COST ALLOCATION AND INCENTIVE SYSTEMS
	SUPPORTING ROLE OF ADVANCED TECHNOLOGIES
	DATA ANALYSIS
L	FORMULATION AND IMPLEMENTATION OF A TRACEABILITY AND TRANSPARENCY ACTION PLAN 23
1	DEFINE A VISION STATEMENT
2	Set the objectives and related performance indicators
1	PLAN THE ACTIVITIES AND DEFINE THE TIMING
4	Пертав тив осучивался стяцстике
5	Ашаслая явідцяські
6.	Момгоя казыла
7.	COMMUNICATING THE RESULTS AND RELATED RECOMMENDATIONS
	CREATING INCLUSIVENESS IN TRACEABILITY SYSTEMS
1	INTEGRATING DEVELOPING COUNTRIES AND SMALL STAKEHOLDERS
2	Gender considerations
1	Support to Small and Medium-subid Datemprises

Annex – Action Plan: A step-by-step approach to frame and implement a traceability system

II. Policy

- The UNECE Policy Recommendation and Implementation Guidelines N° 46 Maria Teresa Pisani
- The Call to Action/Sustainability Pledge Francesca Romana Rinaldi
- The policy and legal report based on the desk and field research and instruments mapping Claudia Di Bernardino



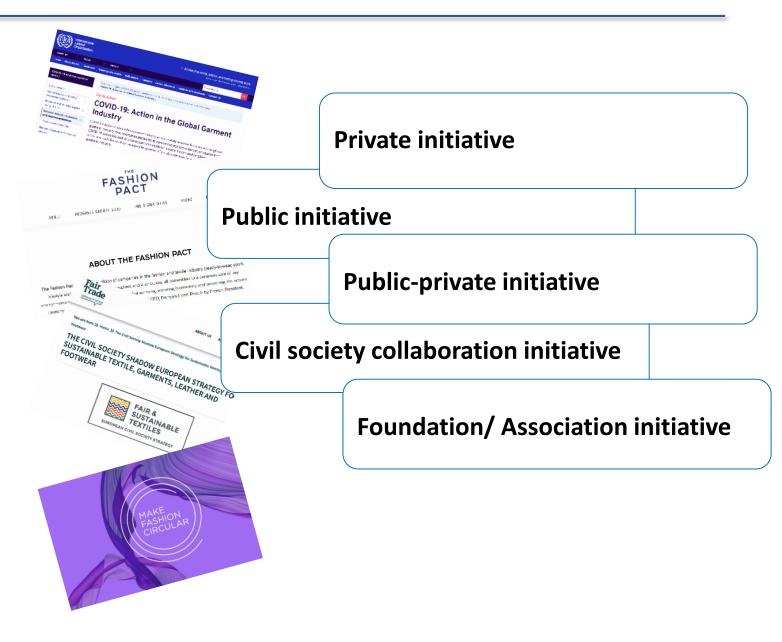


What is the Call to Action?

The Call to Action invites **all actors** in the garment and footwear industry

to take action for traceability and transparency with the goal of accelerating sustainability and circularity of value chains

establishing a mechanism for supporting the **implementation** of the measures proposed in the Recommendation





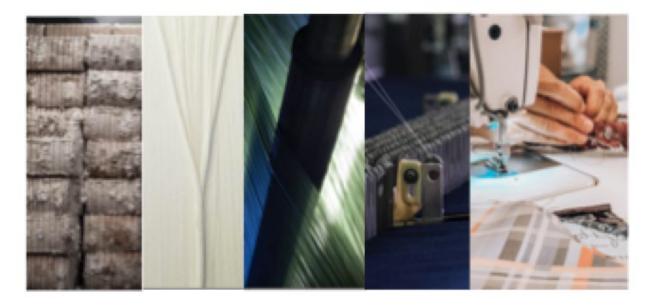
<u>03/ECE_TRADE_C_CEFACT_2020_06_Rev1E_0.pdf</u>

ONGOING	NEXT STEPS	United Nations ECE/TRADE/C/CEFACT/2020/6/Rev.1
1. <u>Inviting Actors</u> to join the Call to Action	5. Establishing a Platform for sharing experiences and lessons learned	Economic and Social Council Distr:: General 11 March 2021 English Original: English, French, Russian Economic Commission for Europe Executive Committee Centre for Trade Facilitation and Electronic Business Twenty-seventh session Geneva, 19-20 April 2021 Item 6 (b) of the provisional agenda Recommendations and standards: Economedations and standards:
2. Establishing KPIs for the Actions (specific for each stakeholder)	6. Reaching out to parties in the Call to Action to receive updates on progress	Deliverables in support of the circular economy Call to Action for Traceability, Transparency, Sustainability and Circularity of Value Chains in the Garment and Footwear Sector Submitted by the UN/CEFACT Bureau Summary The sixty-ninth session of the United Nations Economic Commission for Europe (UNECE) will take place on 20-21 April 2021 at the Palais de Nations, in Geneva. The Executive Commistee (EXCOM) has decided that the theme of the session will be:
3. Asking about good practices	7. Regularly reporting to member States and the general public	"Promoting circular economy and sustainable use of natural resources in the UNECE region" (EXCOM/CONCLU/109 and EXCOM Informal Document No. 2020/38). The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) and its secretariat have been requested to consider how to conthybute to the cross-cutting theme of the UNECE session (ECE/TRADE/C/CEFACT/2020/INF.14 and ECE/TRADE/C/CEFACT/2020/INF.15). In light of this, and in connection with the ongoing UN/CEFACT project on traceability and transparency of sustainable value chains in the garment and footware sector (ECE/TRADE/C/CEFACT/2020/16) as a contribution of UN/CEFACT to the sixty-ainth session of UNECE (ECE/TRADE/C/CEFACT/2020/19/2019/2019/2019/2019/2019/2019/2
4. Asking about strategic/public awareness activities	8. Inviting member States to formally disseminate information about the Call to Action	approval to the twenty-seventh session of the UN/CEFACT Plenary) as well as relevant UN/CEFACT standards, and to support the monitoring of their implementation. Document ECETRADE/C/CEFACT/2020/6/Rev.1 is submitted by the UN/CEFACT Bureau and its secretariat to the twenty-seventh session of the UN/CEFACT Plenary for endorsement. Call to Action: <u>https://unece.org/sites/default/files/2021-</u>



Inviting actors to join the Call to Action









Who: SDA Bocconi Sutainability Lab 'Monitor for Circular Fashion' powered by Enel X (10 Members: 2 Ingredients, 2 brands, 2 Platforms - March 2021 update) in collaboration with Eco-Age

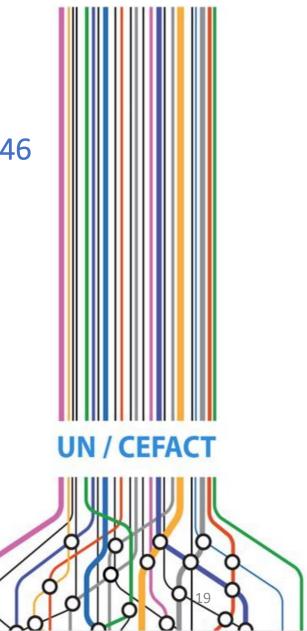
Where: Italy/Global

What: Launching a Circular Fashion Manifesto highlighting the importance of Transparency and Traceability as enablers of Sustainability and Circularity

How: Through the identification of industry-specific KPIs and requirements to scale-up circular economy pilot projects in garment and footwear value chains

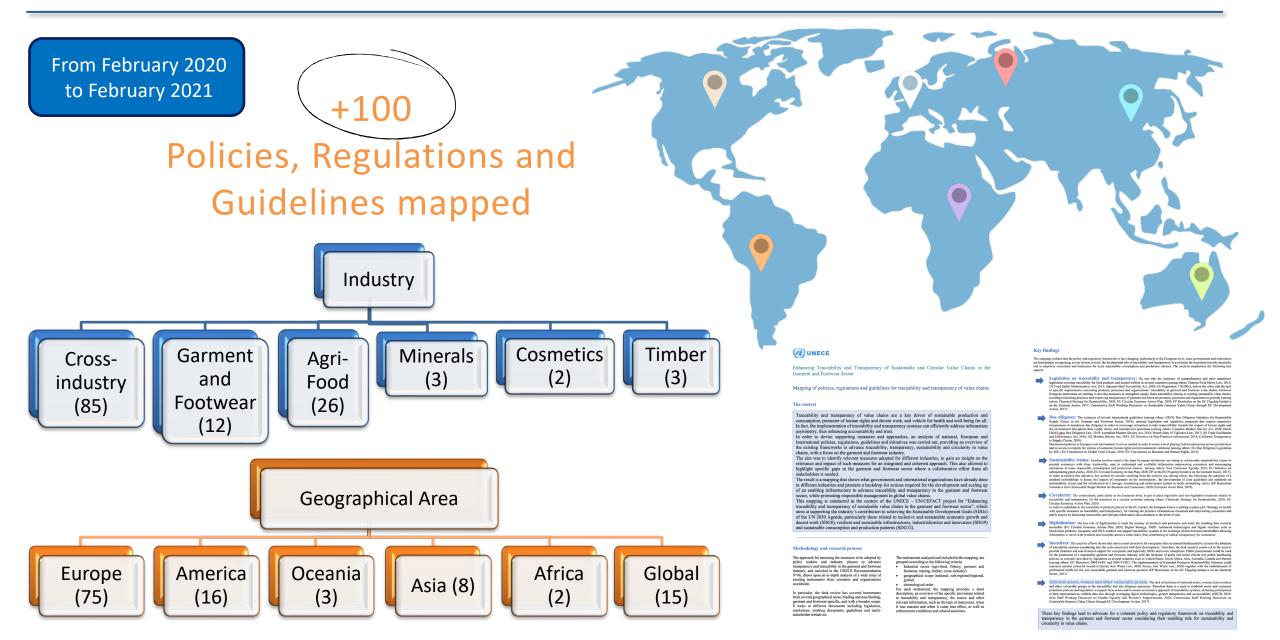
II. Policy

- The UNECE Policy Recommendation and Implementation Guidelines N° 46 Maria Teresa Pisani
- The Call to Action/Sustainability Pledge Francesca Romana Rinaldi
- The policy and legal report based on the desk and field research and instruments mapping *Claudia Di Bernardino*



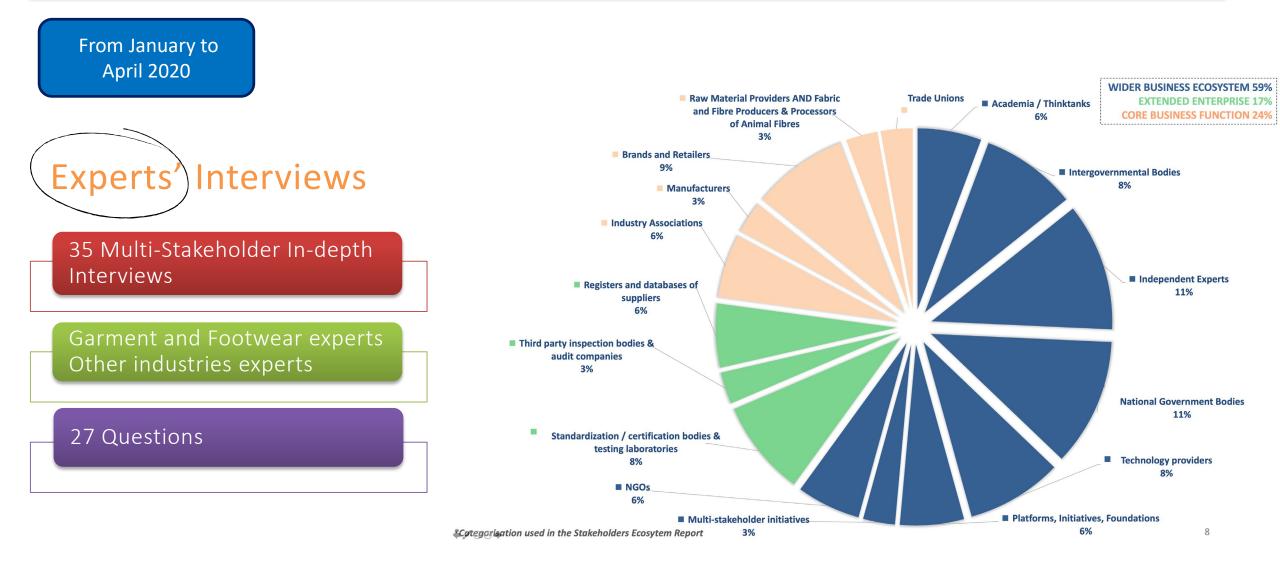


1. Desk Research – Mapping





2. Field Research – Experts' Interviews





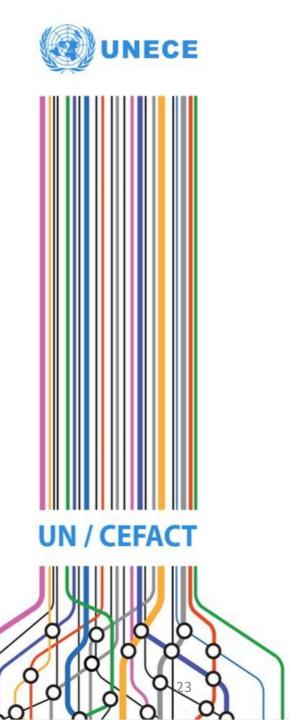
3. Key Takeaways from the Desk & Field Research and Next Steps

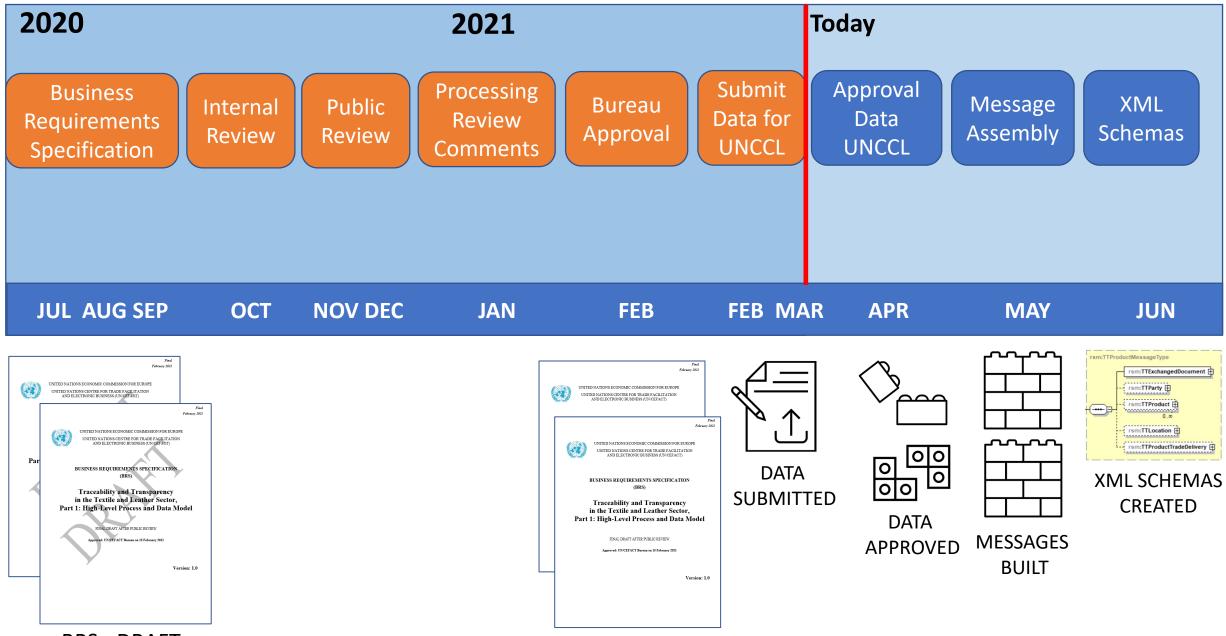


Report's Publication with the Result of the Desk and Field Research

III. Information exchange standard

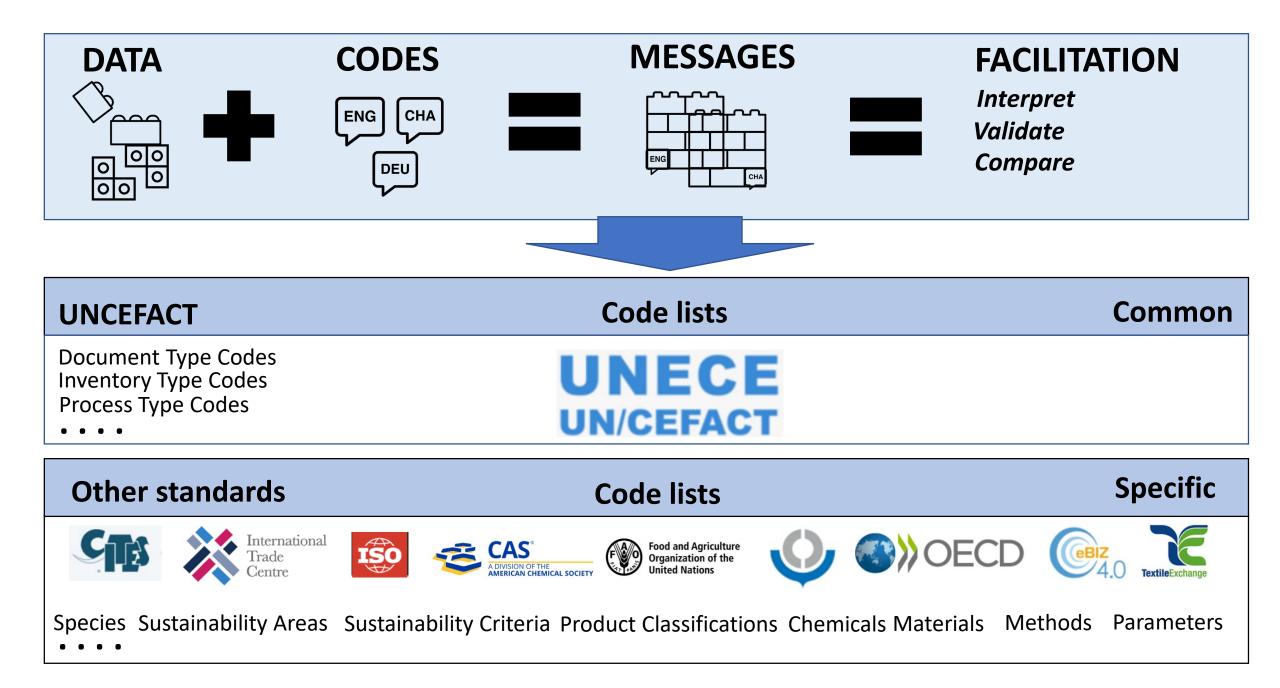
- The Business Requirements Specification (BRS) for Traceability and Transparency in the Textile and Leather Sector:
 - Part I High-Level Process and Data Model
 - Part II Use Cases and CCBDA Data Structures Gerhard Heemskerk
- The Business Process Analysis for Textiles
- The Business Process Analysis for Leather Virginia Cram-Martos, Deborah Taylor, Marco Ricchetti



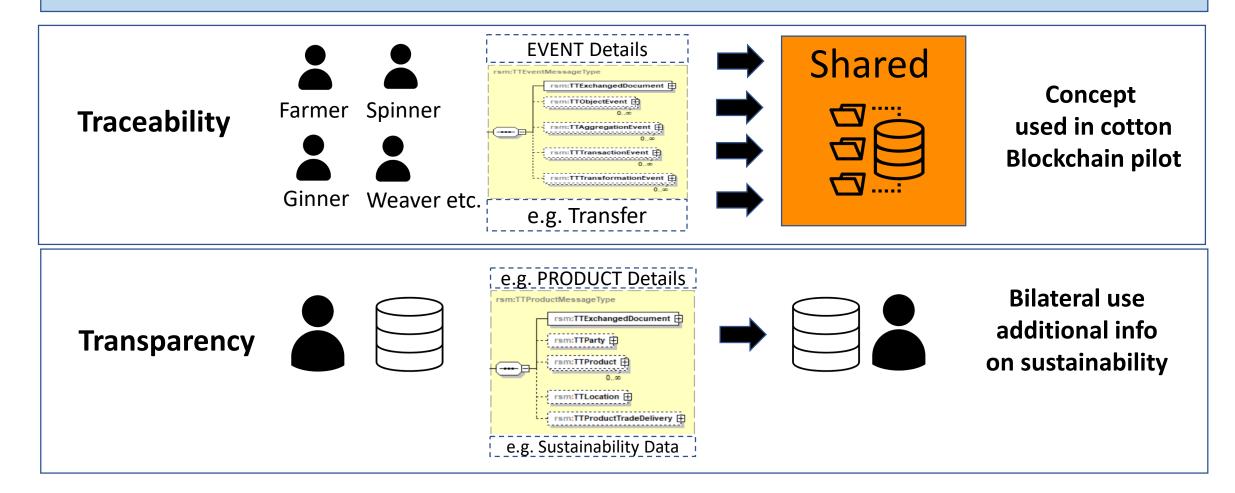


BRS - DRAFTs

BRS - APPROVED



UN/CEFACT STANDARDIZED MESSAGES

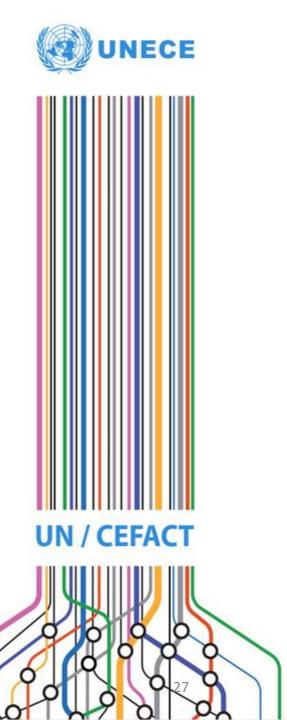


III. Information exchange standard

- The Business Requirements Specification (BRS) for Traceability and Transparency in the Textile and Leather Sector:
 - Part I High-Level Process and Data Model
 - Part II Use Cases and CCBDA Data Structures

Gerhard Heemskerk

- The Business Process Analysis for Textiles
- The Business Process Analysis for Leather Virginia Cram-Martos, Marco Ricchetti, Deborah Taylor



Business Process Analysis (BPA) For Enhancing Traceability and Transparency

3 Objectives – 3 Questions to Answer

- 1) What Data? Completed
- 2) What Transparency Processes and Activities? Completed
- 3) Where, When, Who to Find/Create the Needed Data? In Progress UN / CEFACT

Virginia Cram-Martos, Triangularity SáRL 25/03/2021, WebEx Meeting

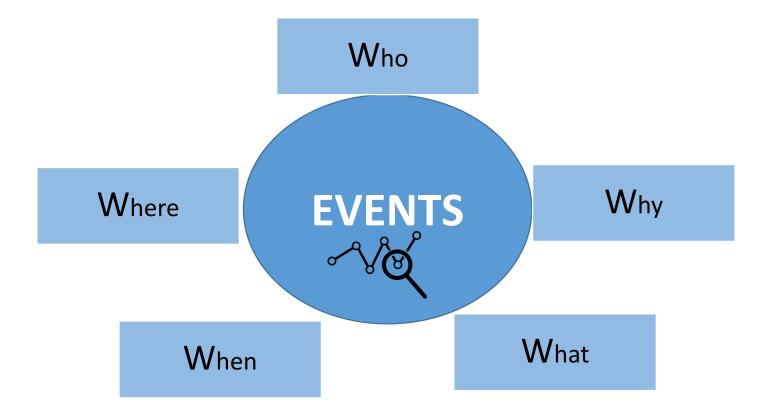




For value-chain processes

For Traceability : the 5 Ws created around events









To find data for verifying claims 5-W event data is the Key

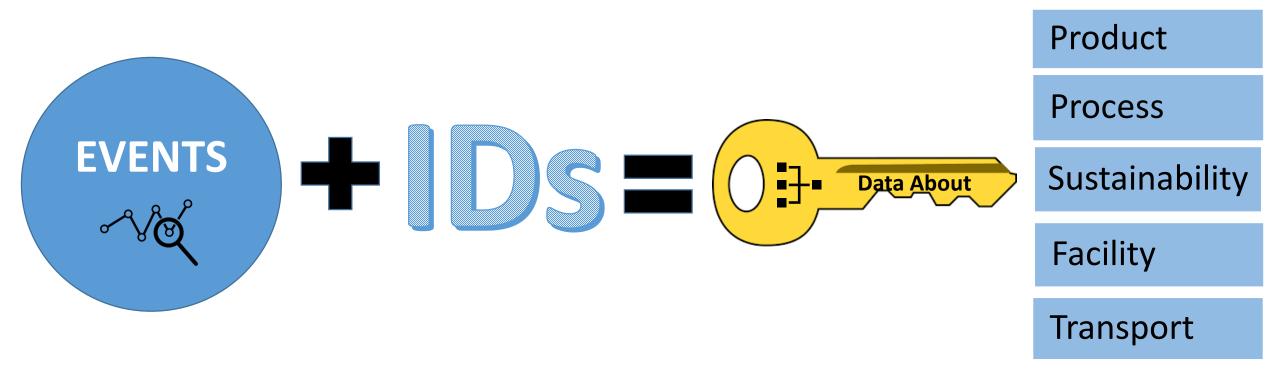






Image: Distance of the second seco

For Transparency: the data to verify claims

UN/CEFACT

Policy Recommendation, Part II - Guidelines

Product-related	Process-related	Facility-related	Transport-related
information	information	information	information
Origin → - Country and/or Region Composition → - Materials components - Product components Technical Specifications → - Materials specifications - Product specifications Product identification (IDs) → - Individual product/material batch - Product/material trade unit Quality → - Characteristics - Inspections - Certificates/audit reports (product/materials) Other management information → - Cost(s) - Sales data - Surplus or damaged materials/product - Risks Sustainability → See table below on sustainability data	Process inputs and outputs → - Input volumes/weights - Output volumes/weights Process events occurrence → - Data - Time Process identification (IDs) → - Process (product) inputs - Process (product) inputs - Type of process - Equipment (machine) - Machine operator Sustainability → See table below on sustainability data	Economic-operator details → - Supplier - Manufacturer - Subcontractor Location → - Main production unit(s) - Subordinate production unit(s) Facility & economic- operator identification (IDs) → - Economic Operator - Main facility - Subordinate facility Sustainability → See table below on sustainability data	Economic-operator details → - Transport or freight forwarding company - Owner/Operator of the means of transport Location → - For picking up logistics units - For delivering logistics units Transportation (IDs) → - Logistics Units - Conveyance means (truck, railcar, ship, container if applicable) Sustainability → See table below on sustainability data

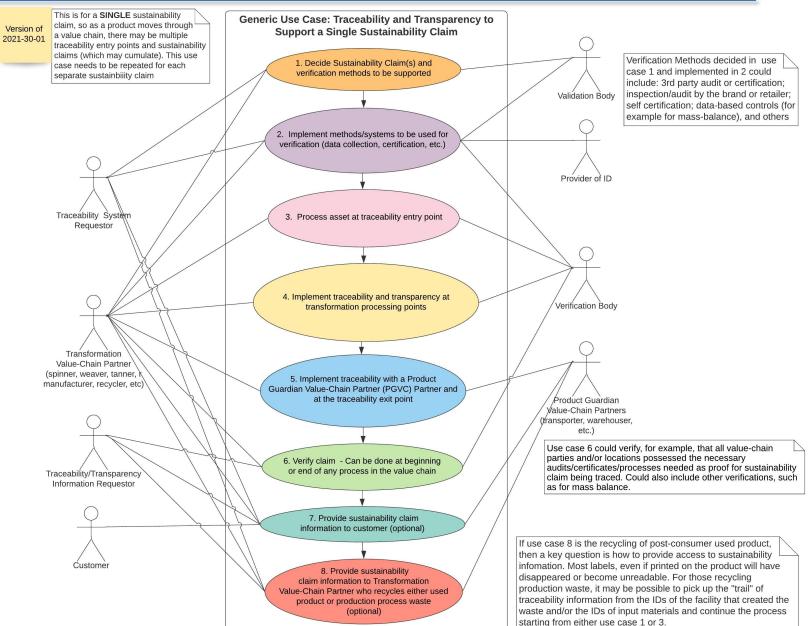
Product	Process
 Origin Composition Technical Specifications Product identification (IDs) Quality Other management information Sustainability 	 Process inputs and outputs Process events occurrence Process identification (IDs) Sustainability
Facility	Transport
 Economic-operator details Location Facility & economic operator identification (IDs) Sustainability 	 Economic- operator details Location Transportation (IDs) Sustainability



BPA Objective 2 - What processes and activities are needed for Traceability & Transparency?

Identified in the Generic Traceability Use-Case Model with its

- 8 Generic Processes
- 8 Generic Participants
- 8 Detailed Activity Diagrams and Business Process Descriptions (one for each process)

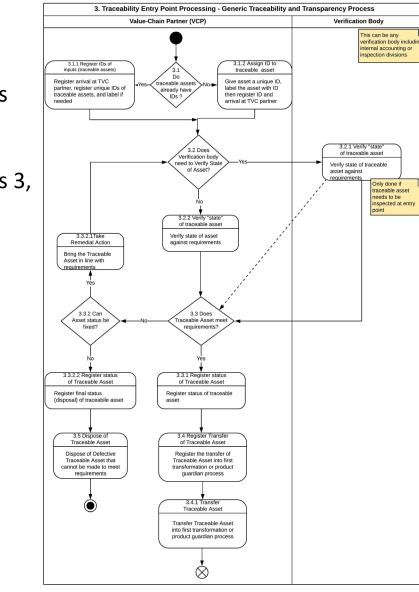




BPA Objective 3 – Where, When, Who to find/create the data?

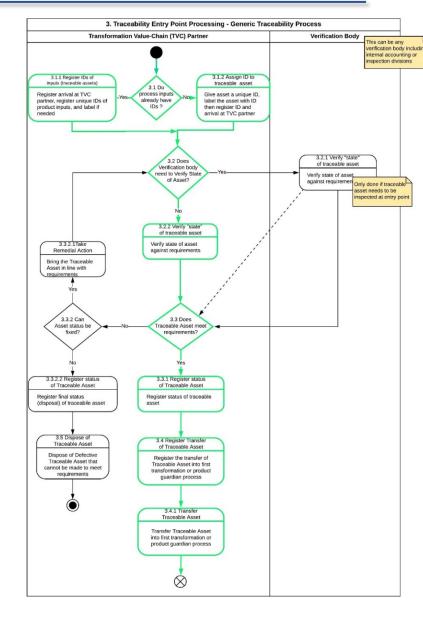
Step 1 Take a Generic Traceability Process

Here is Generic Traceability Process 3, Traceability Entry Point Processing



Step 2 Trace the most likely "path" through the process for a given value chain or valuechian process

Here, traced in green, is the most like likely path to be taken within Generic Traceability Process 3, by a leather valuechain process





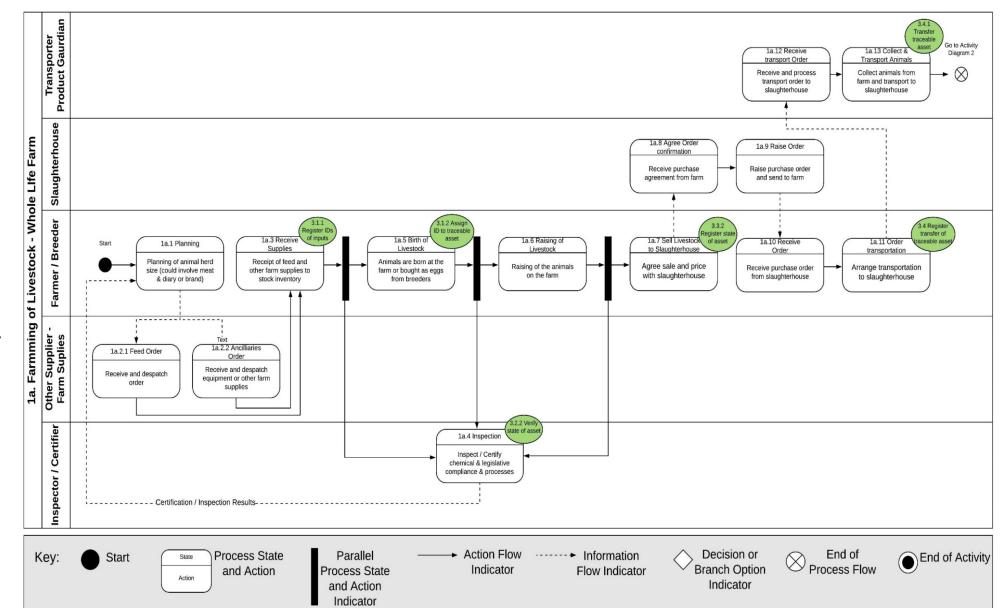
BPA Objective 3 – Where, When, Who to find/create the data?

Results

Identify in a value-chain activity diagram, the activities where the Generic Activity Processes (i.e. the boxes previously highlighted in green) could be implemented.

This example is using a leather value-chain process and the matching activities are marked with green ovals.

If there is no "match" then a new activity will need to be added to the value-chain process in order to fully implement traceability.





Overlay of Generic Process 3 - Traceability Entry Point Processing onto Farming of Livestock (Whole Life Farm) in the Leather Value Chain

Transporter Product Gaurdia Go to Activity 1a 12 Receiv 1a 13 Collect Diagram 3 Transport Animals transport Orde Receive and process Collect animals from \otimes transport order to farm and transport to slaughterhouse slaughterhouse Slaughterhouse 1a. Farmming of Livestock - Whole Llfe Farm 1a.8 Agree Orde 1a.9 Raise Order Receive purchase Raise purchase orde agreement from farm and send to farm Farmer / Breeder ID to traceat transfer o 1a.5 Birth o 1a.3 Reci asset 1a.6 Raising 1a.7 Sell Livesto 1a.10 Re 1a.11 Order of ass 1a.1 Planning Supplies Livestock to Slaughterhouse Livestoc Orde transportation Planning of animal herd Receipt of feed and Animals are born at the Agree sale and price Raising of the animals Receive purchase orde Arrange transportation size (could involve meat other farm supplies to farm or bought as eggs on the farm with slaughterhouse from slaughterhouse to slaughterhouse & diary or brand) stock inventory from breeders Other Supplier -Farm Suplies La.2.2 Ancilliaries 1a.2.1 Feed Order Order Receive and despatch Receive and despatch quipment or other farm orde supplies Certifier 1a.4 Inspection Inspect / Certify chemical & legislative compliance & processes Inspector / - Certification / Inspection Results End of Activity Action Flow End of Key: Start Process State Parallel Information Decision or Process Flow State Indicator **Branch Option** Process State Flow Indicator and Action Action and Action Indicator Indicator

If you work in a Leather Value Chain, you could

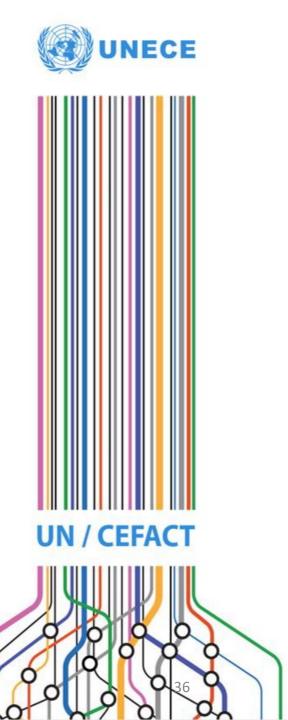
- Look at this diagram, compare it to your processes and, if needed modify it
- 2) Use this diagram, to identify
 - Where data already exists
 - Who has that data
 - When in the value chain process they have the data
 - Where additional data needs to be collected

III. Information exchange standard

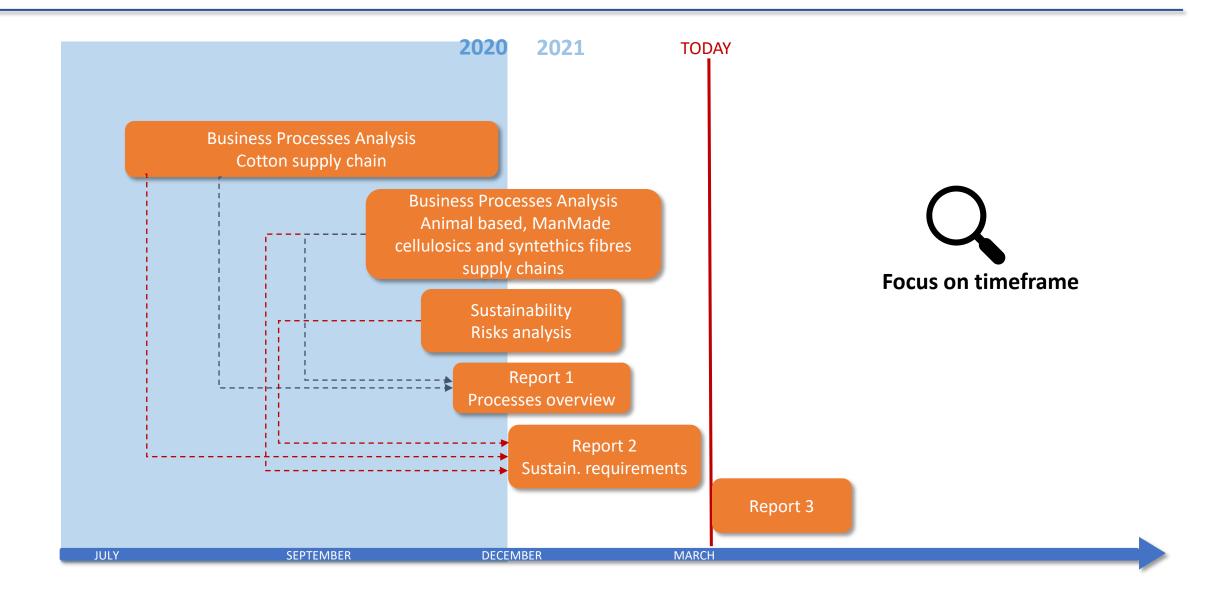
- The Business Requirements Specification (BRS) for Traceability and Transparency in the Textile and Leather Sector:
 - Part I High-Level Process and Data Model
 - Part II Use Cases and CCBDA Data Structures

Gerhard Heemskerk

- The Business Process Analysis for Textiles
- The Business Process Analysis for Leather Virginia Cram-Martos, Marco Ricchetti, Deborah Taylor





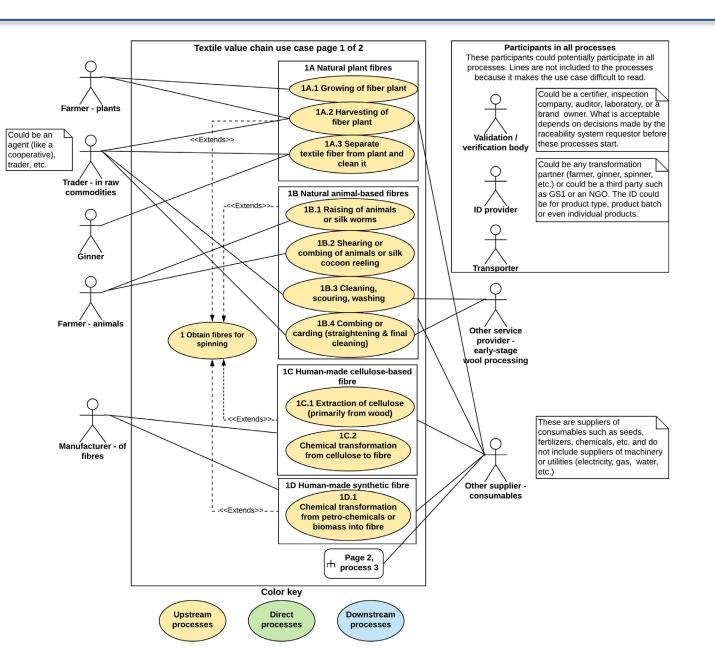




The incorporation of

- ✓ Animal based
- ✓ Man-made cellulosic
- $\checkmark\,$ and synthetic fibres

into the business process analysis





The Sustainability Risks

Analysis for every single process and fibre value chain is based on the UNECE secretariat's compilation of risks from several sources:

- ✓ OECD Due diligence guidance in the garment and footwear sector (2018)
- ✓ **ITC** Standards map
- ✓ UNEP Draft report for circularity and sustainability in textile value chains (2020)

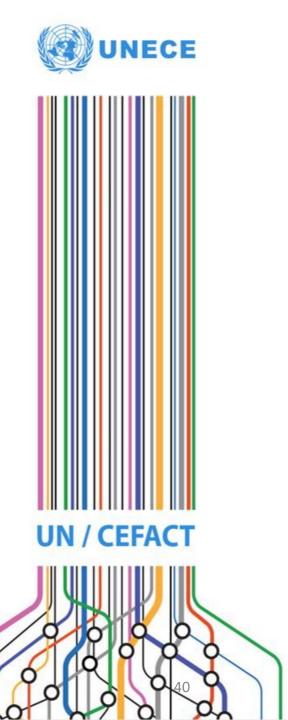
	Г	
	Related laws, rules, regulations	
	Sustainability Risks, Criteria and Verification	Sustainability risks (hot spots) within this process
	ENVIRONMENTAL	Insecticides, pesticides and fertilizers use
		Hazardous chemicals and toxics use
		Water consumption and pollution
		Lack of wastewater treatment
		Greenhouse gas emissions and air pollution
9		Energy consumption/efficiency, CO2 emissions, , Energy efficiency of equipment/machineries
		Soil and land degradation
		Resource and fossil fuel depletion, Extensive land use
		Biodiversity, Ecosystems depletion, Lack of biodegradability
		Deforestation, Habitat loss
		Waste
		Animal welfare (animal-based fiber), Lack of freedom from hunger, thirst and malnutrition, physical and thermal discomfort,
		pain, injury and disease, fear and distress, lack of freedom to express normal patterns of behaviour
		Child labour
		Forced and compulsory labour/Slavery and forced labour
		Sexual harassment, Gender inequality, Discrimination
	SOCIAL	Lack of freedom of association and right to collective bargaining, Disciplinary practices
		Low wages, Non-compliance to minimum wage legislation
		Excessive working hours
		Occupational health and safety, Lack of economic rights/social security, Limited social security, Temporary employment
	ETHICS	Bribery and corruption
	ECONOMIC, MANAGEMENT, QUALITY	Consumers and community protection, Negative influence on responsible consumption patterns, Lack of product
		quality/durability

III. Information exchange standard

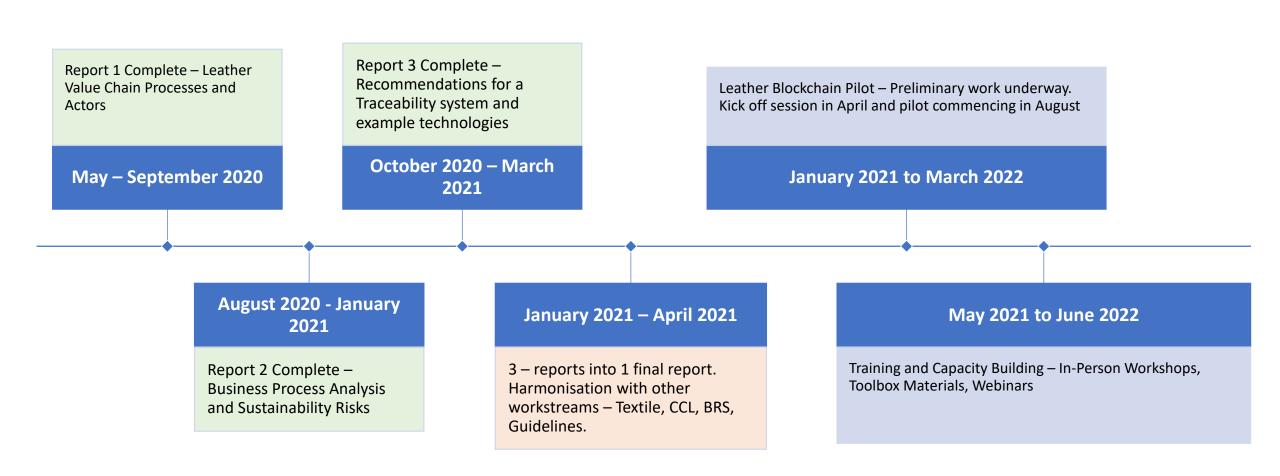
- The Business Requirements Specification (BRS) for Traceability and Transparency in the Textile and Leather Sector:
 - Part I High-Level Process and Data Model
 - Part II Use Cases and CCBDA Data Structures

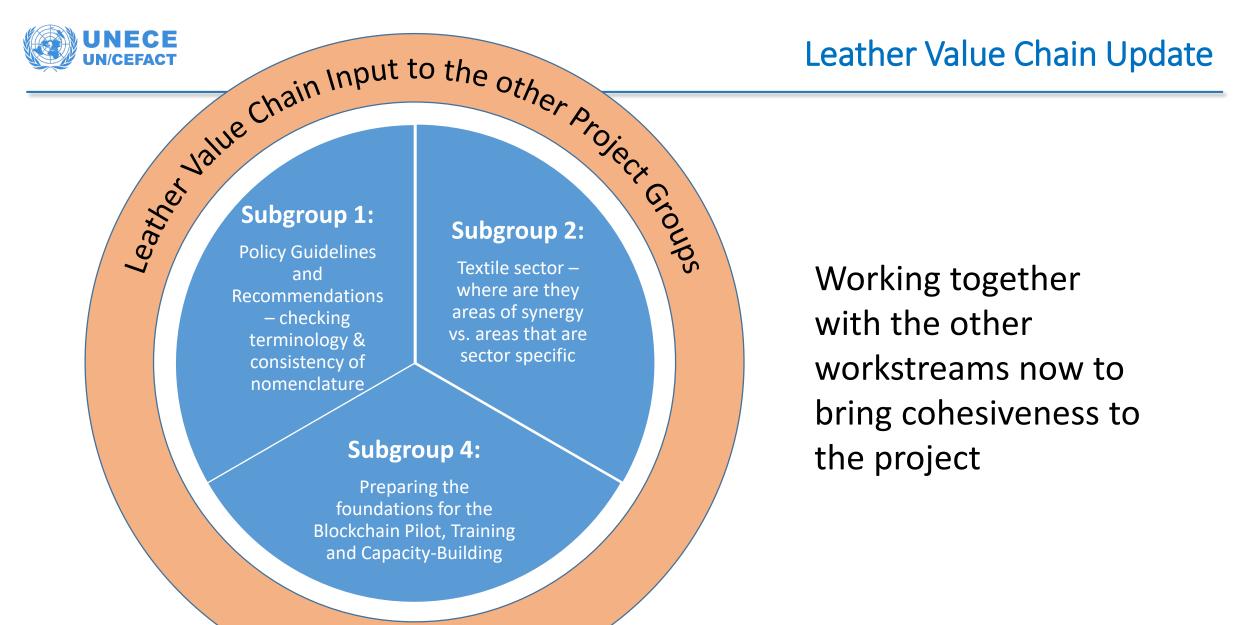
Gerhard Heemskerk

- The Business Process Analysis for Textiles
- The Business Process Analysis for Leather Virginia Cram-Martos, Marco Ricchetti, Deborah Taylor











III. Blockchain system

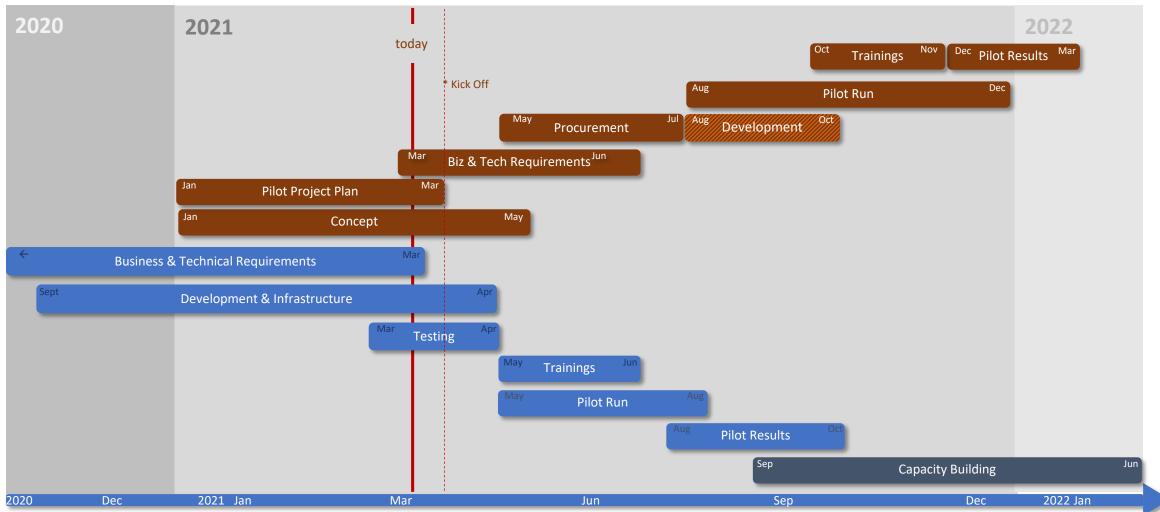
• The blockchain pilots for 1#Cotton and #2Leather Andrea Redaelli, Giacomo Poretti



UN / CEFACT



Pilots - Implementing blockchain technology for traceability and due diligence in the value chain in support of a circular economy

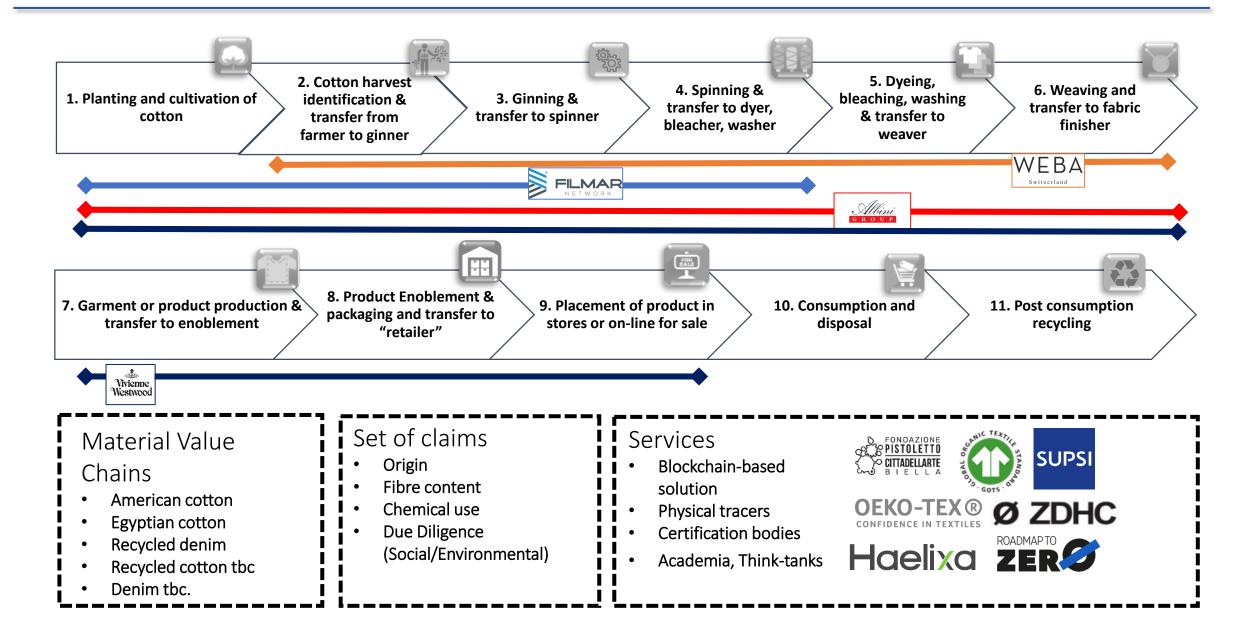


PILOTS TIMELINE

Pilot #1 – COTTON Pilot #2 – LEATHER



Standard Cotton Value Chain and Scope

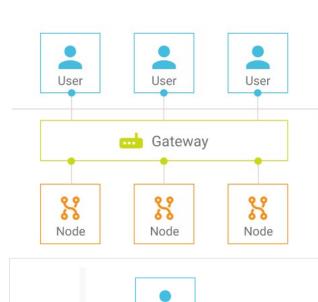




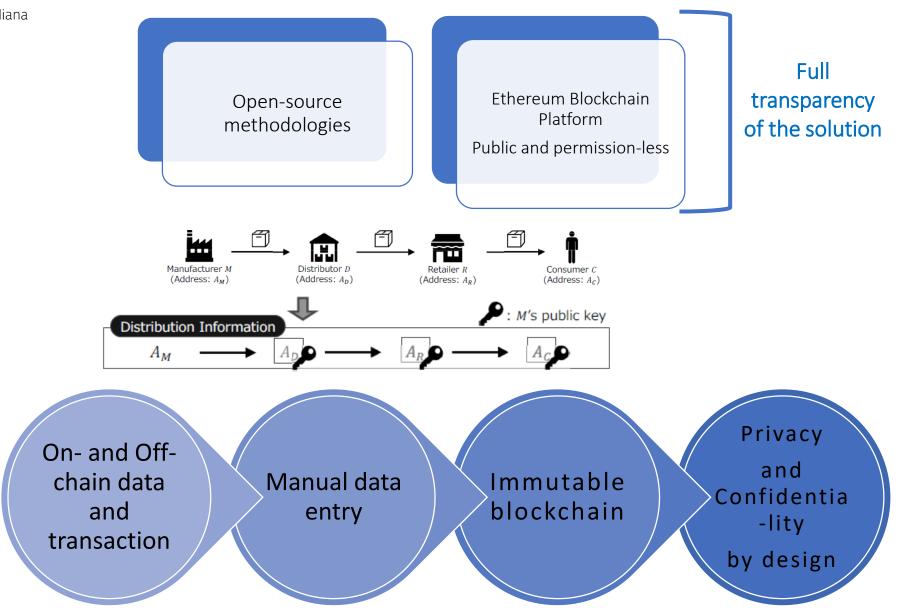
SUPSI

Blockchain features & functionalities

Scuola universitaria professionale della Svizzera italiana Dipartimento tecnologie innovative Istituto sistemi informativi e networking

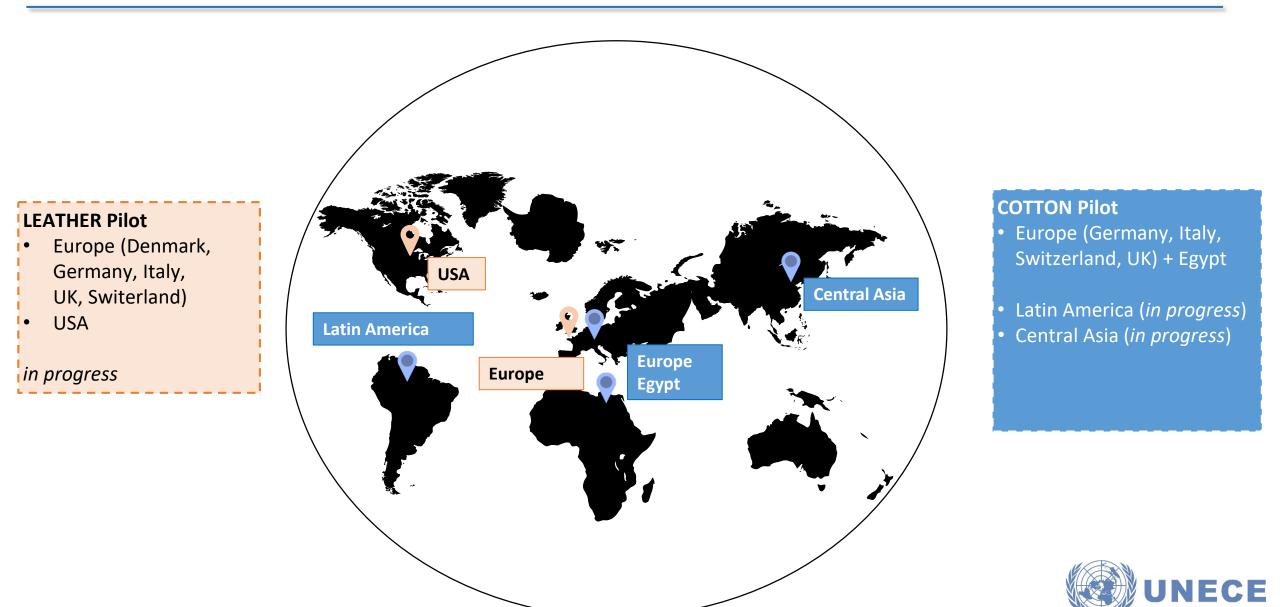


User





Partners





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

