Pilot #1 - Implementing a blockchain technology for traceability and due diligence in the cotton value chain in support of a circular economy

“COTTON VALUE CHAIN PILOT”

2020

Jan - Pilot Project Setup
Mar - Requirements Business & Technical

Jun - Procurement
Jul - Blockchain Development
Sep - Blockchain Implementation
Oct - Pilot Validation
Dec - Mar - Capacity Building

2021

Mar - Linen Pilot
Mar - Wool Pilot
Mar - Synthetic Pilot
Mar - Leather Pilot
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Progressive definition of needs and goals achievement

Waterfall Project Management Agile Project Management

Today
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PILOT PROGRESS

QUESTIONNAIRE
Scoping the pilot
Lessons Learned

DEFINITION
Scope / Target
Stakeholders / Organization
Timeline

DATA VALUE CHAIN MODEL
Business process analysis for each supply chain stage
User stories
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**SCOPE**

**Stages**
Cotton field to Brands/Retailers

**Blockchain characteristics**
hybrid solution, open-source technology allowing permissioned but does not exclude permissioned-less in a later stage

**Key actors**
from farmers/cooperative, through suppliers, producers, brands/retailers and as well auditing and certification bodies

**B2B Transactions**
Compliance claims via Certifications
TARGETS / KPIs DEFINED BY THE EXPERTS

1. End-to-end traceability in line with relevant norms and standards for sustainability.
2. A transferable Pilot that can be used in the whole Textile sector and for any kind of sustainability claim.
3. Multi-claim solution able to validate a wide range of sustainability for specific supply chain partners but also for the whole value chain.
4. A stand-alone Pilot able to function independently and without a link to other projects or software.
5. Technological effectiveness and reliability.
6. Good understanding of the modelling required to build a blockchain application.
7. Good understanding of on-the-ground operating environments and constraints.
8. Data collection points within the supply-chain are clearly identified.
9. Testing of scenarios and hypotheses during the roll out.
Value Chain Model / Users stories

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The Value Chain and Data Model from Sub-Group 2 & 3 (Textile & Leather) - status

Done ✓
- Discussion on the principle processes for traceability and level of complexity to achieve
- Presentation of the Business Process Analysis Activity
- Presentation of the Generic Traceability Use Case Diagram

Work in Progress
- A high-level generic approach for traceability to identify common data model for traceability and transparency throughout the SC
  + Looking at the linkage between the products & sustainability criteria
- A detailed supply chain analysis for individual product types starting with cotton

WHY USER STORY
In software development and product management, a user story is an informal, natural language description of one or more features of a software system. User stories are often written from the perspective of an end user or user of a system. They are often recorded on index cards, on Post-it notes, or digitally in project management software.

Explanatory note Business Process Analysis Activity and the Generic Traceability Model

As a <user role>, I want <goal> so that <benefit>.
1.7 Requirements

1.7.1 Business Concept  →  Value Chain and Data Model
1.7.2 Technological Partner  →  Categories
1.7.3 Blockchain Solution  →  List of general requirements
1.7.4 IT Security  →  Cloud and Data Security
1.7.5 Core Elements  →  Partners, B2B transactions, Traceability
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**UNECE Secretariat**

**STRATEGICAL**

- COORDINATE
- REVIEW PROGRESS
- ENSURE CONSISTENCY

**OPERATIONAL**

1. Pilot Project Team & Experts Sub-Group 4 (91 experts)
2. Services
   - Certifications, Legal, Technical, Product Tracking, Auditing, Education, Training,...
3. Pilot Project Partners

**Technology Solution Provider**

- Monthly Virtual Meeting
  - Technical Input & Expertise
  - Consultation

**Partners**

- Raw Material Supplier
- Manufacturer
- Brand / Retailer
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Example for a Cotton Value Chain

Cultivation - Harvest - Transport - Dyeing - Assembly - Distribution - Sales - Consumer - Post Consumption

Seed - Harvest - Transport - Dyeing - Assembly

Haelixa - Ø ZDHC - (...)

FILMAR NETWORK - elvy - WEBA - Albini GROUP

Vivienne Westwood - HUGO BOSS - BURBERRY

OEKO-TEX® - ORGANIC TEXTILE GROUP - TELSTRA

UNECE
## NEXT STEPS

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<th>Secretariat Project team</th>
<th>TORs REVIEW</th>
<th>Feasibility along the value chain</th>
<th>Evaluation matrix</th>
<th>Ongoing</th>
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<td>Secretariat Project team Piloting partners</td>
<td>BUSINESS PROCESS ANALYSIS &amp; USER STORIES WITH PILOTING PARTNERS</td>
<td>First round - Collection of inputs for all business processes of the supply chain</td>
<td>Bilateral coordination</td>
<td>Alignment with partners</td>
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<td>Secretariat</td>
<td>PROCUREMENT PHASE</td>
<td>Publication online of the RFP for the blockchain solution</td>
<td>Tender process</td>
<td>Early May-July</td>
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Thank you for your attention

maria-teresa.pisani@un.org
olivia.chassot@un.org