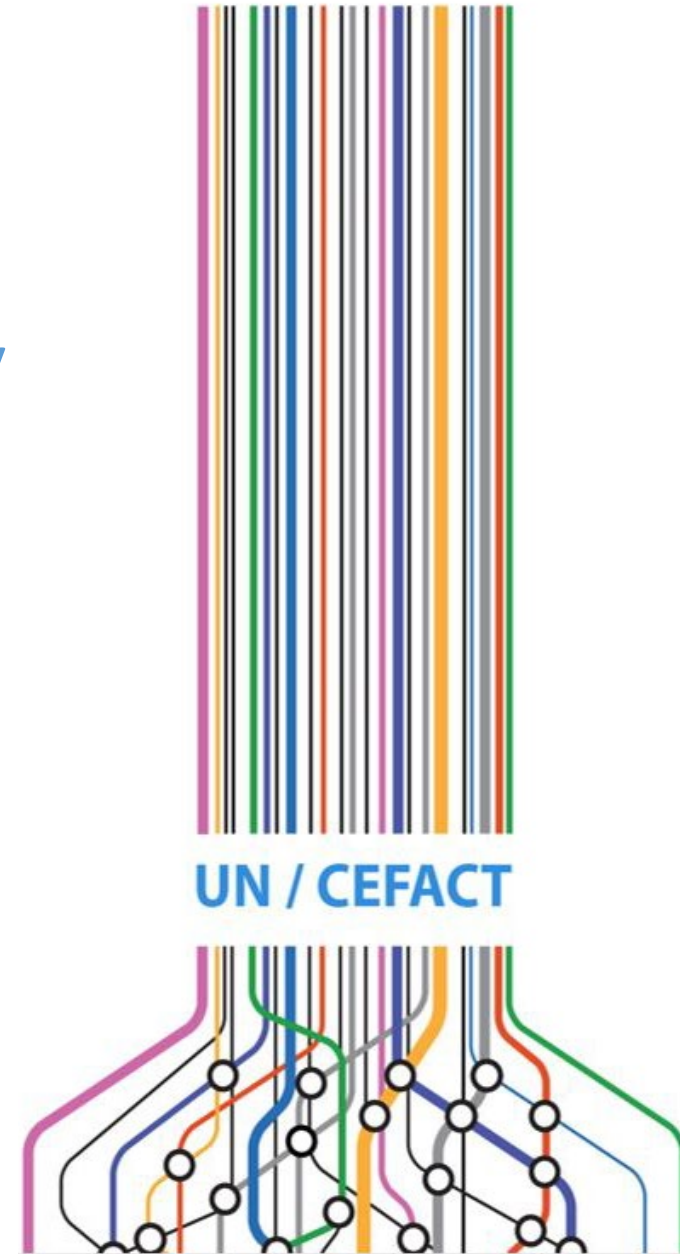


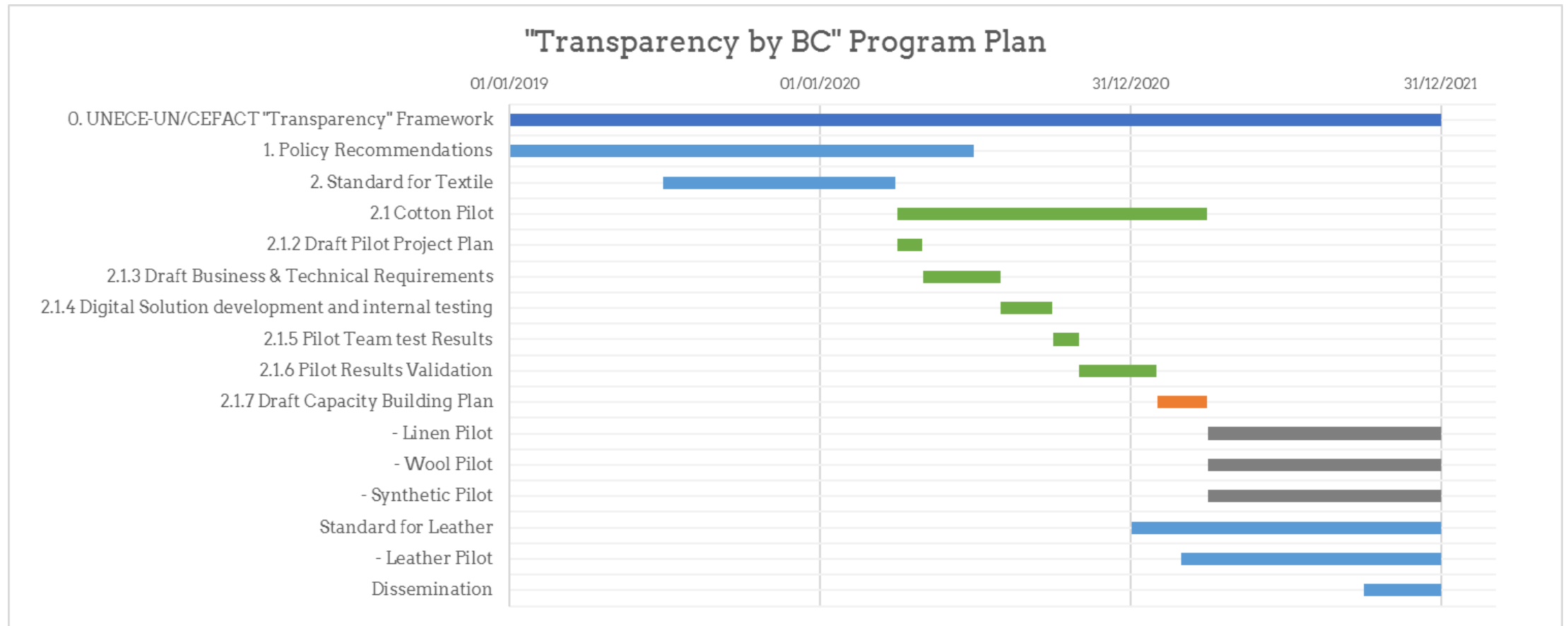
Blockchain solution for Traceability and Sustainability in the cotton value chain

Pilot Project

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18 | 12 | 2019, Telco



How to enhance transparency and traceability?



How to enhance transparency and traceability?

1. Coordinate Pilot Activities

- Define a pilot project plan for cotton and other similar natural fibers (e.g. flax), deliverables and pilot Team to implement a Blockchain solution for Traceability and Sustainability in the cotton value chain (Digital Solution);
- Execute the project plan and monitor and control the achievements versus the milestones and deliverables;
- Periodical Communication of status and achievements, continuous alignment with UNECE Secretariat program steps.

2. Business Requirements Collection and Standardization for the Digital solution implementation

- Validate the business requirements against industry best practices;
- Define digital technical specifications and validate against business needs;

How to enhance transparency and traceability?

3. Coordinate the Digital Solution implementation and Testing phase

- Coordinate the Digital Solution implementation with Technical partner;
- Plan and coordinate users test cases;
- Coordinate and monitor the Digital Solution roll out;

4. Define the training plan for the Digital Solution adoption and coordinate the training activities

- Create a training plan to enable the Digital Solution implementation at the Pilot participants;
- Coordinate and perform the trainings for the application of the Digital Solution;

5. Validation of the results and Digital Solution application

- Identify the KPI for the success of the Digital Solution application;
- Measure the results of the Pilot experience;
- Validate the results and communicate to UNECE Secretariat and program;
- Define and present a Capacity Building plan;

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"Transparency by BC" Program Plan	Start Date	End Date	Duration
0. UNECE-UN/CEFACT "Transparency" Framework	01/01/2019	31/12/2021	1095
1. Policy Recommendations	02/01/2019	30/06/2020	545
2. Standard for Textile	01/07/2019	30/03/2020	273
2.1 Cotton Pilot	01/04/2020	31/03/2021	364
2.1.2 Draft Pilot Project Plan	01/04/2020	30/04/2020	29
2.1.3 Draft Business & Technical Requirements	01/05/2020	31/07/2020	91
2.1.4 Digital Solution development and internal testing	01/08/2020	30/09/2020	60
2.1.5 Pilot Team test Results	01/10/2020	31/10/2020	30
2.1.6 Pilot Results Validation	01/11/2020	31/01/2021	91
2.1.7 Draft Capacity Building Plan	01/02/2021	31/03/2021	58
- Linen Pilot	01/04/2021	31/12/2021	274
- Wool Pilot	01/04/2021	31/12/2021	274
- Synthetic Pilot	01/04/2021	31/12/2021	274
Standard for Leather	01/01/2021	31/12/2021	364
- Leather Pilot	01/03/2021	31/12/2021	305
Dissemination	01/10/2021	31/12/2021	91

How to enhance transparency and traceability?

The first pilot : cotton value chain

What to achieve:

- Transparency from seed to final product
- Not only for processes that requires a physical segregation (e.g. organic)
- Inclusion of certificates over the whole supply chain and different standards
- Testing of blockchain as enabler of transparency

Requirements for success:

- Limited complexity
- Defined expert core team
- Short and clear communication
- Agile development
- Building on an what exists
- Open-source

How to enhance transparency and traceability?

The UNIDO Egyptian cotton project



<https://www.facebook.com/EgyptianCottonProject.UNIDOEG>

How to enhance transparency and traceability?

The UNIDO Egyptian cotton project

Sustainable Egyptian Cotton

- Organic cultivation
- Better Cotton Pilot and scale up 
- Premium quality
- GMO Free
- Biocontrolled



Sustainable Industrial Processes, Traceability and Transparency

- Promoting social compliance
- Enhancing cleaner production, chemical and wastewater management



Circular Economy

- Recycling practices
- Waste reduction
- Circular design



Innovation and Green Technologies

- Promoting value addition
- Enhancing technology transfer
- Investing in green technologies



Strategic Cooperation

- Business alliances along the value chain
- International stakeholders support



Skills for Sustainability

- Develop skills of youth for a sustainable cotton value chain



All farming and processing methods exist (organic, BCI and conventional)

Information and certificates available starting with the seed production

Existing partner network

Traceability and transparency are part of the project

Multistakeholder initiative including various brands, supply chain partners, NGO's and certification bodies

How to enhance transparency and traceability?

The UNIDO Egyptian cotton project



Supply chain partner controls the flow from seed, farm to fabric

All production and logistics steps are included with a limited complexity
B2B can be tested

Recognized sustainability standards are put in place

Traders and associations are interested to participate

Future extension to circularity

How to enhance transparency and traceability?

The UNIDO Egyptian cotton project



Some certificates along the value chain:

Seeds: Giza quality

Land / Soil: for organic

Farming: organic, BCI (not yet finalised), conventional

Ginning: quality and bale identification

Spinning: quality, GOTS

Dyeing: zdhc, GOTS, oekotex

Weaving: oekotex

Additionally:

DNA markers

Energy and GHG inventory per facility as trail to support the UNFCCC fashion charter

How to enhance transparency and traceability?

Main areas of development:

- Secured storage and accessing of any type of certificates
- Exchange of defined KPI's from seed producer to brand / retailer
- B2B connectivity including all levels of traceability

Project scope:

- One cotton supply chain of the Egyptian cotton project
- Project extension depending on the outcome of the 1st trial:
cottonforlife from Filmar
- Possible addition of a natural fibre - flax: Master of Linen

Next steps:

- Definition of detailed data model (input from the other workgroups is required)
- Check of B2B transactions that have to be covered during the 1st pilot
- Clarification of the certificates that will be in scope for pilot 1
- Definition of the blockchain platform requirements (open-source, public, permission-less)
- Evaluation of connecting the blockchain platform to the physical assets (e.g. healixa)

Next steps:

- Definition of detailed data model (input from the other workgroups is required) like data to be stored on- or/and off-chain
- Check of B2B transactions that have to be covered during the 1st pilot
- Clarification of the certificates that will be in scope for pilot 1
- Definition of the blockchain platform requirements (open-source, public, permission-less)
- Evaluation of connecting the blockchain platform to physical assets (e.g. healixa)

Next steps:

- Development of smart contracts, access concept to third party data bases
- Development API and Web including the Front-End and User-Interface
- Integration into supply chain partners existing websites (certificates and products)
- Testing of blockchain modules developed, integration test for partner certification and necessary KPI's
- going live with real data entry and testing of the application in define project pilot



UN / CEFAC



Thank you!