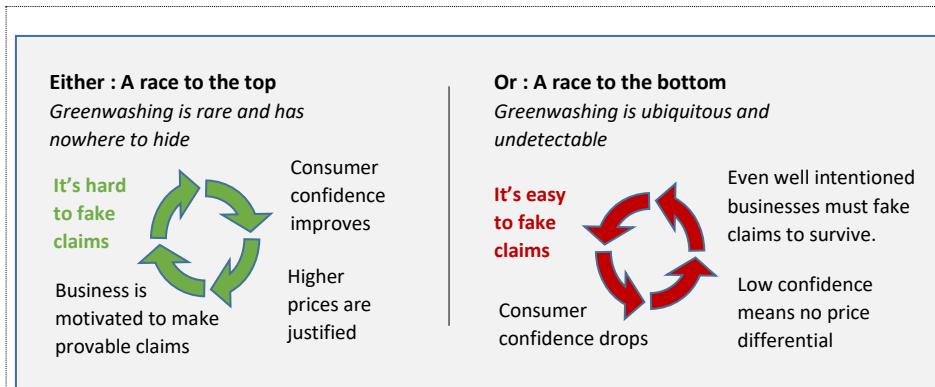# UN/CEFACT Project Proposal

Project Name:	TRANSPARENCY AT SCALE Digital solutions for trust, resilience and sustainability: verifiable credentials in supply chains		
Date submitted:	8 May 2023	Proposed by:	Steven Capell
Relevant SDG targets:	As a framework for globally scalable supply chain transparency that supports any ESG criteria imposed on any product by either an ESG standard or a regulation, Recommendation 49 targets • SDG 6 – Clean water and sanitation • SDG 7 – Affordable & clean energy • SDG 8 – Decent work and economic growth • SDG 11 – Sustainable cities and communities • SDG 12 – Responsible consumption & production • SDG 13 – Climate action • SDG 14 – Life below water • SDG 15 – Life on land		

(Please list all relevant Sustainable Development Goals and targets that this project relates to)

1. Project purpose
Required

As regulatory and consumer pressures drive up demand (and justify premium prices) for sustainable goods, so the commercial incentive to make fake sustainability claims will increase.
- **EC investigation**[2] : 59% of environmental claims had no evidence and 42% were deemed false or deceptive.
- **Fast Company**[3]: 68% of executives admit their company is guilty of greenwashing.
- **Survey**[4]: 78% of consumers believe that companies should be environmentally responsible and are willing to pay premiums for confidence in those claims.

At COP 27, Secretary General Guterres clearly stated that the UN has : **"Zero Tolerance for Greenwashing"**[5]. There is already a significant difference between consumer expectation and market Behaviour. There are two plausible pathways out:

Either : A race to the top
Greenwashing is rare and has nowhere to hide

It's hard to fake claims

Consumer confidence improves

Higher prices are justified

Business is motivated to make provable claims

Or : A race to the bottom
Greenwashing is ubiquitous and undetectable

It's easy to fake claims

Even well intentioned businesses must fake claims to survive.

Low confidence means no price differential

Consumer confidence drops

The UN/CEFACT mission of "digital standards for sustainable supply chains" provides ideal positioning for this recommendation to nations that aims to make fake claims hard and therefore drive industry to compete in a "race to the top" where commercial motivations exist for stronger and strong evidence of sustainable products.

Building on UNECE Rec#46[6] which defined standard processes and data structures for textile & leather traceability & transparency and guided by principles in the VC white paper[7], this new recommendation will provide guidance for nations on scaling traceability, transparency, and trust in supply chains so that unsustainable practices have nowhere to hide.

A key measure of value and impact for this recommendation will be uptake of the recommendation measured by the number of implementations. But implementations require concrete and testable specifications and so this project includes a number of detailed implementation guides to support recommendation 49 which are grouped under the general heading of the "United Nations Transparency protocol (UNTP)". The key components of UNTP are:

- A Digital Product Passport (DPP) specification. The DPP is a carrier for multiple sustainability claims about a product (SKU or batch). This builds upon work already done for product circularity[8]
- A Digital Product Conformity (DPC) specification. The DPC provides independent evidence to support the claims made in the DPP so that they can be trusted. This builds upon work already done for conformity credential[9]
- A Digital Traceability Event (DTE) specification. The DTE provides the mechanism to link passports throughout the value chain from primary production to finished product. This builds upon GS1 EPCIS 2.0[10]
- A sustainability criteria vocabulary that is presented as a catalog and topic mapping of multiple existing sustainability vocabularies such GRI, ESRS, IFRS, UNEP, etc. The intent here is to digitalise existing widely referenced sustainability vocabularies and facilitate mapping between then – rather than create another.

The UNTP may also provide guidance on the interoperable implementation of other standards such as W3C Verifiable Credentials and ISO-18975 digital link resolver. This is important so that UNTP is a complete reference for implementation of transparency at scale.

Commented [NNE1]: I can't emphasize enough how valuable this approach is to getting support for the project. This one of the ways we provide value compared to other standards setting bodies. It's like your doctor recommending that you become a vegetarian for your health. The immediate next question is "great, but how do I do that?". Rec 49 is the doctor's advise, and UNTP is the recipe book with all the vegetarian recipes, and a meal planner etc etc etc.

1. https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf
2. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_269
3. https://www.fastcompany.com/90740501/68-of-u-s-execs-admit-their-companies-are-guilty-of-greenwashing
4. https://blog.gitnux.com/greenwashing-statistics/
5. https://www.un.org/en/delegate/%E2%80%98zero-tolerance-greenwashing%E2%80%99-guterres-says-report-launch
6. https://unece.org/trade/traceability-sustainable-garment-and-footwear
7. https://unece.org/sites/default/files/2022-09/WhitePaper_VerifiableCredentials-CBT.pdf
8. https://uncefact.unece.org/display/uncefactpublicreview/Public+Review%3A+Product+Circularity+Data+Use+Case%3A+Part+2
9. https://unece.org/trade/documents/2023/08/working-documents/white-paper-digital-product-conformity-certificate
10. https://www.gs1au.org/standards/epcis

2. Project scope
Required

This project will deliver a new UNECE recommendation document that will provide guidance to nations on the implementation of scalable supply chain traceability, transparency and trust frameworks that will enhance sustainability and resilience. Development of this document will follow a linear, sequential waterfall processing accordance with the existing UN/CEFACT Open Development Process.

The recommendation will be supported by detailed and specific implementation guidance for each stakeholder type in the form of the UN Transparency Protocol (UNTP). Since the UNTP specification will include implementable technical artefacts that must be tested in live pilots prior to finalization as a stable specification, this deliverable will follow an agile project delivery methodology whilst still conforming to the open, transparent, and consensus driven principles of the ODP. In parallel, the ODP will be updated to reflect the need for greater flexibility and continuous, iterative development of certain types of deliverables, such as those proposed within UNTP. These updates are needed to ensure UN/CEFACT projects and outputs have the capacity to utilize emerging Web 3 tools and methodologies, as appropriate.

The UNTP delivery includes both the collaborative development of the specifications as well as testing and verification of the specifications through pilot implementations. This is to ensure the quality of the first stable release of UNTP.

The deliverable include at least 4 specifications. Note that the nature of agile processes is that more specification requirements may be identified during early development & testing.
- A Digital Product Passport (DPP) specification. The DPP is a carrier for multiple sustainability claims about a product (SKU or batch).
- A Digital Product Conformity (DPC) specification. The DPC provides independent evidence to support the claims made in the DPP so that they can be trusted.
- A Digital Traceability Event (DTE) specification. The DTE provides the mechanism to link passports throughout the value chain from primary production to finished product.
- A sustainability criteria vocabulary that is presented as a catalog and topic mapping of multiple existing sustainability vocabularies such GRI, ESRS, IFRS, UNEP, etc.
- Implementation guidance for the application of external technical specifications such as W3C Verifiable Credentials, ISO-18975 link resolvers to the UNTP use case.

For each specification, delivery will include
- Requirements & Technical specifications
- JSON Schema and JSON-LD vocabularies
- Implementation Guidance
- Conformity Tests
- Detailed issue logs and version histories

The UNTP specifications will be tested through pilot programs that include
- at least 2 software products
- at least 2 industry sectors
- at least 2 countries.
- at least 4 industry actors (producers, manufacturers, brands)
- at least 1 conformity assessment body
- at least 1 regulator
- at least 1 registry operator

The first stable release of UNTP will be v1.0 and will be released when all issues raised through pilot testing are satisfactorily closed. Ongoing version managed governance of UNTP will continue after v1.0 stable release.

3. Project deliverables and 4. Exit Criteria
Required (check all that apply)
Please note that the Bureau may reassess and change a deliverable after its completion at its discretion.

	Project deliverables	Exit Criteria
☒	Recommendation 49	Public Review logs demonstrating all comments have been satisfactorily resolved; Final document ready for publication.
☒	UNTP Specification including; • Specifications • Schema • Implementation Guide • Conformity Tests For each of • Digital product passport • Digital conformity credential • Digital traceability event • Digital sustainability vocabulary	UNTP specification components are complete and have been successfully tested during pilots by • at least 2 software products • at least 2 industry sectors • at least 2 countries. • at least 4 industry actors (producers, manufacturers, brands) • at least 1 conformity assessment body • at least 1 regulator • at least 1 registry operator All open issues are resolved and UNTP stable version 1.0 is released.

5. Impact analysis
Please indicate how these project deliverables will affect trade facilitation policies and regulations. Please highlight any anticipated / tangible results achieved. Indicate how the results and impact can be evaluated after the project is completed.

Regulators : Combat greenwashing, uplift export market access, and utilize tools for importation compliance

Industry: Meet supply chain due diligence obligations for you and your customers.
Industry associations: Map industry standards to UNTP (and/or and existing registered extensions) and identify whether any additional extensions are needed.
Certifiers : Provide digitally verifiable trust of ESG compliance.
Software Providers : Empower your customers to participate in sustainable digitised supply chains.

Successful impact is measured by uptake metrics by each of the stakeholder categories above. The recommendation will seek commitment via a sustainability pledge and then will track successful implementations via a self-service implementation test & verification tool. Uptake targets are based on existing 100+ sustainability pledges received for the textile & leather traceability program.

Stakeholder	Implementations pledged / completed by years after publication				
Year	2024	2025	2026	2028	2034
Regulators	10 / 0	20 / 10	50 / 20	100 / 50	250 / 200
Industry	50 / 5	200 / 20	1000 / 250	10,000 / 3,000	100,000 / 50,000
Certifiers	20 / 1	50 / 20	100 / 50	200 / 100	500 / 300
Software	20 / 5	50 / 20	100 / 50	200 / 100	500 / 300

6. Project Team membership and required functional expertise

Membership is open to UN/CEFACT experts with broad knowledge in the area of:	Supply chain sustainability & resilience. Verifiable Credentials & the web of trust.

In addition, Heads of Delegations may invite technical experts from their constituency to participate in the work.
Experts are expected to contribute to the work based solely on their expertise and to comply with the UN/CEFACT Code of Conduct and Ethics and the policy on Intellectual Property Rights.

7. HoD support

Required for Technical Standards, Business Standards and UNECE Recommendations. And at the request of the UN/CEFACT Bureau. A request for HoD support will be circulated to all HoDs in these cases. If you have verbal confirmation from specific delegations of their support, please list these here. Projects that require HoD support must obtain this within 6 months of Bureau provisional approval.

RU, IN, AU, CA

8. Geographical focus

The geographical focus of the project is global

9. Beneficiaries

Highlight relevance for sustainable and digital trade facilitation in developing and transition economies, and benefits to vulnerable groups (e.g. MSMEs and women-led businesses)

For developing economies : low cost of adoption, paper-friendly digital processes.

10. Initial contributions

The following contributions are submitted as part of this proposal. It is understood that these contributions are only for consideration by the Project Team and that other participants may submit additional contributions in order to ensure that as much information as possible is obtained from those with expertise and a material interest in the project. It is also understood that the Project Team may choose to adopt one or more of these contributions "as is".

List any initial contributions:

This project builds upon work already completed by UNECE and partner organisations.
- Rec 46 - https://unece.org/sites/default/files/2022-01/ECE-TRADE-463E.pdf
- T & L BRS - https://unece.org/sites/default/files/2021-03/BRS-Traceability-Transparency-TextileLeather-Part1-HLPDM_v1.pdf
- VC White paper - https://unece.org/sites/default/files/2022-09/WhitePaper_VerifiableCredentials-CBT.pdf
- BSP 22B based Supply chain JSON-LD vocabulary - https://vocabulary.uncefact.org/
- GS1 CBV & EPCIS 2.0 - https://www.gs1.org/standards/epcis
- ITC Standards mapping - https://standardsmap.org/en/identify

11. Resource requirements

Participants in the project shall provide resources for their own participation. The existence and functioning of the project shall not require any additional resources from the UNECE secretariat.

Any additional request:	Engagement of the Team of Specialists.

11. Proposed project leadership
(subject to Bureau approval)

Proposed project lead:	Steve Capell	E-mail:	Steve.capell@gmail.com
Proposed Vice Chair:	Nurbek Maksutov	E-mail:	maksutov81@list.ru
Proposed domain	Trade procedures		

11. Milestones (repeat for each deliverable, if different)

ODP Stage	Deliverable	Due Date
Project Inception	Recommendation 49	May 2023
Requirements gathering		July 2023
Draft development		Feb 2024
Public Draft Review		May 2024
Project Exit		July 2024
Project Inception	UNTP	July 2023
Agile Development including • Requirements • Drafting • Pilots • Testing • Iteration	UNTP Core specifications including at least ; • Digital product passport • Digital conformity credential • Digital traceability event • Digital sustainability vocabulary	Aug 2023 – Jan 2025 Where approximately: • V0.1 – Oct 2023 • V0.3 – May 2024 • V0.5 – July 2024 • V0.7 – Oct 2024 Pilots can be conducted with any version 0.3 or later.
Stable V1.0 release	UNTP Website with implementation guidance and test harness for v1.0 stable release.	Jan 2025