

UN/CEFACT Project Proposal

Project Name:	Visibility and collaborative planning in multi modal supply chain operations		
Date submitted:	29 October 2024	Proposed by:	IAPH
Relevant SDG targets :	Data collaboration in the supply chain will support the required future digital infrastructure capabilities of all UN/CEFACT business domain project deliverables. Consequently, all SDGs that are relevant for UN/CEFACT projects are also relevant for this specification.		

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

1. Project purpose

Required

The complexity of supply chains is hindering cargo owners from accessing **operational data** from multi-modal transportation by vessel, barge, train and truck which is needed for efficient transportation and **just in time** product inventory management. The purpose of this project is to enable **cargo owners to access standardized operational planning data**, which will provide them with information to enhance the management of the supply chain in times of disruption. It will improve sustainability and efficiency of end-to-end supply chains by utilizing the information into the multi-modal transport planning.

The project will identify the relationships of the **cargo owner** as defined in the logistic transport processes with the buyer-seller processes as defined in UN/CEFACT standards in relation to the track and trace processes of multi modal logistics with the **operational planning process in ports and logistics hubs**.

The purpose of this project is to define a **common terminology** and **functional architecture**, capable of operating for transport visibility and transport planning choices across different stages of the end-to-end supply chain. It would enable cargo owners to digitally access to valid and current transport planning data.

The project will identify and define the **business scenarios** and **transactions** involved in accessing operational planning data, as well as relevant operational and legal aspects necessary to enable process execution. This project will help to ensure UN/CEFACT standards can be integrated into emerging digital platforms for identity and authorization management as well as in platforms for supply chain visibility.

This project will complement existing UN/CEFACT standards, namely the [Integrated Track and Trace for Multi-Modal Transportation Business Requirements Specification \(BRS\)](#) Track and Trace BRS UN/CEFACT – ISC-PDA/T&L SC-T+T – P1073. At the same time, this work will benefit the development of other UN/CEFACT standards involving exchange of data regarding supply chain planning and generic digital infrastructure for data collaboration.

2. Project scope

Required

This project will facilitate access to **planning data of transport modalities** for cargo owners in cross border supply chain processes in ports and logistics hubs.

The need for delegation is acknowledged since multiple types of supply chain are subcontracting to suppliers and sub suppliers to execute the agreed-on transport services. The project will define a set of basic processes that will enable cargo owners, suppliers and other supply chain actors to exchange information of **trusted identities** and identities that are authorized to see cargo related planning data. In all cases the data owners will be the ones to decide whether to release/publish/share their planning data or not. The legal contract framework between buyers and sellers should enable cargo owners to choose a contract set up that gives them access to planning data of transportation in a controlled and secure environment.

The digital infrastructure components to support these processes will be technology independent. It will be fitting global requirements, namely the developments in Europe, Asia and Americas for federated ways of data sharing based on concepts for **identity management** and **delegation of access to data for authorized entities**.

It will be in scope to exploit the benefits of close cooperation with the ' Roadmap for Digitalization of Multimodal Data and Document Exchange along the Trans-Caspian Corridor' which will be based on the same UN/CEFACT core building blocks.

Industry Use Case 1: Optimizing inland distribution - Leveraging port operational data for enhanced cargo planning

A Beneficial Cargo Owner needs to make decisions for inland Distribution Centre inventory and supply, depending on the planned arrival of cargo at the Distribution Centre(s). Operational planning data from the port hubs is required, like for example: did my cargo arrive at the port? Did it make the transshipment plan to the next modality? Is my cargo scheduled for the next transportation leg by inland modality? Use case: A Beneficial Cargo Owner can identify herself to be entitled to the data of a specific cargo shipment and subscribe for status updates at a terminal or the PCS-operator handling the digital infrastructure for this terminal. Followingly the BCO will be authorized by the data owner (terminal) to have access to the status update on a logistics event like a gate in/out movement.

Industry Use case 2: Enhancing Supply Chain Efficiency through Interoperable Data and Access Management

The transport and logistics service providers utilize multiple languages for data collaboration, leading to inadequate visibility and inefficiencies at the expense of the beneficial cargo owner and the environment. Interoperability for identity management and data access management will enable data owners to share data in a controlled way and enable data consumers to improve supply chain performance from their own specific data driven strategies. Use case: a truck or train operator uses a standardized process to identify a Beneficial Cargo Owner as entitled for access to planning data; the BCO can subscribe for event updates of the truck/train operational planning to know if the cargo will meet / did meet a scheduled transport.

Industry Use case 3: Synchronizing activities in inland logistics hubs

This use case focuses on improving the coordination and efficiency of activities within inland logistics hubs by enabling data sharing between stakeholders. Through synchronized access to cargo status,

transport schedules, and administrative documentation, supply chain actors can optimize resource allocation, reduce delays, and streamline handovers between different transport modalities. Use case: Enhanced data interoperability and identity management ensure that only authorized entities access critical information, allowing for smoother operations and improved decision-making across the supply chain.

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
<input type="checkbox"/>	Policy Recommendation	Publication of BRS
<input checked="" type="checkbox"/>	Business Requirement Specification	
<input type="checkbox"/>	Technical Specification	
<input type="checkbox"/>	White Paper	Publication of Use Case brochure
<input type="checkbox"/>	Green Paper	
<input type="checkbox"/>	Requirement Specification Mapping	
<input type="checkbox"/>	Core Component Business Document Assembly	
<input type="checkbox"/>	Guidelines	
<input type="checkbox"/>	Executive Guide	
<input checked="" type="checkbox"/>	Brochure	
<input type="checkbox"/>	Entries/alignment to the Core Component Library	
<input type="checkbox"/>	XML Schema	
<input type="checkbox"/>	UN/EDIFACT message	
<input type="checkbox"/>	Internal UN/CEFACT Document	
<input type="checkbox"/>	Other (specify)	

5. Impact analysis

The impact of this project on cross-border supply chain processes will be transformative, particularly in ports and logistics hubs. By facilitating access to transport planning data for cargo owners, suppliers, and other supply chain actors, the project addresses the need for better coordination and visibility in complex, multi-layered logistics chains. The project's focus on identity management and authorized data access ensures that only trusted entities can view sensitive cargo planning information, with data owners retaining full control over what is shared. The technology-agnostic approach aligns with global standards, ensuring interoperability across regions like Europe, Asia, and the Americas. Although the technology-agnostic approach will ensure no dependencies, this project will assist the upcoming demands for data transparency for supply chain sustainability. Ultimately, the project enhances the security, transparency, and performance of supply chains globally.

6. Project Team membership and required functional expertise

Membership is open to UN/CEFACT experts with broad knowledge in the area of:

Trade Facilitation, Cross-border data harmonization, Conformity Assessment, Verifiable Credentials

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.

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)

The benefits of the project will be for all companies who act as Beneficial Cargo Owner in the international supply chains: due to visibility the supply chains will be more efficient and better to control in times of small and large disruptions.

An extra benefit is for Small and Medium Enterprises who have less technical capability to access the supply chain data on a global scale: standardization makes it more feasible to collect the data. Besides it is likely their software vendors for ERP/TMS/TOS will incorporate the standards in their products.

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:

- The UN/CEFACT Buy-Ship-Pay RDM plus the SCRDM and RDM views on BSP
- UN/CEFACT [White Paper on Integrated Track and Trace for Multimodal Transportation](#)
- UN/CEFACT Track and Trace BRS ISC-PDA/T&L SC-T+T – P1073
- The UN/CEFACT Multimodal Transport Consignment Status Report
- The UN/CEFACT Multimodal Transport Equipment Status Report
- The UN/CEFACT Multimodal Transport Status Report
- EU DGMOVE EMSWe and eFTI

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: N/A

11. Proposed project leadership

(subject to Bureau approval)

Proposed project lead:	Paul Walter	E-mail:	prn.walter@portofrotterdam.com
Proposed Vice Chair:	Hanane BECHA	E-mail:	hbdigitaltrade@gmail.com
Proposed domain	Transport and Logistics		

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

The following are draft milestones of the project.

	ODP Stage	Expected Completion Date	
Yes	Project Inception	1 month	
Yes / No	Requirements gathering	<input checked="" type="checkbox"/>	1 month
Yes	Draft development	<input type="checkbox"/>	3 months (Very quick)
		<input type="checkbox"/>	6 months (Quick)
		<input checked="" type="checkbox"/>	12 months (Normal)
		<input type="checkbox"/>	18 months (Normal)
		<input type="checkbox"/>	24 months (Long)
Yes / No	Public Draft Review	<input checked="" type="checkbox"/>	2 months
Yes	Project Exit	1 month	