



Matching Events and Statuses across various Standards

Connecting the Dots and Solving the Puzzle
for supply chain and transport & logistics stakeholders

Technical Report for Digital Infrastructure Logistics and Basic Data Infrastructure

Jaco Voorspuij; FixLog Consulting | [LinkedIn](#)
Paul RN Walter; Port of Rotterdam Authority | [LinkedIn](#)

02 februari 2026



**Gefinancierd door
de Europese Unie**
NextGenerationEU

Matching Events and Statuses across various Standards

Connecting the Dots and Solving the Puzzle
for supply chain and transport & logistics stakeholders

Technical Report for Digital Infrastructure Logistics and Basic Data Infrastructure

Authors: Jaco Voorspuij; FixLog Consulting

[LinkedIn](#)

Paul RN Walter, Port of Rotterdam Authority

[LinkedIn](#)



[Designed by pikisuperstar on Freepik](#)

Colofon

Purpose	Matching Events and Statuses across various Standards Connecting the Dots and Solving the Puzzle for supply chain and transport & logistics stakeholders Technical Report for Digital Infrastructure Logistics and Basic Data Infrastructure
Author	Jaco Voorspuij; FixLog Consulting LinkedIn Paul RN Walter; Port of Rotterdam Authority LinkedIn
Status	<input type="checkbox"/> Concept <input type="checkbox"/> Finished <input checked="" type="checkbox"/> Approved
Date of approval	January 2026
Name of approver	Jaap Stoppels, program lead Data In Logistics Ewout Bouwman, Architect Data In Logistics
Version	1.0
Version explanation	Approved
Rights	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Shared externally with stakeholders <input type="checkbox"/> Internal <input type="checkbox"/> Confidential <input type="checkbox"/> Secret

© Copyright Connekt;

Programmasecretariaat DIL; Ezelsveldlaan 59, 2611 RV Delft; The Netherlands



Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (**CC-BY 4.0**) licence (<https://creativecommons.org/licenses/by/4.0/>) This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by Connekt, permission may need to be sought directly from the respective right-holders.

Attribution

Please reference the work as: Connekt 2025: Matching Events and Status across various Standards: Connecting the dots for supply chain and transport & logistics stakeholders. Licence <https://creativecommons.org/licenses/by/4.0/>

Content

1	Executive Summary	5
2	Introduction.....	6
2.1	Problem Statement	6
2.2	Purpose of the Technical Report.....	7
3	Understanding Events and Status.....	8
4	Connecting the work from Standards Development Organisations (SDO)	12
4.1	Starting Point	13
4.2	Matching Approach	13
5	Results and Observations.....	14
5.1	General.....	14
5.2	Observations related to UN/CEFACT BRS Top 30 Catalogue.....	15
5.3	Matching EPCIS and Core Business Vocabulary with Top 30	15
5.4	Matching with ISO TC8 standards.....	16
5.5	CEN TC331 Harmonized Track and Trace Events	18
5.6	DYNAPORT and MISSION initiatives.....	18
5.7	ASTM standards for Container Availability and GMP codes.....	19
6	Conclusions and Recommendations.....	20
7	References	23
8	Annexen	26
8.1	Annex 1 – UN/CEFACT Top 30 Catalogue	26
8.2	Annex 2 – Top 30 entries – Statuses and Event types	31
8.3	Annex 3 – Matching with EPCIS and CBV	34
8.4	Annex 4 – Matching with ISO/AWI 25155.....	41
8.5	Annex 5 – Matching with CEN TS 18055-1	46
8.6	Annex 6 – Matching with DYNAPORT and MISSION.....	50
8.7	Annex 7 – Matching with ASTM standards.....	54

Table of Figures

Figure 1- Goods Movement Process.....	9
Figure 2- Linking Events to Statuses (CEN).....	11
Figure 3 - EPCIS Overview	35

Credits / attribution

- Figure 1 -
[UNCTAD_97] Hanane Becha, Todd Frazier, Gregory Mungal, Jaco Voorspuij, Article No. 101 in UNCTAD Transport and Trade Facilitation Newsletter N°97 - First Quarter 2023
<https://unctad.org/news/transport-newsletter-article-no-101-un-cefact-track-and-trace-publication>
Copyright Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.
- Figure 2 -
FixLog Consulting; unpublished but used in support of standards development in CEN [TS_18055_1] and UN/CEFACT [CEF_VCP].
Copyright Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.
- Figure 3 -
UN/CEFACT BRS Integrated Track and Trace for Multi-modal Transport, page 55; [CEF_ITT]
Copyright Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

1 Executive Summary

Parties involved in supply chain and transport & logistic networks get more integrated to support supply chain planning and operations. This is driven by commercial and regulatory demands for information, which goes beyond the data controlled by one company. To meet these demands, the parties involved must record and control their own operations as well as exchange data with a varying number of business partners.

In multi modal supply chain operations, the key data to exchange are operational events (significant occurrences) and statuses that may change as a result of an event or a set of events. To avoid getting stuck in multiple non compatible languages, it is required to align standards not only on the ontology of the events itself, but also on the way events and statuses are handled.

There is an abundance of lists of statuses and events from a wide variety of sources, both standards development organisations and private companies. This makes it very difficult for collaborating parties to correctly interpret the events and statuses exchanged. UN/CEFACT has created a Business Requirements Specification (BRS) “*Visibility and Collaborative Planning in Multi-Modal Supply Chain Operations*”, which expands the set of statuses they maintain in their Recommendation 24 [REC_24].

The BRS contains the “*Top 30 Catalogue*” of statuses and event types that a wide range of stakeholders in container transportation have agreed are the most commonly used and most impactful if misunderstood. They are an excellent starting point for a manageable exercise to match event types and statuses from other sources that (to an extent) overlap with the Top 30 Catalogue.

Therefore, this technical report (TR) took the “*Top 30 Catalogue*” from the BRS and matched it with documentation from other organisations developing standards. The intent is to focus on those events and statuses where the matches will deliver the most value for the user communities. The main aims were to identify:

- Where the other standards matched with the UN/CEFACT Top 30 Catalogue, where they differed and where it was not feasible to make a match because the standards did not provide information sufficiently clear to do so.
- Follow-up activities that would help resolve issues and questions emerging from the matching exercise.

The standards compared do not all describe the statuses and events in the same way. However, it was possible to map all of them to “event types” and statuses that would be associated with those types. The matching was done based on the mapping to the event types.

The first 20 pages of this report provide the high-level insights and summaries of the findings for matching the UN/CEFACT Top 30 Catalogue with a specific other standard. The details for each of those are provided in the Annexes.

The analysis shows that there are both areas where matches can be made fairly easily and areas where that cannot be done (easily). This is mainly due to 2 things:

- Standards cover different parts of the end-to-end movement of goods between Seller and Buyer.

- Standards have been developed from the perspective of a specific group of stakeholders (e.g., logistic service providers vs cargo owners) and therefore, they cover (many) fewer or more event types and statuses than other standards.

This underlines that parties involved in supply chain and transport and logistics networks generally need to combine building blocks from different standards to address business challenges.

The fact that this technical report highlights a significant number of action items for follow-up activities re-confirms that those parties will continue to struggle to combine the standards unless those parties and the organisations developing standards join forces. Assuming they do, they may develop implementation support materials alongside updates to the standards. As a result, it will become much more likely that groups of industry parties can effectively and efficiently control and coordinate their operations.

2 Introduction

Supply chains (SC) and their supporting transport and logistics (T&L) networks need to meet ever-increasing demands from both economic operators and authorities. These demands no longer pertain strictly to things under the control of a single party but ever more on a group of parties associated with a product or service. To meet these demands, the parties involved in these SC and T&L networks must record and control their own operations much better than ever before as well as coordinate their activities much more than was traditionally the case.

It is important to note that this also means that SC and T&L activities can no longer be viewed as independent and closer alignment and integration is necessary to meet the emerging and future demands of society as a whole.

Events and statuses are the core data-elements that enable organisation is supply chains and transport & logistics to manage their own operations and coordinate them with other organisations. Therefore, it imperative that these organisations can exchange information about them in ways that are unambiguous, meaning that

“What is sent is what is understood” [EIF].

Unfortunately, this is currently quite difficult to achieve for organisations.

2.1 Problem Statement

Many organisations publish standards and specifications, but they differ in mandate, governance, and scope. The WTO Technical Barriers to Trade (TBT) six principles for standards development organisations (SDO) [WTO_6P] are commonly used as a reference for good practice in standards development, and organisations may align with these principles to different degrees. Some fully align with the principles. Others do not fully align but they have significant support in industries, supply chains or parts of supply chains or transport and logistics networks. For instance,

UN/CEFACT, ASTM and GS1 are recognised as organisations that fully align with the WTO principles, whereas DYNAPORT and MISSION mentioned below are not¹.

In practice, stakeholders choose standards or specifications based on fitness for purpose, interoperability needs, and adoption across relevant industry, supply-chain, and logistics communities that may be produced by any of those organisations.

The problem arises from the fact that (traditionally) hardly any of the organisations developing standards invests significant effort in trying to align or match their own standard products with those of other organisations standard products.

As a result, there are all too often several (even many) standards available for the same thing from various organisations. This is definitely true for the topic of events and status.

This is a problem for a community of different organisations that need to work together in Supply Chain or Transport & Logistics networks because the multitude of different standards makes it difficult for the organisations to understand the data and information communicated among them.

The resulting confusion causes a wide range of issues in the collaboration related to efficiency, safety, lack of trust, non-compliance with regulations and many more.

All parties involved in supply chain and T&L networks, will benefit from more harmonisation of the standards for events and status, or at least some easy to access mapping across standards linking a specific event or status in one standard to the corresponding event or status in the other standard.

2.2 Purpose of the Technical Report

This Technical Report focusses on events and statuses defined by various standards development organisations². The overall purpose is to take a first step towards the mapping of events and status across various standards. It is impossible to provide a comprehensive mapping of all events and statuses available from even only the most widely used standards in supply chain and T&L networks.

For instance, the 2017 UN/CEFACT Recommendation 24 [REC_24] “*Trade and Transport Status Codes*” code list contains a little under 350 different entries covering a very wide range of activities in the trade and transport domains. Recommendation 24 is continuously maintained in the UN/CEFACT Open Development Process (ODP)³; significant care is taken to ensure the code list avoids duplications or overlaps. Nevertheless, based on the work done during the development of the BRS mentioned below, some entries will still need to be added.

¹ For more information on various kinds of organisations developing standards, see the [IISD] report “Setting International Technical Standards to Shape Digital Trade Policy” page 8.

² In this context we disregard their compliance with the WTO TBT criteria.

³ See https://unece.org/sites/default/files/2023-10/UNCEFACT_ODP-YanZhang.pdf#page=9 and onward for more information on the UN/CEFACT Open Development Process (ODP)

Other organisations also tend to have extensive code lists for events and statuses. Matching all statuses and event types across even two standards would be a massive effort, let alone across larger numbers of organisations.

Such a comprehensive mapping would also be quite impractical for the vast majority of parties involved in those networks. In general, the coordination among parties will rely on a rather small subset of all events and statuses used in the networks.

Therefore, this document will focus on events and statuses most relevant for the coordination among parties' activities.

[UN/CEFACT] recently developed a Business Requirements Specification (BRS) with the title
“Visibility and Collaborative Planning in Multi-Modal Supply Chain Operations”

The BRS [CEF_VCP] consists of three main parts, one of which is

“A starter catalogue of Top 30 transport events”.

That Top 30 Catalogue is the starting point for the matching exercise with the related or overlapping products of a few other organisations developing standards.

The aim of the exercise is to identify which of the events and statuses of the other organisations matches with the UN/CEFACT Top 30. In doing so, the TR also identifies events and statuses from the other organisations not covered in the current version of the UN/CEFACT BRS. Vice versa, there will be a number of events and statuses from the UN/CEFACT Top 30 that are not (yet) covered in the other standard compared with the Top 30.

This Technical Report therefore serves two practical purposes:

- Enable industry stakeholders to easily (unambiguously) map from one standard to another standard (at least for the standards covered in this document).
- Identifies unclarities or gaps in one or the other standard product. These may then be addressed in efforts that follow-up on this document. Those efforts may involve several of the standards development organisations (including UN/CEFACT).

The TR does not aim to be comprehensive in the matching exercise. Nor does it claim to be entirely accurate (see also second bullet above).

3 Understanding Events and Status

As mentioned above, Events and Status are the core data elements that enable organisations to coordinate their efforts in the context of supply chain or transport & logistics operations. Nevertheless, people use the terms Events and Status without properly defining the meaning of these terms. Even many organisations developing standards do not define these terms at all or in case they do, they may use different definitions in various parts of their system of standards⁴.

⁴ Using the ISO [Online Browser Platform](#) (OBP) searching for the term “event” yields many (inconsistent) results.

For the purposes of this document the following definitions apply. These are sourced from ASTM International [F3682].

event, n—

a significant occurrence in the goods movement process that may have an effect on the status/condition of an object.

status, n—

the distinct condition of an object or a process at a particular time, specifically within the context of the goods movement process.

DISCUSSION—The status may be the result of one or several events having occurred and this status is assumed to persist for a period of time.

These definitions are aligned with the concepts that one will also find in definitions for events and status from other sources such as [TIC4.0], ISO [EPCIS], ISO [CBV] and [CEN].

- An event is something that occurs at point in time
- A status is something that persists for a period of time
- Events may change the status of one or multiple objects but they don't always do.

However, these clear conceptual distinctions are not always made, not even by organisations developing standards.

This document strictly makes these distinctions throughout the analysis of the CEFAC Top 30 as well as the other standards that are compared with it.

NOTE: The White Paper “*Developing Semantics for Supply Chain, Transport and Logistics*” [DIL_2024] from Digital Infrastructure for Logistics and Basic Bata Infrastructuur is based on what it calls an “Event-Driven Model” to link the semantics (and thus correct understanding and awareness of the actual situation), which is very nicely aligned with the concepts of event and status outlined in this chapter.

The goods movement process⁵ covers the transportation of traded items from Seller to Buyer across any (number) of transport modes. See Figure 1.

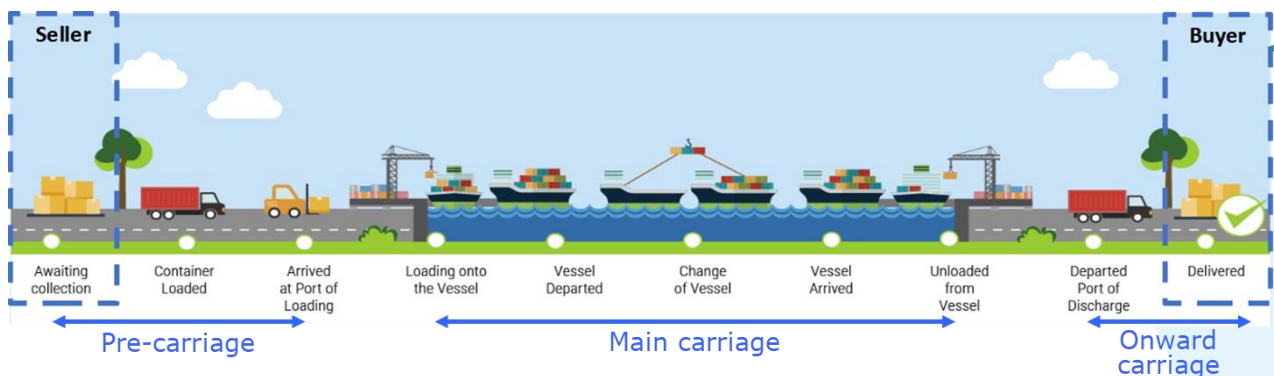


Figure 1- Goods Movement Process

⁵ A term coined by ASTM in [F3682]. Very useful though to frame the usual scope of T&L networks.

The scope of the CEFACT Top 30 Catalogue primarily covers a part of this Goods Movement Process (GMP). The standards products from other organisations may cover

- (other) parts of the Goods Movement Process.
E.g., the DYNAPORT and MISSION initiatives [DYN] focus primarily on events and status related to the maritime ship.
The ASTM standard for GMP codes (status)[ASTM_GMPC] covers the entire scope from seller to buyer.
- a specific perspective on the Goods Movement Process.

E.g., the ASTM standard for Container Availability (under development) [ASTM_CA] looks primarily on the determination of when an intermodal container (empty or laden) can be considered available for the next transport movement. That status of <container available> will often be linked to more than one event having occurred.

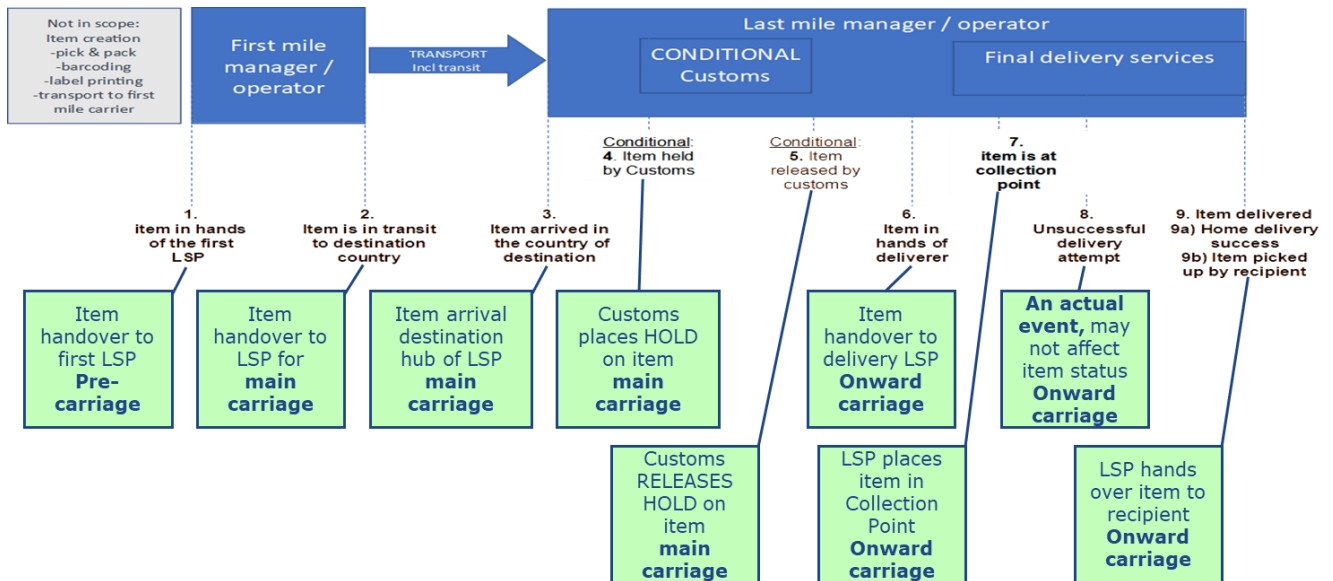
The container transportation industry distinguishes three “journeys”, each with its own perspective on the overall process related to intermodal container transportation: Shipment or Booking, Equipment, and Vessel. For each of the journeys specific events and statuses apply.

Events occurring for a particular object (e.g., a specific container) may trigger the change of the status for another object (e.g., the vessel). When the first container is offloaded from the vessel alongside at the terminal, that container event would also trigger the status <cargo operations started> for the vessel.

The above merely scratches the surface on the interrelationships between specific events and statuses related to the same or multiple objects.

To illustrate some relationships between Events and Statuses, Figure 2 below provides a visual related to the CEN TC331 standard for “Harmonized Track and Trace Events” [TS_18055_1].

Figure 2- Linking Events to Statuses (CEN)



The top half of the figure shows the main statuses that are of interest to the intended recipient (and sender) of the “parcel” being tracked in this standard. The bottom half (green call-outs) indicate the events that trigger the statuses.

The <unsuccessful delivery attempt> is a “special” event because it may or may not cause a change to the status of the end-to-end delivery process. A new delivery may be scheduled to the same location (no status change), the parcel may need to be collected from another location (causes a status change for the parcel) or the parcel may then be considered undeliverable (causes a status change for the delivery process).

This document provides an overview of the analysis of the UN/CEFACT BRS Top 30 Catalogue based on the terms and definitions mentioned above. The Top 30 Catalogue is effectively a mix of event types (according to the definition above) and statuses (according to the definitions above).

The actual analysis was done in a workbook, which is not part of this report. Summaries of the results per comparison are available in the Appendices of this document.

NOTE: Nearly all supply chains will include multiple iterations of the Goods Movement Process. For instance, fresh product from field of the grower to a Cooler, from there to a Packer, then a Distributor and ultimately a point of consumption (Retail shop or food service location). The scope of this matching exercise does not cover any events or statuses that occur in supply chain nodes handling the actual goods contained in the units transported in the Goods Movement Process.

4 Connecting the work from Standards Development Organisations (SDO)

There are large numbers of organisations that have created standards products for supply chain and transport & logistics. An ASTM report doing a comparison analysis related to the US FMC MTDI initiative Lexicon [ASTM_FMC] found well over 40 and then stopped looking for more.

In this exercise, the following organisations, standards and initiative are included:

- ISO/IEC 19987 [EPCIS] and 19988 (Core Business Vocabulary - [CBV]) maintained by GS1
- ISO TC8 ISO/IEC 28005 series standard [ISO_28005] and [ISO/WD 25155] (under development)
- CEN TC331 standards for Harmonized Events for e-Commerce (Forward and Return Flows). [TS_18055_1]
- The combined efforts of the DYNAPORT and MISSION initiatives funded by the European Commission [DYN].
- ASTM standards for Container Availability [ASTM_CA] (under development) and Good Movement Process codes [ASTM_GMPC] (under development).

Why include these?

The EPCIS/CBV standards cover events anywhere in the supply chain related to any kind of object. It is a well-established standard for the exchange of Event Information. Alignment/Matching with these standards will enable organisations to adopt the relevant “specialised” standards in combination with the most “generic” standard for Event information exchanges. Furthermore, it was also included in the [DIL_2024] White Paper “*Developing Semantics for Supply Chain, Transport and Logistics*” as the foundation for the Event-Driven model described in the white paper.

The standards developed in ISO TC8 (Ships and marine technology)⁶ and especially the two standards mentioned focus on the events and statuses that occur in pretty much the same part of the GMP as is the focus for the UN/CEFACT BRS. The ISO 28005 series has been developed with and by the maritime and ports community over a number of decades, is well aligned with the IMO Compendium and is widely used in the community. The work-in-progress items [ISO/WD 25155] and [ISO/AWI 26166] are to be considered as extensions and enhancements of the ISO 28005 series standards.

The CEN TC331 standards cover the entire Good Movement Process from Seller to Buyer. They are also (one of) the first standards that describe the Events and Statuses in the language of the seller and buyer (rather than from the perspective of “specialised” logistic service providers). The approach adopted in these CEN standards makes them highly suited for common use across disparate communities where not every party involved is deeply familiar with the other parties’ terminology or work processes.

The two ASTM standards (even though still being further developed) explicitly build on standard products available from various standards development organisations and aim to “merge” them in ways that make it easier for implementers to combine to solve business challenges.

⁶ See <https://www.iso.org/committee/45776.html>

The DYNAPORT and MISSION initiatives have undertaken to adopt the various standard products from different standards development organisations (including the ones mentioned above as well as some not listed above) in real-life implementations in critical business process in maritime and ports communities involving numerous parties.

For all of the above standards, there are significant opportunities to influence the further development of them to achieve higher levels of harmonisation, interoperability and ease of implementation for the stakeholders in T&L and supply chains.

4.1 Starting Point

This matching exercise has been triggered by the interest of the communities that provided their inputs into the development of the UN/CEFACT BRS. These include but are not limited to IAPH, ChainPort, IPCSA, FIATA, and TIC4.0.

The Top 30 Catalogue in the BRS may be considered an “agreement” among large groups of stakeholders involved in maritime and ports operations specifically related to container-based transportation.

Such a widely supported agreement on a limited set of “core” data elements provides an excellent basis for an exercise to match these across various standards products from different standards development organisations.

It is important to note that the CEFACT Top 30 Catalogue is in fact a list of **event types**.

According to the **event** definition above, an event is something that occurs a *specific* point in time (when). That also means that the event applies to a specific object (e.g., a specific laden container), departing from a specific location (e.g., a container terminal in a port) on a transport means (e.g., a specific maritime vessel). This is also a requirement for when parties involved want to exchange information about the specific event among them.

Item C12 <Departure of full equipment by vessel at the port terminal> is a type of event that applies for all departures of full (a.k.a. laden) equipment on any maritime vessel from any port terminal.

This means that we can “translate” between the two views on reality in a quite straightforward way:

Each **event** (according to the definition used in this document) can easily be associated with an **event type**. Based on the identifiers used in the **event** for the location (e.g., terminal ID), the transport means (e.g., vessel ID), and the equipment (e.g., container ID) one can easily determine the mode of transport and type of facility involved in that event. Combining that with the business context (e.g., departure) enables unambiguous determination of the **event type** in the CEFACT Top 30 Catalogue.

4.2 Matching Approach

The exercise that resulted in this report took the table of the Top 30 Catalogue from the CEFACT BRS as its basis. The full table (including IDs to facilitate the analyses) is available in Annex 1 – UN/CEFACT Top 30 Catalogue. The rows in that table are a mix of events and statuses (according to the definitions above).

Furthermore, the list “duplicated” event types that in other standards (such as [EPCIS]) would be considered a single event type. For instance, the single event < Arrival by vehicle at Port terminal> may be used for the three table rows < Arrival by Truck/Rail/Barge at Port terminal>.

Therefore, the original table was first condensed to remove the “duplicates”, reducing the number of rows from 38 to 32 (closer to the claim it is a Top30).

This condensed table was then split into two separate tables:

1. One containing “event types” according to the definitions in this document. This table contains 9 rows (numbered E1 – E9 in the tables in this document)
2. One containing the other rows that actually represent statuses (according to the definitions in this document). This table contains 23 rows (numbered S1 – S21 in the tables in this document)

For each of the events in the first table, an associated status was identified. This status was **not** included in the original table in the CEFACT BRS. It merely serves as a “logical” description of the status resulting from the event.

Similarly, for each of the statuses in the second table, an associated Event (or set) was indicated where feasible; it was not always possible to provide such an indication for lack of available context in the CEFACT BRS. In any case, those events are included merely as “logical” description of a set of events (could be just one) that would result in the status mentioned in that row of the table.

These tables were then used to do the matching with a particular standard product.

In the sections below we provided observations and conclusions for each of those comparisons with the CEFACT BRS Top 30 Catalogue.

5 Results and Observations

5.1 General

It was possible to make a good proportion of matches between the CEFACT BRS Top 30 and the various other standards products. Given that the number of events and statuses in some of the other standard products was limited and they covered a wider scope of the Goods Movement Process, the absolute number of matches was limited for those standards products.

Unfortunately, it was not always possible to make a match between the CEFACT Top 30 and the other standards product due to mainly the below reasons:

- The descriptions from the CEFACT BRS or the other standards product were not sufficiently clear to be sure that they are an actual match.
- The CEFACT BRS Top 30 entry really did not have a matching entry in the other standards product.

In several instances, the other standards products provided events or statuses that could or should be considered for inclusion in the CEFACT BRS Top 30. The sections below will elaborate on these topics.

5.2 Observations related to UN/CEFACT BRS Top 30 Catalogue

The observations here related to the two separate table described in 4.2. See also Annex 1 – UN/CEFACT Top 30 Catalogue and Annex 2 – Top 30 entries – Statuses and Event **types**. The event types are well described and easy to understand individually, which greatly helps linking them to the “logical” associated status.

The relationship between <Gate out of laden equipment by XXX> and <Departure of XXX> at Port terminal is somewhat unclear. One would assume that the laden equipment passes through the terminal gate together with the transport means (truck, barge, train).

In the workbook, it is assumed that the Gate Out event is linked to the Equipment ID, whereas the Departure Event is linked to the Transport Means identifier. These identifiers are important because the CEFACT BRS also clearly describes the required information that needs to be included in the EPCIS standard for Event Information exchanges. The WHAT part of the EPCIS message structure requires a unique identifier for the object associated with the event.

The UN/CEFACT BRS acknowledges the importance of the identifiers for the objects, but does not include information (e.g., a table indicating) the main identifiers associated with the entries in the Top 30 Catalogue.

The workbook indicates the main identifiers for each of the events and statuses listed in the two separate tables based on educated guesses.

Action item: These would need to be validated with the (UN/CEFACT) group of experts who worked on compiling the Top 30 table in the UN/CEFACT BRS.

The group of experts could, in similar fashion, review the <associated Status> and <associated Event> indicated in the workbook tables to come to a common understanding. This common understanding may then be used to inform future work in standards development efforts to be undertaken in various standardisation organisations (including UN/CEFACT).

The BRS Top 30 Catalogue predominantly covers statuses that are connected with the Shipment (or Booking) journey and significantly less on actual events occurring related to the physical objects (equipment, vessels or other transport means). It also appears to focus quite a lot on tracking (availability of) documents related to the Booking.

5.3 Matching EPCIS and Core Business Vocabulary with Top 30

Establishing a good match between these two standards is the most important component of connecting the dots and solving the puzzle for the stakeholders in supply chains and transport & logistics. Assuming most if not all of the Top 30 event types can be supported by EPCIS event information exchanges, the stakeholders will have a solid combination of both semantic and technical interoperability to solve their business challenges.

Annex 3 – Matching with EPCIS and CBV provides the details behind the summary in this section.

The matching has been done based on the upcoming release (2.1) of the EPCIS and Core Business Vocabulary standards, both of which are currently in GS1 Community Review. This release includes new features that enhance the capability to exchange “notifications” within the context of these standards. Given that the Top 30 relies on notification events that drive quite

a few of the statuses included in it, that additional functionality has a significant impact on the matching results presented here.

- ALL event types can easily be mapped to the EPCIS and CBV standards. In fact, the standards also make it easy to unambiguously “associate” one object (e.g., a container) with another object (e.g., a transport means <truck or barge> or transport equipment such as a rail wagon). Similarly, rail wagons may be associated with a train.
- MOST (appr 15 of 21) events related to the Top 30 Statuses can be mapped to the standards easily.
- SOME (6 or 7) events will require further analysis of the business requirements and capabilities of the EPCIS and CBV standards (in the release 2.1). EPCIS supports <notifying> in its latest (proposed) release. However, there is currently not a lot of guidance on how to use this new functionality related to the Transport & Logistics execution environment.

Action item: Therefore, **substantial effort will still be needed** between the communities that contributed to the CEFACT BRS and the GS1 community to ensure fit-for-purpose support for all the notifications identified in the CEFACT BRS. Additionally, unambiguous guidance should be developed to ensure that all implementers may implement the Event Information exchanges in a consistent and interoperable fashion to ensure that “*what is sent is understood*” as the European Interoperability Framework [EIF] puts it. That said, it is highly likely that also these Event Information exchanges can be supported by the standards.

- ONE status (S17 – shipping instructions pending approval) cannot be mapped to an event directly; This status depends on the **absence** of specific other events (rejection or acceptance). **Action item:** In fact, it may be argued that the CEFACT BRS Top 30 should also have a status <Booking pending approval/confirmation> because the logic for the shipping instructions and booking appear to be identical. This may be checked with the group of experts who contributed to the CEFACT BRS.

The workbook provides more details related to items that need to be clarified as well as indications on how the EPCIS and CBV standards may support the Event Information exchanges needed to support the CEFACT BRS Top 30.

5.4 Matching with ISO TC8 standards

ISO TC8 is in the process of developing standard 25155 with the title “*Track and trace events for vessels and cargo in maritime transport*”.

This standard aims to define a limited set of events that will deliver the most significant benefits to stakeholders and the beneficial cargo owners in particular. This aim aligns very well with the approach that CEN TC331 pioneered.

The operational scope covers the voyage of the ship, via the terminal, to gate-in or gate-out in the terminal. Gate-in and gate-out include transfers between the maritime terminal and hinterland modes of transport such as road vehicles, feeder ships, inland waterway barges or rail wagons. The operational scope almost perfectly overlaps with the scope covered in the CEFACT BRS Top 30 table.

The standard also defines information exchanges and information elements based on the ISO 28005 framework.

The standard distinguishes 10 events and associated statuses related to cargo coming into port from the hinterland to be transported out via the port (numbered H1 – H10). It also distinguishes 11 events and associated statuses related to cargo coming into port from the maritime mode for onward carriage to hinterland destinations (numbered M1-M11).

The standard has adopted the distinction between Event and Status in the same way as described above in this document. There is a good match across this standard (in development) and the CEFACT BRS Top 30.

Annex 4 – Matching with ISO/AWI 25155 provides the details behind this summary

There are nevertheless also a number of question or challenges:

- ALL event types can easily be mapped between the two standards
- Except for the ISO status M8 (cargo available for collection) mapped to S6 (Available for Pickup of Laden equipment), the ISO work does NOT consider any of the other statuses of the Top 30 relevant/applicable to the scope and purpose of the effort.
- ISO effort's aim is to track the flow of the cargo from "Gate-in" at origin port through to Gate-Out" at destination port primarily from the perspective of cargo owners. As a result, "internal events" for shipping lines or terminal operators are not "relevant" for this ISO effort.
- The CEFACT event types seem to be "unbalanced" compared with the ISO effort. The CEFACT E3 (ISO H2) related to unloading laden equipment at the port terminal has no "mirror" event for loading the laden equipment on the vehicle (road, rail, barge) for onward carriage (ISO M10 event).
- The ISO effort includes status H5 (cargo available for loading on vessel), which is not included in the current CEFACT BRS. It may be wise to add that status also to the BRS (even at this late stage).
- In the workbook, there are clear indications which specific events are associated with a specific status for each of the events except for the status < Cargo available for loading on maritime ship>. There are generally several events that must have occurred before this status can be achieved. These may not always occur in a specific fixed sequence so any one of the events may trigger the status if it happens to be the last of the necessary set to be recorded.
- The ISO effort includes status H3 (Transport Means departs EMPTY), not even carrying an empty container. It is surprising this event is **not** included. One would think that the terminal operators would also want (or even need) to know when a vehicle that entered the terminal has exited/departed from the terminal. The operators of those vehicles most definitely need to know.
- With ICS2, it is mandatory to submit information for **every** consignment entering into the EU to Customs even before the consignment enters into the EU. The "traditional" Customs related submissions will also still be needed but they can also be done in advance. In effect, Customs may already "clear" the consignment for onward transportation into the EU even before the consignment arrives in the port. The ISO effort includes this "Customs Cleared" status but the BRS does not. Should this status be included in the CEFACT BRS? It is definitely different in nature from a container or consignment held by Customs for inspection (and then released). It could be argued that the "Customs Cleared" status is a pre-requisite for the status S6 "Available for Pick-Up of Laden Equipment".

- The ISO standard has a strong focus on “cargo operations” or “cargo services” for a ship starting or completing. It has four statuses (start and completion loading; start and completion unloading) triggered by four specific events related to the transport units being loaded or unloaded. First unit being loaded triggers status <Cargo Loading operation started> Last unit having been loaded triggers status < Cargo Loading operation completed>. Similar for Cargo unloading operations: first unit unloaded triggers <Cargo unloading started>, last unit unloaded triggers <Cargo unloading completed>.
- The ISO standard includes more events (and associated statuses) related to the ship calling on the port than the CEFAC Top 30 does. For instance, M3 <Ship fast alongside at berth> triggered by the event <last line secured> and M1 event <Ship tenders Notice of Readiness> triggers the status <Arrived Ship> for the ship. The ISO standard also includes the event <ship departs from port> resulting in the status < Ship departed from port; FAOP - Full Away on Passage>.
Action item: It is probably beneficial for the user communities to harmonise the set of ship related events and statuses between the ISO standard and the CEFAC BRS because their scopes are (almost) identical. This may be future collaborative work between the two standards development organisations.

5.5 CEN TC331 Harmonized Track and Trace Events

This standard includes a limited set of events and associated statuses. There are just 10. This is by design.

The intent is to keep the set as simple to understand for intended recipients (and senders) of the parcels (individual transport units) that are the primary objects of interest for the standard.

However, the set of events and statuses was designed such that the set would be applicable also for individual transport units other than parcels.

Regarding the matching results we can be brief:

- **All** of the CEN events related to the cargo journey in scope for the CEFAC effort can easily be mapped to CEFAC BRS Top 30 entries.
- CEN events/statuses related to pre-carriage and onward carriage may be relevant for a future extension of the current CEFAC BRS.

Further details can be found in Annex 5 – Matching with CEN TS 18055-1

5.6 DYNAPORT and MISSION initiatives

These projects base themselves on the ITPCO (International Taskforce Port Call Optimization) results and align with the ISO 28005-series and the ISO AWI 25155 standardisation efforts. The ISO 25155 and 28005 series are being developed (further) at the moment.

These projects have their main focus on the maritime ships (vessels) and events related to Port Call Optimisation and Just-in-Time Arrival and focus (much) less on the cargo carried on the ships or the administration and documents associated with the management of the transportation. The goal for these projects is to implement standards in real-life and they continue to be used in practice well after the life-span of these projects.

Where feasible the connections between the events covered in the DYNAPORT context have been “mapped” to events included in the ISO TC 8 standard in development AWI 25155.

Coordination between DYNAPORT and MISSION projects is on-going to ensure the events and statuses that are needed in either or both of these initiatives will be described using consistent terms and definitions. The various relationships among the events and statuses are also being aligned.

The matching exercise has been done based on the results of the collaboration between the projects to date. The details behind the summary below can be found in Annex 6 – Matching with DYNAPORT and MISSION. The following observations apply:

- Half of the ISO TC8 AWI 25155 statuses and events also apply in the DYNAPORT / MISSION projects. Especially the observations related to cargo services made for ISO 25155 also apply here.
- The projects also describe other events and associated statuses that are not included in the ISO 25155 standard.
- There are arrival and departure events for locations in and around the port geography (e.g., Anchorage, Pilot Boarding Place = PBP, Port Area) that are not included in the other standards covered in this exercise.
- The projects add Nautical Services and Ship (or Vessel) Services for which start and stop events (and associated statuses) are needed.
- Some of the terminology used in the projects is not sufficiently clearly defined to be able to reliably match those terms with terms used in the other standards.

Action item: Therefore, further clarification is required to determine an accurate mapping to existing standards. This work is currently being planned.

5.7 ASTM standards for Container Availability and GMP codes

These standards have adopted two very distinct perspectives on statuses and events that may occur in the Goods Movement Process (from Seller to Buyer).

One is entirely focussed on the Equipment Journey. The other is entirely focussed on the Shipment (or Booking) Journey.

Both of them cover the entire scope of the Goods Movement Process (in case the container is stuffed at the despatch location linked to the Seller).

The details behind the summary below can be found in Annex 7 – Matching with ASTM standards

Related to the Container Availability the following observations apply:

- There is just one direct match between the ASTM standard and the Top 30.
<Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal>
= < Stuffed Container ready/available for onward carriage>.
- There are a handful of instances where one of the event types from the Top 30 may trigger one of the ASTM statuses or vice versa where the ASTM status must have been achieved before a Top 30 event can be recorded.

For instance, the Top 30 event < Gate in of Laden Equipment at Port terminal> would trigger the ASTM status < Stuffed Container arrived at node prior to border crossing for export>. The Top 30 event < Load of Laden Equipment onto Vessel at Port terminal> is possible only after the ASTM status < Stuffed Container ready for departure from export border-crossing node> has been achieved.

- There are many statuses from the Top 30 that could be required to be met for a container or consignment before the ASTM status <Stuffed Container ready/available for onward carriage> can be achieved. Those dependencies will be covered in the ASTM standard. They are not part of the current matching exercise.

Related to the GMP codes the following observations apply:

- All of the event types from the Top 30 occur when the Booking (“transport unit” or “load” in the ASTM standard) is in status <EN ROUTE>. GMP code values between “500” and “700” will apply. For the moment only codes that are a multiple of 100 have been clearly defined.
- There is a good match between the ASTM GMP codes and the Top 30 statuses related to the documents especially in a one-to-one negotiation between logistic services client (LSC) and logistic services provider. Some of the Top 30 statuses would occur while the load is in status <PRE-BOOKED>.

Action Item: The CEFAC Top 30 seems to assume that engagement model, but that is not explicitly stated anywhere: This may need to be clarified in the UN/CEFACT BRS. In the ASTM context an LSC may tender the same transport need (Load) simultaneously to several LSP (directly or via platforms). In those scenarios, it is not possible to directly match statuses between the Top 30 and the ASTM standard especially when looking at rejection and acceptance or confirmation statuses.

6 Conclusions and Recommendations

From the above pages as well as from the information in the annexes, it will be clear that it is still quite a challenge for (potential) users of standards (even when they are provided by highly reputable organisations) to correctly understand the individual standards and to then be able to match and combine them so they may help solve a business issue.

Even though the exercise scope focussed on the Goods Movement Process and also started from a limited set of events and statuses, the matching was far from an easy task. The task was made more difficult by the fact that not all standards (and initiatives) included in the exercise make a clear distinction between the concept of Event and the concept of Status. Nevertheless, it was possible to map all of the standards covered in this exercise into a common format such that the matching exercise could be done effectively at the level of event types.

The good news from the exercise is that the standards can be linked to each other and matches can be made. Matches may be partial, meaning each standard covers events and statuses that the other does not. That is largely due to the fact that the various standards focus on different parts of the goods movement process (e.g., end-to-end versus maritime and ports only) and they look at those parts from different perspectives (e.g., Cargo Owner versus Logistic Service Provider).

The standards available for the exchange of Event Information (e.g., EPCIS, ISO 28005 framework) are very likely already capable to support the types of events identified within the scope of this exercise.

Nevertheless, for **all** of the standards, additional Guidance Documents will be needed for the industry stakeholders to be able to implement the events and statuses mentioned across the various standards in a manner that is consistent and interoperable across all of the stakeholders. The goal is to ensure that “what is sent is what is understood”.

At the moment, it is not clear (enough) when a specific event (information exchange) is expected to occur within the operational process (and what the resulting status change <if any> will be). Without that clarity, different stakeholders will interpret the Event Information they receive in different ways.

The text above includes comments and suggestions for future collaborative work among the various standards development organisations (SDO) and initiatives.

It is highly recommended for the benefit of stakeholder community, which is shared among the various SDO, that the SDO follow up on the comments and suggestions in this document. Vice versa, it is also highly recommended that companies and other organisations get engaged in these follow-up activities to ensure the materials produced are as helpful as feasible for the user communities.

This engagement is especially important for the maintenance of code lists for statuses and events such as UN/CEFACT Recommendation 24, the ISO standards [EPCIS], [CBV], 28005 series as well as those from other global standards development organisations.

Bijlagen



7 References

STANDARDS DEVELOPMENT ORGANISATIONS (COMPLIANT WITH WTO SIX PRINCIPLES)

[ASTM] (<https://www.astm.org/>) Advancing Standards Transforming Markets

[ASTM_FMC] -

Resolving Data Language Barriers across Maritime Standards Vocabularies

ASTM Report FMC MTDI Lexicon comparison

Official Technical Report published by ASTM International

<https://store.astm.org/tr5-eb.html>

LinkedIn post "*The Need for Supply Chain Standard Terms*"

<https://www.linkedin.com/pulse/need-supply-chain-standard-terms-michael-darden-hprue/>

[F3682] *Standard Terminology for Goods Movement Process (GMP) Precise Foundational Definitions*

<https://store.astm.org/f3682-24.html>

Work items in progress

[ASTM_GMPC] *New Guide for the Goods Movement Process Codes*

<https://www.astm.org/membership-participation/technical-committees/workitems/workitem-wk92031>

[ASTM_CA] *New Practice for Container Availability;*

<https://www.astm.org/membership-participation/technical-committees/workitems/workitem-wk87207>

[ISO] (<https://www.iso.org/home.html>) International Standards Organisation

[EPCIS] ISO/IEC 19987:2024 –

Information technology — EPC Information Services (EPCIS)

<https://www.iso.org/standard/85557.html>

[CBV] ISO/IEC 19988:2024 -

Information technology — GS1 Core Business Vocabulary (CBV)

<https://www.iso.org/standard/85558.html>

ISO 19987 and 19988 are maintained by [GS1] (<https://www.gs1.org/>);

Current standard EPCIS: <https://ref.gs1.org/standards/epcis/>

Current standard CBV: <https://ref.gs1.org/standards/cbv/>

[ISO_28005] ISO/IEC 28005 parts 1 through 3.

Ships and marine technology — Electronic port clearance (EPC)

Part 1: Message structures and application programming interfaces

<https://www.iso.org/standard/83881.html>

Part 2: Core data elements

<https://www.iso.org/standard/74059.html>

Part 3: Data elements for ship and port operation

<https://www.iso.org/standard/83631.html>

Work Items in progress

[ISO/WD 25155] - *Track and trace events for vessels and cargo in maritime transport*

<https://www.iso.org/standard/89144.html>

[ISO/AWI 26166] - Ships and marine technology —

ICT reference architecture for digital ship-port interfaces

<https://www.iso.org/standard/92755.html>

[UN/CEFACT] – United Nations Centre for Trade Facilitation and Electronic Business

[CEF_ITT] Business Requirements Specification (BRS) for

“Integrated Track and Trace for Multi-Modal Transportation”;

<https://unece.org/sites/default/files/2022-09/BRS-IntegratedTrackandTraceforMulti-Modal-Transportationv0.1-Final.pdf>

[REC_24] “Recommendation 24 *“Trade and Transport Status Codes”*”

<https://unece.org/trade/unecefact/cl-recommendations>

[CEF_VCP] *Visibility and Collaborative Planning in Multi-Modal Supply Chain Operations*

To be published in Q1 2026

[CEN] European Committee for Standardisation

(French: Comité Européen de Normalisation)

[TS_18055_1] CEN/TS 18055-1:2024

Postal services - Harmonized track and trace events - Part 1: Forward flow

<https://www.nen.nl/en/nvn-cen-ts-18055-1-2024-en-331756>

INDUSTRY ORGANISATIONS DEVELOPING STANDARDS

[ITPCO] (<https://portcalloptimization.org>) International Taskforce Port Call Optimization

[PIM] *Port Information Manual*; <https://portcalloptimization.org/images/Port%20Information%20Manual%203.01.pdf>

[PCOG] *Port Call Optimization (PCO) Guide*

To be presented to IMO FAL February 2026; then published on ITPCO website

Will replace the Port Information Manual.

[TIC4.0] (<https://tic40.org/>) Terminal Industry Committee

[TIC_GD] *General Documentation*; <https://tic40.atlassian.net/wiki/spaces/TIC40Definitions/pages/642908212/General+Documentation>

[TIC_SPD] *Semantics, Publications, Data Model and Definitions*;

<https://tic40.org/wp-content/uploads/2025/12/TIC40-2025017-Release.pdf>

[TIC_Wiki] *TIC4.0 Semantic*; <https://tic40.atlassian.net/wiki/spaces/TIC40Definitions/pages/8618041/TIC4.0+Semantic>

OTHER ORGANISATIONS AND PUBLICATIONS

[EC] European Commission

[EIF] *European Interoperability Framework (EIF) brochure*

https://ec.europa.eu/isa2/sites/default/files/eif_brochure_final.pdf

[WTO] World Trade Organisation (WTO) – TBT - Technical Barriers to Trade: Standards

[WTO_6P] *Principles for the Development of International Standards, Guides and Recommendations.*

https://www.wto.org/english/tratop_e/tbt_e/principles_standards_tbt_e.htm

[DYN] DYNAPORT and MISSION projects funded by the European Union (EU)

DYNAPORT - project web-page

Dynamic Navigation and Port Call Optimisation in Real Time

<https://dynaport.eu/>

MISSION – project web-page

Making maritime shipping more sustainable by optimising port call efficiency to reduce emissions and to enhance safety

<https://missionproject.eu/>

[UNCTAD_97] *New UN/CEFACT Track and Trace Publication Supports UN Sustainable Development Goals;*

Hanane Becha, Todd Frazier, Gregory Mungal, Jaco Voorspuij, Article No. 101 [UNCTAD

Transport and Trade Facilitation Newsletter N°97 - First Quarter 2023];

<https://unctad.org/news/transport-newsletter-article-no-101-un-cefact-track-and-trace-publication>

[DIL_2024] White Paper: *“Developing Semantics for Supply Chain, Transport and Logistics”;*

Jaco Voorspuij, Ewout Bouwman, Laurens Lapré.

<https://content.bdinetwork.org/wp-content/uploads/sites/2/2024/11/2024-BDI-Developing-Semantics-for-Supply-Chain-Transport-Logistics.pdf>

[IISD] Report *“Setting International Technical Standards to Shape Digital Trade Policy; Approaches, challenges, and opportunities for developing countries”.*

Craig Atkinson, Hanane Becha.

<https://www.iisd.org/system/files/2025-11/technical-standards-digital-trade.pdf>

8 Annexen

8.1 Annex 1 – UN/CEFACT Top 30 Catalogue

The below table has been copied from the UN/CEFACT BRS [CEF_VCP](table 3 on page 30). The first column of IDs has been added for the purposes of analyses in this document.

Table 1 - UN/CEFACT Top 30 Catalogue

ID	Event Description	UN/CE-FACT Code	UN/CEFACT Name	UN/CEFACT Description
C1	Available for drop off of Laden Equipment by Truck at Port terminal	new code	Ready for Truck Drop-Off at Port Terminal	The port terminal is operational and ready to accept the delivery of full (laden) transport equipment arriving by road (truck).
C2	Available for drop off of Laden Equipment by Rail at Port terminal	new code	Ready for Rail Drop-Off at Port Terminal	The port terminal is operational and ready to accept the delivery of full (laden)transport equipment arriving by rail.
C3	Available for drop off of laden Equipment by barge at Port terminal	new code	Ready for Barge Drop-Off at Port Terminal	The port terminal is operational and ready to accept the delivery of full (laden) transport equipment arriving by barge.
C4	Arrival by Truck at Port terminal	new code	Port Arrival via Truck	The full transport equipment has arrived at the port terminal by truck
C5	Arrival by Rail at Port terminal	new code	Port Arrival via Rail	The full transport equipment has arrived at the port terminal by rail.
C6	Arrival by Barge at Port terminal	new code	Port Arrival via Barge	The full transport equipment has arrived at the port terminal by barge.
C7	Gate in of Laden Equipment by Truck at Port terminal	new code	Gate-In of Full Equipment by Truck	Gate-in of full equipment by truck at the port terminal occurs when the arriving container is registered and accepted into the terminal system.

ID	Event Description	UN/CE-FACT Code	UN/CEFACT Name	UN/CEFACT Description
C8	Gate in of Laden Equipment by Rail at Port terminal	new code	Gate-In of Full Equipment by Rail	Gate-in of full equipment by rail at the port terminal occurs when the arriving container is registered and accepted into the terminal system.
C9	Gate in of Laden Equipment by Barge at Port terminal	new code	Gate-In of Full Equipment by Barge	Gate-in of full equipment by barge at the port terminal occurs when the arriving container is registered and accepted into the terminal system.
C10	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	new code	Discharge of Full Equipment from Truck, Rail or Barge	Discharge of full equipment from truck, rail, or barge at the port terminal.
C11	Load of Laden Equipment onto Vessel at Port terminal	new code	Load of Full Equipment onto Vessel	Load of full equipment onto vessel at the port terminal occurs when the container is securely placed on board and registered in the terminal system.
C12	Departure by Vessel at Port terminal	new code	Departure of Full Equipment by Vessel	Departure of full equipment by vessel at the port terminal.
C13	Arrival by Vessel at Port terminal	new code	Arrival of Full Equipment by Vessel	Arrival of full equipment by vessel at the port terminal.
C14	Discharge of Laden Equipment from Vessel at Port terminal	New code	Discharge of Laden Equipment from Vessel at Port terminal Discharge from vessel	Discharge of Laden Equipment from Vessel at Port terminal
C15	Selected for customs inspection	228	Inspection required by authority	An inspection of the goods/equipment is required by an authority.
C16	Laden Equipment Released from Customs Inspection	12	Cleared, by customs	The goods/consignment/equipment/means of transport has been cleared by customs.
C17	Dangerous Goods Declaration Received	new code	Dangerous Goods Declaration Received for Full Equipment	Dangerous Goods Declaration received for full equipment.

ID	Event Description	UN/CE-FACT Code	UN/CEFACT Name	UN/CEFACT Description
C18	Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal	64	Collection/pick-up, awaited	The goods/consignment/equipment is awaiting collection/pick-up.
C19	Appointment for pick up made (truck/train/barge)	new code	Appointment for pick up at terminal is made	An appointment for pick up of the laden equipment has been made (truck/train/barge) at the port terminal
C20	Gate out of Laden Equipment by Truck at Port terminal	new code	Gate-Out of Full Equipment by Truck	The goods/consignment/equipment has been collected and physically exited the terminal gate by truck.
C21	Gate out of Laden Equipment by Rail at Port terminal	new code	Gate-Out of Full Equipment by Rail	The goods/consignment/equipment has been collected and physically exited the terminal gate by rail.
C22	Gate out of Laden Equipment by Barge at Port terminal	new code	Gate-Out of Full Equipment by Barge	The goods/consignment/equipment has been collected and physically exited the terminal gate by barge.
C23	Departure by Truck/Rail/Barge at Port terminal	New code	Departure by Truck/Rail/Barge at Port terminal	The goods/consignment/equipment has been collected/picked-up.
C24	Cleared by agriculture, food or fisheries authorities	10	Cleared by agriculture, food or fisheries authorities	The goods/consignment/equipment/means of transport has been cleared by authorities for agriculture, food or fisheries
C25	Certificate of Analysis Received	new code	Certificate of Analysis Received	Certificate of Analysis (CoA) received; the goods/consignment have been certified by the issuing laboratory or manufacturer, confirming compliance with required chemical, physical, or microbiological specifications.
C26	Certificate of Origin Received	new code	Certificate of Origin Received	Certificate of Origin received; the goods/consignment have been officially documented to verify their country of manufacture or production, as issued by the authorized body.

ID	Event Description	UN/CE-FACT Code	UN/CEFACT Name	UN/CEFACT Description
C27	Health Certificate Received	new code	Health Certificate Received	Health certificate received; the goods/consignment have been certified by the competent authority as meeting health and safety standards required for transport or trade.
C28	Phytosanitary Certificate Received	new code	Phytosanitary Certificate Received	Phytosanitary certificate received; the goods/consignment have been officially certified as free from regulated pests and compliant with plant health requirements for international movement.
C29	Veterinary Certificate Received	new code	Veterinary Certificate Received	Veterinary certificate received; the animal products or live animals in the consignment have been examined and approved by veterinary authorities for health and sanitary compliance.
C30	Booking Confirmed	6	Booking, completed	Goods/consignments/equipment or means of transport has been booked for subsequent movements
C31	Shipping instruction Received	new code	Shipping Instruction Received	Shipping instruction received; the transport and documentation details for the consignment have been submitted by the shipper or forwarder for processing.
C32	Shipping instruction Approved	new code	Shipping Instruction Approved	Shipping instruction approved; the submitted transport and documentation details have been reviewed and validated for use.
C33	Shipping instruction Rejected	new code	Shipping Instruction Rejected	Shipping instruction rejected; the submitted information did not meet validation criteria and has been returned for correction or resubmission.
C34	Shipping instruction Pending approval	new code	Shipping Instruction Pending Approval	Shipping instruction pending approval; the submitted transport details are under review and awaiting validation by the relevant party.
C35	Transport document Issued	new code	Transport Document Issued	Transport document issued; the official transport document (e.g., bill of lading or waybill) has been generated and made available by the carrier or freight forwarder.

ID	Event Description	UN/CE-FACT Code	UN/CEFACT Name	UN/CEFACT Description
C36	Arrival notice Issued	new code	Arrival Notice Issued	Arrival notice issued; the consignee or nominated party has been notified that the goods/consignment are due to arrive or have arrived at the destination location.
C37	Transport document Surrendered	new code	Transport Document Surrendered	Transport document surrendered; the original transport document has been returned to the carrier or authorized agent, fulfilling the condition for release of the goods.
C38	Consignment release message Issued	new code	Consignment Release Message Issued	Consignment release message issued; authorization has been electronically sent to permit the release of the goods to the consignee or nominated party.

There are actually 38 rows in this table (rather than the thirty that the name suggests).

The rows in the table are a mix of events and statuses (according to the definitions in Chapter 3 above).

Furthermore, the list “duplicated” events that in other standards (such as [EPCIS]) would be considered a single event type. For instance, a single event < Arrival by vehicle at Port terminal> may be used for the three table rows < Arrival by **Truck/Rail/Barge** at Port terminal>.

Therefore, the original table was first condensed to remove the “duplicates”, reducing the number of rows from 38 to 32 (closer to the claim it is a Top30).

This condensed table was then split into two separate tables:

1. One containing “event types” according to the definitions in this document.
This table contains 9 rows (numbered E1 – E9 in the tables in this document)
2. One containing the other rows that actually represent statuses (according to the definitions in this document).
This table contains 21 rows (numbered S1 – S21 in the tables in this document)

For the “event types” an associated status was identified. This associated status was not indicated in the UN/CEFACT BRS; it is an “expert guess” what the most likely status would be in common business practice.

Action Item: This would need to be aligned in efforts as follow-up to this report.

For the Top 30 Catalogue entries that represent a status, an associated “event type” was identified. Here too, this is an “expert guess”.

Action Item: This would need to be aligned in efforts as follow-up to this report.

This regrouping of the UN/CEFACT Top 30 Catalogue (including associating Events and Status) is necessary to be able to map those regrouped entries with other standards covering events and statuses that overlap with the scope of the UN/CEFACT BS1 Top 30 Catalogue. Those standards (often) make the same strict distinction between event and status as was described in Chapter 3.

Annex 2 covers the results of that regrouping activity.

8.2 Annex 2 – Top 30 entries – Statuses and Event types

Table 2 below shows the event types and their associated status, meaning that the Status indicated is the most likely result of the occurrence of the Event. The table also indicates the identifiers for the objects that are most likely to be used by the parties involved in these events.

Table 2 - Top 30 Event types

ID	Top 30 – Event types	Associated Status	Main Object/s Identified
E1	Arrival at Port terminal (Laden Equipment)	Transport Means (with Laden Equipment) arrived	Transport Means ID; location ID for Terminal
E2	Gate in of Laden Equipment at Port terminal	Laden Equipment accepted	Equipment ID = BIC code; location ID (for terminal or terminal Gate)
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	Laden Equipment discharged	Equipment ID = BIC code; location ID (for terminal or terminal storage)
E4	Load of Laden Equipment onto Vessel at Port terminal	Laden Equipment loaded	Equipment ID = BIC code; Ship/Vessel ID = IMO number; location ID (for terminal or terminal berth)
E5	Departure by Vessel at Port terminal	Vessel/Ship departed	Ship/Vessel ID = IMO number; location ID (for terminal or terminal berth)

ID	Top 30 – Event types	Associated Status	Main Object/s Identified
E6	Arrival by Vessel at Port terminal	Vessel/Ship arrived	Ship/Vessel ID = IMO number; location ID (for terminal or terminal berth)
E7	Discharge of Laden Equipment from Vessel at Port terminal	Laden Equipment discharged	Equipment ID = BIC code; Ship/Vessel ID = IMO number; location ID (for terminal or terminal berth)
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	Laden Equipment departed	Equipment ID = BIC code; location ID (for terminal or terminal Gate)
E9	Departure by Truck/Rail/Barge at Port terminal	Transport Means (with Laden Equipment) departed	Transport Means ID; location ID for Terminal

Action Item: The contents in the tight-most column are “expert guesses”. They have not been validated with the communities of the parties involved. This would need to be done in an activity as follow-up to this report.

Table 3 below shows the UN/CEFACT BRS Top 20 Catalogue entries that are in fact statuses according to the definitions in Chapter 3.

The table includes “expert guesses” related to the associated event (type) that most likely triggered status.

Action Item: They have not been validated with the communities of the parties involved. To be done in an activity as follow-up to this report

The last column in the table includes indications about the identifiers that may be used in the information exchanges among the parties involved. However, the UN/CEFACT BRS does not provide sufficient information to make “expert guesses”; other sources mentioned in this document also do not readily provide such information. Hence the significant number of “?” characters in the table.

Action Item: Engage with parties involved to document current practice related to the identifiers used in the various event information exchanges.

Table 3 - Top 30 Statuses

ID	Top 30 – Statuses	Associated Event/s	Main Object/s Identified
S1	Available for drop off of Laden Equipment at Port terminal	Notification (general)?	Equipment ID = BIC code; location ID (for terminal or terminal Gate)

ID	Top 30 – Statuses	Associated Event/s	Main Object/s Identified
S2	Selected for customs inspection	holding for customs	Equipment ID = BIC code; location ID (for terminal or terminal storage)
S3	Laden Equipment Released from Customs Inspection	releasing from customs hold	Equipment ID = BIC code; location ID (for terminal or terminal storage)
S4	Dangerous Goods Declaration Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S5	Appointment for pick up made (truck/train/barge)	Notification (general)?	Transport Means ID; location ID for Terminal
S6	Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal	Notification (general)?	Laden Equipment ID; location ID for Terminal
S7	Inspection Certificate Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S8	Certificate of Analysis Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S9	Certificate of Origin Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S10	Health Certificate Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S11	Phytosanitary Certificate Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S12	Veterinary Certificate Received	Receiving Document	Equipment ID = BIC code; Transport Document ID?
S13	Booking Confirmed	Notification (general)? Confirmation (General)?	Booking Document ID
S14	Shipping instruction Received	Receiving Document	Shipping Instructions ID
S15	Shipping instruction Approved	Notification (general)? Confirmation (General)?	Shipping Instructions ID

ID	Top 30 – Statuses	Associated Event/s	Main Object/s Identified
S16	Shipping instruction Rejected	Notification (general)? Rejection (General)?	Shipping Instructions ID
S17	Shipping instruction Pending approval	Not applicable	Shipping Instructions ID
S18	Transport document Issued	Issuing/Commissioning Transport Document (ID)	Transport Document ID
S19	Arrival notice Issued	Notification (general)?	Transport Document ID?; Location ID (for terminal)
S20	Transport document Surrendered	Receiving Document	Transport Document ID
S21	Consignment release message Issued	Notification (general)?	Transport Document ID; location ID (for terminal or terminal Gate) Equipment ID?;

8.3 Annex 3 – Matching with EPCIS and CBV

This matching is based on the Core Business Vocabulary 2.1 [CBV], which has introduced a few Biz Steps that are relevant for this comparison. This 2.1 version is currently in Community Review in the GS1 GSMP (Global Standards Maintenance Process). Official release is expected over the course of 2026. According to [EPCIS] (ISO/IEC 19987) an Event contains at least the following 4 aspects: "What, Where, When and Why".

- What - To which object or entity does this Event primarily relate (e.g. pallet, container, order, truck, wagon, shipment, consignment, document, etc.)?
- Where - At which location did the event take place (warehouse receipt door, terminal access, terminal berth, maritime port)?
- When - On what date and time did the event take place?
- Why - Why (in which business activity exactly) did the event take place (goods receipt, freight collection, transport document definitively agreed, etc.)?
- It may also include the "How" aspect. In what state (how) are or was the cargo being transported at the time of the event?

Wherever possible, EPCIS uses globally unique identification codes for objects and entities. This not only makes it possible to unambiguously determine the right type of object but also to unambiguously search for and access information about the specific object or entity based on the globally unique identifier. This idea of automated linking to additional data located elsewhere is also known as the "Linked Data" approach.

Therefore, to properly map the UN/CEFACT BRS Top 30 Catalogue entries to EPCIS event information exchanges, it is imperative to determine which identifiers exactly are involved in the specific occurrence (the event according to the definition in this document).

However, it is possible to create a matching table that indicates the appropriate elements from the EPCIS and CBV standards (particularly those related to the Why aspect) associating a type of EPCIS event with an entry in the Top 30 Catalogue.

Within the Why part of an EPCIS message, there are two main elements that enable unambiguous codes to be exchanged to indicate the business context.

- Business Step (Biz Step) element covering an activity such as arriving, departing, loading/unloading etcetera. The business step is always expressed as a so-called "ing-form" in the English language. All EPCIS events should include the biz step element.
The list of Biz Step codes is published in the CBV standard and on <https://ref.gs1.org/cbv/?show=codelists> together with all other CBV code lists.
- Disposition element covering the status resulting from the event that is the topic of the message. This is an optional element in an EPCIS event message.

The EPCIS standard supports 4 different kinds of events that serve different purposes. See Figure 3.

- Object Events covering e.g. object observed, added, deleted, loaded, unloaded etcetera. An Object Event captures information about an event pertaining to one or more physical or digital objects
 - Aggregation Events covering e.g., object packed or unpacked, loaded or unloaded on transport means or transport equipment, etcetera;
 - Transaction Events covering assets ordered on a specific order (x), placed on a Bill of Lading etcetera;
 - Transformation Events covering assets being irreversibly processed in production environments.

In transport environments only the first three types will be applicable. See also page 55 and onward in UN/CEFACT BRS Integrated Track and Trace [CEF_ITT] for how these event types may be applied in daily practice.

Figure 3 - EPCIS Overview

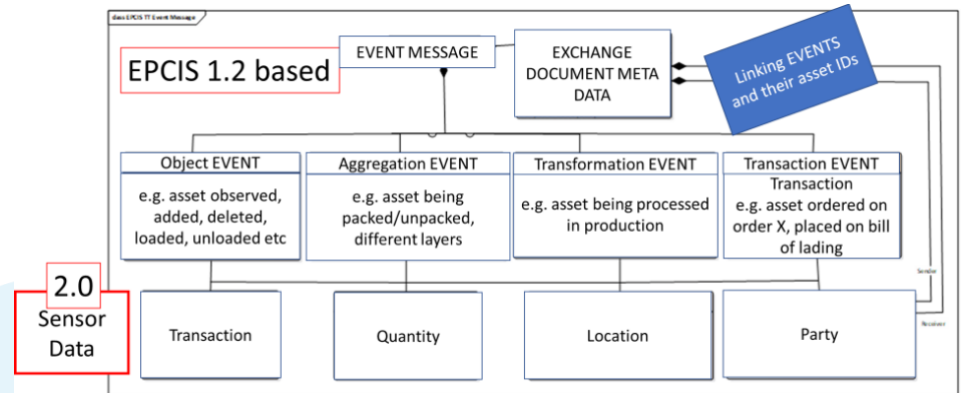


Table 4 below provides an indicative mapping between the Top 30 event types and the EPCIS and CBV standards.

Table 4 - Matches Top 30 with EPCIS and CBV

ID	Top 30 – Event types	Associated Status	EPCIS Event type	EPCIS Biz step	EPCIS Disposition
E1	Arrival at Port terminal (Laden Equipment)	Transport Means (with Laden Equipment) arrived	Object Event - OBSERVE	arriving	Not applicable
E2	Gate in of Laden Equipment at Port terminal	Laden Equipment accepted	Object Event - OBSERVE	Entering accepting /	Delivered (*)
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	Laden Equipment discharged	Object Event - OBSERVE; Aggregation Event – DELETE	unloading	Not Applicable
E4	Load of Laden Equipment onto Vessel at Port terminal	Laden Equipment loaded	Object Event - OBSERVE Aggregation Event – ADD	loading	Not Applicable
E5	Departure by Vessel at Port terminal	Vessel/Ship departed	Object Event - OBSERVE	departing	Not Applicable
E6	Arrival by Vessel at Port terminal	Vessel/Ship arrived	Object Event - OBSERVE	arriving	Not Applicable
E7	Discharge of Laden Equipment from Vessel at Port terminal	Laden Equipment discharged	Object Event - OBSERVE; Aggregation Event – DELETE	unloading	Not Applicable
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	Laden Equipment departed	Object Event - OBSERVE	exiting	Not Applicable
E9	Departure by Truck/Rail/Barge at Port terminal	Transport Means (with Laden Equipment) departed	Object Event - OBSERVE	departing	Not Applicable

All of the Top 30 entries in the table above are directly associated with an EPCIS OBSERVE event. We can also determine the applicable EPCIS biz step. In the case of E2, the industry has 2 options depending on the exact trigger point for the event: triggering at the physical entry would be associated with <entering>, but triggering at the formal acceptance would be associated with <accepting>.

Action Item: Clarify with industry which one or both will be needed.

For the loading and unloading (discharging) events, EPCIS practice expects that aggregation events are also being logged to record which objects have been loaded/unloaded onto/from a specified other object. In the table above laden equipment and transport means. The Top 30 does not cover the loading of the laden equipment on the truck, barge, or rail wagon neither outside the terminal nor inside the terminal. For each of those, an aggregation event (action ADD) is expected to be recorded within the EPCIS business practice.

(*) For most of the events, the EPCIS and CBV standards do not propose a specific disposition (or status) as the result of the event occurring. This is because the resulting status is often dependent on the wider business context. For example, for E2, the proposed disposition is <Delivered>. However, that will be accurate only if the appropriate Incoterms have been agreed in the Trade Transaction between the Seller and the Buyer.

In the exercise to match the UN/CEFACT BRS Top 30 statuses with EPCIS, we need the Transaction Event in addition to the observation and aggregation events used in the matching table above. The Transaction Event type describes the association or disassociation of physical or digital objects to one or more business transactions. The Transaction Event is used to declare in an unequivocal way that certain objects have been associated or disassociated with one or more business transactions as part of the event.

The Top 30 statuses contain quite a few entries related to documents that are associated with the transport contract between logistic service provider and logistic service buyer. The Transaction Event is especially suitable for creating and communicating these associations among the various parties involved in the execution of the transport contract. In Table 5 below it is indicated where such a Transaction Event would be expected in EPCIS business practice to associate a document (set) with the Transport Contract or other documents.

In EPCIS and CBV version 2.1, a new business step <notifying> has been introduced that appears to be very suitable for a significant subset of the event information exchanges related to the Top 30 entries. As mentioned above, version 2.1 is still to be officially released. The information provided in the final column of the table is therefore indicative.

(1) For example, for S4 the final column list three types of (document) objects that may be linked to the dangerous goods declaration: the cert-value to refer to the declaration, the bol-value to connect it to the bill of lading and the po-value to connect it to the Transport Contract.

Action Item: All of these business transaction values still need to be validated with industry and GS1.

Where necessary, additional values may be proposed to be included in the CBV code list for business transaction values.

(2) For some types of documents (e.g., Shipping Instructions), there are no obvious code values from the CBV business transaction code list.

(3) For some Top 30 entries, a specific event that would trigger the status can be identified. For instance, S17 <Shipping Instruction pending Approval> is the result of the absence of a confirmation or rejection event.

(4) For some Top 30 entries it is not clear whether an EPCIS event would be the trigger for the status entry.

For example, S5 <Appointment for pick-up made> is likely the result of a bilateral “appointment booking” that is then recorded in the system of the operator of the location from which the pick-up is to take place. Such an information exchange is typically not an exchange of an EPCIS message. The fact that a pick-up appointment has been made may be exchanged with other parties involved using an EPCIS event message (with biz step notifying).

Other examples are S13, S15, S16 dealing with confirmation or rejection of a document object. One would expect that the confirmation or rejection is done between the two parties engaged in putting those documents together. However, the failure or success may be of interest to other parties also and they may be notified using EPCIS message.

Table 5 - Matches Top 30 Statuses with EPCIS and CBV

ID	Top 30 – Statuses	Associated Event/s	EPCIS Biz step	EPCIS Event type; disposition	Business Transaction values (§ 7.3.3 CBV)
S1	Available for drop off of Laden Equipment at Port terminal	Notification (Availability)?	notifying	Object Event – OBSERVE; disposition = available	
S2	Selected for customs inspection	holding for customs	holding	Object Event – OBSERVE; disposition = held	
S3	Laden Equipment Released from Customs Inspection	releasing from customs hold	releasing	Object Event – OBSERVE; disposition = released	
S4	Dangerous Goods Declaration Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading;

ID	Top 30 – Statuses	Associated Event/s	EPCIS Biz step	EPCIS Event type; disposition	Business Transaction values (§ 7.3.3 CBV)
					po = Purchase Order ⁽¹⁾
S5	Appointment for pick up made (truck/train/barge)	Notification (general)?	Notifying ⁽⁴⁾	Object Event - OBSERVE	
S6	Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal	Notification (Availability)?	notifying	Object Event - OBSERVE; disposition = available	
S7	Inspection Certificate Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading; po = Purchase Order
S8	Certificate of Analysis Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading; po = Purchase Order
S9	Certificate of Origin Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading; po = Purchase Order
S10	Health Certificate Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading; po = Purchase Order
S11	Phytosanitary Certificate Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading;

ID	Top 30 – Statuses	Associated Event/s	EPCIS Biz step	EPCIS Event type; disposition	Business Transaction values (§ 7.3.3 CBV)
					po = Purchase Order
S12	Veterinary Certificate Received	Receiving Document	receiving	Object Event – OBSERVE; Transaction Event - ADD	cert = Certificate; bol = Bill of Lading; po = Purchase Order
S13	Booking Confirmed	Notification (general)? Confirmation (General)?	notifying Confirming? ⁽⁴⁾	Object Event - OBSERVE	
S14	Shipping instruction Received	Receiving Document	receiving	Object Event - OBSERVE	⁽²⁾ bol = Bill of Lading; po = Purchase Order
S15	Shipping instruction Approved	Notification (general)? Confirmation (General)?	notifying Confirming? ⁽⁴⁾	Object Event - OBSERVE	⁽²⁾ bol = Bill of Lading; po = Purchase Order
S16	Shipping instruction Rejected	Notification (general)? Rejection (General)?	notifying Rejecting? ⁽⁴⁾	Object Event - OBSERVE	po = Purchase Order
S17	Shipping instruction Pending approval	Not applicable ⁽³⁾ .	Not Applicable		
S18	Transport document Issued	Issuing/Commissioning Transport Document (ID)	commissioning	Object Event – OBSERVE; Transaction Event – ADD	bol = Bill of Lading
S19	Arrival notice Issued	Notification (general)?	arriving	Observation Event	bol = Bill of Lading
S20	Transport document Surrendered	Receiving Document	receiving	Observation Event	bol = Bill of Lading

ID	Top 30 – Statuses	Associated Event/s	EPCIS Biz step	EPCIS Event type; disposition	Business Transaction values (§ 7.3.3 CBV)
S21	Consignment release message Issued	Notification (Availability)?	releasing	Observation Event; disposition = available	bol = Bill of Lading

8.4 Annex 4 – Matching with ISO/AWI 25155

This work item AWI 25155 is managed by ISO TC 8/SC11/WG2 (Technical Committee 8, Sub-Committee 11, Work Group 2)

ISO TC 8 covers Ship and marine technology and the title for the deliverable of the work is “Track and trace events for vessels and cargo in maritime transport”.

This draft standard defines events and associated information elements that are used for tracking and tracing of all types of cargo in the maritime domain. This does not include passengers or crew. The operational scope covers the voyage of the ship, via the terminal, to gate-in or gate-out in the terminal. Gate-in and gate-out include transfers between the maritime terminal and hinterland modes of transport such as road vehicles, feeder ships, inland waterway barges or rail wagons.

- Cargo moves through ports in two main directions:
- Coming in from sea to be transported to destinations in the hinterland of the port.
- Coming in from the hinterland to be transported to overseas destinations on maritime ships.

The standard covers a set of events for each of these two directions.

Those numbered with M are linked with cargoes coming in from the sea; H-numbers are linked to cargoes coming from the hinterland:

Table 6 - ISO 25155 Event type descriptions

M1. Maritime ship tenders notice of readiness. - marks the end of the sea passage.	H1. Cargo arrives at the terminal (a.k.a. “Gate-In”) - In general, this event is triggered by the arrival of the vehicle carrying the cargo.
M2. Ship arrives at terminal berth	H2. Cargo offloaded from the vehicle (a.k.a. “accepted by the terminal”).
M3. Ship fast alongside berth	H3. Vehicle departed from the terminal.

M4. Cargo operations started (ship related)	H4. Cargo released for departure by competent authorities (including Customs)
M5. Individual transport unit offloaded from the ship.	H5. Cargo available for loading on maritime ship
M6. Cargo operations completed (ship related)	H6. Cargo operations started (related to the ship)
M7. Cargo released for onward transportation by competent authorities (including Customs)	H7. Individual transport unit loaded onto the ship
M8. Cargo available for collection	H8. Cargo operations completed (related to the ship)
M9. Vehicle to collect cargo arrived at terminal	H9. Ship departed from terminal berth
M10. Cargo loaded on vehicle for departure from terminal - The vehicle can be any kind of transport means or transport equipment used in any mode of transport to carry the cargo from the terminal to the hinterland.	
M11. Cargo departed from terminal (a.k.a. "Gate-Out") to hinterland destination -In general this would be derived from the event of the vehicle departing from the terminal.	

The ISO standard aims to track the physical cargo (at individual transport unit level) rather than transport related documents such as contracts, consignments or shipments. Clearly, there are links between those objects and entities as described in the UN/CEFACT BRS for Integrated Track and Trace [CEF_ITT].

Table 7 below provides an overview of the match between the Top 30 event types and the events and statuses included in the draft standard ISO/AWI 25155.

Table 7 - Matches Top 30 Event types with ISO/AWI 25155

ID	Top 30 – Event types	nr	Event Description	Status	Remarks
E1	Arrival at Port terminal (Laden Equipment)	H1	Arrival at Port Terminal (Transport Means)	Cargo arrives at the terminal a.k.a. "Gate-In"	The ISO draft standard appears to define the trigger for "Gate In" differently from the UN/CEFACT BRS.

ID	Top 30 – Event types	nr	Event Description	Status	Remarks
E2	Gate in of Laden Equipment at Port terminal	H1	Gate in of Laden Equipment at Port terminal	Cargo arrives at the terminal a.k.a. “Gate-In”	The ISO draft standard appears to define the trigger for “Gate In” differently from the UN/CEFACT BRS.
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	H2	Unloading cargo	Cargo offloaded from the vehicle	H2 and M5 both cover “unloading cargo”. The information (identifiers) that are part of the Event Exchange provide the exact and unambiguous context and type of event
E4	Load of Laden Equipment onto Vessel at Port terminal	H7	Loading cargo	Individual transport unit loaded onto the ship	As soon as the first item is loaded, this also triggers the STATUS <Cargo operations started (maritime ship related)>
E5	Departure by Vessel at Port terminal	H9	Last Line released	Ship departed from terminal berth	
E6	Arrival by Vessel at Port terminal	M2	First Line secured	Ship arrives at terminal berth	
E7	Discharge of Laden Equipment from Vessel at Port terminal	M5	Unloading cargo	Individual transport unit offloaded from the ship	H2 and M5 both cover “unloading cargo”. The information (identifiers) that are part of the Event Exchange provide the exact and unambiguous context and type of event
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	M11	Individual transport unit exits location	Cargo departed from terminal (a.k.a. “Gate-Out”) to hinterland destination	The ISO draft standard appears to define the trigger for “Gate Out” differently from the UN/CEFACT BRS.
E9	Departure by Truck/Rail/Barge at Port terminal	M11	Transport Means departs from location	Cargo departed from terminal (a.k.a. “Gate-Out”) to hinterland destination	The ISO draft standard appears to define the trigger for “Gate Out” differently from the UN/CEFACT BRS.

All of the Top 30 event types can easily be matched with an event and status defined in the draft ISO standard.

Action items: For the “Gate” events, the industry will need to decide which of the Top 30 events will trigger the corresponding ISO status.

Industry will also need to decide (or confirm) that the ISO events (H9 and M2) are also the trigger points for E5 and E6 respectively.

The remark for E4 highlights that an event for an individual transport units may also trigger a status change for a different but associated object (in this example the ship).

The Event Description column for both E3 and E7 is <unloading cargo>. The remarks highlight the ISO standard follows the EPCIS approach to keep the information exchanges “simple” and rely on accessing additional information using unambiguous identifiers in the exchange such that the current situation for an object can be determined correctly and unambiguously.

Related to the Top 30 statuses, there is currently a single match only.

S6 <Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal> matches with M8 <Cargo available for collection and onward carriage>.

This is due to the very different perspectives that the standards take on the activities in their scope. The UN/CEFACT BRS Top 30 has a strong focus on the administrative activities, whereas the ISO effort is highly focussed on what happens with the cargo. Those perspectives overlap for the Top 30 event types but they substantially diverge when it comes to the administrative activities.

Action Item: The ISO effort may include a few of the administrative Top 30 Catalogue entries in its deliverable because those may also fit well in the primary perspective of the ISO efforts.

Table 8 provides an overview of the statuses and events from the ISO 25155 standard that could **not** be matched with an entry in the UN/CEFACT BRS Top 30 Catalogue.

Most of the entries in the table are explained directly by the different perspectives of the two standards.

However, there are some items missing in the Top 30 Catalogue that one would expect to be in that catalogue.

M9 and H3 arrival and departure of vehicles collecting or delivering cargo from/to the port terminal should be in the Top 30 because the “mirror” events for them (E9 and E1) are included in the Top 30.

Table 8 - ISO AWI 25155 event types and statuses not in Top 30

ID	Event Description	Status	Remarks
M1	Maritime ship tenders notice of readiness	not defined	Important for charter contract provisions (clauses);
M3	Last line secured	Ship fast alongside berth	Important for ship services
M4	First individual transport unit (equipment) unloaded	Cargo operations started (maritime ship related)	As soon as the first item is unloaded, this also triggers the STATUS <Cargo operations started (maritime ship related)>
M6	Last individual transport unit (equipment) unloaded	Cargo operations completed (maritime ship related)	When the last item is unloaded, this also triggers the STATUS <Cargo operations completed (maritime ship related)>
M7	Receipt of "Customs Clearance" message	Cargo released for onward transportation by competent authorities (including Customs) and all other necessary administrative formalities have completed.	This onward transportation may occur under so-called "Customs bond"; Customs may provide release even before arrival of the cargo (pre-clearance).
M9	Arrival transport means	Vehicle to collect cargo arrived at terminal;	Arrival will generally require presentation of information related to the cargo/individual transport unit to be collected
M10	Loading equipment	Cargo loaded on vehicle for departure from terminal	
H3	Transport Means departs / exits from location (EMPTY)	Vehicle departed from the terminal	Important for the transport service provider who delivered the equipment to the terminal. (Dwell time / turn-around time). They may have been contracted by the BCO or his agent. Seems "unbalanced" to record the transport means arrival but not its departure.
H4	Receipt of "Customs Clearance" message	Cargo released for departure by competent authorities (including Customs)	

ID	Event Description	Status	Remarks
H5	Undefined	Cargo available for loading on maritime ship	The status is dependent on multiple events having occurred. The sequence of those events is NOT fixed. Therefore, the IT system of the terminal operator will need to trigger this when all necessary conditions have been met
H6	First individual transport unit (equipment) loaded	Cargo operations started (maritime ship related)	As soon as the first item is loaded, this also triggers the STATUS <Cargo operations started (maritime ship related)>
H8	Last individual transport unit (equipment) loaded	Cargo operations completed (maritime ship related)	When the last item is loaded, this also triggers the STATUS <Cargo operations completed (maritime ship related)>
H10	Ship departure from port	Ship departed from port; FAOP - Full Away on Passage;	

8.5 Annex 5 – Matching with CEN TS 18055-1

The CEN Technical Committee 331 (Postal Services) developed Technical Specification (TS) 18055-1 “Harmonized track and trace events – Part 1: Forward flow” as the first of a set of two sibling Technical Specifications. The second part “Return flow” has been completed and will be published 2026.

The starting point for TS 18055 is the Consumer buying the goods from the E-Commerce seller. Therefore, in this standard, when describing the individual events related to the progress of the execution of the delivery of an E-Commerce item, the language used is the language of the Consumer. This in contrast to most other technical specifications for events that take the perspective of the Logistic Service Providers (LSP) and therefore assume a level of knowledge about transport and logistics operations that is simply not there with Consumers. Furthermore, TS 18055 aims to describe only the events that deliver the most useful information to the recipient or the E-Commerce seller.

TS 18055-1 contains a list of nine (9) track and trace events for LSP’s to share with the recipients of E-Commerce items to update them regarding the progress of delivery execution.

Table 9 - CEN TS 18055-1 Event type descriptions

Event	Description	C/M	Where recorded
1	Item in hands of first LSP	M	at first mile operator
2	Item is on transport to destination country	M	international transport
3	Item arrived in country of destination	M	at the last mile operator
4	Item held by customs	C	at customs
5	Item released by customs	C	at the last mile operator
6	Item in hands of deliverer	M	domestic transport
7	Item is at collection point	C	at a pickup location
8	Unsuccessful delivery attempt	M	at the last mile operator
9a	Home delivery success	M	in the hand of the final recipient
9b	Item picked up by recipient	M	in the hand of the final recipient

Some events are mandatory (M), whereas others are conditional (C).

The intended recipient may take possession of the item either by picking it up at an agreed place or at their home. This is why the final two events are mutually exclusive and therefore numbered as 9a and 9b.

Clearly, the scope of the CEN TS is much wider than what is covered in the UN/CEFACT BRS Top 30 Catalogue. The Top 30 Catalogue, on the other hand, has been compiled very much from the perspective of the LSP and for a smaller scope of the goods movement process.

Table 10 below provides an overview of the matching between the Top 30 event types and the CEN events.

There is a pretty good match here, considering the substantial differences in scope and perspective of the two standards. For approximately half of the Top 30 event types a match can be made with the CEN TS.

Table 10 - Matches Top 30 event types with CEN TS 18055-1

ID	Top 30 – Event types	Associated Status	NR	Event Description	Status	Remarks
E1	Arrival at Port terminal (Laden Equipment)	Transport Means (with Laden Equipment) arrived				Not applicable in most cases. Applies only in case maritime carrier = first LSP; if so then Event nr 1 applies
E2	Gate in of Laden Equipment at Port terminal	Laden Equipment accepted				Not included in CEN standards BY DESIGN. Focus on “Consumer” perspective
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	Laden Equipment discharged				
E4	Load of Laden Equipment onto Vessel at Port terminal	Laden Equipment loaded				
E5	Departure by Vessel at Port terminal	Vessel/Ship departed	2	Transport Means departure from origin country	Item on transport to destination country	In e-Commerce generally Air cargo, but maritime use also
E6	Arrival by Vessel at Port terminal	Vessel/Ship arrived	3	Transport Means arrival in destination country	Item arrived in destination country	It is expected that the responsible LSP “translates” this arrival of the transport into events for item arrival ⁽¹⁾
E7	Discharge of Laden Equipment from Vessel at Port terminal	Laden Equipment discharged				Not included in CEN standards BY DESIGN. Focus on “Consumer” perspective
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	Laden Equipment departed	6	Handover to deliverer (onward carriage LSP)	Item in hands of deliverer	

ID	Top 30 – Event types	Associated Status	NR	Event Description	Status	Remarks
E9	Departure by Truck/Rail/Barge at Port terminal	Transport Means (with Laden Equipment) departed	6	Handover to deliverer (on-ward carriage LSP)	Item in hands of deliverer	Intended to convey the item is on the “final stretch” before it becomes available to the intended recipient ⁽²⁾

⁽¹⁾ When using EPCIS, all parties involved can check the relevant aggregation events and “translate” the event for the transport means (and also the container-events) to the item-events for themselves.

⁽²⁾ CEN allows some “freedom” for LSP to map their internal events to the BCO/Consumer facing Events. Either of the UN/CEFACT events (E8/E9) would be a good basis for the mapping

When looking at the Top 30 statuses, only two matches can be made.

- S2 “Selected for customs inspection” matches with CEN event 4 “Item held by Customs”.
- S3 “Laden Equipment Released from Customs Inspection” matches with CEN event 5 “Item released by Customs”.

Table 11 below shows which of the CEN TS events cannot be matched with the Event Descriptions in the UN/CEFACT BRS top 30 Catalogue.

Table 11 - CEN TS 18055-1 event types not in Top 30 Catalogue

NR	Event Description	Status	Remarks
1	Handover to first LSP	Item in hands of first LSP	Generally, occurs at the start of the pre-carriage stage ⁽¹⁾
7	Delivery to Collection Point	Item is at collection point	Intended Recipient is expected to collect the item from this location
8	Unsuccessful delivery attempt (at recipient’s home)	undefined	This event may result in a failure of the entire Delivery Process; or attempts will be made for the item to be delivered yet. ⁽²⁾
9a	Successful delivery (at home)	(Home) delivery success	The Delivery Process ends successfully

NR	Event Description	Status	Remarks
9b	Successful delivery (at collection point)	Item picked up by recipient	The Delivery Process ends successfully

(1) Pre-carriage NOT fully covered in UN/CEFACT BRS; only the final part of it namely the delivery to final node in origin country.

(2) The CEN standard for RETURN flows covers an event to signal to all parties involved that the Delivery Process was NOT successful. However, that TS is not yet published (but will be soon). There are specific action items emerging from marching these two standards.

8.6 Annex 6 – Matching with DYNAPORT and MISSION

The DYNAPORT and MISSION projects [DYN] are two sibling projects funded by the European Commission. Both projects aim to improve the performance of maritime transportation and port operations as well as to improve the connection with hinterland transport operations.

The projects approach those challenges from different perspectives but there is a substantial overlap in the scope of the goods movement process that they cover. However, both projects have a strong focus on the ships' perspective.

Both projects have a strong focus on Port Call Optimization (PCO) and Just-in-Time (JIT) Arrival process development.

To improve the coordination among the parties involved and thus enable a massive improvement in these processes, these projects have identified events that need to be exchanged among groups of parties involved. Their focus is (entirely) on actual significant occurrences (true events according to the definition in this document) that need to be exchanged among the parties involved in the PCO and JIT Arrival processes.

Both projects are basing their work on the efforts of the International Taskforce Port Call Optimization (ITPCO) and are also involved in the Port Call Optimization Network (PCO Network). The combined efforts those organisations have resulted in the Port Call Optimization Guide (PCO Guide). This PCO Guide will be presented to the IMO in February 2026.

The DYNAPORT and MISSION projects as well as the on-going ISO efforts (e.g., AWI 25155) also base their work on the PCO Guide.

Both projects are on-going and continue running up to and into 2027.

The matching exercise is therefore indicative. The events and statuses that the projects will (need to) use to deliver the benefits they promised may differ (slightly) from those mentioned in this comparison. However, the projects will use the same events as defined in ISO AWI 25155 where feasible (see also Table 6 - ISO 25155 Event type descriptions). The projects (will) also define events and statuses not covered in that ISO standard.

In the matching tables below, the numbering from ISO 25155 for the events is used where available; where not available, numbering starting with “D “is used.

Table 12 below shows the matches between the Top 30 events with the DYNAPORT and MISSION projects.

There are fewer matches here because the projects’ perspectives are mostly if not exclusively related to the ship and interactions with the ship. Therefore, several of the events from ISO AWI 25155 are not used within the two projects (currently).

Because of the ship perspective (rather than cargo or consignment perspectives) it is interesting to note that event E6 (arrival at port terminal) may be repeated for the same ship as part of the same port call.

Table 12 - Matches Top 30 event types with DYNAPORT & MISSION

ID	Top 30 – Event types	Associated Status	NR	Description	Status
E1	Arrival at Port terminal (Laden Equipment)	Transport Means (with Laden Equipment) arrived		Not Applicable	
E2	Gate in of Laden Equipment at Port terminal	Laden Equipment accepted		Not Applicable	
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	Laden Equipment discharged		Not Applicable	
E4	Load of Laden Equipment onto Vessel at Port terminal	Laden Equipment loaded	H7		M4 <Commence Cargo Service> and M5 <Complete Cargo Service> will be triggered by the first and last individual transport unit loaded/unloaded
E5	Departure by Vessel at Port terminal	Vessel/Ship departed	H9		

ID	Top 30 – Event types	Associated Status	NR	Description	Status
E6	Arrival by Vessel at Port terminal	Vessel/Ship arrived	M3		May be repeated in case ship calls on multiple terminals or berths
E7	Discharge of Laden Equipment from Vessel at Port terminal	Laden Equipment discharged	M4		M4 <Commence Cargo Service> and M6 <Complete Cargo Service> will be triggered by the first and last individual transport unit loaded/unloaded
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	Laden Equipment departed		Not Applicable	
E9	Departure by Truck/Rail/Barge at Port terminal	Transport Means (with Laden Equipment) departed		Not Applicable	

There are no matches between the DYNAPORT and MISSION events and the TOP 30 statuses.

Table 13 provides an overview of the event description used by the DYNAPORT and MISSION projects that cannot be matched with the entries in the UN/CEFACT BRS Top 30 Catalogue.

Some of the missing items such as commencement and completion of Nautical, Ship, or Cargo Services may also be of significant interest for the stakeholder groups that have been involved in the development of the UN/CEFACT BRS Top 30.

Action item: Engage with the stakeholders to investigate the need and appetite to align the efforts of the DYNAPORT and MISSION projects and the current Top 30 Catalogue more.

Table 13 - DYNAPORT & MISSION event types not in Top 30

NR	Description	Status and Remarks	Party/Parties
D1	Port Call Announcement	Port Call Planning starts. Will yield PTA Pilot Boarding Place and PTA berth. May be repeated in case ship's voyage deviates from previous communications	Ship to Port

NR	Description	Status and Remarks	Party/Parties
D2	Arrival at Port Area		Ship
D3	Arrival at Anchorage		Ship
D4	Departure from Anchorage		Ship
D5	Commence (start) Nautical Service		Service Provider; Ship
D6	Complete Nautical Service		Service Provider; Ship
M3	Arrival at terminal / berth	May be repeated in case ship calls on multiple terminals or berths	Ship
M4 / H6	Commence (start) Cargo Service	First individual transport unit (equipment) unloaded/loaded	Terminal Operator; Ship
M6 / H8	Complete Cargo Service	Last individual transport unit (equipment) unloaded/loaded	Terminal Operator; Ship
D7	Commence (start) Ship Service		Service Provider; Ship
D8	Complete Ship Service		Service Provider; Ship
H9	Departure from terminal / berth	May be repeated in case ship calls on multiple terminals or berths	Ship
D9	Departure from Port area		Ship
H10	Departure from Port	Ship departed from port; FAOP - Full Away on Passage;	Ship
M1	Send Notice of Readiness		Ship to Port
D10	Announce Departure (from Port?)	A ship may call upon multiple berths / terminals in a single visit. It may move to an anchorage in between calls to different terminals/berths.	Ship to Port

8.7 Annex 7 – Matching with ASTM standards

The standards development organisation ASTM International (Advancing Standards Transforming Markets) through its F49 committee for “Digital Information in the Supply Chain” has been developing a number of standards that are relevant in the context of this technical report.

The first is the work on the “Recommended Practice for Container Availability” that will enable seamless communication of container availability across global supply chains. The ASTM standard focuses on container availability for “next transport movement”.

The ASTM Container Availability describes 14 steps in the container journey where availability of the container is an important factor for transport execution (and planning). This journey covers the container life-cycle both laden and empty. All statuses in this ASTM document related to the container (transport equipment) only.

Table 14 - ASTM Container Availability Statuses

NR	Status	Remarks
1	Empty container is available at source	This will generally be at a container depot
2	Empty container is available at Despatch location (ready for stuffing/loading)	
3	Stuffed container ready for departure from Despatch location	First Transport movement
4	Stuffed Container arrived/available at first network node	first transport movement completed
5	Stuffed Container available/ready for next transport movement	There may be any number of transport movements (on any mode of transport) before the cargo reaches the Export terminal
6	Stuffed Container arrived at node prior to border crossing for export	Pre-carriage completed
7	Stuffed Container ready for departure from export border-crossing node	Main carriage ready to start; there may still be significant time before Main carriage actually starts
8	Stuffed Container ready for unloading at border-crossing node for import	

NR	Status	Remarks
9	Stuffed Container ready/available for onward carriage	The departure event signals the completion of Main carriage and start of onward carriage
10	Stuffed Container arrived/available at first node in onward carriage	
11	Stuffed Container available/ready for next transport movement	
12	Stuffed Container arrived/available at Buyer's facility	This will generally be at a container depot
13	Empty container ready/available for transport to next destination	
14	Empty container arrived at the next destination	activities may be required to make it ready for next use

The UN/CEFACT BRS covers laden/stuffed containers only. Therefore, many of the ASTM statuses are not applicable in the UN/CEFACT BRS context

The UN/CEFACT BRS also describes some events that are related to the determination of the container availability. There are some matches with the UN/CEFACT BRS (indicated below).

Table 15 below provides an overview of where the ASTM Container Availability status can be matched with the event types in the UN/CEFACT BRS Top 30 Catalogue.

Table 15 – Matches Top 30 event types with ASTM Container Availability

ID	Top 30 – Event types	Associated Status	NR	Remarks	ASTM Status
E1	Arrival at Port terminal (Laden Equipment)	Transport Means (with Laden Equipment) arrived		Not Applicable; Event is related to transport means rather than the (laden) equipment.	

ID	Top 30 – Event types	Associated Status	NR	Remarks	ASTM Status
E2	Gate in of Laden Equipment at Port terminal	Laden Equipment accepted	6	The UN/CEFACT Event would trigger the ASTM status	Stuffed Container arrived at node prior to border crossing for export
E3	Discharge of Laden Equipment from Truck/Rail/Barge at Port terminal	Laden Equipment discharged		Not covered in ASTM standard	
E4	Load of Laden Equipment onto Vessel at Port terminal	Laden Equipment loaded	7	The ASTM status “Stuffed Container ready for departure from export border-crossing node” (7) is a pre-requisite for this Loading Event.	There may be several events that have to have taken place before the ASTM status can be triggered in daily practice. The ASTM standard does not describe (all of) those in detail
E5	Departure by Vessel at Port terminal	Vessel/Ship departed		Not Applicable; Event is related to transport means rather than the (laden) equipment.	
E6	Arrival by Vessel at Port terminal	Vessel/Ship arrived		Not Applicable; Event is related to transport means rather than the (laden) equipment.	
E7	Discharge of Laden Equipment from Vessel at Port terminal	Laden Equipment discharged	8		Stuffed Container ready for unloading at border-crossing node for import (8) is a pre-requisite for this Unloading Event
E8	Gate out of Laden Equipment by Truck/Rail/Barge at Port terminal	Laden Equipment departed			Stuffed Container ready/available for onward carriage (9) is a pre-requisite for this Exiting Event
E9	Departure by Truck/Rail/Barge at Port terminal	Transport Means (with Laden Equipment) departed		Not Applicable; Event is related to transport means rather than the (laden) equipment.	

Table 16 below provides an overview of the matches between the UN/CEFACT BRS Top 30 statuses and the ASTM Container availability statuses. The matches may be direct (e.g., S6 and ASTM item 9) but they may be somewhat indirect. In the latter case, the match (or link) is explained across the ASTM Description and Status columns.

ASTM Container Availability standard does NOT describe all events related to (events signalling) completion of related administrative formalities. Nevertheless, the availability of the container may be dependent on several events mentioned in the table below, especially those related to documents that need to be received (such as S7 – S12).

The Top 30 Catalogue apparently covers a significant number of the events and statuses related to the administrative procedures that need to be completed before a container can be considered available for onward carriage to its destination in the hinterland.

Action item: Engage with industry to clarify the exact relationships between the administrative Top 30 Catalogue entries and the ASTM Container Availability statuses.

Table 16 - Matches Top 30 Statuses with ASTM Container Availability

ID	Top 30 – Statuses	Associated Event/s	NR	ASTM Description	ASTM Status
S1	Available for drop off of Laden Equipment at Port terminal	Notification		ASTM expects an Appointment for drop-off of the stuffed container will be made	Before a container may be collected from the node prior to the terminal it must first achieve both the ASTM status <Stuffed Container available/ready for next transport movement> (5) in that node AND the UN/CEFACT status S1 <Terminal available for drop-off>
S2	Selected for customs inspection	holding for customs		This is mentioned as relevant for determination of Container Availability	Stuffed Container ready/available for onward carriage (9)
S3	Laden Equipment Released from Customs Inspection	releasing from customs hold		This is mentioned as relevant for determination of Container Availability	Stuffed Container ready/available for onward carriage (9)

ID	Top 30 – Statuses	Associated Event/s	NR	ASTM Description	ASTM Status
S4	Dangerous Goods Declaration Received	Receiving Document			Stuffed Container ready/available for onward carriage (9)
S5	Appointment for pick up made (truck/train/barge)	Notification		Appointment Event is expected to occur related to step 9	
S6	Available for Pickup of Laden Equipment by Truck/Rail/Barge at Port terminal	Notification	9		Stuffed Container ready/available for onward carriage (9)
S7	Inspection Certificate Received	Receiving Document		Event is related to Goods/Consignment rather than the (laden) equipment.	However, these documents may be needed before a container can be considered available in the context of the ASTM standard. Stuffed Container ready/available for onward carriage (9)
S8	Certificate of Analysis Received	Receiving Document			
S9	Certificate of Origin Received	Receiving Document			
S10	Health Certificate Received	Receiving Document			
S11	Phytosanitary Certificate Received	Receiving Document			
S12	Veterinary Certificate Received	Receiving Document			
S13	Booking Confirmed	Notification (general)? Confirmation (General)?		ASTM takes <Booking Confirmation> information as first indication of <Container Available at source> (1).	Empty container is available at source (1)

ID	Top 30 – Statuses	Associated Event/s	NR	ASTM Description	ASTM Status
				“Container Release” message is taken as final confirmation of that.	
S14	Shipping instruction Received	Receiving Document		Event is related to Goods/Consignment rather than the (laden) equipment.	There appears to be no logical link between the Top 30 statuses and ASTM statuses.
S15	Shipping instruction Approved	Notification (general)? Confirmation (General)?			
S16	Shipping instruction Rejected	Notification (general)? Rejection (General)?			
S17	Shipping instruction Pending approval	Not applicable.			
S18	Transport document Issued	Issuing/Commissioning Transport Document (ID)			
S19	Arrival notice Issued;	Notification		Event is related to Goods/Consignment rather than the (laden) equipment.	There appears to be no logical link between the Top 30 status and ASTM status
S20	Transport document Surrendered	Receiving Document		This may be required as part of the preparations for actual onward transportation but after the signal that the container is ready for onward carriage.	Stuffed Container ready/available for onward carriage (9)
S21	Consignment release message Issued	Notification		ASTM standard would expect this happens before status (9) is triggered	Stuffed Container ready/available for onward carriage (9)

The second relevant effort is the work on the “Goods Movement Process Codes” (GMP codes)

These are associated with what ASTM calls Transport Units (aka Loads). The GMP codes are intended to unambiguously indicate what the current status for the Load is. The concept of Load is completely agnostic of Mode of Transport or Type of Goods/Cargo.

In effect, these GMP codes can be linked to the “Booking Journey”.

For now, there is a very limited set of ASTM GMP codes covering high level (major) statuses. However, the plan is to develop a larger set to enable a more granular view of the progress of a Load through the Booking Journey. See Table 17 below

Table 17 - ASTM Goods Movement Process codes

NR	Description	Status
200	Transport need shared with one or multiple Logistic Service Providers (LSP)	POSTED
300	At least one qualified LSP responded	PRE-BOOKED
400	LSC (Logistic Service Client) and LSP entered into legally binding commitment	BOOKED
500	Cargo departed from the origin (DESPATCH) location	EN ROUTE
600	Not Applicable	NOT USED YET
700	Cargo arrived at the destination location with custody being transitioned from the LSP to the intended recipient	DELIVERED
800	this status that is the result of the carrier or the service provider providing the data and information for subsequent processes of matching and payment	INVOICED
900	the status after the total closing off of the administrative processing of the transport contract	ARCHIVED

All of the Top 30 event types occur while the load (transport contract) has the GMP code <500> “EN ROUTE”.

Looking at the Top 30 statuses, the majority of them would occur while the status of the load is <500> “EN ROUTE” also.

The other ones appear to occur when the load is still has the GMP code <400> “BOOKED”.

The Top 30 entry S13 marks the transition of the load from GMP code <300> “PRE-BOOKED” to <400>.

There are no action items for the moment related to alignment of the ASTM GMP codes and the UN/CEFACT BRS Top 30 Catalogue.