

# ECTA-CEFIC GUIDELINES FOR STANDARDIZED CODING OF TRANSPORT EVENTS

## ECTA CODES

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## DISCLAIMER

This document is intended for information only and sets out the elements of data structure and standard coding for the reporting of transport events. The information, specifications, methods and recommendations contained in these guidelines are provided in good faith and are believed to be accurate and reliable, but may well be incomplete and/or not applicable to all conditions or situations that may exist or occur.

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Wherever the Guidelines refer to a specific reporting system, it is understood that parties may, even if this is not explicitly mentioned, also choose to rely on equivalent systems or to set up and to monitor transport events in their own way. Nothing in the Guidelines shall be construed as restricting the parties' ability to adopt another system or as a limitation to the quality and variety of services offered.

The Guidelines do not contain any restrictions on pricing or terms and conditions. No responsibility will be assumed by the participating associations, Cefic and ECTA, in relation to the information contained in these guidelines.

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# 1 | INTRODUCTION

Many companies in the chemical industry are measuring the transport performance of their Logistic Service Providers (LSP's) through data collection. LSP's also measure their internal performance.

For the greater part of this data collection, the chemical industry relies on input from their carriers and expects this reporting to be done between them on the basis of their contractual agreements and bilateral systems. As a consequence, carriers serving several chemical companies are facing different reporting systems for the same transport events that occur.

The reporting covers the transport orders which are deviating in their execution from the customer's requirements. The shipper wishes to be informed about these transport events and backgrounds.

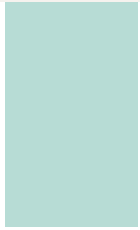
The data collection of such transport events is then used to analyse the carrier's performance and provide information which allows improvement via collaborative efforts between the shipper and the carrier.

A working party under the joint umbrella of Cefic and ECTA elaborated in 2002 a "Guideline on Standardized delivery performance measurement". A matrix with reporting codes, called "ECTA codes" was introduced and recommendations on data collection were formulated.

In 2007 a revision of the 2002 guideline was initiated in order to improve the precision of the reporting, to clarify interpretation of the standard codes and to include some additional options reflecting intermodality in transports and IT connectivity between haulier and shipper.

This document replaces the ECTA-Cefic Guideline of 2002 and proposes the application of standard coding and data structure for reporting of transport events in chemical transports. This does not restrict the freedom of individual companies to maintain or create their own reporting systems.





## 2 | OBJECTIVES

The main objective of these guidelines is to introduce reporting of events, which have occurred during the execution of a transport order, by using ECTA codes so as to enable a standardized event coding. This should lead to a system which can be used by a wide range of companies.

### Advantages of using ECTA codes:

- Provides a common base for mutual understanding
- Simplifies reporting systems for the same transport events
- Optimizes time and effort spent on collection, transmission and processing of data
- Allows to identify trends
- Allows to calculate frequencies of specific events
- Increases reliability and accuracy of information
- Increases the opportunity for automatic collection and exchange of information.
- Enables the identification of areas of improvement and weaknesses and provides a platform for continuous improvement.



## 3 | SCOPE OF THE STANDARD

There are three types of events related to a transport order, which will trigger communication between carrier and shipper:

- **Operational events**

Any deviation in the requirements related to one specific order in a specific stage of execution. Most of these events are communicated by the driver or staff members in the carrier's planning department who will register the event in the system. The information is passed to the shipper's system and used by the shipper's logistics department.

- **Complaints**

The shipper's customers report a failure to the shipper's logistics department. This will trigger a joint Root Cause Investigation that will allow the shipper to respond to his customer on the complaint.

- **Safety Incidents**

A safety incident leads to a further investigation under the supervision of the shipper's SHE department.

For reporting of operational events, a structured string of codes as determined in these guidelines is sufficient. The event codes need to be easy to understand and straightforward. They will be used by planners in the transactional system and shouldn't take long to fill in. It is the registration of an occurrence, with a simple indication of an "apparent reason" for the reported event.

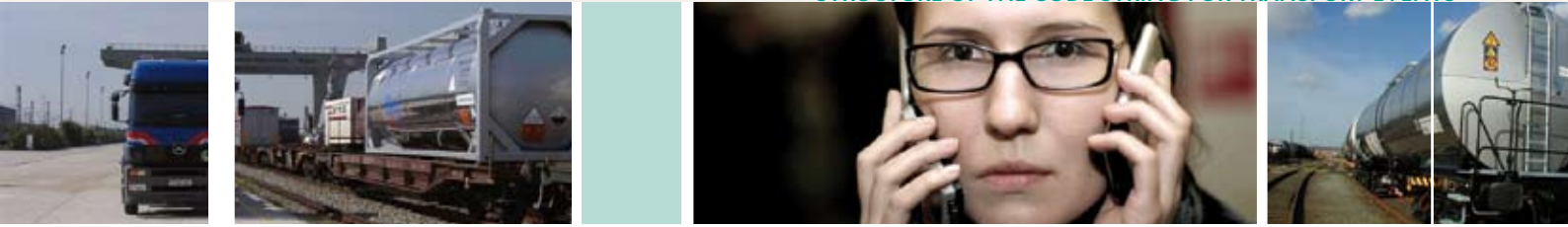
For customer complaints it is likely that additional specific information will be required. The reporting system allows for a communication based on a customer complaint, which can effectively be registered at a later date than the fulfilment of the order. It is indeed possible that customer complaints are not immediately registered by the carrier since this information may reach him only at a later stage or via his shipper.

Out of the scope of this guideline is further investigation (e.g. through root cause analysis) of serious complaints and safety incidents.

In case multiple events occur with one single shipment, this will result in several strings of information (one string of information per event).

### The reporting is by exception:

It is only to be used for transport orders with non conformance events. The apparent reason for the event should be reported. For instance: a late delivery due to traffic congestion.



Shippers operating integrated system-to-system connections to their main hauliers may wish to evolve the reporting standards into a full reporting of transport orders. Since system interconnectivity is in most of these cases present, the event reporting is fully automated between the main haulier and the shipper. In such an IT environment, a full reporting even on the vast majority of transport orders which were successfully executed without any transport event becomes possible due to this automation level.

However when manual entry is required by the carriers directly into the shippers system (e.g. in an internet web interface) the reporting of events as a reporting by exception is highly recommended. Full reporting would in such cases require an excessive administrative and non productive effort from the carriers. These Guidelines are based on the general principle that the absence of reporting means there are no transport events to report.

## 4 | STRUCTURE OF THE CODE STRING FOR TRANSPORT EVENTS

The event is transmitted in a code string that describes information related to: what, under whose control, which transport mode, what type of order, when and why (=the apparent reason).

The structure of the code string allows quantifying information for data mining according to [code categories](#).

The following code categories have been defined:

- What is the event linked to?
- Under whose control did it happen?
- Which mode of transport was used?
- Was it a normal order or a rush order?
- When did the event occur?
- Is there a customer complaint?
- Why did it occur? (apparent reason of the event)

See also: *Annex 1 Matrix of the code categories*

For proper utilisation of the system, the use of the codes as described and as numbered in the matrix is required. Each company can adapt their entry system to suit their needs, e.g. entry of information in a different order, but the IT code string is standardized.



## 5 | DESCRIPTION OF THE CODE CATEGORIES

### 5.1 | What is the event linked to?

This code category defines the type of event that took place. It describes the deviation from the customer's requirements.

This category is coded as follows:

- Date & Time (code = DT)
- Equipment (code = EQ)
- Product (code = PR)
- Documentation/order process (code = DO)
- SHE incident (code = SH)

#### 1. DATE & TIME (CODE DT)

With this code category, delays and rescheduling or changes regarding date and time of the loading or delivery can be reported.

**Examples of events leading to reporting under this code:** the vehicle arrived late at the loading point or at the delivery point due to traffic congestion; the surveyor was not present on arrival; strong winds prevented discharge at agreed time; delay occurred at the previous unloading site.

#### 2. EQUIPMENT (CODE EQ)

The event reported is linked to unsuitable or unfit equipment either from the shipper, the final customer or the haulier or his transport subcontractors. Most of the events reported under equipment are likely to be equipment breakdowns or equipment not meeting specifications.

**Examples of events leading to reporting under this code:** the carrier did not bring the specified type of couplings; the tank wagon was refused because of non authorised previous cargo; the unloading equipment was unsafe; the seal was compromised; the unloading tank was not big enough to accept the delivery; breakdown of the fork lift.

#### 3. PRODUCT (CODE PR)

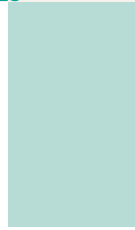
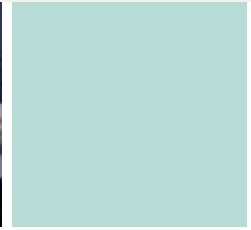
The event reported is related to the quality or condition of the product itself.

**Examples of events leading to reporting under this code:** the cargo was not presented at correct temperature; the delivered packaging was damaged; part of the load was stolen.

#### 4. DOCUMENTATION/ ORDER PROCESS (CODE DO)

The event reported is related to the transport documents or to customs documents or to the order process. Reporting such events can generate improvements to the documentation process and will prevent these events in the future.

**Examples of events leading to reporting under this code:** the customs documents went missing; incorrect documents were issued; EDI message failed.



### 5. SHE INCIDENT (CODE SH)

All Safety Health Environment (SHE) related incidents are reported within this category. The carrier reports the incident that is reported to him. Customer complaints can occur at a later time and will require a report to be issued by the carrier at a later point in time.

**Examples of events leading to reporting under this code:** PPE was missing; at delivery point a near miss took place; an operator at the unloading point drove with a forklift by accident against the driver; wrong behaviour of driver or of the operator.

## 5.2 | Under whose control did it happen?

This category describes who is in control when the reported event happened: either directly or through his appointed third parties (examples: surveyors, rail operators, shipping lines). Since the reporting category by itself does not establish legal or contractual responsibility, **the report can provide only information about which party was estimated to be in control of the situation when the transport event occurred.**

This code category breaks down as follows:

- Haulier/ carrier (code H)
- Shipper (code S)
- Final customer (code C)
- Beyond anyone (code X)

### 1. HAULIER/ CARRIER (CODE H)

Under the haulier's control are the actions of his personnel interfering in the transport process, the performance of his equipment and the services delivered by his subcontractors and also of all the intermodal connections he used in the transport.

**Examples of events leading to reporting under this code:** the driver misbehaved at the loading site; the vehicle broke down on the way to the delivery point.

### 2. SHIPPER (CODE S)

The shipper controls for instance the order and the documentation process, supervises loading site activities and his personnel interfering in the transport order.

**Examples of events leading to reporting under this code:** the instructions given for the equipment were not adequate; the documents were not correct.

### 3. FINAL CUSTOMER (CODE C)

The final customer describes the party that is in control of the delivery point activities and the personnel assigned to the unloading. This can be at the customer's site but also at the assigned terminal or warehouse where delivery takes place.

**Examples of events leading to reporting under this code:** the operator of the unloading site is not present; there is an unsafe condition at the unloading site; the unloading cannot take place at agreed times due to congestion at unloading bay.



#### 4. BEYOND ANYONE'S CONTROL (CODE X)

This category describes conditions where control possibilities from the involved parties are totally eliminated by external events out of their control and only when these happen without warning and the involved parties exerting control (carriers, shippers, final customers) are not reasonably able to develop alternate plans.

**Examples of events leading to reporting under this code:** extreme sudden weather conditions prevented transport; unannounced strikes occurred on the way to the delivery point; unexpected excessive delays at customs; traffic accident not caused by the driver which blocks the road completely; suicide happened on the rail corridor where goods are transported; earthquake destroys unloading site.

### 5.3 | Mode of transport

The code category "mode of transport" is specified further as "road" and "intermodal". Under "intermodal" is reported all events, including the road legs of an intermodal journey. This allows the hauliers to report accurately the information on non conformance events per selected transport mode.

### 5.4 | Order type

The code category "order type" is specified further as normal order and rush order. The normal transport order is given to the carrier within the contractual order lead-time that has been agreed with the shipper and his customer. A rush order is a transport order that is not within the contractual agreed order lead-time. Circumstances of the order acceptance are different and the risk for events is higher, however expected customer's requirements remain the same.

### 5.5 | When did the event occur?

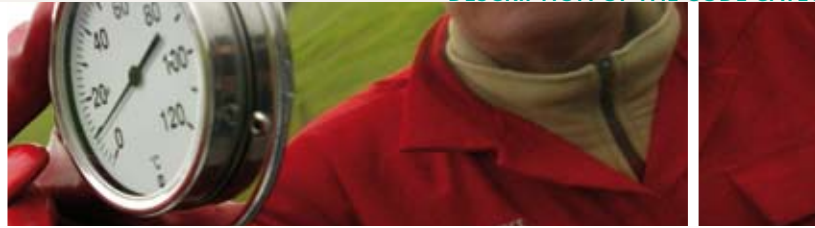
Each transport has a time line where the event can be situated. This code category is further specified and broken down as follows:

- Before loading (code B)
- During loading (code L)
- During transit (code T)
- During delivery (code D)
- After delivery (code A)

#### 1. BEFORE LOADING (CODE B)

Before loading covers the events in the transport order generation and order administration. Before loading will also cover these events from the receipt of the transport order by the carrier until he arrives at the site entrance of the loading point.

**Examples of events leading to reporting under this code:** a transport order was issued and was cancelled. An incorrect order number was communicated to the carrier. An EDI transmission got lost. The transport order contained wrong date, wrong quantities, etc. The carrier incurred a delay before arriving at the loading point due to congestion at the cleaning station or in traffic.



### 2. DURING LOADING (CODE L)

During loading covers the events that happen between arrival of the carrier to pick up the goods at the loading point and the moment he leaves the loading site and is reported under code L.

**Examples of events leading to reporting under this code:** the driver did not have his required PPE with him; equipment was refused as not fit for purpose; a spill happened.

### 3. DURING TRANSIT (CODE T)

During transit covers the events that occur after the goods have left the loading point and before they reach the place of discharge as well as between two (un)loading points and are reported under code T.

**Examples of events leading to reporting under this code:** a delay occurred because there was traffic congestion; a problem occurred at customs; the truck broke down on the road.

### 4. DURING DELIVERY (CODE D)

During delivery covers the events occurring between the arrival by the carrier at the unloading premises and his departure from the premises after discharge and are recorded under code D.

**Examples of events leading to reporting under this code:** seal was compromised; an incident such as a crossover took place; driver fell from truck.

### 5. AFTER DELIVERY (CODE A)

After delivery covers events happening after the truck or transport unit has left the unloading point and before another transport order has been assigned. This code is only relevant for dedicated equipment, such as fuel and gas transports.

**Examples of events leading to reporting under this code:** breakdown takes place whilst the truck is being relocated after delivery to the depot.

## 5.6 | Customer complaint

In this code category the haulier can report the apparent reason underlying the event causing a customer complaint.

When this is the case, the information can be transmitted at a later time, after the haulier received from the shipper the information and did his internal investigation for the apparent reason.



## 5.7 | Why did it occur? (apparent reason of the event)

In this code category the carrier will report the apparent reason underlying the event.

Alphabetical list of the apparent reasons of the transport event and their scope:

| N° | Description                       | Scope  |
|----|-----------------------------------|--|
| 1  | Breakdown                         | Equipment malfunction: vehicle, accessories, (un)loading equipment (if SHE incident: report as equipment accident)   |
| 2  | Cancellation                      | Transport order is revoked by shipper or refused by haulier (only before loading)  |
| 3  | Cleaning station                  | Event disrupting or impacting the transport order is caused at the cleaning station  |
| 4  | Cleanliness/ not fit              | Equipment incorrectly or insufficiently cleaned or too wet, previous load incompatible, equipment not fit (e.g. unloading hoses are not clean)   |
| 5  | Communications/ instructions      | Misunderstanding or error in transmission of information between parties: such as someone forgot to say something; language problems   |
| 6  | Congestion in traffic             | Disruption of the transport order due to heavy traffic or a traffic accident (not one's own accident, which is reported as equipment accident)   |
| 7  | Congestion of bays                | Waiting lines at (un)loading bays of shipper (incl. bays managed by third parties on behalf of the shipper) or customer (in some rare cases the haulier himself if he manages the (un)loading bays ) |
| 8  | Crossover                         | Product loaded or unloaded in wrong tank/compartment/ storage tank   |
| 9  | Documents missing/ IT failure     | Disruption due to documents not ready, disappeared or stolen, due to IT break down   |
| 10 | Equipment accident or malfunction | (Traffic) accident with own equipment of haulier or intermodal operator or an equipment malfunction  |
| 11 | Force of nature                   | Sudden natural phenomenon disturbing transport order such as weather, mudflows, avalanches, earthquakes, stone falls, storms   |
| 12 | Incorrect/ not conform            | Equipment, accessories, documentation, quantities are not corresponding to what was required   |
| 13 | Lack of storage capacity          | Insufficient room to accept the product at unloading (only for VMI under the control of the reporting haulier)   |



|    |                               |  |
|----|-------------------------------|--|
| 14 | Load securing                 | Packed goods not secured correctly within the transport unit   |
| 15 | Near miss                     | Potential incident not escalated due to prompt action  |
| 16 | Not available                 | Product, documentation, equipment is not present when it should have been (not available PPE is wrong behaviour!)  |
| 17 | Packaging damaged             | Alteration or damage to packaging of packed goods  |
| 18 | Previous (un)loading point    | Disruption to transport order due to (late) departure from previous unloading point or event at previous (un)loading point   |
| 19 | Product damaged/contaminated  | Damage of the product itself (packed) or some other product was in contact with the product (if beyond anyone's control: use vandalism)  |
| 20 | Public authorities            | Disruption caused by unexpected delays or conduct of public authorities (customs, traffic police, etc)   |
| 21 | Quantity                      | Product quantity not in compliance with transport order or with loading quantity requirements (equipment too small is incorrect equipment)   |
| 22 | Seal compromised              | Seal has been tampered with, opened or is missing  |
| 23 | Spill                         | Product has leaked or spilled from packages, tank, storage, or from accessories such as hoses or couplings   |
| 24 | Strike                        | Due to strike, transport cannot be rescheduled, no alternatives, no warning or no agreement to higher costs for rescheduling   |
| 25 | Surveyor                      | Third party under contract for shipper/ customer: independent supervisor of (un)loading assigned for measuring, sampling, inspections, etc is the apparent cause of the event reported |
| 26 | Temperature                   | Temperature not in compliance, not at required temperature   |
| 27 | Terminal, rail, shipping line | Intermodal third party contracted by carrier is at the origin of the event being reported  |
| 28 | Theft/ vandalism              | Equipment, product or documentation is stolen or damaged   |
| 29 | Unsafe condition              | Unacceptable safety risk which stops continuation of transport order   |
| 30 | Wrong behaviour               | Unacceptable behaviour, intentional or not (smoking, rude speech), SHE incidents even if due to mistake (PPE is missing)   |



## 6 | CODING DATA SPECIFICATIONS

### WHAT is the event linked to?

- Length: 2
- Alpha
- DT, EQ, PR, DO, SH

### WHEN did the event occur?

- Length: 1
- Alpha
- B, L, T, D, A

### Under WHOSE control did it happen?

- Length: 1
- Alpha
- H, S, X, C

### Customer complaint received: y/n

- Length: 1
- Alpha
- Y, N

### MODE of transport

- Length: 2
- Alpha
- IM, RO

### WHY ?

- Length: 2
- Numeric
- From 1,2, ... 30

### Order TYPE

- Length: 1
- Alpha
- R, N

### Space for additional comments and remarks

- Length: 1 - 70
- Alphanumeric
- Text

## 7 | MEANS OF COMMUNICATION

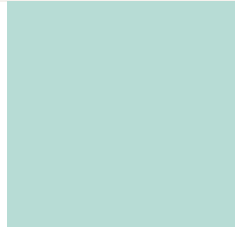
There are multiple solutions on how means of communication can be used depending on the business volume and capabilities at the carriers and shippers end. A number of the advantages and disadvantages per chosen mode have been specified.

### 7.1 | With system-to-system connection/ with EDI

In light of the low costs per transaction, the transmission per EDI is currently a very accessible solution for automated transfers of data between shippers and carriers, especially for smaller sized transport companies who will not realise a specific tailored system-to-system connectivity.

#### ADVANTAGES

- high level of standardisation
- high quality of data integrity
- easy exchange of information
- requires a short initial set-up
- transparency & uniformity of data in both system



- data can be provided real time to the shipper
- one touch data entry through system to system communications
- data is available in the carriers system for further structural analysis
- mature solutions available for large scale implementation
- integration in real time work process of the transport planners

#### DISADVANTAGES

- requires an initial set-up
- existence of several 3rd party hub providers  
(but they can opt to introduce the ECTA codes)
- each peer to peer connection is technically unique  
(but standardized formats are available)

### 7.2 | By sending an Excel file

#### ADVANTAGES

- low entry barriers
- low complexity
- no initial investment required

#### DISADVANTAGES

- more handling involved (when Excel is not generated automatically)
- higher risk for data errors by multiple entry of data
- requires a short initial set-up
- data is not passed on a real time, order by order basis
- data reliability is reduced. Data can be altered between the systems.

### 7.3 | Via standardized shipper's internet web interface



#### ADVANTAGES OF THIS SYSTEM

- no investment or initial set-up for carrier involved
- effective for transport companies with low number of transactions with the shipper

#### DISADVANTAGES OF THIS SYSTEM

- carrier has no own data for further analysis and for managing and improving
- labour intensive and inefficient for carriers
- risk of data input error
- no standardisation of web-portals make it complex to handle by the planning departments or traffic managers of hauliers, they can make wrong entries
- unbalanced division of tasks between shippers and carriers: for SME size carriers extra administration input is heavy burden, for IT mature carriers it is underutilization of their data. EDI transmissions can often be preferred.

# MATRIX OF CODE CATEGORIES

 code category combination is possible  
 code category combination not applicable

**WHY?**  
 Apparent reason of the event

WHAT is the event linked to?

Under whose control did it happen?

|                               |    | WHAT is the event linked to? |    |    |    |    | Under whose control did it happen? |   |   |   |
|-------------------------------|----|------------------------------|----|----|----|----|------------------------------------|---|---|---|
|                               |    | DT                           | EQ | PR | DO | SH | H                                  | S | X | C |
| Breakdown                     | 1  | █                            | █  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Cancellation                  | 2  | █                            | ■  | ■  | █  | ■  | █                                  | █ | ■ | ■ |
| Cleaning station              | 3  | █                            | █  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Cleanliness/ not fit          | 4  | █                            | █  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Communication/ instructions   | 5  | █                            | █  | █  | █  | █  | █                                  | █ | ■ | █ |
| Congestion in traffic         | 6  | █                            | ■  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Congestion of bays            | 7  | █                            | ■  | ■  | ■  | ■  | █                                  | █ | █ | █ |
| Crossover                     | 8  | ■                            | ■  | █  | ■  | █  | █                                  | █ | ■ | █ |
| Documents missing/ IT Failure | 9  | █                            | █  | █  | █  | █  | █                                  | █ | █ | █ |
| Equipment accident            | 10 | █                            | ■  | ■  | ■  | █  | █                                  | ■ | ■ | █ |
| Force of nature               | 11 | █                            | ■  | ■  | ■  | ■  | ■                                  | ■ | █ | ■ |
| Incorrect                     | 12 | █                            | █  | █  | ■  | ■  | █                                  | █ | ■ | █ |
| Lack of storage capacity      | 13 | █                            | █  | ■  | ■  | █  | █                                  | █ | ■ | █ |
| Load securing                 | 14 | █                            | ■  | █  | ■  | █  | █                                  | █ | ■ | █ |
| Near miss                     | 15 | █                            | ■  | ■  | ■  | █  | █                                  | █ | ■ | █ |
| Not available                 | 16 | █                            | █  | █  | █  | ■  | █                                  | █ | ■ | █ |
| Packaging damaged             | 17 | █                            | ■  | █  | ■  | ■  | █                                  | █ | ■ | █ |
| Previous (un)loading point    | 18 | █                            | ■  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Product contaminated/ damaged | 19 | █                            | ■  | █  | ■  | ■  | █                                  | █ | ■ | █ |
| Public authorities            | 20 | █                            | ■  | ■  | █  | ■  | ■                                  | ■ | █ | ■ |
| Quantity                      | 21 | ■                            | ■  | █  | ■  | ■  | █                                  | █ | ■ | █ |
| Seal compromised              | 22 | ■                            | █  | █  | ■  | ■  | █                                  | █ | █ | █ |
| Spill                         | 23 | ■                            | ■  | ■  | ■  | █  | █                                  | █ | ■ | █ |
| Strike                        | 24 | █                            | ■  | ■  | ■  | ■  | █                                  | █ | ■ | █ |
| Surveyor                      | 25 | █                            | ■  | ■  | ■  | ■  | ■                                  | █ | ■ | █ |
| Temperature                   | 26 | ■                            | ■  | █  | ■  | █  | █                                  | █ | ■ | █ |
| Terminal, rail, shipping line | 27 | █                            | █  | █  | █  | █  | █                                  | ■ | ■ | █ |
| Theft/ vandalism              | 28 | █                            | █  | █  | █  | █  | █                                  | █ | █ | █ |
| Unsafe condition              | 29 | █                            | ■  | ■  | ■  | █  | █                                  | █ | ■ | █ |
| Wrong behaviour               | 30 | █                            | ■  | ■  | ■  | █  | █                                  | █ | ■ | █ |



## ILLUSTRATION OF A POSSIBLE SCENARIO FOR USING THE ECTA CODES

### Parties involved:

- A chemical producer, using a selection of carriers for a large number of international movements. SAP is their basis for business processes.
- An international bulk liquid carrier with a significant number of transports per week for a large number of chemical shippers. The in-house information system is well developed even though all IT development is outsourced. Only limited in-house ICT resources are available.

### The aim:

- To implement the most effective order to cash system on a medium term basis.

### Solution:

The **connectivity is based on peer to peer**, using the CIDX message sets when possible. The data carrier is a secure Internet connection which involves no communication costs. The use of a third party hub was not chosen, since in this case there is a limited number of carriers involved and both parties operate mature information technology systems and are aware that effective work processes, data integrity and business intelligence offer a large amount of value to their relationship and their individual companies.

All regular transactional data is transmitted using this method on a two-way basis. This results in a **single input of data at both ends** and a **high level of integrity** and **speed of transaction**.

The shipper's orders flow in the carrier's information system via this method. What happens during the execution of the transport order can be updated in the system on a real time basis by the various internationally based employees involved. Those involved in the execution process experience it as a natural working process. All relevant **data is available at all times** and can be transmitted to the shipper's ERP (SAP) system. In turn, this data is then transparently available within the shippers' system for all concerned. The parties involved have chosen to transmit this data - system to system - at the end of the working day **using the ECTA codes and format**.

At the end of each relevant period - in this case monthly - **a joint analysis of the quantified transport events** is carried out and applicable **improvements for all** parties are highlighted and actioned.

### Including the ECTA code string in IT communication:

Using the standardized codes, it is possible to translate the story of an event which occurred during the fulfillment of the transport order in letters and numbers.

The transport company (planner or key account) will enter this information in the IT system. These letters and numbers form a code string which is transmitted through the IT connection between the haulier and the shipper, linked to the transport order in the system.

**Example:** the delivery by road of a normal transport order was late due to a breakdown of the truck during transit = codes string for transmissal

DT - H - RO - N - T - CN - 1

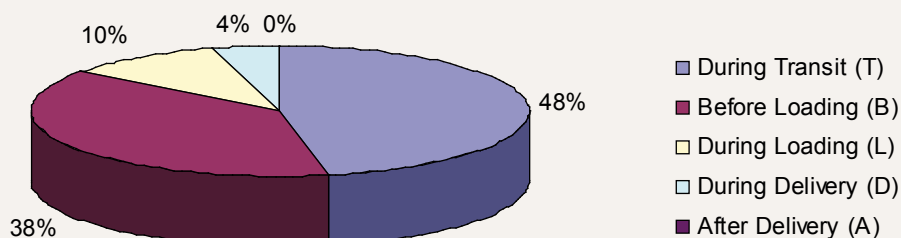
**Example:** the carrier did not bring the specified type of couplings = codes string for transmissal

EQ - H - RO - R - L - CN - 5

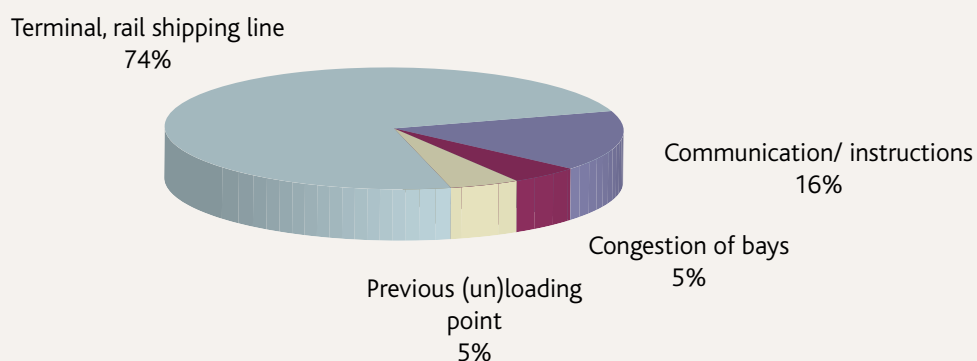
### Examples of Graphs:

The collected data can be analysed, by the shipper or by the transport company. It is not the objective of these guidelines to propose which analyses should be done. From the multitude of graphs which can be produced to satisfy each company's requirements, a sample is reproduced hereunder. It is the sole purpose to show how transport events can be analysed when these are reported in the standardized code.

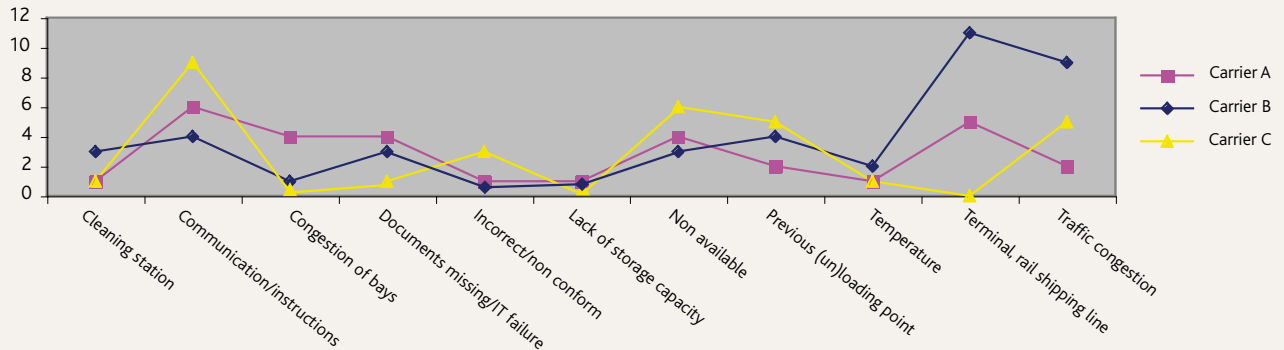
#### Delay in Date and Time (DT)



#### DT: overview on issues causing delay for carrier A

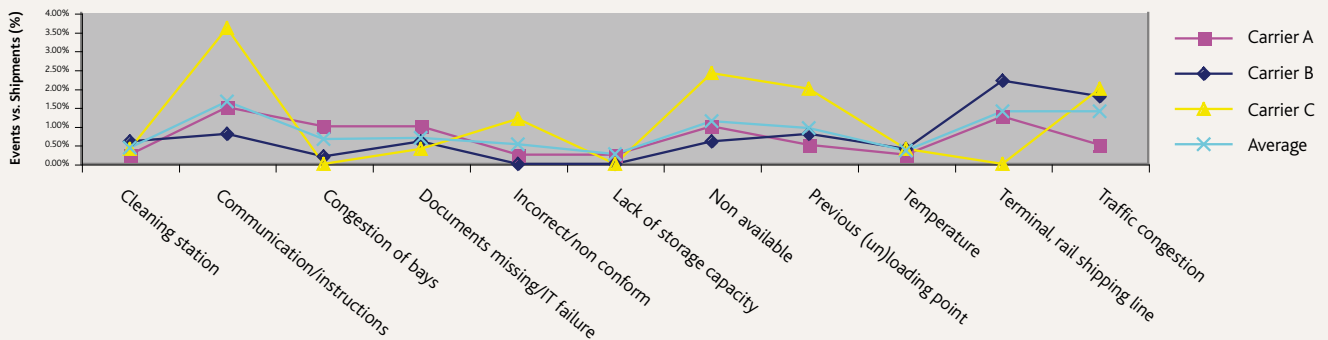


### Actual number of events per carrier



This guideline does not require reporting at each transport order. When reported events are combined with total number of transport orders that were issued for a certain carrier, it is possible to obtain "relative" number of events. This method provides more context to the reports by ECTA Codes and here is a graph as example:

### Events on relative basis



### Results:

This methodology has resulted in ongoing and continuous improvements in effectiveness, efficiency and quality for all concerned in these logistics operations. The companies made the required resources available and ensured that alignment and communication were present throughout the process.

The investment which has been made is a one time cost for programming on an existing system. The ECTA codes, reporting transport events, are integrated in the carriers' total quality improvement system and therefore do not exclusively exist for the reporting function only.

The return on this investment can be seen as an improved, quantitative and more effective measurement of transport events and it makes trend analysis possible, which subsequently results in a more effective total cost of operation for all parties involved in the execution. Benefits are gained in process time and faster improvement cycles.

## Set of examples

|  |   |
|--|---|
| The vehicle arrived late at the loading point because driver overslept   | DT-H-RO-N-B-CN-30 driver overslept  |
| The tank container was refused because of non authorized previous load   | EQ-H-IM-N-L-CN-4  |
| The cargo was not presented at correct temperature   | PR-H-RO-N-D-CC-26   |
| The customs documents went missing during the transit  | DO-H-IM-N-T-CC-9 custom docs missing  |
| A spill happened at unloading site due to a mistake by the operator  | SH-C-RO-N-D-CN-23   |
| The documents issued by the shipper were not correct   | DO-S-IM-R-B-CC-5  |
| Sudden snow storm in Alps delayed delivery of the product  | DT-X-RO-N-T-CN-11 snow in Alps  |
| Delay in delivery is due to excessive delay at customs   | DT-X-IM-R-T-CN-20 customs   |
| A transport order was issued and then cancelled  | DO-S-RO-N-B-CN-2  |
| Carrier arrived late because of congestion at the cleaning station   | DT-H-RO-N-B-CN-3  |
| At unloading there was a spill, because of lack of storage capacity and the tank was overfilled (= 2 lines: spill and lack of capacity)  | SH-C-RO-R-D-CC-13   |
| Truck arrives evening before requested delivery date to be on time for unloading. Customer decides to move forward the unloading date  | SH-C-RO-R-D-CC-23   |
| Equipment is refused because the floor of the trailer is not strong enough for fork lift   | DT-C-RO-N-D-CN-5  |
| Loading was late due to failure in IT system, delivery was still made in time  | EQ-H-RO-N-L-CN-4 floor unfit  |
| Packed goods must be picked up at two different sites.   | DT-S-RO-N-L-CN-9  |
| The loading at the first site is delayed due to shortage of loading operators. This resulted in late arrival for loading at the second site. These goods finally arrived late at the customer as well. | First shipment:<br>DT-S-RO-N-L-CN-16<br>DT-S-RO-N-D-CN-16<br>Second shipment:<br>DT-S-RO-N-L-CN-18<br>DT-S-RO-N-D-CN-18 |

# Testimonials of working group members

## Ing. Sabrina Robba Toniutti

Safety, Health, Environment & Quality Manager  
Hoyer Group

*The most important difference between the new codes and the old ones is that now the transport companies can record all the performance in a more detailed way and the safety part has been developed much more.*

*The satisfaction of the different customers' requirements has been taken into consideration whilst updating the ECTA codes; this would give the opportunity to realize a great wish from the carrier's point of view which is the implementation of the same new codes by all chemical companies to avoid as much as possible multiple requests of performance reporting.*

*The codes will be implemented in the new HOYER Vista for SHEQ system and spread in the whole company during 2009.*

*The working group was very active and co-operative; the openness shown by all participants was impressive and gave the opportunity to share common SHEQ experience.*



## Jaap-Jan de Bokx

EUAF Land Logistics Manager  
Shell Chemicals Europe

*Shell Chemicals are committed to ensuring smooth and effective collaboration with its Logistics Service Providers (LSP's). This relationship is vital to creating reliable, sustainable and cost effective value propositions for our customers in the chemical industry and throughout the supply chain. Recognising the value of a collaborative approach, Shell Chemicals continue to engage actively in the chemical and transport industry's efforts to optimise transportation in Europe (and globally). The new European Chemical Transport Association (ECTA) code system provides a robust, flexible and user-friendly platform for LSP's to report events during the transportation of our products. This data ensures transparency for all users and improves efficiency and quality performance. Shell Chemicals plan to install this new - and more sophisticated - ECTA codes system in Q2 2009.*

## Bernhard Haidacher

SHEQ Manager  
LKW Walter International AG

*Many companies in the chemical industry are measuring the transport performance of their Logistic Service Providers. In addition to this, many Logistic Service Providers are measuring their own performance. Thus it makes sense to use a standard coding to simplify the life for both the chemical industry and the Logistic Service Providers.*

*LKW WALTER was already member of the working group who published in 2002 the first Guidelines for Standardized Delivery Performance Measurement and fully implemented and integrated it in our IT and management systems. In this way we have benefited a lot from the standards and we could continuously develop our own quality.*

*The logistic's world has changed a lot the last couple of years and it was necessary to adapt the standards. The main targets were on the one hand to simplify it and to make the work for the planners, who at the end of the day will work with the the tool, easier. On the other hand the standards must be able cover all relevant 'events', that can happen during a transport.*

*Many tests with planners in different transport companies and also at LKW WALTER have shown, that those targets have been reached.*





### Wessel Swart

Program Manager Procurement  
SABIC Europe

*SABIC firmly believes that the improved ECTA event coding system for road and intermodal transport, together with the standard reporting tool, will contribute to a further standardization of performance management systems across the industry. The system is designed in close cooperation between the transport sector and the chemical industry, and has already proven its added value during the pilot phase. It gives both shippers and carriers easy accessible insight in mutual area's of performance improvement, from ordering down to freight delivery and safety and environmental aspects. From implementation of this common "event coding language" on large scale both the transport sector as well as the chemical industry will benefit.*

### Mark Warner

Group Strategic Director / Member of the Board of Directors  
Den Hartogh Logistics

*The standardization of data and information transfer between all stakeholders in the supply chain is of critical importance to achieve the efficiency and efficacy which the present day technical possibilities give us. The only barriers which exist are the people and the organizations. Through the dynamics in the working group between diverse chemical companies and LSP's, a forum took place in which various experiences and opinions were shared in an open environment.*

*This has resulted in a practice which can and should be adopted by all chemical and LSP companies so that safer and more efficient service levels can be reached in the chemical supply chain.*

*At Den Hartogh Logistics, we have adopted and fully integrated these standards and will continue to help the industry to move forward in an innovative way.*



### Ana Bilou

Senior Logistics Specialist  
Dow Benelux

*Information regarding Logistics Service Providers (LSP's) performance is a fundamental element to drive the continuous improvement of operational excellence and increase overall customer satisfaction. Years ago Dow introduced its own set of codes for the performance feedback of our LSP's. When double checking the data reported by the LSP against our own information, many gaps became evident and in many cases the information was found to be incomplete and not always accurate. Dow has strongly supported the effort to revise this guideline and the codes. It is our belief that by supporting this standardization, the information we will receive from our LSP's will be more reliable and meaningful. When these set of codes are adopted by the different LSP's, we will have established a common language to register events, have a system to exchange data that decreases the manual handling and minimize wrong data manipulation. This system is also flexible and can easily be adapted to individual company needs. We are confident that it will be beneficial for both hauliers and shippers. It will provide a greater transparency that will allow us to better identify performance issues and quantify areas that we need to focus on for improvement together with our Logistics Service Provider.*

### Lennart Goeller

Marketing  
Karl Schmidt Spedition GmbH & Co.KG

*The ECTA Codes are an important contribution for the company: as an objective and standardized performance measurement instrument it identifies strength as well as weaknesses and helps us to improve our service level to our chemical customers.*

*The ECTA Codes are implemented in our Transport Management System and the operative and dispatch people select and define events using the codes matrix and selecting the appropriate code out of these to complete the order handling. We look forward to implement improvements in the codes.*

*By contributing the working group you get a better understanding on how to treat performance measurement issues and understand the main focus of the producers and which information they would like to receive from us.*





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