

**BIASES AND ERRORS IN SPANISH MARITIME
TRANSPORT STATISTICS**

Miguel Llop & Eva Pérez

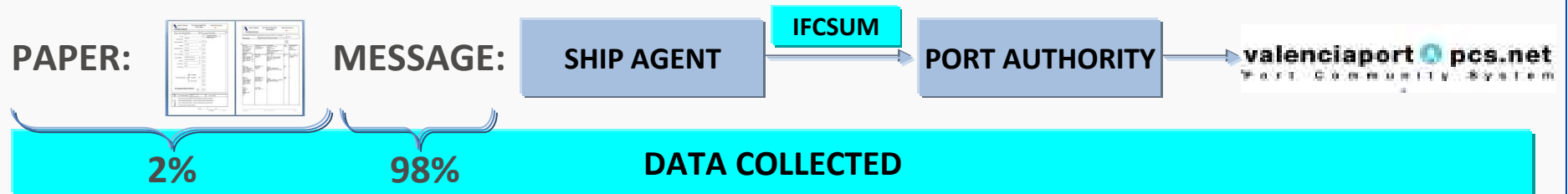
Fundación Valenciaport

New Orleans, 6 May 2009

DATA COLLECTION FLOW

STEP 1

SHIP AGENTS SEND CARGO MANIFEST / SUMM.DECL. TO PORT AUTHORITY



STEP 2

28 PORT AUTHORITIES SEND AGGREGATED FILES TO PUERTOS DEL ESTADO

FILES RECEIVED

FILES PUBLISHED

STEP 3

PUERTOS DEL ESTADO SENDS FILE TO EUROSTAT









FILES RECEIVED

FILES PUBLISHED

STEP 1

PAPER/MESSAGE:



DATA COLLECTED - SOURCE: CARGO MANIFEST / SUMMARY DECLARATION		ERROR?
	TYPE OF FLOW: LOADING / UNLOADING / LOADING T / UNL T	✓ EXPORT / IMPORT
	DATE: DD/MM/YYYY	✓ DD/MM/YYYY
	EU-REGULAR LINE: ZRE (regular) / ZNR (not regular)	✓ ZRE / ZNR
	LOADING STATE: LOADING / UNLOADING / ...	✓ LOADING STATE
	SIMPLIFIED TRANSIT: TYPE OF SIMPLIFIED TRANSIT	✓ SIMPLIFIED TRANSIT
	DEPARTURE DATE: DATE & TIME OF DEPARTURE OF VESSEL	✓ DEPARTURE DATE
	PREVIOUS PORT: CODE OF PREVIOUS PORT OF CALL	✓ PREVIOUS PORT
	NEXT PORT: CODE OF NEXT PORT OF CALL	✓ NEXT PORT
	TRANSHIPMENT PORT: CODE OF TRANSHIPMENT PORT	✓ TRANSHIPMENT
	ORIGIN: PLACE OF ORIGIN ACC. TO B/L	✗ ORIGIN
	DESTINATION: PLACE OF DESTINATION ACC. TO B/L	✗ DESTINATION
	TYPE OF CARGO: ZZ1 (Goods) / ZZ2 (Passengers and their vehicles) / ZZ3 (Empty containers)	✓ ZZ1 / ZZ2 / ZZ3
	PREVIOUS / NEXT TRANSPORT: SEA / ROAD / VESSEL TO VESSEL / TRANSHIPMENT + ROAD / TRANSHIPMENT + SEA / RAIL TRANSPORT	✗ PREVIOUS TRANSPORT

STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

PORT AUTHORITY

valenciaport pcs.net
Port Community System

DATA COLLECTED - SOURCE: CARGO MANIFEST / SUMMARY DECLARATION

ERROR?



NUMBER OF CONSIGNMENT:

NUMBER OF CONSIGNMENT

✓ NUMBER OF CONSIGNMENT

NUMBER OF PACKAGES:

NUMBER OF PACKAGES

✓ NO. PACKAGES

TYPE OF PACKAGE:

TYPE OF PACKAGE USED

✗ TYPE OF PACKAGE

TARIC

TARIC:

4 FIRST DIGITS OF THE HS CODE

✗ TARIC



IMDG:

IDENTIFICATION CODES OF DANGEROUS GOODS

✗ IMDG CODES



GROSS WEIGHT:

WEIGHT OF THE GOODS + PACKAGES AND PALLETS TRANSPORTED

✓ GROSS WEIGHT

VOLUME:

VOLUME OF THE GOODS TRANSPORTED

✓ VOLUME

TYPE OF EQUIPMENT:

TYPE AND SIZE OF THE EQUIPMENT

✓ TYPE EQUIPMENT



EQUIPMENT STATE:

4 (EMPTY) / 7 (LCL) / 8 (FCL) / Z

✗ LCL / FCL

TARE:

TARE OF THE CONTAINERS

✗ TARE

TYPE OF PRECEDING DOCUMENT:

DOCUMENT AUTHORISING THE EXPORT / IMPORT FLOW

✓ TYPE OF PRECEDING DOCUMENT



NUMBER OF PRECEDING DOC:

NUMBER OF THE PRECEDING DOCUMENT

✓ NO. PRECEDING DOCUMENT

LOADING SITUATION:

T (TOTAL) / P (PARTIAL) / R (REST)

✓ LOADING SITUATION

STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

PORT AUTHORITY

valenciaport pcs.net
Port Community System

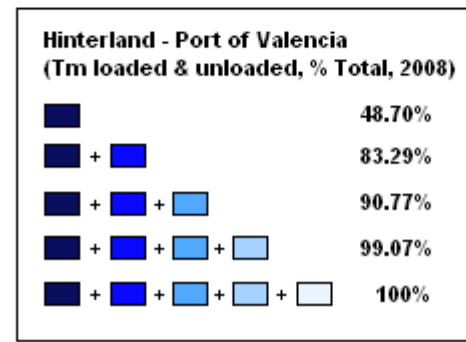
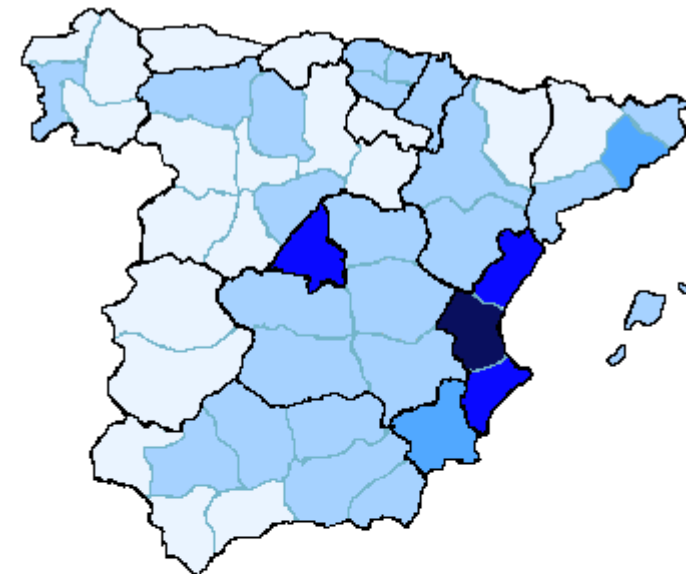
ERROR ON THE PLACE OF ORIGIN & DESTINATION (CARGO MANIFEST / SUMMARY DECLARATION)



✗ ORIGIN / DESTINATION:

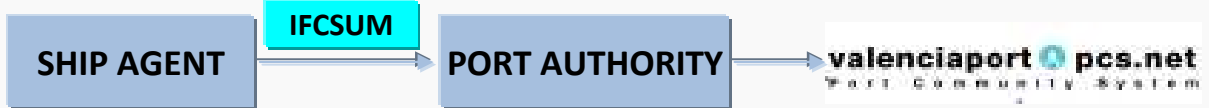
FIELD NOT VALIDATED BY PORT AUTHORITY

PLACE OF ORIGIN OF CARGO LOADED AT THE PORTS MANAGED BY THE PORT AUTHORITY OF VALENCIA		PLACE OF DESTINATION OF CARGO UNLOADED AT THE PORTS MANAGED BY THE PORT AUTHORITY OF VALENCIA	
PLACE OF ORIGIN	% Tonnes	PLACE OF DESTINAT	% Tonnes
TOTAL	100,00%	TOTAL	100,00%
VALENCIA (ES)	95,17%	VALENCIA (ES)	63,65%
SAGUNTO (ES)	4,18%	SAGUNTO (ES)	31,87%
ESPAÑA (ES)	0,25%	GANDIA (ES)	1,48%
GANDIA (ES)	0,20%	ZZZ*DESCONOCIDO	0,75%
PAMPLONA (ES)	0,06%	ESPAÑA (ES)	0,73%
ALICANTE (ES)	0,04%	GIBRALTAR (GI)	0,35%
DENIA (ES)	0,02%	MADRID (ES)	0,23%
BARCELONA (ES)	0,02%	ALICANTE (ES)	0,18%
ALMUSAFES (ES)	0,01%	BILBAO (ES)	0,10%
OTHER LOCATIONS	0,05%	OTHER LOCATIONS	0,66%



STEP 1

PAPER/MESSAGE:



ERROR ON THE PREVIOUS TRANSPORT REPORTED (CARGO MANIFEST / SUMMARY DECLARATION)

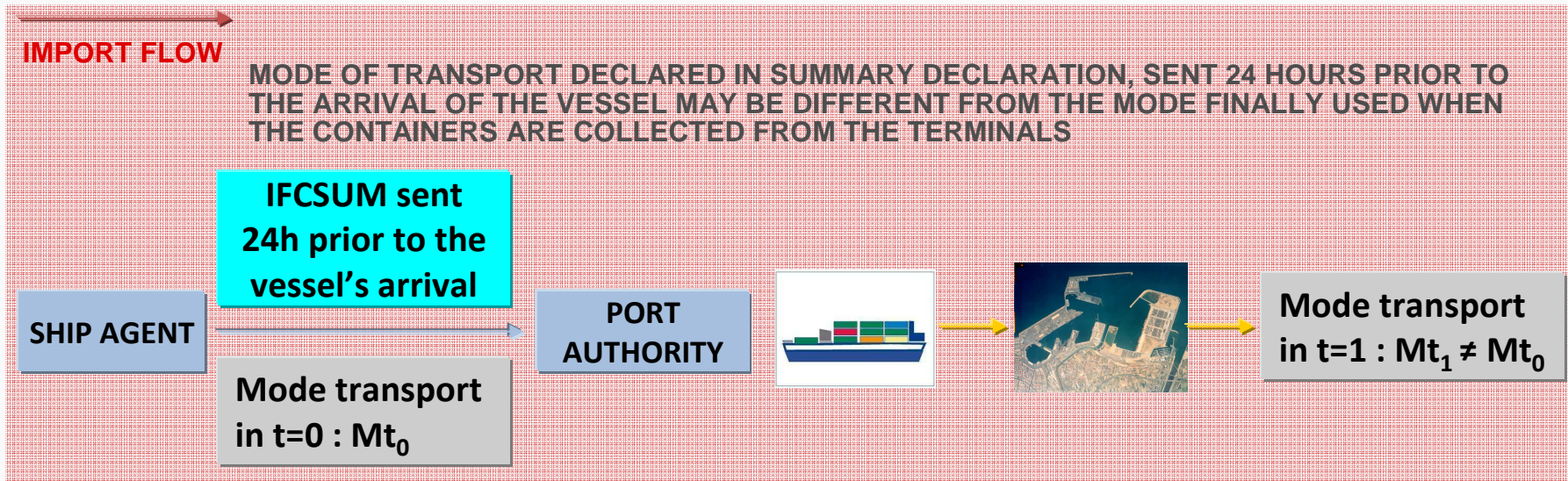


PREVIOUS TRANSPORT

FIELD NOT VALIDATED BY PORT AUTHORITY

DATA RELATED TO THE B/L: NOT ALL CONTAINERS OR CONSIGNMENTS IN A B/L WILL BE TRANSPORTED BY THE SAME MODE OF TRANSPORT

- ZZ1: SEA TRANSPORT
- ZZ2: ROAD TRANSPORT
- ZZ3: VESSEL TO VESSEL
- ZZ6: RAIL TRANSPORT
- ZZ4: TRANSHIPMENT + ROAD TRANSPORT
- ZZ5: TRANSHIPMENT + MARITIME TRANSPORT



ERROR ON THE TYPE OF PACKAGE REPORTED (CARGO MANIFEST / SUMMARY DECLARATION)



✗ TYPE OF PACKAGE

FIELD NOT VALIDATED

EXAMPLES

Code	Description of type of package
AE	Aerosol
BA	Barrel
BB	Bobine
BG	Bag
BH	Bunch
BJ	Bucket
BK	Basket

Code	Description of type of package
BO	Bottle, without protection
BQ	Bottle with protection
BR	Bar
BT	Roll
BU	Oak barrel
BX	Case
...	...

SummaryDeclar...	PackageType	GrossWeight	TanicCode
441194000017	BU	18400,00	0707
441194000017	BU	19400,00	0707
441194000017	BU	19400,00	0707
441194000018	BU	21500,00	2516
441194000019	BU	12887,00	3926
441194000020	BU	20800,00	2001
441194000020	BU	20800,00	2001
441194000020	BU	20800,00	2807
441194000020	ALL	ALL	ALL

0707: CUCUMBERS, PACKAGE: OAK BARRELS?

2516: GRANITE, PACKAGE: OAK BARRELS?

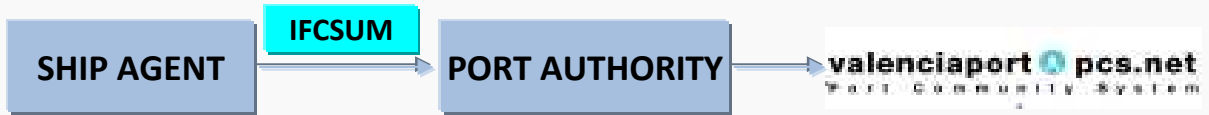
3926: PLASTICS

2001: GHERKINS, PACKAGE: OAK BARRELS?

2807: SULPHURIC ACID

STEP 1

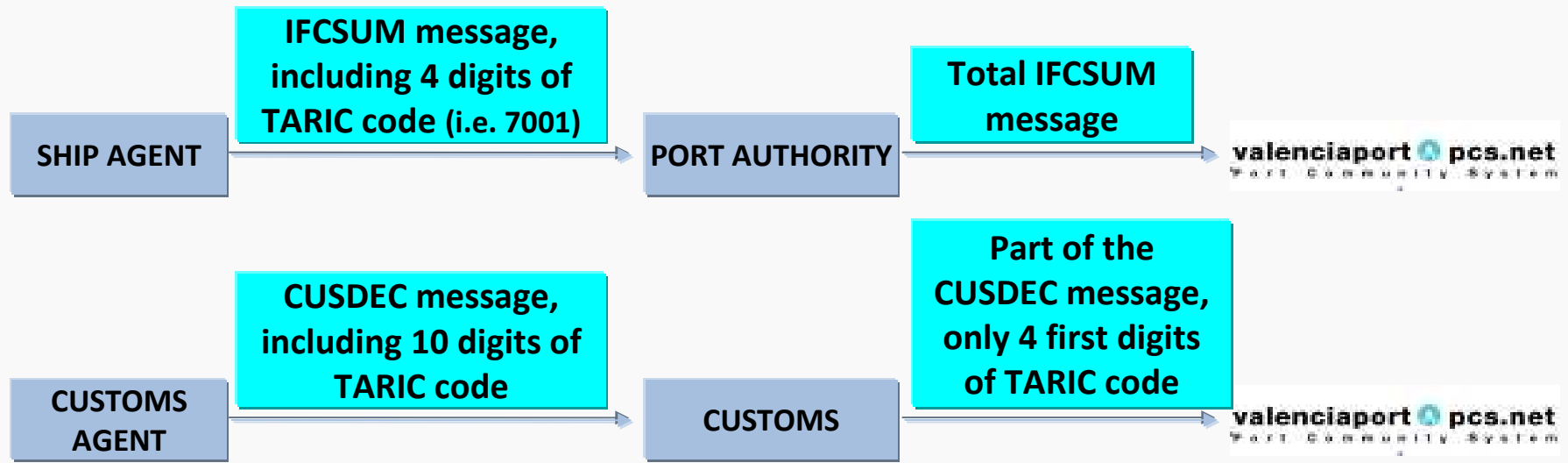
PAPER/MESSAGE:



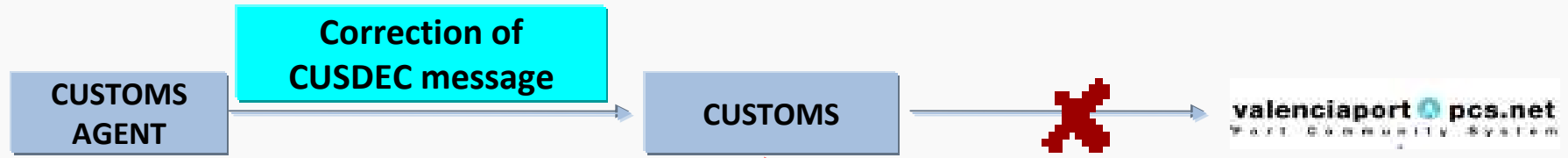
ERROR ON THE TARIC CODE REPORTED (CARGO MANIFEST / SUMMARY DECLARATION)



✗ TARIC: 4 FIRST DIGITS OF THE HARMONISED SYSTEM CODE



✗ FIRST CUSDEC message sent with intentional mistake on TARIC code, i.e. TARIC 7001, CULLET AND OTHER WASTE AND SCRAP OF GLASS; GLASS IN THE MASS reported when real export flow of TARIC 7002, GLASS IN BALLS (OTHER THAN MICROSPHERES OF HEADING NO. 70.18), RODS OR TUBES, UNWORKED



✗ Correction of the CUSDEC message sent with correct TARIC 7002 code, knowing that this time it is not going to be sent to the port authority

STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

PORT AUTHORITY

valenciaport pcs.net
Port Community System

ERROR ON THE TARIC CODE REPORTED (CARGO MANIFEST / SUMMARY DECLARATION)

TARIC

X TARIC:

COMMODITY CLASSIFICATION FOR THE CALCULATION OF CARGO PORT DUES:

Group of commodities	€ / ton
1	0.48
2	0.83
3	1.31
4	2.2
5	3.08

First CUSDEC message: TARIC 7001, 20 tons

PORT AUTHORITY

INVOICE - Port Dues:
TARIC 7001, 20 tons →
TOTAL: 9.6 Euros

EXPORT COMPANY

Correct CUSDEC message: TARIC 7002, 20 tons

PORT AUTHORITY

CORRECT INVOICE WOULD HAVE BEEN:
TARIC 7002, 20 tons →
TOTAL: 61.6 Euros

THE EXPORT COMPANY SAVES 52 Euros

EXPORT COMPANY

STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

PORT AUTHORITY

valenciaport pcs.net
Port Community System

ERROR ON THE IMDG CODE REPORTED (CARGO MANIFEST / SUMMARY DECLARATION)



✗ IMDG CODES: FIELD NOT VALIDATED BY PORT AUTHORITY

WHY?

European Union Member States



DANGEROUS GOODS MANIFEST PAGE NUMBER (e.g. 5 of 7)

(As required by SOLAS 74, chapter VII, regulation 4.5 and 7-2.2, MARPOL 73/78, Annex III, regulation 4(3) and chapter 5.4, paragraph 5.4.3.1 of the IMDG Code)

NAME OF SHIP	IMO NUMBER	FLAG STATE OF SHIP	MASTER'S NAME									
VOYAGE REFERENCE	PORT OF LOADING	PORT OF DISCHARGE	SHIPPING AGENT									
CALL SIGN												
BOOKING REFERENCE NUMBER	MARKS & NUMBERS CONTAINER OR VEHICLE (ISS. NO.)	NUMBER AND KIND OF PACKAGES	PROPER SHIPPING NAME	CLASS	UN NUMBER	PACKING GROUP	SUBSIDARY HAZ. ID. NO.	FLASH POINT (°C)	MAXIMUM RELIEF AMT.	MAX. GROSS NET WT.	ETIM	STORAGE POSITION ON BOARD

AGENT'S SIGNATURE _____ MASTER'S SIGNATURE _____
 PLACE AND DATE _____ PLACE AND DATE _____

DMO FAL FORM ?



✓ NOTE OF DANGEROUS GOODS

STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

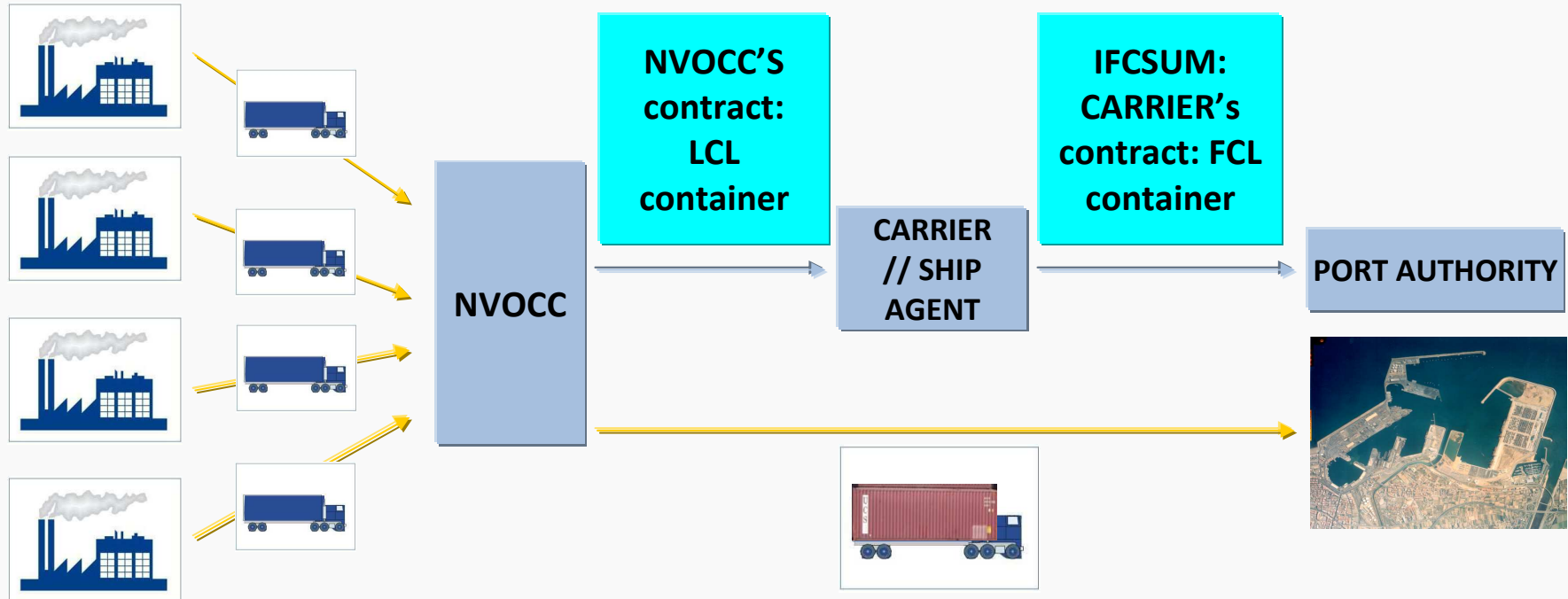
PORT AUTHORITY

valenciaport pcs.net
Port Community System

ERROR ON FCL VS LCL (CARGO MANIFEST / SUMMARY DECLARATION)



X LCL / FCL: 4 (EMPTY) / 7 (LCL) / 8 (FCL) / Z



STEP 1

PAPER/MESSAGE:

SHIP AGENT

IFCSUM

PORT AUTHORITY

valenciaport pcs.net
Port Community System

ERROR ON THE TARE OF THE CONTAINER (CARGO MANIFEST / SUMMARY DECLARATION)



✗ TARE:

FIELD NOT VALIDATED BY PORT AUTHORITY

✗ EXAMPLES OF ERRORS:

Type of container	Tare in kg
2000	2.000.000
2210	1.540.000
4000	1.504.000
2000	1.444.000
2000	1.440.000
4000	1.412.000
4000	1.412.001
4000	1.412.002
4000	1.412.003
4000	1.412.004
4000	1.412.005
4000	1.412.006
4000	1.412.007
4000	1.412.008
4000	1.412.009
4000	1.072.000
...	...

IFCSUM: most ship agents apply the general rule that a TEU weighs 2 000 kg and a FEU 4 000 kg

SHIP AGENT

PORT AUTHORITY



TEU container:
Length: 6.058 m
Width: 2.438 m
Height: 2.591 m
TARE: 2,200 kg



FEU container:
Length: 12.192 m
Width: 2.438 m
Height: 2.591 m
TARE: 3,800 kg

STEP 2

28 PORT AUTHORITIES SEND AGGREGATED FILES TO PUERTOS DEL ESTADO

DATA RECEIVED BY PUERTOS DEL ESTADO



Year	Code of Port Authority	Type of Operation	Country of Origin or Destination	Port of Origin or Destination	TARIC Code	Type of Cargo	Type of Transport	Gross Weight (Tons)	No. Units	No. TEUs
2006	63	D	AE	AUH	3923	32	CA	7	0	0000000000.00
2006	63	D	AE	AUH	7323	31	CA	1	0	0000000000.00
2006	63	D	AE	AUH	7323	32	CA	3	0	0000000000.00
2006	63	D	AE	AUH	8438	31	CA	51	0	0000000000.00
2006	63	D	AE	AUH	8438	32	CA	68	0	0000000000.00
2006	63	D	AE	AUH	8531	31	CA	20	0	0000000000.00
2006	63	D	AE	AUH	8539	32	CA	115	0	0000000000.00
2006	63	D	AE	AUH	9403	31	CA	3	0	0000000000.00
2006	63	D	AE	AUH	9990	31	CA	3	0	0000000000.00

STEP 2

28 PORT AUTHORITIES SEND AGGREGATED FILES TO PUERTOS DEL ESTADO

DATA PUBLISHED BY PUERTOS DEL ESTADO

<http://www.puertos.es/en/estadisticas/index.html>

You are at: [Puertos del Estado](#) » Port Traffic Statistics

Port Traffic Statistics

Monthly Statistics

Aggregate of tons by month, port authority and type of cargo (dry bulk, ro-ro, ...) – Available data: April 2004 – February 2009

Traffic Evolution Studies

Brief analytical report on the traffic by port authority – Published quarterly – Available reports: 2001 - 2002

Annual Statistical Reports of Puertos del Estado

Yearly statistical report on the traffic by port authority – Available reports: 1999 - 2007

Historical Statistics

Aggregate of tons by year, port authority and type of cargo (dry bulk, ro-ro, ...) / number of ships and GT – Available data: 1962-2002

Historical Statistics from antiquity up to the year 2000

Loaded and unloaded total number of tons by port authority and year – Available data: depending on the port authority, i.e. Valencia: 1877 - 1926

Annual Reports of the Port Authorities

Yearly statistical report published by each port authority – Available reports: 2005 - 2007

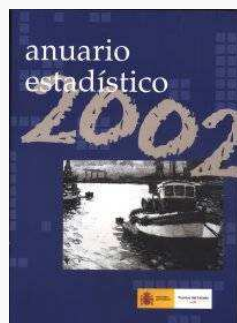
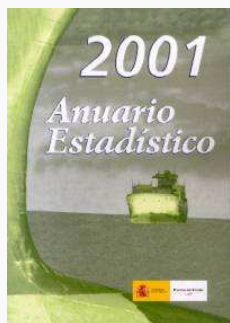


STEP 2

28 PORT AUTHORITIES SEND AGGREGATED FILES TO PUERTOS DEL ESTADO

DATA PUBLISHED BY PUERTOS DEL ESTADO

YEARLY STATISTICAL REPORT: 1999-2002 FOR SALE // 2000 – 2007 FOR FREE



2000

2001

...

2006

2007

[http://www.puertos.es/es/estadisticas/anuarios de puertos/](http://www.puertos.es/es/estadisticas/anuarios_de_puertos/)

3.1.13.2. Con Tráfico superior a un millón de toneladas / Over 1,000,000 tons

✓ TRAFFIC IN TONS BY PORT AUTHORITY AND COUNTRY

✓ TRAFFIC IN TONS BY TYPE OF CARGO (40 AGGREGATED GROUPS) AND PORT AUTHORITY

✗ TRAFFIC BY PORT AUTHORITY, COUNTRY AND TYPE OF CARGO

	CHINA			ITALIA			RUSIA		
	Embarcadas Loaded	Desembarcadas Unloaded	Total Total	Embarcadas Loaded	Desembarcadas Unloaded	Total Total	Embarcadas Loaded	Desembarcadas Unloaded	Total Total
A Coruña	-	141.112	141.112	-	30.758	30.758	-	702.739	702.739
Alicante	4.807	400.386							
Almería	-	135.899							
Avilés	-	146.562							

34. Resto mercancías. Toneladas / Other goods. Tonnes

	CABOTAJE DOMESTIC			EXTERIOR FOREIGN			TOTAL TOTAL		
	Embarcadas Loaded	Desembarcadas Unloaded	Total Total	Embarcadas Loaded	Desembarcadas Unloaded	Total Total	Embarcadas Loaded	Desembarcadas Unloaded	Total Total
A Coruña	394	5.965	6.359	13.292	406	13.698	13.686	6.371	20.057
Alicante	107.747	12.759	120.506	5.810	6.370	12.180	113.557	19.129	132.686
Almería	36.727	9.399	46.126	10.735	3.125	13.860	47.462	12.524	59.986
Avilés	3.790	161	3.951	396	12	408	4.186	173	4.359

STEP 2

28 PORT AUTHORITIES SEND AGGREGATED FILES TO PUERTOS DEL ESTADO

DATA PUBLISHED BY PUERTOS DEL ESTADO

YEARLY STATISTICAL REPORT

3.2. TRÁFICO DE BUQUES / SHIPS TRAFFIC

3.2.1. Total buques mercantes entrados en el año / Merchants ships entered during the year

	NACIONALES SPANISH		EXTRANJEROS FOREIGN		TOTAL TOTAL	
	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.
A Coruña	203	562.361	1.174	12.683.285	1.377	13.245.646
Alicante	499	4.610.526	919	10.725.502	1.418	15.336.028


3.2.2. Clasificación por el tipo de barco / Distribution by types of ships


3.2.2.1. Tanques / Tankers


	NACIONALES SPANISH		EXTRANJEROS FOREIGN		TOTAL TOTAL	
	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.
A Coruña	31	144.354	310	5.406.125	341	5.550.479


3.2.3.2. Total por puertos / Ports traffic

	PANAMÁ		ITALIA		BAHAMAS		REINO UNIDO		LIBERIA		MALTA	
	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.	Número Number	G.T. G.T.
A Coruña	55	841.620	19	325.208	58	1.580.788	203	1.577.264	48	613.521	140	865.188
Alicante	119	1.690.897	28	1.127.096	51	1.007.060	49	421.027	3	81.848	62	418.246
Almería	160	1.835.489	3	18.139	202	2.051.970	5	98.361	6	267.017	29	487.976
Avilés	60	680.791	4	17.342	25	270.488	24	164.567	22	331.082	135	521.357

 NUMBER OF SHIP CALLS AND GT BY PORT AUTHORITY, TYPE OF SHIP AND FLAG

 NUMBER OF SHIP CALLS AND AGGREGATED GT BY PORT AUTHORITY

 NUMBER OF SHIP CALLS AND AGGREGATED GT BY PORT AUTHORITY AND TYPE OF SHIP

 NUMBER OF SHIP CALLS AND AGGREGATED GT BY PORT AUTHORITY AND FLAG OF SHIP

STEP 3

22 AGENCIES FROM 22 EU MEMBER COUNTRIES + NORWAY & CROATIA SEND FILES TO EUROSTAT

DATA RECEIVED BY EUROSTAT



- ✓ YEAR
- ✓ CODE OF PORT AUTHORITY
- ✓ TYPE OF OPERATION: LOADING / UNLOADING / LTRANSHPMENT / UTRANSHPM.
- ✓ O/D COUNTRY
- ✓ COMMODITY TYPE
- ✓ TYPE OF CARGO: DRY BULK / LIQUID BULK / GENERAL CARGO / CONTAINERISED CARGO
- ✓ GROSS WEIGHT
- ✗ NO. UNITS
- ✗ NO. TEUS

Year	Code of Port Authority	Type of Operation	Country of Origin or Destination	Port of Origin or Destination	TARIC Code	Type of Cargo	Type of Transport	Gross Weight (Tons)	No. Units	No. TEUs
2006	63	D	AE	AUH	3923	32	CA	7	0	0000000000.00
2006	63	D	AE	AUH	7323	31	CA	1	0	0000000000.00
2006	63	D	AE	AUH	7323	32	CA	3	0	0000000000.00
2006	63	D	AE	AUH	8438	31	CA	51	0	0000000000.00
2006	63	D	AE	AUH	8438	32	CA	68	0	0000000000.00
2006	63	D	AE	AUH	8531	31	CA	20	0	0000000000.00
2006	63	D	AE	AUH	8539	32	CA	115	0	0000000000.00
2006	63	D	AE	AUH	9403	31	CA	3	0	0000000000.00
2006	63	D	AE	AUH	9990	31	CA	3	0	0000000000.00
2006	63	D	AE	AUH	9990	32	CA	4	0	0000000000.00
2006	63	D	AE	AUH	7306A	32	CA	115	0	0000000000.00

STEP 3

22 AGENCIES FROM 22 EU MEMBER COUNTRIES + NORWAY & CROATIA SEND FILES TO EUROSTAT

DATA PUBLISHED BY EUROSTAT

- Maritime transport (mar)
 - Maritime transport - Passengers (mar_pa)
 - Maritime transport - Passengers - Annual data - All ports - by direction (mar_pa_aa)
 - Maritime transport - Passengers - Quarterly data - Main ports - by direction and type of traffic (national and international) (mar_pa_qm)
 - Maritime transport - Passengers - Quarterly data - Main ports - One detailed table per each reporting country - by direction, partner entity and nationality of registration of vessels (mar_pa_qm_detl)
 - Maritime transport - Goods (mar_go)
 - Maritime transport - Goods (gross weight) - Annual data - All ports - by direction (mar_go_aa)
 - Maritime transport - Goods (gross weight) - Quarterly data - Main ports - by direction and type of traffic (national and international) (mar_go_qm)
 - Maritime transport - Goods (gross weight) - Annual data - Main ports - One detailed table per each reporting country - by direction, partner entity, type of cargo and nationality of registration of vessels (mar_go_am_detl)
 - Maritime transport - Goods (gross weight) - Quarterly data - Main ports - One detailed table per each reporting country - by direction, partner entity and type of cargo (detailed classification) (mar_go_qm_detl)
 - Maritime transport - Goods (volume) - Quarterly data - Main ports - Cargo: containers only (TEU) - by direction, partner entity, container size and loading status (mar_go_qm_cont)
 - Maritime transport - Vessel traffic (mar_tf)
 - Maritime transport - Vessel traffic - Quarterly data - Main ports - Number and gross tonnage of vessels - by type and size of vessels - Direction: inwards only (mar_tf_qm)
 - Maritime transport - data aggregated at standard regional levels (NUTS) (mar_rg)
 - Maritime transport of passengers at regional level (new methodology) (tran_r_mapa_nm)
 - Maritime transport of freight at regional level (new methodology) (tran_r_mago_nm)

<http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/data/database>

✓ TRAFFIC BY PORT, TYPE OF CARGO (29 GROUPS), O/D COUNTRY, INWARDS / OUTWARDS, GROSS WEIGHT IN TONS

✗ TRAFFIC BY EUROPEAN PORT OF ORIGIN AND PORT OF DESTINATION

Maritime transport - Goods - Quarterly data - Main ports - Detailed data for Spain

Show Codes

Hide flags/footnotes

TIME	CARGO	* DIRECT
* UNIT	* PAR_MAR	INW
1000T	CN_NOT_HK	* REP_MAR
		ES01ESBIO

*time	2007Q01	2007Q02	2007Q03	2007Q04	2008Q01	2008Q02	2008Q03
*cargo							
FRU_40FT	24	38	43	39	35	36	38

Conclusions

1. All the non-validated fields of the cargo manifest / summary declaration are collected for statistical purposes but offer unreliable information:
 - Many of these fields are not sent to Puertos del Estado or Eurostat
 - No one uses these data because of their lack of reliability
 - **Is it really necessary for these fields to be part of the document?**

How good are statistical analysis? As good as the original data!

2. It would be necessary to collect the information from the most reliable source for each different variable

✘ **Mode of transport** ← Cargo manifest / Summary declaration

✓ **Mode of transport** ← For road transport: Order of road transport delivery or pick up & For rail transport: List of loadings /unloadings from trains

✘ **IMDG** ← Cargo manifest / Summary declaration

✓ **IMDG** ← In Spain: Note of Dangerous Goods & In other EU countries: Dangerous goods manifest

✘ **TARIC code** ← Cargo manifest / Summary declaration

✓ **TARIC code** ← Single Administrative Document (SAD)

Conclusions

3. Collecting the information from the most reliable source will only be possible if integral electronic platforms or port community systems (pcs) including all the exchanges of documents between all the different agents involved are created. This would imply receiving, checking, validating and compiling the documents exchanged between:

- ✓ **Customs / customs agents** → Single Administrative Document, other valid export/import intermediate documents, and all corrections to the SAD presented by exporters/importers
- ✓ **Terminal operators** → For road transport: Order of road transport delivery or pick up, for rail transport: List of loadings / unloadings from trains
- ✓ **Carrier / Ship agent** → Cargo Manifest / Summary Declaration, B/L?, and Note of Dangerous Goods / Dangerous goods manifest

Ideally, all fields should be validated and common identification codes should be inserted in all documents

Integral pcs as a way of increasing the quality and scope of maritime transport statistics without adding any extra burden to respondents.

THANK YOU FOR YOUR ATTENTION!

Miguel Llop

Fundación Valenciaport

mllop@fundacion.valenciaport.com

Eva Pérez-García

Fundación Valenciaport

eperez@fundacion.valenciaport.com