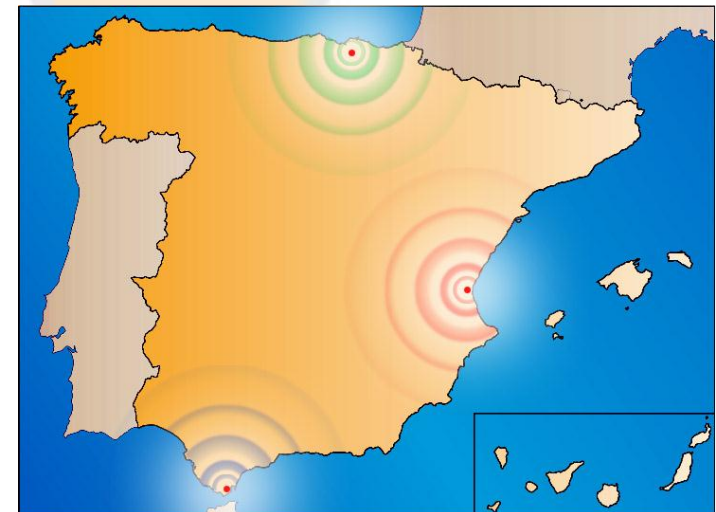# THE HINTERLAND OF SPANISH PORTS: RESULTS OF AN INTEGRATED TRADE AND TRANSPORT DATABASE

EVA PÉREZ GARCÍA, FUNDACIÓN VALENCIAPORT

IMSF Annual Meeting

Oslo, 22 May 2012

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1) **Study on the Integration of Trade and Transport Statistics**

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Integración de las Estadísticas de Comercio Exterior y Transporte de Mercancías (*Integration of Statistics of Foreign Trade and Freight Transport*)

Title of the Project: Integración de las Estadísticas de Comercio Exterior y Transporte de Mercancías

Funded by: Convocatoria de I+D+i del CEDEX 2006 (2006-2007)

General Objective: Contribute to improving maritime trade data by analysing the possibility of integrating in a single enlarged databank two different databases: the Spanish foreign trade and maritime transport datasets.

FUNDACIÓN valenciaport

Analysis of possible integration of foreign trade and transport statistics

FOREIGN TRADE and MARITIME TRANSPORT statistics can be linked and included in a NEW INTEGRATED DATABASE
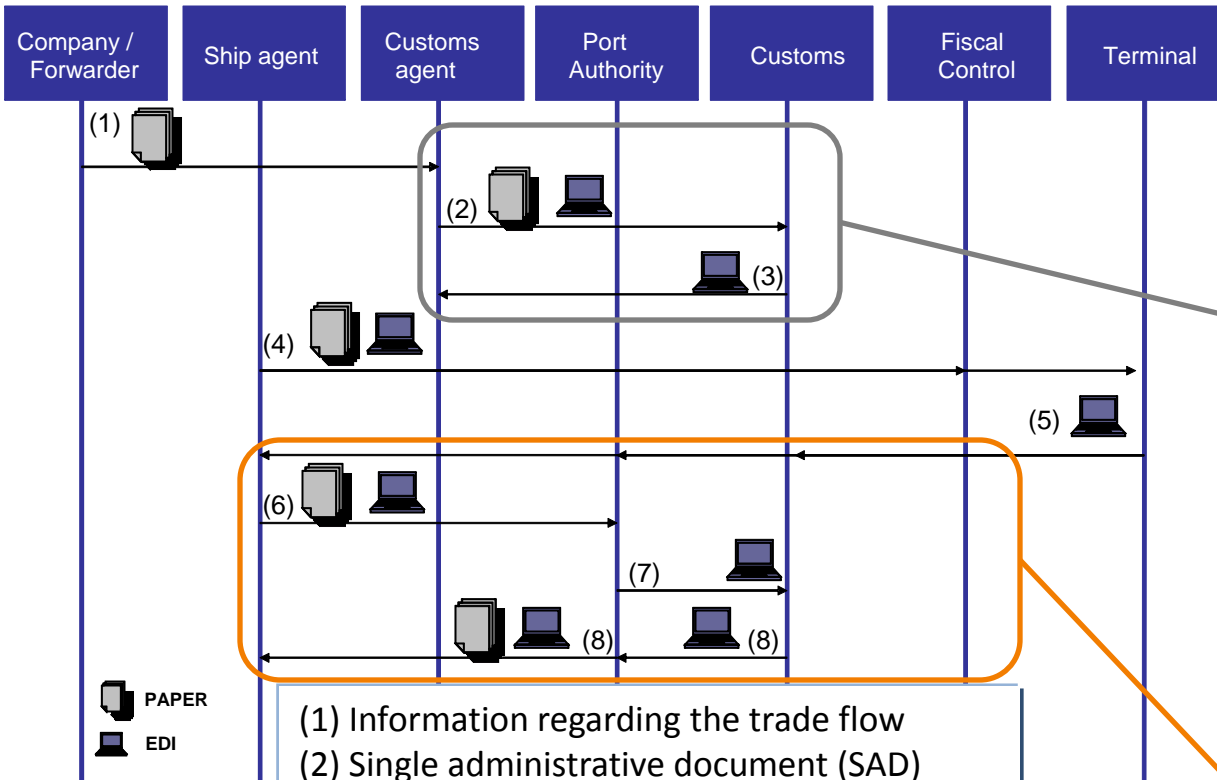
The **Single Administrative Document (SAD)** collects information about an export or import flow with non-EU countries

The **cargo manifest or summary declaration** collects details about the transport service and vessel used and about the goods transported
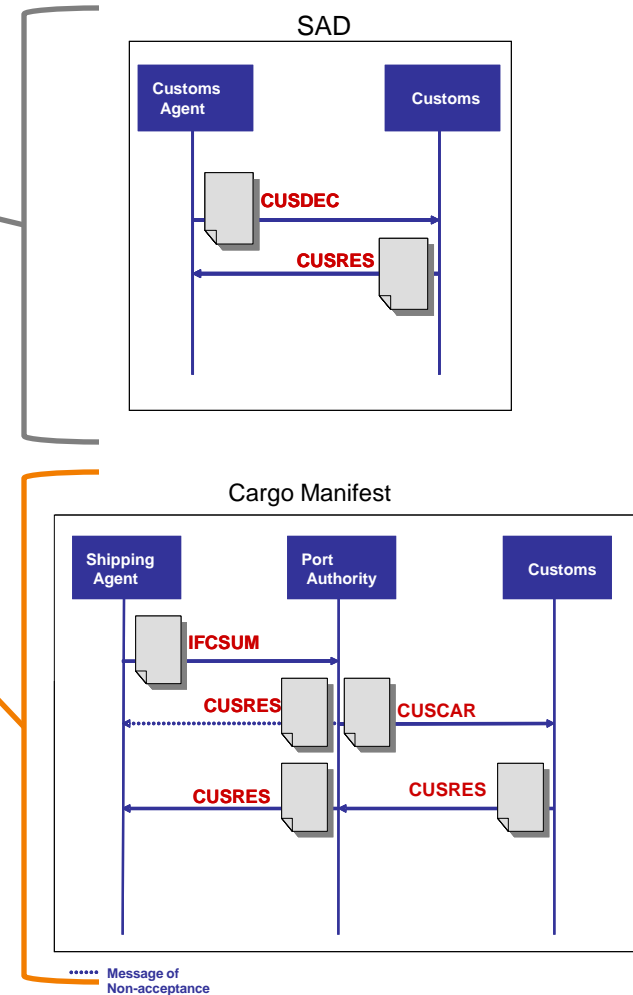
There is a combination of fields that links the SAD with the cargo manifest or summary declaration

Flow of documents for Exports

EDIFACT System of Exchanging Messages

(1) Information regarding the trade flow
(2) Single administrative document (SAD)
(3) Reply on the admission of the SAD
(4) List of cargo and related administrative documents
(5) Definitive list of cargo
(6) Cargo manifest (MC)
(7) MC
(8) Reply on the admission of the MC

Flow of documents for Exports

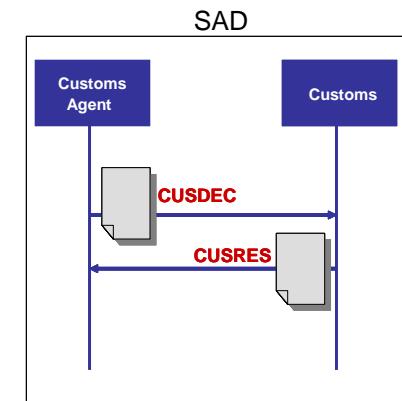| CUSDEC / CUSRES (SAD)	CARGO MANIFEST	
	IFCSUM	**CUSCAR**
CUSDEC: BGM+830+802310+9' -This segment of the message indicates whether the goods are being exported (code 830) or imported (code 929) -Number of document assigned by the agent submitting this message: 802310	BGM+833+46118002046+47' -This segment indicates that this message corresponds to a cargo manifest (code 833) or to a summary declaration (code 785) -Number of cargo manifest: 46118002046 ▪ 4611: Code of the customs office validating and accepting the cargo manifest ▪8: Year ▪002046: Number of ship call assigned by the port authority	BGM+833+46118002046001+47' -This segment indicates that this message corresponds to a cargo manifest (code 833) or to a summary declaration (code 785) -Number of cargo manifest : 46118002046001 ▪ 4611: Code of the customs office validating and accepting the cargo manifest ▪ 8: Year ▪ 002046: Number of ship call assigned by the port authority ▪ 001: Sequential shipment number
When the CUSDEC message is admitted, Customs replies with a **CUSRES message**, where the SAD will be given an identification code: RFF+ABT:08ES004611108235 19' ▪ 08: Year when the SAD has been accepted ▪ ES: Code of the country where the SAD document is accepted ▪ 004611: Code of the customs office validating and accepting the SAD ▪ 1082351: Sequential number of the export SAD. The first digit takes value 1 for export and 3 for import flow. ▪ 9: Control digit	DOC+830+ES46118082351:T' -This segment links the cargo manifest to an export SAD (code 830) or to an import SAD (code 929) -SAD identification code: ES08128336394 ▪ ES: Code of the country where the SAD document is accepted ▪ 4611: Code of the customs office validating and accepting the SAD ▪ 8: Year when the SAD has been accepted by Customs ▪ 082351: SAD number	DOC+830+ES46118082351:T' -This segment links the cargo manifest to an export SAD (code 830) or to an import SAD (code 929) -SAD identification code: ES08128336394 ▪ ES: Code of the country where the SAD document is accepted ▪ 4611: Code of the customs office validating and accepting the SAD ▪ 8: Year when the SAD has been accepted by Customs ▪ 082351: SAD number

Flow of documents for Imports

EDIFACT System of Exchanging Messages
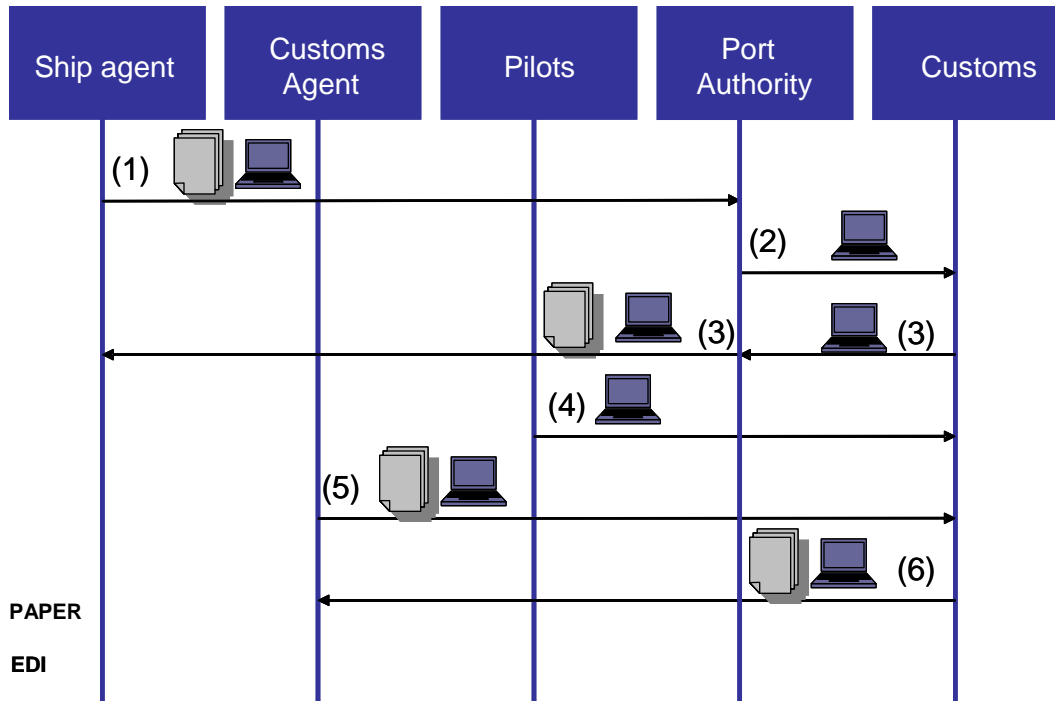
(1) Summary Declaration (SD)
(2) SD
(3) Reply on the admission of the SD
(4) Activation of ship call code
(5) SAD
(6) Reply on the admission of the SAD

PAPER

EDI
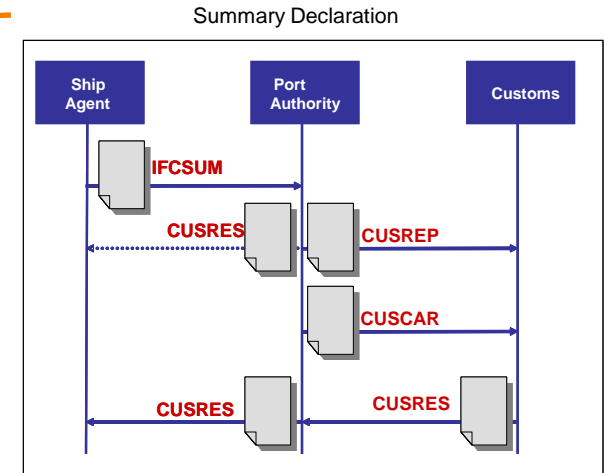
Flow of documents for Imports

CUSDEC (SAD)	SUMMARY DECLARATION	
	IFCSUM	CUSREP / CUSCAR
BGM+929+802235+9' -This segment of the message indicates whether the goods are being exported (code 830) or imported (code 929) -Provisional number of document assigned by the agent submitting this message: 802235	BGM+785+46118501393+47' -This segment indicates that this message corresponds to a summary declaration (code 785) -SD identifier: 46118501393 ▪ 4611: Code of the customs office where the SD has been validated and admitted ▪ 8: Year when the SD was accepted ▪ 501393: Number of ship call assigned by the port authority	BGM+785+46118501393001+47' -This segment indicates that this message corresponds to a summary declaration (code 785) -SD identifier: 46118501393001 ▪ 4611: Code of the customs office where the SD has been validated and admitted ▪ 8: Year when the SD was accepted ▪ 501393: Number of ship call assigned by the port authority ▪ 001: Sequential number of shipment
CST+1+3919909000:122:148+40.00:117:141+++100:116:141' -It indicates the number of shipment within the SAD: 1 -Type of commodity: 10 digits of the TARIC: 3919909000 (the first 8 digits indicate the type of commodity according to the combined nomenclature)	GID+00280+10:BX' -This segment indicates the number of shipment within the SD: 00280	GID+280+200:4::148' -This segment indicates the number of shipment within the SD: 00280
RFF+AEI:46118501393:00280:X' -Indicates the number of registry of the SD: AEI. -Identification code of the SD: 46118501393 ▪ 4611: Code of the customs office that admitted the SD ▪ 8: Year when the SD was accepted ▪ 501393: Number of SD ▪ Number of shipment within the SD: 00280		

Variables included in the integrated database

O/D DATA

✓ Customs office where the SAD was submitted and customs office of entry / exit to the EU

✓ Origin and destination location or region

✓ Loading and unloading port, previous and next port of call, port of transhipment

COMMODITY DATA

✓ HS 8-digit commodity code

✓ Gross weight and net mass

✓ Volume

✓ Statistical value

✓ Dangerous cargo information
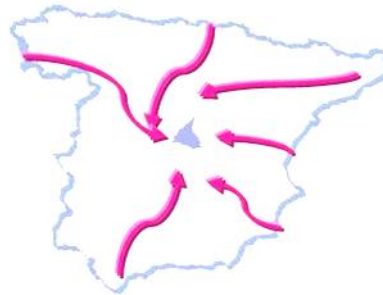
TRANSPORT DATA

✓ Transport flow

✓ Inland mode of transport

✓ Loading status (total or partial)

✓ Use of EU regular transport line

EQUIPMENT & PACKAGING DATA

✓ Number and kind of packages

✓ Number, type and dimensions of equipment used

✓ Gross weight of equipment

✓ FCL or LCL

✓ Tare of equipment

TRADE RELATED DATA

✓ INCOTERMS

✓ Taxes or tariffs paid

✓ Mode of payment

Source: Single Administrative Document
Source: Cargo Manifest

Example of information for each specific observation - export flow

ORIGIN NULES, CASTELLÓN (SPAIN)

INLAND TRANSPORT ROAD TRANSPORT

EU-EXIT CUSTOMS OFFICE VALENCIA MARÍTIMA, SPAIN

MODE OF TRANSPORT AT FRONTIER MARITIME
NON-REGULAR LINE

PORT OF LOADING VALENCIA, SPAIN

PREVIOUS PORT GENOA, ITALY

NEXT PORT ALGECIRAS, SPAIN

PORT OF UNLOADING S. PETERSBURG

DESTINATION PECHORY, RUSSIA

TARIC	32074010
GROSS WEIGHT	40800
NET MASS	40200
STATISTICAL VALUE	19000
TYPE OF PACKAGE	CS (Box)
NUMBER OF PACKAGES	2000
INCOTERMS	EXW NULES

NUMBER	2
TYPE	CONTAINER
DIMENSIONS	2210
GROSS WEIGHT OF EQ.	20400
TARE	2200
SITUATION EQUIPMENT	FCL

LOADING STATUS Total

Next steps

> **DESIGN AND IMPLEMENTATION OF THE INTEGRATED DATABASE INCLUDING FOREIGN TRADE AND MARITIME TRANSPORT DATA**

ALTERNATIVE A

The **Spanish Customs** takes charge of the project and implements the IT programme linking the information of the SAD and cargo manifest or summary declaration for every shipment exported or imported.

ALTERNATIVE B

The **Spanish Customs** gives **authorisation** to those **port authorities interested** in developing the project for shipments exported or imported through their ports and each individual port authority implements its own project.

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2) *Simulador del Hinterland de los Puertos Españoles*

3) **Integrated Database of Trade and Transport Flows Loaded and Unloaded at the Ports of Valencia, Sagunto and Gandía**

Simulador del Hinterland para los Puertos Españoles

Title of the Project: *Simulador del Hinterland de los Puertos Españoles*

Funded by: Centro de Estudios y Experimentación de Obras Públicas (CEDEX) within the Collaboration Agreement between CEDEX and Puertos del Estado (2009-2010)

General Objective: Develop a simulation tool and database of the hinterland of Spanish ports, providing information on the export and import flows loaded and unloaded at the different ports, their Spanish origin and destination, the type of commodity handled and the country of origin and destination of the products.

Sources of Information of the *Simulador del Hinterland*

The **SAD** compiles information on the Spanish export and import flows and the **Intrastat Declaration** provides information on commercial flows within the EU

The **Cargo Manifest** (CM) and the **Summary Declaration** (SD) provide information on loadings and unloadings at Spanish ports

The General Direction of Customs and Taxes of the Tax Agency elaborates and publishes monthly the database *Estadísticas de Comercio Exterior de España (Spanish Foreign Trade Statistics)*

Puertos del Estado receives from the ports every month a file with the **CM and SD loadings and unloadings operations**

Simulador del Hinterland de los Puertos Españoles

Fields of Information in the Source Databases

Database ECEE (Customs)

```
...
0603E010101AT 84669395  4 EXW I000000000006000000000000000000386205
0603E010101AU 82033000004 EXW0D0000000000020000000000000000000014600
0603E010101AU 84669395004 CIF0D0000000000010000000000000000000032200
0603E010101BG 84779080004 EXW0D0000000000080000000000000000000062000
0603E010101BG 94060080004 EXW0D0000000000090000000000000000000028800
0603E010101BH 82055990004 CIF0D0000000000050000000000000000000013700
0603E010101BR 90319085904 CIF0D0000000000050000000000000000000014000
0603E010101CA 84561090904 FOB0D0000000000060000000000003000000315020
...
```

- Year
- Month
- Flow
- Customs office
- Province
- Country
- Commodity type
- Transport mode
- INCOTERM
- Container (Y/N)
- Intrastat / SAD
- Weight
- Units
- Value

Puertos del Estado Database

```
...
200663D AEAUH3923 32 CA000000000007.000000000000000000000.00
200663D AEAUH7323 31 CA000000000001.000000000000000000000.00
200663D AEAUH7323 32 CA000000000003.000000000000000000000.00
200663D AEAUH8438 31 CA000000000051.000000000000000000000.00
200663D AEAUH8531 31 CA000000000020.000000000000000000000.00
200663D AEAUH8539 32 CA000000000115.000000000000000000000.00
200663D AEAUH9403 31 CA000000000003.000000000000000000000.00
200663D AEAUH9990 31 CA000000000003.000000000000000000000.00
...
```

- Year
- Port authority
- Type of operation
- Place of origin / destination
- Commodity type
- Type of transport unit
- Previous transport mode
- Tonnes
- Units
- TEUs

Links between the two sources of information

Puertos del Estado File (adjusted and validated)					Customs File (adjusted and validated)			
Variable number	Variable	Values	Example		Example	Values	Variable	Variable number
1	Year	2006	2006		2006	2006	Year	1
4	Operation type code	D	D		I	I	Type of trade flow code	4
		E				E		
2	Port authority code	Linking file "Port authorities - Customs offices"	63		4611 4615 4621 4631 4650 4699	Linking file "Port authorities - Customs offices"	Customs office code	6
6	Country code	ISO code for countries and territories	CN		CN	ISO code for countries and territories	Country code	12
12	Commodity type CN code	CN classification code at 4 digit level	8508 (Aspiradoras)		8508 (Aspiradoras)	CN classification code at 4 digit level	Commodity type CN code	18
16	Type of unit code	Puertos del Estado code for type of transport unit	31 32 33 34 C1 CP2 CP4		1	0 / 1	Container code (Yes / No)	36

Tasks carried out to develop the Hinterland Simulator

Block of Tasks 1. Filtering and Adjusting the Puertos del Estado Database

Block of Tasks 2. Filtering and Adjusting the Customs Database (*Estadísticas de Comercio Exterior de España)*

Block of Tasks 3. Programming the Linkage of Both Databases

Block of Tasks 4. Validating the New Database

Block 1. Filtering and Adjusting the Puertos del Estado Database

1. **Validating the structure of the file**

2. **Introducing new variables describing the codes**

3. **Completing the master files of codes and their corresponding descriptions (ex. New values for the UN LOCODE file)**

   Examples:

   In 1992 the code of Yemen changed from YS to YE. Still nowadays there are CM and SD with destination / origin in YS and in YE.

   In 2002 the code of the Dem. Rep. of Congo (former Zaire) changed from ZR to CD

4. **Validating the structure of the file after the changes previously listed**

5. **Loading of data into the programme**

6. **Generating a report on the loaded data**

7. **Creating a search table for the user to access the loaded data**

8. **Elaborating a package of pre-designed searches**

9. **Generating a new file with operations of loading and unloading that could be linked to export and import flows in the Customs file**

Block 2. Filtering and Adjusting the Customs Database

1. **Validating the structure of the file**

2. **Introducing new variables describing the codes**

3. **Completing the master files**

   ▪ **Including new values for the Customs office field of information: local, provincial and central offices where the Intrastat Declaration can be submitted**

   ▪ **Creating a master file including all the community codes in the NC classification that have been accepted between 1995 and 2008.**

4. **Validating the new structure of the file after the changes previously listed**

5. **Loading of data into the programme**

6. **Generating a report on the loaded data**

7. **Creating a search table for the user to access the loaded data**

8. **Elaborating a package of pre-designed searches**

Block 2. Filtering and Adjusting the Customs Database

Generating a new file with export and import flows that could be linked to loadings and unloadings in the Puertos del Estado database (the new one including only operations that can be linked with trade flows in the Customs database)

9. Selecting registries where "Code of mode of transport" is 1 (maritime)

10. Filtering and excluding those registries with errors in the type of commodity declared (even if all commodity codes since 1998 are considered valid)

11. Creating the variable "Code of the Port Authority Linked to the Operation"

12. Filtering and excluding those registries where there is no port authority related to the operation

13. Creating the variables "NST-R commodity 1-digit level code", "Description of the NST-R commodity 1-digit level code", NST-R commodity 2-digit level code", "Description of the NST-R commodity 2-digit level code", NST-R commodity 3-digit level code", "Description of the NST-R commodity 3-digit level code", NST-R commodity 24-groups code", "Description of the NST-R commodity 24-groups code", NST-R commodity 13-categories code", "Description of the NST-R commodity 13-categories code".

Block 2. Filtering and Adjusting the Customs Database

14. Correcting the weight field of information for those registries where weight is blank or 0

▪ Registries with 0 or blank weight will be assigned a Unit Value Index (UVIpm) according to their specific combination of values in the fields "flow – province – CN 8 digits". If there is no match for the combination at 8-digit level, then the UVIpm will be assigned searching for the corresponding value at 6-digit level and so on.

▪ Creating the variable "Corrected weight in kg" for those registries with 0 or blank weight originally. The value of this new field will be assigned according to the formula: Value (Euros) / UVIpm (Euros/Kg) assigned

15. Generating a report on the correction of the weight variable

16. Checking the structure of the resulting file

Block 3. Programming the Linkage of both Databases

1. **Creating a new file "Final Database" that includes all the registries in the filtered and adjusted Puertos del Estado database (only those registries that can be linked to the Customs database)**

2. **Including the following fields of information in the "Final Database" :**

    - **Trade flow code**

    - **Province code**

    - **INCOTERM code**

    - **UVI (Euros / Kg)**

    - **Statistical value of the shipment**

    - **NST-R commodity code (1-digit level)**

    - **NST-R commodity code (2-digit level)**

    - **NST-R commodity code (24 groups)**

    - **NST-R commodity code (13 categories)**

    - **And the descriptions of all the previous fields**

Block 3. Programming the Linkage of both Databases

3. **Creating and storing tables to assign values to the new fields of information. As many tables as combinations of the fields "flow", "port authority linked to the operation", "country" and "type of commodity at 4-digit CN code" exist, have been created.**

4. **Calculating the previously mentioned tables in percentages.**

Block 3. Programming the Linkage of both Databases

5. **Giving values to the trade flow fields**

   Loading → Export flow

   Unloading → Import flow

6. **Assigning values to the "province code", "province", "INCOTERM code" and "INCOTERM" fields**

   - **Reading the combination "Year-Flow-Port authority-Country-Commodity type code" of the original registry in the filtered and adjusted Puertos del Estado database**

   - **Creating as many new registries as different combinations exist of the province and INCOTERM fields in the associated table**

   - **Copying the existing fields of information of the original registry in all the new registries and including the new fields of province and INCOTERM**

7. **Assigning values to the "weight (tonnes)" field**

   - **Since for every original registry in the Puertos del Estado database several registries are generated in the Final Database, the weight of the original registry needs to be distributed between the new registries according to the percentages of its corresponding associated table.**

Block 3. Programming the Linkage of Both Databases
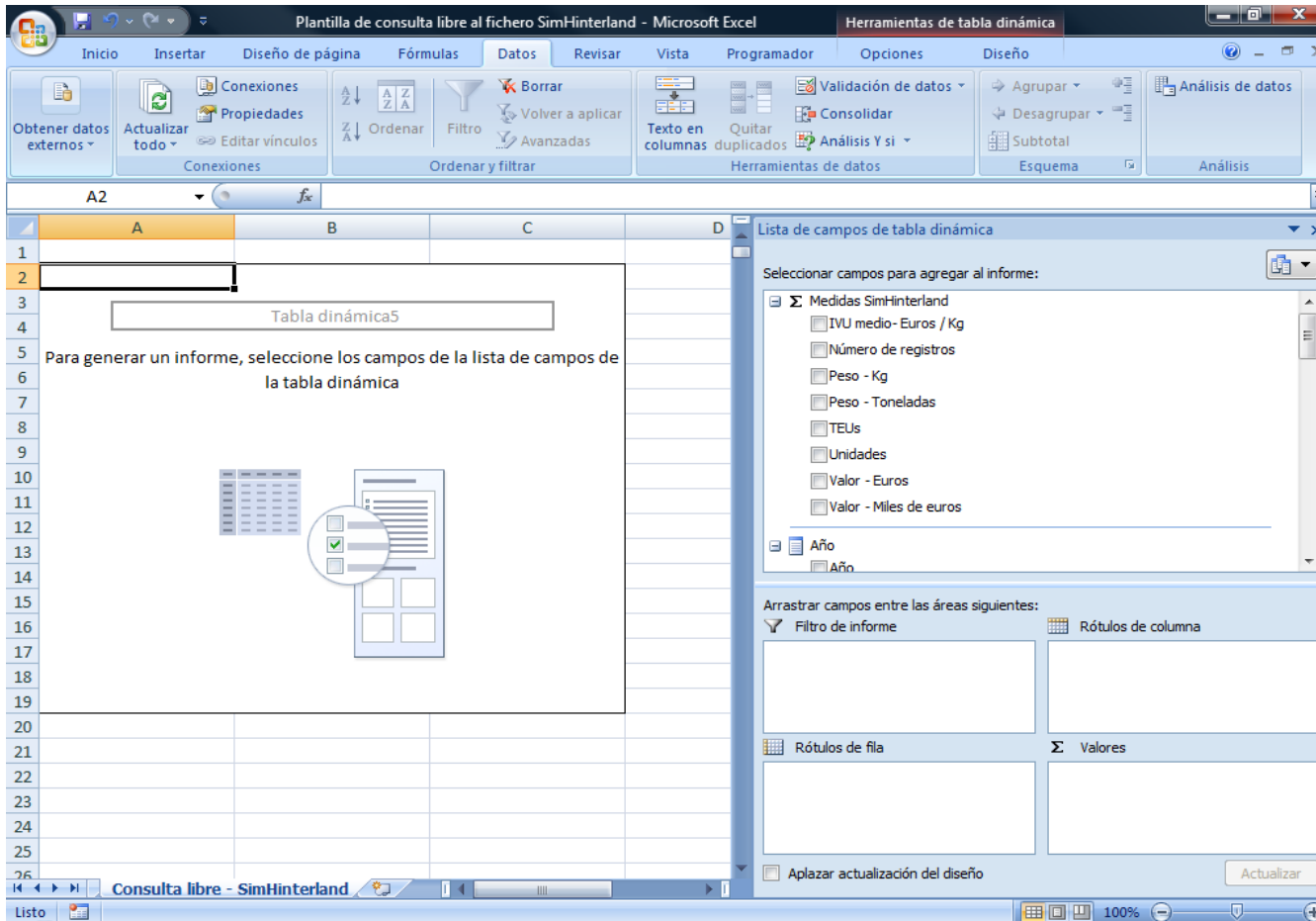
8. **Giving values to the "units" field of information**

9. **Assigning values to the "TEUs" field**

10. **Giving values to the "UVI (Euros/kg) field**

    ▪ **The fields "year, trade flow, province, 4-digit commodity type" are read and the specific combination of those fields is searched in the table where the UVI had been calculated (already used to correct the weight of registries)**

    ▪ **If the combination at 4-digit commodity type does not exist, then the specific combination is searched at 2-digit commodity type**

11. **Estimating the statistical value of the shipment in Euros**

    ▪ **The statistical value of the shipment is calculated multiplying the weight in kilograms by the UVIpm (Euros / kg) assigned to the specific registry (depending on its combination of year, flow, province and commodity type)**

12. **Giving values to the 1, 2 digit, 24 group and 13 categories NST-R fields**

13. **Checking the structure of the resulting final database**

Block 3. Programming the Linkage of Both Databases

1. Year
2. Port authority code
3. Port authority
4. Type of operation code
5. Type of operation (loading / unloading)
6. Country code
7. Country
8. UN LOCODE port of origin or destination
9. Port of origin or destination
10. Commodity code (4 digits CN code)
11. Type of commodity
12. Type of transport unit code
13. Code of transport unit
14. Code of previous / next mode of transport
15. Previous / next mode of transport

16. Weight (tonnes)
17. Units
18. TEUs
19. Type of flow code
20. Type of flow (export / import)
21. Province code
22. Province
23. INCOTERM code
24. INCOTERM
25. Statistical value (Euros)
26. Unit value index (UVI) (Euros / kg)
27. 1-digit NST-R type of commodity
28. 2-digit NST-R type of commodity
29. 24-groups NST-R type of commodity
30. 13-categories NST-R type of commodity

Block 3. Programming the Linkage of Both Databases

14. Creating an OLAP cube for database searches

Block 4. Checking the Results

Checking the results of loading operations: comparison of type of transport unit results between the original Puertos del Estado database and the Final Database

Fichero de Puertos para Relacionar con Aduanas			Fichero SimHinterland			DIFERENCIAS	
TIPO DE UNIDAD DE CARGA	Peso (tm)	% Peso	TIPO DE UNIDAD DE CARGA	Peso (tm)	% Peso	Peso (tm)	% Peso
Camión > 3500	1.541	0,02%	Camión > 3500	1.541	0,02%	0	0,00%
Carga general - Productos forestales	5.442	0,06%	Carga general - Productos forestales	5.442	0,06%	0	0,00%
Carga general - Productos siderúrgicos	337.338	3,54%	Carga general - Productos siderúrgicos	337.338	3,54%	0	0,00%
Contenedor de 20 pies	6.222.519	65,27%	Contenedor de 20 pies	6.218.414	65,27%	4.105	-0,01%
Contenedor de 40 pies	1.488.423	15,61%	Contenedor de 40 pies	1.484.927	15,59%	3.496	0,02%
Contenedor de más de 40 pies	164	0,00%	Contenedor de más de 40 pies	164	0,00%	0	0,00%
Granel líquido - Otras mercancías	313.664	3,29%	Granel líquido - Otras mercancías	313.664	3,29%	0	0,00%
Granel sólido - Mineral	1.518	0,02%	Granel sólido - Mineral	1.518	0,02%	0	0,00%
Granel sólido - Otras mercancías	181.766	1,91%	Granel sólido - Otras mercancías	181.766	1,91%	0	0,00%
Granel sólido - Productos agrícolas	16.537	0,17%	Granel sólido - Productos agrícolas	16.537	0,17%	0	0,00%
Otros cargamentos generales	852.399	8,94%	Otros cargamentos generales	852.399	8,95%	0	-0,01%
Plataforma > 6	112.795	1,18%	Plataforma > 6	112.795	1,18%	0	0,00%
Total general	9.534.106	100,00%	Total general	9.526.505	100,00%	7.601	0,00%

Methodology Report and User Manual

The **Methodology Report** describes in detail the tasks carried out to elaborate this new database.

The **User Manual** lists the fields of information available in the different OLAP cubes: (1) Ports, 2) Customs, 3) Final Database, provides the description of the fields and explains the biases and statistical errors that may affect each field of information.

GENERAL RESULTS: Province distribution of import and export flows unloaded and loaded by the ports managed by the Port Authority of Valencia (APV) (thousands of Euros, 2006)

Total de importaciones y exportaciones (miles de Euros, 2006)								
Provincia	**Total Miles Euros**	**% Valor Total**	**Provincia**	**Total Miles Euros**	**% Valor Total**	**Provincia**	**Total Miles Euros**	**% Valor Total**
Álava	57.225	0,17%	Girona	60.183	0,18%	Ourense	7.746	0,02%
Albacete	218.416	0,65%	Granada	64.931	0,19%	Oviedo	82.044	0,24%
Alicante	2.197.855	6,55%	Guadalajara	109.493	0,33%	Palencia	30.072	0,09%
Almería	111.100	0,33%	Guipúzcoa	238.857	0,71%	Pontevedra	368.368	1,10%
Ávila	47.030	0,14%	Huelva	29.605	0,09%	Salamanca	19.379	0,06%
Badajoz	39.399	0,12%	Huesca	3.504	0,01%	Santa Cruz de Tenerife	651.866	1,94%
Baleares	413.901	1,23%	Jaén	486.144	1,45%	Santander	146.719	0,44%
Barcelona	2.093.931	6,24%	La Coruña	64.945	0,19%	Segovia	40.135	0,12%
Burgos	305.856	0,91%	La Rioja	91.160	0,27%	Sevilla	149.563	0,45%
Cáceres	17.937	0,05%	Las Palmas	1.418.859	4,23%	Soria	13.810	0,04%
Cádiz	97.856	0,29%	León	54.937	0,16%	Tarragona	121.885	0,36%
Cartagena	66	0,00%	Lleida	25.661	0,08%	Teruel	43.315	0,13%
Castellón	1.956.569	5,83%	Lugo	844	0,00%	Toledo	327.794	0,98%
Ceuta	48.602	0,14%	Madrid	5.422.569	16,16%	Valencia	12.788.690	38,12%
Ciudad Real	274.007	0,82%	Málaga	106.660	0,32%	Valladolid	66.524	0,20%
Córdoba	107.149	0,32%	Melilla	16.830	0,05%	Vizcaya	197.030	0,59%
Cuenca	66.103	0,20%	Murcia	1.192.845	3,56%	Zamora	3.955	0,01%
Gijón	48	0,00%	Navarra	449.807	1,34%	Zaragoza	600.626	1,79%
						Total general	**33.550.407**	**100,00%**

Ranking of destination countries of export flows loaded in the APV ports (tonnes and thousands of Euros, 2006)

Exportaciones por país (2006)				
País	**Total Toneladas**	**% Peso**	**Total Miles de Euros**	**% Valor**
Estados Unidos de América	1.073.305	11,27%	1.632.802.281	11,73%
Italia	923.009	9,69%	2.546.092.348	18,28%
China	637.480	6,69%	475.948.646	3,42%
Arabia Saudí	497.968	5,23%	312.865.770	2,25%
Federación de Rusia	394.323	4,14%	372.067.025	2,67%
Grecia	359.834	3,78%	439.927.476	3,16%
Reino Unido	285.511	3,00%	727.484.928	5,22%
Emiratos Árabes Unidos	285.307	2,99%	290.895.039	2,09%
México	270.545	2,84%	478.892.875	3,44%
Israel	248.559	2,61%	280.571.582	2,01%
Canadá	229.213	2,41%	305.062.605	2,19%
Argelia	219.547	2,30%	234.444.963	1,68%
Marruecos	211.599	2,22%	444.029.558	3,19%
Turquía	194.608	2,04%	561.306.232	4,03%
Irlanda	146.984	1,54%	98.747.824	0,71%
...	...	...	...	...
Maldivas	2	0,00%	11.099	0,00%
Total general	9.526.505	100,00%	13.924.810.127	100,00%

Province distribution of import flows coming from China unloaded at the APV ports (% of tonnes, 2006)

Distribución provincial (%)

	0%
	0% - 0,30%
	0,40% - 0,65%
	2,20% - 4,25%
	6,30% - 8,70%
	63,70% - 63,70%

The Hinterland of Spanish Ports: Results of an Integrated Trade and Transport Database
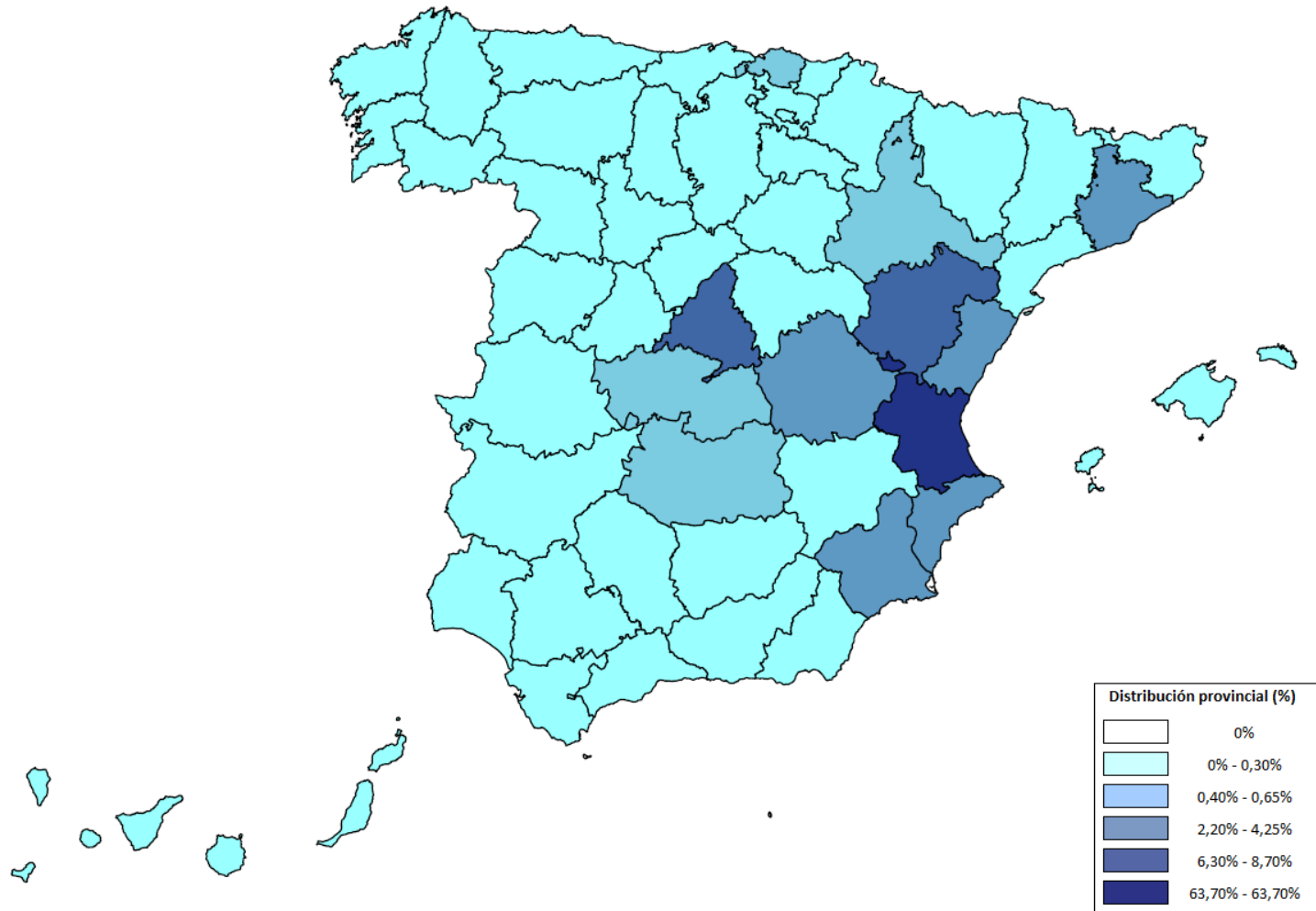
Province distribution of export flows of CN commodity type 6908 (ceramic tiles) loaded at the APV ports (% of tonnes, 2006)

Distribución provincial (%)
- 0%
- 0% - 0,05%
- 0,05% - 0,35%
- 1,65% - 1,65%
- 5,10% - 5,10%
- 92,15% - 92,15%
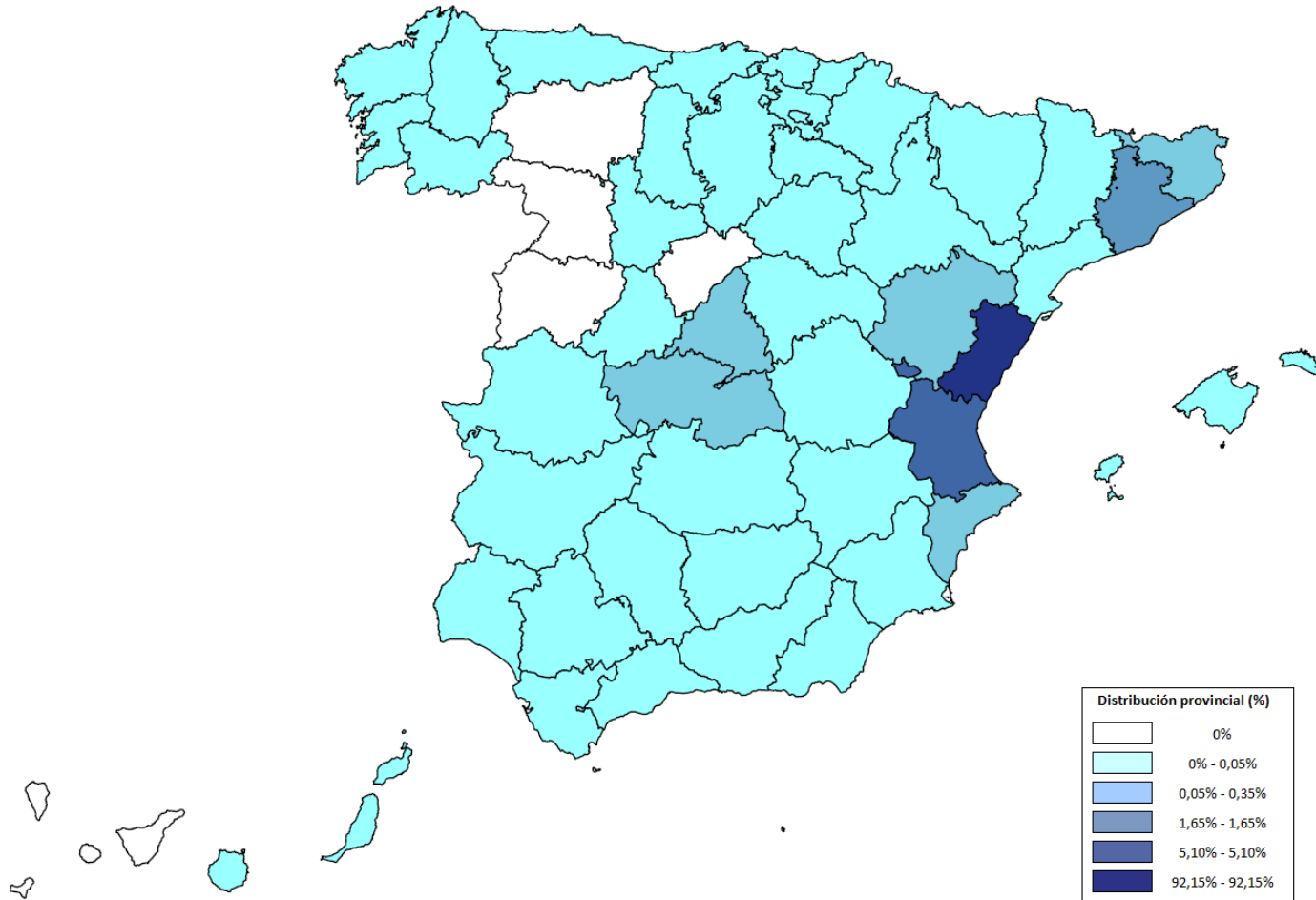
Ranking of type of transport units of loading and unloadings at the APV ports (tonnes, thousands of Euros and Euros / kg, 2006)

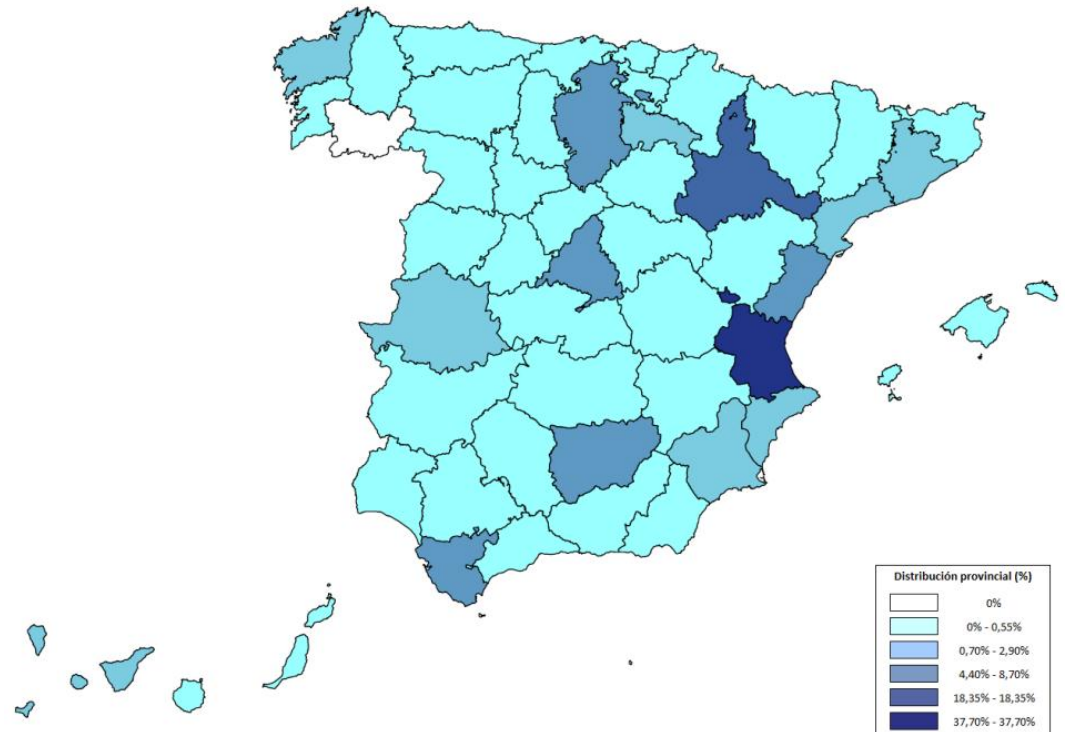| Ranking por Unidad de Carga					
Tipo de Unidad de Carga	Total Toneladas	% Peso	Total Miles de Euros	% Valor	IVU medio-Euros / Kg
Contenedor de 20 pies	8.226.143	28,95%	8.363.100	24,93%	6,0629
Contenedor de 40 pies	4.161.952	14,65%	13.086.242	39,00%	6,7172
Granel sólido - Otras mercancías	4.117.041	14,49%	265.852	0,79%	0,4928
Carga general - Productos siderúrgicos	3.102.990	10,92%	1.352.758	4,03%	0,7037
Granel líquido - Gas líquido	2.840.794	10,00%	726.204	2,16%	0,2561
Otros cargamentos generales	1.701.615	5,99%	6.842.045	20,39%	8,2893
Granel sólido - Productos agrícolas	1.572.196	5,53%	499.230	1,49%	1,1258
Granel líquido - Otras mercancías	758.924	2,67%	286.041	0,85%	1,2199
Granel sólido - Carbón	666.597	2,35%	34.606	0,10%	0,0515
Granel líquido - Productos petrolíferos	521.579	1,84%	311.017	0,93%	3,4154
Carga general - Productos forestales	322.181	1,13%	143.371	0,43%	0,9462
Plataforma > 6	218.824	0,77%	1.536.000	4,58%	6,9728
Granel sólido - Mineral	196.593	0,69%	72.129	0,21%	0,4081
Contenedor de más de 40 pies	3.081	0,01%	18.278	0,05%	4,7944
Camión > 3500	1.963	0,01%	13.534	0,04%	5,2116
Total general	28.412.473	100,00%	33.550.407	100,00%	

Province distribution of export and import flows in 20 foot containers handled at the APV ports

Contenedor de 20 pies					
Exportaciones					
Provincia	**Total Toneladas**	**% Peso Total**	**Provincia**	**Total Miles Euros**	**% Valor Total**
Castellón	3.666.515	58,96%	**Castellón**	1.375.654	30,43%
Valencia	944.784	15,19%	**Valencia**	796.488	17,62%
Alicante	646.605	10,40%	**Alicante**	650.647	14,39%
Murcia	270.229	4,35%	**Madrid**	561.898	12,43%
Madrid	188.357	3,03%	**Murcia**	312.121	6,90%
Barcelona	118.794	1,91%	**Barcelona**	163.808	3,62%
Ciudad Real	53.108	0,85%	**Pontevedra**	99.233	2,20%
…	…	…	…	…	…
Gijón	0	0,00%	**Gijón**	6	0,00%
Total general	6.218.414	100,00%	**Total general**	4.520.285	100,00%
Importaciones					
Provincia	**Total Toneladas**	**% Peso Total**	**Provincia**	**Total Miles Euros**	**% Valor Total**
Valencia	792.961	39,50%	**Valencia**	1.555.375	40,47%
Madrid	261.954	13,05%	**Madrid**	695.101	18,09%
Alicante	202.117	10,07%	**Alicante**	305.143	7,94%
Castellón	151.585	7,55%	**Barcelona**	294.438	7,66%
Murcia	132.446	6,60%	**Murcia**	195.732	5,09%
Barcelona	97.630	4,86%	**Castellón**	138.943	3,62%
León	70.052	3,49%	**Guipúzcoa**	68.901	1,79%
…	…	…	…	…	…
Cartagena	4	0,00%	**Gijón**	9	0,00%
Total general	**2.007.729**	100,00%	**Total general**	3.842.815	100,00%

Province distribution of Spanish export flows loaded at the APV ports with destination SALERNO (Italy) (tonnes, 2006)

Exportaciones con destino en el Puerto de Salerno		
Provincia	**Peso - Toneladas**	**% Peso**
Valencia	174.728	37,69%
Zaragoza	85.036	18,34%
Jaén	40.354	8,70%
Cádiz	34.157	7,37%
Madrid	26.712	5,76%
Burgos	21.701	4,68%
Castellón	20.379	4,40%
Barcelona	13.303	2,87%
La Rioja	9.339	2,01%
Murcia	6.875	1,48%
Alicante	4.299	0,93%
Cáceres	3.770	0,81%
Santa Cruz de Tenerife	3.516	0,76%
La Coruña	3.368	0,73%
Tarragona	3.309	0,71%
...	...	...
Salamanca	0	0,00%
Total general	463.638	100,00%

Distribución provincial (%)

0%
0% - 0,55%
0,70% - 2,90%
4,40% - 8,70%
18,35% - 18,35%
37,70% - 37,70%

Province distribution of exports to the USA loaded at the APV ports according to the INCOTERM used (Thousands of Euros, 2006)

INCOTERM	Miles de Euros	% Valor	INCOTERM	Miles de Euros	% Valor	INCOTERM	Miles de Euros	% Valor
Exportaciones a Estados Unidos en Contenedor (2006)								
EXW	575.416	100,00%	**CFR**	124.285	100,00%	**DEQ**	330	100,00%
Castellón	163.042	28,33%	Madrid	53.517	43,06%	Madrid	330	100,00%
Valencia	147.897	25,70%	Murcia	19.692	15,84%	**DDU**	147.762	100,00%
Alicante	62.644	10,89%	Valencia	15.318	12,32%	Valencia	94.311	63,83%
Murcia	47.116	8,19%	Barcelona	13.650	10,98%	Madrid	14.805	10,02%
Madrid	33.865	5,89%	Alicante	6.590	5,30%	Murcia	13.926	9,42%
FCA	38.660	100,00%	**CIF**	124.741	100,00%	Guipúzcoa	5.362	3,63%
Madrid	25.396	65,69%	Alicante	28.696	23,00%	Álava	4.452	3,01%
Valencia	12.069	31,22%	Madrid	27.635	22,15%	**DDP**	71.391	100,00%
Alicante	225	0,58%	Valencia	21.941	17,59%	Alicante	15.485	21,69%
Murcia	200	0,52%	Murcia	11.241	9,01%	Guipúzcoa	13.568	19,01%
Sevilla	159	0,41%	Albacete	10.310	8,27%	Madrid	10.285	14,41%
FAS	2	100,00%	**CIP**	5.038	100,00%	Valencia	7.772	10,89%
Valladolid	2	100,00%	Madrid	3.326	66,02%	Álava	6.024	8,44%
FOB	423.350	100,00%	Murcia	765	15,19%	**XXX**	11.979	100,00%
Valencia	204.529	48,31%	Valencia	353	7,00%	Madrid	5.078	42,39%
Alicante	51.853	12,25%	Oviedo	250	4,96%	Valencia	4.230	35,31%
Madrid	50.125	11,84%	Zaragoza	134	2,67%	Alicante	1.117	9,33%
Albacete	21.783	5,15%	**DAF**	224	100,00%	Barcelona	574	4,80%
Oviedo	18.807	4,44%	Valencia	224	100,00%	Castellón	430	3,59%
						111	13	100,00%
						Valencia	13	100,00%
						Total general	1.574.068	

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1) **Study on the Integration of Trade and Transport Statistics**

2) *Simulador del Hinterland de los Puertos Españoles*

3) **Integrated Database of Trade and Transport Flows Loaded and Unloaded at the Ports of Valencia, Sagunto and Gandía**

Current situation:

The information provided by Spanish Customs is currently compiled by the port authorities using a system called **"Notifications from Customs Clearance to Port NDP-Dated"**.

The CUSRES NDP inbox **messages are not stored** in the message tables of the system and no copy is produced for the recipient of the message (Port Authority of Valencia). They are only used for assessing which containers must be sent to the terminals.

New System Proposed:

The development of a new system covering a higher number of events than NDP-Dating (registry, interruptions, etc.) and providing more information.

Format: XML messages with the information on Customs declarations.

Customs will develop **web services** from which the port authorities will receive the messages.

The **TDA will notify those ports** that ask to receive information about the different events of relevance that happen in the Customs Declarations related to the goods under their control. In order to do so, the TDA will compile and send a series of data of the AEAT systems **whenever an event occurs in a customs Declaration** related to a container located in the port premises.

XSD of the generic traceability message
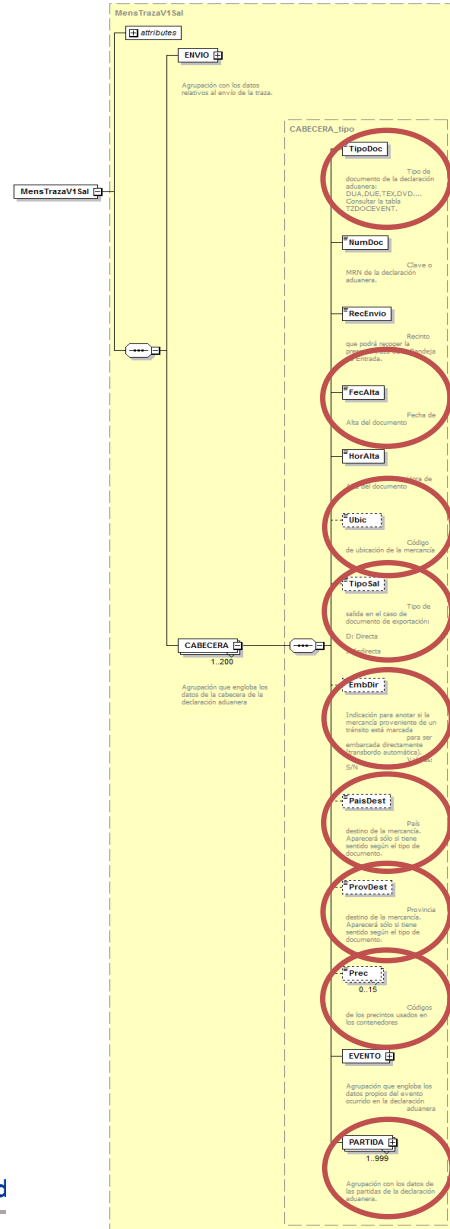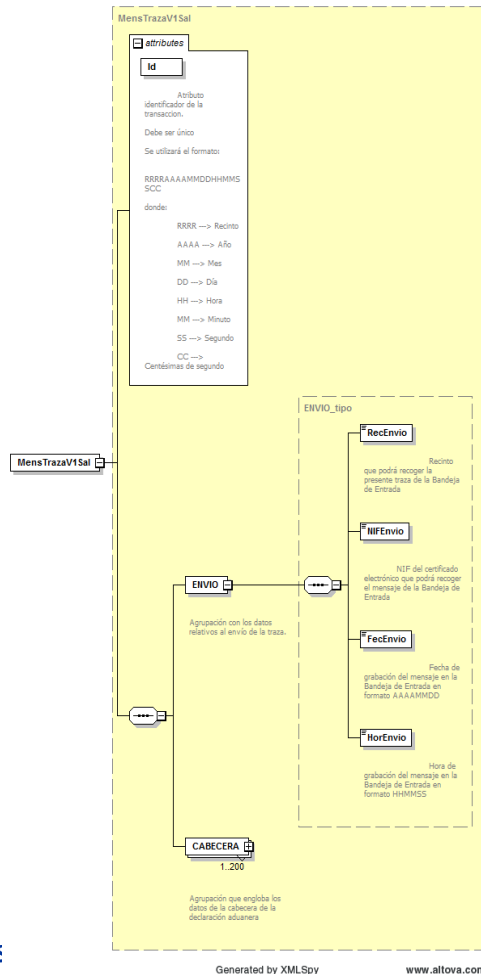
Type of document

Date

Location of goods

Type of exit for export operations

Info about previous transhipment

Country of destination

Province in Spain

Seals

Type of commodity

Customs database

THANK YOU FOR YOUR ATTENTION!

Eva Pérez García

Director of Transport Economics

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GOBIERNO DE ESPAÑA · MINISTERIO DE FOMENTO · MINISTERIO DE CIENCIA E INNOVACIÓN · CEDEX CENTRO DE ESTUDIOS Y EXPERIMENTACIÓN DE OBRAS PÚBLICAS · MOS4MOS · Co-financed by the European Union Trans-European Transport Network (TEN-T)

FUNDACIÓN DE LA COMUNIDAD VALENCIANA PARA LA INVESTIGACIÓN, PROMOCIÓN Y ESTUDIOS COMERCIALES DE VALENCIAPORT