

# **SafeSeaNet Workshop 18**

## **SSN 18.5.2**

### **SSN implementation, data quality and the interface with THETIS**

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**German Sarasua**

Senior MSS Officer - Vessel Traffic and Reporting Services

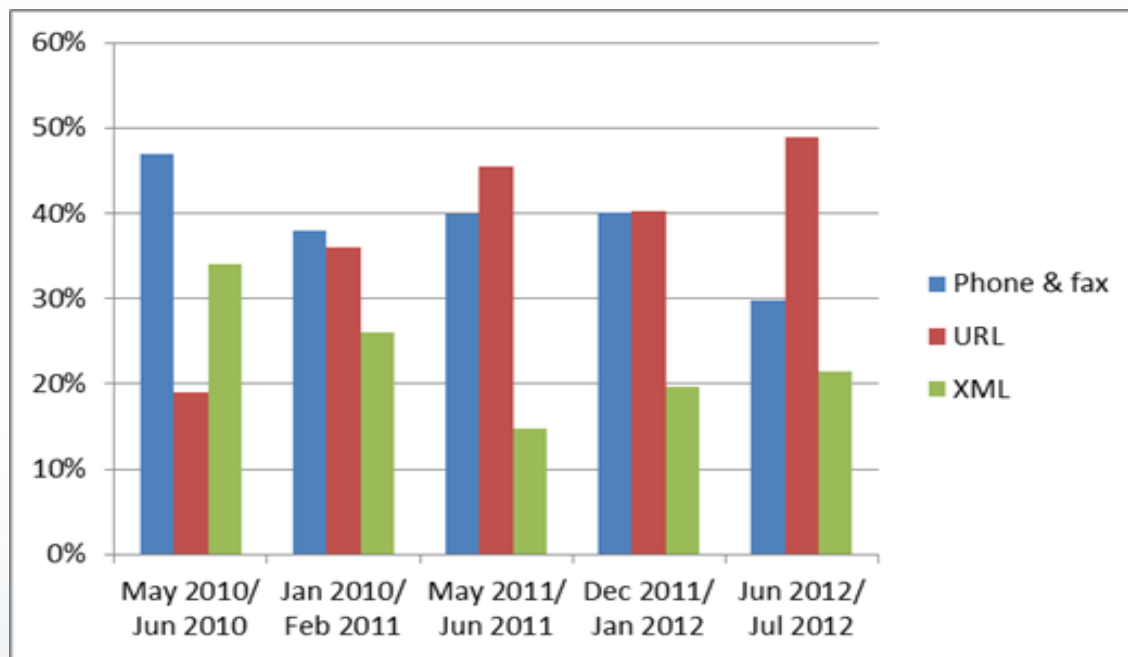
**Lisbon | 18 October 2012**

# **CONTENT**

- 1. SSN IMPLEMENTATION**
- 2. SSN AVAILABILITY**
- 3. DATA QUALITY**
- 4. INTERFACE WITH THETIS**
- 5. PROPOSALS/REQUESTED ACTIONS**

- **Port Plus:** all MSs are regularly using Port Plus notifications
- **V1** Port and Hazmat notifications: not yet phased out (deadline 14 Dec 2102). Still DE (only Hazmat), GR, NL, PL\*, PT and the UK
- **MRS notifications:** Denmark started providing reports from The Great Belt. MRS implementation not completed yet
- **AIS** information: UK has suspended the XML interface (kept as back up solution) and defines the streaming interface as the primarily connection
- **Incident reports:** no changes detected from last report
- **Automated ShipCall requests** for the Hazmat details: phased out by NO and DK, as requested
- **Usage of the web interface** for notifying: the number of notifications (Port Plus) is negligible (10 in 3 months)

## Solution used for providing Hazmat details



- **In September** the Phone and Fax solution continues to decrease up to 20%.
- **In October**, BE has implemented the XML solution (phasing out Phone & Fax)

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## SSN AVAILABILITY

- No relevant downtimes were detected in SSN National systems
- The availability of the central SSN system (including the SSN GI) over the one year period July 2011 to June 2012 was 99.38%
- The maximum central SSN system downtime occurred in the second quarter 2012 and lasted 5h:45m

## SSN AVAILABILITY: WHEN A MS IS “DOWN”?

The below **3 conditions** must be met:

- Notifications are not sent to SSN via XML/SOAP
- AIS data is not provided via the streaming interface
- A national system does not respond to SSN requests for data



# HOW CAN WE BETTER MONITOR THE NATIONAL SSN SYSTEMS?

- It is proposed to set up a **test message** to be sent by MS every hour.
- Main **benefits** are:
  - **prompt detection** of technical failures in national SSN systems;
  - **measurement** of national SSN downtimes in a **more transparent** and coherent **way** for all MS.



## WHICH TEST MESSAGE?

Two solutions (see Annex III page 20):

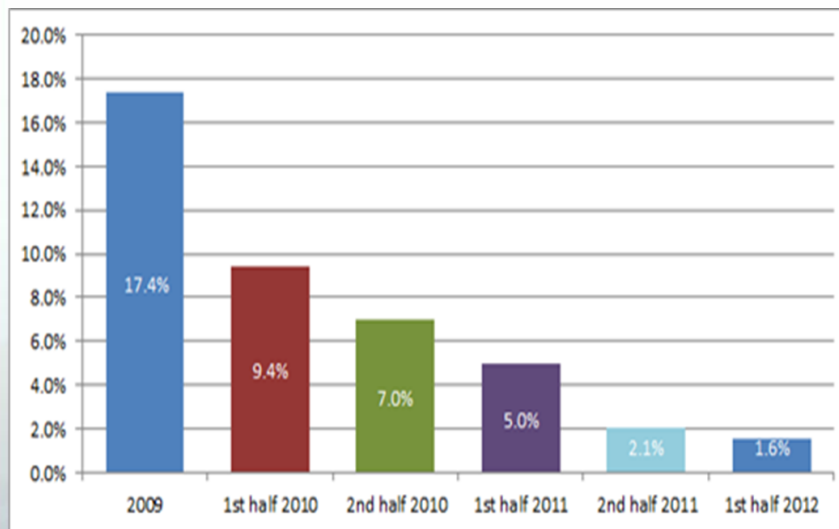
- An *ad hoc* test message; or
- MSs to use the TestId attribute in the Header element of a Port Plus notifications (**suggested solution**).

# **CONTENT**

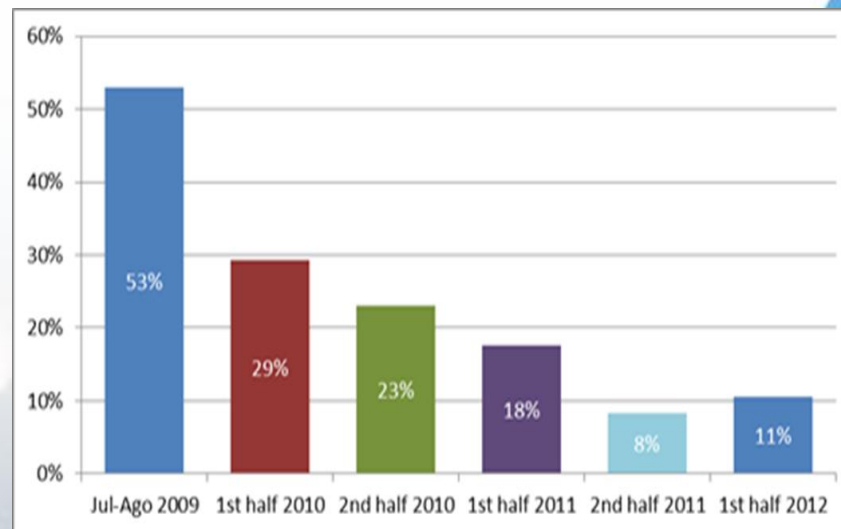
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# DATA QUALITY SUMMARY

**Port arrivals**  
1.6% missing  
Still improving



**Hazmat information**  
11% missing  
Worsening



# REJECTED MESSAGES

- Although overall figure has apparently increased (table 8 page 24),
  - **UK** implemented SSN XMLRG 2.06, and therefore the number of rejections will be significantly reduced (over 80%)
  - **DE**: the abnormal number of rejections in July was caused by a temporary problem already solved. Currently DE shows almost zero rejections
- **The implementation of the XMLRG 2.06** will address some of the rejections. Notifications will not be rejected due to the following:
  - ETAtNextPort mandatory although no Hazmat is reported,
  - ETAtNextPort mandatory when next port is unknown,
  - 120 days limit for updates,
  - invalid cancelations caused by the correlation issue,
  - PortofCall=NextPortofCall.
- **Conclusion:** the number of rejections is decreasing and should further decrease (up to 70% less rejections)
- **MS are reminded that target is less than 0.1% (draft IFCD)**

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## THETIS INTERFACE

This part is dedicated to:

- THETIS business rules (and their possible application in SSN)
- Mismatched LOCODEs
- ATAs and ATDs not provided via SSN
- Timeliness of ATAs and ATDs

## THETIS BUSINESS RULES

- For a single day THETIS has not processed 434 notifications from SSN
- Next table lists:
  - all the causes (up to 8 BRs)
  - the description of each BR
  - the number of rejections per BR for that day
  - the proposed measure in SSN (rejection, warning or none)
  - Brief rationale and possible implementation (why and how)

**Please note the error on the document's table name (p. 10); it should read**  
"Number of Notifications rejected by THETIS per cause and proposed solutions"



# BUSINESS RULES IN THETIS AND PROPOSED CHANGES IN SSN

BR	THETIS Business rule	Number of rejections SSN2THETIS	Measure in SSN	Proposal
1	Location does not exist in the THETIS DB	191	Warning	To flag THETIS LOCODEs in SSN registry and warn SSN data provider (via the receipt message of Port Plus notifications). The update of THETIS LOCODEs in SSN would be done on a monthly basis
2 & 6	Call to update with ATD without ATA	122	Rejection by SSN	ATA is a key element in THETIS. In order to implement it all along the notification process, whenever ATD is provided ATA should become mandatory in each notification
	New call with ATD without ATA	12		
3	ATA or ATD in the future (>3h)	65	Warning	SSN will warn (via the receipt message of Port Plus notifications) data provider if ATA or ATD are sent in the future over 3h (ATA or ATD > SentAt+3h)

# BUSINESS RULES IN THETIS AND PROPOSED CHANGES IN SSN

BR	Business rule	Number of rejections	Measure in SSN	Proposal
4	New call without IMO number where MMSI number does not correspond to any ship in the THETIS DB	17	Development of RVR	Rejections caused by ships not identified in THETIS may be overcome with the initiated project on the Reference Vessel Registry and the possible interaction of this registry with national ship's registries. The outcome of this working group may address or at least reduce this problem.
5	ATD before ATA	16	Rejection by SSN (current rule)	This rule already exists in SSN when ATA and ATD are provided together. If rules 2 and 6 are implemented (ATD with always ATA), then this issue will disappear.
7	New call without ATA and ETA	9	None	SSN BRs defines ETAToPortOfCall as mandatory unless the ship call is cancelled (ZZCAN). SSN will enforce definitely this rule
8	ATA older than one year	2	Rejection by SSN	Information will be rejected according to THETIS rule. No operational value for SSN

## MISMATCHED LOCODES

- It is the main reason for THETIS not processing SSN data
- A total of 171 LOCODEs used in SSN were not in THETIS
- The yearly MS Status reports include this information
- EMSA/MSS can provide up-to-date information on mismatched LOCODEs on request
- Figure 5 in page 11 details which MS are most affected

## SUMMARY ATAs AND ATDs ISSUES

### **On the missing ATAs/ATDs** (see table 10 page 27):

- More than 20% of the ship calls are missing the ATA
- Figures are worsening in comparison with SSN17

### **On the timeliness of ATAs/ATDs** (see table 11 page 29):

- 0.7% of ATAs are provided more than 3h in advance (excluding ES). Only DE, RO and mainly SE are affected
- 0.6% of ATDs are provided more than 3h in advance (excluding ES). FR and SE are the most affected
- In 81% of the notifications the difference between the SentAt and the ATA/ATD is within 3h

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## PROPOSALS

- **P1&2:** MSS to report jointly, every 24 days, the current DQ checks plus two new ones: missing ATAs/ATDs (identifying the ship call affected) and mismatched LOCODEs
- **P3:** instead of their distribution via email, to make them available at EMSA's extranet (protected area) or in the SSN web interface (preferably 1<sup>st</sup> option, more cost effective)

## PROPOSALS

- **P4:** MSs are suggested to use the ship call query "GetActiveHazmatForSelectedShip" instead of the "ExpectedCallofSelectedShip"
- **P5&6:** MSs to agree on the definition of SSN National systems availability and on the proposed monitoring based on a test message (new or using the TestId attribute). If agreed, implemented in SSN V3.



## PROPOSALS

- **P7:** MS to further reduce the phone & fax solution for Hazmat details
- **P8:** MS to agree on the new business rules (figure 4 pages 9 and 10) by [*June 2013*] [Go to table](#)

- **A1&2:** phase out V1 Port & Hazmat notifications and provide the due MRS reports
- **A3&4:** keep on informing the maritime community on their reporting obligations and when necessary, imposing sanctions according to Art 25b of the Dir 2002/59/EC
- **A5:** rejected messages. MS are invited to monitor and reduce the current figures below the agreed 0.1% (IFCD)
- **A6&7:** SSN NCAs and PSC Authorities to ensure that LOCODEs are aligned in both systems. This topic will continue to be reported at SSN and PMoU meetings, while needed
- **A8 up to A11:** ATAs and ATDs. This information when mandatory has to be provided, “within a reasonable time”. This topic will continue to be reported in SSN and PMoU meetings, while needed

# Thank you for your attention



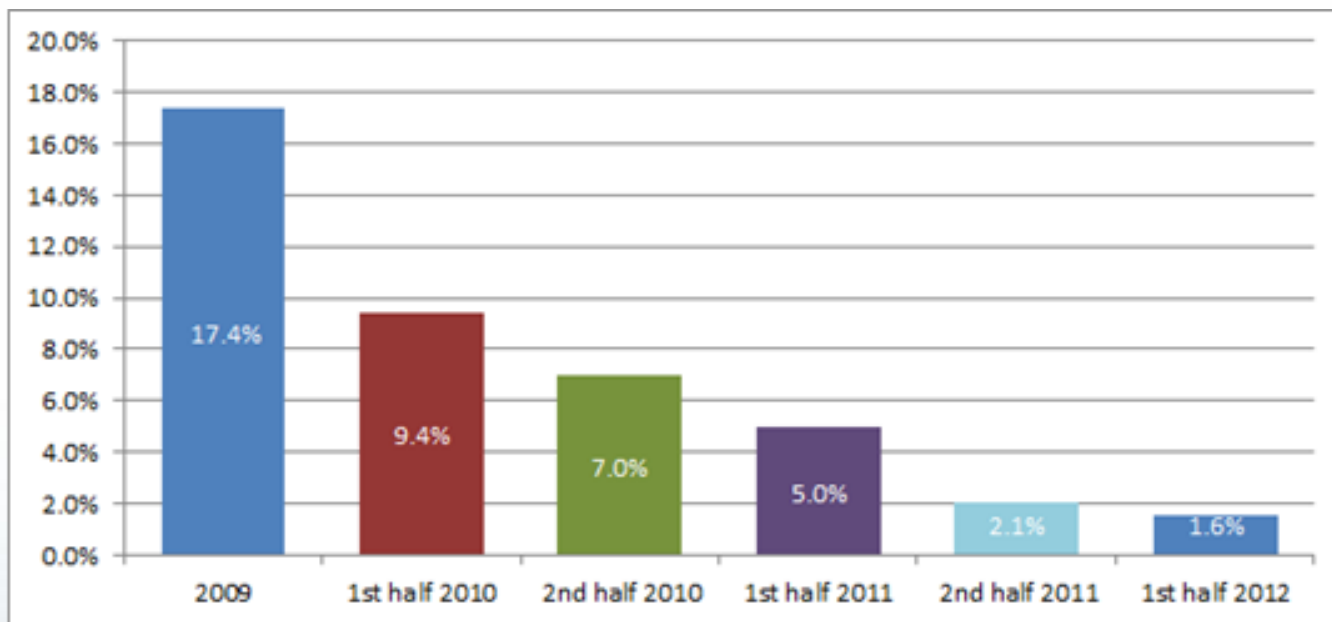
## HOW CAN WE BETTER MONITOR THE NATIONAL SSN SYSTEMS?

- It is proposed to set up a **test message**:
  - for all types of notifications each MS is sending;
  - To be sent once every hour.
- The key **benefits** from this approach would be:
  - **prompt detection** of technical failures in national SSN systems;
  - **measurement** of national SSN downtimes in a **more transparent** and coherent way for all MSs, and;
  - allowing Member States to control their on-going performances (as opposed to waiting for SSN group meetings or SSN MS Status Reports).

# WHEN SSN CENTRAL SYSTEM IS "DOWN"?

SSN CORE		Application Status
Interface	Web Textual interface (EIS)	down
	Web Graphical interface (GI)	down
	XML/SOAP	down
	Streaming	down
Features	Processing Notifications (PortPlus, Hazmat+, MRS)	degraded
	Processing Incident Reporting	degraded
	Request / Response	degraded
	Processing AIS Information	degraded
	WEB Essentials (User and Locodes management)	degraded
	All of the above features simultaneously	down
	[ES] THETIS	degraded
	[ES] CSN	n.a.
	[ES] EU LRIT CDC	n.a.

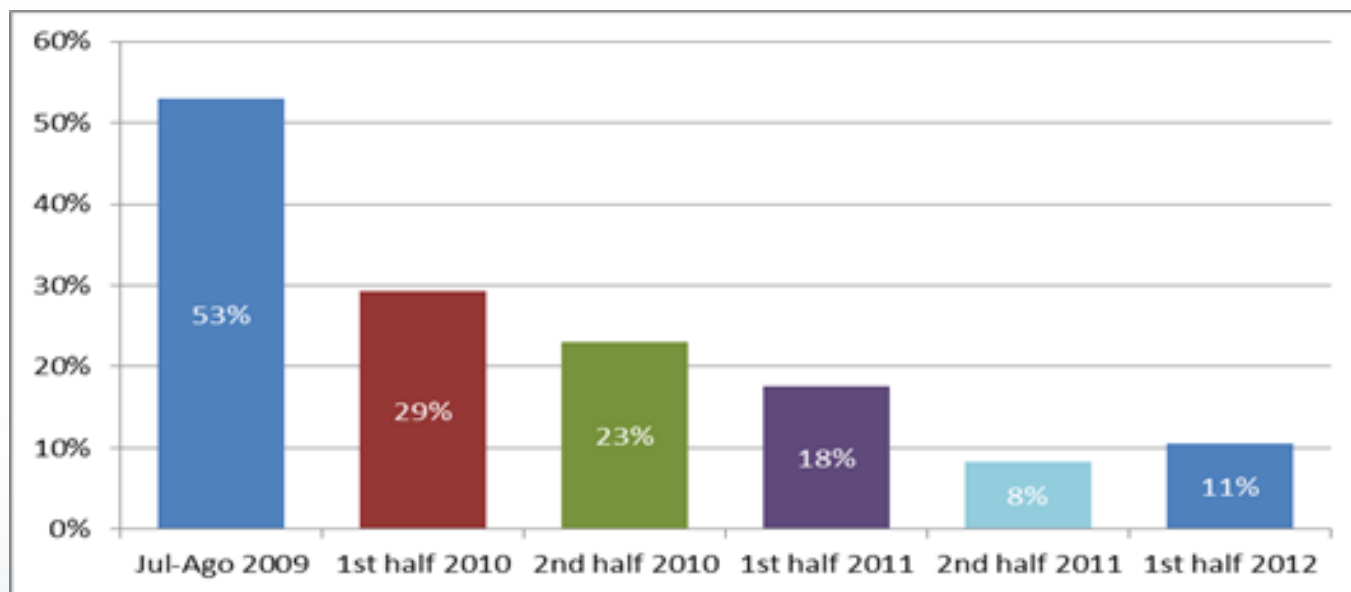
## Missing Port Plus notifications



**Only 56 checks failed out of 3,564 samples (1st half 2012)**

**Checks will be refined to better support MS implementation**

## Missing Hazmat information



**Within this exercise the situation deteriorated from 8% to 11%**

**Checks will be refined to better support MS implementation**



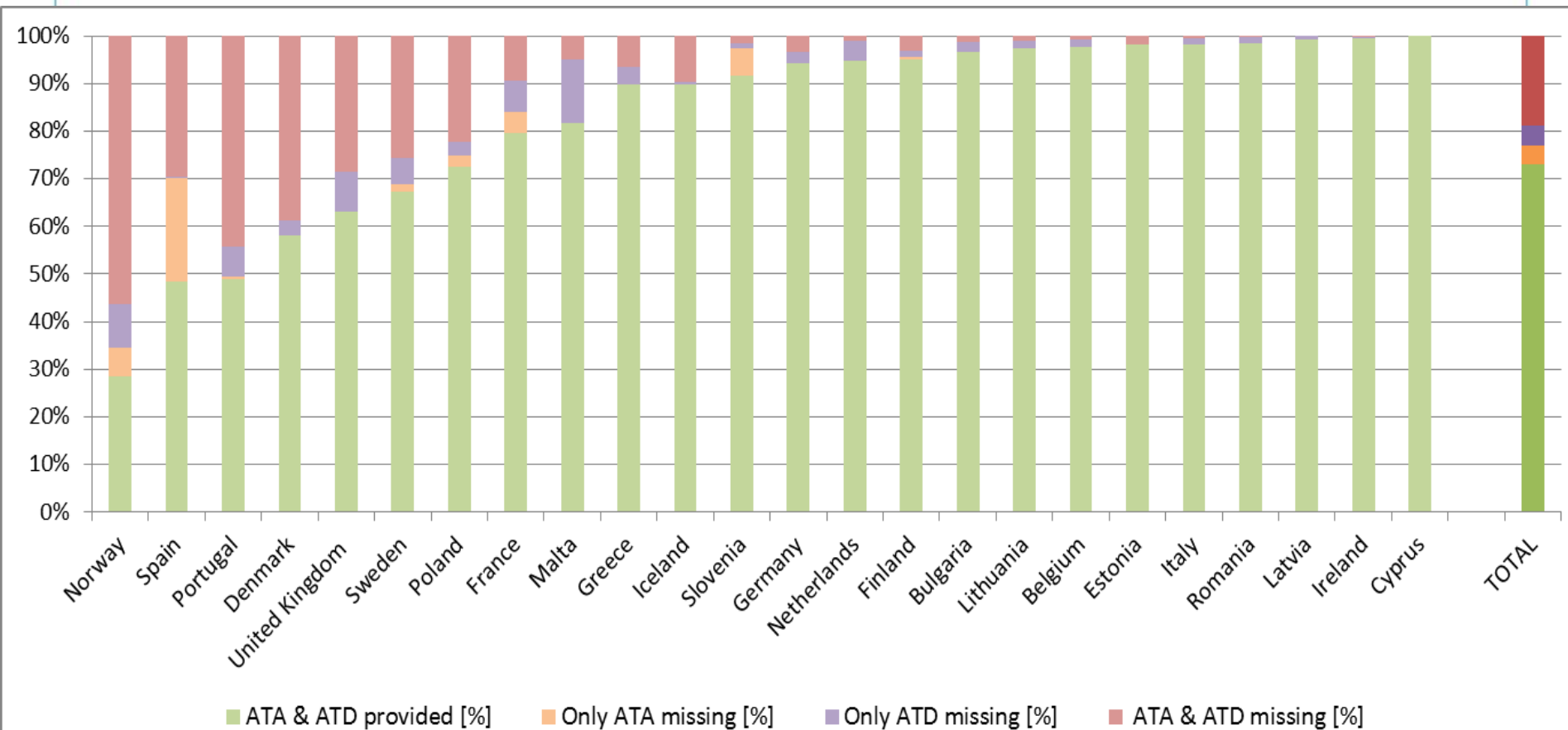
# Rejected Port Plus notifications

Member State	July 2012			Previous Period (Dec 2011 - Jan 2012)
	Port Plus Notifications	Port Plus Rejected	Rejection %	Rejection %
Belgium	15,799	4	0.03%	0.09%
Bulgaria	1,153	7	0.61%	1.46%
Cyprus	2,075	16	0.77%	0.16%
Denmark	8,655	57	0.66%	0.68%
Estonia	3,272	16	0.49%	0.49%
Finland	19,178	891	4.65%	16.64%
France	24,128	272	1.13%	4.87%
Germany	18,179	5,704	31.38%	0.13%
Greece	11,301	134	1.19%	2.22%
Iceland	900	0	0.00%	0.11%
Ireland	4,646	9	0.19%	0.44%
Italy	42,629	283	0.66%	0.46%
Latvia	3,479	24	0.69%	1.54%
Lithuania	2,501	51	2.04%	6.14%
Malta	6,023	93	1.54%	1.54%
Netherlands	28,930	343	1.19%	0.79%
Norway	25,141	16	0.06%	0.59%
Poland	14,538	92	0.63%	0.12%
Portugal	4,204	180	4.28%	2.60%
Romania	2,056	2	0.10%	0.05%
Slovenia	887	11	1.24%	1.86%
Spain	29,398	14	0.05%	0.07%
Sweden	18,776	816	4.35%	1.86%
United Kingdom	28,694	5,589	19.48%	0.00%
<b>Total</b>	<b>316,542</b>	<b>14,624</b>	<b>4.62%</b>	<b>2.08%</b>

## SUMMARY TABLE

Member State	LOCODEs rejected by THETIS (SSN17)		LOCODEs rejected by THETIS (SSN18)	
	UNECE	SSN Specific	UNECE	SSN Specific
Denmark	1	1	1	1
Estonia	1	1	0	1
Finland	3	0	none	none
France	1	0	none	none
Germany	1	0	none	none
Greece	9	3	7	2
Ireland	2	1	none	none
Italy	18	2	16	0
Malta	2	0	2	0
Norway	36	131	34	99
Poland	none	none	1	0
Slovenia	2	0	none	none
Sweden	3	8	1	3
UK	5	1	2	1

## ATA AND ATD NOT PROVIDED VIA PORT PLUS NOTIFICATIONS



# TIMELINESS OF ATAs AND ATDs

Member State	ACTUAL TIME OF ARRIVAL PROVIDED					ACTUAL TIME OF DEPARTURE PROVIDED			
	More than 3h in advance	Within 3 hours period	Between 3 and 72 hours after	More than 72 hours after		More than 3h in advance	Within 3 hours period	Between 3 and 72 hours after	More than 72 hours after
Belgium	0.0%	99.2%	0.8%	0.0%		0.0%	99.7%	0.2%	0.1%
Bulgaria	0.3%	93.2%	5.7%	0.8%		0.0%	98.9%	1.1%	0.0%
Cyprus	0.9%	33.8%	62.8%	2.5%		0.3%	87.2%	10.9%	1.6%
Denmark	0.4%	56.4%	35.4%	7.8%		0.8%	55.6%	35.4%	8.3%
Estonia	0.0%	88.7%	11.2%	0.1%		0.0%	92.3%	7.4%	0.3%
Finland	0.0%	78.0%	21.4%	0.6%		0.0%	82.3%	17.1%	0.6%
France	0.0%	89.5%	9.8%	0.7%		2.7%	86.7%	10.3%	0.4%
Germany	1.2%	80.4%	16.7%	1.6%		0.0%	86.9%	11.3%	1.0%
Greece	0.0%	83.5%	16.0%	0.5%		0.0%	87.1%	12.1%	0.8%
Iceland	0.0%	100.0%	0.0%	0.0%		0.0%	99.6%	0.4%	0.0%
Ireland	0.0%	95.4%	2.9%	1.7%		0.1%	95.7%	1.5%	2.7%
Italy	0.0%	91.2%	8.4%	0.3%		0.0%	92.5%	6.9%	0.6%
Latvia	0.0%	95.1%	4.8%	0.1%		0.1%	93.9%	5.3%	0.6%
Lithuania	0.0%	69.1%	30.4%	0.5%		0.0%	92.0%	8.0%	0.0%
Malta	0.0%	88.3%	7.7%	4.0%		0.0%	97.1%	2.6%	0.3%
Netherlands	0.0%	92.4%	7.4%	0.3%		0.1%	94.5%	5.3%	0.2%
Norway	0.0%	83.3%	16.6%	0.1%		0.3%	85.2%	14.3%	0.3%
Poland	0.0%	90.0%	8.8%	1.3%		0.2%	93.6%	5.9%	0.3%
Portugal	0.0%	31.7%	30.9%	37.2%		0.0%	52.7%	13.1%	34.2%
Romania	1.4%	95.0%	3.6%	0.0%		1.2%	96.2%	2.2%	0.4%
Slovenia	0.0%	97.6%	2.4%	0.0%		0.0%	98.6%	1.4%	0.0%
Spain	50.0%	30.7%	12.2%	0.3%		21.6%	27.6%	10.8%	0.0%
Sweden	7.6%	72.4%	18.4%	1.6%		4.6%	85.1%	9.6%	0.7%
United Kingdom	0.0%	84.3%	14.4%	1.2%		0.1%	89.9%	9.7%	0.4%

# XMLRG 2.06

No.	General Rule
2	Every time a PortPlus message is sent, only element(s) of interest have to be declared. In case of an update (UpdateStatus="U") only elements already declared in previous message(s) concerning the same ship call and those being updated (or newly declared) have to be quoted. Declaration of empty elements not having any updating purpose is not permitted

ETAToPortOfCall	0-1	<p>Format "YYYY-MM-DDThh:mm:ssTZD"</p> <p>Where TZD = time zone designator (Z or +hh:mm or -hh:mm)</p> <p>ETAToPortOfCall &lt; ETDFromPortOfCall in</p> <p>May only be optional if :</p> <p>PortOfCall attribute value is ZZCAN (this may only occur due to a cancellation of a pre-arrival notification message),</p> <ul style="list-style-type: none"> <li>Should an ATAPortOfCall and/ or ATDPortOfCall are not declared in the same message: ETAToPortOfCall &lt; ETDFromPortOfCall</li> <li>If an ATAPortOfCall and/ or ATDPortOfCall value is declared in the same message any value included here will be ignored by the SSN EIS</li> </ul>
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