

# Situating PSA International – Facts & figures



World's largest port group based on equity-weighted throughput

60.1 million TEUs in 2012 (declared Group throughput)

Handled > 164,000 TEUs daily worldwide

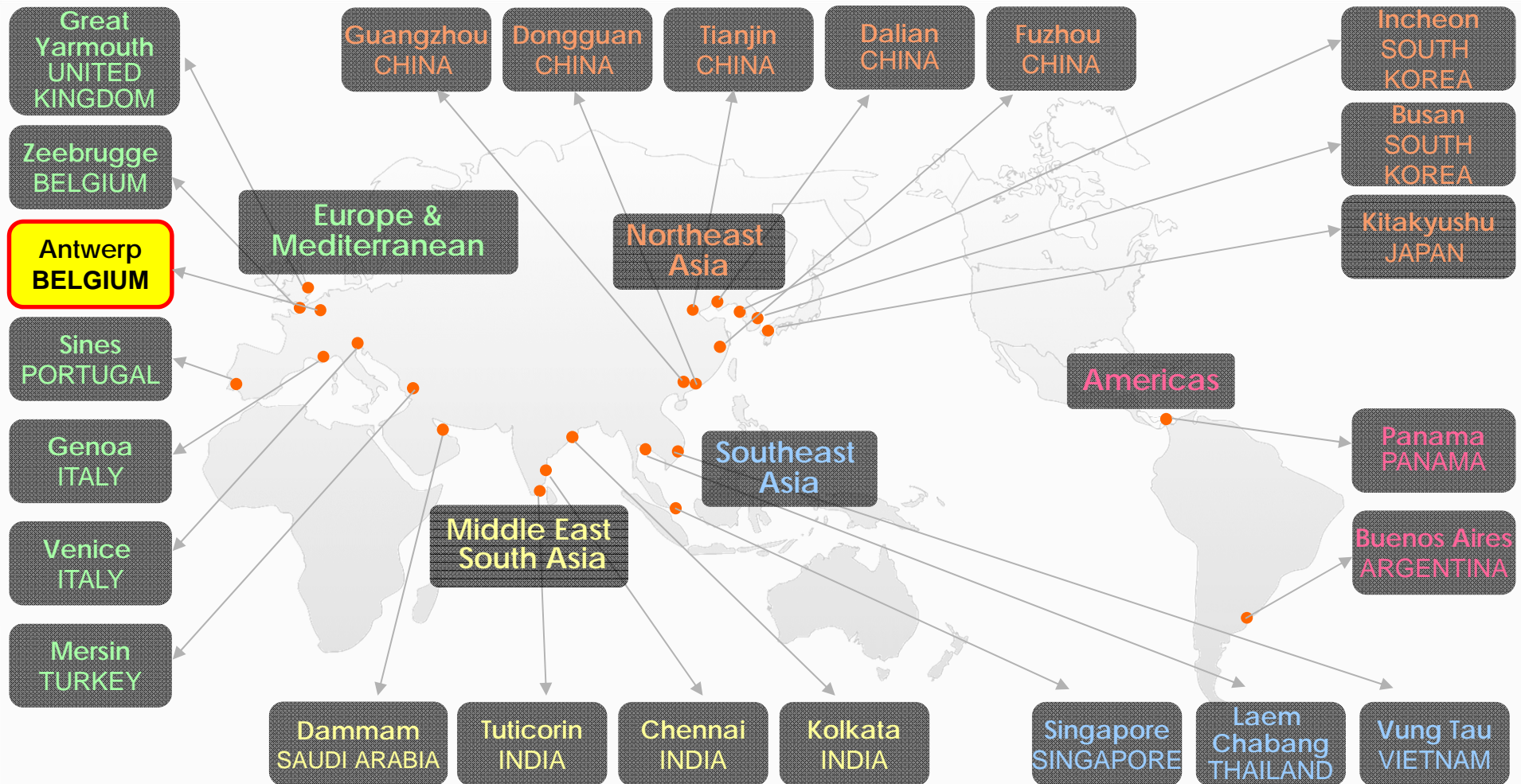
World's single largest container terminal in Singapore: 31.3 million TEUs

Group revenue of S\$4.50b in 2012

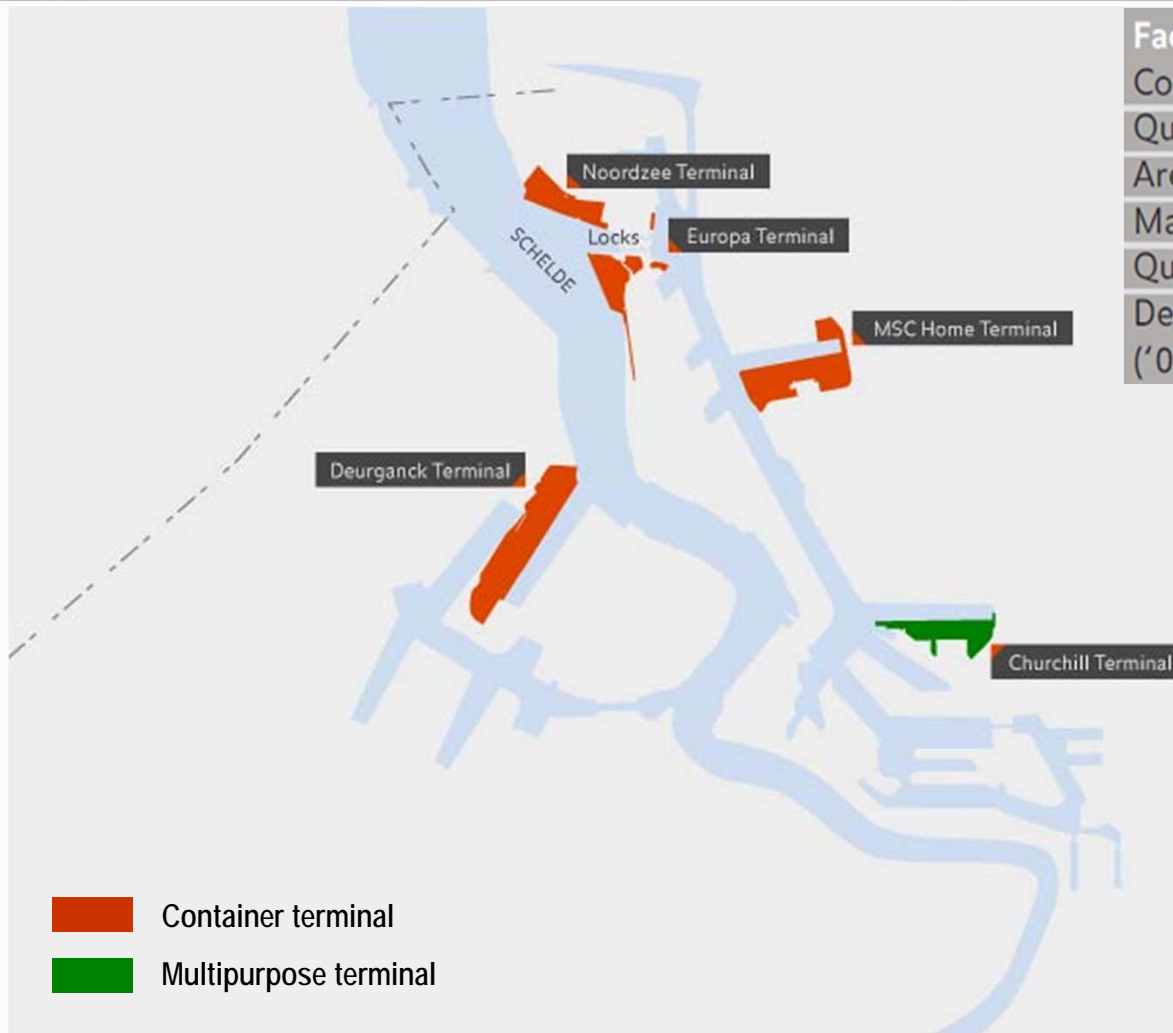
29,000 staff globally, with 18,000 direct employes



# PSA International – Global footprint



# PSA – 5 terminal locations in Antwerp



Facilities	Current	Final
Container berths	26	29
Quay length (m)	9,245	10,215
Area (ha)	504	602
Max depth at Chart Datum (m)	16	17
Quay cranes	53	66
Designed capacity ('000 TEUs)	12,200	15,300

## PSA Antwerp:

- Member of PSA International
- Acquired by PSA in March 2002
- Largest investment outside Singapore
- Merger of Hesse-Natie & Noord Natie (February 2002)

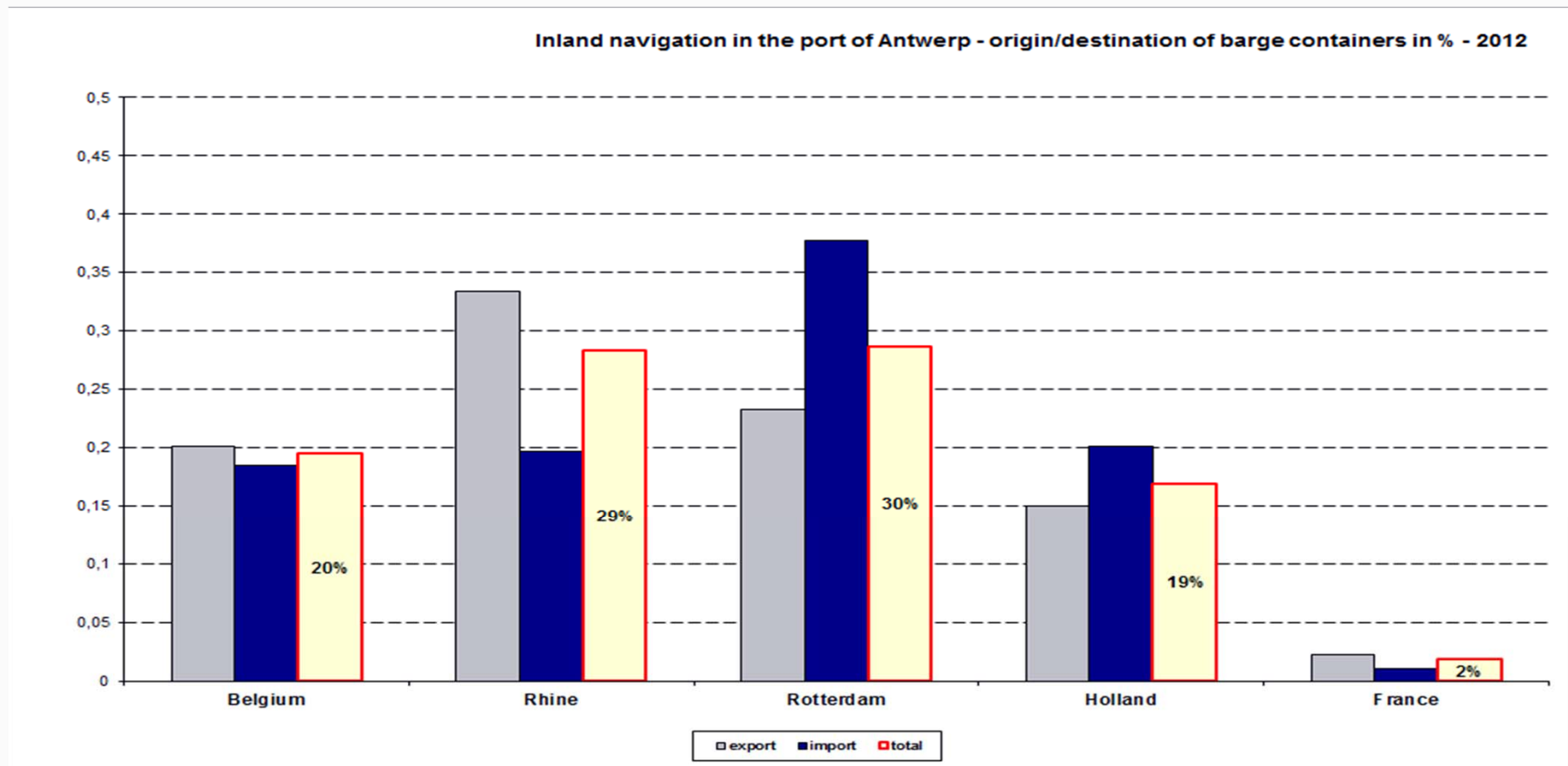
## Terminal portfolio:

- 4 container terminals & 1 multipurpose terminal
- **8.6 M TEU in 2012 (vessel & barge)**
- 81% market share of seagoing volume in Port of Antwerp (2012)
- 3.000 staff

[www.psa-antwerp.be](http://www.psa-antwerp.be)

# Port of Antwerp Barge Volumes

## Inland Navigation on PSA Terminals in Antwerp – Origin / Destination in % for 2012 - 1.068.339 Containers



# Administrative Import Flow on Deepsea Terminals

**Almost all discharge information from Seagoing - Vessels is arriving on the PSA Antwerp Deep-sea Terminals via EDI.**

**EDI : Electronic Data Interchange between computer systems.**

EDI is no more then a coded Word document, which can be sent via mail to a dedicated address, which can interpret this message.

NB+UNOA:2+HTS+PSA+130827:1459+HTS2513989'

UNH+HTS0+COPINO:D:95B:UN:INT100'

TDT+1+360338+8++HTS+++2331459:146::MAREA'

- All Implementation Guidelines for these international accepted messages are available on the website of APCS, Antwerp Port Community System.  
<http://www.portofantwerp.com/apcs/nl/download-category/edi-message-implementation-guides>



# Edi Messages containing Weights

## Different type's of EDI messages

- **COPRAR-DIS** : Electronic **Discharge Manifest** from Shipping Lines
  - Weight is based on info received from freight forwarder in the port of origin.
- **BAPLIE FILES** : **Electronic vessel-plan**
  - Weight info depend upon the input in the Terminal Operating System (TOS) in the port of origin. Input over there is done manual or via EDI.
  - Weights known out of **booking-references** from Shipping Lines : **COPARN**
  - Weights known out of **load-instructions** from Shipping Lines : **COPRAR-LOAD**

## Remarks and questions

- Export Booking References very often contain estimated weights.
- Exact weights for export are only available after stuffing of the containers.
- Export Booking References for several containers → Average weight/container.
- Are containers weighed before loading in the port of origin?
- Are weights after weighing corrected in the Terminal Operating Systems ?
- Are weights corrected in the manifest of the Shipping Lines?



# Mis-interpretation of the Notion Brutto Weight

**Customs Declarations ask for a “brutto” weight of the goods**

- Custom documents are always mentioning “brutto” weight, meaning the netto weight of the goods plus their packaging, **without the weight of the container.**
- For the clearance of the goods it is important this “brutto” weight has to be declared to the customs without the weight of the container. This is done again in an EDI-message called **CUSCAR**, which finds his origin in the manifest. ( **Customs Cargo Manifest** )
- This “brutto” weight, without container weight, very often is also mentioned on the import manifest from the Shipping Lines.

**Manual input in TOS-systems causes errors because people are thinking, by reading the word “ brutto”, the container-weights are included.**



# Weights used by Terminal Operators

**Terminal and Barge Operators receive Load-instructions , normally containing also the weights of the containers.**

- These weights are used by the captains of the barges as input for their stability calculations.
  - Weight info is received pending the organizer of the transport:
    - Carrier haulage: Shipping Line is responsible for transport.
    - Merchant haulage: Receiver is responsible for transport.
  - Weight is thus received from Shipping Line or Receiver.
- No control is being effected on differences between the weight on the discharge manifest from the Shipping Lines and the weight on the load instruction from Receivers.

**Weight on load-instruction is finally used for Stability Calculations.**





# Weights used by Terminal Operators

**Terminal Operators have no control on incorrect weights in their Terminal Operating System.**

- As weight info is coming in per different channels, how does the Terminal Operator know the obtained info is correct?
- Is it the Terminal Operator's responsibility to have and to provide the logistic chain the exact weight of the containers?
- Actual problem: Are Terminal Operations responsible for overloading rail, truck and barge transports?
- Will Terminal Operators be held responsible for the use of incorrect weights during stability calculations for barges?

**Is there therefore a need to weigh all containers on the terminals?**



# Weighing of Containers on Terminals

**There is only one method, covering all modes of transport :  
weighing during positioning the containers on the yard.**

- Weighing containers in Gantry Cranes on waterside don't offer a solution:
  - For discharge moves, only vessel and barge modus are covered.
  - For load moves, weigh info is arriving too late.
- Weigh Bridges on Gate-in only cover truck modus.
- Weigh Bridges inside the terminals slow down the operational processes
- In case weighing on Terminals should become reality, PSA in Antwerp, at this moment, should invest in weigh-installations into all terminal handling machines, in total approximate 275 pieces.
- Weigh installations should be build into Reach-stackers, in Rail Mounted Gantry's or Rubber Tired Gantry's, and also in every Straddle Carrier, worldwide.



# The Influence of Weighing on the Terminal Operating System

- Containers are planned on the yard as per weight-class, pre-announced in the booking reference.
- As containers are weighed during positioning, the pre-planned position on the yard could change into a total new position.
  - Could cause operational delay in positioning of the containers.
- TOS should be able to correct the announced weights.
- Who should be informed about the new weights?
  - Import: Receiver via Shipping Lines
  - Export: Shipping Lines

**Introducing WAC: Weight Adjustment Charges?**



# PSA's Point Of View

## The Use of correct weights is a Worldwide problem.

- Need for coaching the whole logistic chain.
- Promote the use of EDI-messaging.
- Who has a benefit in weighing all containers
  - Shipping Lines believe in a possibility to load 6% extra cargo
  - Barge companies have more certainty in stability calculations.
  - Truck and rail transports will not be overloaded,
- Is there a need for worldwide regulation on weighing and on worldwide procedures, e.g. only weighing export containers on every terminal?  
**IF SO: PSA Antwerp is willing to invest in weigh installations**
- However costs for investment, maintenance and reporting should be possible to recount from involved parties.



# Communication between barges and Terminals

**August 2012 IDVV starts up a project to ameliorate the communication between barges and Visiting Terminals**

**IDVV: Impuls Dynamisch Verkeersmanagement Vaarwegen**

- Origin of the project:
  - Barges didn't take the yard-positions on the terminals into account while making their load-plan, causing lots of shifting.
  - Therefore most of the Terminals are not always willing to load according to the requested load-plan, if too many yard-shifting is involved.



# Communication between barges and Terminals

- Partners involved in the project
  - Nefkens Advies
  - Bureau Telematica Binnenvaart
  - DP World Germersheim ( Inland Terminal and Barge Operator)
  - Authena ( IT-provider for Stability Calculations on board of the barges )
  - PSA Antwerp : Terminal Operator

**August 2013, project has been finalized, using standards out of the Shipping Industry.**

- Result
  - Containers now are loaded in a sequence causing minimum of shifting on the terminal yard and guaranteeing an optimal stability on board of the barges.



# Communication between barges and Terminals

## COMMUNICATION via EDI Messages:

- NOMENCLATURE Stowage Positions : agreement on a standard.
- NOMENCLATURE Terminals: Using the 5 digit-BIC Codes.
- BAPLIES ( electronic bay-plans )
- MOVINS ( electronic stowing instruction )
  - Barge can send desired load-plan to the terminal, with or without container-numbers.

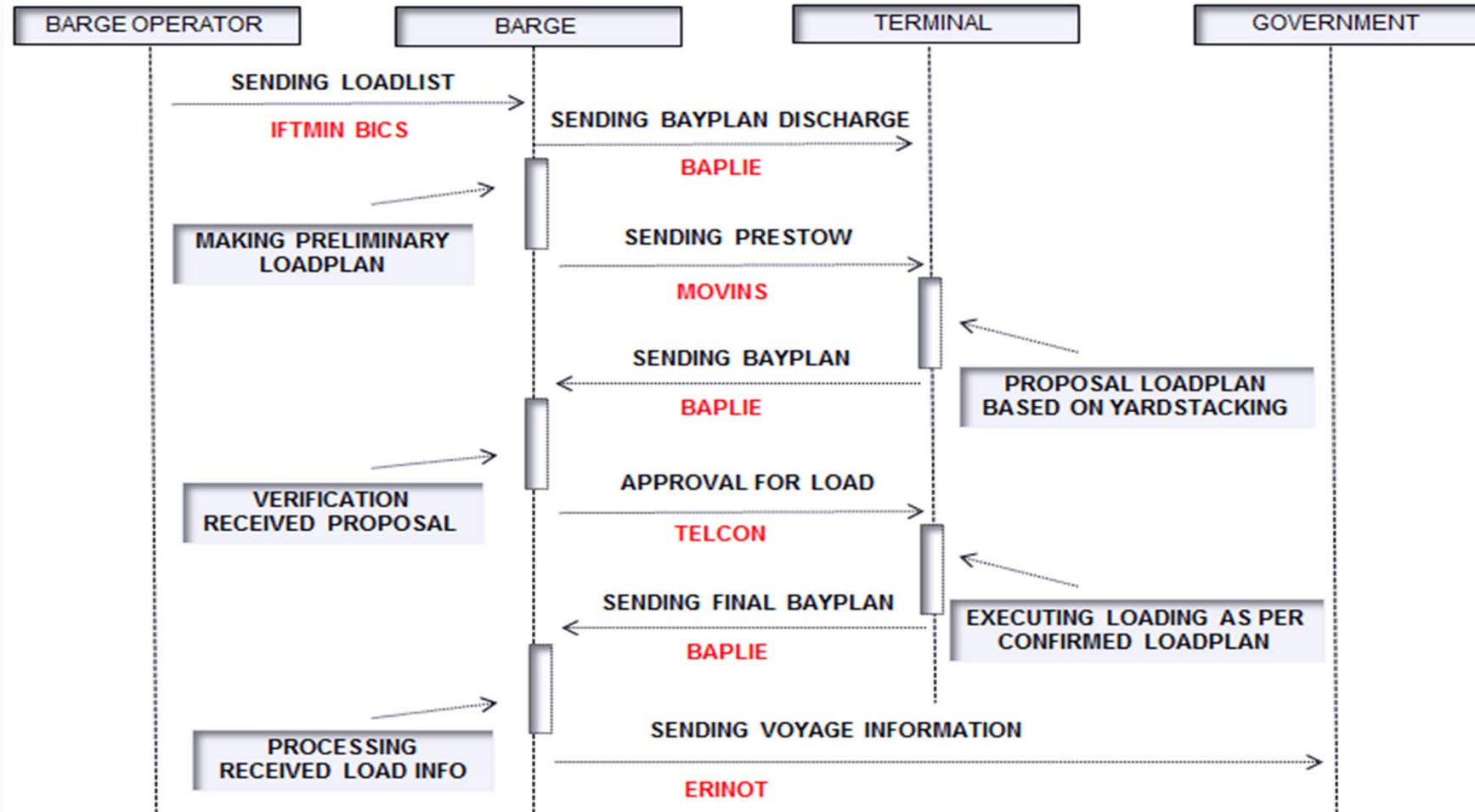
**TOS from Terminal Operator and Stability Calculator on board of the barges can communicate to each other via EDI.**

**Shifting on the yard is diminished in a significant way.**

**Interaction still needs follow-up by vessel / barge planner**



# Communication Chart Flow





# LOADPLAN

## LOADING PLAN MARAJO - 359965

Version 7.0

02

06					WOR-ANR [1]E TRLU 3.7 646149 7 DV 8'6" 198B15/16B	NOR-ANR E GATU 2.2 134619 4 DV 8'6" 101B16B	WOR-ANR [1]E HLXU 3.8 436076 9 DV 8'6" 198B09/10B	WOR-ANR [1]E CPSU 4.0 403816 2 DV 8'6" 198B11/12O		WOR-ANR [1]F FSCU 11.0 939400 0 DV 9'6" 105A01/02O									
04					WOR-ANR [1]E CPSU 4.0 406162 4 DV 8'6" 198B01/02B	NOR-ANR E HLXU 2.3 301531 0 DV 8'6" 101B02O													
02						NOR-ANR E TCKU 2.3 280732 7 DV 8'6" 101B15B		WOR-ANR E HLXU 2.4 111375 0 DV 8'6" RL	WOR-ANR E HLXU 2.4 109454 1 DV 8'6" RL	WOR-ANR [1]E HLXU 3.8 446204 0 DV 8'6" 202B07/08B			WOR-ANR [1]F OOLU 16.2 856959 9 DV 9'6" 157A03/04O						
01						NOR-ANR E ITAU 2.2 216545 0 DV 8'6" 101B14B		WOR-ANR E HLXU 2.4 127116 4 DV 8'6" RL	WOR-ANR E HLXU 2.4 122818 9 DV 8'6" RL	WOR-ANR [1]E HLXU 4.0 517229 9 DV 8'6" 202B09/10B			WOR-ANR [1]F OOLU 16.7 847957 7 DV 9'6" 150A15/16B						
03						NOR-ANR E FCTU 2.2 471997 0 DV 8'6" 101B13B							NOR-ANR F HLXU 17.7 305630 3 DV 8'6" 097A16O						
05					WOR-ANR [1]E HLXU 3.7 537010 2 DV 8'6" 198B03/04B	NOR-ANR E CLHU 2.2 381654 0 DV 8'6" 101B12B	WOR-ANR [1]E CLHU 3.6 462688 5 DV 8'6" 198B01/02O	WOR-ANR [1]E TCLU 3.7 413990 2 DV 8'6" 198B07/08O		WOR-ANR [1]F HLXU 12.3 802604 5 DV 9'6" 211A03/04O									
	33	31	29	27	25	23	21	19	17	15	13	11	09	07	05	03	01		
	32	30	28	26	24	22	20	18	16	14	12	10	08	06	04	02			



# PSA ANTWERP

# THANK YOU

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