

Port of Sines - The Atlantic Gateway to Europe

José Manuel Dias

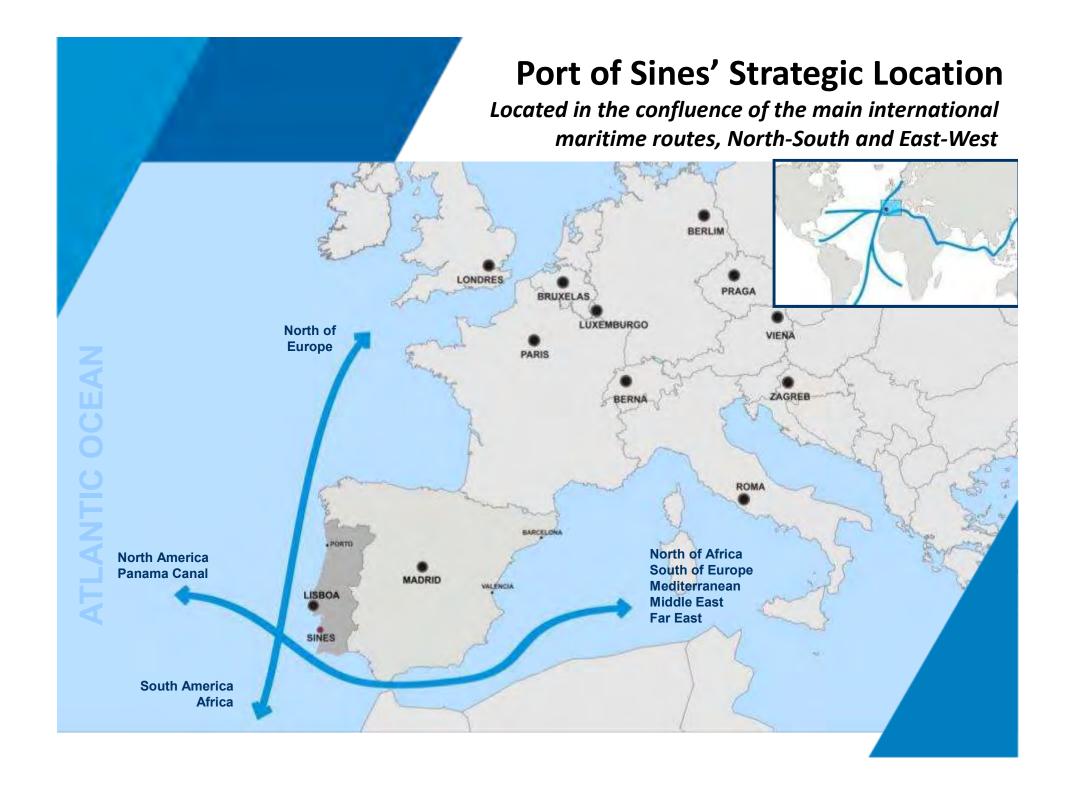
IT, Planning & Communication

Ports of Sines and Algarve Authority





Framing



Top 100 World Ports

(Container handling – 000' TEU)

| Rnk 2016 | Portos | 2016 | 2015 | Var (%) |
|----------|------------------|--------|--------|---------|
| 1 | Shanghai | 37.133 | 36.537 | 1,6% |
| 2 | Singapore | 30.904 | 30.922 | -0,1% |
| 3 | Shenzhen | 23.979 | 24.204 | -0,9% |
| 4 | Ningbo -Zhoushan | 21.560 | 20.620 | 4,6% |
| 5 | Busan | 19.850 | 19.469 | 2,0% |
| 6 | Hong Kong | 19.813 | 20.073 | -1,3% |
| 7 | Guangzhou | 18.858 | 17.625 | 7,0% |
| 8 | Qingdao | 18.010 | 17.510 | 2,9% |
| 9 | Dubai | 14.772 | 15.592 | -5,3% |
| 10 | Tianjin | 14.490 | 14.090 | 2,8% |
| ••• | | ••• | ••• | ••• |
| 91 | Sines | 1.513 | 1.332 | 13,6% |

Sines integrates the Top 100 of container ports in the world for the first time since 2014

Fonte: Lloyd's List One Hundred Ports 2017

European Ports - Top 20

(Containers Handling – 000' TEU)

| Rnk 2015 | Portos | 2016 | 2015 | Var (%) |
|----------|--------------------|--------|--------|---------|
| 1 | Rotterdam | 12.385 | 12.235 | 1,2% |
| 2 | Antwerp | 10.037 | 9.654 | 4% |
| 3 | Hamburg | 8.907 | 8.821 | 1% |
| 4 | Bremen Bremerhaven | 5.489 | 5.547 | -1% |
| 5 | Algeciras | 4.761 | 4.516 | 5,4% |
| 6 | Valencia | 4.722 | 4.615 | 2,3% |
| 7 | Felixstowe | 3.745 | 3.984 | -6% |
| 8 | Duisburgo | 3.700 | 3.583 | 3,3% |
| 9 | Piraeus | 3.675 | 3.328 | 10,4% |
| 10 | Marsaxlokk | 3.064 | 3.100 | -1,2% |
| 11 | Gioia Tauro | 2.797 | 2.547 | 9,8% |
| 12 | Le Havre | 2.518 | 2.560 | -1,6% |
| 13 | Genova | 2.298 | 2.243 | 2,5% |
| 14 | London | 2.536 | 2.217 | 14,4 |
| 15 | Barcelona | 2.242 | 1.965 | 14,1% |
| 16 | Southampton | 1.957 | 2.108 | -7,2% |
| 17 | Sines | 1.513 | 1.332 | 13,6% |
| 18 | St Petersburg | 1.450 | 1.720 | -15,7% |
| 19 | Zeebrugge | 1.399 | 1.569 | -10,8% |
| 20 | Gdansk | 1.300 | 1.091 | 19,1% |

The Port of Sines ranks 17 in the European Top20

Source: ESPO – European Sea Ports Organization



Port of Sines Characteristics

(Atlantic Gateway to Europe)



- Deepwater port (-28 m);
- Open sea port, with no manoeuvring restrictions;
- Rocky bottoms with no need for dredging;
- Able to receive the largest vessels in the world;

- Specialized terminals for the handling of all types of cargo;
- No urban constraints, with expansion capacity in all the terminals;
- Anchorage areas inside the port's area

Specialized terminals for all types of cargo















Key Figures

(Atlantic Gateway to Europe)

SINES HANDLES 50%

MORE THAN 50%

OF THE TOTAL CARGO HANDLED
IN PORTUGAL BY SEA

THE PORT OF SINES
HANDLES 74% OF
PORTUGAL'S ENERGETIC
PRODUCTS

TOP 100 IN THE WORLD AND IN THE TOP 20 OF EUROPE

2.5 DAYS
BEFORE THE ARRIVAL OF THE SHIP
FOR ALL AUTHORIZATIONS
TO BE GRANTED

THE PORT OF SINES
OPERATES MORE THAN
5.000
TRAINS/YEAR



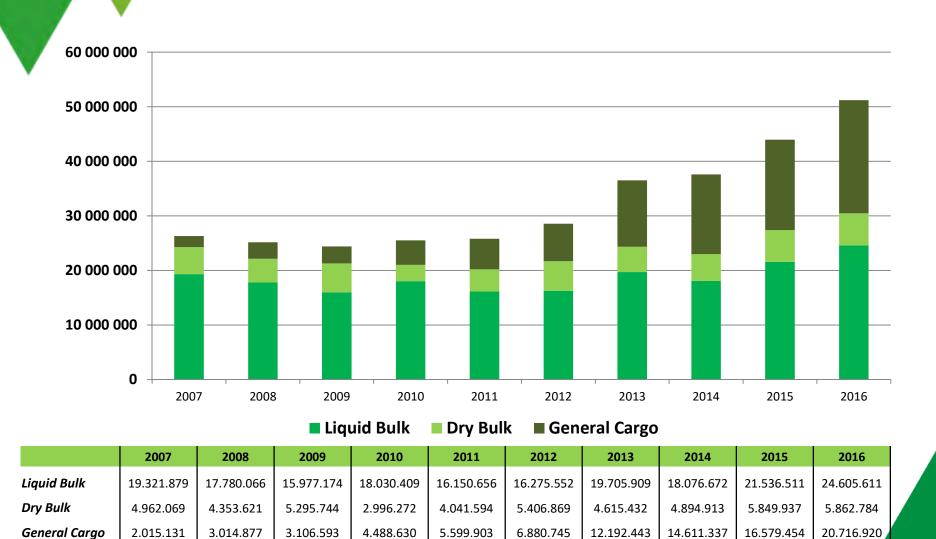
Total

Evolution on the total of cargo handled (TON)

12.192.443

(Sustainable growth)

16.579.454



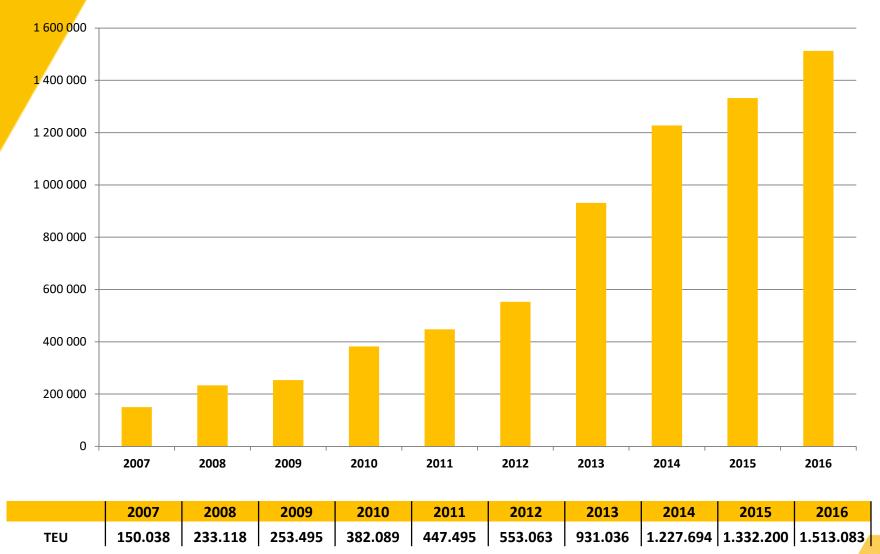
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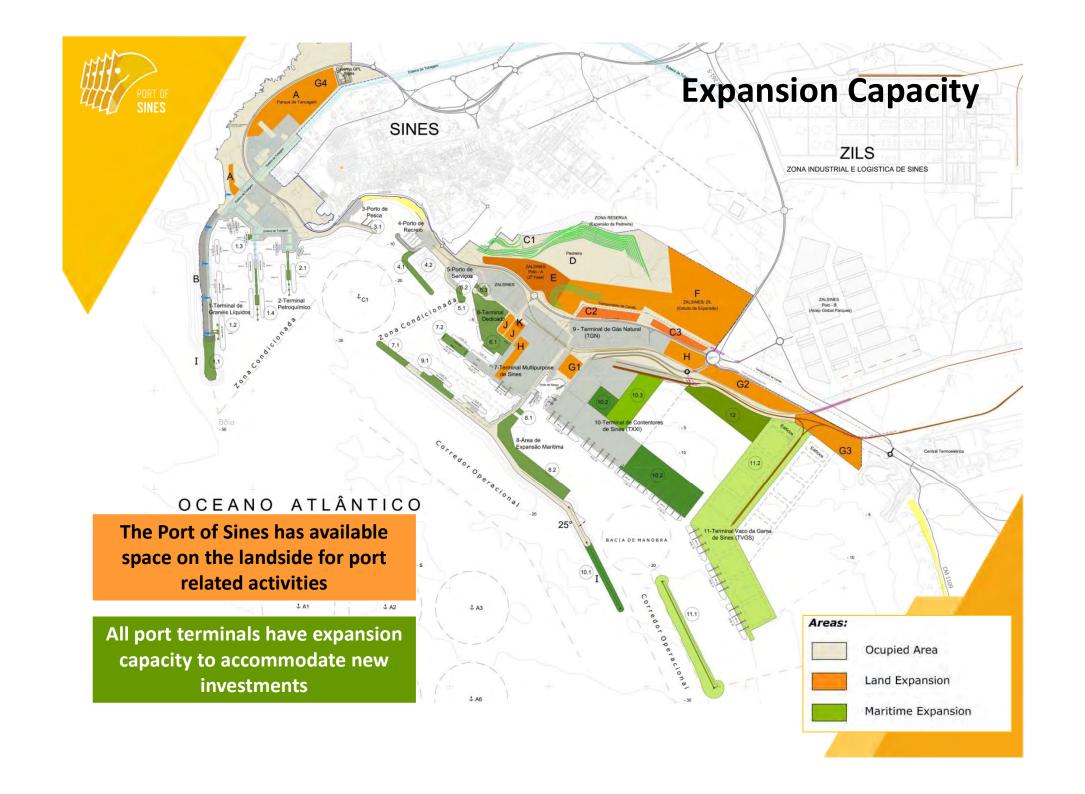
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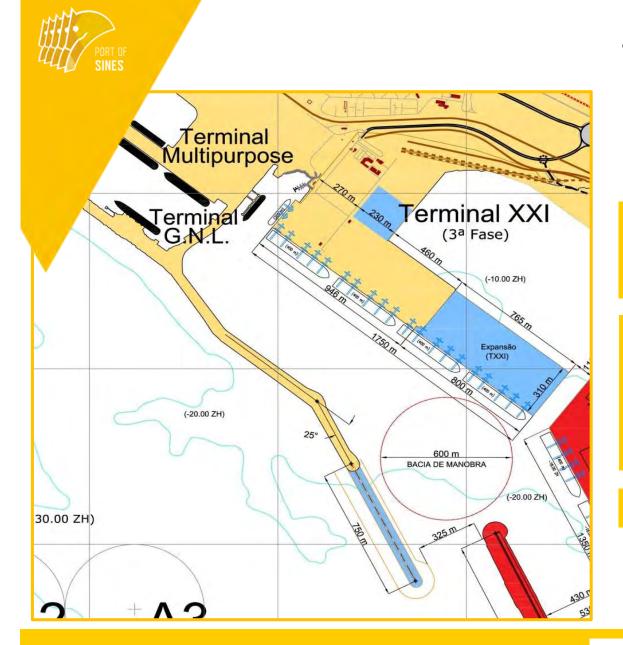


Evolution on containers handling (TEU)

(Sustainable growth)







Terminal XXI (3rd Phase)

Goal

Respond to increasing demand and to existing capacity constraints

- Quay length increase
- Storage area Increases
- Enlargement of the breakwater

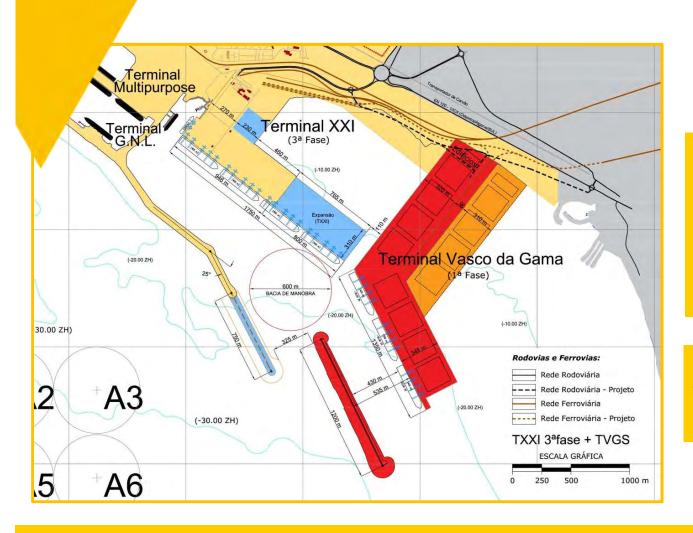
Negotiations in progress

Installed Capacity: 2.100.000 TEU Handling in 2016: 1.513.083 TEU

Future Installed Capacity
Up to **4,1 Million TEU**



New Container Terminal Vasco da Gama Terminal (1st Phase)



Goal

Increase the competitiveness of the Port of Sines through the phased construction of a new container terminal

International Public
Tender in beginning of
2018

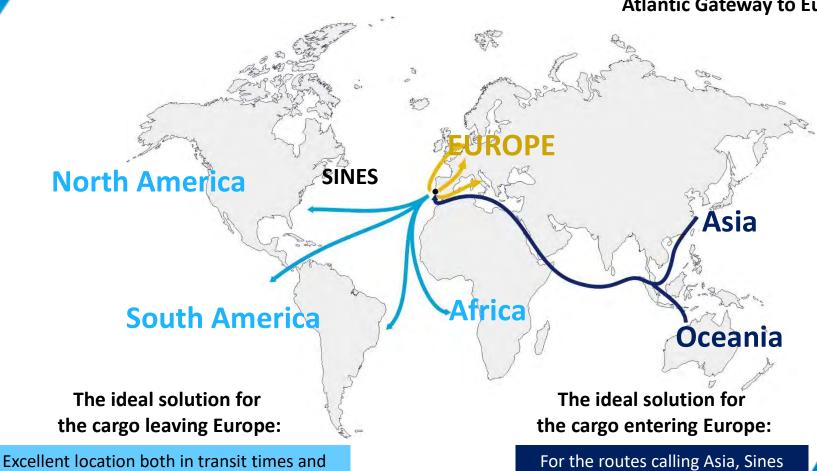
Future Installed Capacity (1st Phase)
3 Million TEU





Strategic Location

Sines offers direct links to the whole world with privileged connections to the principal international markets, being the Atlantic Gateway to Europe.

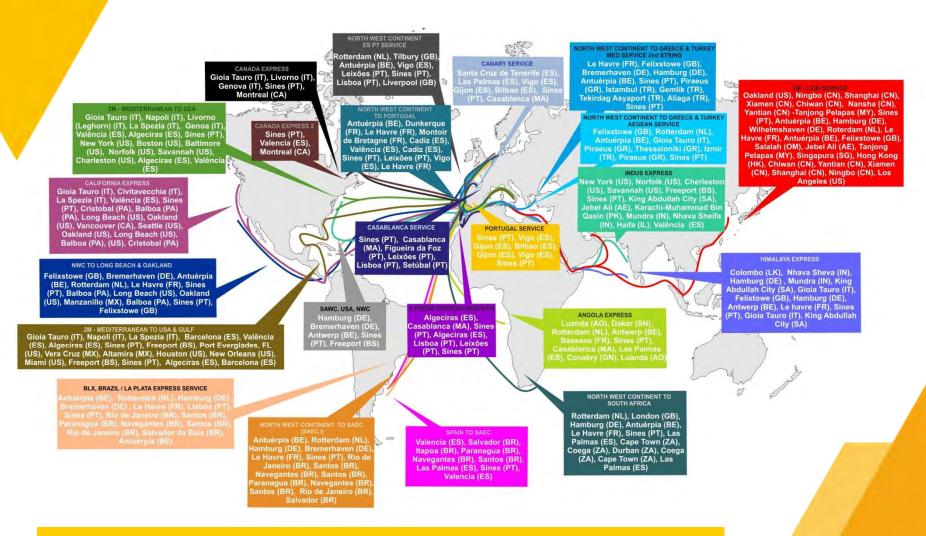


operation costs for the routes calling Africa, north America and South America. For the routes calling Asia, Sines offers na excellent location, both in transit times and operation costs.



Global Services Network

(Direct links to the main international markets)

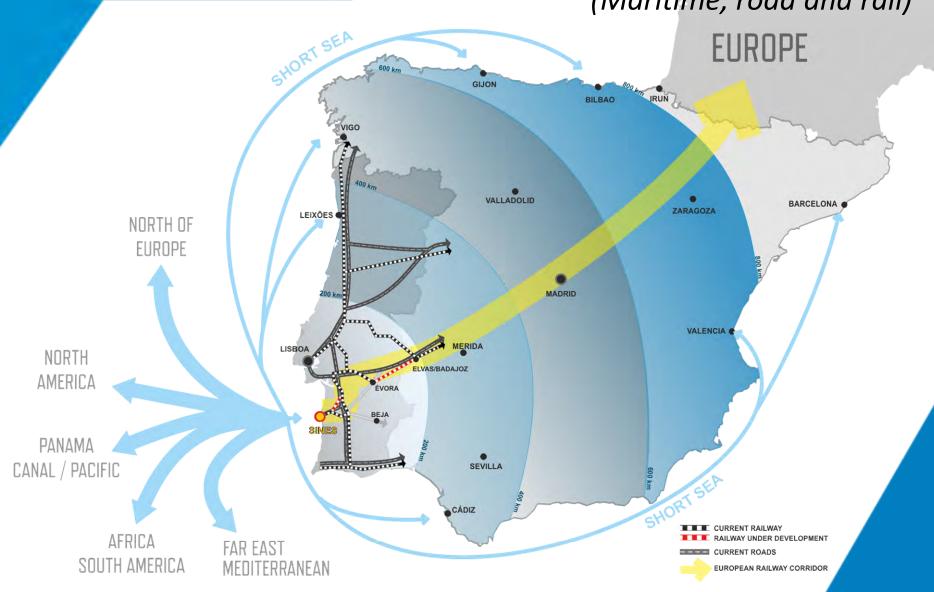


22 direct lines (weekly or bi-weekly) to the main world ports



Connections to the Hinterland

(Maritime, road and rail)





Railway links to dry ports

(Evolution of container trains)

More than 90% of the total cargo to the hinterland goes by train







Flexible labour and flat-rates

(Port efficiency)

All terminals operate 24 hours/day, 365 days/year always in flat rate





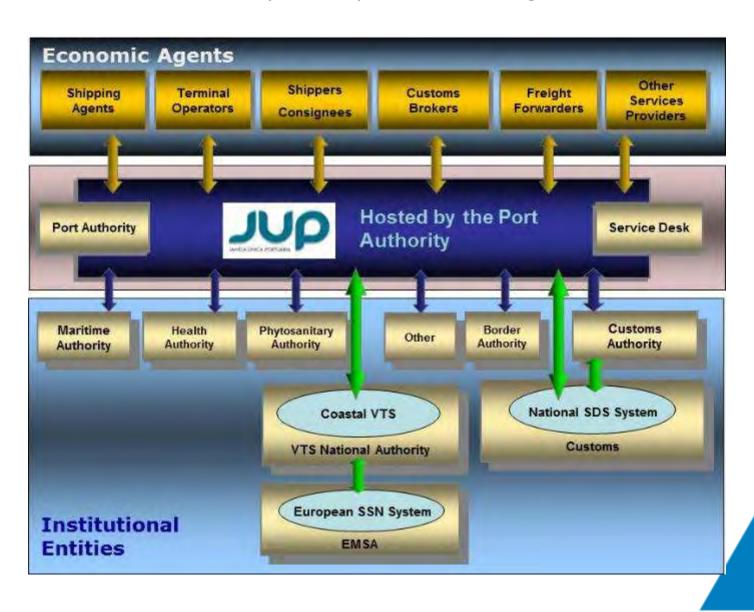
Port efficiency and innovation

JUP - Port Single Window (one stop shop)

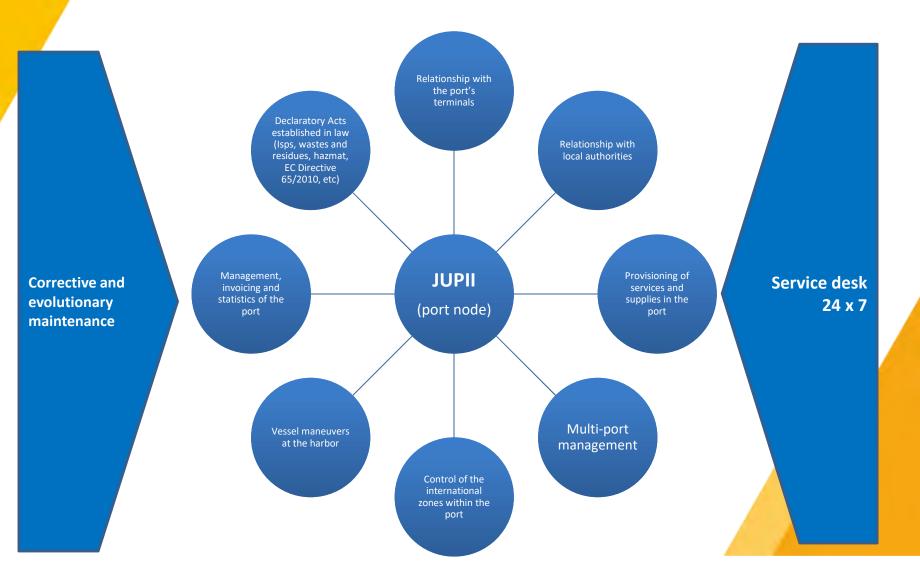
- eHUB electronic platform;
- Implements the concept of a single communication channel;
- Unique point of contact in the port for he delivery of electronic data by the economic players;
- Inputted information flows to all related players, who receive the concerning data before hand;
- Essential tool for collective efficiency of its main users (Shipping Agents, Ship Chandlers, port terminals, companies rendering services to vessels and cargoes and authorities – port, maritime, customs, heath and immigration

Current Port Management (IT System)

(Proper response to the global market trends)



JUPII: A Fundamental tool for the Port Authority's role, and for the simplification of the port node on the logistics chain



JUP V2.0 Main Benefits

- Multi-channel access
 - Multi-channel Application with which we can interact via the Internet through various means and devices:
 - Computers, PDA's and smartphones
 - E-mail and SMS

Integration with several external systems, by using message standards (Edifact, XML and flat files)





JUP V2.0 Main Benefits

Simple and intuitive

- Workflow system, tasks' oriented, guiding the user along the activities related to the ship's call, issuing alerts according to the process evolution
- Once the information is entered, there's no need to re-enter it every time it's used.



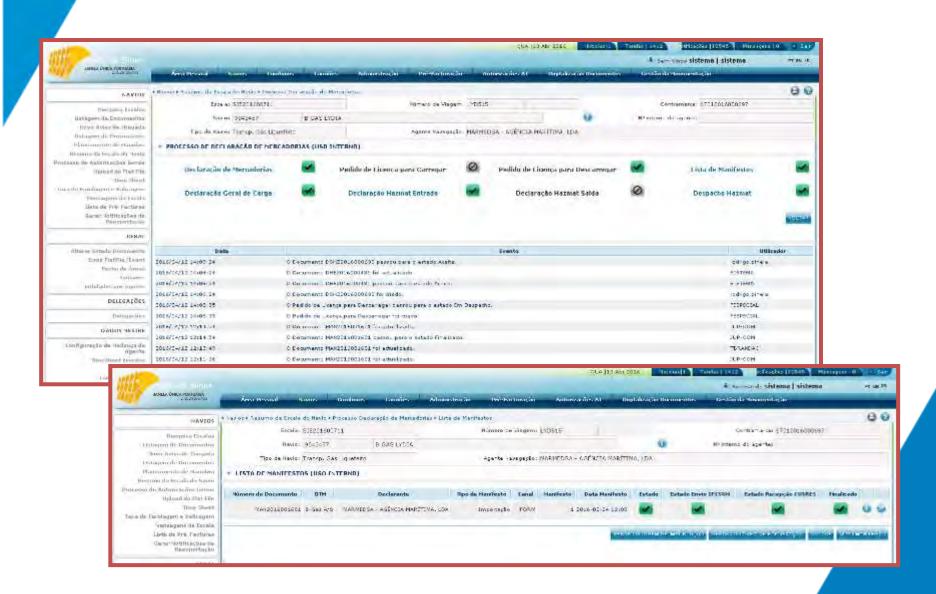
JUP V2.0 Main Benefits

Monitoring

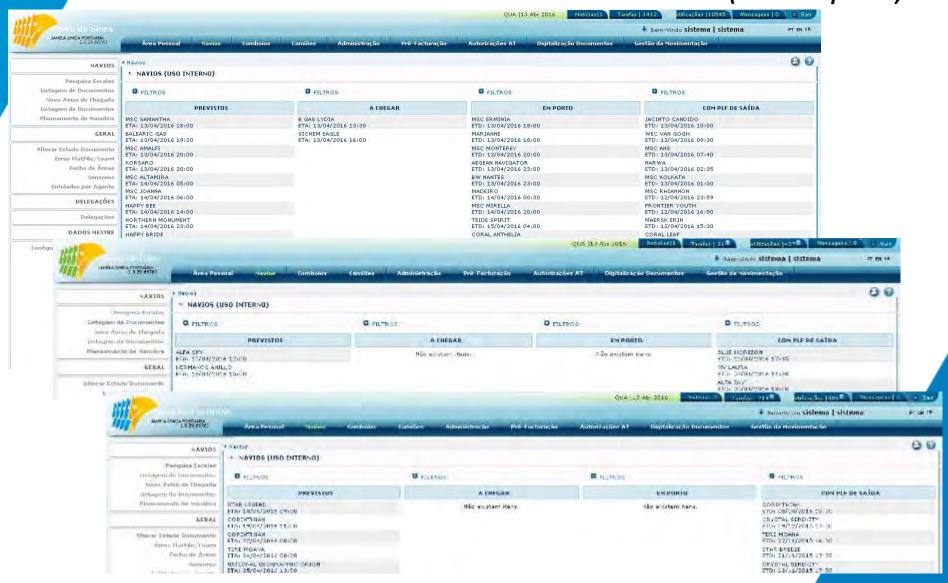
 Messages and process flows monitoring integrated system, allowing to analyze in real time the status of the ship's call



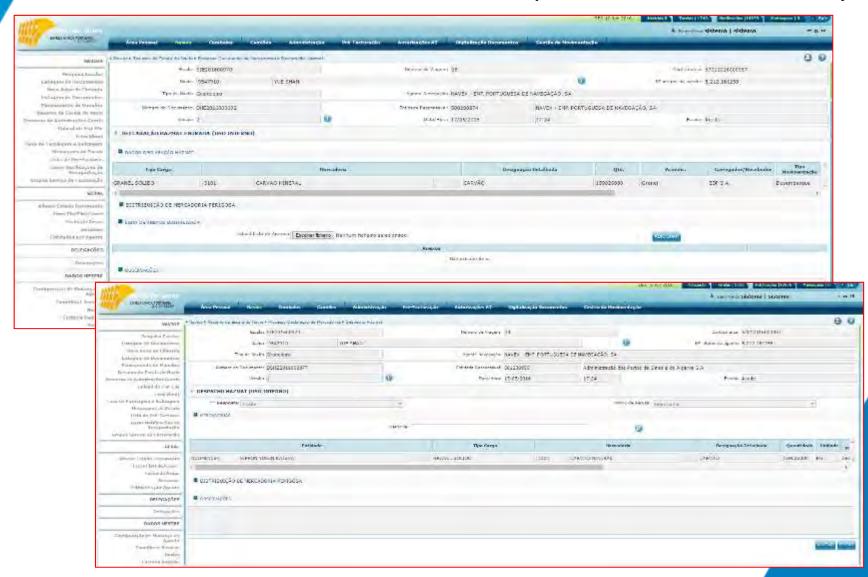
Screen sample 1/7 (Cargoes Process)



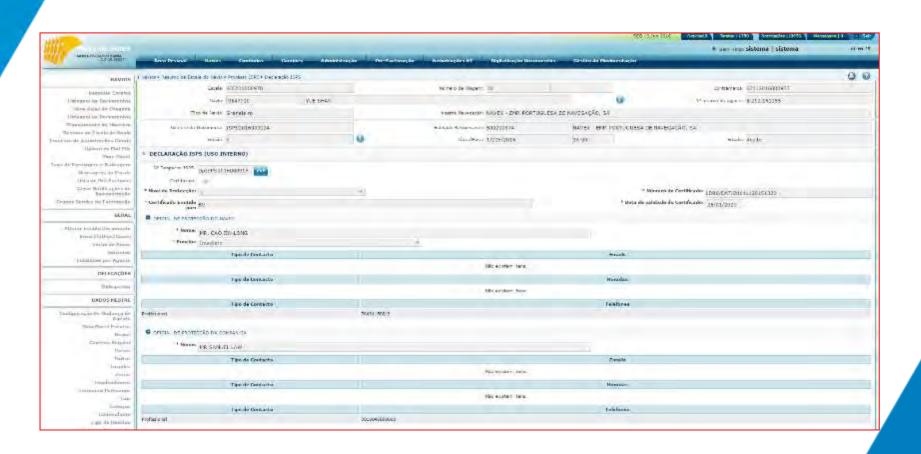
Screen Sample 2/7 (Multi-port)



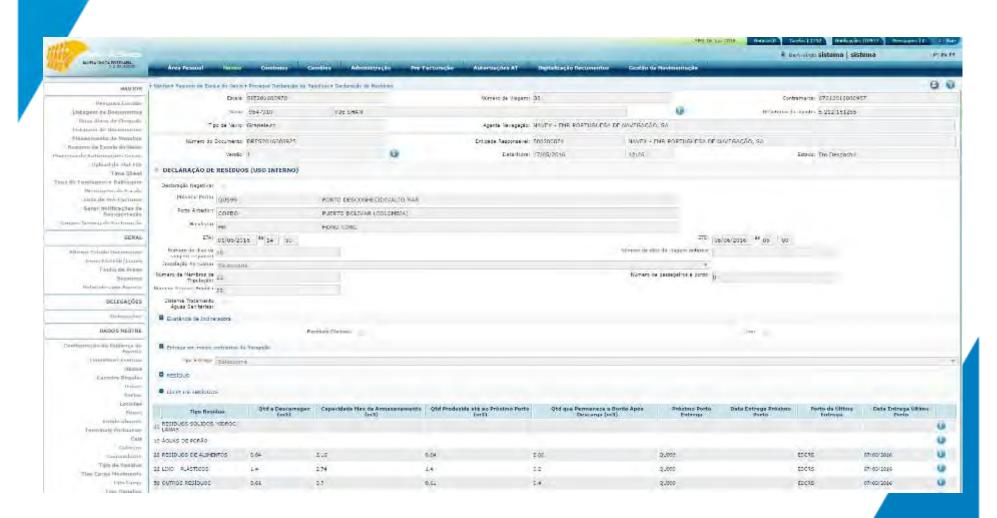
Screen sample 3/7 (Hazmat declaration)



Screen sample 4/7 (ISPS code declaration)

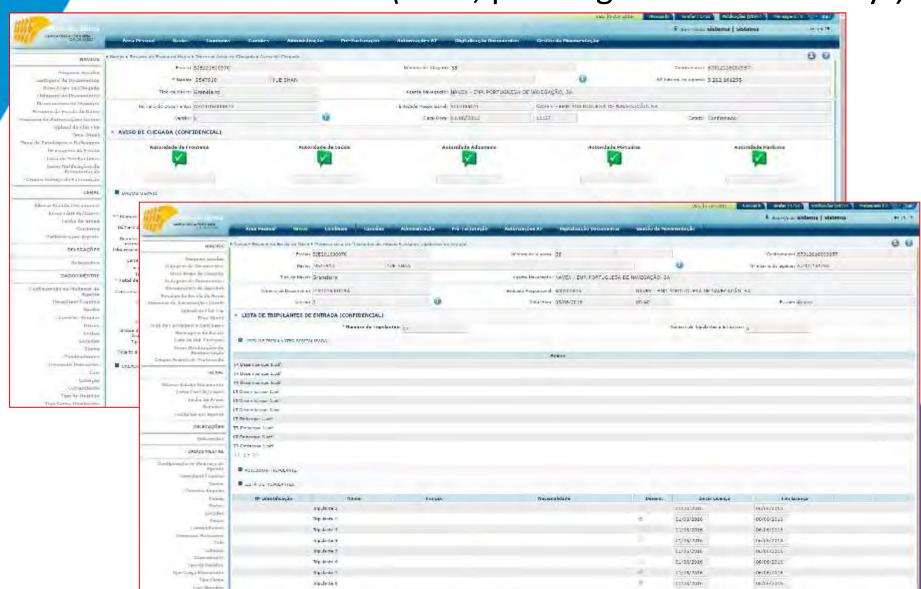


Screen sample 5/7 (Waste & Residue declaration)



Screen sample 6/7

(crew, passengers and stowaways)



Screen Sample 7/7 (Notice of departure)























Some figures...

ALGUNS NÚMEROS



30 milhões de acessos à aplicação por utilizadores de todos os portos



50 pessoas envolvidas



responsáveis por municar com mais de 20 sistemas



www.



20.2 milhões de mensagens

processadas

100 mil linhas de código Javascript

6.4 milhões de linhas de código Java

1.3 milhões de

linhas de código XML

45 mil linhas de código CSS

800 mil linhas de comentários

462 mil métodos Java

27 mil ficheiros 25 mil classes 1744 directórios

1170 páginas web

Executados diariamente



320 mil horas de desenvolvimento

700 Testes Automáticos

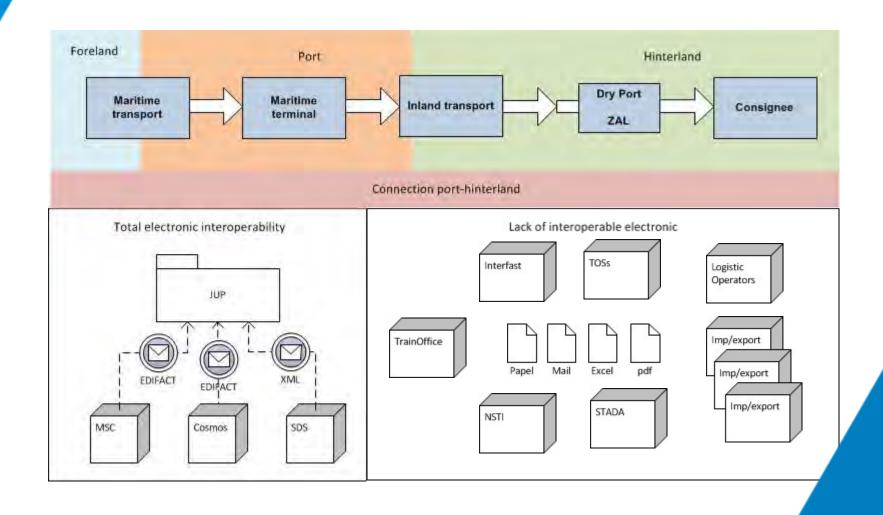
Railway links to dry ports

(Evolution of container trains)



Isolated systems and manual procedures

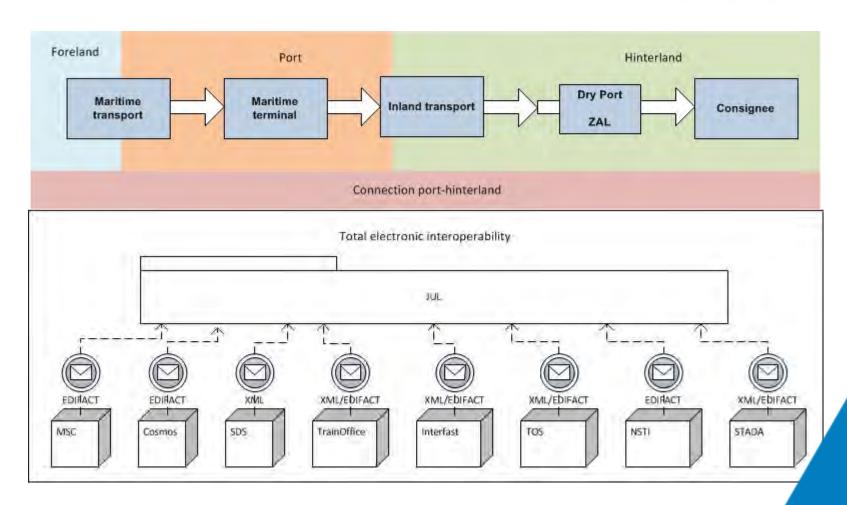
(Information bottlenecks in the logistic chain)



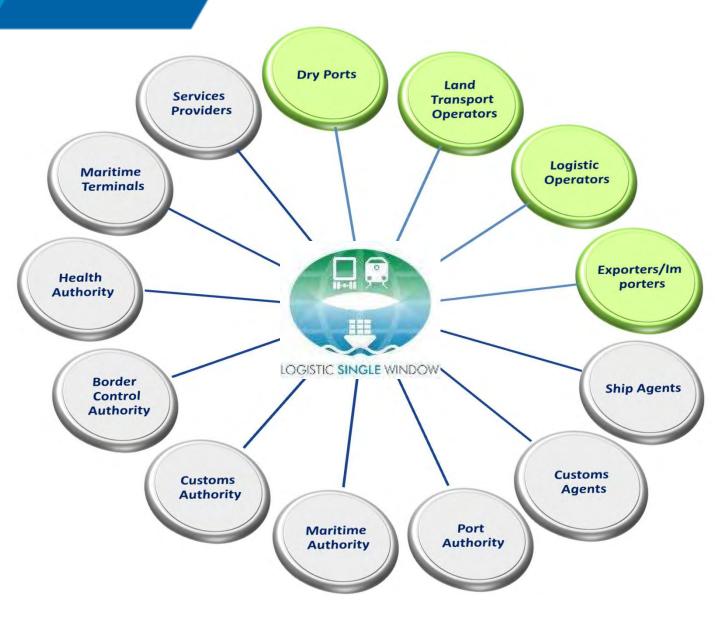
Logistic Single Window System

(An information pipeline trough the logistic chain)





Actors' Integration using LSW system



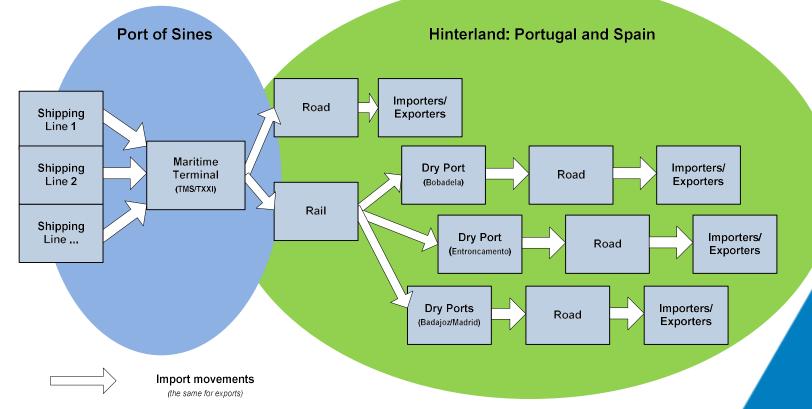
Upgrade for electronic clearance of Vessels, Rail and Trucks

(100% paperless + Control of the supply chain port / hinterland)



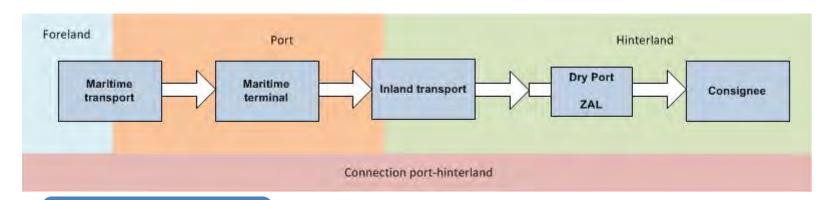
Regions/markets:

Northern Europe mediteranean north America Panama Canal South America Africa Middle east Far East



Logistic Single Window System

(Lean management and visibility trough the logistic chain)



Maritime

- *
- * Cargo Manifest
- * (Un)Load Ship Report



Rail

- * Train Schedule
- * Train (Un)Load Announcements and Orders
- * (Un)Load Train Report
- * Transit Declaration
- * Customs Clearance
- * Train Transport Declaration
- * Train Composition and Location

Dry Port

- * Gate in/Gate out Announcement
- * Gate in/Gate out Report
- * Customs Clearance

Road

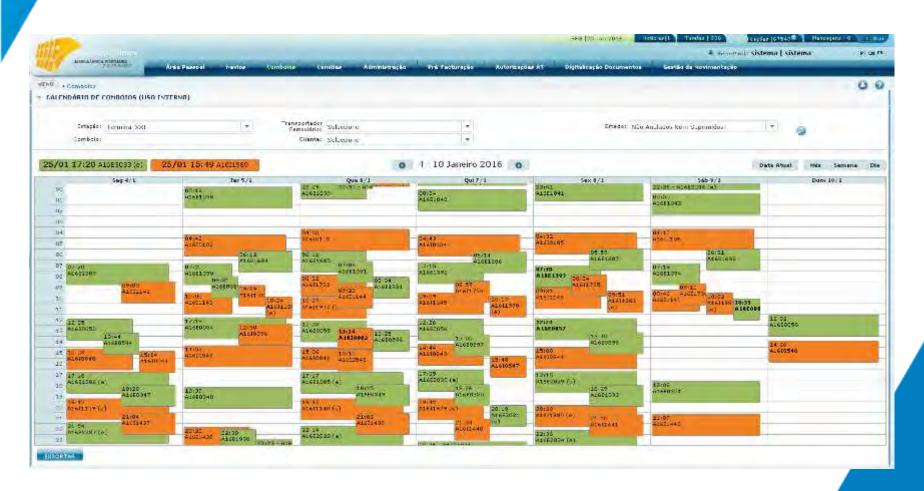
- * Truck (Un)Load Announ. and Orders
- Road (Un)Load Report
- Imports/exports notification

Port-hinterland Transport Chain Visibility



Logistic Single Window System

(Trains planning – information received from rail operators)

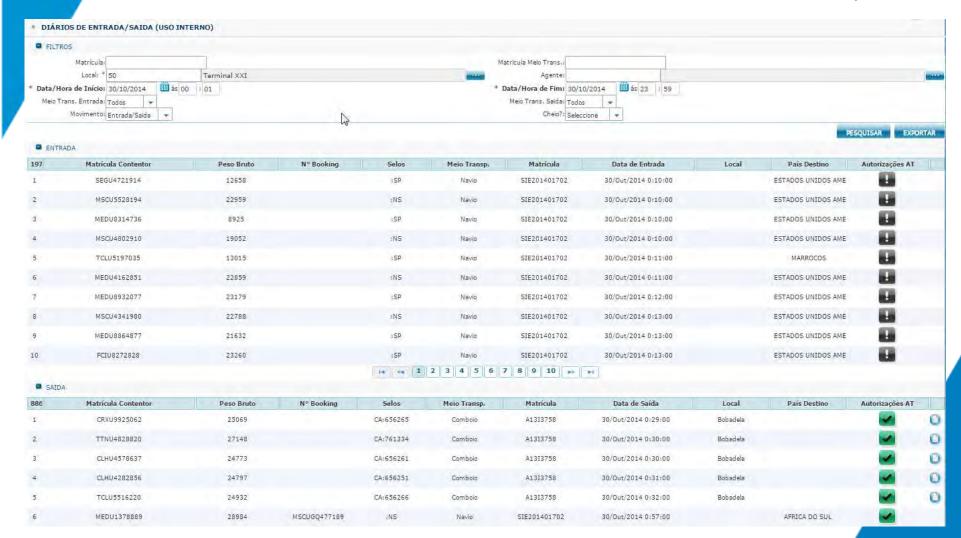




Logistic Single Window System (Dry ports integration)



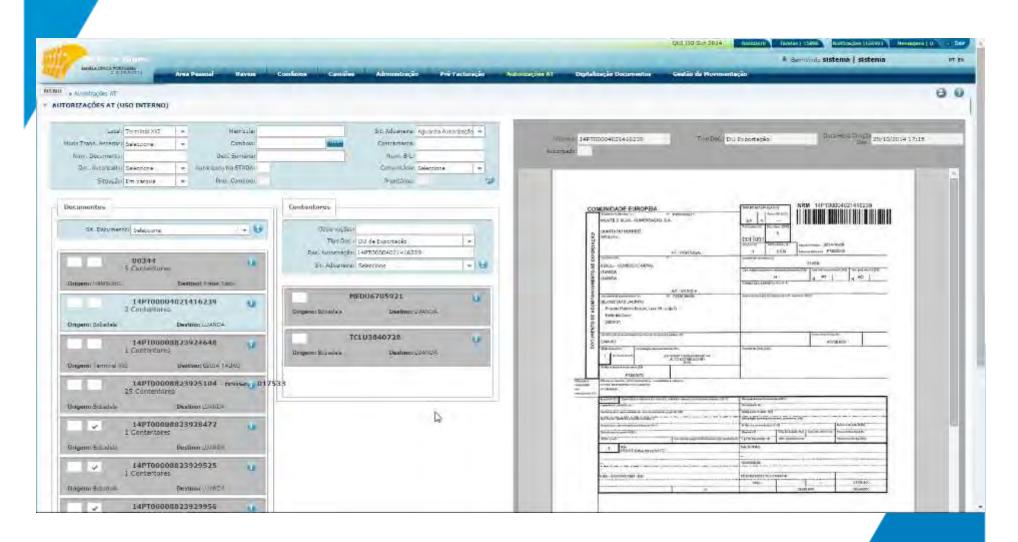
(Gate In/Gate Out Report)



(Storage Yard Inventory)

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(Customs Clearance)



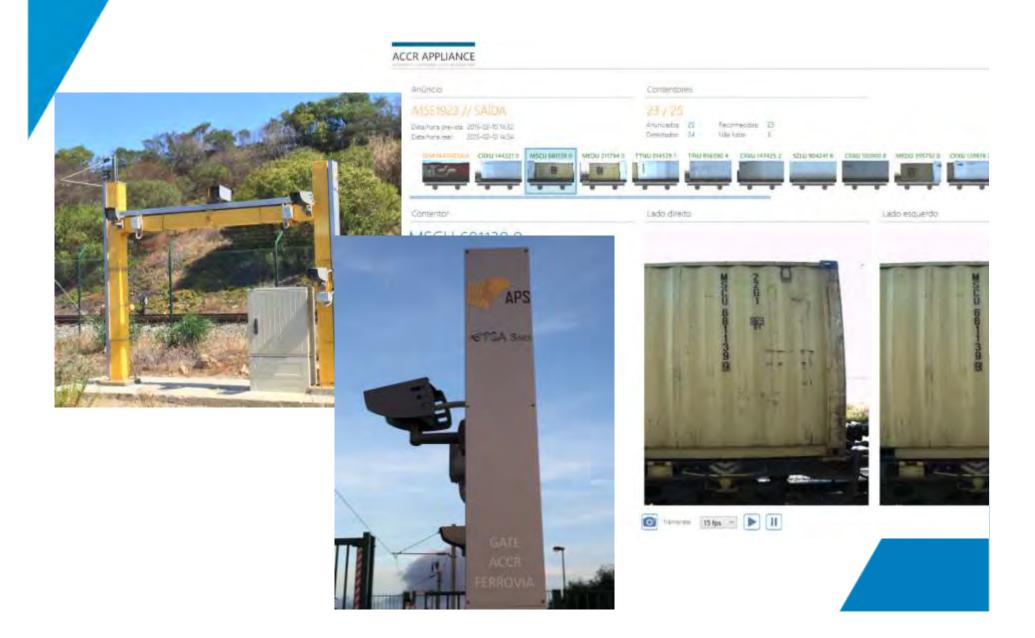
Gate Automation

(Railway Gate: Access Control)



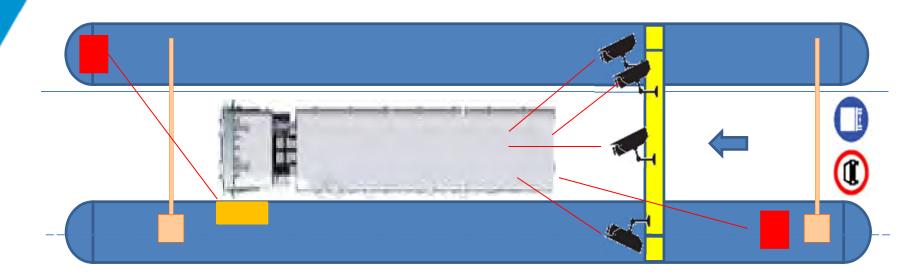
Gate Automation

(Railway Gate: OCR - Optical Characters Recognition)



Gate Automation

(Truck gate - Planning and PCheck)







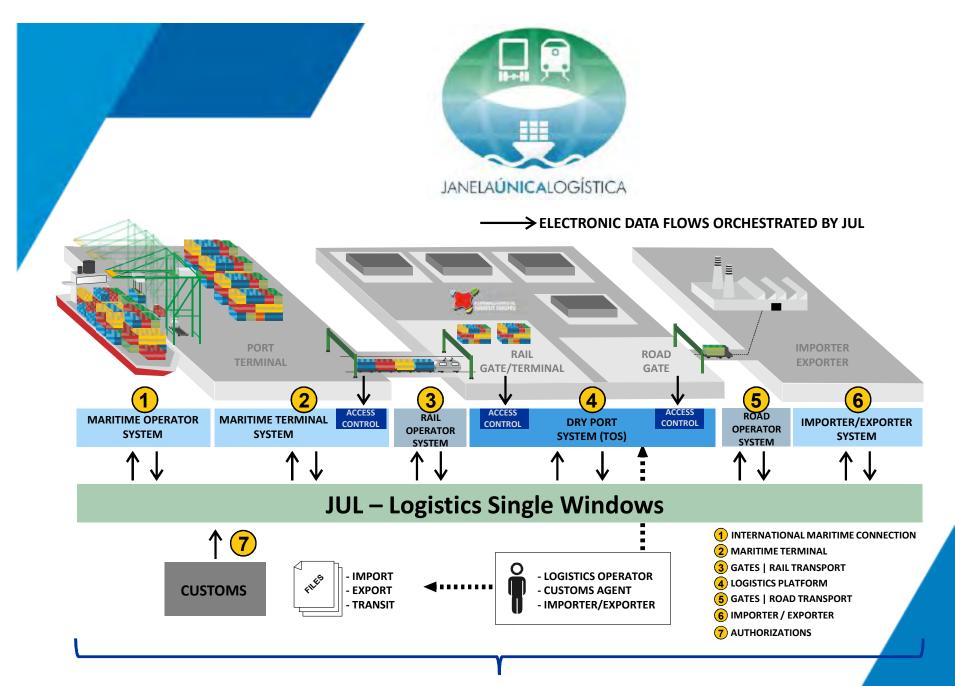


cartão único portuário

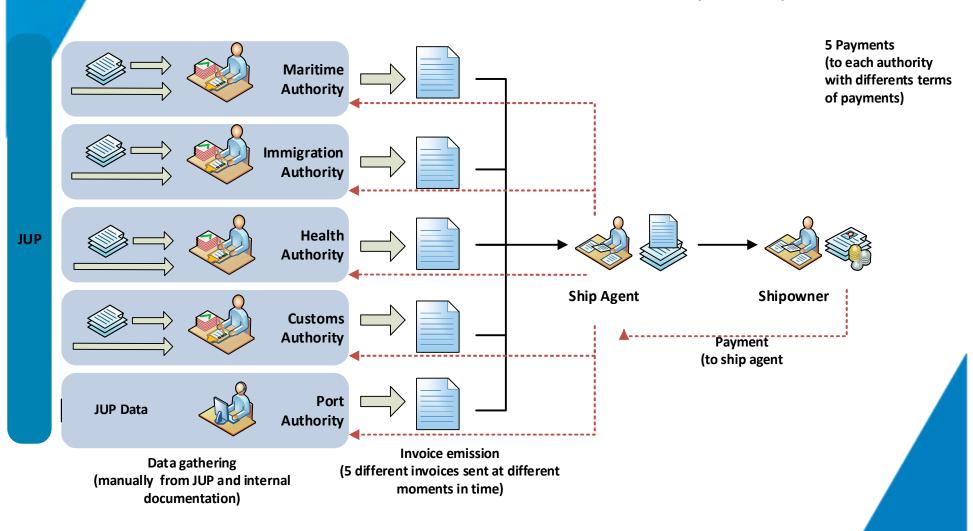
Gate Automation (Truck call – Planning and PCheck)



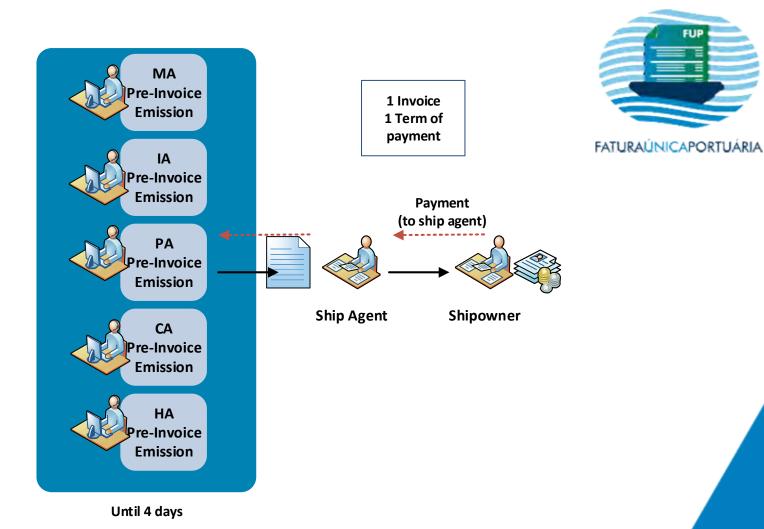
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| | Destarga pido velculo 45-45-AA Data/hora crevista: 28-06-2012 | | 44-44-RR. Data/Hora prevista: 18-05-2012 | 10-10-NN | 16-05-2012 12:09 09-12-2012 22:38 | |
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(Unique ship's invoice)



(Unique ship's invoice)





cartão único portuário

Cartão Único Portuário, or Port Single Card system, controls access to all port areas, where special attention must be paid to ships and international areas, within the scope of the ISPS code.









Port Terminals









When a user requests to enter the port's area (persons and vehicles), a unique authorization comprises all the authorities involved.

The system is designed to support multiple port installations and equipment from different vendors

User interface samples

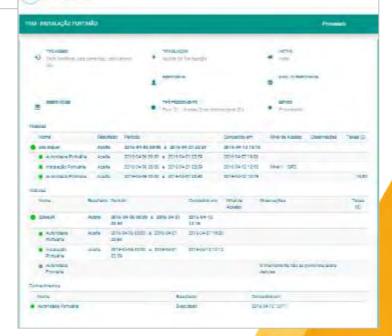






CUP, Empresa Instalações

User request



Request queries and reviews

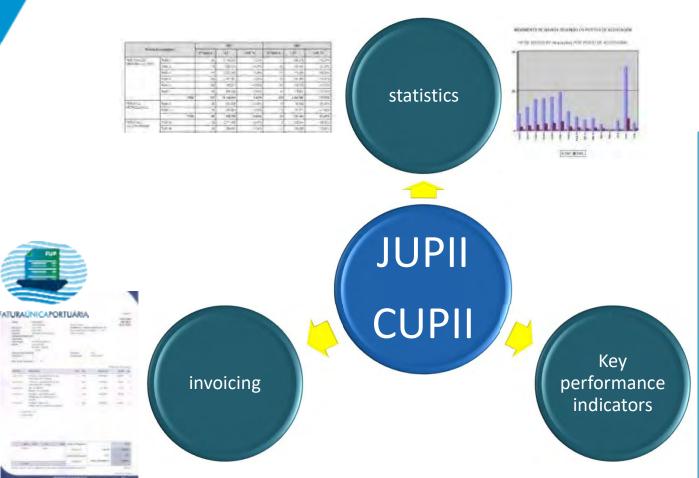
Port Authority



Port Single Card Benefices

- Multiport (can handle multiple ports on a single instance of the system)
- Multilanguage (PT, EN, ES)
- Process Optimization (supplies information for management decision making)
- Dispatch / Clearance Oriented
- Ready for mobile devices
- User request process simplification
- > E-mail driven (e-mails can be generated for all tasks and actor involved, with a direct URL link for dispatch)
- Possibility of reauthorization (Processing programmable delay)
- Explicit confirmation from actor responsible for the applicant's access request
- Reserved user / company area to manage own requests
- > Identification documents expiry control and management

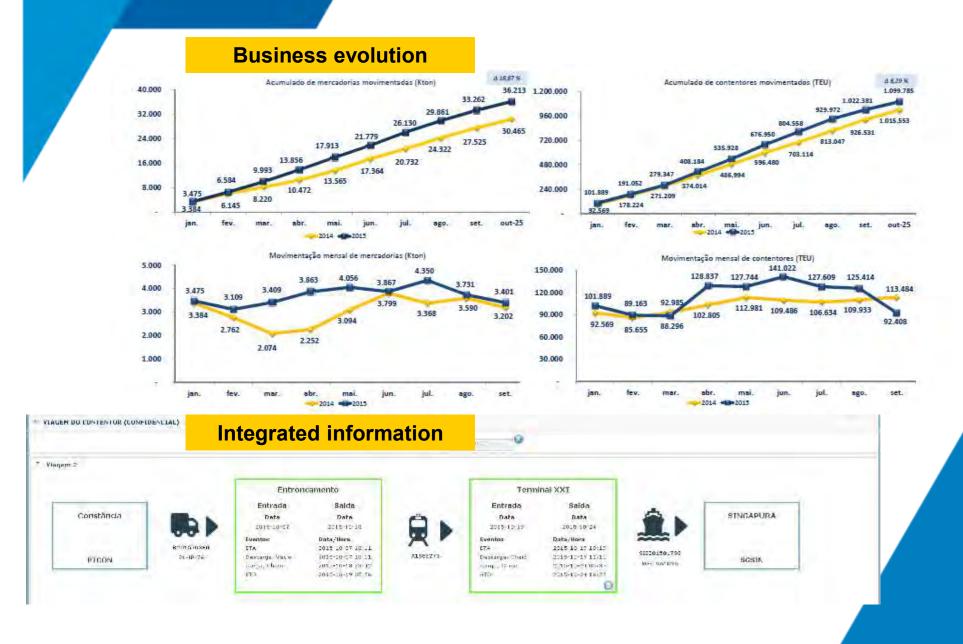
JUP/CUP outputs for port management



Tempo de Entrada Tempo de Manobra de Entrada Tempo de Espera Tempo de Ocupação de Cais Tempo de Operação 19,49 Tempo de Saída 0.28 Tempo de Permanência 28,7 N.º Médio TEU/Hora 103 Descarga: 1.128 Contentores 1.725 TEU Carga:

22 Contentores 22 TEU

Solutions for "decision making support"



More videos at APS's official youtube channel

https://www.youtube.com/channel/UCiMp5-N3vYEZ1ogXQMKZepw/videos?view=0&sort=





Thank you





