



COREALIS Valencia Demo/Training Webinar

## Truck Appointment System (TAS)

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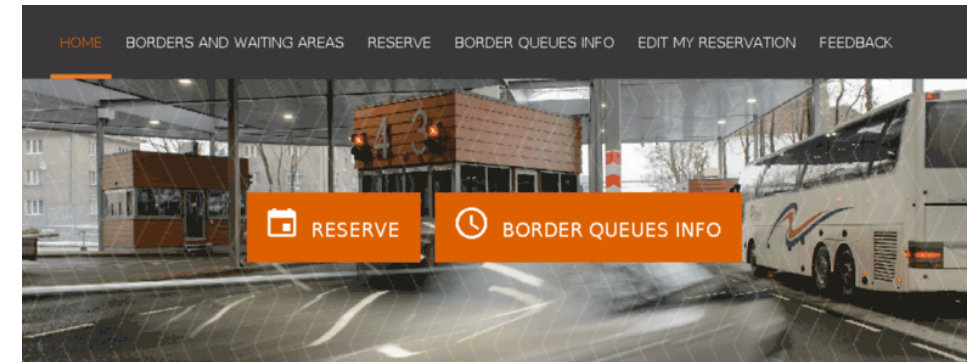
October 27th, 2020



# Truck Appointment System (TAS)

## Truck Appointment System (TAS): the concept

- Booking systems have been long used for many activities and business sectors. We all know the principle of appointment to visit doctors, book a ticket, queue at the supermarket, book a visit to a monument...
- Several names for the same concept: Truck/gate appointment systems, e-gate pass, vehicle booking system...
- Typically used for regulating the incoming vehicle flow in: vehicle inspection, border-crossing, customs X-ray scanning, port premises, port terminal operations...





# Truck Appointment System (TAS)

## COREALIS TAS Objectives

- Create a new type of TAS system focused on:
  - Optimization of terminal resources and operations management to the expected volume and type of activity by knowing in advance the volume of incoming trucks and type of operations to be done
  - Regulate incoming traffic to port premises and city surrounding areas
  - Create a channel of communication between the terminals and the drivers / transport companies to optimize cargo delivery, inform on delays, etc.

## Positive impacts

- Reduce idle-time (terminals & transport companies)
- Most efficient & productive operations at terminals
- Prevent congestions by spreading truck arrivals/departures throughout the day/week
- Reduction of pollution and improvement of sanitary conditions





# Truck Appointment System (TAS)



## COREALIS Truck Appointment System (TAS)

- VALENCIA LIVING LAB (LL): Adapted to users' specific requirements. "Advanced TAS" (e-platform + mobile app)
- Access: <https://valencia.corealis.tas.goswift.eu/valencia/>
- Pilot data:
  - Testing Period: Since September 2019
  - Terminals: 3
  - Terminal Queues: 1
  - Slots: 60 min, 10 trucks
  - Companies: 2





# Truck Appointment System (TAS)

## VALENCIA LL TAS

### • BEFORE THE PILOT

- Traffic congestion at the port entrance
- Terminals without visibility of incoming traffic (when trucks would arrive for a certain operation)
- Truck drivers/transport companies not knowing if they would pick up/deliver the container immediately or they would have to wait

### • DURING THE PILOT

- Terminals know in advance which trucks, containers and operation will be performed at any given moment
- Terminals can plan their resources and operations in advance

### • DIRECT POSITIVE IMPACT

- Reduction of queues at the port-gates
- Reduction of idle-time at terminals & faster operations
- Full visibility of port delivery/pick-up operations in real time for container terminals and transport operators





# Truck Appointment System (TAS)



## COREALIS TAS Users – Roles - Functions

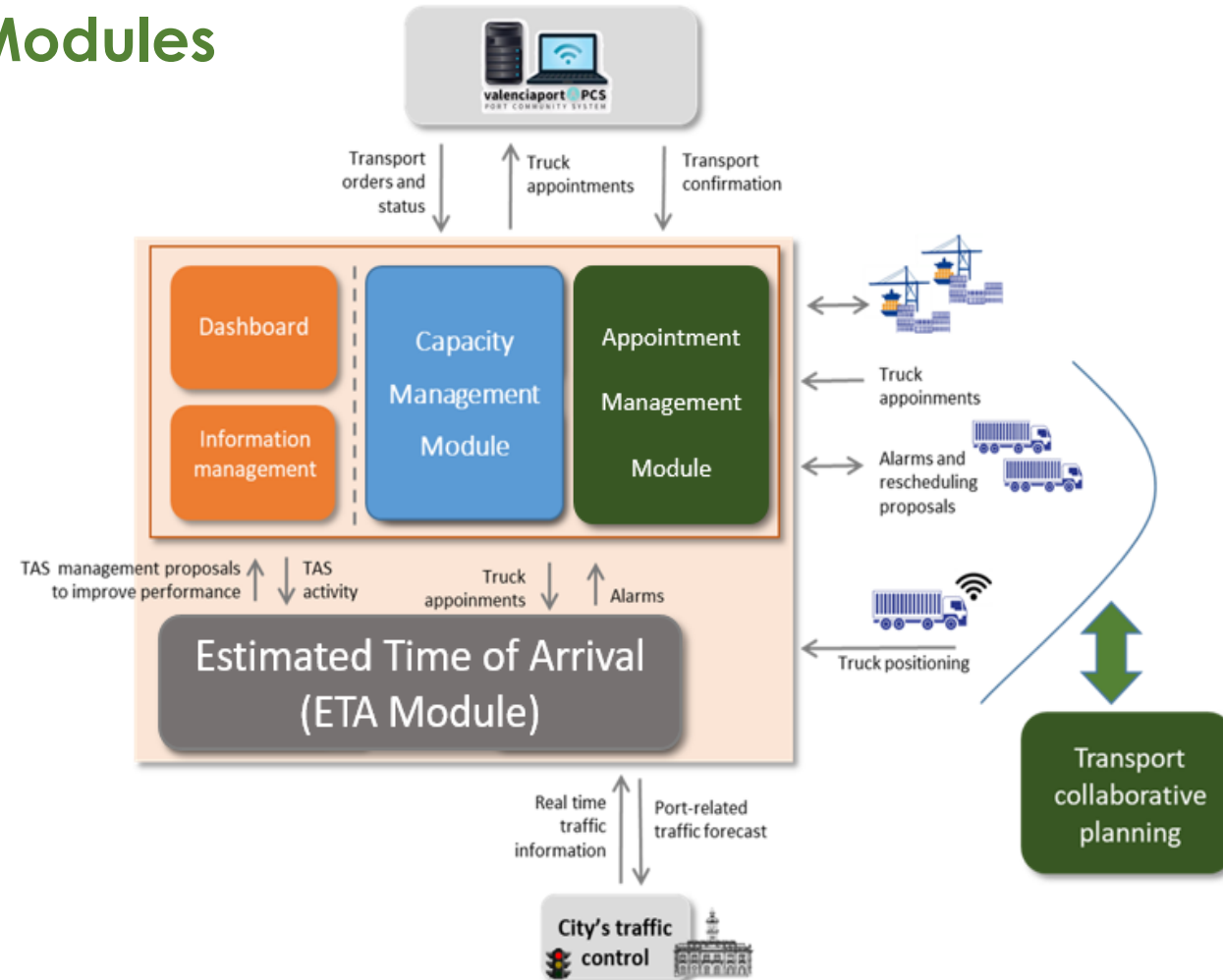
- **ADMINISTRATOR** (Port Authority) – Full visibility, maximum permission
- **TERMINALS**
  - Superusers (Operations Team Leader/s) – Full visibility of own terminal, Advanced permission
  - Standard Users (Operational Team)
- **TRANSPORT COMPANIES, HAULIERS, FORWARDERS...**
  - Superusers (Operations Team Leader/s) – Full visibility of own company, Advanced permission
  - Standard Users (Operational Department)
  - Drivers (interface through Mob App, limited functionalities: “start my trip”, “reschedule my trip”, get communications)





# Truck Appointment System (TAS)

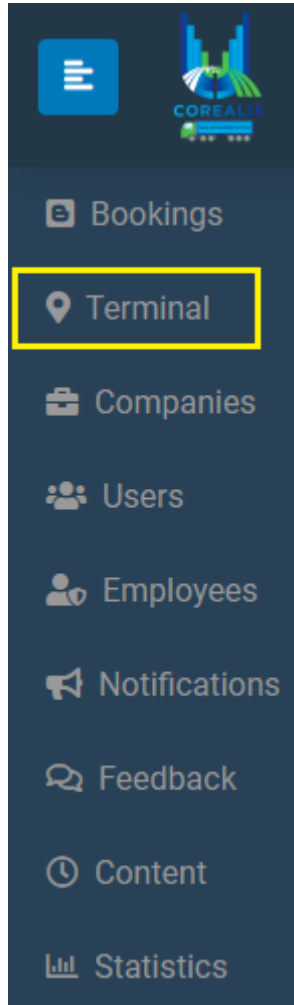
## COREALIS TAS Modules







# Truck Appointment System (TAS)



## Terminal configuration: map & GPS Coordinates



Latitude \_\_\_\_\_  
39,42909767884625

Longitude \_\_\_\_\_  
-0,31674898165010745







# Truck Appointment System (TAS)



## Terminal configuration: service hours, slot duration & capacity

Navigation menu:

- Bookings
- Terminal**
- Companies
- Users
- Employees
- Notifications
- Feedback
- Content
- Statistics

+ Add new terminal

	Terminal name	Terminal queues		
	CSP Iberian Valencia Terminal	Admisión de lleno (Export)		
	MSC Terminal Valencia	Admisión de lleno (Export)		
	APM Terminals Valencia	Admisión de lleno (Export)		

Slot Configuration interface:

Clear

Day config name

**Slot Capacity**

**Slot Configuration**

Start time	10:00	End time	20:00	Slot duration	- 60 +	Slot pause	- 0 +
	10:00		11:00				
	11:00		12:00				
	12:00		13:00				
	13:00		14:00				
	14:00		15:00				
	15:00		16:00				
	16:00		17:00				

Slot duration: 60

Slot pause: 0

Slot capacity: 10

Add new range

Save





# Truck Appointment System (TAS)



## Slot Reservation / Booking Creation

tass x +

kotka.corealis.tas.goswift.eu/kotka/

Flash Player dejará de ser compatible a partir de diciembre del 2020. Desactivar Más información x

COREALIS THE PORT OF THE FUTURE

Login

Homepage

# COREALIS Truck Appointment System

RESERVE

This application is a part of project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 768994

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18:19 08/10/2020





# Truck Appointment System (TAS)

## Booking creation



1. Select terminal  
(scroll-down menu)

2. Select queue  
(scroll-down menu)

3. Select timeslot (date, time from  
calendar)

4. Vehicle data (manual feed/pre-select  
saved vehicles as scroll-down list)

- Transport order number
- Vehicle plate number
- Vehicle country

5. Driver's data (manual  
feed/pre-select saved vehicle  
as scroll-down list)

- First Name
- Last Name
- Phone number
- E-mail



# Truck Appointment System (TAS)



## Bookings dashboard, driving status (ETA prediction sourced from drivers' Mob App)

Super User

Bookings

Terminal

Companies

Users

Employees

Notifications

Feedback

Content

Statistics

All
Booked
Cancelled

All
Early
In time
Arrived
Late

Start date

Company: Choose your option

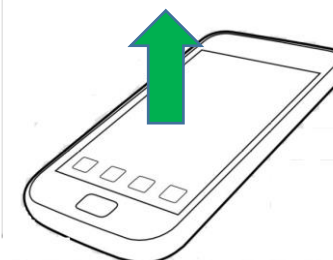
End date

Terminal: Choose your option

[Manage notifications](#)

Total bookings amount: 822

Slot date	Time at border	Terminal name	Terminal queue	Transport order number	Company	Vehicle plate number	Booking status	Driving status		
10.09.2020	13:00	CSP Iberian Valencia Terminal	Admisión de lleno (Export)	RCRVBA	Trajoman	0350KXS	BOOKED	Arrived Trip end : 09.09.2020 18:13	<a href="#">Details</a>	<a href="#">Edit</a>
		CSP Iberian Valencia Terminal	Admisión de lleno (Export)	RCDW5E	Trajoman	5248KPM	BOOKED	In time ETA : 10.09.2020 12:24	<a href="#">Details</a>	<a href="#">Edit</a>





# Truck Appointment System (TAS)

## Driver's Functionalities TAS App

1. Booking details
  2. Real trip duration
  3. Route (map)
  4. Automated alerts (e.g. "1 hour before slot")
1. ETA & Driving status: early, late, in time
  2. Get notifications from Terminals / Users (own company)



## Driver actions

1. Start my trip
2. Reschedule my trip (optional)

**Booking details**

Terminal name  
**Port of Valencia**

Queue  
**AO-E (Admission Order Empty)**

Transport order  
**00998**

---

First name  
**Peter**

Last name  
**Pan**

Driver's phone  
**34620192000**

Platenumber  
**ES1234**

Timeslot  
**17 Apr 2020 10:00**

Status  
**BOOKED**

Share my location data

**Start trip**

**Show route**

**TASS**

POBLADOS MARÍTIMOS

NAZARET

V-15

V-30

Playa de Pinedo

PINEDO

CV-500

Google

Path duration: 01:17 mins

Timeslot: 13 Dec 2019 12:00

**EARLY (3 h 16 mins)**

**BOOKED**

**Early**

**ETA :**  
07.09.2020  
17:08

**Trip start :**  
07.09.2020





# Truck Appointment System (TAS)



## Communication 1: Notifications Management

[Manage notifications](#)

### Actors:

- 1. Terminals with Transport Companies (users & drivers)
- 2. Users (transport companies) with Terminals
- 3. Users with drivers (from the same transport company)

### Form of communication:

- 1. Sms
- 2. E-mail
- 3. App

### Reports & Statistics

Notification sending time

SMS notification  Email notification  Push notification

Notification message  
 Ref. vehicle 371BHJ  
 Please, request your updated pass at the port-gates guard.

Slot date	Time at border	Terminal name	Terminal queue	Transport order number	Company	Vehicle plate number	Booking status	Driving status				<input type="checkbox"/> Notify
23.04.2020	15:00	Tallinna sadam	Just a queue	tototot123	GoSwift FI	371BHJ	BOOKED 	In time Trip end : 23.04.2020 12:17	<a href="#">Details</a>	<a href="#">Edit</a>	<input checked="" type="checkbox"/> Notify thi	





# Truck Appointment System (TAS)

## Communication 2: Feedback Module

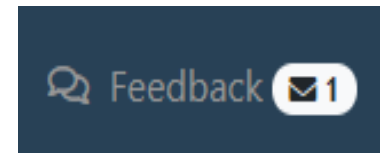
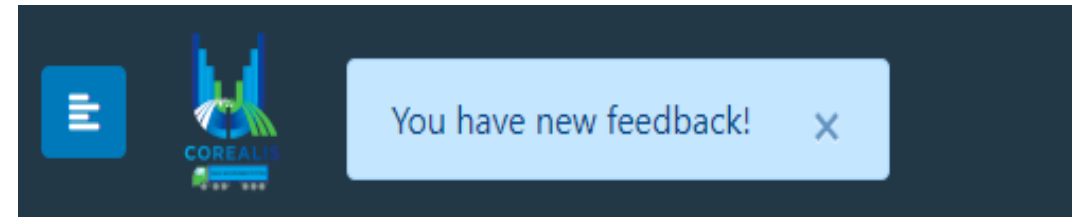
- **Actors:**

1. Terminals with Transport Companies (users)
2. Users (transport companies) with Terminals

- **Form of communication:** E-platform (TAS)

- **Feedback Dashboard** displays feedback received (date, time), last reply (date, time), subject, first message, last reply, user, status of the enquiry (active/closed).

- **Reports & Statistics:** average response time, queries per user/company...



Feedback [X]

Feedback terminal [v]

Feedback subject

Feedback message

Send



# Truck Appointment System (TAS)

## Statistics Module: Pre-defined & Customizable Reports

- Purpose: check the TAS overall performance, reporting, KPI's definition, monitoring, planning...
- Users with access to statistics module:
  - ADMINISTRATOR – Full vision / Reporting
  - TERMINALS (Superuser, own terminal)
  - TRANSPORT COMPANIES, FORWARDERS... (Superuser, own company)
- Format: pdf / CSV (exportable)
- Types of reports:
  - From...to... (dates)
  - All/ By Terminal (Scroll-down list)
  - All/ By Terminal Queue (Scroll-down list)
  - All / By Company (Scroll-down list)
  - Group by slot
  - Group by hour
  - Active / Cancelled bookings
  - All/ Early/In time/Arrived/Late/Unknown





# Truck Appointment System (TAS)

## Continuous Improvement & Innovation

Some of the topics which have raised most interest amongst stakeholders:

1. **APIs and integration with third-party systems:** traffic, city events (demonstrations, concerts, markets...), weather forecast, pollution alerts and traffic restrictions, vessel arrival schedules, customs systems (clearance, inspection, required formalities...), terminal operations systems, port community systems (PCS), port-gates system, staff's security identification cards, biometrical recognition of drivers, Optical Character Recognition Systems (OCR)...
2. **Pre-booking function** for pre-reserving a slot (for hauliers not knowing their final schedule of delivery in their way to the port).
3. **A new TAS user/profile** for pre-selecting a booking slot to be later on completed with final booking information (plate number and driver's data). Specific for bookings created by one company (e.g. Shipping company or forwarder) reassigning the booking to a transport company that may be changed or transferred to another subcontracted transport company. Final transport company should complete the final booking details.
4. **Automatic rescheduling or suggestion of next available slot** based on machine-learning techniques and analytics.
5. **Suggestion of alternative route** depending on driver's preferences, delivery schedule, traffic congestion, weather conditions...





[www.corealis.eu](http://www.corealis.eu)



[corealis\\_eu](https://twitter.com/corealis_eu)



[COREALIS EU Project](https://www.youtube.com/COREALIS_EU_Project)



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# THANK YOU FOR YOUR ATTENTION



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