



COREALIS HaminaKotka Demo/Training Webinar

Truck Appointment System (TAS)

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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) HAMINAKOTKA LIVING LAB (LL): Adapted to users' specific requirements.
"Light TAS" (Simplified version of TAS of Valencia LL)

- Access: <https://kotka.corealis.tas.goswift.eu/kotka/>
- Pilot data:
 - Testing Period: Since September 2019
 - Terminal "Kotka Container Terminal Mussalo"
 - Terminal Queues: 3
 - Slots: 60 min, 10 trucks
 - Companies: 1

About to start:

- Terminal "Hietanen"
- Terminal Queues/Warehouses: 11



Truck Appointment System (TAS)

HAMINAKOTKA TAS

• BEFORE THE PILOT

- Terminals without visibility on incoming traffic volume, type of material, type of operation (loading/unloading), processing warehouse
- Queues at the port entrance
- Truck drivers/transport companies not knowing the warehouse to head for
- Warehouse assigned “on-the-spot”

• DURING THE PILOT

- Terminals know in advance which trucks, type of material and operation will arrive at each warehouse
- Terminals can plan their resources and operations in advance
- Terminal can inform the driver in advance which warehouse to go to

DIRECT POSITIVE IMPACT

- Reduction of queues at the port-gates
- Reduction of idle-time at terminals & faster operations
- Operations according to schedule (85% trucks arriving late at the beginning of the pilot compared to 81% arriving earlier in Sept.2020 with only 9,7% of the traffic using the TAS)
- Turnaround reduced in 13 min





Truck Appointment System (TAS)

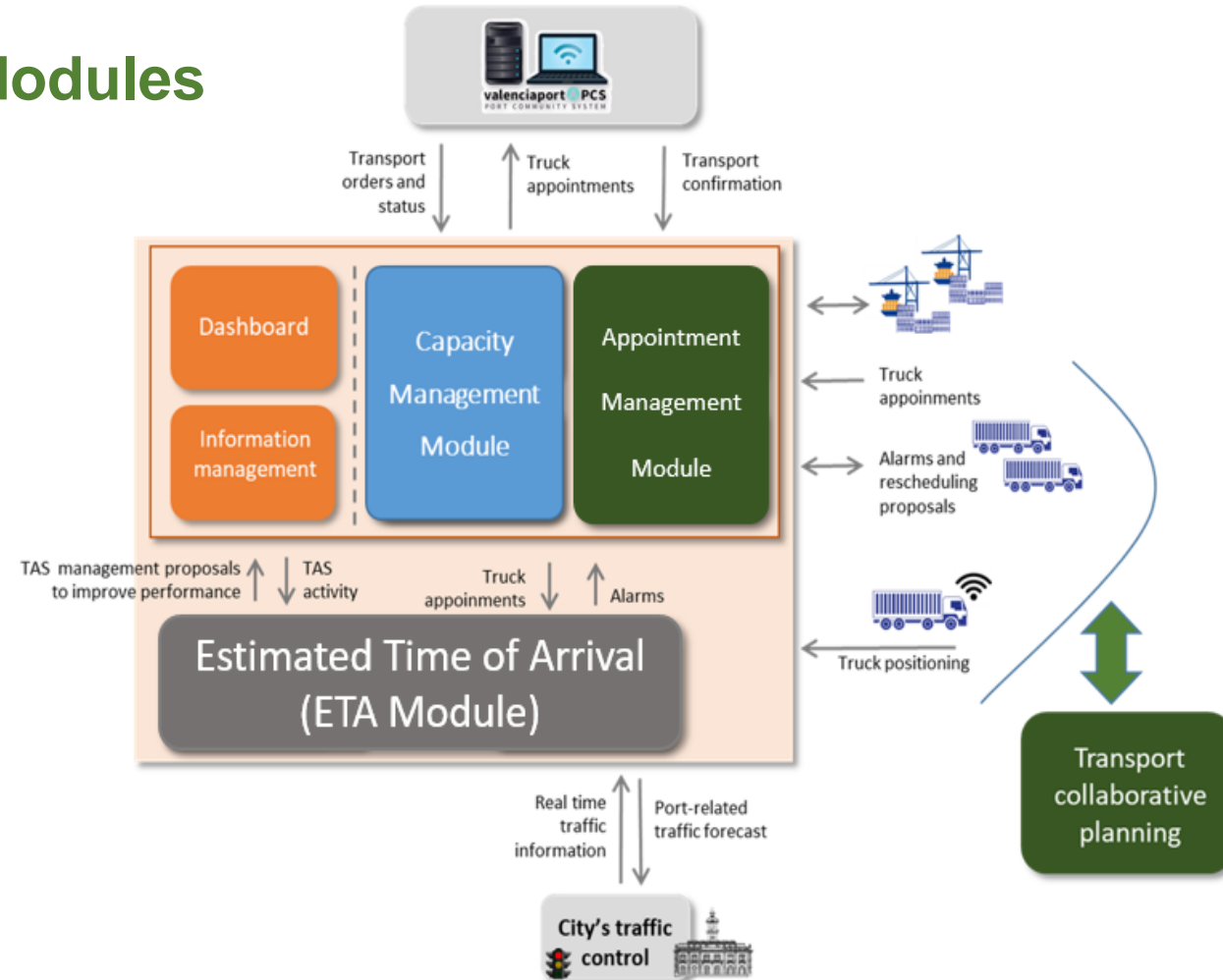
COREALIS TAS Users – Roles - Functions

- **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)



- ☰ COREALIS
- 📅 Bookings
- 📍 Terminal**
- 🏢 Companies
- 👤 Users
- 👤 Employees
- 🔔 Notifications
- 🗨️ Feedback
- 🕒 Content
- 📊 Statistics

Terminal configuration: map & GPS Coordinates

Terminal name
Kotka Container Terminal Mussalo



Latitude
60,426777876573595

Longitude
26,893035426393794





Truck Appointment System (TAS)



Navigation menu:

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

Terminal configuration: service hours, slot duration & capacity

Terminal name	Terminal queues
<input type="checkbox"/> Kotka Container Terminal <input type="checkbox"/> Mussalo	SE1 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	MC1 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	MC2 <input type="button" value="🕒"/> <input type="button" value="✎"/>
<input type="checkbox"/> Hietanen	RC <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-1 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-2 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-3 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-4 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-5 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H-9 <input type="button" value="🕒"/> <input type="button" value="✎"/>
	H1S <input type="button" value="🕒"/> <input type="button" value="✎"/>
	Semitrailer <input type="button" value="🕒"/> <input type="button" value="✎"/>
Kontit <input type="button" value="🕒"/> <input type="button" value="✎"/>	
H-7 <input type="button" value="🕒"/> <input type="button" value="✎"/>	

Slot Configuration interface:

Clear ✕

Day config name

Slot Capacity

Slot Configuration

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

Add new range





Truck Appointment System (TAS)



Slot Reservation/ Booking Creation

tass x +

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

Aplicaciones Imported New Tab Kotka pilot Valencia pilot ONE DRIVE - Docs Document Translat... taxud - customs qu...

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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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 vehicles 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)

Search by transport order number/vehicle

All
Booked
Cancelled
All
Early
In time
Arrived
Late

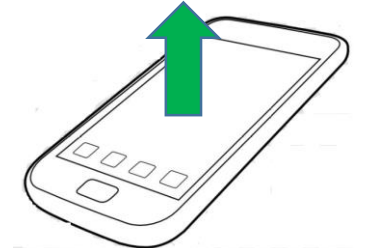
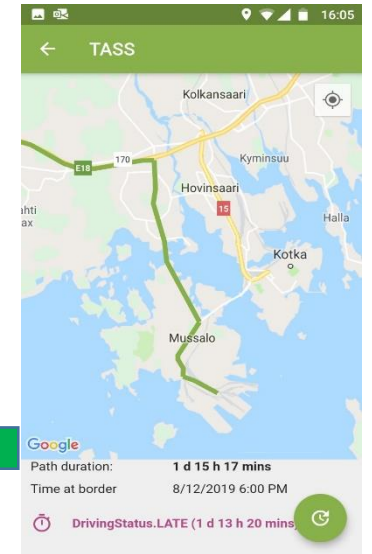
Start date: _____ End date: _____

Company: Choose your option Terminal: Choose your option

Total bookings amount: 228

Slot date	Time at border	Terminal name	Terminal queue	Transport order number	Company	Vehicle plate number	Booking status	Driving status		
07.10.2020	09:00	Kotka Container Terminal Mussalo	SE1	459482	Kuljetusliike Mika Niemi Oy	NJL531	BOOKED	Undefined	Details	Edit
06.10.2020	14:00	Kotka Container Terminal Mussalo	SE1	459480	Kuljetusliike Mika Niemi Oy	NJL531	BOOKED	Undefined	Details	Edit

Manage notifications





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")
5. ETA & Driving status: early, late, in time
6. 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

Path duration: **1 d 15 h 17 mins**

Time at border: 8/12/2019 6:00 PM

DrivingStatus.LATE (1 d 13 h 20 mins)

BOOKED

Early

ETA :
07.09.2020
17:08

Trip start :
07.09.2020



Truck Appointment System (TAS)



Communication 1: Notifications Management

Actors:

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

Notification sending time

23.04.2020 15:54

SMS notification Email notification Push notification

Notification message

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

Form of communication:

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

Reports & Statistics

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	Details	Edit	<input checked="" type="checkbox"/> Notify thi	





Truck Appointment System (TAS)

Communication 2: Feedback Module

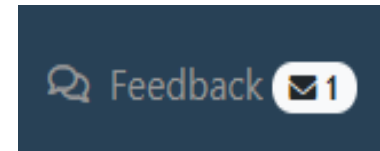
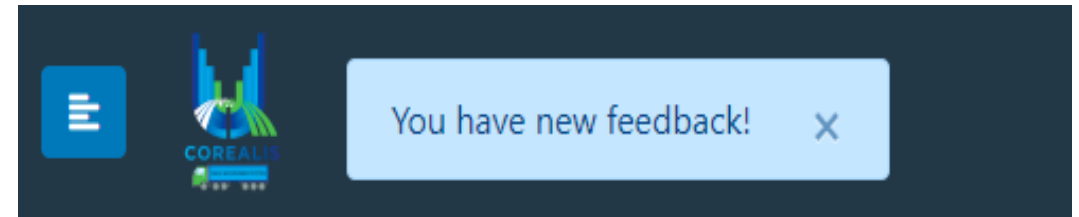
- **Actors:**

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, KPIs definition, monitoring purposes, 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
-  [corealis_eu](https://twitter.com/corealis_eu)
-  [COREALIS EU Project](https://www.youtube.com/COREALIS_EU_Project)
-  [Corealis_eu](https://www.linkedin.com/company/corealis_eu)
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THANK YOU FOR YOUR ATTENTION



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