



Almaviva

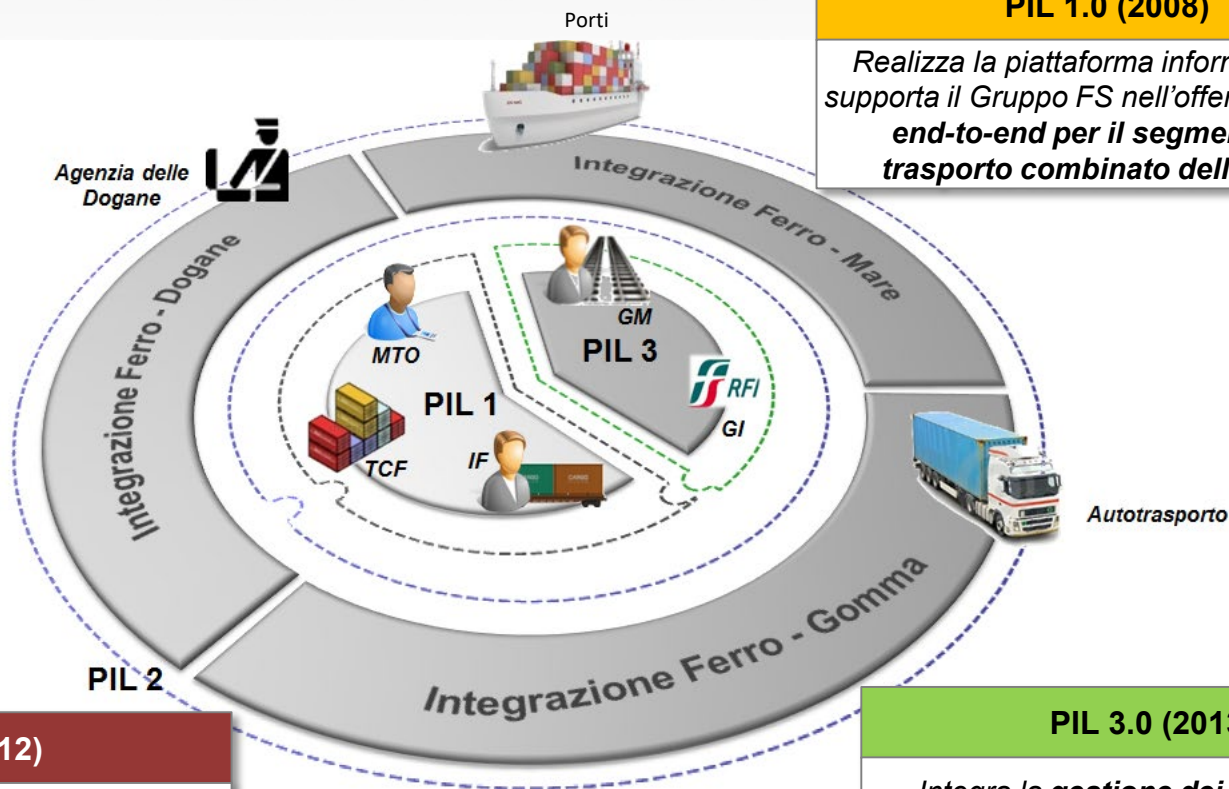
digitale assoluto.

Almaviva

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Italia

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Fasi del programma PIL



PIL 1.0 (2008)

Realizza la piattaforma informativa che supporta il Gruppo FS nell'offerta di **servizi end-to-end per il segmento del trasporto combinato delle merci**

PIL 2.0 (2012)

Realizza la **cooperazione tra gli operatori del Gruppo FS con altri soggetti esterni** coinvolti nella catena logistica

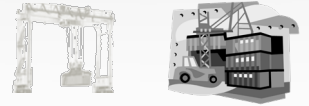
PIL 3.0 (2013)

Integra la **gestione dei processi di manovra ferroviaria** offerti dalle società del Gruppo FS in qualità di Gestore Unico ed **assicura a RFI il coordinamento della attività di manovra** in tutti i nodi logistici

Terminali Italia: Network and main IT functionalities



Handling core processes



Access automation



Priority access lanes



Handling automation

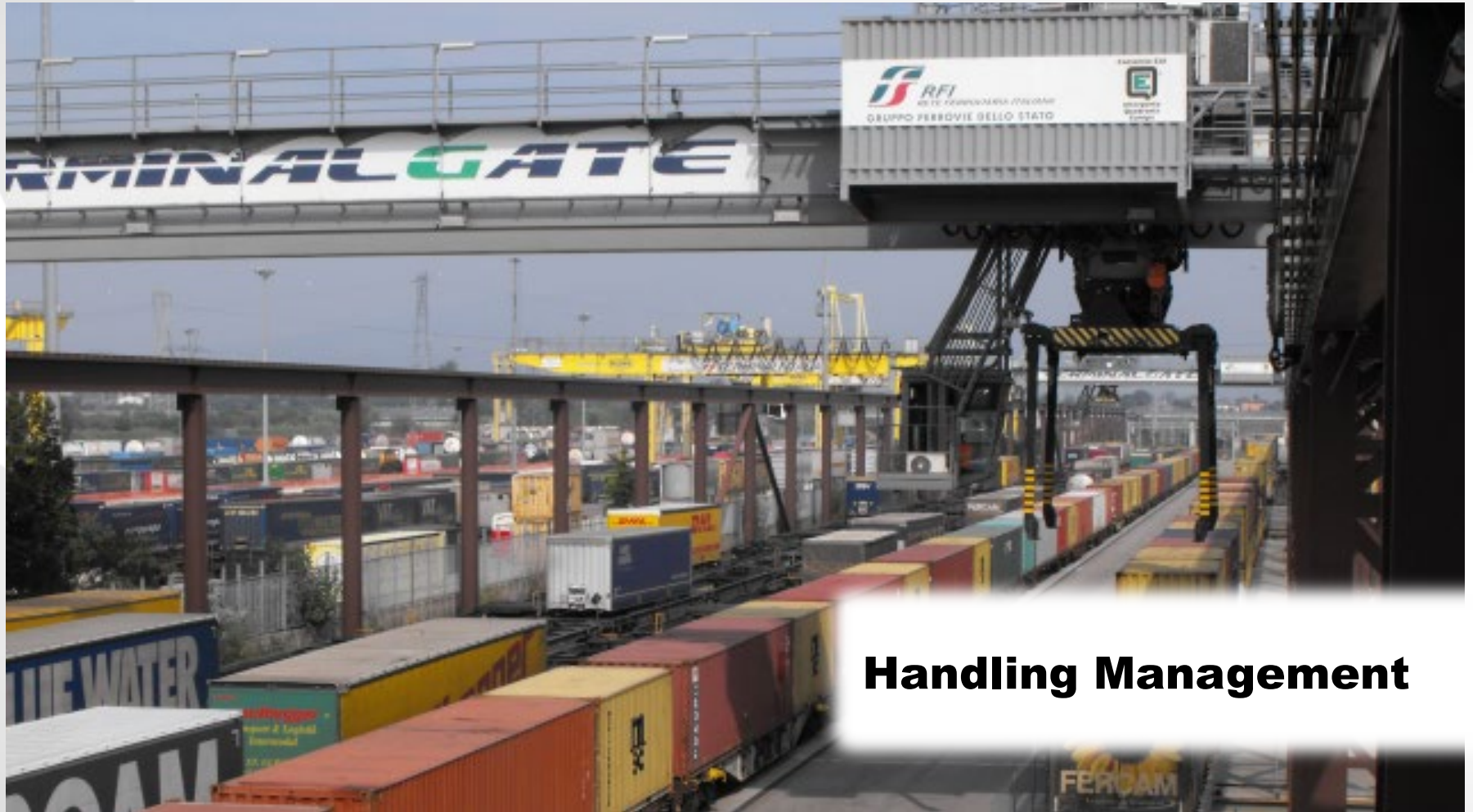


Shunting core processes



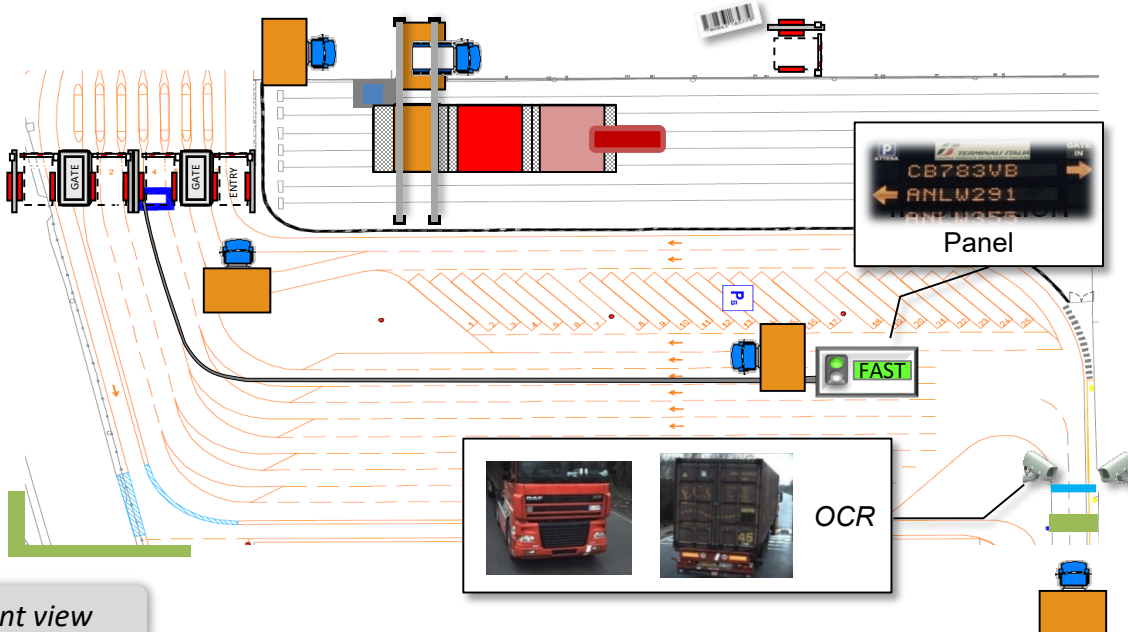
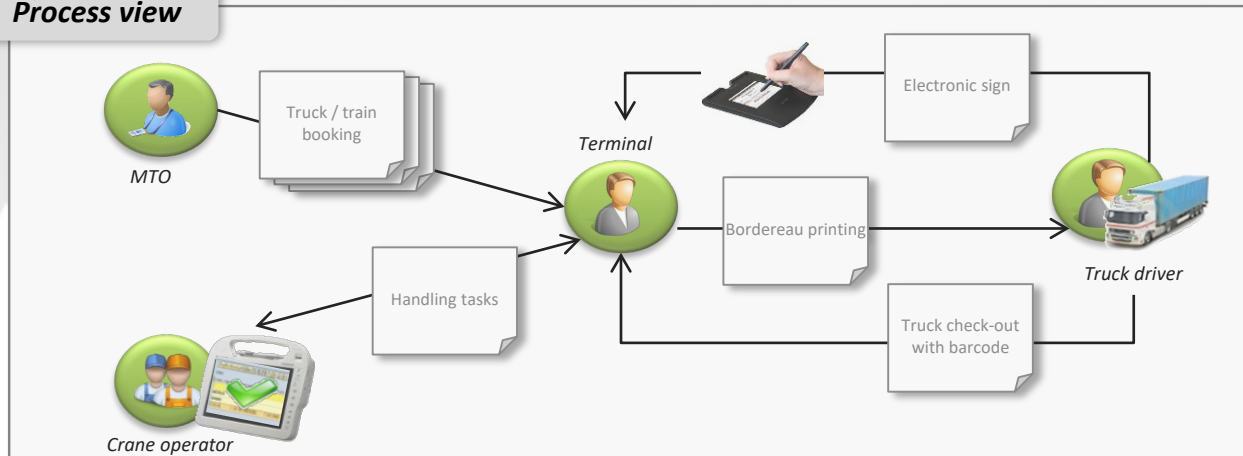
Control room





Handling management: Process overview

Process view



Plant view

1. Truck / train booking

2. Pre check-in and truck recognition

3. Truck check-in and bordereau printing

4. Handling task execution and train loading

5. Truck check-out

6. Train gate-out

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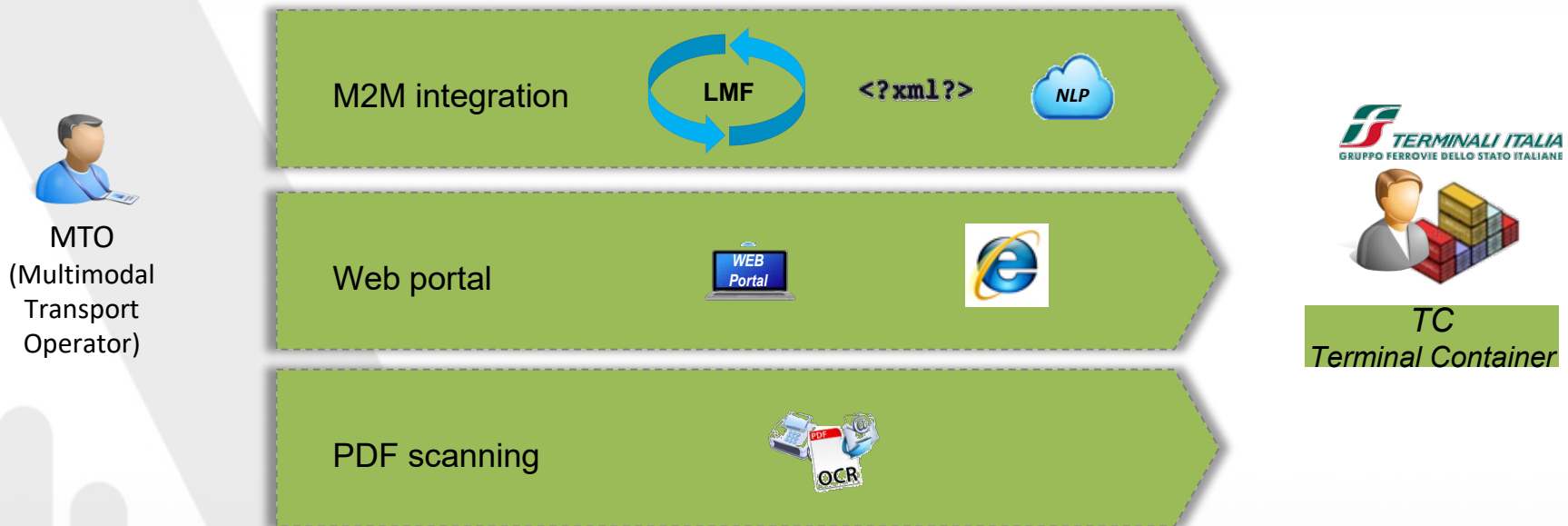
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Handling management: Truck / train booking (1/3)

1. Truck / train booking

No inbound trucks / trains are allowed without proper booking.

Bookings can be received indifferent ways, thus allowing extreme flexibility in communication with external partners.



The goal is to reduce the amount of manual data entry by the gate operators, thus reducing the possibility of errors.

Complete reservations are served faster thanks to a policy of gate prioritization.

Handling management: Truck / train booking (2/3)

1. Truck / train booking

System view of an inbound train

Treno in entrata Passaggio a Sistema Help

Treno in ingresso numero: 51065 in Data: 13.01.2015

Gira Treno Stampa UTI Gate-In Annulla Gate-In Entrata Merci Carico Pronto Annulla Carico Pronto Quietanza di manovra Sposta Treno

Aggiungi Carro Note Treno Preispesazione Caml

Treno/Binario/Carro/UTI I. Pes... 1° Sigillo

Treno/Binario/Carro/UTI	..	..	I.	Pes...	1° Sigillo
51065					0
Binario Fittizio - da definire !					
B001-Binario 03 CM					
B002-Binario 02 CM					
B003-Binario 01 CM					
338345756419	1			71.590	
001					
Esterno1	1				
RICU2251006	1	1	1	20 29.590	001793
Interno	2				
Esterno2	3				
EURU1949434	1	1	3	20 24.000	
338345756054	2			80.090	
001					
Esterno1	1				
LOEB3103131	2	2	1	30 30.440	CONTR. NON
Interno	2				
Esterno2	3				
CRGU1240113	2	2	3	20 31.650	CONTR. NON
338345756450	3			53.200	
001					
Esterno1	1				
GAVU8113596	3	3	1	24 2.800	
Interno	2				
Esterno2	3				
TPSE0003520	3	3	3	30 32.400	475489
378045523321	4			77.020	
001					
Esterno1	1				
HOYU2510473	4	4	1	20 27.540	240238
Interno	2				
Esterno2	3				

Treno-Data Ori... 0,00

Parcheggio

UTI non a... 0,00

51065 0 0,00

Canc.Prer

Dati treno Andamento Stato carri

Treno/Data/Owner 51065 13.01.2015 CEMAT C

Treno commerciale 51065 Milano Smistamento>Bari Feruccio

Peso massimo 1.500 TO

Lunghezza max 530 M

Destinaz. Treno IT11117

Gate-In

Capacità Dett. 1 Dett. 2 TM aperti TM confermati Dett. UTI Merci P...

Original Train 51065 Original Train Date/Time 13.01.2015 / 07:05:00

Codice UTI RICU2251006 Codice Temperatura

Tipo UTI SW Disponibile RINNEN_IT1

Proprietario UTI RINNEN Data Arrivo 13.01.2015

MTO Orig. CEMAT Ora arrivo 08:40:37

ID Booking NMISM0840428 N. Pren. Inb. ERP 0184438674

Treno in Partenza 0 Cod.ISO

Data partenza treno Tipo Destino 1

Orario Partenza 00:00:00 N. Pren. Outb. ERP 0083783065

Destinazione Treno BA00001 Vettore in ingresso NMISM0840428

Destinazione Second. 000 Tipo Materiale UTI S

Nome Nave Numero di Pericolo

Data Chius Numero ONU 0

Porto partenza Classificazione RID

Tipo carico ADR 10 Numero Tecnico C14

Sigillo orig. 001793 ☒ UTI Piena

List of containers and wagons

Train / transport details

Handling management: Truck / train booking (3/3)

1. Truck / train booking

System view of the list of inbound trucks.

Each booking is linked to a time slot, according to the train arrival / departure, for priority access.

Checkpoint Camion per Terminale BAFE

Pre-Inspection Check-IN Canc.Check-IN Entrata merci WT Prelievo WT Vuoto Gen. Check-OUT Canc.Check-OUT Emissione Stampa Stampa Emergenza Logoff Ris.

Aggiornare dati Creare Prenotazione Modifica Prenotazione Cancella Prenotazione Copia prenotazione

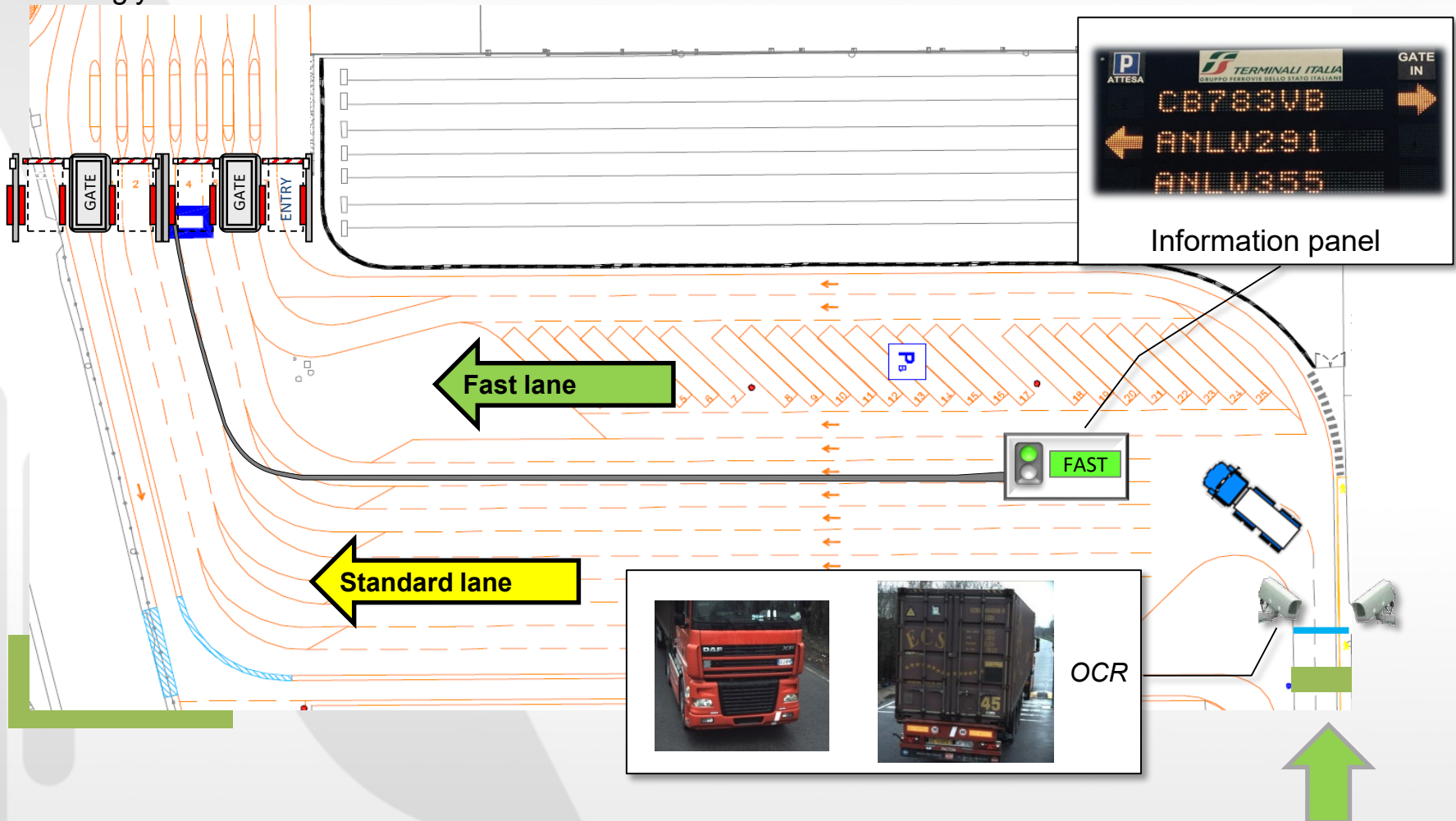
D	Dt.C.	Ora	N. doc.	C.	E	S.	C.	Disp. In.	Dispon.	ID Booking	Rif. cliente ing.	F.	M	T	Unità movim.	ISO	Propr. UTI	Ti.	Nota UTI	I.	St.ute.	T.Ap.Slot	T.Chi.Slot	Sigillo orig.	L
		00:00	7048				CEMAT	SPEDIEX	NMISM08399	NMISM0839910			1	258140012	SCDB1304060	SPEDIEXP	SW			97	OK	00:00:00	02:35:59	201075	
		00:00	7048				CEMAT	SVEVA	NMISM08400	NMISM0840045			1	SCDB1304060	SCHWEIT	SW				45	OK	00:00:00	02:35:59	845142	
		00:00	7048				CEMAT	HOYER	NMISM08400	NMISM0840039			3	EURU1913555	HOYER_D	SW				22	URGE	00:00:00	02:35:59		
		00:00	7048				CEMAT	MEURER	NMISM08400	NMISM0840053			1	EXFU8777240	MEURER	SW				24	OK	00:00:00	02:35:59	CONTR. NO...	
		00:00	7048				CEMAT	HOYER	NMISM08400	NMISM0840040			1	EXFU8768633	HOYER_D	SW				22	OK	00:00:00	02:35:59	EX OHNE	
		00:00	7048				CEMAT	HOYER	NMISM08400	NMISM0840042			3	HOYU2619340	HOYER_D	SW				20	URGE	00:00:00	02:35:59	CONTR. NO...	
		00:00	7048				CEMAT	BERTSC	NMISM08400	NMISM0840034			3	BIDU4965715	BERTSCHI	SW				20	URGE	00:00:00	02:35:59		
		00:00	7048				CEMAT	SCHMID	NMISM08400	NMISM0840035			1	BTU3560275	SCHMIDT	SW				30	OK	00:00:00	02:35:59		
		00:00	7048				CEMAT	CHEMIC	NMISM08399	NMISM0839946			3	FGT3500016	CHEMICA	SW	PV302			24	URGE	00:00:00	02:35:59	CONTR. NO...	
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840012			1	FMBU0030720	DIMARTI	SW				96	OK	00:00:00	02:35:59	942912	
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840006			1	ECBU5013410	DIMARTI	SW				96	OK	00:00:00	02:35:59	04694	
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840010			1	251291814	DIMARTI	SW				96	OK	00:00:00	02:35:59	0272	
		00:00	7048				CEMAT	LA_CIN	NMISM08400	NMISM0840037			3	CCRU0021049	RINNEN	SW				20	URGE	00:00:00	02:35:59	ILSB	
		00:00	7048				CEMAT	VTG_IT	NMISM08400	NMISM0840059			3	PCVU9263091	VOTGTA	SW				24	URGE	00:00:00	02:35:59	81642221	
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840001			1	251291835	DIMARTI	SW				96	OK	00:00:00	02:35:59	720645	
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840005			1	ECBU4639312	DIMARTI	SW				96	OK	00:00:00	02:35:59	811409	
		00:00	7048				CEMAT	SPEDIEX	NMISM08399	NMISM0839909			1	650690418	SPEDIEXP	SW				96	OK	00:00:00	02:35:59	200583	
		00:00	7048				CEMAT	HOYER	NMISM08400	NMISM0840049			1	EXFU2410107	HOYER_D	SW				20	OK	00:00:00	02:35:59		
		00:00	7048				CEMAT	DIMARTI	NMISM08400	NMISM0840011			1	FMBU0035491	DIMARTI	SW				96	OK	00:00:00	02:35:59	880879	
		00:00	7048				CEMAT	HOYER	NMISM08400	NMISM0840041			3	HOYU2619063	HOYER_D	SW				20	URGE	00:00:00	02:35:59		
		00:00	7048				CEMAT	MEURER	NMISM08400	NMISM0840054			1	CRGU1262318	MEURER	SW				20	OK	00:00:00	02:35:59		
		00:00	7048				CEMAT	RICHTER	NMISM08400	NMISM0840032			1	CRKU2262214	RICHTER	SW				20	OK	00:00:00	02:35:59	ES711288	
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		00:00	7048				CEMAT	GBLOGI	NMISM08400	NMISM0840026			1	GBGE0300027	GBLOGIS	SW	GBGE030002-7			30	OK	00:00:00	02:35:59	NO	

Assigned time slot

Handling management: Pre check-in

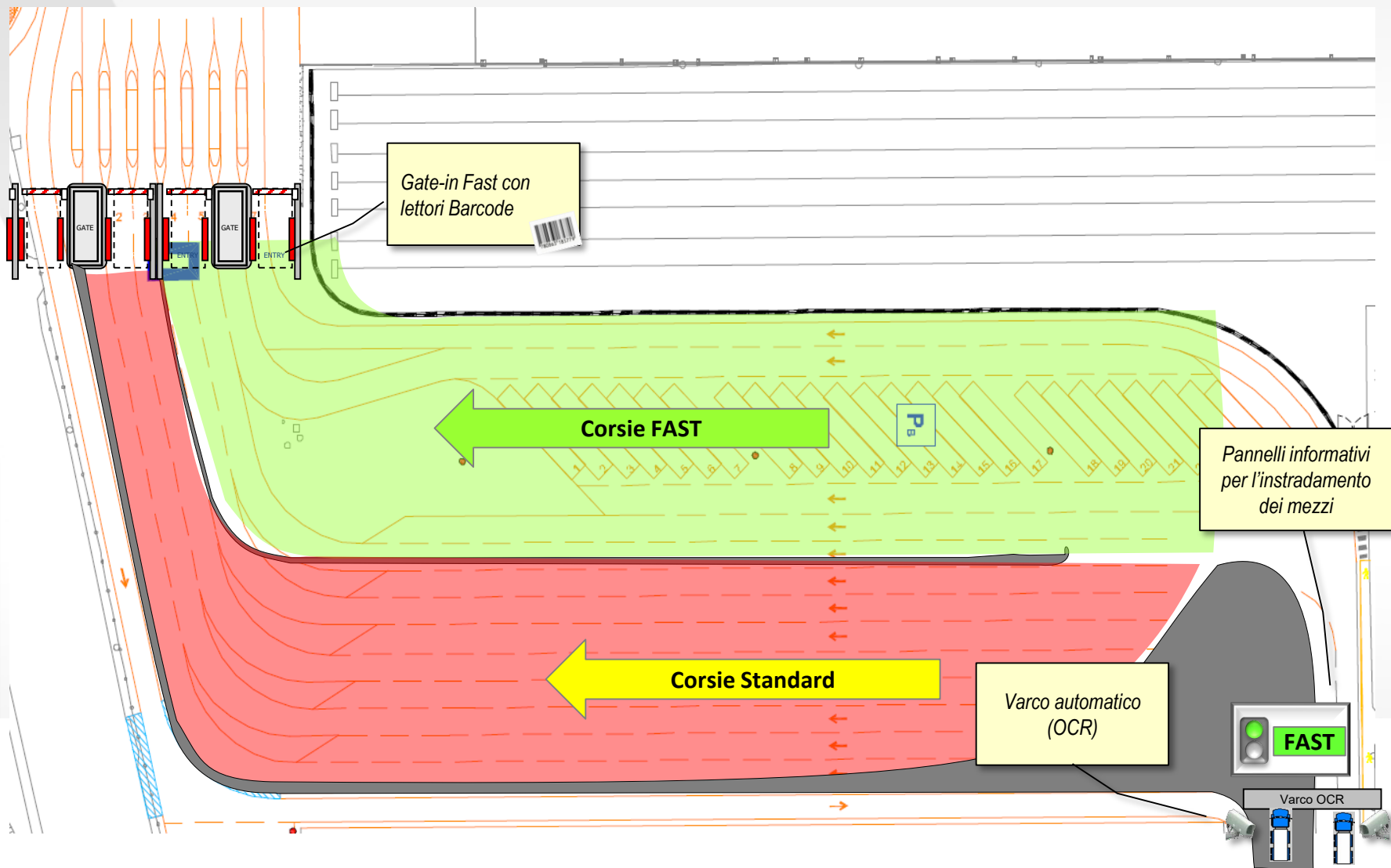
2. Pre check-in and truck recognition

The OCR portal reads truck plates, ITU codes (BIC / ILU) and dangerous goods plates; the data is matched with the correct reservation and the information panel directs the truck to the fast or standard lane / gates accordingly.



PIATTAFORMA INTEGRATA LOGISTICA 2.0

Nuova viabilità in ingresso



Handling management: Check-in

3. Truck check-in and bordereau printing

At check-in, gate operator verifies (and completes if necessary) all reservation data: ITU, driver name, truck plate, dangerous goods, etc.

Handling management: Bordereau printing

Check-in procedure ends with the printing of the bordereau, a document containing information about the handling task and a barcode required for exiting the terminal.

3. Truck check-in and bordereau printing

Driver electronic sign




NKIEL0013039 (R) 1466623

 **TERMINALI ITALIA**
GRUPPO FERROVIE DELLO STATO

DOCUMENTO DI RICONSEGNA

Terminal di Verona Q.R.
Data 16/03/2015 Ora 03:00:54 Documento N. NKIEL0013039

Destinazione Verona Quadrante Europa
Debitore LKW Walter Internationale Transportorganisation AG

Offerta n°

Debitore/Rimettente
Destinatario/Ricevitore
Dogana

Vi riconsegno il mezzo sottodichiarato in apparente buono stato esterno salvo diversa annotazione riportata in calce.

No. Veicolo/ N° Vehicle	Codifica/ Codification	Profilo/Profile	Lungh./Longueur	Tipo/Type	Tassa/Tax	Peso Merc./Poids March.
1 LKWA0604490	LKWA0604490		13.800	SAL	6570.000	26750.000

Annotazioni UTI : LKWA0604490
Term. Provenienza/Kel
Tratta Ferroviaria/Kel > Verona
Progr. UTI: LKWA/WALTER4
Booking: NKIEL0013039
UTI piena
Peso netto : 26750.000
Merci Generiche : KARTOFFEL 26750 Kg
Riferimento cliente/Kundenreferenz : 70485030090
Targa: EX990BH
Autista/Chauffeur PAPASIDERO

Consegnare/Ritirare In:
04C17
338549565889

Operatore
7013653

Firma del documento di spedizione n° NKIEL0013039
Signature pour acceptation du document de expediti n°

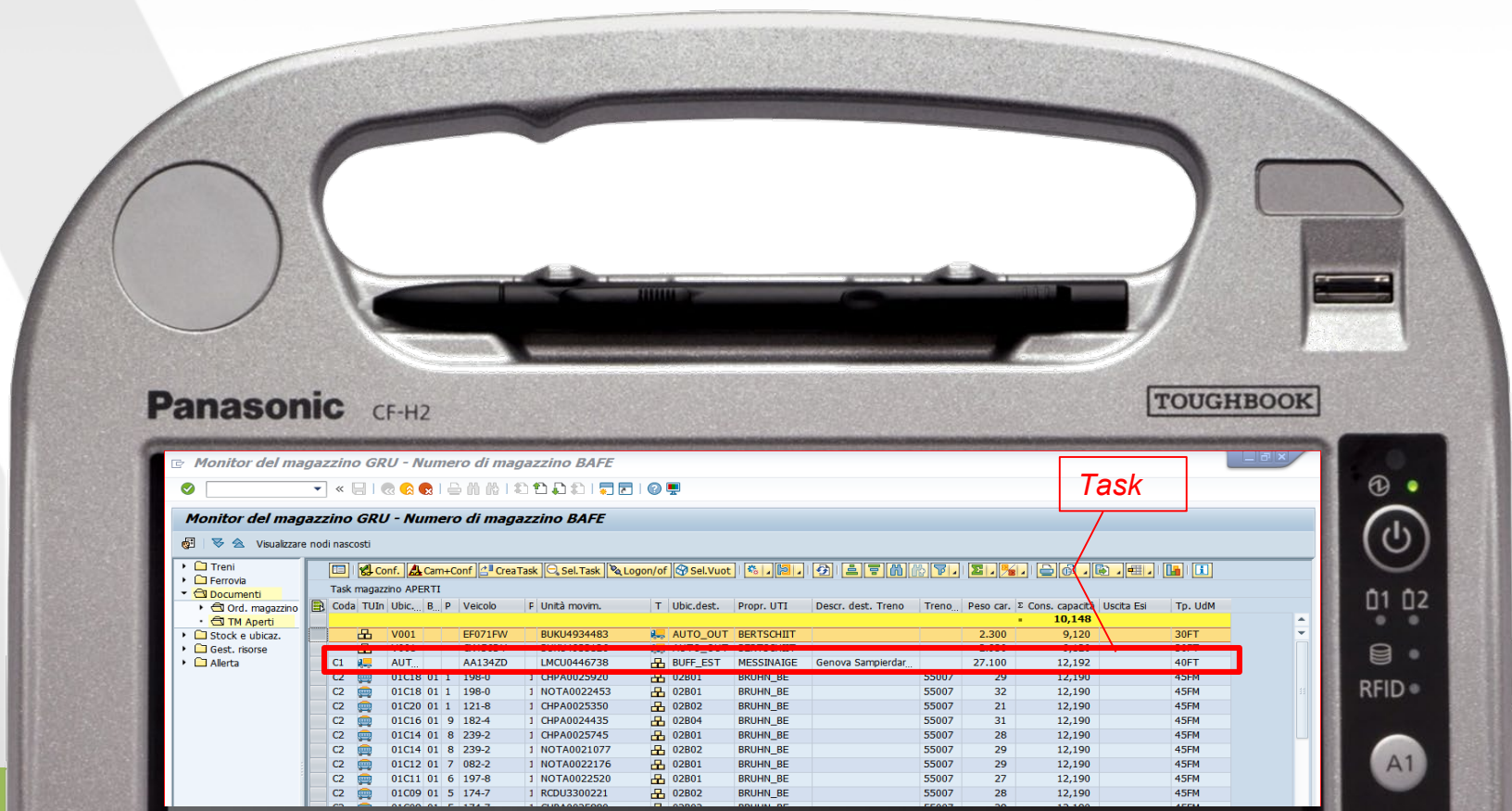
Barcode for check-out

Reservation details

Task details

Handling management: Handling task execution

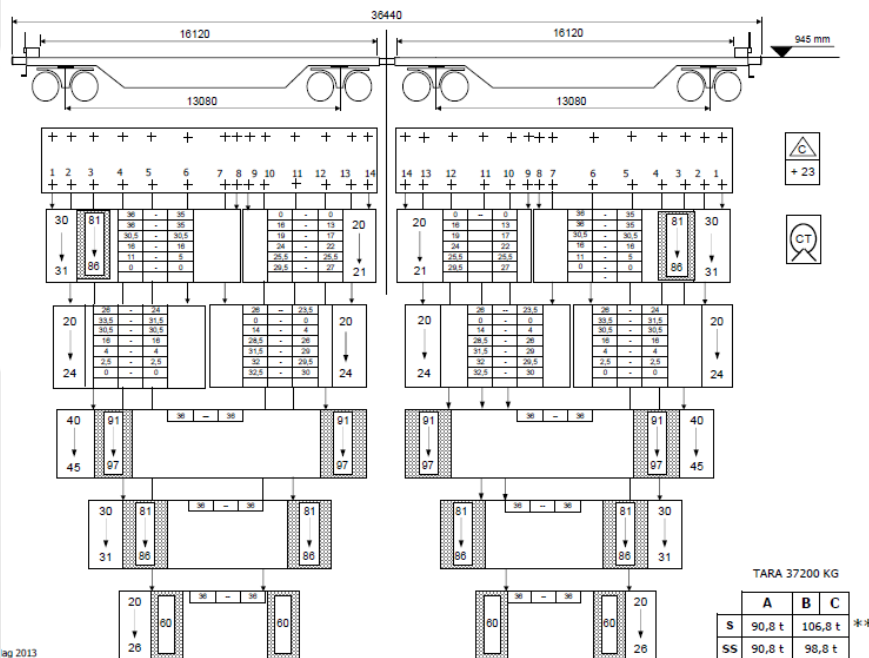
The crane operator has a tablet that shows the real-time list of all assigned tasks. A priority algorithm automatically sorts the tasks in the desired order (e.g. urgent tasks or cross-docking tasks are at the top of the list). The operator must register the start and the end of each handling activity.



Handling management: Train loading

4. Handling task execution and train loading

The train loading operation is assisted by the SAP Yard system: given the railcart loading scheme, the operator is informed in real-time if a particular ITU can be put on the railcart and which positions are allowed. This allows the terminal to optimize the loading of the train, maximizing the number of ITUs loaded.



Monitor del magazzino GRU - Numero di magazzino VIKU

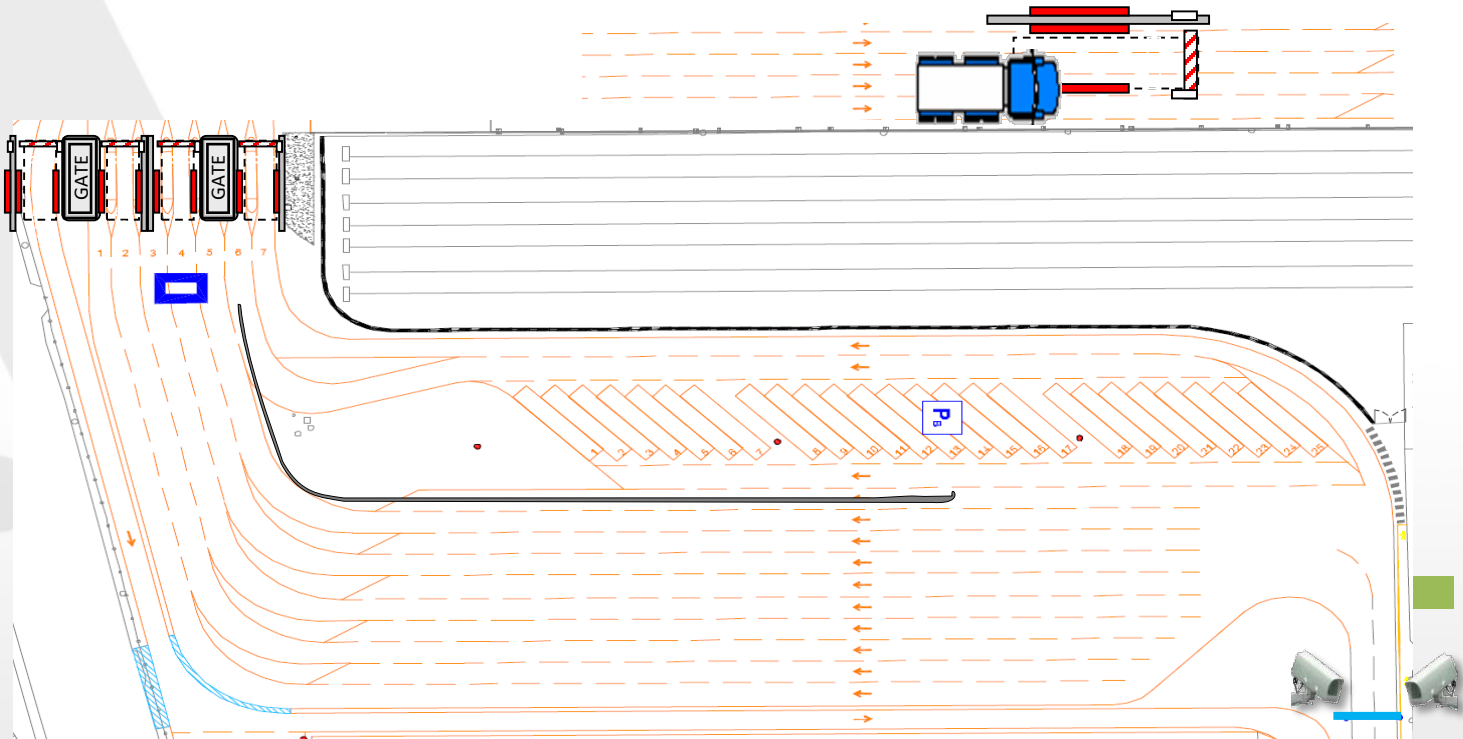
Cano	Pos.cassa	Seq.	Mo.	St.	Co.	Peso Res.	Utg.	Lung. Res.	U.	Pos.	pos.	St. Ca.	Perc.	St.Ch.
33684575877	Interna2	13	01			35120	KG	0.130	M	2	2		49%	✓
	Interna2	01				35120	KG	0.130	M	3	3		49%	✓
318049545813	Interna1	14	01			89610	KG	8.280	M	1	1		1%	✓
	Interna2	01				89610	KG	8.280	M	2	2		1%	✓
	Interna2	02				89610	KG	3.600	M	2	3		11%	✓
	Interna2	02				89610	KG	3.600	M	1	4		11%	✓
318045780364	Interna1	15	01			50100	KG	4.500	M	1	1		19%	✓
	Interna2	01				50100	KG	4.500	M	2	2		19%	✓
	Interna2	01				50100	KG	4.500	M	3	3		19%	✓
318049542265	Interna1	16	01			98020	KG	8.280	M	1	1		1%	✓
	Interna1	01				98020	KG	8.280	M	2	2		1%	✓
	Interna2	02				98020	KG	0.460	M	2	3		3%	✓
	Interna2	02				98020	KG	0.460	M	1	4		3%	✓
338349620868	Interna1	17	01			97020	KG	6.880	M	1	1		2%	✓
	Interna1	01				97020	KG	6.880	M	2	2		2%	✓
	Interna2	02				97020	KG	0.360	M	2	3		3%	✓
	Interna2	02				97020	KG	0.360	M	1	4		3%	✓
318049544808	Interna1	18	01			96910	KG	1.130	M	1	1		4%	✓
	Interna1	01				96910	KG	1.130	M	2	2		4%	✓
	Interna2	02				96910	KG	6.980	M	2	3		2%	✓
	Interna2	02				96910	KG	6.980	M	1	4		2%	✓
318049935014	Interna1	19	01			92200	KG	16.100	M	1	1		0%	✓
	Interna1	01				92200	KG	16.100	M	2	2		0%	✓
	Interna2	02				92200	KG	4.000	M	2	3		8%	✓
	Interna2	02				92200	KG	4.000	M	1	4		8%	✓

Handling management: Truck check-out

The driver must insert the bordereau received at check-in gate into the barcode reader to exit the terminal. The system registers the check-out date and time and closes the operation.

5. Truck check-out

Fast check-out using barcode



Handling management: Control room

EWM Yard Monitor

 Search Handling Unit  Search bin  Send Message



Caso di studio: Verona quadrante Europa

