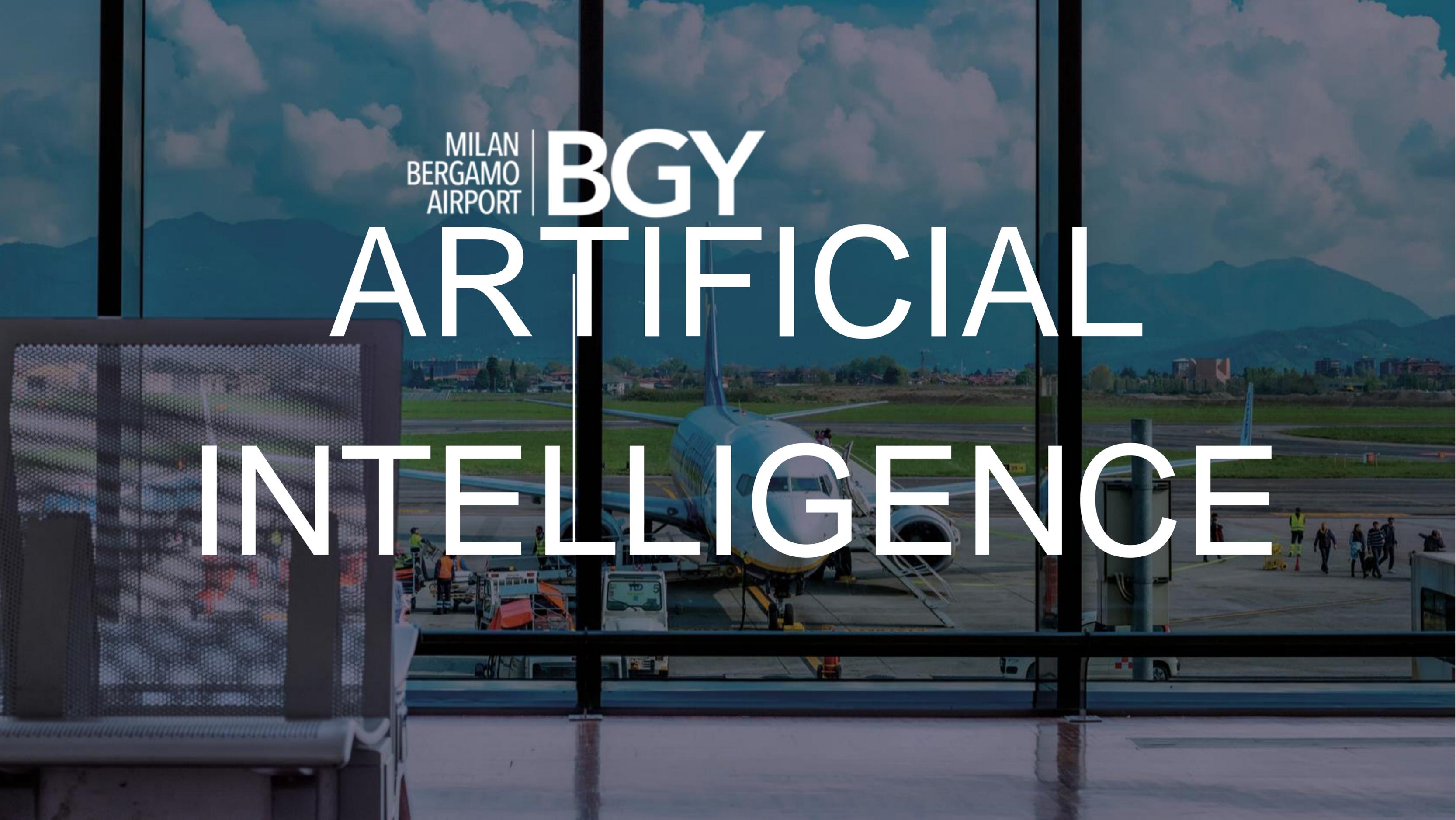


MILAN
BERGAMO
AIRPORT

BGY

ARTIFICIAL

INTELLIGENCE

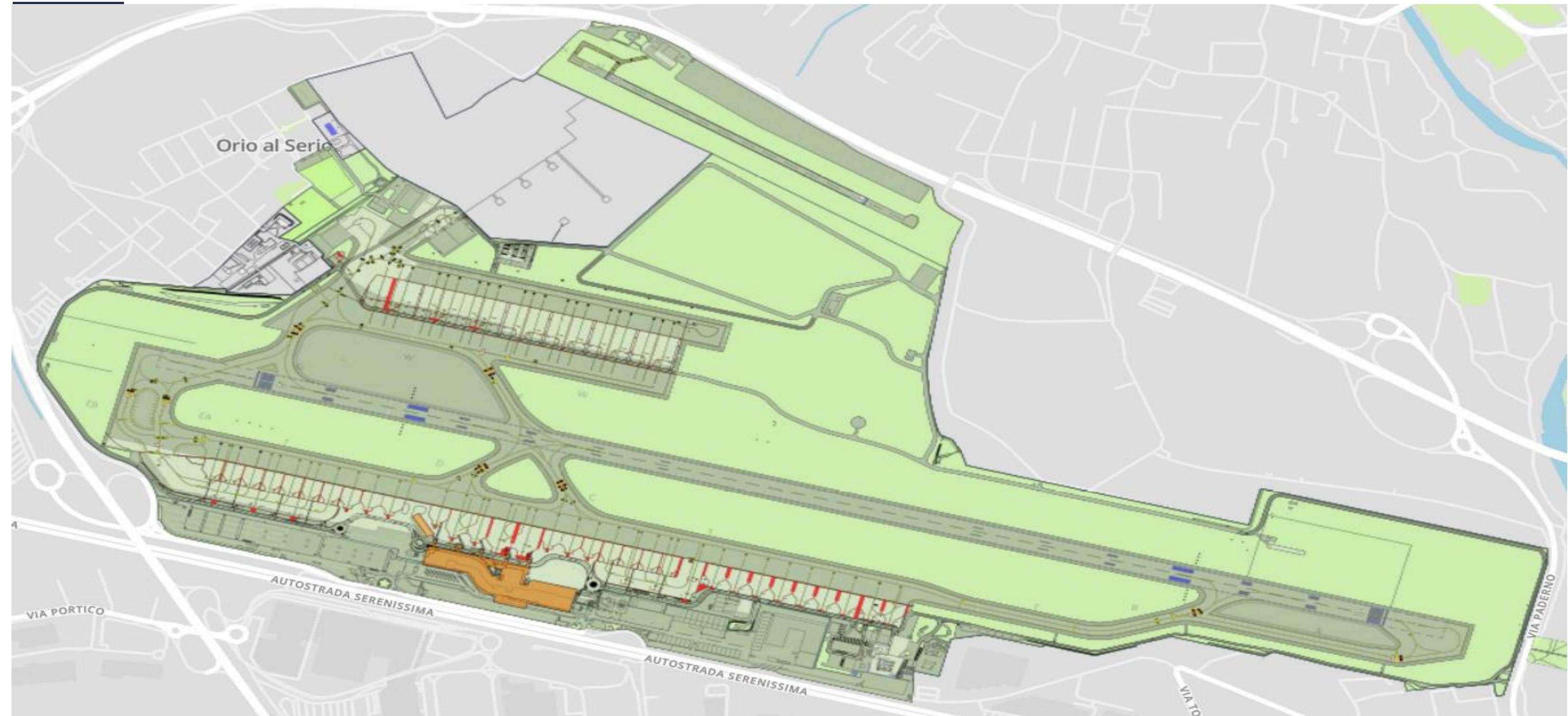


L'INTELLIGENZA ARTIFICIALE A SUPPORTO DELL'OPERATIVITA' DI UN AEROPORTO

L'AEROPORTO DI ORIO AL SERIO



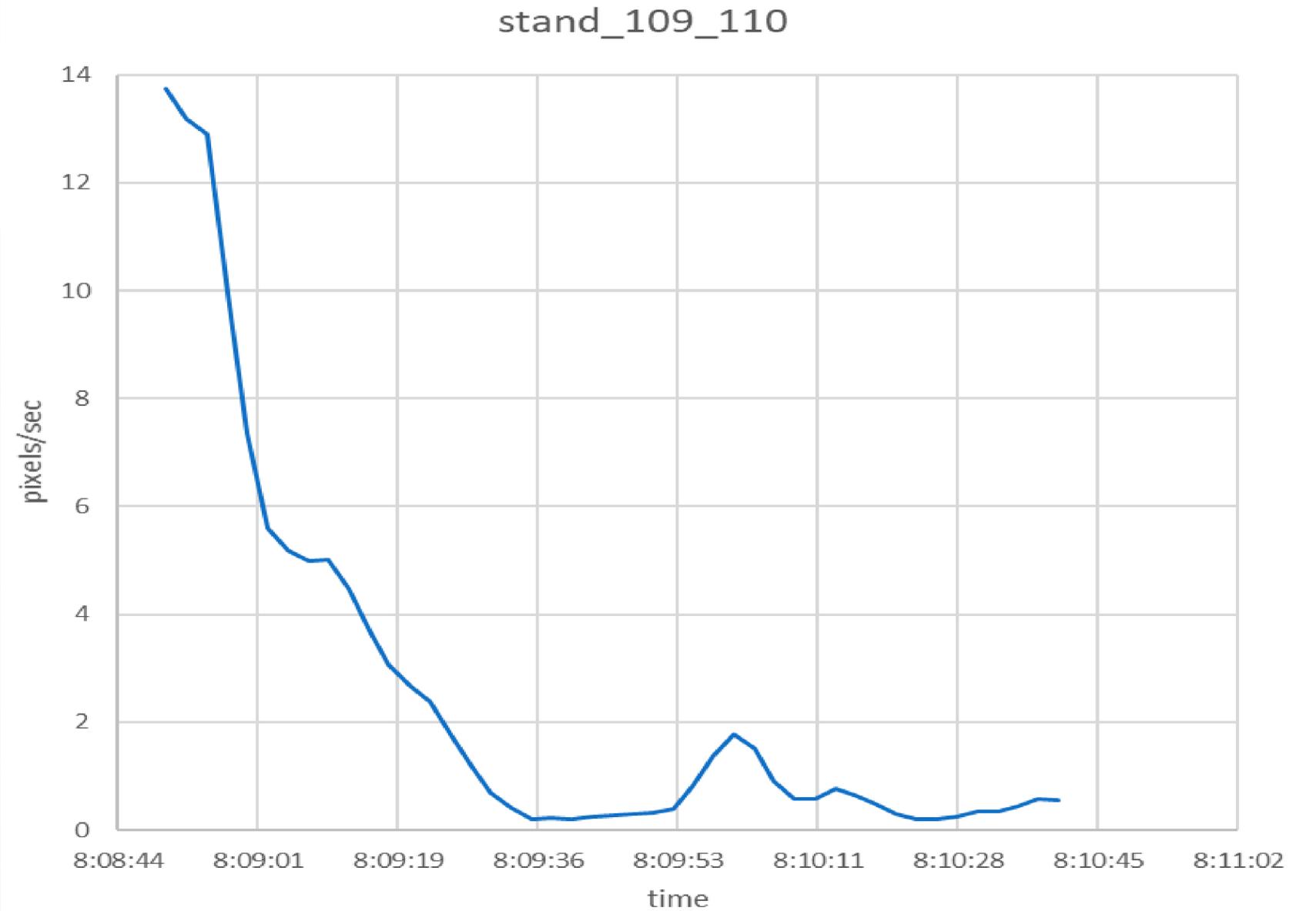
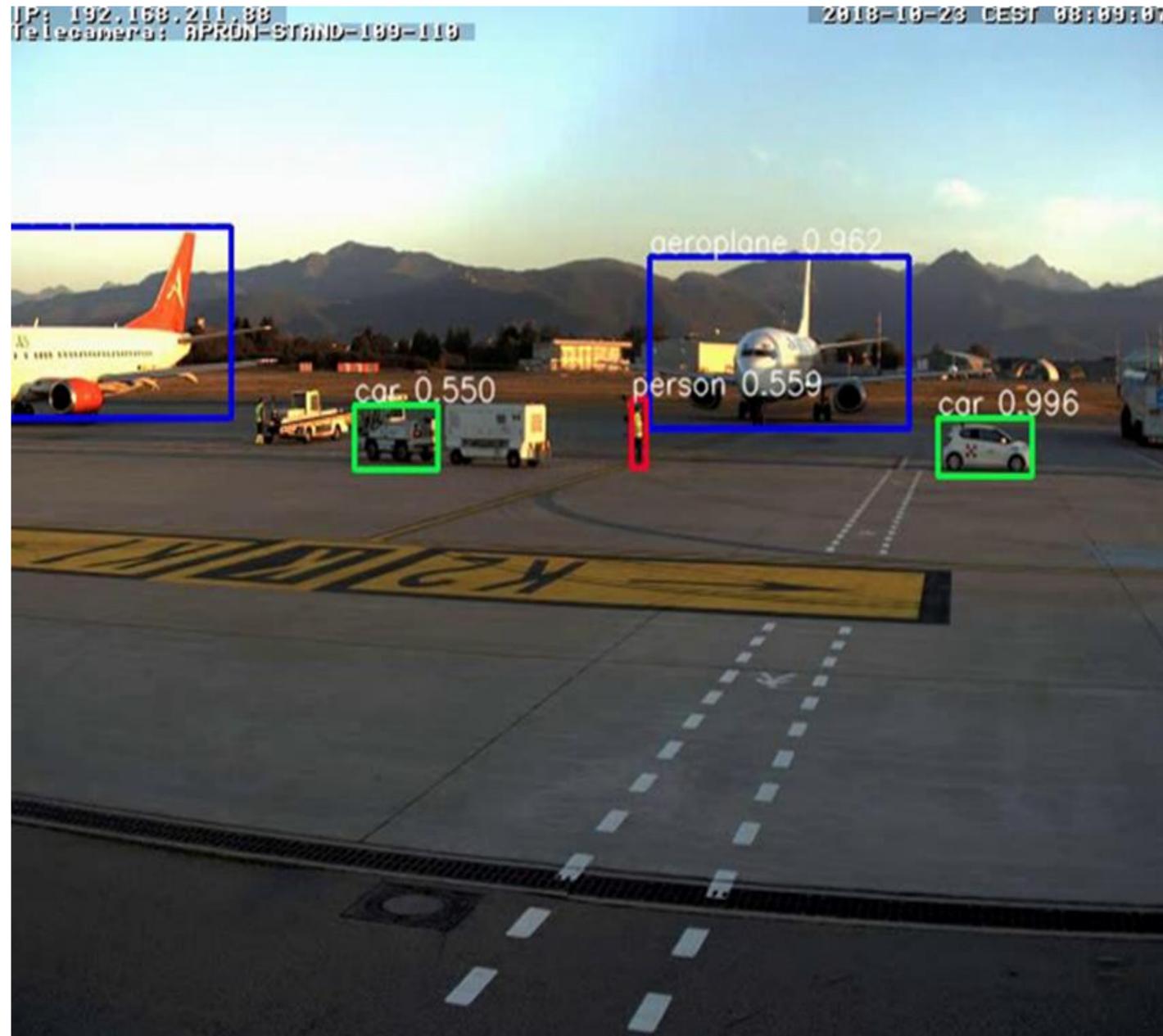
SEDIME



LA SPERIMENTAZIONE DELLE NUOVE TECNOLOGIE

Arresto
Sistemazione tacco

STAND 109-110: PLANE ARRIVAL/MORNING/SUN

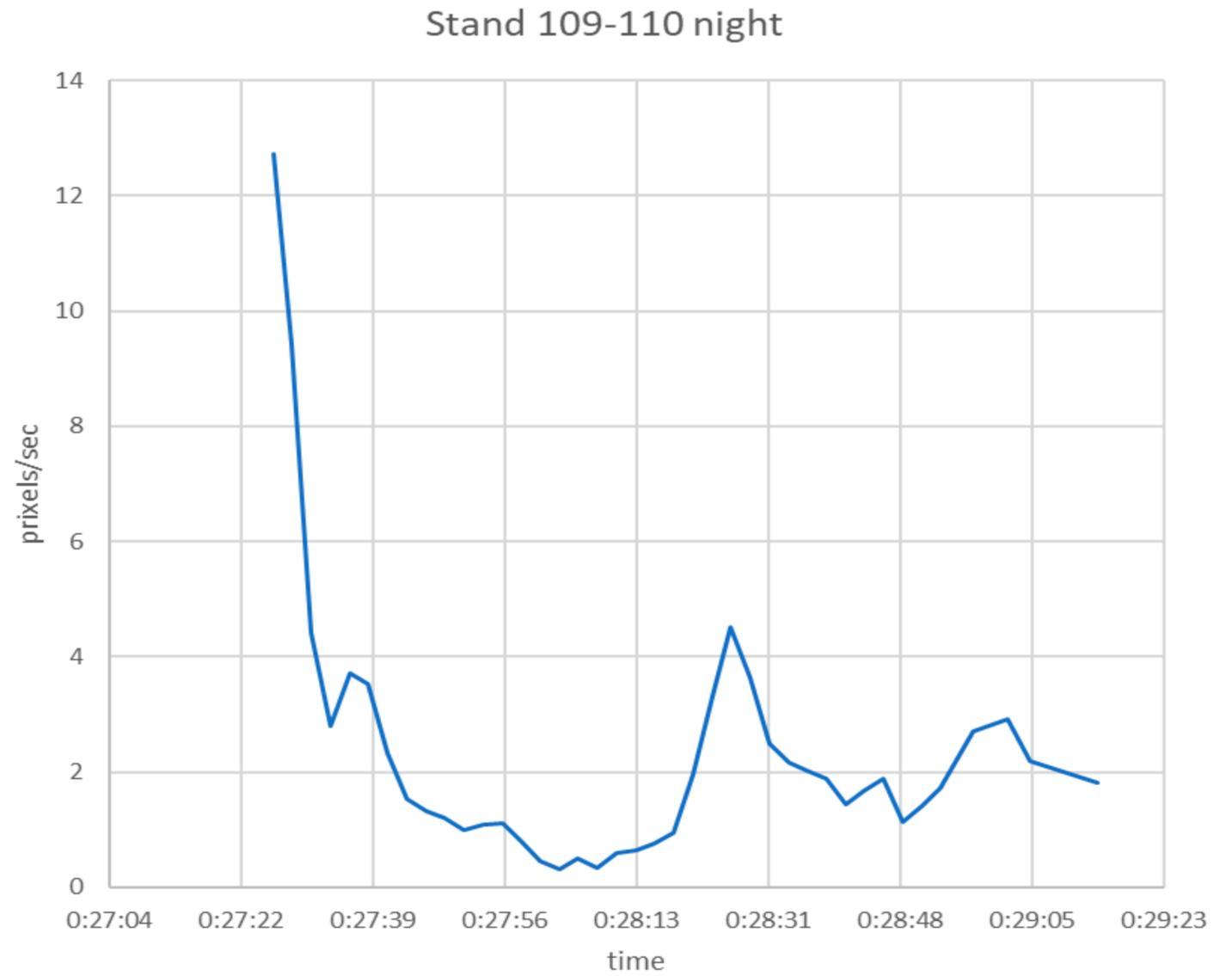


LA SPERIMENTAZIONE DELLE NUOVE TECNOLOGIE

STAND 109-110: PLANE ARRIVAL/NIGHT/FAIR



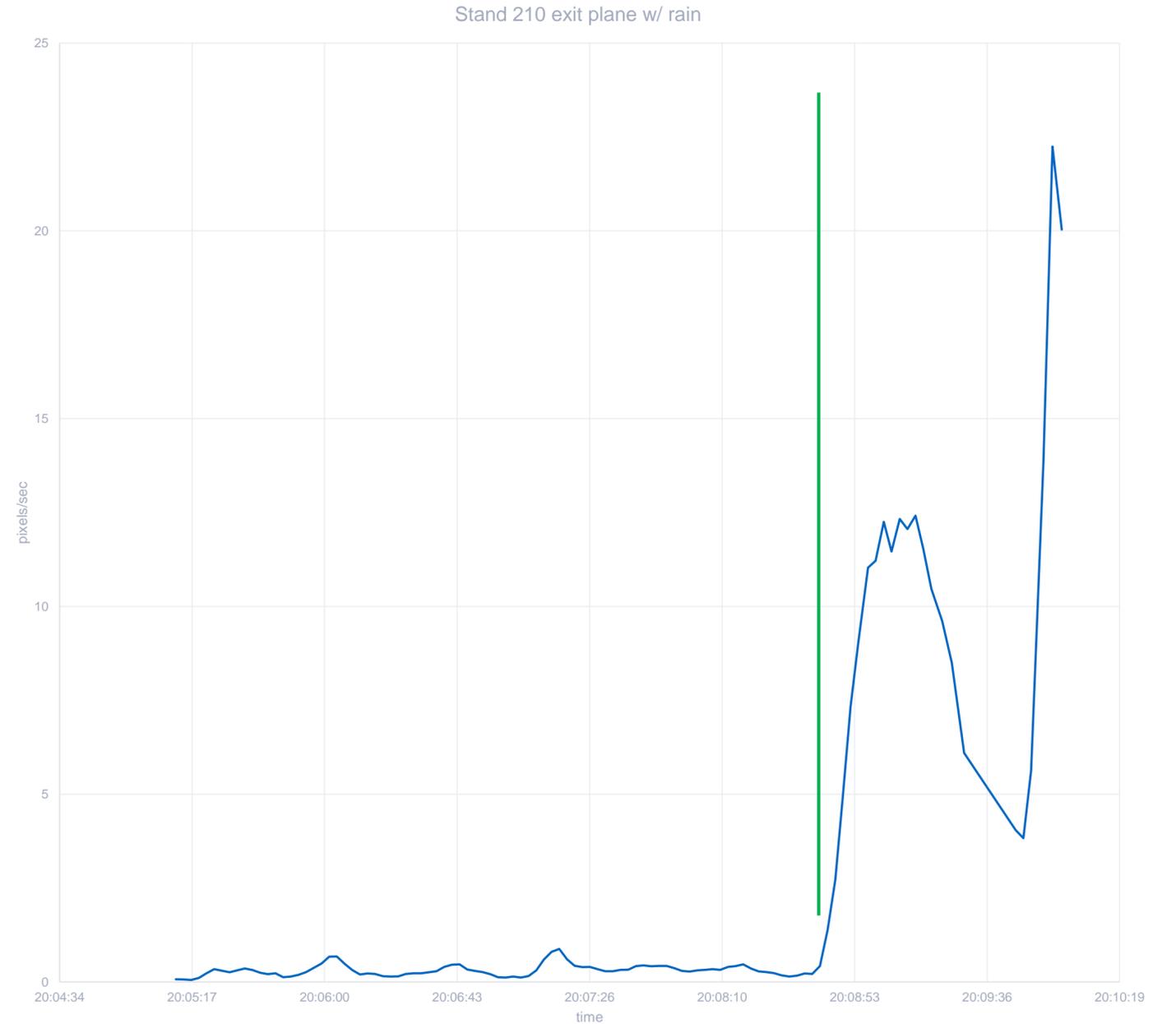
- Arresto
- Sistemazione tacco



TECNOLOGIE

Stand 210: plane exit/night/rain

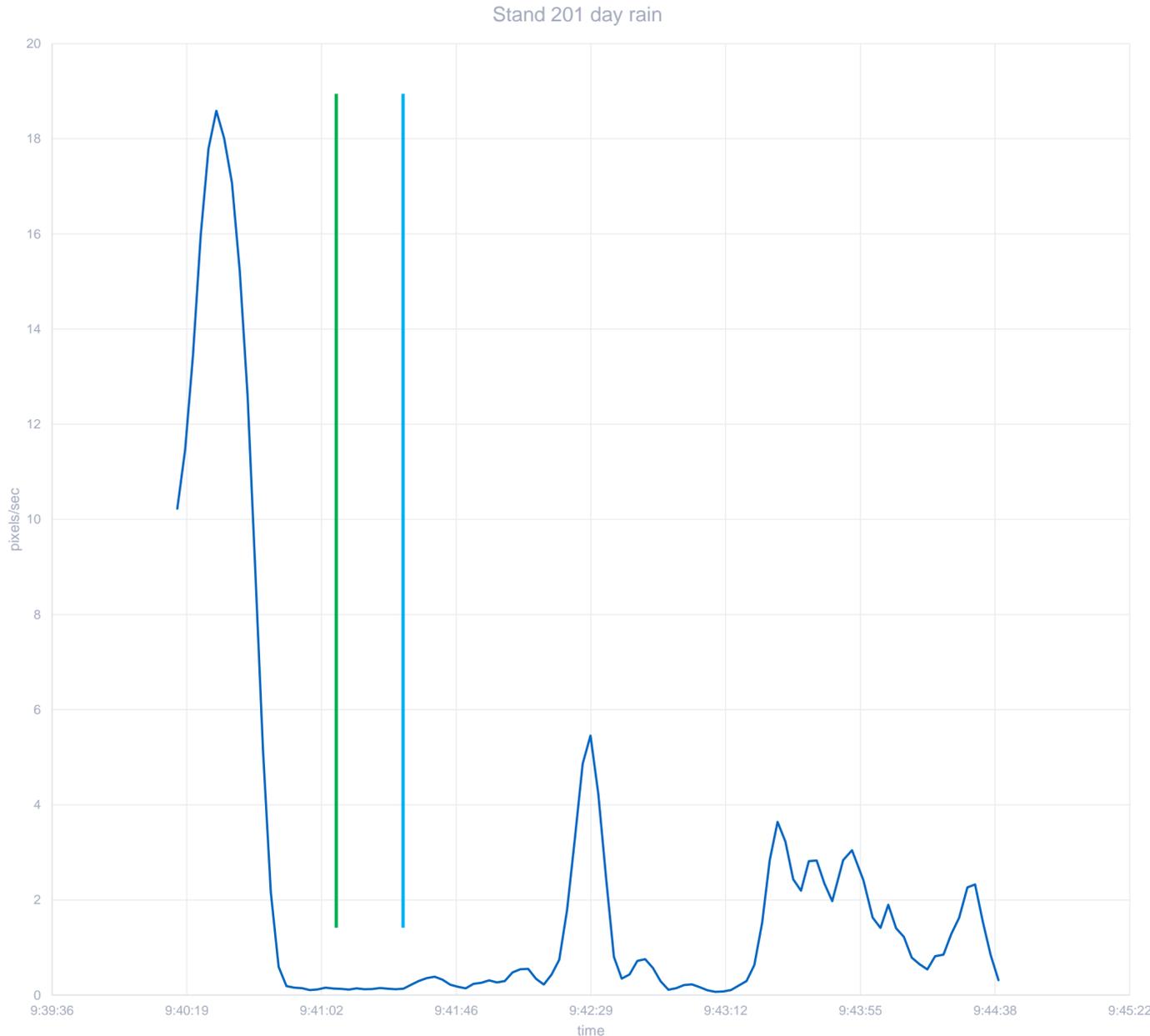
— Partenza



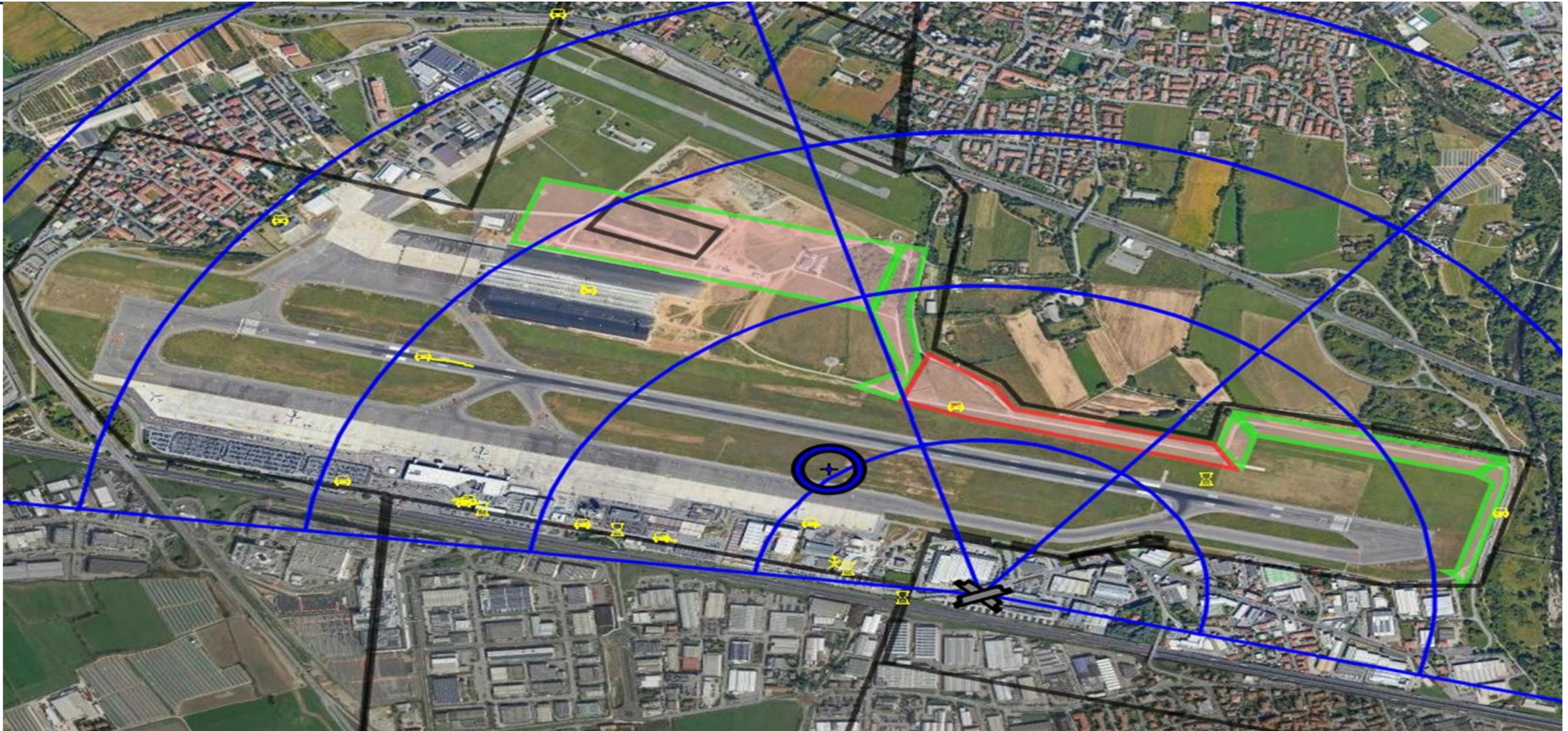
TECNOLOGIE

Stand 210: plane arrival/morning/rain

— Arresto
— Sistemazione tacco



CONTROLLO DEL PERIMETRO AEROPORTUALE

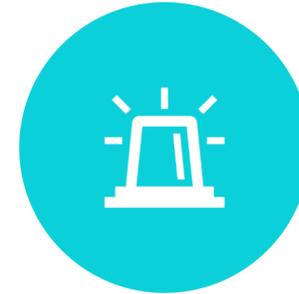


OBBIETTIVI DELLA

POC



Tracciare il movimento di persone e veicoli



Segnalare l'ingresso in aree di **allarme**



Convertire le informazioni visive in informazioni strutturate per **analisi off-line**



Stimare **accuratezza e robustezza** al variare delle condizioni ambientali



Comprendere le **potenzialità** della tecnologia e gli spazi di **ottimizzazione**

REQUISITI

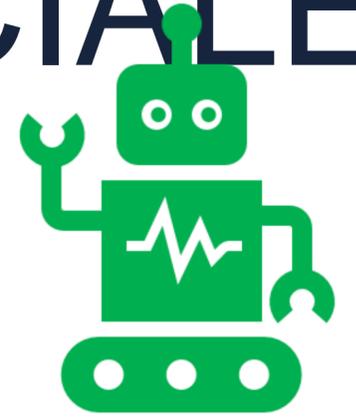
Allarmi in tempo reale per intrusioni/fughe

Scalabile fino a 1000 telecamere

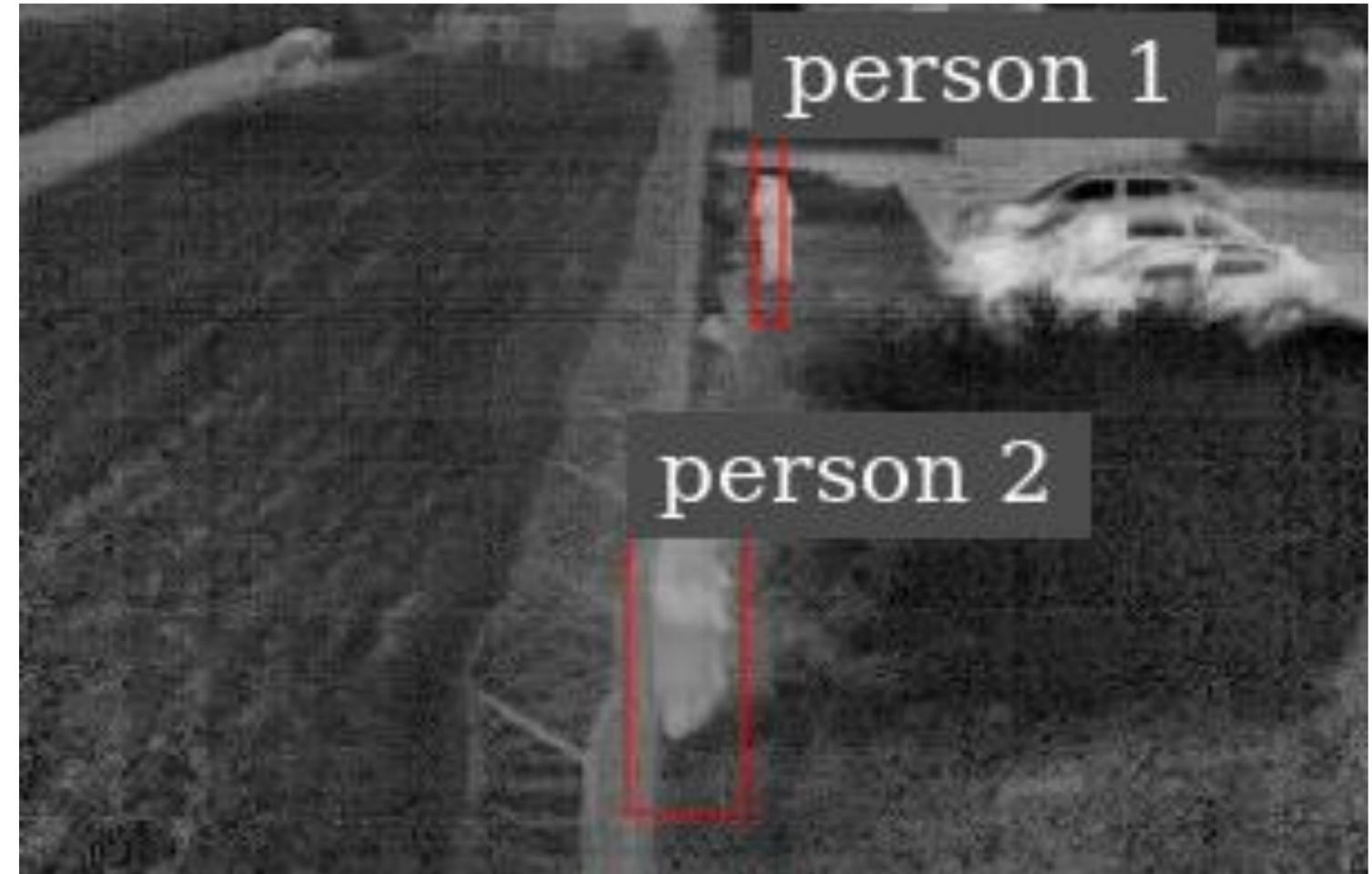
Potenziale di applicabilità per vari scopi/contesti

Interfacciabile con il sistema di VMS aeroportuale

SISTEMI DI VISIONE ARTIFICIALE

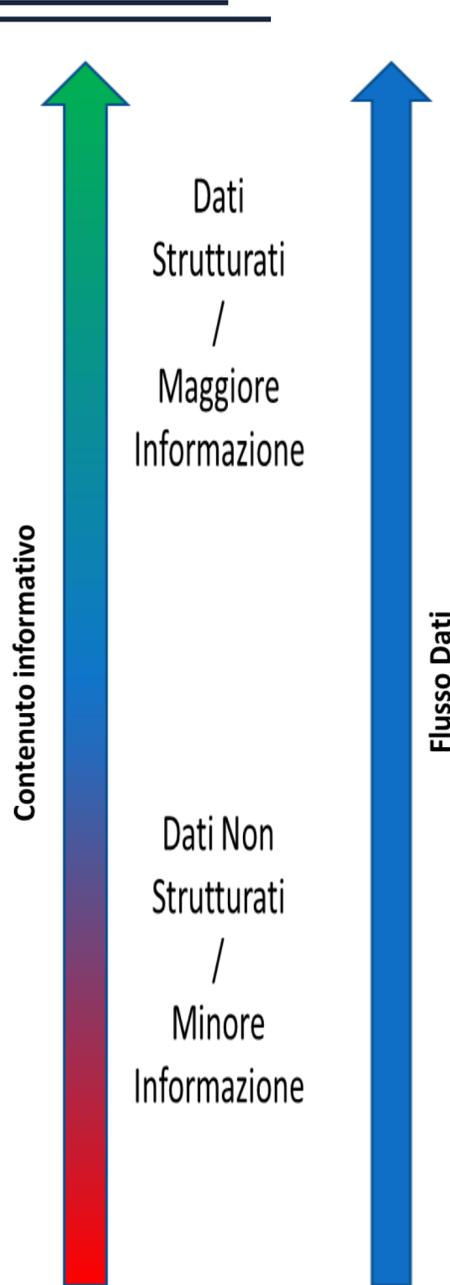


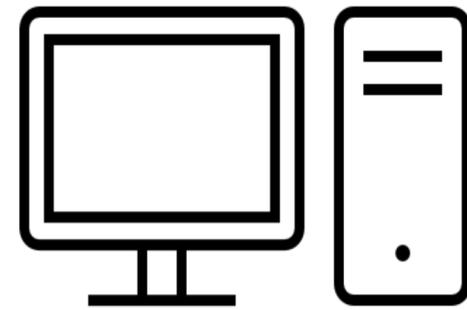
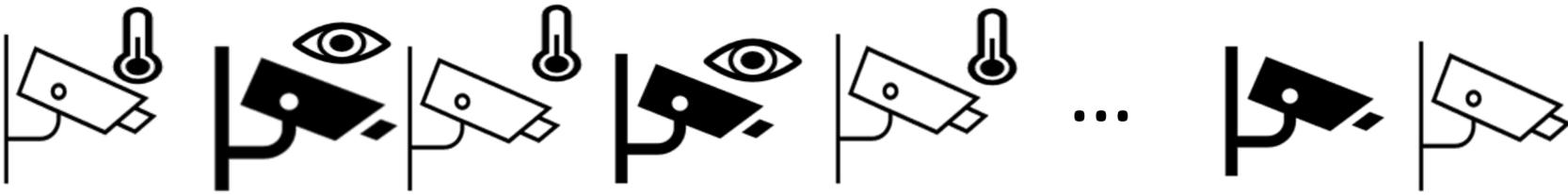
Controllo con telecamere con ottica normale e termica



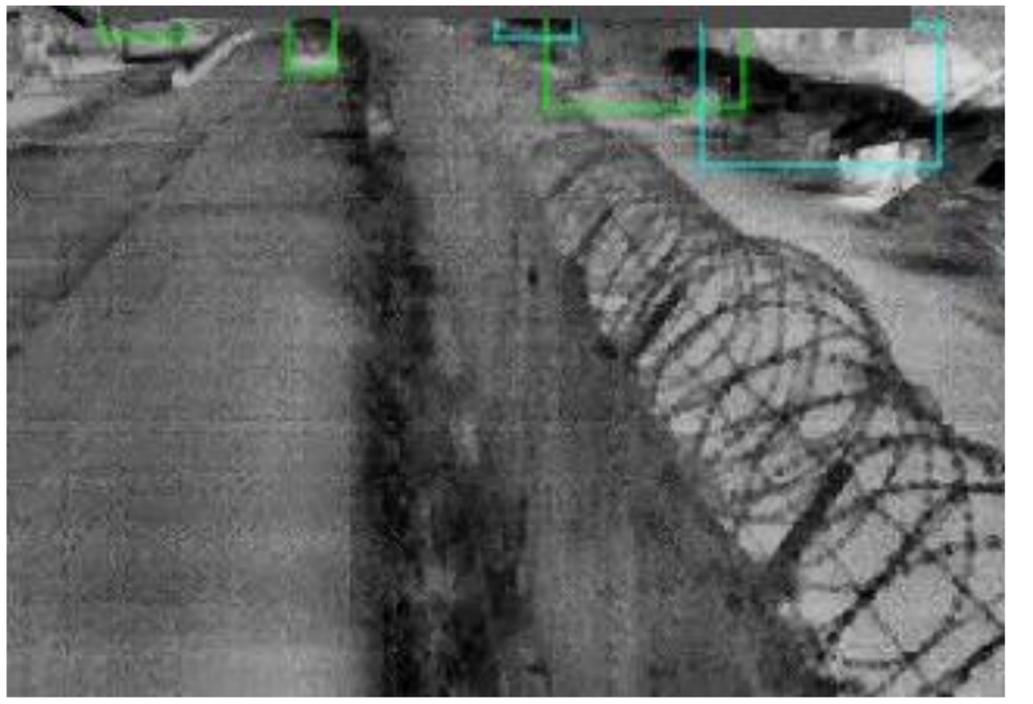
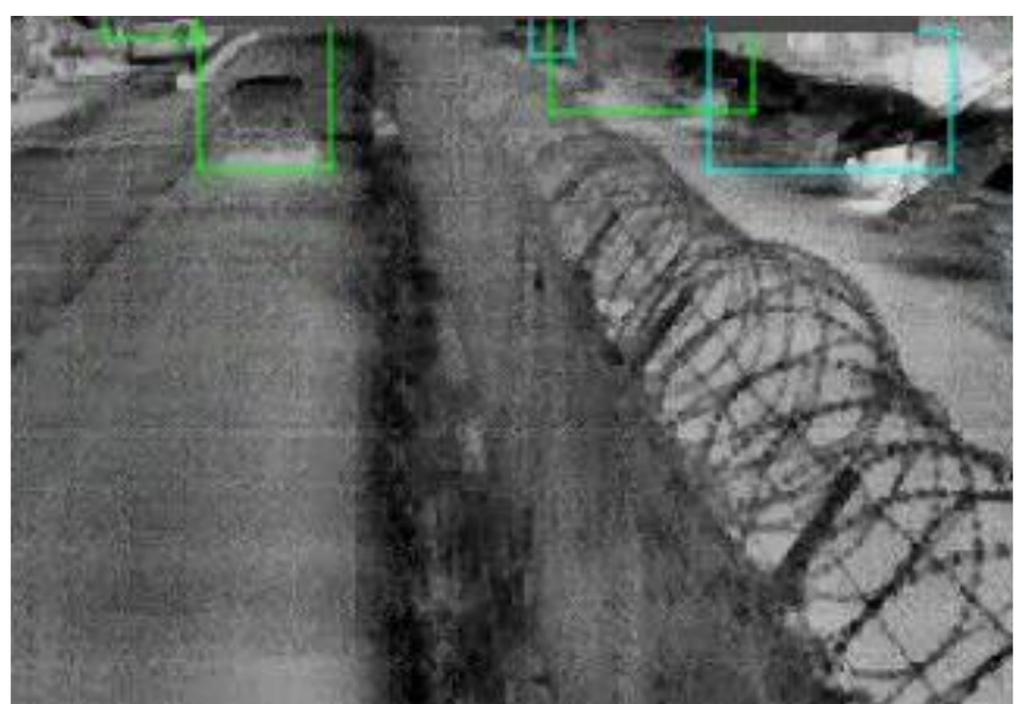
Identificazione e tracciamento con
Intelligenza Artificiale

ARCHITETTURA



<p>Applicazioni</p>	<p>Mangrovia IoT</p> 	<p>Dashboard Analitiche</p> 	<p>Milestone VMS</p> 	
<p>Trasporto e Pre-processing eventi Generazione allarmi</p>	<p>Kafka </p> <p> Faust</p>			
<p>Decodifica Rilevamento Tracciamento Generazione eventi</p>		<p>Decodifica</p>	<p>Identificazione</p>	<p>Classificazione</p>
	<p>Tracciamento</p>	<p>Analitiche</p>	<p>Invio messaggi</p>	
<p>Sorgenti video</p>				

ANALYSIS VIDEO



ANALISI VIDEO



ANALISI VIDEO



Heatmap per comprendere

ENTRANCE ▾

Seleziona CODE ▾

admin

Log out

Dashboard

Tempo di Attesa

Passeggeri in Coda

Passeggeri Transitati

Distanziamento Sociale

Controllo Varchi

Utilizzo Mascherine

Heatmap

Analytics

Configurazione

HEATMAP

Seleziona un periodo da visualizzare

Data di Inizio

06/04/2021 00:00

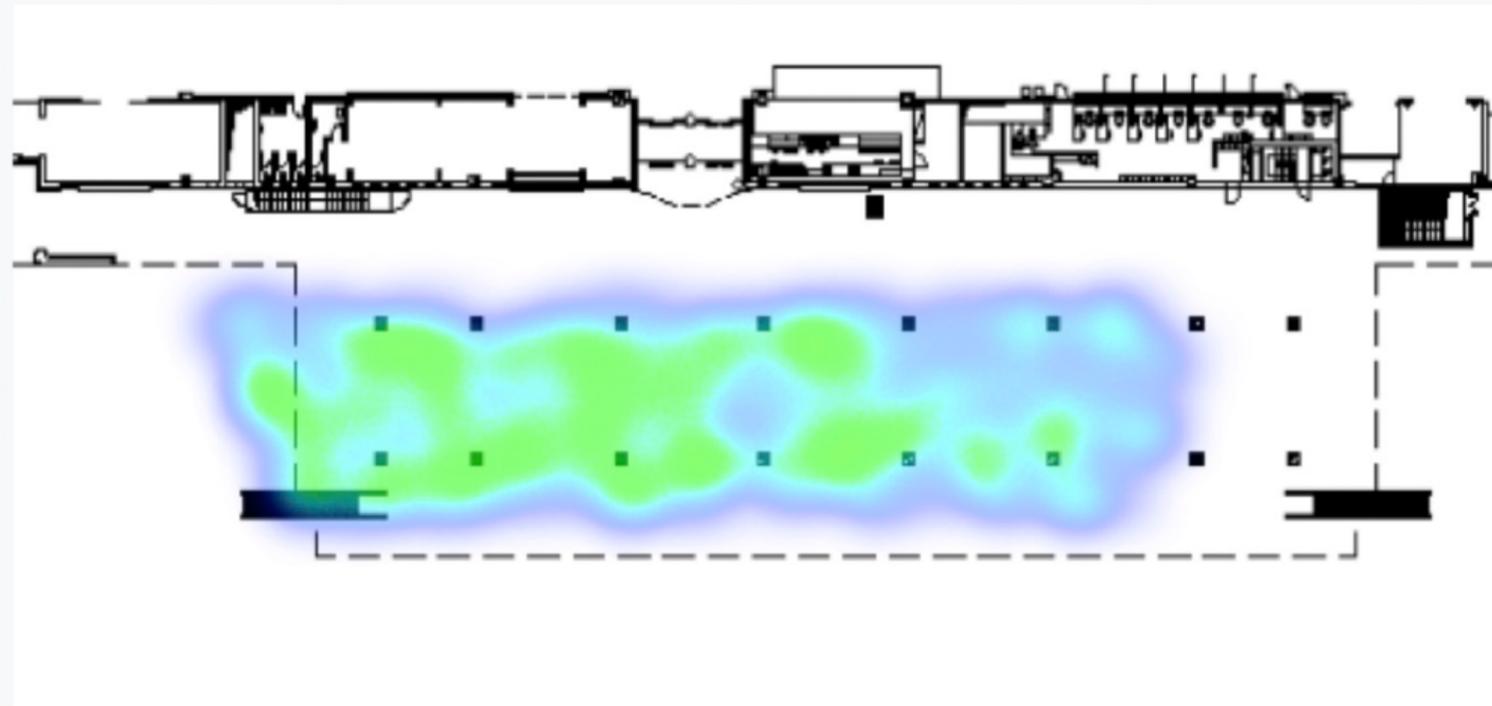
Data di Fine

07/04/2021 00:00

Dettaglio Informazioni Heatmap

Raggio: 20

Massimo: 17



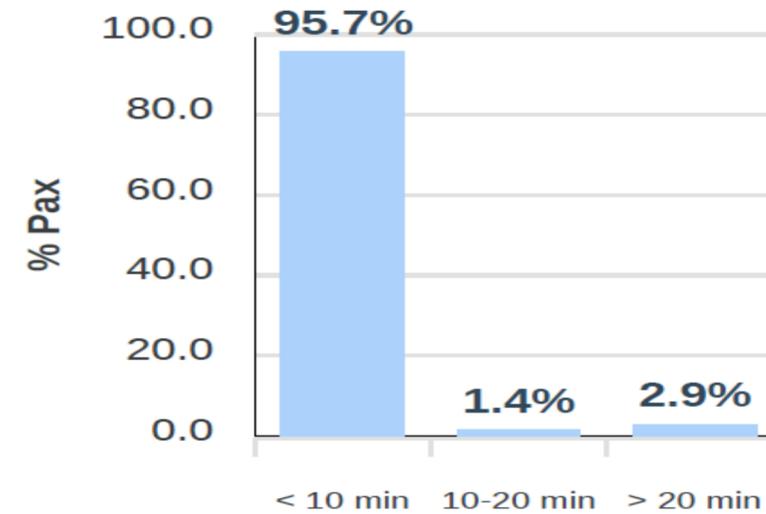
ANALYTICS

Panoramica

Lunghezza Coda Massima 67 pax	Tempo di Attesa Massimo 35.04 min	Passeggeri Transitati Totale 16172 pax	Distanziamento Densità 2.22 pax/m ²	Utilizzo Mascherine Medio 66%
----------------------------------	--------------------------------------	---	---	----------------------------------

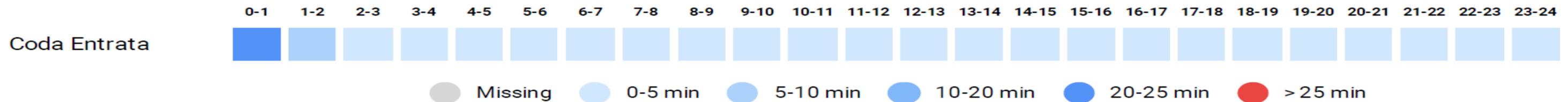
Statistiche

max	119.29 min
Average Waiting Time	2.75 min
95th Waiting Time Percentile	6.36 min
90th Waiting Time Percentile	3.05 min
Max Waiting Time	35.04 min



T.ATTESA	N. PAX
< 10 min	15471 pax
10-20 min	232 pax
> 20 min	469 pax

Heatmap



Periodo: 5/10/2021, martedì Area: PASSPORT_ARRIVALS

Generato il: 6/10/2021

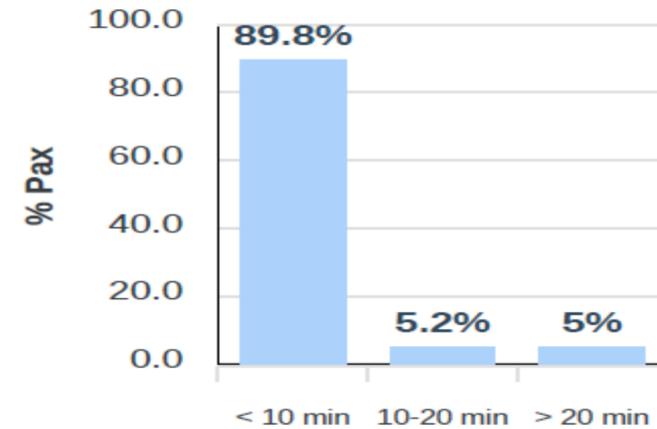


Panoramica

Lunghezza Coda Massima	Tempo di Attesa Massimo	Passeggeri Transitati Totale	Distanziamento Densità	Utilizzo Mascherine Medio
95 pax	21 min	2872 pax	1.09 pax/m ²	-

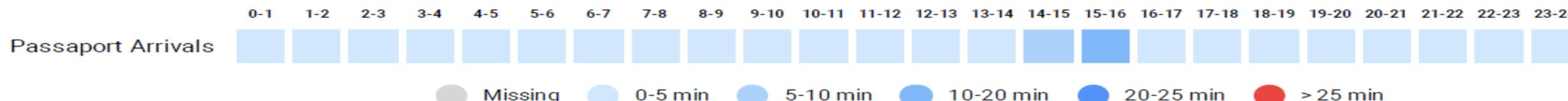
Statistiche

max	104.81 min
Average Waiting Time	1.58 min
95th Waiting Time Percentile	6.61 min
90th Waiting Time Percentile	3.93 min
Max Waiting Time	21 min



T.ATTESA	N. PAX
< 10 min	2578 pax
10-20 min	150 pax
> 20 min	144 pax

Heatmap



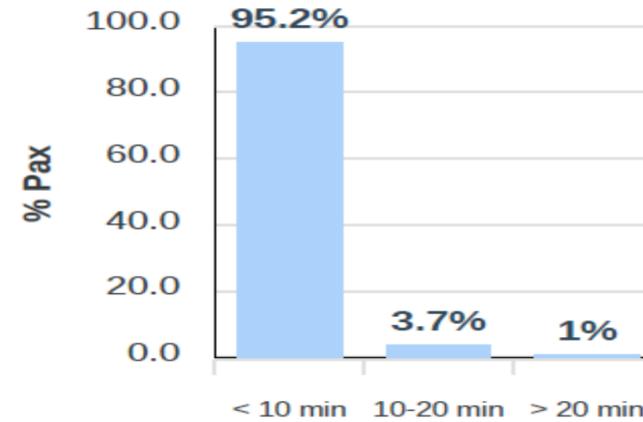
Missing 0-5 min 5-10 min 10-20 min 20-25 min > 25 min

Panoramica

Lunghezza Coda Massima 48 pax	Tempo di Attesa Massimo 10.81 min	Passeggeri Transitati Totale 2549 pax	Distanziamento Densità 1.57 pax/m ²	Utilizzo Mascherine Medio -
----------------------------------	--------------------------------------	--	---	--------------------------------

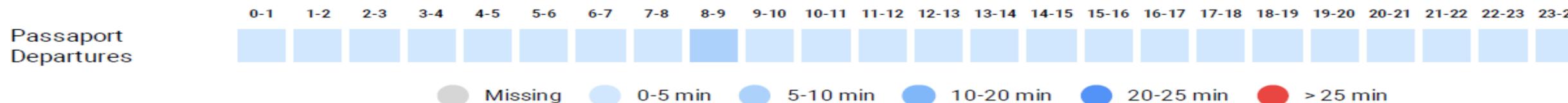
Statistiche

max	62.18 min
Average Waiting Time	2.1 min
95th Waiting Time Percentile	5.72 min
90th Waiting Time Percentile	4.43 min
Max Waiting Time	10.81 min



T.ATTESA	N. PAX
< 10 min	2426 pax
10-20 min	94 pax
> 20 min	25 pax

Heatmap



ANALYTICS

←  **WOMEN** 



PEOPLE INSIDE: 2

Max people allowed: 9

Last update: 18/05/21, 10:01:24 | Last cleaning: 18/05/21, 10:01:24

 **MEN**  →



PEOPLE INSIDE: 9

Max people allowed: 9

Last update: 18/05/21, 10:01:24 | Last cleaning: 18/05/21, 10:01:24

FOR EVERYONE'S SAFETY PLEASE:

WEAR YOUR MASK!

IF FULL WAIT!

KEEP THE DISTANCE!

A.I. per RICONSEGNA

BAGAGLI

BELT 03

neos	MARSA ALAM NO 1677	First bag: 16:48 Last bag: 17:09	LANDED 16:35
AirArabia	CASABLANCA 30 457		17:51
RYANAIR	TANGIER FR 3451		19:40

TIME 17:24

BAGGAGE CLAIM

LEA	VOLO	DA	SCHED	NASTRO	NOTE
RYANAIR	FR 3397	CROTONE	19:00	02	
PEGASUS	PC 1213	STANBUL S. GOI	16:37	05	ATTERRATO
RYANAIR	FR 8961	PALMA DE M	16:52	01	ATTERRATO
RYANAIR	FR 8335	IBIZA	16:56	07	ATTERRATO
neos	NO 1677	MARSA ALAM	16:35	03	ATTERRATO
RYANAIR	FR 4968	PALERMO	16:58	04	ATTERRATO
RYANAIR	FR 3399	MALAGA	16:59	06	ATTERRATO
AirArabia	30 457	CASABLANCA	17:51	03	
RYANAIR	FR 1702		NO 17:45	01	
RYANAIR	FR 3562	NAPOLI	17:51	07	
Aeritalia	XZ 1104	CATANIA	18:29	04	
RYANAIR	FR 3550	HAMBURG	18:56	06	
RYANAIR	FR 5140	FARO	18:28	06	
RYANAIR	FR 3143	MARCELONA EL	18:37	05	
RYANAIR	FR 5149	ZADAR	18:50	07	
RYANAIR	FR 4709	ALGHERO	18:55	05	
RYANAIR	FR 7360	VIENNA	19:05	07	
RYANAIR	FR 3439	LAMEZIA	19:25	04	
RYANAIR	FR 3438	SOFIA	19:25	01	
RYANAIR	FR 3654	BARI	19:30	06	

BGY WELCOME TO MILAN BERGAMO AIRPORT 17:25

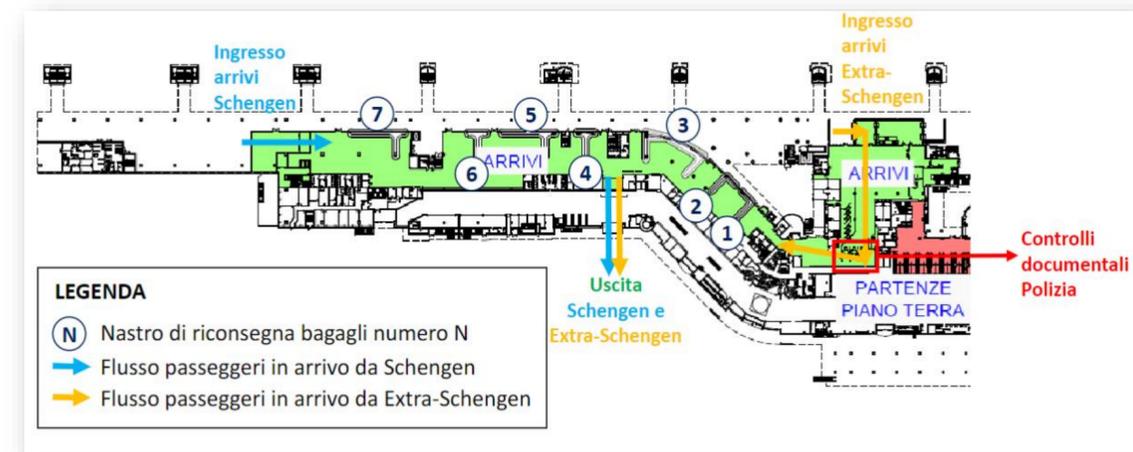
Splunk & ML

Goal

Automatic baggage reclaim belt allocation solution to relieve operators of manual operation

The system provides:

- Uniform usage of belts
- Minimum distance traveled by passengers for baggage pick up
- Ad-hoc logics according to flight type
e.g. flight splitting on contiguous belts



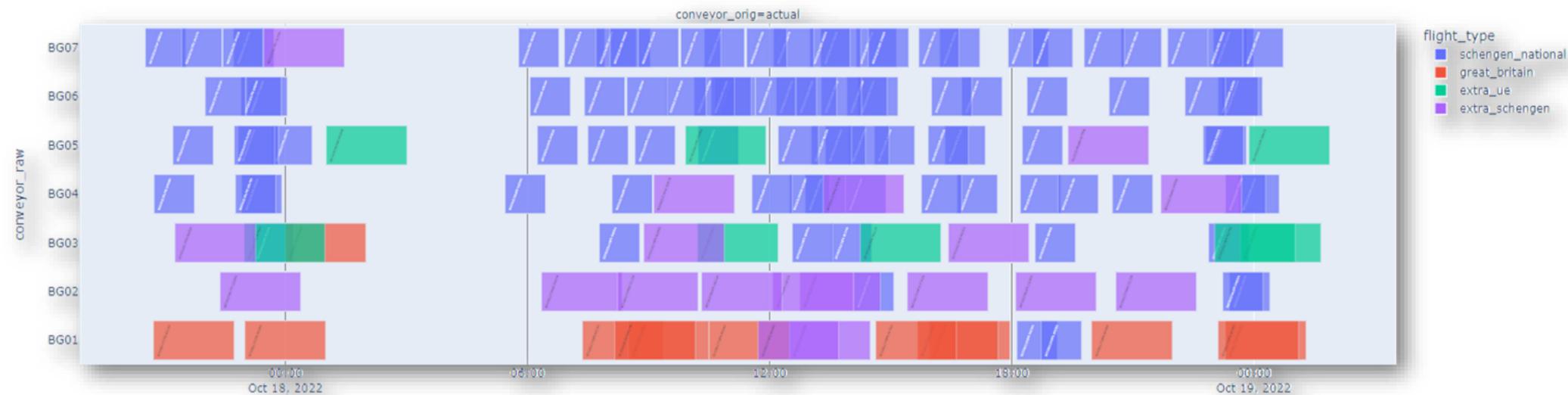
Features

Real time

Web-based dynamic Gantt + Splunk

Allocations simulator

Baggage loading per belt

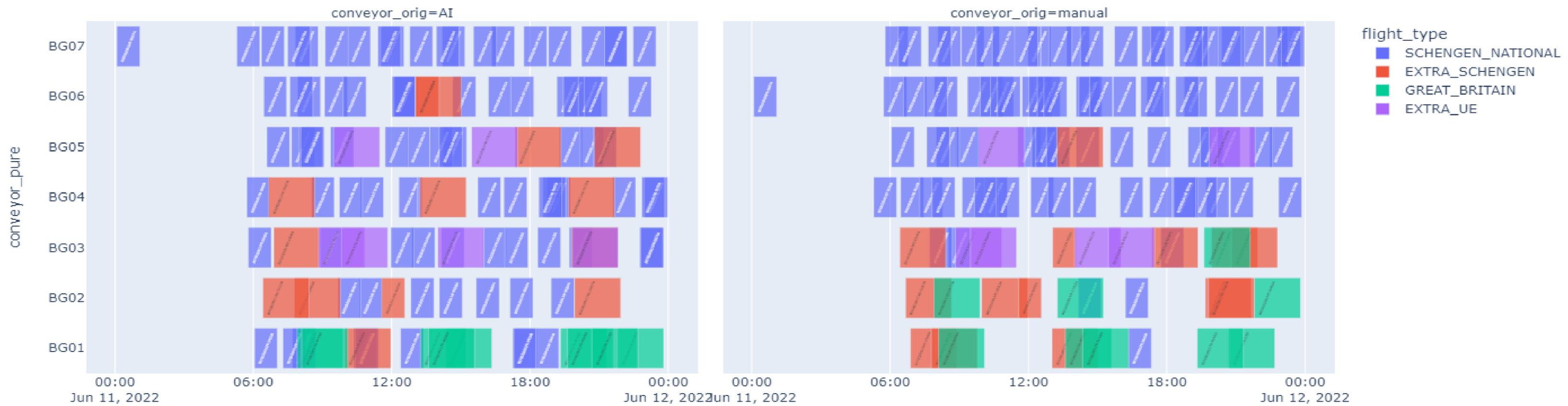


manual

GANTT distribuzione voli

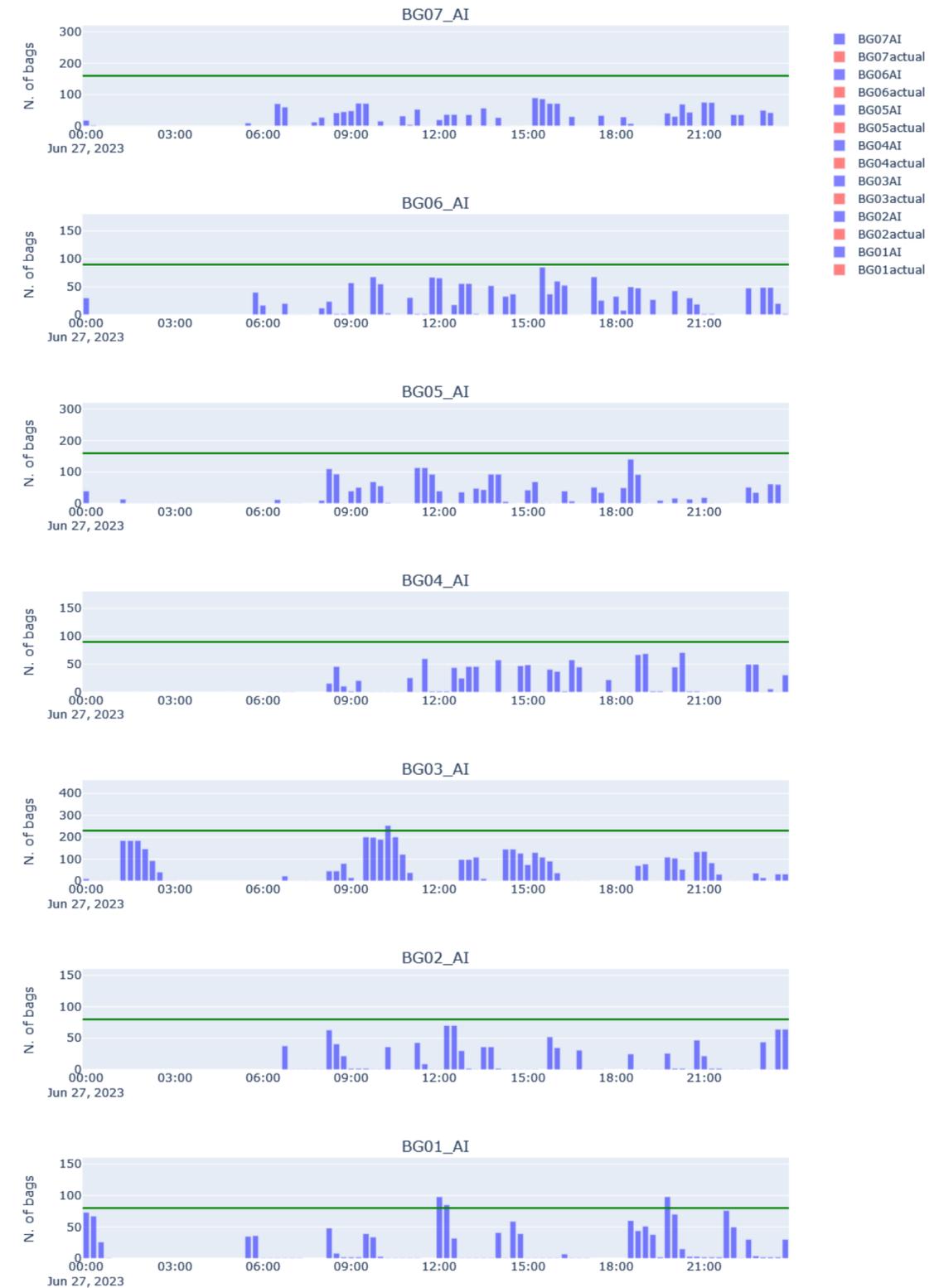
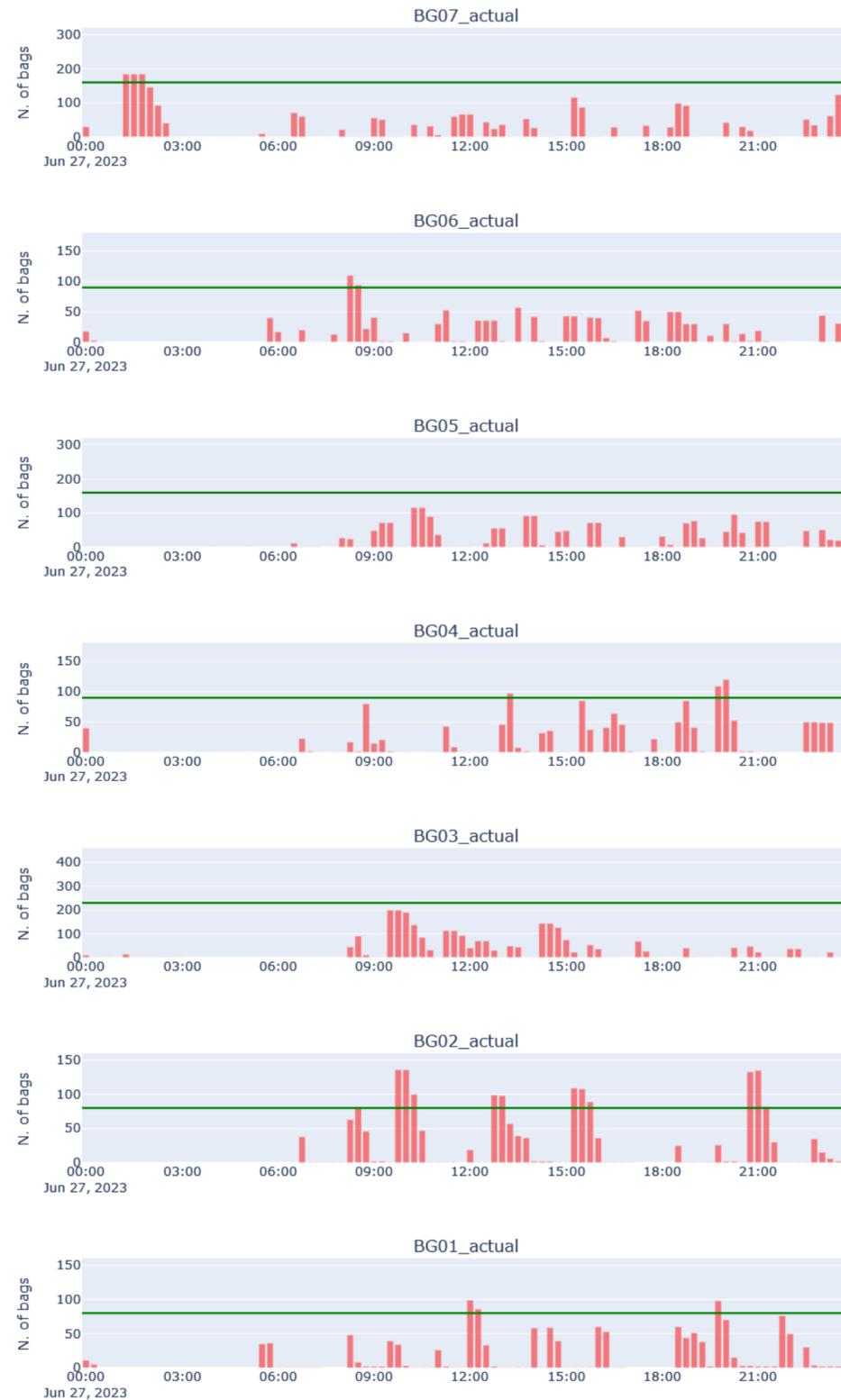
Allocazione automatica

Allocazione manuale



VOLUME BAGAGLI

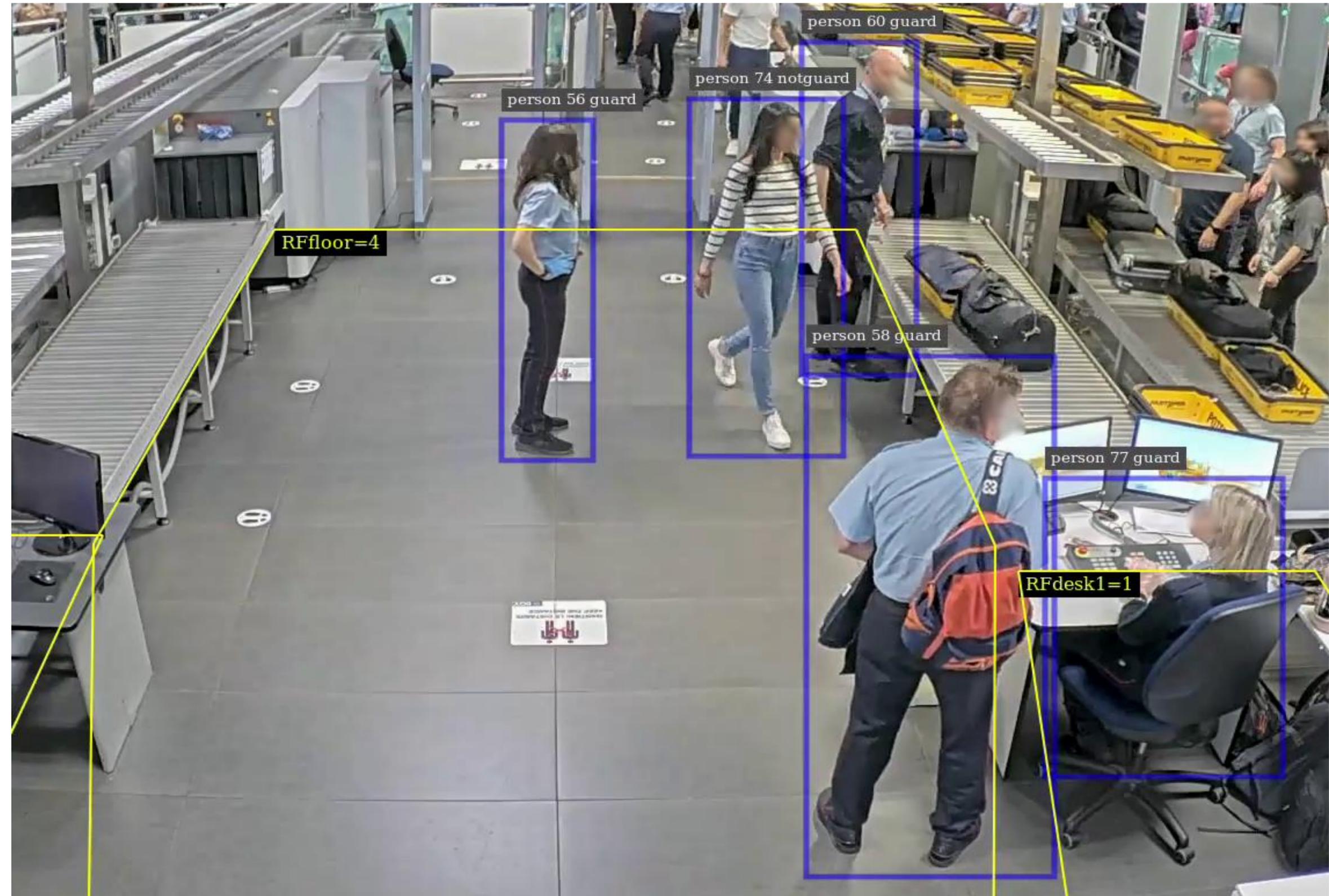
- Confronto distribuzione bagagli tra allocazione manuale (rosso) e automatica (blu)
- L'allocazione automatica non eccede mai, oltre una soglia di pochi punti percentuali, le allocazioni massime per nastro



- BG07AI
- BG07actual
- BG06AI
- BG06actual
- BG05AI
- BG05actual
- BG04AI
- BG04actual
- BG03AI
- BG03actual
- BG02AI
- BG02actual
- BG01AI
- BG01actual

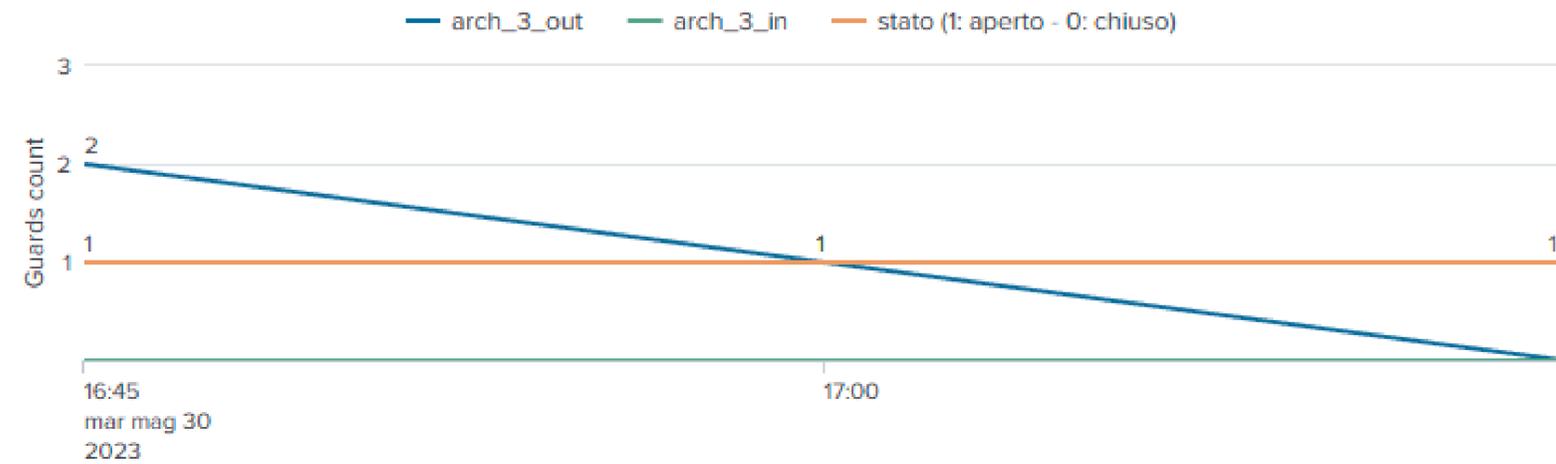
ARCHETTI

- Passeggeri e guardie di sicurezza, in modo del tutto anonimo, entro certe zone vengono discriminati per garantire il livello di servizio necessario per la sicurezza

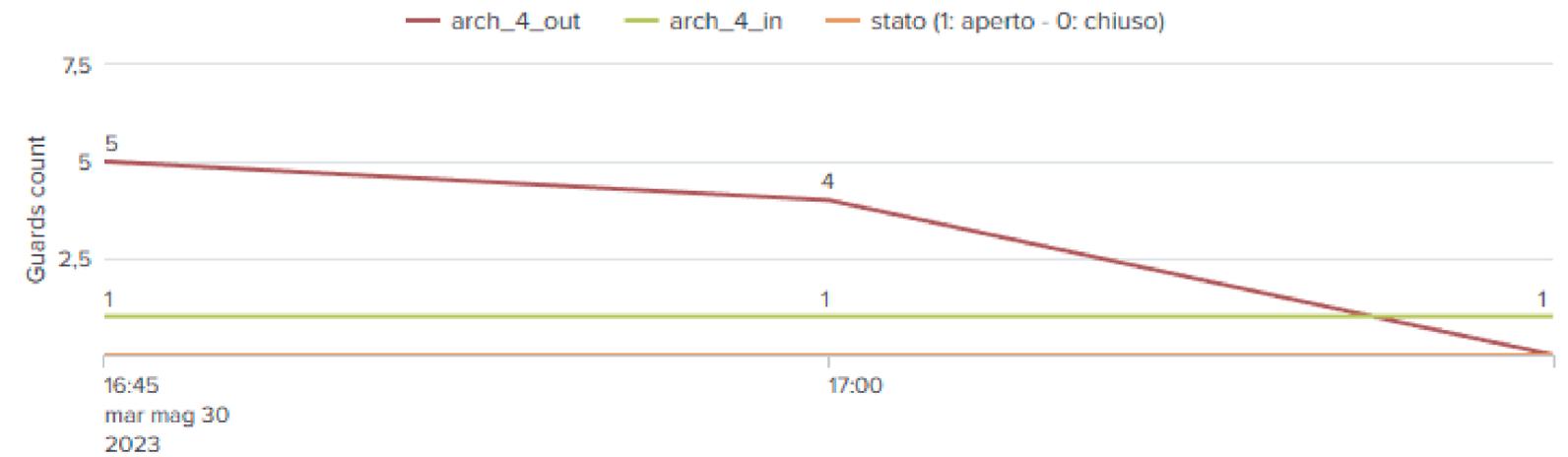


Archetti - Dashboard

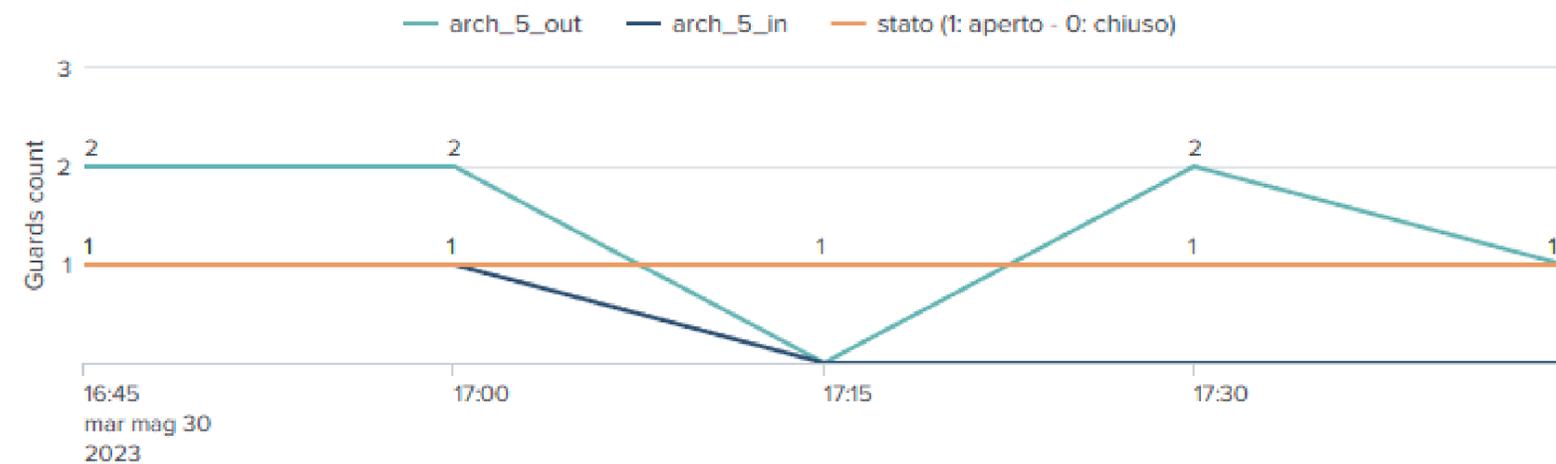
ARCHETTO 3 (IN - CAMERA 195 , OUT - CAMERA 112)



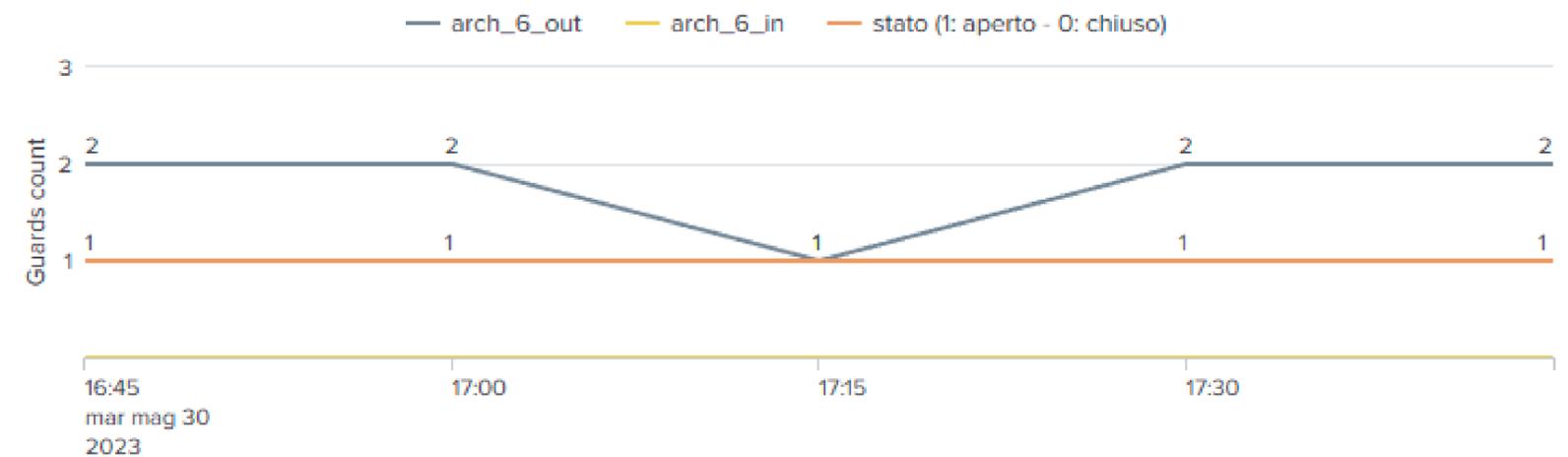
ARCHETTO 4 (IN - CAMERA 195 , OUT - CAMERA 112)



ARCHETTO 5 (IN - CAMERA 194 , OUT - CAMERA 113)

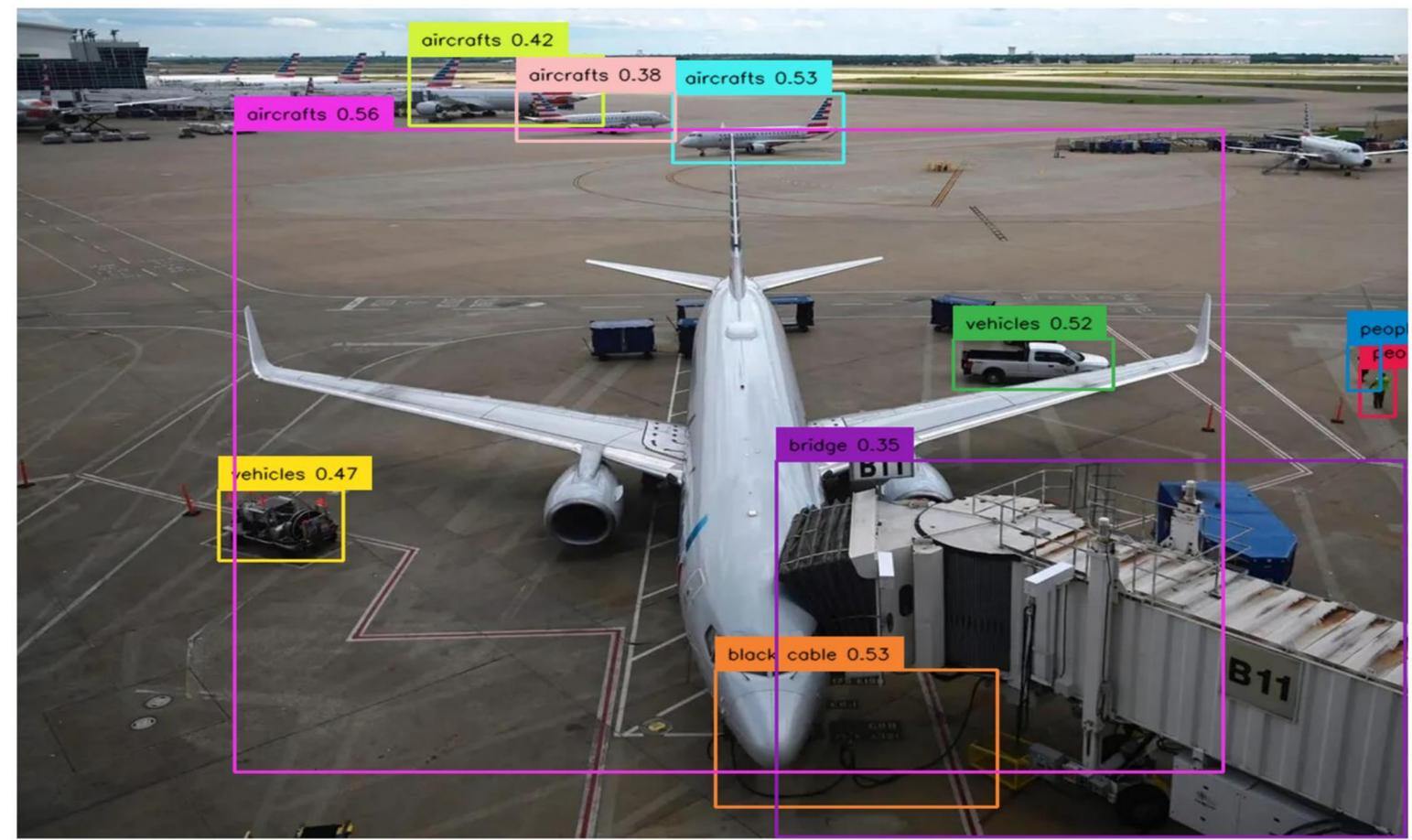


ARCHETTO 6 (IN - CAMERA 194 , OUT - CAMERA 113)



AVIO – Nuove tecniche di AI

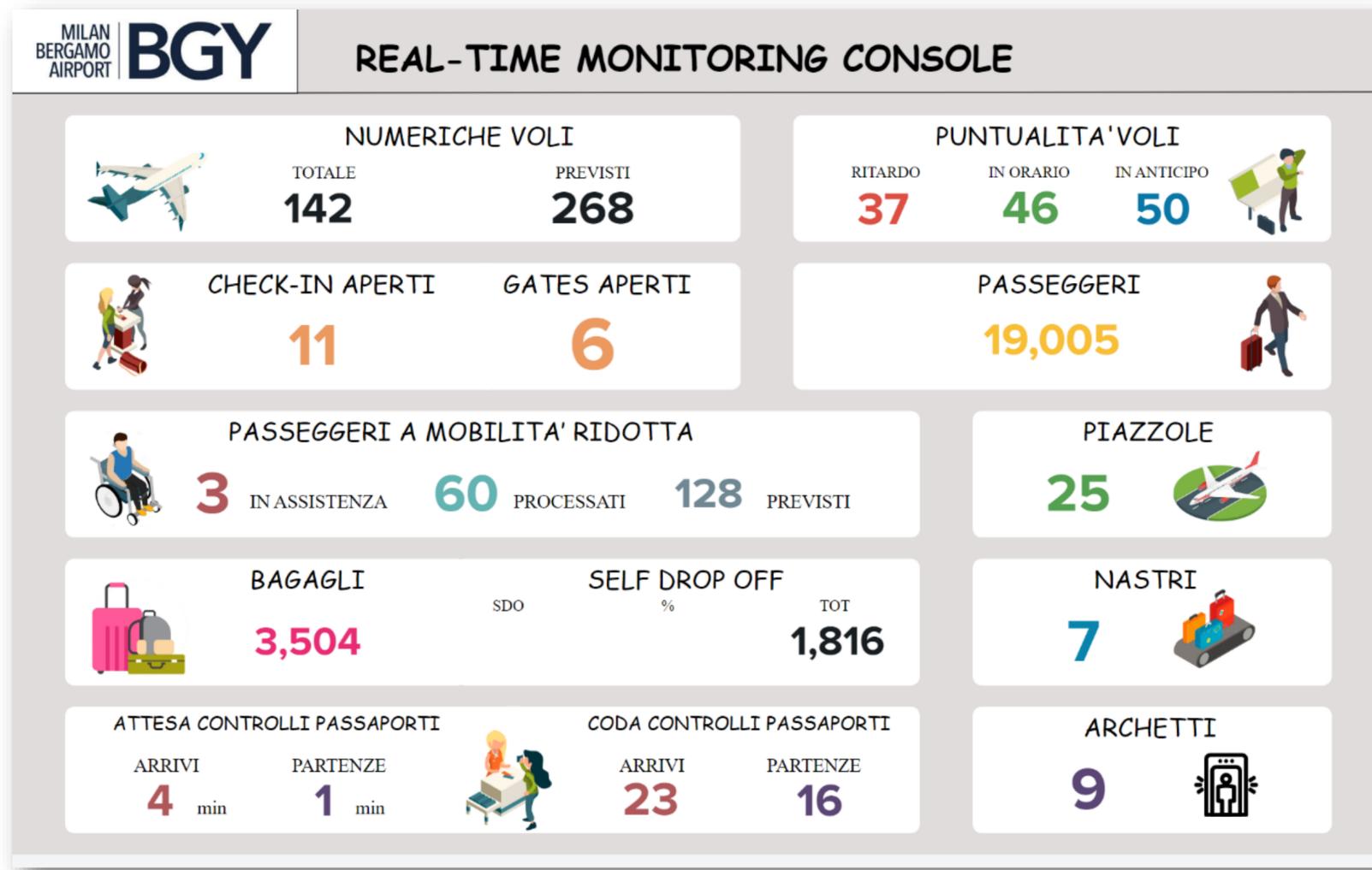
- Modelli generativi per la simulazione di condizioni meteo
- Foundation model per l'annotazione automatica



Glass Table Splunk

The Splunk dashboard is designed to meet various use cases:

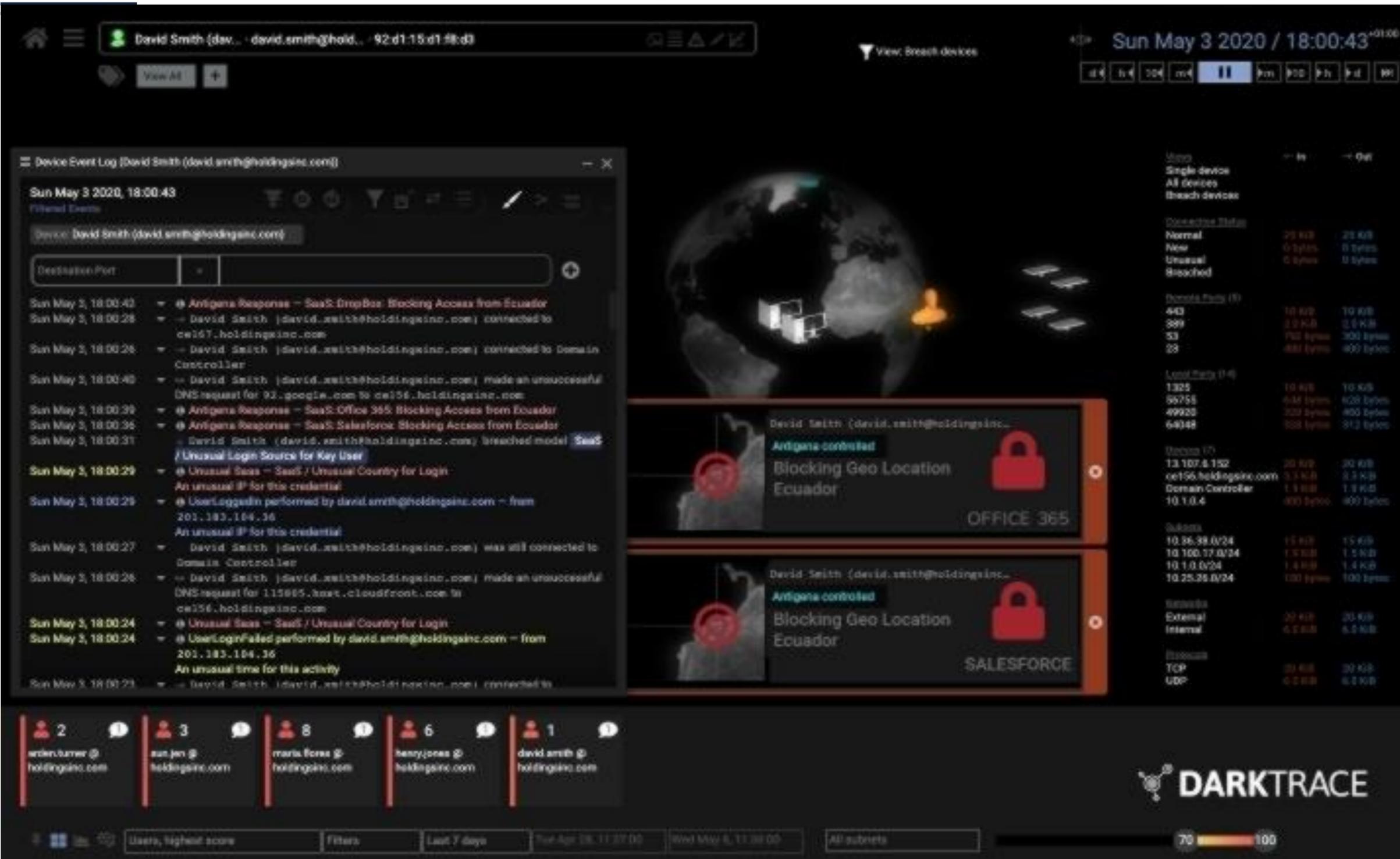
- A drill down tool for airport operators to control individual processes
- A monitor of KPIs shown on screens wall in the IT Control room and in the CEO office



CYBER SECURITY

Risposta strategica
Con la risposta strategica, Antigena Network agisce come il “cervello AI” dell’intero sistema di sicurezza, sfruttando le rilevazioni estremamente affidabili per trasferire e integrare le difese in linea come meccanismo di risposta.

Tramite integrazioni attive, Antigena Network è in grado di collegarsi con facilità e migliorare l’ecosistema difensivo esistente, informando firewall e dispositivi di rete sugli attacchi che hanno



CYBER SECURITY

The screenshot displays the Darktrace security interface. At the top, a user profile for Henry Jones is visible. The main area is divided into several sections:

- Device Event Log:** A list of events for device Henry Jones (henry.jones@holdinginc.com) on Sat May 2, 2020, at 23:31:12. Key events include:
 - Antigena Response - Connection Blocked: Henry Jones failed to connect to www.securepoint.de.
 - Antigena Response - Connection Blocked: Henry Jones failed to connect to www.vetransafar.com.
 - Antigena Response - Block external communication over port 443 for 5 minutes.
 - Firewall Blocked - Firewall Blocked Outgoing connection www.nosp.com.
 - New Credential Usage - Credential Created: test-admin@holdinginc.com.
 - File Downloaded performed by henry.jones@holdinginc.com on File Cloud kdbx.
 - File Downloaded performed by henry.jones@holdinginc.com on File Backup_Schedule.xlsx.
- Network Traffic Analysis:** A world map shows a connection path from Europe to a red location in North America. A table on the right provides traffic statistics:

Time	In	Out
Connected Status		
Normal	2.2 GB	5.0 GB
New	2.3 GB	2.3 GB
Unusual	0 bytes	0 bytes
Breached		
Reverse Data		
443	55 KB	2.9 GB
21	18 KB	715 MB
Local Data		
443	55 KB	2.9 GB
21	18 KB	715 MB
Holdingsinc File	1.4 GB	1.4 GB
www.cloudns.net	1.4 GB	1.4 GB
www.nosp.com	1.4 GB	1.4 GB
www.securepoint.de	625 MB	625 MB
Subnets		
10.77.23.0/24	2.8 GB	65 KB
10.100.17.0/24	715 MB	1.4 GB
External		
Internet	4.3 GB	4.3 GB
715 MB	715 MB	
Protocols		
UDP	5.8 GB	5.8 GB
Application Protocols		
SSL	2.9 GB	2.9 GB
FTP	2.1 GB	2.1 GB
- User Activity:** A row of user avatars with notification counts: wdenbauer (2), san.jen (3), maria.fores (8), henry.jones (6), david.smith (1).
- Darktrace Logo:** Located at the bottom right of the dashboard.

Risposta tattica
Con la risposta tattica, Antigena Network genera azioni auto-gestite che neutralizzano gli attacchi in pochi secondi.
Ogni risposta viene eseguita con precisione chirurgica e si basa sulla comprensione granulare che il sistema ha su ciò che è “normale” per l’intera organizzazione. Ciò consente ad Antigena Network di giudicare in modo affidabile quali eventi necessitano della Autonomous Response e di salvaguardare la normale attività lavorativa, facendo rispettare il normale “pattern of life” di un dispositivo infetto o di un utente compromesso.





GRAZIE PER L'ATTENZIONE

