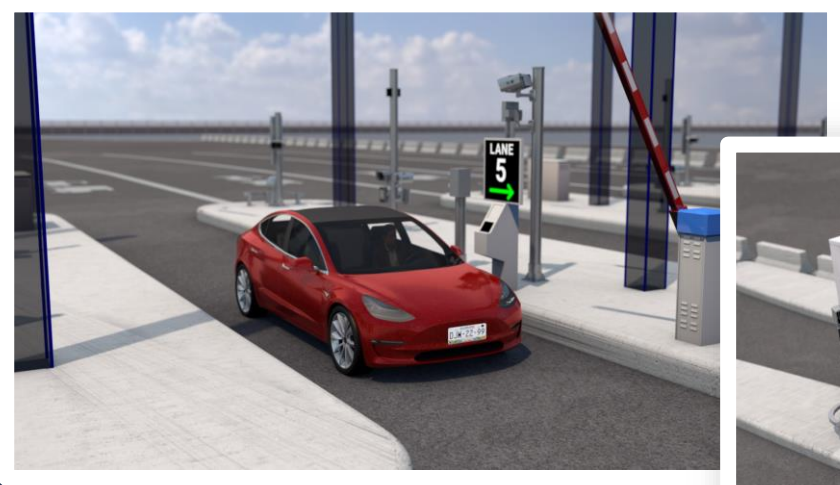
ADAPTIVE RECOGNITION

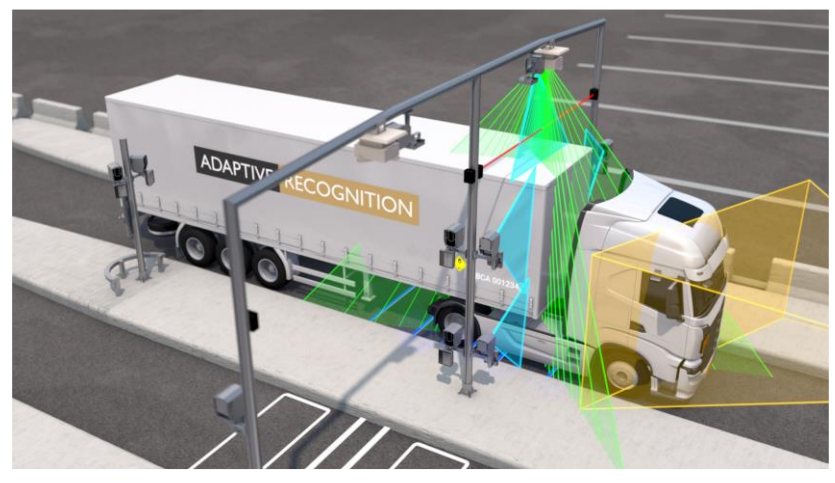
SMARTPORT CameraTech

DIGITIZING RORO FERRY PORTS

Technology of Tomorrow … Today

FERRY SHIPPING SUMMIT 2023





Intro By Alan Tofte, Adaptive Recognition Nordic
Speaker - Per Søholt, AGICON

Our History and Evolution

ADAPTIVE RECOGNITION

1991 company foundation

1992 first version of our ANPR

1994 **access control system** at Budapest Airport Cargo

1996 first international project

2000 introducing **ID Readers** product line +**ANPR camera** manufacturing

2002 **Carmen®** trademark registration

2011 first solution-oriented product: **LetUgo**

2013 introducing our **traffic database solution** (GDS) Hungarian nation-wide toll control system (**HU-GO**)

2015 Hungarian traffic security system with 130+ fix control points (**VÉDA**)

2017 extending the **HU-GO** tolling system with (**WIM**) weigh-in-motion

2019 manufacturing by industrial robots

2020 lot of new products

2021 **Smartport** Solutions

Adaptive Recognition Nordic A/S
The SmartPort Division

Adaptive Recognition Singapore Pte Ltd

Adaptive Recognition America Corp

Adaptive Recognition Hungary

+100 000 ANPR systems
+ 60 000 ID Reader systems

HU-GO & VEDA

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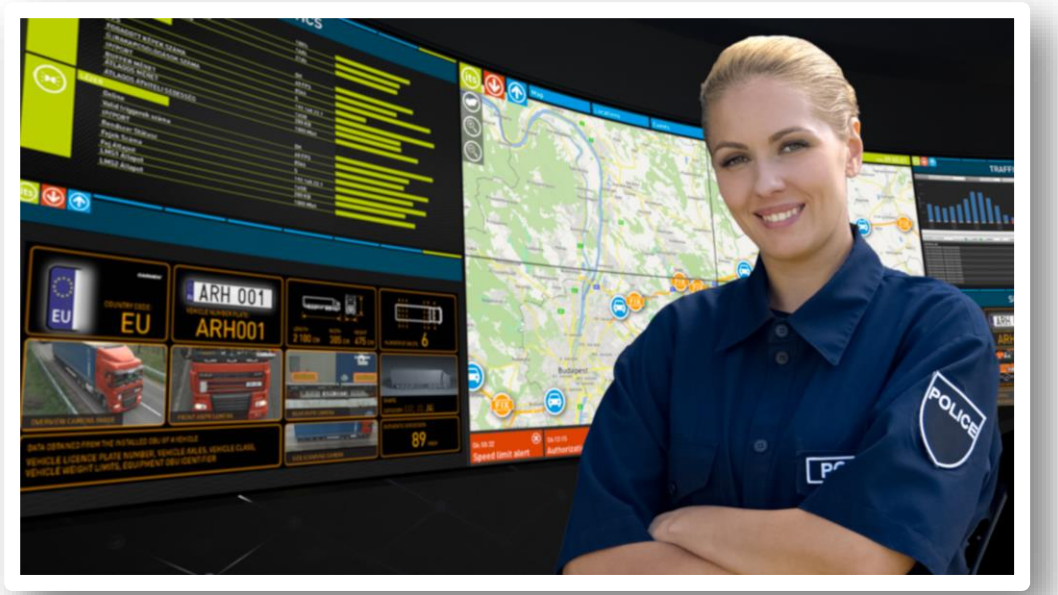
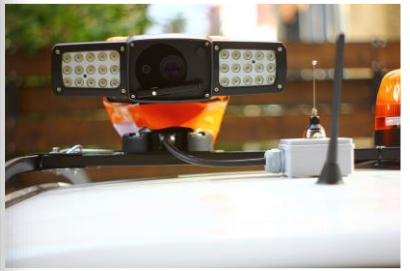
REUSE OF TESTED AND PROVEN TECHNOLOGY

Hungary Nationwide ITS

> Automated, Distance Based Toll-System
> 6 500 km road network
> 126 locations + 330 traffic lanes
> +2 000 WIM (Weight in Motion) Sensors
> 1.5 - 2 Mio. Daily Events





The Hungarian government had a dream back in 2012: reducing fatal road accidents to half by 2020, decreasing it to near zero by 2050.

TODAY NEEDS

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Inefficiency: *Manual check-ins can be slower, leading to longer waiting times.*

High Staff Costs: *Requires more staffing and related expenses.*

Inconsistency: *Prone to human errors and discrepancies in data collection.*

Varied Experience: *Passenger experience can be inconsistent due to human factors.*

Limited Operation Hours: *Restricted to staff availability, often not 24/7.*

Missing Sector Standard: *All have their own product standards*

Reduced Security: *Lacks advanced features like linked to automated license plate recognition.*

Limited Integration: *Challenges in merging with modern operational systems.*

Limited Scalability: *Handling increased volumes may require significantly more staff.*

Dependent Management: *Requires on-site supervision and lacks easy remote monitoring.*

Environmental Concern: *Manual processes can result in prolonged vehicle idling, leading to increased emissions and environmental impact.*

SMARTPORT Projects

Scandlines 2022-23

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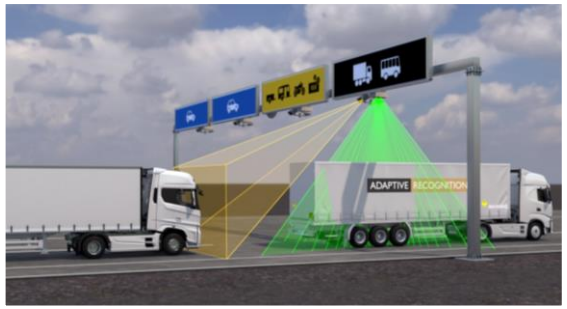

1. Booking
2. Pre-Gate
Freeflow
3. Check-In
Start&Stop
4. Lane-Up
5. Boarding

TOURIST Port Automation

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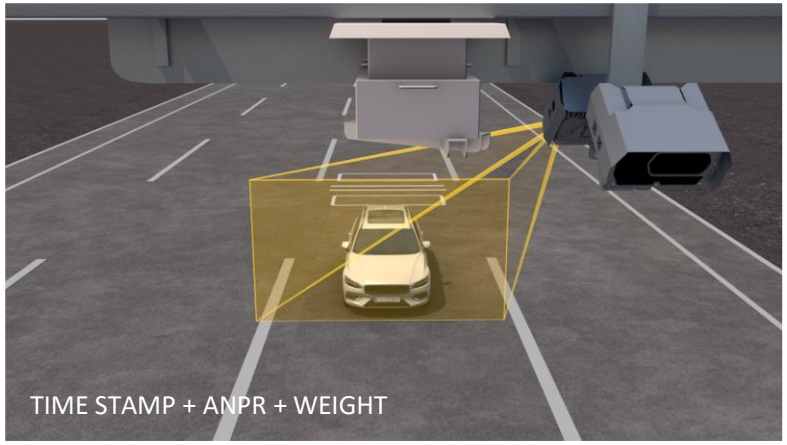
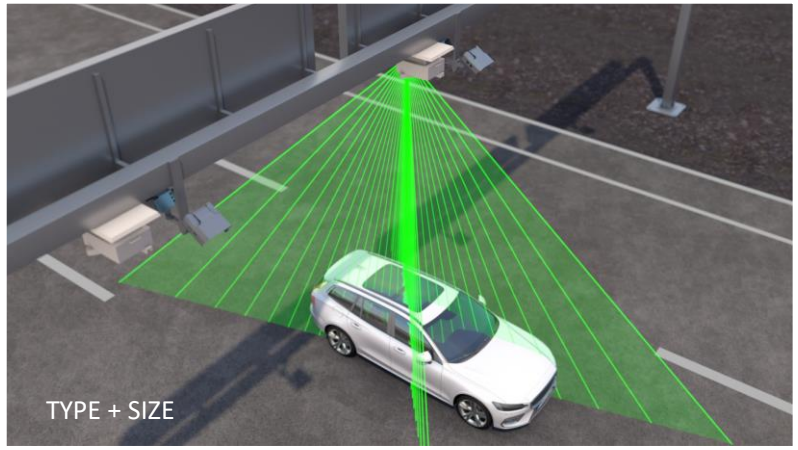
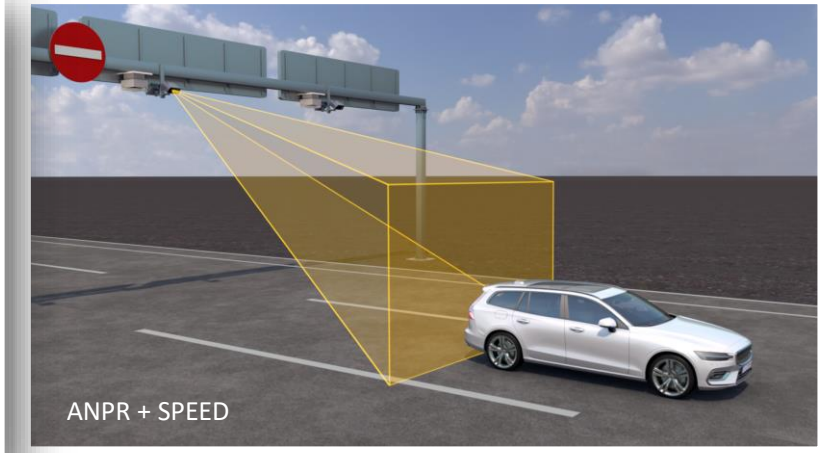
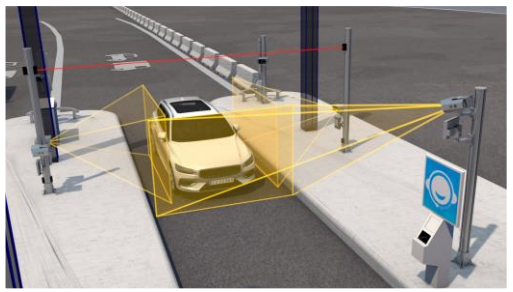
PRE-GATE - High Speed





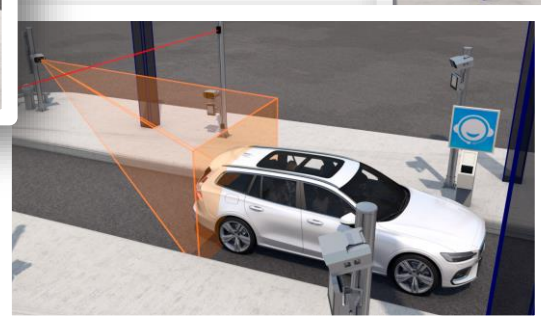


CHECK-IN - Freeflow or Start & Stop



FRONT ANPR + MAKE & MODEL
+ OCCUPATION COUNT

REAR ANPR
+ HIGHT ALERT



ID & PASSPORT
+ BAR/QR CODE

FREIGHT Port Automation

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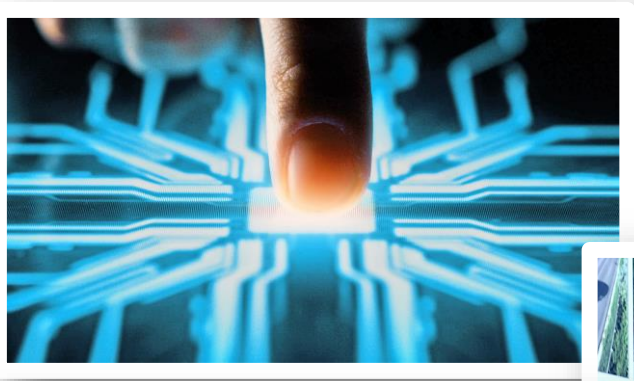
LESS EFFORT & FASTER

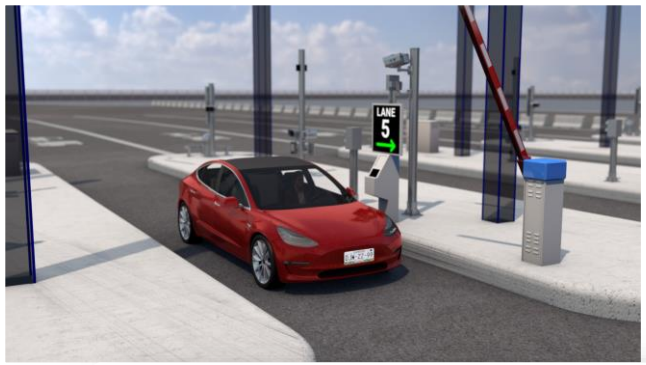
NO TYPING ERRORS

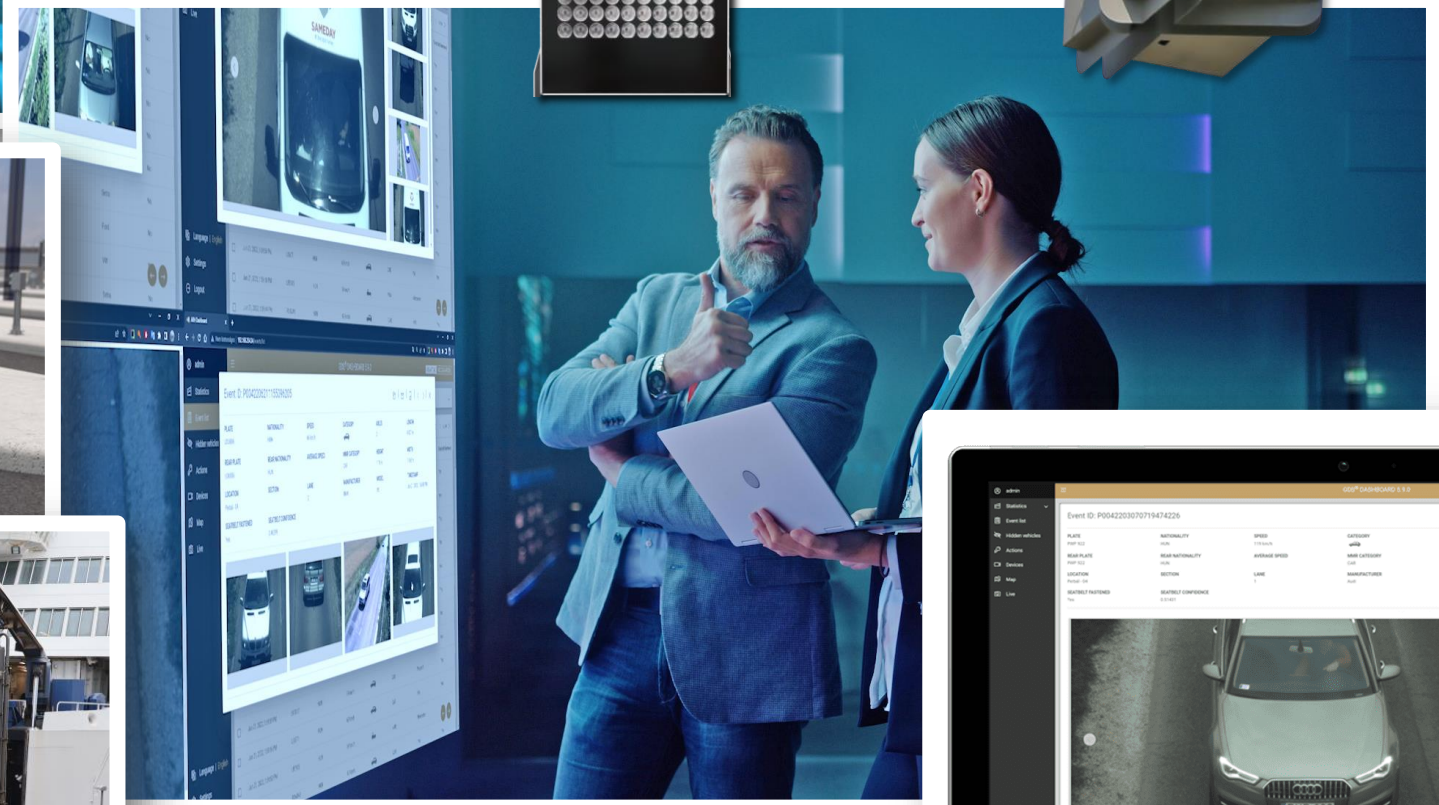
REDUCE EMMISSIONS

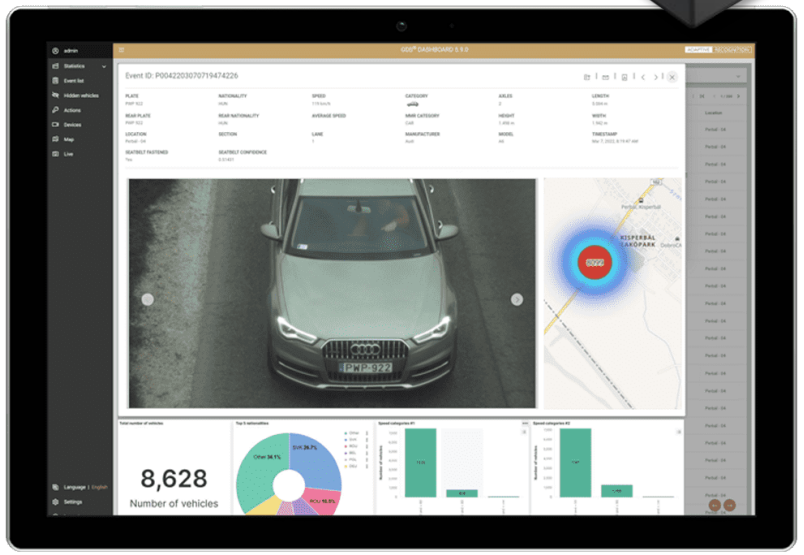
FREEFLOW METADATA

- Timestamp & Lane
- Direction & Speed
- License plates with Nationality (Front & Rear)
- Vehicle category ECTN (28 types)
- Vehicle Maker & Model + MMR Type
- Occupation Count (persons)
- Trailer ID AccR (ISO 6346 (BIC), MOCO, and ILU)
- Hazardous Labels ARD & IMO & Class
- Height, width and length
- Nos Axels, individual & total weight









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STAY IN CONTROL

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Rosslare Europort 2022-24

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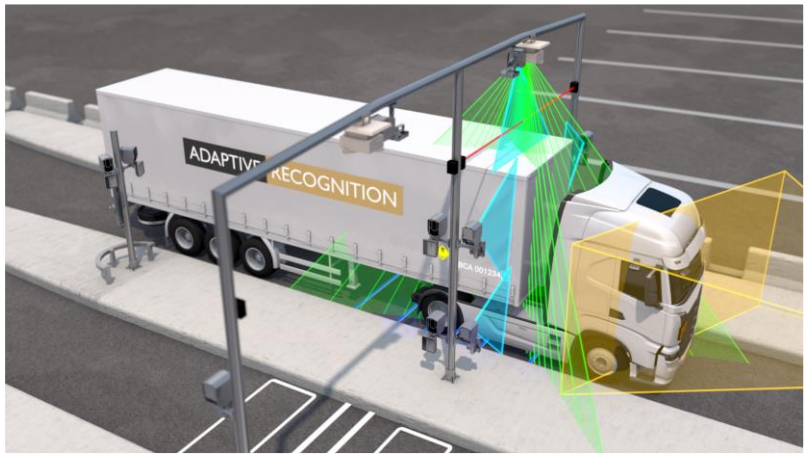

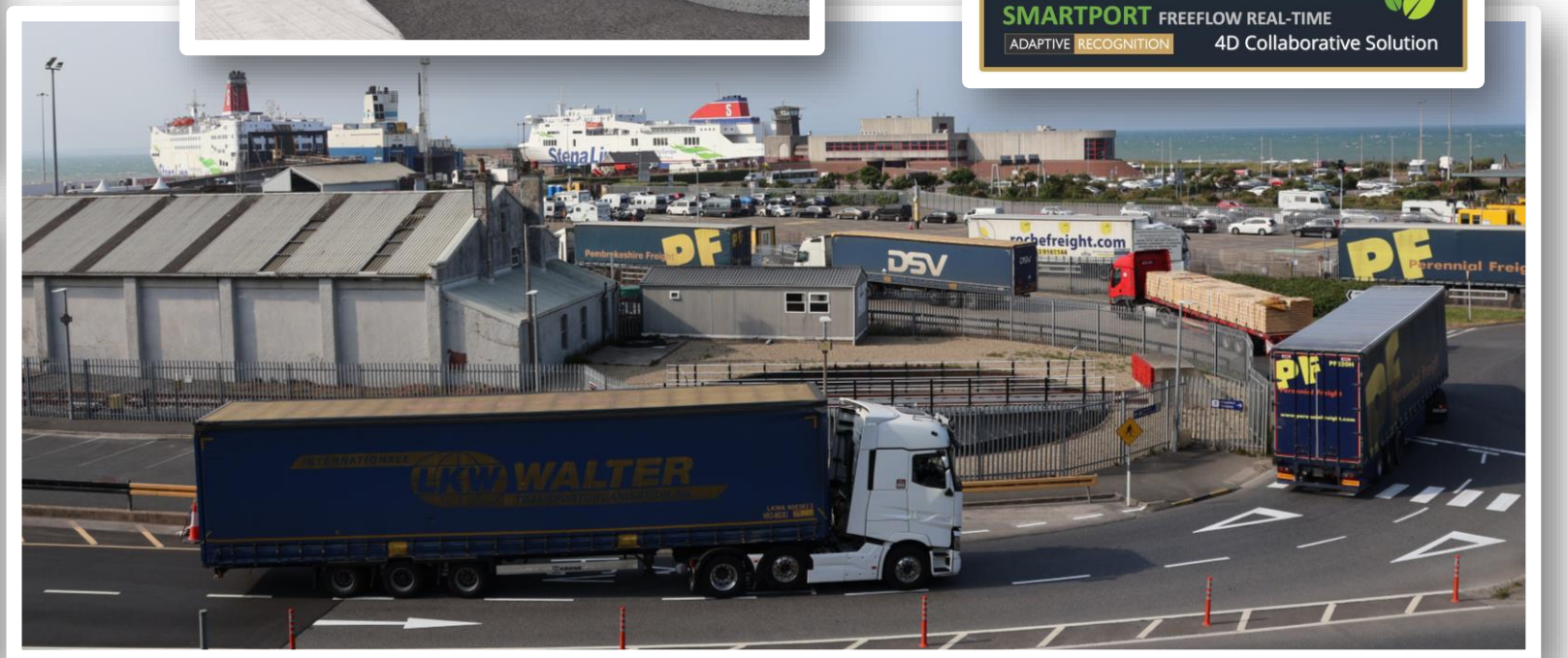

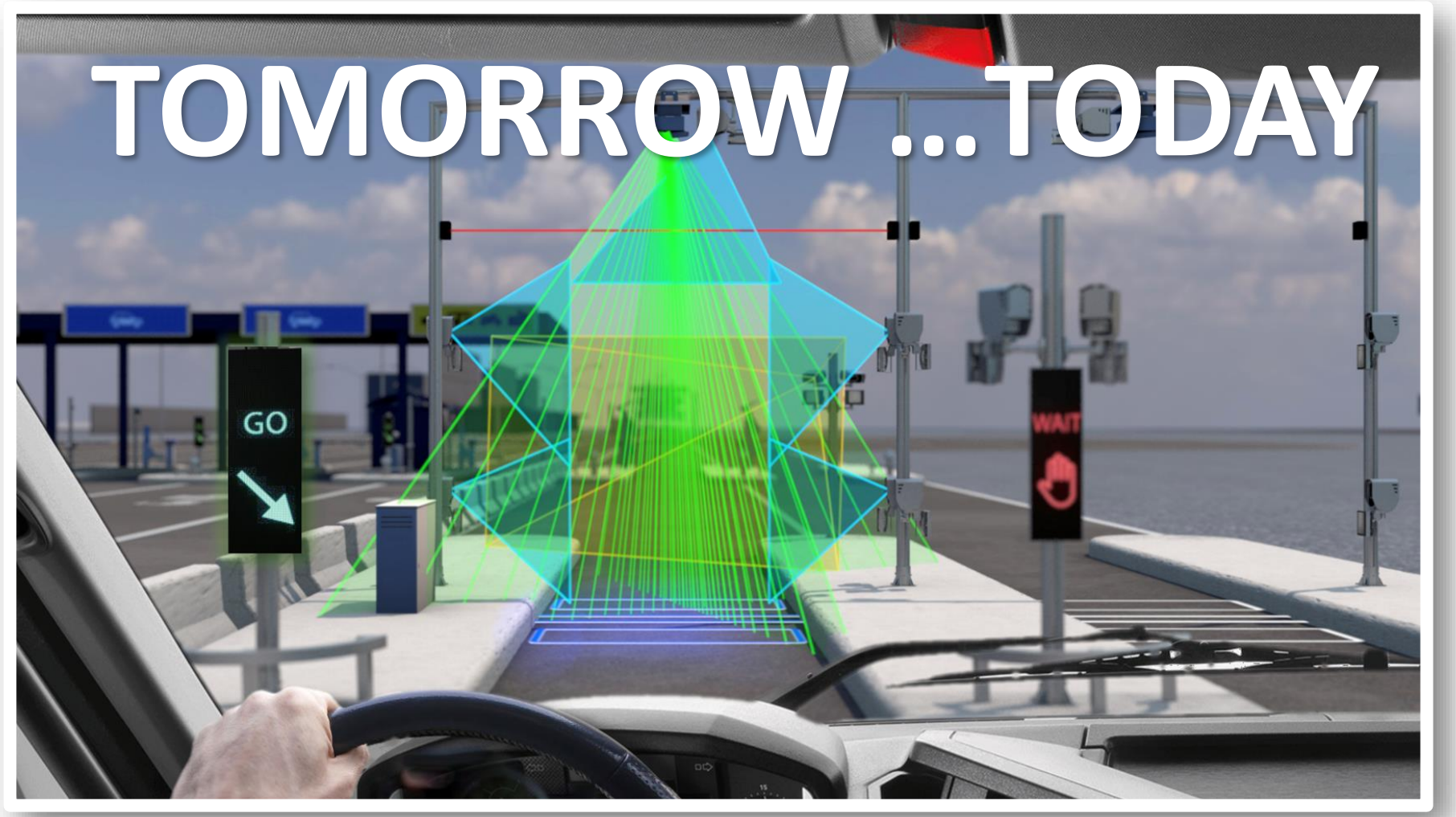

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