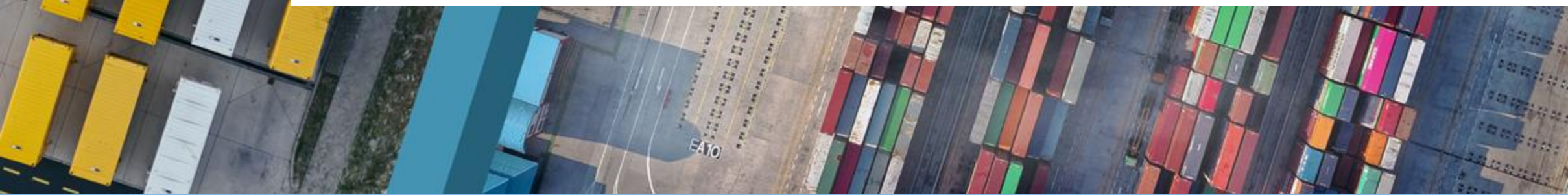




AWARD

Scaling autonomous logistics



AWARD has received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement No 10 1006817.

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An introduction to the AWARD project

AWARD response

H2020 framework

- **2018-2020** : Digitising and Transforming European Industry and Services: Automated Road Transport
- **DT-ART-05-2020** : Efficient and safe connected and automated heavy-duty vehicles in real logistics operations

AWARD : All Weather Autonomous Real logistics operations and Demonstrations

Project Coordinator : EasyMile

Partners : 29 based in 12 countries

Budget : € 26M



An introduction to the AWARD project

4 real-life conditions demonstrations, showcasing the work of all consortium members

Development of the ADS



- Able to **handle adverse environmental conditions** such as heavy rain, snowfall, fog
- Targeting compliance with **ISO 26262** and taking into consideration **SOTIF recommendations**
- Integrating **multiple sensor modalities and an embedded teleoperation system to address 24/7 availability**
- **Optimized fleet management & supervision system** for logistics use cases

Integration into HDV

AIT



KAMAG



TLD



TERBERG



Demonstrations

Autonomous loading & unloading operations



Hub to hub autonomous logistics on public roads



Airport autonomous ground support equipment



Port Trailer autonomous transfer operations



Autonomous driving demonstrations in real logistics operations

Autonomous Truck loading with Autonomous Forklift demonstrator



Use case

- Truck parks at arbitrary position
- Driver or FMS assigns an area to unload
- Crayler starts autonomous unloading
- Operator responsible for supervision

Status

- New use case recently identified
- Sensor providers mechanical, electrical and software preparation ongoing
- CAD and electrical schematics to integrate AWARD sensorset on the platform ongoing



Autonomous driving demonstrations in real logistics operations

Hub-to-hub autonomous logistics

Use case

- 1) Component pick-up at a logistic site
- 2) Autonomous movement through mixed traffic with VRU
- 3) Delivery at Factory site with human environment
- 4) Autonomous movement through mixed traffic on the way back

Status

- Sensor integration done
- Sensor calibration and tuning of vehicle parameters ongoing
- V2I tests and vehicle functionality tests ongoing



Autonomous driving demonstrations in real logistics operations

Airport demonstrator

Route Description



- Use Case:
 - TractEasy waiting mission point
 - Go manually to pick up empty dollies along P-North, then go to Start Auto Mission point
 - Bring them autonomously to containers storage
 - Go back autonomously to End Auto Mission point
 - Drive manually to TractEasy waiting Mission point

Waiting Mission point

End Auto Mission Station

Start Auto Mission Station

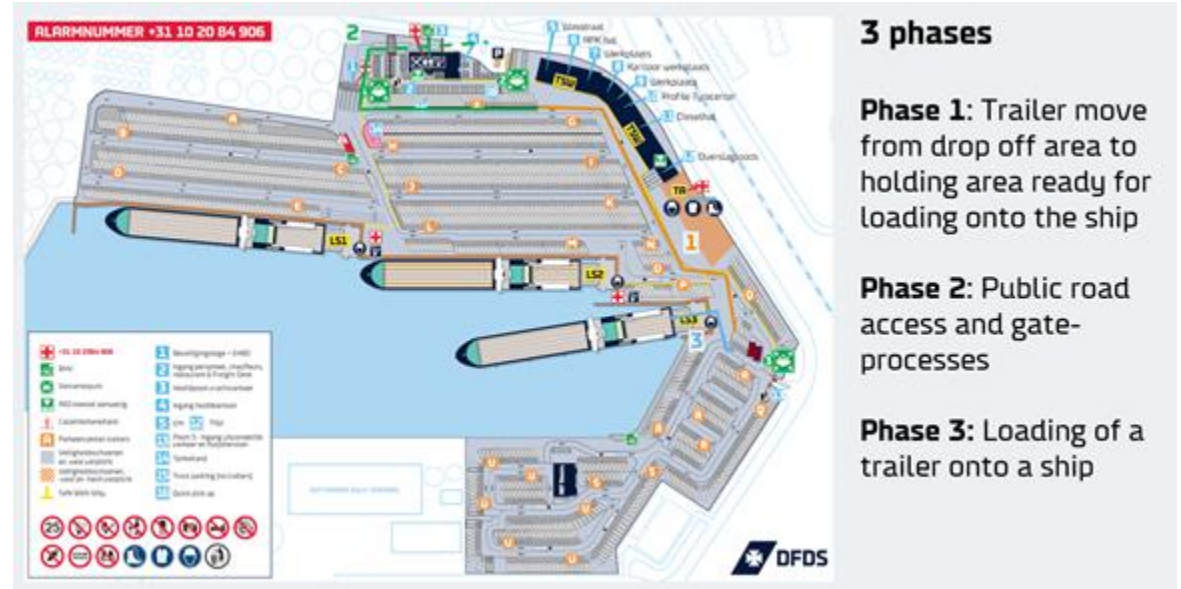
Containers storage

Status

- [Safety tests](#)
- Sensor calibration and data comparison
- Development of the Fleet Management System (FMS)

Autonomous driving demonstrations in real logistics operations

Port demonstrator



Use case

- Container parking and roll roll ship loading
- Cooperative operation with human drivers
- Hub to hub capability with offloading site

Status

- Sensors integration and testing to begin March 2023



14/02/2022

Thank you!



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