



AWARD
Scaling autonomous logistics

**Pan-European Workshop: “Charting the Roadmap for
Autonomous Vehicles in European Logistics.”**

11/12/2023

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Presentation of the project

Julien Collier - EasyMile



AWARD has received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement No 101006817

The content of this presentation reflects only the author's view. Neither the European Commission nor the CINEA is responsible for any use that may be made of the information it contains.



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AWARD overview

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

Budget : € 26M

Partners : 29



Four real-condition demonstrations

Harnessing the expertise of all consortium members

Development of the system

- Able to handle adverse environmental conditions
- Targeting compliance with ISO 26262 and taking into consideration SOTIF recommendations
- Integrating an embedded teleoperation system to address 24/7 availability and multiple sensor modalities:



- Optimized fleet management & supervision system for logistics use cases



Integration into HDV and validation



Demonstrations

Port Trailer autonomous transfer operations



Hub to hub autonomous logistics on public roads



Airport autonomous ground support equipment



Autonomous loading and unloading operations



How we make sure it's safe

Tests and scenarios both at home and elsewhere

Simulation of hub to hub logistics operations:

- Vehicle running in autonomous mode under the rain tunnel
- Different kind of obstacles: pedestrian and car dummies, pallets, barriers
- Test in a straight line, on intersections, forward and backward



On the road

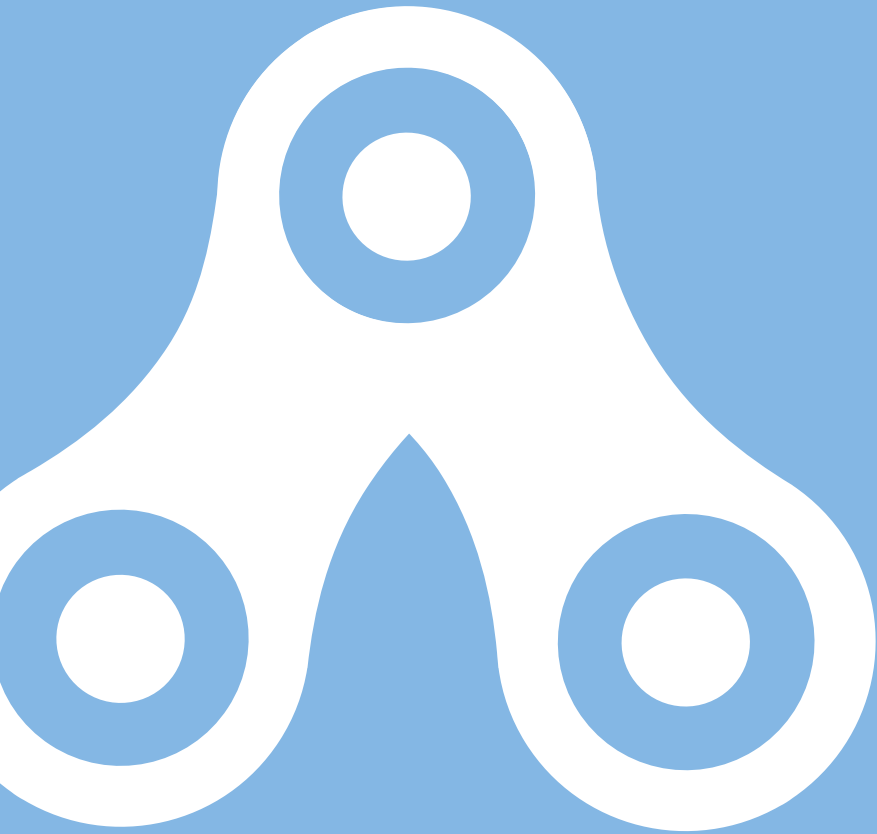
Hub-to-hub with ROTAX and DB SCHENKER in Gunsirchen, Austria



Use case

- Component pick-up at a logistic site
- Autonomous movement through mixed traffic with C-ITS
- Delivery at factory site





Airport

How we make sure it's safe

Tests and scenarios both at home and elsewhere



Simulation of airport environment:

- Vehicle running in autonomous mode under the rain tunnel
- Different kinds of obstacles: pedestrian and car dummies, suitcases, barriers
- Test in a straight line, on intersections



About the vehicle

"EZTow" autonomous tow-tractor

- Manufacturer: TLD (Saint Lin, France)



- EZTow: airport and industrial towing tractor
- Vehicle speed: 15 km/h
- Towing capacity: 14 tons



On the tarmac

Real-condition operations with AVINOR at Oslo Airport, Norway



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



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Thank you!



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