AWARD
Scaling autonomous logistics

PROJECT MEMORANDUM

PROJECT ID

AWARD - All Weather Autonomous Real logistics operations and Demonstrations - is a 3-year Innovation Action performed by a Consortium of 29 Partners coordinated by EasyMile. Starting on the 1st of January 2021, the project has received funding from the European Union's Horizon 2020 research and innovation program under the Grant Agreement No. 101006817.

PROJECT INTRODUCTION

AWARD's objective is to bring disruptive changes in the logistic industry by scaling Autonomous Driving Vehicles (AD Vehicles) system and Logistics Operation & Fleet Management (LOFM) system for heavy-duty vehicles, targeting compliance with ISO 26262 and taking into consideration SOTIF recommendations. The AD Vehicles' Autonomous Driving System (ADS) will be based on multiple sensor modalities and an embedded teleoperation system to address 24/7 availability. The ADS will then be integrated into multiple vehicle types used in low-speed areas. Finally, these vehicles will be deployed, integrated and operated in a variety of real-life use cases to validate their value in the application and identify any limitations and functional level to address 24/7 availability. This challenge will be particularly tackled by extending the AD Vehicles performances under harsh weather conditions (rain, fog, snow) that are today limiting the Operation Design Domain (ODD), which describes the specific conditions under which a given AD Vehicle or feature is intended to operate. These are to be developed along with an adapted regulatory framework for autonomous logistics operations in warehouses, airports, and ports.

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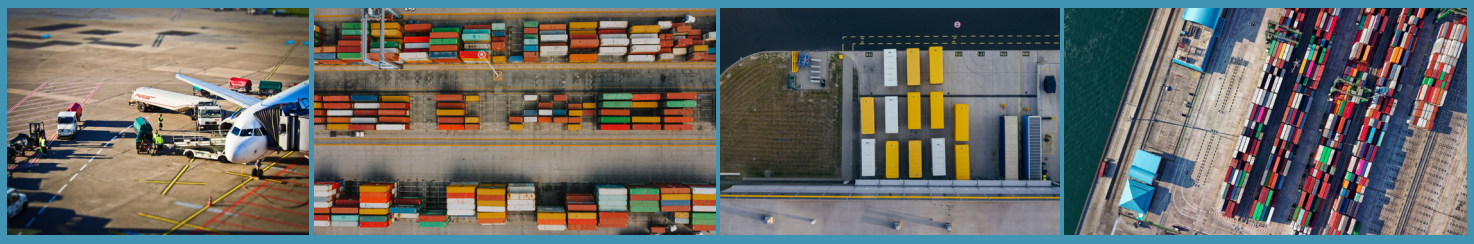


USES CASES DESCRIPTION

USE CASE 1: Autonomous loading & unloading forklift operations. Demonstration of an autonomous counterbalanced forklift truck for logistics operations within factories, in Linde Aschaffenburg Material Handling (Germany).

USE CASE 2: Hub-to-hub autonomous logistics. Demonstration of an autonomous swap body truck between the Engine Factory of BRP-Rotax and the Logistic Hub of DB Schenker (Gunskirchen, Austria), which are connected via factory areas, public side roads, public main roads and public crossing areas.

USE CASE 3: Automous ground support equipment in airport. Demonstration of an autonomous baggage tractor on airside in Avinor OSL Gardermoen airport (Norway).

USE CASE 4: Trailer transfer operations and automated ship loading in port. Demonstration of an autonomous trailer on a busy roll-in/roll-off terminal in Rotterdam Port (The Netherlands).

STAKEHOLDERS & USERS

The AWARD project adopts a comprehensive view on understanding user and stakeholder needs. These encompass three main categories:

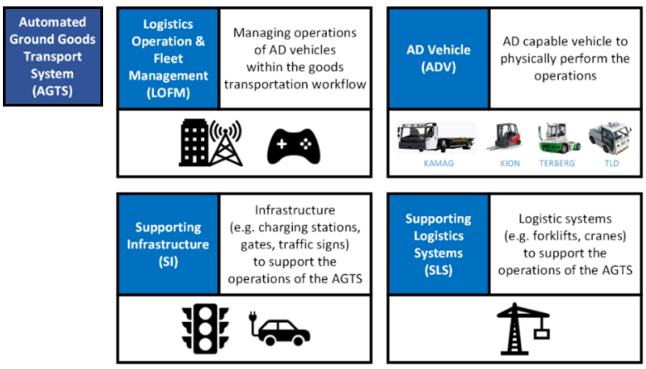
· *Direct process participants are all users and stakeholders who interact directly with the vehicle, either remotely or on site.*

· *Indirect process participants are all users and stakeholders who are part of the technical or logical operations of the organisation taking advantage of autonomous vehicles.*

· *And lastly overall stakeholders which contains all users and stakeholders who are in some way, shape or form related to the AWARD project.*

AWARD VALUE CHAIN

AWARD SYSTEM OF SYSTEM



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