

PORT DECARBONISATION AND ENVIRONMENTAL SUSTAINABILITY

14:00 – 14:55

Emerging Technologies –
Industry Use Cases



Autonomous road vehicles in ports

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In association with **Redshift Associates**



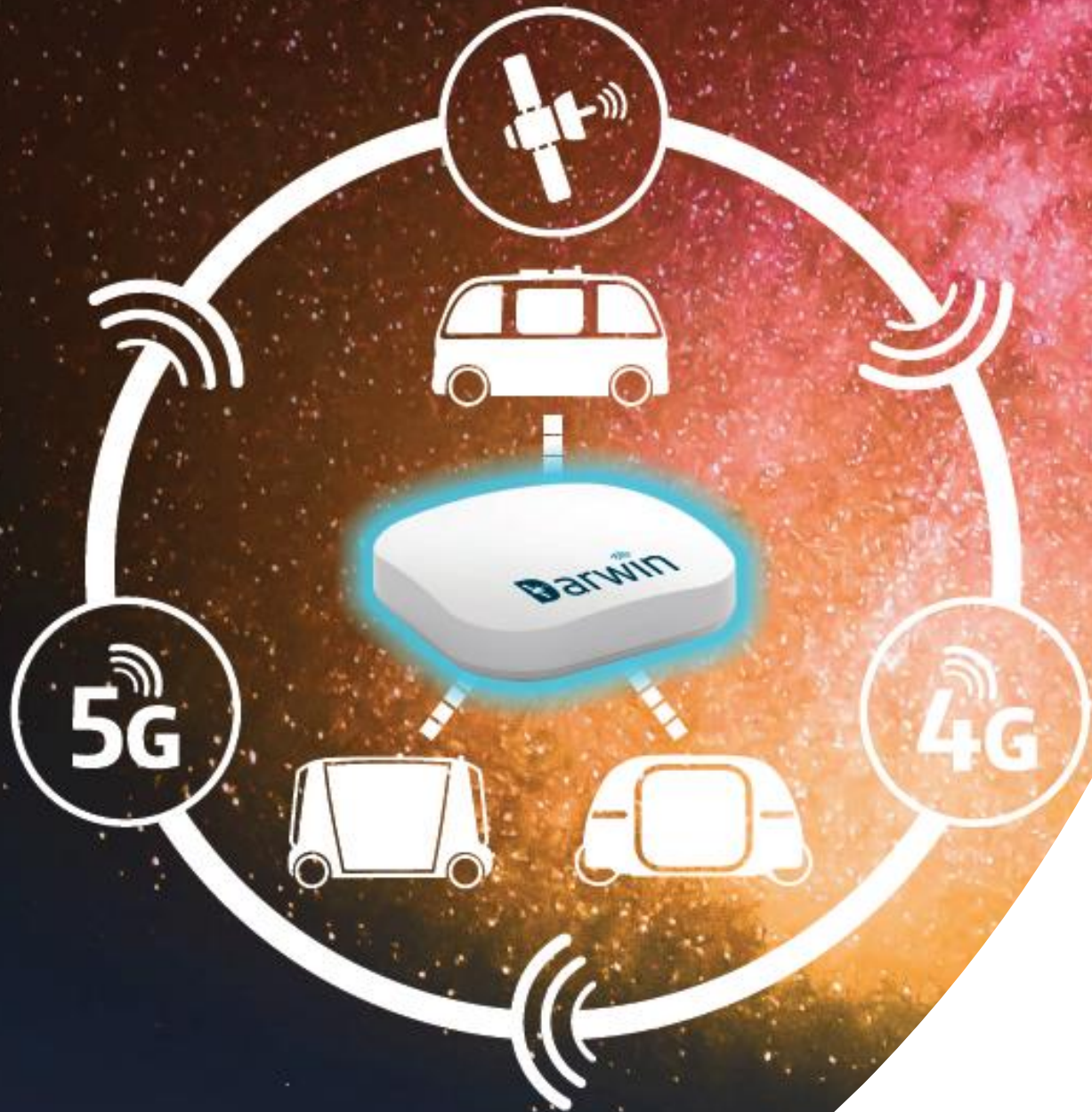
 Darwin

Connected
Autonomous
Vehicles

-

Port Solutions

Any type of vehicle, anywhere.



Spin off from Telefonica

Producers of terrestrial-satellite connectivity solution (HUT)

Two joint international patents

Providers of CAV services

Darwin Teams

- Harwell
- Glasgow
- Malaga



100
ere
campus within
beautiful Oxfordshire
countryside

75
years
of revolutionary science
and radical invention

DRIVING
INNOVATION

Remember when driverless cars felt light years away? Shutting Harwellians around using LIDAR sensors, cameras and ultrasound, the Darwin self-driving shuttle bus offers an emission-free and driverless campus transport service for Harwell. Navigating roads shared by other vehicles and pedestrians using satellite technology independent from WIFI, it proves the viability of safer, greener automated public travel even.

HARWELL

CAV Firsts

First:

CAV on public Roads in the UK

Longest :

Running CAV trial in the UK

The most significant:

CAV trial in the UK
(as per Insurance Industry)



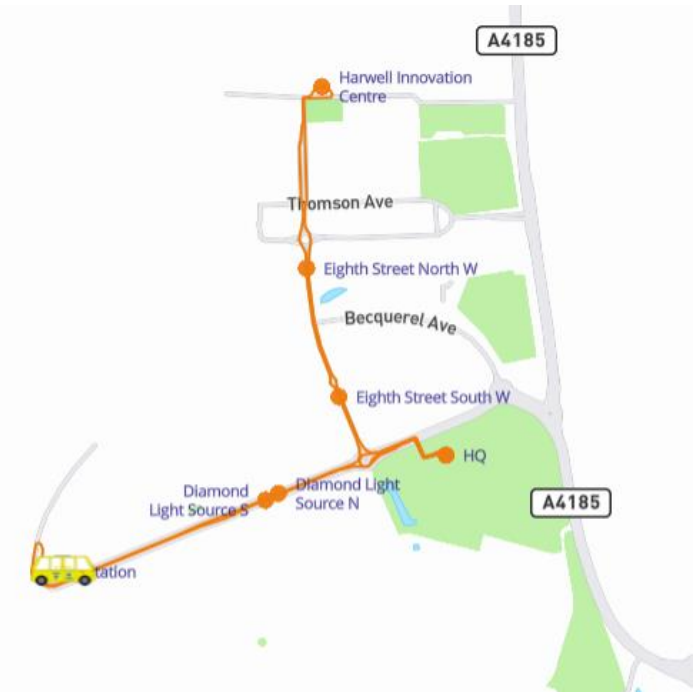
18371
Autonomous Hours

8518
Autonomous Miles

1430
Passengers Served

TAKE A RIDE IN OUR SELF DRIVING SHUTTLE

The Darwin Autonomous Shuttle (DAS) currently travels on Fermi Avenue and Eight Road, with ESA building being the starting station for both routes. You can [track the shuttle](#) here to find out when it's expected at a particular stop.



Oxford
Harwell Science Campus
9am-4pm Mon – Fri operation



Oxford



Oxford



London



Darwin Services

Pilot Objectives

- Pilot CAVs for Passenger Transportation
- Linked to Cruise Ship Timetables
- On Demand requests from Yachts
- Integration of Land & Maritime Traffic

Why CAV's

- Suitability of CAVs in a Port Environment (enclosed space, low speed)
- Smart port initiatives - 'Just In Time' Services
- Sustainable solutions - Green Ports Initiatives



DARWIN INNOVATION GROUP

Our CAVs Services Offers

15-Seater



9-Seater



6-Seater



New CAV Setup	CAV Operations Services
<ul style="list-style-type: none">• CAV setup• Insurance• Regulatory• Commissioning route• PR/Marketing• Sales positioning on the market	<ul style="list-style-type: none">• Operations• Maintenance• PR/Marketing

An aerial photograph of a coastal city, likely Valencia, Spain. The image shows a harbor with several ships, including a large white ferry with 'TRASMEDITERRANEA' written on its side. The city is built on a hillside, featuring a large, ornate, yellow building with a red roof and a clock tower. The foreground is filled with lush green palm trees and other vegetation. The background shows a dense urban area extending to the sea.

Upcoming Pilot Study European Port

Pilot service starting from **March 2025**.

- First service of CAVs in Spain and reference port for Europe.

The **Cost** of the pilot will be kept to a minimum and will include:

- Mapping and scheduling the route
- Import of the vehicles
- Vehicle registrations
- Training of the operators
- Mobile applications for Passengers/Operators
- Data capture

Monetisation of the service by the port can be done via:

- Selling Passenger Tickets
- Selling Advertising on the Shuttles
- Increasing the Standard Port/Docking Fees

Further Pilots in discussion with other European Mediterranean ports



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