Greenet

The network of Horizon Europe
Cluster 5 National Contact Point.

Entity profiles linked to specific topics

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GREENET Brokerage Event
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Greenet

- Samra Sarwar, Research Associate
- DeustoTech, Research institute. Bilbao, Spain.
- Mobility and transport unit
  - Intelligent Transport systems
  - Cooperative communications
  - Artificial intelligence techniques
  - Positioning

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HORIZON-CL5-2025-01-D6-11: Innovative air mobility and services for sustainable and smart urban, peri-urban transport – Societal Readiness pilot (RIA; 04/09/2025)

Our Contribution

- Advanced Urban Logistics Simulation Engine with:

✅ **Dynamic route optimization** – Real-time adjustments for disruptions.

✅ **Multi-modal & intermodal modeling** – Simulates drones, trucks, and hybrid transport.

✅ **Logistics traffic density maps** – Predicts road usage by delivery vehicles (area/time-specific).

Extension → **Innovative Air Mobility (IAM) cargo** – Drone behavior modeling (travel time, energy, autonomy, restricted areas) for defining the delivery routes including the simulator's intermodality and multimodality capabilities to model.

Technology Profile

🔧 Real-time simulation engine (event-driven adjustments).

🔧 Multi-agent system + Energy/autonomy algorithms for drone route planning.

Experience & Relevance

📌 Proven expertise in last-mile logistics simulation.

HORIZON-CL5-2025-01-D6-12: Safe Human-Technology Interaction (HTI) in the vehicle systems of the coming decade – Societal Readiness Pilot (IA; 04/09/2025)

Our Contribution

☑ **AI-Algorithm** - Real-time detection of driver stress/distraction with multimodal information (in-vehicle sensors, wearables, traffic/weather).

☑ **Generation of alerts** based on the results of the previous algorithms. Co-design study of the type of alert to generate: sound, light, colour, duration, etc.

Technology Profile

Sensor Fusion + AI Algorithm

Experience

Participation in European Horizon projects.

Projects: (CONDUCTOR).

HORIZON-CL5-2026-01-D6-05: Approaches, verification and training for Edge-AI building blocks for CCAM Systems (CCAM Partnership) (RIA; 20/01/2026)

Our Contribution

☑ **Edge-AI Optimization** - Adapting AI algorithms for embedded accelerators (Security operations center) to minimize latency/energy without compromising detection performance.

☑ **Real-time traffic risk analysis** - On-device inference for risk detection (jaywalking, lane invasions by bicycles or scooters, and unsafe pedestrian crossings in multimodal intersections).

Technology Profile

Platforms - NVIDIA Jetson, Xilinx Kria, Google Coral.

Models - TrafficCamNet, YOLO variants + NvDCF tracking.

Optimizations - Quantization, pruning, edge TPU deployment.

Experience

Projects - CONDOR, PORTAERA (real-world validation).