

Korea-EU Horizon Europe Researchers Networking Forum on Energy & Advanced Mobility

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1. Short Introduction of our Organization

Type of Institution:

National government-funded research institute under the Ministry of Science and ICT (MSIT), Republic of Korea.

Infrastructure and Research Capacity:

KRRI is Korea's sole comprehensive research institute dedicated to railway and logistics technologies. It operates multiple testbeds, including full-scale rail vehicle testing facilities, urban transit pilot lines, and logistics robotics laboratories. The institute employs over **300 researchers and engineers** across multidisciplinary fields such as mechatronics, control systems, AI, and smart mobility.

Research Focus Areas:

KRRI conducts R&D on:

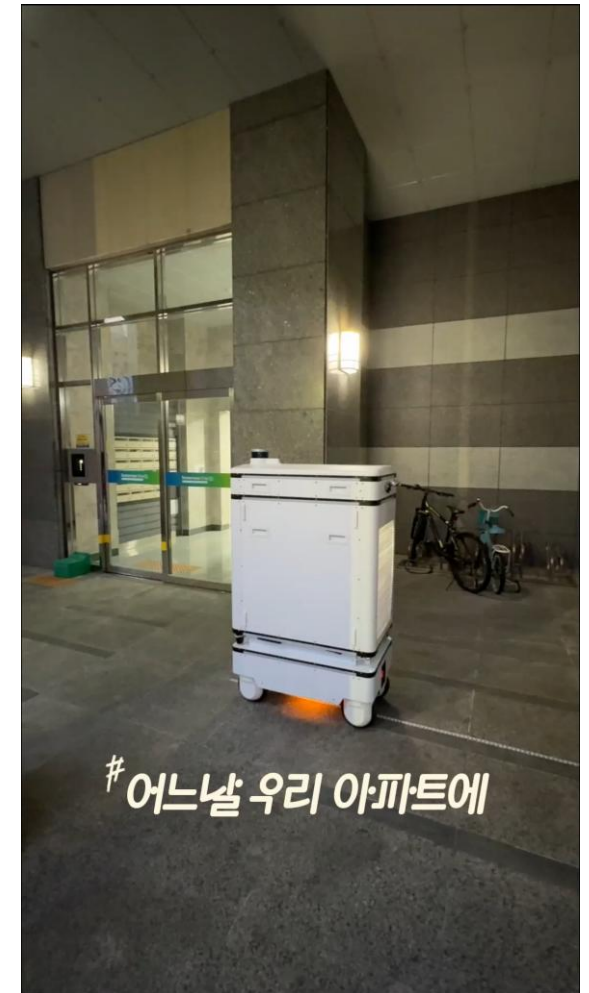
- **Next-generation mobility systems** (autonomous, hydrogen, and maglev trains)
- **Smart logistics and robotics** (autonomous delivery robots, singulation, and Good2Person systems)
- **Digital twins, simulation, and AI-driven predictive maintenance**
- **Green and sustainable transport infrastructure** aligned with Horizon Europe's *Cluster 5 (Climate, Energy, and Mobility)* priorities.

Relevance to Horizon Europe:

KRRI is actively seeking EU partners for collaborative research on **intelligent logistics, robotics, and digital transport innovation**, and has established **numerous MoUs and collaborative partnerships with European research institutions**.



2. Expertise





3. Project Idea

Targeted Calls

HORIZON-CL5-2026-01-D6-08: *Accelerating freight transport and logistics digital innovation*

HORIZON-CL5-2026-10-D6-01: *Flagship-pilot: large-scale demonstrations of CCAM (Connected, Cooperative and Automated Mobility)*

HORIZON-CL5-2026-10-D6-06: *Increasing competitiveness and resilience of multimodal freight transport and logistics*

HORIZON-CL5-2027-06-D6-08: *Enhancing Mobility for All – affordable, reliable, and accessible multimodal transport for inclusive connectivity*

Main Objectives

To achieve **precise and reliable freight transport through rail-based logistics.**

To **increase rail freight availability during off-peak and nighttime hours**, enhancing logistics efficiency.

To enable **AI-driven synchronization between rail and other transport modes** for seamless multimodal operations.

To promote **decarbonization by utilizing metro and urban rail networks** for sustainable last-mile logistics.

Idea Briefly Explained

KRRI aims to collaborate with European partners on **digital and automated logistics systems integrated with railway operations.**

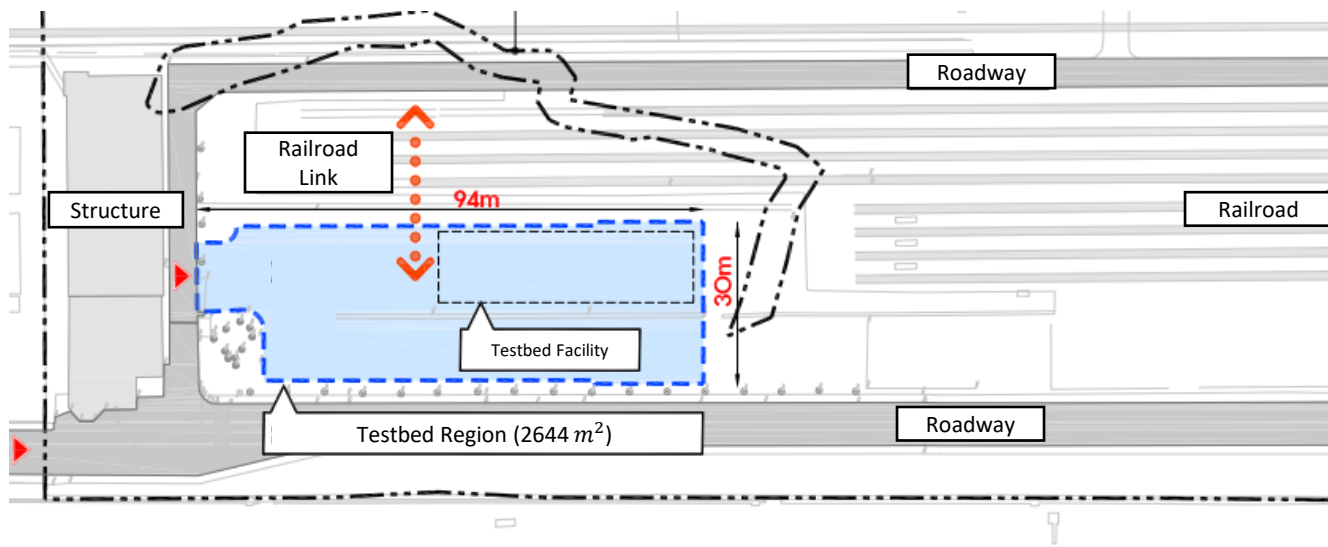
The idea is to leverage KRRI's **existing logistics and railway testbeds** — including autonomous delivery robot platforms, smart warehouse systems, and digital twin environments — to demonstrate and validate **AI- and data-driven logistics innovation** connected to rail transport.

4. Profile We are Seeking and Why

What partners with what profiles are you looking for?

KRRI is looking for European partners who:

- Wish to **test and validate their logistics or mobility systems** using KRRI's **railway testbeds and pilot infrastructures**;
- Aim to **modernize railway operations** to achieve innovation in freight and logistics systems;
- Seek to **develop new mobility solutions integrated with rail transport** for efficient multimodal connectivity;
- Plan to **establish AI-driven logistics hubs** that combine digital twins, data analytics, and automated control technologies.





5. Contact Details



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