

Framing the issue

Europe has one of the largest transport infrastructure networks in the world:

- **136,700 km of roads**
- **234,000 km of railways**

On average, each year to maintain the European TI network are used:

- **600 million tonnes of aggregates**
- **44 million tonnes of cement**
- **200 million tonnes of asphalt**
- **6 million tonnes of bitumen**

The transport sector is responsible of **1/3 of the final energy consumed and the CO₂ generated** in the EU.

Stay updated

 liaison-transport.eu

 [/liaison_eu](https://twitter.com/liaison_eu)  [liaison-eu-project](https://www.linkedin.com/company/liaison-eu-project)

The LIAISON consortium



ICONS



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.



LIAISON

Making transport infrastructure
climate-neutral, sustainable and circular



The project

The LIAISON project addresses emissions across the **entire life cycle of transport infrastructure (TI)**, including construction, maintenance, operation, and decommissioning.









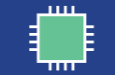

Developing innovative technical solutions, LIAISON includes a governance framework to promote the adoption of **sustainable and circular TI lifespan**.



The solutions

Dynamic Multi-Infrastructure Governance Framework (DMIGF) and digital toolbox

Developing automatic data entering and integration with existing tools

	<p>Innovative bioasphalt Exploring the use of bio-binder in different type of asphalt mixures Demo site: Spain</p>		<p>Adaptive control system for tunnels ventilation Optimizing energy consumption Demo site: Spain</p>
	<p>Sustainable smart beams Proposing an optimized reinforced cement beam that saves up to 40% of cement Demo site: Poland</p>		<p>Photovoltaic Guardrails Combining independent and existing technical solutions Demo site: Italy</p>
	<p>Smart geopolymer for rigid road pavements Developing an improved formulation of geopolymer Demo site: Poland</p>		<p>Intelligent Tunnel Lighting System Allowing luminance levels to be dimmed in real time Demo site: Spain</p>
	<p>Weight-in-motion system based on optical fibre sensors Monitoring traffic to reduce the number of overload vehicles Demo site: Poland</p>		<p>Innovative railway track ballast Mixing reused material with rubber chips to improve stress distribution Demo site: Slovenia</p>
	<p>Automated damage detection for pavement Using low-cost and high data collection speed systems Demo site: Spain</p>		<p>Thermoelectric concrete Adding fillers with better thermoelectric materials, such as recovered graphite Demo site: Slovenia</p>