

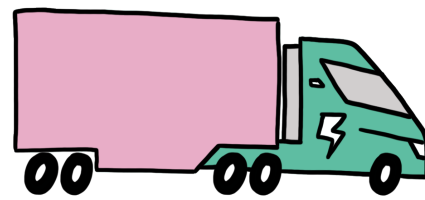
# THE EPIC CHALLENGE

Let your **multimodal transport** challenge spark its own solution



**Get digitisation on board to boost the resilience and efficiency of your multimodal transport systems, by making your real-world challenge the focal point that unites the unique mix of digital innovators and stakeholders required to solve it.**

**Creating the robust data solutions to enable the game-changing decision making that will revolutionise the design, delivery and integration of multimodal transport at scale, requires unprecedented orchestration of diverse stakeholders and the hottest tech thinkers and creators. So why not let your Firebox Challenge ignite the co-ordination and collaboration necessary to accelerate your journey to the most efficient, sustainable, and resilient multimodal transport systems possible?**



## Which area will inspire your Firebox Challenge?

1

### Demonstrating the Importance of Multimodal Transport

- Multimodal transport systems combine different transportation modes to optimise the movement of goods and people. This approach can reduce congestion, lower emissions, and improve overall efficiency. However, the complexity of coordinating various transport modes presents significant challenges that must be addressed to build resilient systems.

2

### Building a Business Case for Further Investment in the Sector

- Developing resilient multimodal transport systems requires substantial investment in infrastructure, technology, and maintenance.
- Financial challenges include securing funding for large-scale projects and ensuring a return on investment for transport bodies across different mode
- Public-private partnerships can play a crucial role in mobilizing the necessary resources. Governments can provide some incentives and subsidies, but further investment in innovative technologies and infrastructure is required.

3

### Federation of Systems and Technical Integration

- Technological innovations are critical for the efficiency and resilience of multimodal transport systems. Innovations such as real-time tracking, automated vehicles, and smart logistics platforms can enhance coordination between different transport modes.
- Integrating technologies requires significant investment and collaboration among key sector stakeholders with different priorities and timescales.
- More efforts are needed to create or curate data infrastructure, to standardise data formats and enable communication protocols for seamless interoperability of information.

4

### Sustainable and Environmentally Friendly Transport

- Sustainable multimodal transport systems must minimise environmental impacts. This involves reducing greenhouse gas emissions, managing waste, and protecting ecosystems. Implementing cleaner technologies, such as electric and hydrogen-powered vehicles, can significantly reduce the carbon footprint of transport systems. Additionally, optimising routes and improving load management can enhance fuel efficiency and reduce emissions.



5

### Resilience to Disruptions

- Building resilience into multimodal transport systems involves preparing for and mitigating the impacts of disruptions, such as natural disasters, pandemics, and geopolitical conflicts. This requires robust risk management strategies, including diversification of transport routes, redundancy in critical infrastructure, and real-time monitoring systems. Enhancing the flexibility and adaptability of transport networks can help maintain continuity during disruptions.

6

### Collaborating and Connecting Solutions Across the Transport Ecosystem

- Addressing the challenges of resilient multimodal transport requires a collaborative approach. Stakeholders, including governments, private sector companies, financial institutions, and civil society, must work together to develop innovative solutions. Public-private partnerships can leverage the strengths of different sectors, while multi-stakeholder dialogues can facilitate knowledge sharing and consensus building. Engaging local communities and considering their needs and perspectives is also essential for the successful implementation of transport projects.

**Be part of Gemini Firebox**

To discuss taking part in the Gemini Firebox programme, email [Ryan.Goodman@cp.catapult.org.uk](mailto:Ryan.Goodman@cp.catapult.org.uk)

