All-Party Parliamentary Group for Project Delivery

CILT response to APPG inquiry on Improving National Infrastructure Project Delivery

The Chartered Institute of Logistics and Transport UK (CILT) is a professional institution embracing all transport modes whose members are engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. Our principal concern is that transport policies and procedures should be effective and efficient, based on objective analysis of the issues and practical experience, and that good practice should be widely disseminated and adopted. The Institute has several specialist forums and policy groups, a nationwide structure of locally based groups and a Public Policies Committee which considers the broad canvass of transport and logistics policy. This submission draws on contributions principally by the Construction Logistics Forum with input from the Freight and Logistics Policy Group.

Construction logistics

Logistics plays a critical yet often underestimated role in ensuring major projects are delivered on time and within budget. Despite its significance, the wider construction industry has yet to fully acknowledge the positive impacts logistics has on project success.

To address this gap, the CILT Construction Forum is actively championing logistics as a fundamental pillar of infrastructure project delivery. Professional construction logistics incorporates strategic planning and organisation, the management of services, and the movement of resources, equipment, and personnel to and from the construction site, efficiently and safely.

Construction logistics can play an essential role in the successful delivery of major infrastructure projects on time and on budget, by driving site efficiency, reducing risks, costs and materials wastage, and optimising operational performance.

1. **What are the major challenges facing major infrastructure project delivery in the UK? How can these barriers be rectified?**

Key challenges to address include:

a) **Early market engagement:** A significant challenge in delivering major infrastructure projects is limited market and supply chain engagement, particularly during the Development Consent Order (DCO) and Hybrid Bill development stages. This restricts exposure to both new and innovative practices.

Solution: Major projects should engage with potential suppliers earlier to assess and incorporate developing innovations while ensuring the design and constructability align with current practices. Additionally, measures should be implemented to manage any fear of skewing fair tendering and procurement rules, to ensure long-term improvements.

b) **Logistics Strategy**: With no formal requirement for a Logistics Strategy to support DCO/Hybrid Bill scale schemes, many major projects lack a comprehensive approach to construction logistics, despite its critical role in supporting large-scale schemes. While Construction Logistics Plans (CLPs) are often developed across many of the UKs major projects, they tend to be introduced too late in the process and focus primarily on tactical logistics operations rather than strategic planning. *(It is important to note that CLPs differ from* Traffic Management Plans*, which address local or client-specific objectives.)*

Solution: Minimum requirements for the creation of a logistics strategy should be embedded into early planning of projects that specify anticipated resource flows, information flows and visibility solutions, as well as demand planning signals and information. This should go beyond the current TfL/CLOCS Construction Logistics Plan templates to ensure logistics is fully embedded in project delivery.

c) **Stakeholder Engagement and Betterment for Society:** The objectives of Development Consent Order (DCO) and Hybrid Bill schemes are often narrowly focused on delivering the immediate requirements of the project. While this approach ensures compliance and efficiency in execution, it frequently overlooks opportunities for community betterment – a gap that has historically led to petitioning and opposition, increasing costs and complexity across the planning, consultation, and delivery phases.

Solution: Enhanced legislation and guidance are needed to empower scheme promoters to proactively identify these betterment opportunities. By assessing the financial and scheduling implications of contesting versus integrating such considerations, promoters can determine how best to accommodate affected stakeholders through appropriate legal and financial contributions. This would strengthen stakeholder support and minimise disruptions to communities that may not directly benefit from the scheme, fostering a more sustainable and inclusive approach to infrastructure development.

d) **Technology and innovation:** The limited adoption of technology and innovation in logistics for major project delivery continues to result in inefficiencies, delays, and increased costs. Overcoming these barriers demands both a holistic and strategic approach that goes beyond isolated product solutions and instead integrates digital transformation, industry collaboration, and policy support.

Solution: To drive progress, efforts should focus on:

- promoting digital transformation,
- increasing investment and incentives
- improving data collection and integration solutions
- upskilling the workforce with digital expertise
- encouraging cross sector collaborations

Addressing these challenges through improved planning, comprehensive logistics strategies, and inclusive stakeholder engagement, will significantly enhance the delivery of major infrastructure projects in the UK.

2. **What lessons can the UK learn from international approaches?**

Improved agility, transparency and coordination of logistics operations require:

- **Real-Time Data and Analytics** The retail and manufacturing sectors have successfully leveraged real-time data and analytics to optimise their supply chains. By adopting similar technologies, the UK infrastructure sector can enhance visibility, predict potential disruptions, and make informed decisions. Real-time tracking systems, predictive analytics, and IoT devices can provide valuable insights into the movement of materials and equipment, ensuring projects stay on schedule and within budget.

- **Automation and Robotics** Automation has revolutionised logistics in the automotive and electronics sectors and driving change in other sectors by implementing automated systems for material handling, warehousing, and transportation. Infrastructure delivery mustn't be left behind. Robotics can streamline repetitive tasks, reduce human error, and increase efficiency. This can lead to significant cost savings and improved project timelines.

- **Integrated Supply Chain Management** UK infrastructure operates fragmented supply chains and logistics approaches across projects, pushing the coordination and perceived risk through from client to tier 1,2, 3 or 4 subcontractors. The healthcare sector has demonstrated the importance of integrated supply chain management. By taking control of logistics at the project level and coordinating elements of the supply chain, healthcare providers ensure timely delivery of critical supplies. Infrastructure projects should adopt this approach by integrating logistics planning early in the project lifecycle, creating a single logistics approach across the project. This includes coordinating suppliers, logistics providers, and construction teams to defined process, technologies and reporting to ensure seamless operations.

- **Collaboration with Third-Party Logistics Providers** UK retail and manufacturing sectors collaborate with third-party logistics providers to enhance efficiency and expertise, and precisely manage costs. Infrastructure projects would benefit from similar partnerships, gaining access to advanced technologies and specialised knowledge. Outsourcing logistics operations directly could also ensure timely deliveries, improve coordination, and reduce costs.

- **Lean Logistics** The automotive sector has successfully implemented lean logistics principles to minimise waste and maximise efficiency The UK infrastructure sector should adopt lean practices to reduce material waste, optimise delivery routes, fill vehicles effectively and improve overall efficiency. This approach can lead to cost savings and more sustainable project delivery.

- **Just-In-Time Delivery** Just-in-time delivery is a common practice in sectors like retail and manufacturing. By focussing on robust forecasting and demand planning of project

resources, combined with coordinating site arrival of materials and equipment to match project timelines, infrastructure projects can reduce storage costs, minimise waste, and ensure resources are available when needed. This will enhance efficiency and reduce project delays.

- **Sustainable Practices** The retail and manufacturing sectors have increasingly focused on sustainability. Infrastructure projects can learn from these practices by incorporating sustainability criteria into planning and execution. This includes reviews of logistics modes of delivery for key materials and service (rail & water preferable to road), optimising transportation routes to reduce emissions, and promoting circular economy principles.

Learning from the logistics approaches of other sectors, UK infrastructure can improve efficiency, reduce costs, enhance stakeholder engagement, and promote sustainability. Adopting these lessons will lead to more successful project delivery and better outcomes for all involved.

3. **What lessons can the UK learn internally, from best practices in individual Government departments and arms-length bodies? What lessons can infrastructure projects learn from project management in other sectors?**

The CILT is dedicated to advancing the logistics, transport, and supply chain professions. As such we advocate for the incorporation of Construction Logistics in major projects and actively seek recognition of the value professional logistics will bring to our infrastructure projects. Logistics within construction is too often underutilised, yet it can provide exponential benefits. Incorporation of construction logistics will drive:

- **Professionalisation of the construction sector**: CILT emphasises structured professional development, ensuring that logistics and transport professionals are equipped with the latest skills and knowledge. We seek to develop and support a base standard, create training specific to specific roles, and develop clear career paths, to increase the visibility and skill sets of logisticians working in construction
- **Sharing and reducing risk:** The institutionalised management and placement of risk must change. Risk will always remain with the project, but 'contractor's risk' does not manage the risk, it merely increases risk as it gets pushed through the contracting tiers. TfL has demonstrated that a collaborative approach will reduce risks to project delivery. An integrated master schedule, ensured seamless coordination between engineering, tunnelling, and railway systems activities for the under-budget Northern Line extension, and CLOCS – a project initiated by TfL to address road safety – has demonstrated that clients, contractors, and fleet operators working together can reduce work-related road risk.
- **Collaboration & Knowledge Sharing**: We foster strong relationships across industries, encouraging cross-sector learning across industries and innovation in the logistics space.
- **Early Project Design & Client Requirements**: The Royal Institution of Chartered Surveyors (RICS) stresses the need for clear client requirements and early-stage planning to prevent delays and cost overruns. In parallel the CILT promotes forward-thinking strategies to enhance supply chain resilience and adaptability.
- **Transparency**: We advocate for transparency and visibility of logistics throughout the development process, from initial concept design to project completion.
- **Research**: There is an imbalance between the amount of academic research undertaken into construction logistics compared to other sectors e.g. manufacturing[1]. On an international level, there is significantly less research conducted into construction logistics in the UK, than in other major economies, particularly those in mainland Europe and Asia.

[1] https://www.ebsco.com/ 01/05/2025 search on EBSCOhost shows 1,000 academic papers were published on construction logistics in the last 5 years, compared to 275,000 into manufacturing

- The development of logistics strategies, processes and standards, will reduce cost, improve efficiency and safety on site, and minimise the impact of the construction process on surrounding communities and other road users.

4. **How effective do you feel the Government's current plans are for improving major infrastructure project delivery? Do you have any comments or suggestions for the new National Infrastructure and Service Transformation Authority (NISTA)?**

Despite numerous plans being proposed to enhance major infrastructure project delivery, logistics remains noticeably absent from discussions – despite its critical role in ensuring efficiency, cost-effectiveness, and seamless execution. The new National Infrastructure and Service Transformation Authority must:

- Require logistics thinking to be incorporated early into the project planning lifecycle.
- Work closely with logistics experts to ensure efficient material sourcing, transport, and distribution for infrastructure projects is incorporated into project methodologies and plans to enable integrated Supply Chain Planning.
- Include assessment and challenge of the scheme's logistics strategy in project planning and gate reviews. To note, the current Infrastructure and Projects Authority Gate 2 Review: Delivery Strategy doesn't include the word logistics.
- Develop and share information on technology solutions that promote data sharing, enabling data-driven decisions through leveraging real-time logistics data.
- Learn and share best practices in logistics and transport from other sectors to enhance project efficiency.
- Recommend the embedding of contingency planning for supply chain disruptions to ensure smoother project execution and increased resilience.
- Understand and recommend successful logistics strategies developed and implemented in other sectors, to minimise environmental impact and increase resilience against supply chain disruptions.
- Prioritise an increase in research to improve industry understanding of construction logistics benefits and close the productivity gap to manufacturing.

CILT are keen to support the new National Infrastructure and Service Transformation Authority and facilitate open conversations with construction logistics professionals.

5. How can the Government work more effectively with the private sector to improve project outcomes?

Simply by embedding construction logistics into National Infrastructure Project Delivery.

As outlined in our other responses, best practice from retailing and manufacturing in the UK demonstrate the benefits from embracing logistics planning and working collaboratively. Greater control of timelines and costs, better utilisation of staff, less wastage of materials, and lower impacts on local communities. Additional areas of consideration include:

1. Strategic Partnerships: Establishing long-term partnerships with private companies to drive innovation and efficiency. For example, the UK government has been working with tech companies to integrate AI into public services, which has improved efficiency and citizen engagement.
2. Shared Goals and Metrics: Aligning objectives and performance metrics between public and private entities to ensure all parties are working towards common goals. This can be seen in initiatives like the AI Opportunities Action Plan, which outlines clear targets for AI integration in public services.
3. Flexible Contracting Models: Adopting more flexible contracting models, such as outcome-based contracts, to allow for greater innovation and responsiveness. This approach has been successful in various public-private collaborations, enabling quicker adaptation to changing needs.
4. Strategic risk sharing: Move away from a transactional, procurement-led contracts, where risk is passed down the contracting chain – thus greatly increasing costs, as each level adds margin to cover its risk – to one where Government bears strategic risk and engages early with the supply chain on optimising physical delivery.
5. Data Sharing and Transparency: Enhancing data sharing between the public and private sectors to provide better decision-making and more effective project management. The use of cloud technology and data-driven insights has been pivotal in transforming public services.
6. Capacity Building: Investing in training and upskilling public sector employees to work effectively with new technologies and private sector practices to bridge knowledge gaps. Private sector-led training programs can equip government employees with the necessary skills to leverage AI and other advanced technologies.
7. Policy and Regulatory Support: Creating a supportive policy and regulatory environment that encourages innovation and collaboration. The UK government's policies on promoting responsible business practices and social impact investment are examples of how regulation can foster collaboration.
8. Funding of additional research: To develop a better evidence base for different construction logistics approaches and understanding of their effectiveness.

6. How can the Government work more effectively with the project profession to improve project outcomes? What impact will technological advancements have on infrastructure delivery, and how can the Government better harness innovation?

The UK government can enhance collaboration with the logistics project profession and leverage technological advancements to improve infrastructure delivery through several different measures:

Strengthening Government Collaboration with Logistics

- Integrated Planning: Foster close alignment between government agencies and logistics professionals to ensure supply chain efficiency is embedded in major projects early in the planning process, reducing delays and cost overruns.
- Public-Private Partnerships: Encouraging joint initiatives between government and logistics firms to drive innovation and improve project execution.
- Skills Development: Investing in training programs for logistics professionals that can enhance expertise in infrastructure project management & logistics, providing a skilled workforce and develop project legacy.
- Data-Driven Decision Making: Use real-time logistics systems and data to optimise transport routes, material sourcing, and workforce allocation.

Impact of Technological Advancements on Infrastructure Delivery

- Digitalisation & AI: Introduce AI-driven analytics and automation tools to transform infrastructure planning, improving efficiency and resilience, and reducing risks.
- Smart Infrastructure: Implement technologies like IoT sensors and predictive maintenance enhance asset management and reduce downtime.
- Sustainable Solutions: Genuinely invest in innovations in green logistics and energy-efficient transport systems, and support environmentally friendly infrastructure.

Harnessing Innovation for Better Infrastructure Delivery

- Improved stakeholder engagement: increased government understanding of construction logistics, coupled with early market and supply chain engagement, will increase the opportunity for harnessing innovation across the supply chain.
- Government-Led Innovation Hub: Establish a research centre focused on logistics in large infrastructure projects and infrastructure technology to engage across the construction industry, demonstrate capabilities, and accelerate adoption.
- Regulatory Support: Streamline the approval processes for emerging technologies to ensure faster implementation.
- Cross-Sector Collaboration: Learn from best practices in logistics, transport, and digital infrastructure from other sectors and countries to enhance project outcomes.

7. Are there any other comments or recommendations the APPG should be considering?

For more details on the points outlined above, please contact the CILT Construction Forum (contact details provided below). We would be delighted to explore our comments and recommendations further with the APPG and engage in a deeper discussion on how logistics can enhance major project delivery.

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