Submission No 9

INQUIRY INTO STRUCTURE AND FUNDING OF THE ARTS, MUSIC, NIGHT-TIME ECONOMY, AND TRANSPORT PORTFOLIOS

Name: Name suppressed

Date Received: 6 November 2025

Partially Confidential

Sustaining Engineering and Technical Capability in Public Infrastructure Delivery - Submission Report

Executive Summary

This submission outlines critical risks undermining the sustainability and effectiveness of public infrastructure delivery, driven by the erosion of in-house engineering and technical capability. It highlights the consequences of prolonged reliance on contractors, including impacts on safety, project delivery, value for money, and workforce morale. Strategic reforms are urgently needed to restore internal capacity and ensure long-term resilience.

Key Issues

🔧 Loss of Engineering and Technical Capability

- Heavy reliance on outsourcing and international technology providers has led to diminished control and vulnerability to external demands, often resulting in excessive service charges.
- Contractors are currently paid three to four times more than Engineers of Transport.
- The reduction in permanent engineering staff is eroding institutional knowledge and long-term technical leadership.
- Mentoring and training of new graduates is increasingly difficult due to limited in-house learning opportunities.
- This trend weakens innovation, oversight, and strategic planning.

🤖 Specialised Project Demands

- Projects such as ATP and ETCS Level 2 require sustained in-house training, long-term mentoring, and dedicated research.
- Sole reliance on external providers for such complex systems will result in significant financial burden and reduced technical sovereignty.
- A strategically structured internal capability program is essential to meet these demands effectively.

⚠️ Risks of Contractor Dependency

- Safety is compromised due to fragmented responsibility and reduced internal oversight.
- Project delays and budget overruns are increasingly linked to inconsistent contractor performance.
- Value for money is undermined by the absence of competitive tension and internal benchmarking.

- While short-term contractor use may be appropriate for specialist needs, the practice has continued for years without meaningful knowledge transfer.
- Contractors retaining key roles indefinitely limits internal development and accountability.
- In contrast, permanent in-house employees are more likely to take ownership, make informed decisions, and uphold long-term responsibility.

Conclusion and Recommendations

Restoring engineering and technical capability within the public sector is vital to safeguard infrastructure outcomes, ensure public safety, and deliver long-term value. It is recommended that government agencies:

1. **Reinvest in permanent engineering roles** to rebuild institutional knowledge and leadership.
2. **Establish structured mentoring and training programs** for graduates and junior staff.
3. **Limit contractor uses to short-term or specialist roles**, with mandatory knowledge transfer protocols.
4. **Develop a strategic capability framework** tailored to complex infrastructure projects like ATP and ETCS Level 2.

****