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Our ref: RTIG-c051-mc  
Date: 13 December 2010

Dear Mr Brennan

**"Shaping the 30-year Rail Technical Strategy" – consultation response**

Thank you for the opportunity to comment on the Consultation Paper at reference.

RTIG is, as you may be aware, a national stakeholder group established to devise and promulgate standards and good practice guidance for the use of information and communications technology (ICT) in public transport. Our members are drawn from local authorities and PTEs, from transport operators, and from the systems industry; we enjoy very good links with a number of DfT branches.

Historically RTIG's work has been focussed heavily on buses, but in the past two years or so this has changed. We have established a Bus-Rail Technology Alignment Group (BRTAG), jointly with RSSB; ATOC are now RTIG members (as are several of the major diversified transport operators); and we are working closely with organisations such as Transport Direct who have multimodal interests.

We cannot comment knowledgeably on the rail-specific aspects of the Strategy (such as signalling systems), or on non-ICT aspects (such as energy efficiency). However this leaves many areas where we can legitimately express a view:

- **Enabling innovation.** Innovation is notoriously hard to define, let alone facilitate. In the ICT sphere in particular, it is difficult to create a credible vision more than a few years in the future. This commitment must therefore be about creating *and sustaining* an environment which is conducive to innovations being conceived, developed, invested in, and operated. It must begin with a dynamic business leadership; it must include good communication channels; and it must not be stifled by unnecessary restraints (see various places below).
- **Next generation traffic management.** Effective traffic management requires holistic information about, and clearly apportioned authority over, both vehicles and infrastructure. The road transport sector has evolved some good mechanisms, both technical and institutional, to do this. Rail benefits from a simpler network and more restricted vehicles than road, but has more stringent operational requirements (the idea that safe driving is ultimately a matter for the driver will clearly not work).

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- **Energy.** This is a common concern and the road transport sector is also interested in minimising emissions, partly through good management of flows (see previous), and partly through improving load factors. However much energy efficiency will depend (in road as in rail) on efficient engines/power systems, low-loss motive parts, and lightweight vehicles, about which we are not qualified to comment.
- **Whole system reliability.** This is an area where the different focus of road and rail transport systems shows itself. For rail, the focus has been on the reliability of the systems and the service operations, through high-specification design. For road, while minimising breakdowns is important, a much greater focus has been on ensuring reliable service information, ensuring passengers know how their service is running (particularly when disrupted). There is a cost to this approach too, of course, especially in a multi-operator environment, but the recent inclement weather has highlighted this as an area where rail needs to do better.
- **Data and communications.** This is, as would be expected, the area of the Strategy that RTIG has most to contribute to, and to benefit from. We have needed to develop some fairly complex concepts of enterprise, functional and system architecture to help understand what data needs to be communicated. This has helped to focus on what the blockers to common working are, and what we can do to overcome them (by standards, advice and guidance, framework procurements, etc).

In summary, therefore, we agree with the scope and approach of the Strategy. In each of these areas, we believe that the Strategy provides a credible analysis of the challenges to be addressed. The sixteen route maps look like a practical approach to their implementation, and it is good in particular to see a clear focus on the “industry delivery” activities.

Nevertheless, we would highlight some significant issues of “joined-up thinking” that will arise during strategy delivery, arising from aspects of national and local policy, the nature and structure of the marketplace, the needs of passengers and the evolution of underpinning technologies and technology services.

For instance, the interim report of the McNulty Review makes much of the “whole system” approach to GB rail; local transport policy widely seeks to ensure integrated intermodal transport; the passenger goal is for simple, reliable, cost-effective *end-to-end* journeys; and there is (not least following recent weather episodes) a strong impetus passengers getting to coherent, consistent, accurate and timely information about service status and disruptions.

One of the key issues to emerge from the work of BRTAG is that standards in the bus and rail industries have historically concentrated on very different areas. The rail industry focuses closely on reliability, standardising aspects such as physical couplings, vibration tolerance, electrical noise, etc; this is almost absent in bus. By contrast, the bus industry focuses on the architecture of information, standardising ways of describing (and communicating) networks, timetables, passenger facilities, real time service information, etc: in rail, much more of this is left to individual operators.

In looking forward, therefore, we welcome the opportunity to build closer links across the bus-rail divide (and indeed with other transport sectors, such as roads network management). We are confident that there are valuable mutual lessons that can help achieve the step change in cost-effectiveness that will be required for long-term viability of UK public transport – recognising that there are also legitimate local issues that will also need to drive developments.

We believe that this implies the need for a strong and continual focus on harmonisation, common standards, and shared practices across the passenger transport industry – and indeed with connected industry sectors, such as road transport. This will certainly require the active

involvement and “buy in” of ATOC, but there will be an ongoing need to ensure that other links are made and maintained.

RTIG is already involved with the Operational Communications routemap, through RSSB, to ensure that relevant lessons from outside rail can be learned. Although this is at an early stage, it has already yielded some very useful insights and benefits. We believe that there are many other parts of the Strategy where similar cross-fertilisation of understanding and experience will be equally valuable, and we are happy to offer support to GB rail as the Technical Strategy moves through both research and deployment phases.

I trust this is useful, and will be happy to discuss any of the above with you or your colleagues.

Yours

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