

Consultation Document from the Office of Rail Regulation – Periodic Review 2013; Consultation on Incentives, December 2011; Response by the Railway Industry Association, February 2012



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Introduction

1. The Railway Industry Association (RIA) is the representative body for the railway supply industry in the UK. It has in excess of 160 member companies, ranging from the major Tier 1 suppliers through to SME's and specialist niche suppliers. The membership covers virtually all aspects of infrastructure and rolling stock supply.
2. This note constitutes RIA's formal response to the above ORR consultation. We are content for you to publish all or any of it on the ORR website.

Substantive Response

3. Our substantive response concentrates on Chapters 3, 5 and 10 which covers those areas most directly relevant to RIA and is as follows:-

Chapter 3 – The PR13 Objective

Q3.5: What do you see as the key enablers for Network Rail's successful delivery of outcomes in CP5?

As we mentioned in our October 2011 joint response to your May and July consultations, the two key ingredients from the supplier perspective for successful delivery (ie the efficient delivery of services with steadily improving efficiency) are stability of workload and a smooth, hiatus-free transition from CP 4 to CP5. We make no apology for repeating here some of what was said in that earlier submission:-

“What the supply chain really needs is continuity of procurement planning leading to continuity of workload. Effectively we need to move to a situation where the issue of Control Periods is virtually irrelevant and we have a continuing, living plan driving the effective and efficient delivery of Network Rail's enhancements and renewals programmes. Achieving that outcome will require extensive changes, but three are in our view particularly important:

- (a) ORR and NR should make much greater use of the Early Starts facility to allow preparatory work to begin well before the end of CP4 on projects that will take place in CP5 or beyond. In this industry the needs for renewal work are understood or capable of being understood many years in advance, so it should not be difficult to identify substantial programmes capable of becoming Early Starts without significant risk of spend being incurred unnecessarily;
- (b) We look to ORR and NR to undertake the negotiation of the efficiency improvements to be required in CP5 in a more collaborative manner than has perhaps been evident in the past, so as to allow NR confidence that in undertaking preparatory work it understands the unit cost savings likely to be required. The advance notice of the likely efficiency requirement in CP5 given at the time of the CP4 determination was a helpful step in this direction; but one whose value would be much undermined if either party now aimed for a radically different settlement;
- (c) The early development for PRO13 of the Initial Industry Plan, and the Association's role in it and subsequent workstreams, is already providing helpful planning guidance. However, the PRO13 timeline still leaves the completion of the NR Delivery Plan for CP5 until only a matter of weeks before the Control Period begins, much inhibiting the ability of suppliers effectively to plan their businesses for CP5 until well after it has begun. This is wasteful of scarce resources. It will be offset to the extent that Early Starts are able to drive the main programmes of work. In addition, however, it appears to us that the timetable should be capable of being brought forward if, as the IIP suggests, the HLOS investment requirements on NR are expressed as a series of funds to achieve agreed overall outputs rather than at individual project level. Any significant bringing forward of the timetable would be valuable for the reasons given above."

Chapter 5 – Possessions and Performance Regimes

Schedules 4 & 8

We broadly agree with the issues you plan to examine further as outlined in tables 5.5 (in respect of Schedule 8) and table 5.6 (in respect of Schedule 4).

The key to injecting greater flexibility into this process is through open and early engagement between Network Rail, TOCs and suppliers. There are examples where such dialogue has already led to a more efficient industry outcome and the recently announced NR/TOC alliancing plans should continue to underpin and sustain this work.

Q5.1: Do you think that the current possessions and performance regime broadly help to align incentives between operators and Network Rail in the best interest of customers, funders and society? If not, why not?

Of particular interest to suppliers is the effectiveness of the possessions regime.

The point was raised at the November 2011 Schedule 4 workshop (and noted in paragraph 5.19 of the consultation document) that the current regime encourages too many weekend and/or short overnight possessions. We do not believe this to be the most efficient way of accessing the network – especially for major renewals and enhancements work – since logic would dictate that the fixed costs for implementing such a stop-start regime would be greater than those for longer, more smoothly profiled possession (see earlier comment on stability of workload). We would therefore agree that consideration should be given to longer weekday overnight possessions and to reviewing the current arrangements where, as is recognised in the consultation document, there is anecdotal evidence that Network Rail are encouraged to book possessions sometimes years in advance which can then be cancelled at short notice.

Chapter 10 – Other Incentives - Innovation

Q10.1: Do you agree with our overall proposed approach to incentivising innovation? If not, what do you propose we do instead?

We are responding on behalf of the supply industry to this question in the context of the proposal in the IIP to establish an Innovation Fund (£30M pa throughout CP5), which we strongly support

We appreciate that the implementation of the recommendations of the RVfM study, in particular those involved with ensuring the alignment of incentives across Network Rail and the train operators, will eventually help to deliver more efficient outcomes.

We believe that, in the longer term, reliance on market forces and, in the case of Network Rail the efficiency incentive, to ensure a level of R&D spend which represents the industry-wide optimum may be the best approach. However, implementation of many of the RVfM Study's recommendations will take time and realistically they are not expected to deliver significant efficiency benefits until well into CP5. As long as the objectives of Network Rail are not perfectly aligned with the objectives of the train operators in certain key areas, the assumption made in ORR's assessment of the options for incentivising innovation, namely that Network Rail in acting to meet its objectives on efficiency will take into account the objectives of the train operators, is open to challenge.

Our view is that the creation of an innovation fund for CP5 is essential to enable cross-industry technology demonstrators to be undertaken despite the lack of well-aligned incentives that are likely to persist through much of CP5. By investing in technology demonstrators in CP5, the expectation is that by the start of CP6 we will be in a position where both the necessary development/proving work has been completed and the mechanisms for aligned incentives are in place, thus enabling roll-out of the technologies to take place.

We recognise many of the reasons for ORR's reluctance to agree to setting up such a fund. In particular, we understand ORR's desire to ensure that the target for improved efficiency is delivered effectively and in a manner that does not give incentive to innovative solutions when less costly options might deliver very similar outcomes. We also understand your concern that specific funding could crowd out other R&D spending, resulting in no net additional investment. We consider that the ORR's concerns about an innovation fund would be addressed by the proposal in the IIP and that the benefits of establishing an Innovation Fund for CP5 significantly outweigh these potential disadvantages. We have outlined below our reasons for taking this view.

It is not difficult to think of examples, such as the Livetrain project, reducing transmission losses in traction power supply systems, on-train monitoring of infrastructure, introduction of new cross-industry information systems, using intelligent traffic management systems to minimise traction energy consumption, automatic vehicle identification systems etc, where innovation would be in the industry's joint interest but which fall outside the effective operation of incentives on Network Rail to deliver efficiency improvements. RIA's experience suggests that Network Rail responds to innovations which might reduce Network Rail costs (for example by taking forward the ERTMS Cambrian pilot, since ERTMS effectively transfers part of the costs of train control from the Network Rail owned lineside to the TOC controlled driver's cab) more readily than to initiatives such as energy metering which might increase infrastructure costs despite a larger reduction on TOC costs. We believe that a targeted innovation fund during CP5, as proposed in the IIP, would give the industry a stronger incentive to invest in projects with worthwhile downstream cross-industry benefits than would otherwise be the case. It would also encourage the supply industry to come forward with proposals that require cross industry cooperation to test, refine and demonstrate their use in service.

A further consideration is that of the timing of the returns on innovation. Providing the funding to enable cross-industry demonstrator projects to proceed in CP5 is a key part of the argument for the provision of the Innovation Fund proposed in the IIP. It should be borne in mind that the purpose of technology demonstrator projects is to pilot the innovation on the railway to demonstrate that it meets all of the railway's safety and other operational requirements. Pilots and demonstrator projects take time and inevitably result in modifications before roll-out can commence. It is not usually the intention that demonstrator projects should yield major cost (or other) benefits in their own right. Those benefits arise downstream when the technology is rolled out on the network. Therefore many of the benefits will not occur until towards the end of CP5; others will occur after 2019.

Unlike most private sector companies, which are willing to take longer term risks because the more immediate reward comes through the market's perception of the innovation in the share price, Network Rail has no such market related incentive to take the risk of investing in innovation for potential longer term benefit. The immediate rewards for Network Rail are restricted, at the best, to reputational ones rather than financial ones, which puts Network Rail in a different situation from other regulated industries.

The role played by the Government in funding the rail industry provides another potential source of market failure, again suggesting that the ORR's preferred approach risks under-investment in innovation when compared with the level that might follow from an innovation fund. Unlike other regulated sectors, rail is funded in part by government and this funding is likely to continue, albeit to a much reduced extent, after the end of CP5. With quinquennial periodic reviews and franchises of

limited duration, the incentive on the industry to invest in any innovation that has a relatively long pay back is weakened. Government, not Network Rail or the train operators, is likely to reap much of the reward of increased efficiency and cost savings in future control periods through ORR setting tougher efficiency targets or through better franchise bids. Longer franchises will reduce the extent of this market failure but are yet to be fully established, again suggesting that the case for the innovation fund in CP5 is strong, but that it should not need to continue beyond the end of CP5.

To summarise our position, therefore, we do not agree with the overall approach proposed by the ORR for PR 13 for the reasons set out above. We do however favour targeted funding for innovation projects for the next control period, and support the proposal in the IIP for the establishment of the Innovation Fund.

Q10.2: What merit do you think there would be in an innovation fund? How should such a fund work? How would we guard against ‘crowding out’ and ensure the fund did not displace existing expenditure?

RIA thinks that an innovation fund would, if administered by the industry as proposed in the IIP, raise the levels of innovation in the industry towards the sorts of levels that might be expected of an efficient shareholder-owned entity, for the reasons given in the answer to Q10.1 above. In addition, the approach proposed in the IIP would help to ensure that investment in innovation is not focussed on, or to the sole benefit of, any one party in the industry, instead being focused on industry wide benefits. We believe that the establishment of such a fund with cross industry objectives would encourage suppliers to be more pro-active and increase their role in promoting innovation. The market failures referred to above are not ones that the supply industry, acting on its own, can take steps to remedy.

We also point out that whilst industry cost reduction is rightly a primary objective of innovation, and therefore of the proposed Innovation Fund, it is not solely for this purpose. Cross-industry innovation to improve capacity and to reduce carbon emissions (through, for instance, the development of next generation traffic management systems) is also important. Investment in innovation by individual players in areas such as these is unlikely to happen unless specific provision is made for it.

The risk of crowding out of existing funding might be reduced by imposing a requirement that 50% of the funding for any project be provided by the industry. We also re-emphasise that the intention is to focus on cross-industry pilot and demonstration projects, which are less attractive to any single potential funder of research, whether a train operator, Network Rail or the supply industry. It is therefore in our opinion less likely that the “crowding out” effect would be a risk where funding is provided for these sorts of projects.

Q10.3: What merit do you think there would be in an innovation prize? How should such a prize work? Who should be eligible to enter? What sort of prize would best stimulate genuine innovation?

The industry already has prizes for innovation. Prizes can be a helpful way of acknowledging the efforts of those who innovate, but we believe their effect in stimulating innovation is very limited.

Of greater benefit, we think, are funded competitions such as the Technology Strategy Board's "Accelerating Innovation in Rail", which has attracted applications for innovation funds from a large number of consortia, many of them of a very high quality and with considerable potential to deliver benefits to the industry. We are therefore strong supporters of initiatives such as these. However, the scale of the investment is still very limited (individual consortia are unlikely to receive more than ~£0.5M, for which they provide matched funding) – certainly nowhere near enough to fund major demonstrator projects of the sort envisaged for the IIP Innovation Fund.

Q10.4: In relation to the use of output KPIs, what KPIs do you think we should target and why? Should we monitor them only or should they have some incentive attached to them and if so what?

RIA is not persuaded of the benefits of innovation based output KPIs in general. The link between the investment R&D and the eventual benefit is inevitably open to challenge, particularly given that R&D is frequently concerned with reducing uncertainty and identifying a way forward rather than with the delivery of a project or programme that has fairly well understood objectives. Even a demonstrator project could result in the conclusion that the innovation which is the subject of the project should not be taken forward.

Furthermore, demonstrator projects should certainly not be expected to deliver the same benefits as the eventual roll-out of the technology in subsequent implementation projects. Their purpose is, as the name implies, to demonstrate viability, and the objectives of such projects should be linked to this. The length of time between the initial phases of investment in innovation and its widespread adoption by the industry at a level that delivers significant output (which may span more than one control period) is a further factor that makes the use of output KPIs in the context of innovation inappropriate.

We conclude therefore that use of KPIs as a measure of the effectiveness of early stage innovation and demonstrator projects is of questionable value, and could have the unfortunate side effect of skewing behaviours and activities to focus on the KPIs rather than on the primary focus of the project. There may be an argument for using broad measures of the effectiveness of innovation processes and of the maturity of the industry in respect of innovation, but this is not the same as using output KPIs. Arthur D Little has developed a rail industry innovation maturity model which may be of help here.

Q10.5: Do you think that KPIs should be introduced for companies other than Network Rail to monitor innovation across the wider industry?

RIA does not believe that output based KPIs for innovation should be required of Network Rail or of other companies for the reasons given above. There is a range of markets served by the different train operators and it seems unlikely that a very small number of KPIs would deliver effective outcomes in every case. Using a large number of KPIs would be unmanageable.

We do consider, however, that there may be an argument for considering the use of activity-based KPIs to monitor (and perhaps even encourage) the greater investment in innovation by train operating companies. Our anecdotal experience is that train operators are, with a few exceptions, generally less interested in innovation than

other industry parties, except where it offers the prospect of early returns (generally cost reduction) at low risk.

Chapter 10 – Other Incentives - Environment

Q10.6 Beyond any comments that you may have made to us in response to our May consultation, do you have any comments on our overall approach to environmental incentives? Specifically, do you think we should introduce other environmental incentives beyond those that we are proposing? Do you think we should go further in encouraging the rail industry to improve its environmental performance even if this resulted in a shift to other modes?

We agree with the overall approach taken by the ORR's proposals to incentivise the achievement of good environmental outcomes. We note and welcome the ORR's endorsement of the IIP's Carbon Management Framework. Our further comments below address:

- The importance of the link between innovation and environmental sustainability
- The significance of carbon pricing and the cost of energy as a driver for environmental performance improvement
- The need to ensure that rail is not disadvantaged as a transport mode by environmental performance incentives
- Consideration of environmental issues other than energy and carbon

Taking each of these in turn, firstly we consider that many of the market failures which inhibit innovation apply equally to initiatives which have the potential to make efficient use of energy and optimise the industry's environmental performance across the whole system. Technology development can facilitate the reduction of energy consumption, carbon emissions and thereby industry costs. A prime example, and one which will require cross-industry collaboration, is the development of next generation traffic management systems (specifically the work on the FUTRO project being led by TSLG). Such systems will enable optimal real time scheduling and train running, including the option to optimise fuel consumption and hence carbon emissions. Research into the development and implementation of such systems illustrates the need for a cross-industry programme of innovation supported by funding, as referred to in our response to Q10.1.

Secondly, carbon pricing and the cost of energy as an incentive needs further exploration. The ORR consultation notes that many of the inputs to the provision of rail services are made up of products covered by the EU Emissions Trading Scheme, and hence are subject to a limit consistent with the Government's CO₂ targets. It should also be acknowledged that all electricity used by the railway, whether for traction or other purposes, is subject to the EU ETS and therefore the industry already pays the "efficient price" for carbon. Indeed, the only rail operations not covered by the ETS are the operation of diesel trains and of road vehicles used to support rail operations. So far as energy from electricity is concerned, we are of the view that the industry should continue to improve its environmental performance, up to the level implied by efficient responses to the energy prices it faces.

The ORR's objective should therefore be to ensure that those responsible for consuming energy on the railways are not constrained in terms of the options available to them to make the most efficient use of energy. On train metering of

electric current consumption provides an example of much needed co-operation between Network Rail and the train operators which has the potential to unlock the more efficient use of traction electricity, overcoming one of the market failures identified in RIA's submission on innovation. The gains from metering would be enhanced if train operators and Network Rail train controllers were incentivised both in the planning of timetables and in the operation of the railway to make decisions which take into account the trade-offs between journey times, reliability, operating costs and carbon emissions. This objective applies to electricity used for both traction and non-traction uses, such as at stations.

In making decisions about the use of energy, the industry should take account not only of current prices but of the expected increases in these prices as the cost of emissions rise over time. Investment in enhancement of the network currently takes account of whole life energy costs through the use of DECC price projections and through using the DfT WebTAG appraisal guidance, and this practice should also be the rule in the case of decisions on asset replacement.

Our third point is that a policy of encouraging the rail industry to improve its environmental performance must not of itself lead to an increase in overall costs in the longer term, as that could hinder a shift from other transport modes to rail. There is a risk that complex rail-specific incentives layered on top of existing legislative and pricing incentives that apply across all energy-consuming industry sectors could result in behaviours and outcomes that are not what was intended or expected.

We note the consultation's reference to the potential benefits of mode switch and observe that the benefits in terms of carbon saved tend to be greater for freight than for passengers as the effect of initiatives which result in mode switch tend to generate more additional travel in the case of passenger schemes than in the case of freight. The DfT provides funding for the Mode Shift Revenue Support scheme in order to realise the benefits of switching freight from road to rail. We would encourage ORR to ensure that a lack of suitable paths for freight trains does not stand in the way of worthwhile freight mode shift schemes and that Network Rail faces efficient incentives when making decisions about the benefits of additional paths and the risks they represent in terms of reducing reliability.

Rail's share of non-traded emissions is small and government policy has focused on road transport in formulating policies to meet its carbon targets. However, rail still has a role to play in reducing emissions from non-traded sources of carbon. Train operators and Network Rail should be encouraged to work together so as to identify and prioritise options for emissions reduction according to their marginal abatement costs, and the industry should be incentivised to implement the most efficient (as well as effective) measures to contribute to a reduction in transport's overall carbon emissions, in line with government policy. It would not be efficient for the rail industry to pay a higher price for a unit of carbon abated than would be paid in any other sector of the economy.

Fourthly, and finally, we note that the environmental part of the ORR's consultation is largely focussed on the use of energy and the associated carbon emissions. There are of course other areas of environmental concern where activity and/or outcome objectives could be considered, such as the application of life-cycle analysis techniques to encourage environmental systems thinking through the whole life of the infrastructure. This would lead to more sustainable procurement, greater use of recycling, avoidance of landfill, reduction of embedded carbon, etc. The industry generally has a good record of managing these environmental impacts in response to government policies and incentives which have been implemented through regulations and charges.

Q10. 7 We are keen for the industry to propose methodologies for monitoring emissions and producing improved whole-life, whole-industry business cases. What role do you think the ORR should play in this process?

We have suggested above that all investment decisions, whether for enhancements or for renewals, should be based on the Government's projections of energy prices which include, in the non-traded sector, an allowance for the costs of carbon. The cost is already an integral part of the price projections in the traded sector. We suggest that ORR ensures that the industry has access to the necessary information for making these decisions.

Conclusion

4. We hope this is helpful and we have noted specific areas where we believe further cross industry dialogue would be beneficial. However we do of course stand ready to discuss further with you any aspect of this response.

**Railway Industry Association
February 2012**