A FURTHER DISCUSSION PAPER FOR THE FUTURE OF THE ON TRACK PLANT INDUSTRY WITHIN GREAT BRITAIN

NOVEMBER 2017

Foreword

A year ago we asked Christian Wolmar to independently review the state of the Road Rail Vehicle market. His first White Paper helped raise concerns about the difficulties facing the industry both in the short and long terms, and Network Rail management has responded positively.

However, in the intervening year, uncertainty over the viability of the industry has heightened. The structure of the industry has changed somewhat with the entry of Bank & Private Equity and/or Fund Investment that has resulted in half the available machinery being owned by heavily leveraged companies, and worryingly, much of the debt resides with a single Bank. This suggests that any freeze in future spending could lead to the failure of one or more firms involved in the business. Already heightened competition has meant that one or two principal contractors are looking to chip down prices; so there is now a need for procurement teams to understand the investment and yield cycles. If their supply chains were to go bankrupt or suppliers simply start to refuse to accept the low prices, the whole industry could find itself in a state of crisis.

It is easy to understand the position of Network Rail management. The current cash freeze is, in my opinion, bound to hit the headlines and cause difficulties for ministers once performance on the network is badly affected or, tragically, if a maintenance failure leads to an accident, as happened at Hatfield a decade and a half ago. If the delays that have been announced are

carried through, it will be impossible for the industry to gear up to spend the new bundles of cash that are expected to be available – and have been widely hinted at from April 19, the start of the new Control Period. The machines will simply not be available to manage the upturn in work. As this White Paper shows, there are already signs in the industry that reliability standards are slipping because of cutbacks to vital staff.

The small, privately owned companies are in a better position to see this though. If they can stay with low debt, retrench their machine availability and hold tight on pricing, they will survive. However, pressure from Tier 1 contractors is making life difficult and there may well be casualties - if not a company, then with quantities of machinery or, more importantly, operators (and their training standards). The industry widely expects that in the mid to long term, from 2020 and beyond, the position should be more stable as political pressure for improvements to rail intensifies, and the routes gain more power and control through Network Rail's devolution.

It appears that the future lies increasingly with the routes, the regional MDs and the TOCs. Strong regional management will help local politicians understand the problems and lobby for better funding and spending. Regional projects are the only way better funding can be achieved. As central Network Rail control dissipates, regional management will control spending, and have greater accountability. This White Paper is a contribution to the debate with a warning that things must change or otherwise the industry risks creating a

hiatus from which it will be difficult to recover. The potential risks are severe, as this Paper shows. It is a measured and clear response that is needed – and urgently.

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Postscript

This paper was written in September 17 following a number of interviews during the summer and thus before the SOFA announcement in October. As I state in my introduction, the rush to find money was expected, as the Treasury clearly began to realise that a poorly performing Network Rail would be highly damaging from a political point of view. While the extra money is to be welcome, there are still doubts about how much will be available for the remainder of Control Period 5 and whether any can be brought forward in view of the current shortfall.
With bank pressure already being felt by some major RRV providers, it may well be too much too late, and the issues raised in this White Paper remain as pertinent as before.

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Introduction

Last summer, Quattro Group published a 'White Paper' setting out the challenges facing the road rail vehicle industry. It was prompted by concerns that several areas of uncertainty facing the rail industry would result in a lack of investment in suitable vehicles leading to possible interruptions in the flow of investment in the railways. The paper was well received within the wider rail industry and led to an increased awareness of the problems facing Tier 2 suppliers in the railways, those who, like suppliers of road rail vehicles, are dependent on work from the Network Rail's main framework contractors.

However, while there have been attempts within the industry to address these concerns, several aspects of the situation in the rail industry have deteriorated in the past year, creating a new set of worries for the long term stability of the investment framework. Most notably, the industry is still adjusting to the changed classification of Network Rail which is now a government company no longer with access to what amounted to a virtually unrestricted credit card. Moreover, a combination of overspending on key projects, notably the Great Western Electrification, and other inefficiencies of Network Rail highlighted recently by the Office of Rail and Road means that a substantial proportion of the workload expected under Control Period 5 – which ends in March 2019 – will not be fulfilled.

This leaves the road rail vehicle industry in a state of uncertainty. That is why Quattro has decided to publish a second White Paper, stressing the urgency of addressing the short term problems that could lead to a long term crisis in the rail industry. This should be read in conjunction with the first White Paper.[1]

[1] The first White Paper is at Annex 1

The Road Rail Vehicle Industry

On the face of it, the structure of the road rail supply chain has not changed much in the past year. There are still around 1,000 vehicles and there are two dominant players, Quattro and TXM, followed by a couple of medium sized suppliers and around a dozen small regional companies. The value of the work remains in the order of around £120m-130m annually, though there are concerns, as we will see later, that this may be reduced, at least temporarily, in the 18 months running up to the end of CP5.

However, one important development has been the arrival of private equity into the industry. Two companies, TXM and the medium sized player, Readypower, are now controlled by private equity interests and this places particular pressure on their management to achieve a high rate of return. This expectation may well increase competition and ultimately put added pressure on the other players in the industry, although so far this has not occurred. In addition, it may lead to instability in the industry given that the expectations of the private equity investors may be impossible to meet, leading to sales of the companies concerned.

One other area of change, putting added pressure on the investment plans of the companies, is the fall in the pound following the Brexit vote. Most vehicles and spare parts are sourced in Europe and consequently the depreciation of the pound has only added further doubts when making decisions over whether to acquire new equipment. According to one tier 1 contractor, 'there may well still be the same number of machines in the market, but there are fewer of the nice new shiny ones that we had expected to have by now. This has implications for reliability.' Broadly, costs of equipment and spare parts sourced in Europe have risen by around 15 per cent solely because of the fall in the value of the pound.

The First White Paper

We will not repeat the issues raised in the first White Paper in detail but a couple are worth emphasising at this stage since, by and large, they remain unresolved. Road rail vehicles are bespoke with the adaptations being added to production line models. It is not unknown for a £100,000 machine to require expenditure of twice as much in adaptations. Moreover, there is a time lag in acquiring equipment because of the specialised nature of the work with only a few companies able to carry it out. The longevity of the equipment, the lack of clarity in the regulatory regime and the issue of risk remain the same as mentioned in the previous paper.

Network Rail

However, the key additional – and indeed major - challenge facing the railways since the first White Paper is the situation of Network Rail, both in terms of finances and of its performance.

On the positive side, the first White Paper has prompted a greater understanding of the need for long term stability in the road rail vehicle market in order to guarantee the long term future of the industry. There has been an acceptance that cancelling work at short notice with the road rail vehicle supplier taking all the risk is not a sustainable approach. There have been moves to a partnership-type arrangement to give both sides greater certainty. There still remains, however, much to be done in this respect to create the degree of certainty which, ultimately, would also improve efficiency and reduce costs.

The most profound development in the past year is the way that Network Rail is increasingly being buffeted by external forces which mitigate against the company being able to take a long term view. CP5 which was expected to provide a long

term steady work stream for suppliers has proved to be highly difficult for the infrastructure company. The workload started off slowly, which was not unexpected, but unlike in previous periods, failed to pick up in subsequent years. Partly this is the result of inefficiency. Instead of reducing average costs by 18 per cent over the first three years of CP5, costs went up by 5 per cent. However, the renewals budget has not been overspent, unlike spending on projects and enhancements, which has meant that the volume of work has been greatly reduced. According to the Office of Road and Rail assessment published in July, it is expected that by the end of the Control Period, £3.7bn worth of maintenance and renewals work, a quarter of the overall budget, will not have been carried and will have to be brought forward into CP6. The money, however, will have gone because it will be required to make up for overspending on projects, most notably Great Western Electrification.

Network Rail has therefore largely disguised the immediate impact of the loss of its 'credit card'. The company has avoided specifying precisely what projects and what work will not go ahead because of the tightening of its budget but, rather, it has tended to suggest that while some schemes might be delayed, the work will eventually be carried out. At times, contradictory information has been emerging from Network Rail about the future level of work. This has added to the climate of uncertainty for suppliers, who have been left dependent on information from their own personal unofficial sources or from trying to read between the lines of government announcements and ministerial speeches.

By and large, the Tier 2 and 3 suppliers are kept in the dark. While Tier 1 contractors have regular meetings with Network Rail because they have a dedicated account manager and long term framework agreements, other suppliers do not have that opportunity. While the framework agreements do not have any monetary guarantees attached, they do provide a level of stability not enjoyed by other players.

A former Network Rail manager admitted that while at the company he thought that he engaged well with suppliers by talking to the Tier 1 contractors but rarely engaging with the others: 'Once a year or so, we would get 250 of the smaller guys into a room and give them a broad outline of what was happening. I thought at the time that I was doing a good job in keeping them informed but I realised later that this was not the case. We did nothing to support them or give them any long term perspective.' Network Rail, he said, never really engages with the full supply chain in a way that recognises their difficulties.

A typical example is the email reproduced in the box[2] which relates to a reduction in the use of the high output renewals train. There was no advance notice of this which means that this was the first inkling received by suppliers that there would be a cutback in its use. There was no discussion with suppliers of the implications, nor any recognition of the impact on them. However, there had clearly been widespread discussions within Network Rail and it would have been quite possible for Network Rail to call a big meeting of Tier 2 suppliers to explain its difficulties and perhaps seek a solution through working together. There is now the possibility that one of the high output renewals trains will be exported to Poland, and therefore be lost to the British rail industry, which is a good example of the type of waste caused by the stop-go policy. In this case, of course, it was Network Rail which took the risk on the capital equipment, whereas in for road rail vehicles, it is private, and at times quite small, concerns which face losses due to equipment standing idle or having to be disposed of in a fire sale.

Similarly, the announcement in July on the electrification programme was the first official recognition of the rumours that had been circulating around the industry for more than a year.

[2] The email is reproduced at Appendix A

It has provided a certain amount of clarity, though many in the industry believe that the emphasis on bi-mode will only be temporary. This was, however, bad news for the road rail vehicle suppliers. The reduction in electrification work will mean that certain types of 'cherry-picker' equipment will be used far less than expected. Moreover, electrification has been associated with a considerable amount of trackwork, such as when the rails need to be lowered to allow for the catenary in tunnels or under bridges, and consequently demand for the more standard equipment will also be reduced.

Devolution

Apart from a relatively small amount of work for London Underground, Network Rail is the sole source of work for road rail vehicle suppliers. Under current arrangements, it is the headquarters in Milton Keynes which determines the level of work and makes most of the decisions. This is set to change with the new emphasis on devolving decisions to the routes. The chief executive of Network Rail has suggested that 99 per cent of decisions will in future be made at route level. While this may be optimistic, and the remaining 1 per cent may, in any case be the crucial part of the budget, there is no doubt that the routes will be taking on a far greater role in purchasing decisions. They will be given budgets and be able to choose suppliers, and allocate spending between different work streams. This will undoubtedly have an effect on tier 2 and 3 suppliers but there is disagreement about the precise implications. Indeed, it may be positive if routes develop long term partnerships with particular suppliers, but there are also concerns that dealing with eight different organisations, in addition to the Milton Keynes HQ, could make life more difficult administratively. One positive development could be

the creation of partnerships between local road rail vehicle suppliers and the routes.
The ORR says it is encouraging devolution because this will transform the way that programmes are prepared. According to ORR's chief executive Joanna Whittington, 'it will mean that routes will be able to develop their work plans from the bottom up, and be much more accountable. There may even be better working arrangements with TOCs.' ORR is also in favour of the idea because devolving more decision making to the routes will turn them into quasi-autonomous organisations whose performance can be compared with each other.

The Looming Crisis

While the various announcements in July from the Office of Road and Rail, Network Rail and the Department have provided some indication as to the broad outlook of plans for the remainder of CP5 and the beginning of CP6, there is still much uncertainty. Most notably, the government has failed to publish, as was expected, the Statement of Funds Available, which would give an indication of the amount available in CP6, although the expectation remains that it will be in the order of £40bn for the five year period. There was confirmation that much of the projected £9bn of electrification projects in CP5 and CP6 are not going ahead but even for the remainder of CP5, it is unclear just how much – or rather how little – work will proceed. The announcements confirmed that there was a shortfall in the amount of renewal work, which partly explains the reduction in work across the sector.
It is clear, however, that there are wide variations across regions. Babcock, for example, report that whereas two years ago, the company carried out 129 kms of renewals on the Great Western, in the current year it will be around 40 kms. While part of the larger total was as the result of catching up with backlog, this level of change results in a massive

reduction in the number of shifts worked by the machinery. A steady state of around 70-80 kms would be far more efficient, both for Network Rail and its suppliers. Moreover, skills are lost. Babcock reckons that almost 100 men, who have been trained, will have to be laid off as a result of this shortfall and it will be difficult to re-engage them should work, as expected, step up in CP6. On the other hand, in Scotland Babcock has seen only a 20 per cent reduction in the amount of work and it is confident that there will be no significant cuts between now and the end of CP5.

There is an expectation that while there will be more cutbacks to come during the remaining period in CP5 which ends on the last day of March 2019, there will then be an immediate upscale in the amount of work being carried out. Steve Featherstone of Network Rail reckons that in the first year of CP6, the workload may well be twice the level of the last year of CP5. Upscaling at such a fast rate will be, to put it mildly, challenging. It is the enormous year to year variations in the workload that make it difficult for the supply chain and which, incidentally, greatly adds to costs.

There is a feeling in the industry that cutbacks have largely focused, so far, on less heavily worked parts of the network. In particular, the south east, with the busy commuter routes, has been prioritised with fewer Temporary Speed Restrictions there than further up north. If work is cut back further, it is likely they will spread to the south with inevitable political consequences.

The Damaging Effect of a Hiatus

We have been here before. It took several years to recover from the situation which led to the collapse of Hydrex. Yet, this appears about to be replicated. While at the start of CP5 there was considerable optimism and order books, on which companies based their business plans, appeared to be full,

there is now a widespread realisation that not as many shifts will be worked as had been predicted. TMX, for example, which has an agreement with Babcock to provide all the road rail vehicles for its Great Western contract, presented an investment plan at the beginning of the Control Period which involved the purchase of a significant number of vehicles. Some of these were indeed bought but now that investment programme has, according to its chairman Keith Ludeman, being pared back and no new equipment is currently been purchased. Even as it stands, some £300,000 machines are likely to be standing idle for a considerable time.

Ludeman is really concerned about the boom bust cycle: 'At the moment, we are living on a month to month basis, while work we expect to do is being pushed back and as a result we are not meeting our targets. We are guessing there will be around a 25 per cent reduction in work for renewals in year four and five of CP 5 but different routes have been affected more or less severely. We need a clear idea of what future looks like. In CP4, it took two to three years to recover from the lower than expected spending, and this will happen again unless spending is smoothed out.' Like many in the industry, Ludeman is quite prepared to accept a lower level of spending but the key is that it should be at a constant rate. It is the big variations that are the problem. The ideal would be for the Treasury to accept that a significant dip in maintenance and renewal expenditure would ultimately waste money and therefore agree on a constant rate of spending. However, cutbacks seem inevitable given the ORR's figures about efficiency targets not being met. Ludeman also feels that there is less interchange with ORR these days: 'In the past, if there was a problem you could have a dialogue with the regulator but now that Network Rail is on the government's books, that no longer seems to be the case.'

The consensus in the industry is that Network Rail must ensure it avoids the type of sudden hiatus created by the failure of a major supplier. We have been here before. In November 2011, Hydrex was not able to react quickly enough

to lack of work coming through in the early stages of CP 4 and went into administration. At the time, Network Rail, still notionally in the private sector, was able to step in and buy the company to save its 530 staff and 300 machines. This was vitally important in preventing delays for large swathes of work whose impact would have lasted throughout that Control Period. Network Rail recognised that the rest of the industry would not have been in a position to step in to take on all the work. Another, smaller company, Paul John was not so lucky and folded.

A year after it took over the company, Network Rail managed to offload Hydrex to TXM but such a rescue would not be an option today because Network Rail does not have the money and such a quasi-nationalisation, even temporary, would probably not be sanctioned by the Department for Transport.

Reliability Issues

According to several players in the industry, the cutbacks are already leading to decreased reliability. Suppliers, unable to increase the amount of work, are inevitably cutting back on costs and this may be having an impact on the state of the equipment. Normally, there are pre-weekend checks on every piece of equipment before they are loaded onto lorries to ensure that all the hydraulics are functioning and that the right attachments have been included. There are concerns that with inevitable cost reduction programmes, there may no longer be sufficient experienced staff to carry out the work.

Reliability is also being affected by the inability of companies to purchase new equipment. If not adequately maintained, older machines are inevitably less reliable and while there still may be around 1,000 machines available across the network, they are older than might have been expected had the cutbacks not occurred. As one supplier put it,' there may not

be the shiny new machines adding capacity that would have come on stream by now.'

Another cause of the reduction in efficiency is that possessions are much more limited and many more involve working next to live railways. This is the result of Network Rail's policy of providing a seven day railway. While that has been universally welcomed, and has resulted in rises in passenger numbers at weekends, one downside is the added restrictions on trackwork this has caused. Not only are possession periods shorter, often now around 14-15 hours with the track being returned by Sunday lunchtime, whereas previously 30 hours, from Saturday night to early Monday morning being the norm. While in general work is carried out more efficiently these days, the shorter time period results in less being carried out in each possession. This is compounded by the fact that more often work is undertaken next to running lines. While it is now standard procedure to limit the movement of equipment so that protruding arms do not foul the adjoining line, this restriction has the effect of making each movement 30 per cent slower. That undoubtedly has added to the perceived 'inefficiency' of Network Rail's programme.

Network Rail's more targeted approach has also meant that, as Steve Featherstone put it, 'there are no easy jobs any longer'. The focus is on assets that most need maintenance and consequently these are the ones on the busier routes. Therefore merely looking at simple measures such as cost per kilometre is not necessarily an accurate way of measuring efficiency.

The Crunch: CP6

Network Rail is intimating that there will be a substantial rise in the first year of CP6, possibly as much as doubling the level in the final year of CP5. There are doubts, however, about

whether the supply chain could cope with such a rapid rise in workload. Moreover, in the past two Control Periods, the work volume has reduced in the initial year, and only increased later on. This time it will have to be very different to meet Network Rail's expectations. Steve Featherstone reckons there is no doubt that the workload will have to increase dramatically or else the condition of the network will start to deteriorate. However, he said: 'My problem is how do I ensure I can double output in one year? I know this will be necessary because we have been developing our submissions for CP6 and I have a good idea of what the orders will look like. We are having discussions on how much the supply chain will be able to provide.' In order to start investing in equipment, the supply chain will have to be convinced that the higher level of output will be retained for several years and not be a 12 month wonder, leaving them with unwanted machines. Moreover, in order to ensure new machines are available, given the time lag of up to a year between order and delivery, the supply chain will need to be convinced of the need for the equipment by the end of the current financial year.

Meeting this demand will, inevitably, be a challenge. It will be impossible if cutbacks in the remainder of CP5 lead to the sale of vehicles abroad and a moratorium on new equipment purchases. It will be no good to reach the end of CP5 without having addressed this key issue.

What Is Needed

While the most obvious requirement is for the supply chain to have a steady and predicted flow of work to ensure that long term plans can be carried out, there are a number of measures which may help towards that or at least ameliorate the present situation.

Starting with the Tier 1 contractors, a change in the basis of the way they work would filter down to the Tier 2 and Tier 3 suppliers. This would involve giving some financial stability rather than, as at present, allocating framework contracts on the basis of zero guaranteed expenditure. While it may indeed be impossible to guarantee the entire expected work programme, it should be possible for Network Rail to ensure that at least a proportion, perhaps up to 75 per cent, of the value would be guaranteed. This then would have the knock on effect of providing stability further down the chain.

If, as seems to be the case, the broad outlines of the SOFA are known, then it should be possible to provide some security to suppliers. When the precise financial details are known, scheduled for October, it may be possible for Network Rail to obtain a dispensation from government to bring forward some of its spending in order to smooth the flow of work. This would make sense both operationally and financially, but would require the agreement of the Treasury.

One possible way of persuading government is to stress the fact that services will deteriorate if there are sharp cuts in maintenance and basic renewals. An increase in Temporary Speed Restrictions will show through quickly in terms of performance if track renewals are reduced and damage the reputation of the industry, and ministers will undoubtedly be in the firing line as a result, if passenger complaints and media interest increases. The Southern dispute has shown that the public tends to blame government when things go wrong on the railways, despite 20 years of privatisation.

Conclusion

There is no magic bullet but recognition by Network Rail – and its overseers in the Department - that the boom-bust policy will lead to huge performance and efficiency issues would be welcome.

Network Rail – or perhaps a strategic body overseeing it – will have to take a long term view of the market and set the right parameters in order to ensure demand is met. The time for muddling through has ended. The market needs to have confidence in its long term future.

There is much talk of partnership in the industry but not enough action in this respect. Network Rail must work more closely its Tier 2 and 3 suppliers, as well as giving greater stability to Tier 1 contractors. Without the long term approach recommended in this White Paper, the future for the Road Rail Vehicle industry, and consequently for railway investment, looks very uncertain.

Appendix A

Email from Network Rail about High Output train sent in May 2017

Network Rail has to cut costs and the decision has therefore been made by the Routes to reduce asset renewals, particularly strategic track renewals that don't bring an immediate safety or performance benefit.

ROUTE BY ROUTE IMPACT ON THE HO PROGRAMME

- Anglia have made a firm decision to retain their remaining TRS programme which runs until end June 2017. They have also suggested they will keep the 9 months of BCS planned in 2018/19.
- LNE/EM have cancelled all of their BCS programmes beyond the end of March 2017. This decision removes 10 campaigns of work from the HO BCS programme, the majority of which sits in Year 4 with Doncaster and Crewe depots. Newcastle are also impacted in Year 5.
- LNW have cancelled all remaining HO work in CP5.
- South East have significantly reduced the scale of their programme.
- Wales Year 4 work proceeds as planned with TRS4 commencing in April and BCS later next year. But all Year 5 Wales work has been cancelled.
- Wessex have cancelled all remaining HO work in CP5.
- Western have reduced the scale of their programmes and could still take more out.

HO PROGRAMME SHAPE FOR NEXT 2 YEARS

- HO will have 4 systems working from start of April 2017 for 3 months, 2 BCS and 2 TRS: BCS in South East, BCS on Western, TRS in Anglia, and TRS in Wales,.

- From July 2017 until March 2018 there is a drop to 3 systems, 2 BCS and 1 TRS: BCS in Scotland, BCS in Western/Wales, and TRS in Western
- For financial year 2018/19 the plan varies between best case 4 and worst case 2 or 3 systems in operation. The remaining work is in Scotland, South East, Anglia, TRU and Western.

HO PROGRAMME SHAPE FROM APRIL 2019

The plan for the new Control Period from April 2019 reinforces the need for a 4-system capability. This will involve 4 RM900 BCSs (3 working, one in maintenance) and 2 P95/D75 TRSs (1 working, 1 spare / in maintenance). They will be fully supported by HO dedicated OTMs with contingency machines available within our own fleet.

Annex 1

Quattro White Paper 1