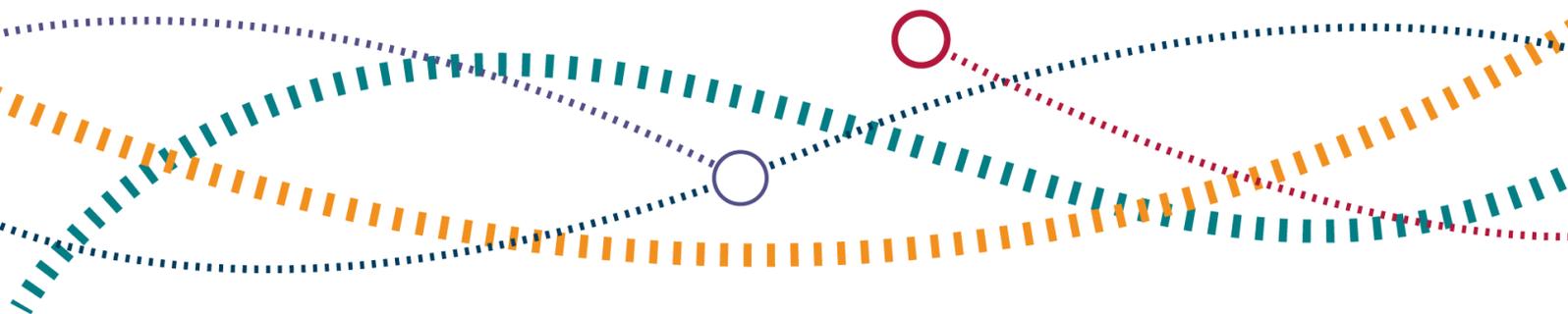




Signalling Market Study

July 2022 update

26 July 2022



Contents

Executive summary	3
Remedy 1 - Increased regulatory oversight	3
Remedy 2 - A pro-competitive approach to procurement	3
Remedy 3 – Interfacing	4
Remedy 4 – Balancing	4
Remedy 5 – Funding	5
<hr/>	
1. Introduction	6
Network Rail’s February 2022 response	7
Signalling procurement for CP7	7
This July 2022 update and what will follow	8
<hr/>	
2. Progress on remedies	9
Remedy 1 – Increased regulatory oversight	9
Remedy 2 – A pro-competitive approach to procurement	10
Remedy 3 – Interfacing	12
Remedy 4 – Balancing	14
Remedy 5 Funding	15

Executive summary

This update provides a summary of progress against the remedies set out in our November 2021 [final report](#) into the GB signalling market and following Network Rail's February 2022 [response](#) to our final report. We targeted our remedies at a number of important barriers to competition which we had identified, in a market which remains dominated by the two incumbent suppliers, Siemens and Alstom.

Our view is that, measured against the recommendations of our final report and the pledges made in Network Rail's February response, progress has overall been good, albeit with important work ahead of us in key areas. Where progress has been slower, the key reason for this has been Network Rail's decision to prioritise its CP7 procurement programme. As summarised in the paragraphs below, the two areas where most progress needs to be made are Remedy 3 (interfacing) and, in particular, Remedy 4 (balancing).

Remedy 1 - Increased regulatory oversight

This remedy consists of a series of measures designed to increase transparency, and thereby Network Rail's accountability, through enhanced ORR oversight of signalling procurement.

Good progress has been made with this remedy. We have agreed the scope and frequency of a dataset which Network Rail will deliver to us on an annual basis.

The next step will be for Network Rail to supply us with backward-looking data for 2021/22. This dataset will act as a baseline, allowing for effective future monitoring integrated into ORR's wider oversight role.

Remedy 2 - A pro-competitive approach to procurement

This remedy consists of recommendations to Network Rail to take decisive steps to maximise its ability to exercise countervailing buyer power, by widening its potential pool of suppliers and reducing its long-term dependence on the incumbent suppliers.

Network Rail's response to this recommendation is tied up with its wider procurement approach for CP7. At the time of writing this update, Network Rail's CP7 approach has been signed off by the Network Rail Board and put into a draft Contract Notice, which we expect to be published in the very near term. Our review of the Contract Notice will be included in a final progress update to be published later this year.

Our review of the evidence that has been available to date suggests that the initiatives contained within Network Rail's new approach will, if implemented in full and subject to refinements which we have communicated to Network Rail, fully address our recommendations for Remedy 2. They will also address significant aspects of other parts of our overall remedies package, in particular key recommendations of Remedy 3.

Remedy 3 – Interfacing

This remedy is aimed at increasing the ease of interfacing at the fringes of technology provided by different suppliers.

Network Rail appears to be making significant progress towards this remedy through its new procurement approach for CP7, which will award credit to suppliers who demonstrate a commitment to open interfacing. As with Remedy 2, we will be able to fully understand the extent of this progress when we have completed our review of the Contract Notice.

Network Rail's efforts to date have focused on those initiatives which are on the critical path for its CP7 procurement programme. This means that certain other initiatives which can be progressed independently of this process have been afforded less priority to date. A key example of this under Remedy 3 is that Network Rail has committed to setting up a forum intended to address cross-supplier issues. We expect to start seeing progress on this and other initiatives following the publication of the Contract Notice.

Remedy 4 – Balancing

This remedy consists of recommendations aimed at improving Network Rail's internal governance, to address a historic imbalance between long term competition and reliance on existing technology.

Network Rail's February response included promising pledges which should, if implemented in full, go some way towards addressing the recommendations set out in our final report.

Due to the prioritisation of the CP7 procurement process alluded to above, Network Rail has yet to focus its attention on this remedy. The next step will be for Network Rail to make these pledges into measurable, time-bound, commitments. We will be discussing this with Network Rail following publication of this update.

We will also discuss further with Network Rail one aspect of our final report's recommendations, a competition education programme for Network Rail staff. The initial dialogue which we have held to date with Network Rail has been positive. We will work together to develop this further.

Remedy 5 – Funding

Our final report made a series of recommendations aimed at mitigating persistent historical uncertainty around future re-signalling volumes at both total market and individual supplier levels.

Aspects of Network Rail’s new procurement approach should act to mitigate these issues.

Overall, we are satisfied with progress against this remedy.

1. Introduction

- 1.1 In November 2020, ORR launched a market study into the signalling market in Great Britain (“GB”). We published an [update paper](#), outlining our initial findings, in May 2021 and a [final report](#) in November 2021, which included a series of proposed remedies.
- 1.2 Signalling represents a key cost category for Network Rail, accounting for c. £1bn p.a. during CP6. Our market study found that the GB signalling market is characterised by:
- High concentration of suppliers, the market for major renewals being dominated by historic incumbents Siemens and Alstom;
 - Significant concerns over value for money; and
 - Barriers to entry/competition, including:
 - Market and funding issues – issues around the total volume, stability, and predictability of re-signalling volumes. These result both from the overall availability of funds but also the way in which Network Rail chooses to present its pipeline of opportunities to the market. These factors disproportionately impact smaller and would-be competitors;
 - New technology – barriers to the introduction of new technology;
 - Balancing – we observed considerable discordance between the objectives of Network Rail’s (broadly speaking pro-competition, value for money conscious) centre and its (broadly speaking risk/change averse, delivery focused) regions; and
 - Interfacing with the installed base – issues caused by the need to interface with incumbents’ technology, imposing a significant barrier to entry.
- 1.3 These serious issues notwithstanding, our final report set out a decision not to make a Market Investigation Reference (“MIR”) to the Competition and Markets Authority (“CMA”) and to instead take a collaborative approach to implementation with Network Rail.

- 1.4 Our final report outlined a series of remedies in the form of recommendations, which sought to reduce costs through increased competition between suppliers. This update summarises progress against these remedies.

Network Rail's February 2022 response

- 1.5 Network Rail responded to our final report by means of a [letter](#) dated 10 February 2022 (the “February response”). In this response, Network Rail committed to a series of measures in light of the recommendations of our final report.
- 1.6 The February response suggested a significant amount of common ground between Network Rail and ORR, in terms of the key challenges that the industry faces and the most appropriate means of addressing them. It also described a number of initiatives that were consistent with our findings and recommendations which were already at a relatively advanced stage of planning by the time we published our final report.
- 1.7 In April 2022, we wrote back to Network Rail (our “April letter”) with initial feedback on its February response.
- 1.8 A key point we made in our April letter was that all reform, as discussed in the rest of this update, must apply to both conventional and digital signalling. Conventional signalling will remain important during CP7, both in terms of its own contribution to the value for money challenge and the opportunity that it will provide existing suppliers to build and/or maintain capacity which can ultimately be redeployed into conventional renewals. Further points which we made on specific remedies are summarised where relevant later in this document.
- 1.9 We also reminded Network Rail of our powers to enforce competition law in respect of abuse of a dominant position. We stressed that Network Rail should bring to our attention any responses by incumbent suppliers in reaction to the proposed new commercial approach that raise serious competition issues.

Signalling procurement for CP7

- 1.10 The key initiative which Network Rail committed to in its February response was a significantly revised approach to signalling procurement for CP7. Network Rail had begun developing this approach, in consultation with industry bodies and suppliers, during the second half of 2021.
- 1.11 The key underlying goal of Network Rail's proposed new approach, adapted to take account of ORR's market study recommendations, is to enable Network Rail

to obtain better value for money through an improved ability to choose between suppliers for individual contracts. We discuss individual initiatives within this overall approach in the next section of this document.

- 1.12 Network Rail made a formal decision to pursue this new approach at its May 2022 Board meeting. Having reviewed the materials of this Board meeting and in light of our wider dialogue with Network Rail, we have reached the view that the initiatives contained within Network Rail's new approach will, if implemented in full, go a long way towards addressing those recommendations outlined in our final report. This has implications for the procurement phase of CP7, as discussed below. As explained later in this document however, there remain some important further actions that must be carried out in order for our recommendations to be actioned in full.

This July 2022 update and what will follow

- 1.13 We expect Network Rail to imminently publish a Contract Notice inviting suppliers to bid for CP7 signalling contracts. We will be carrying out an in-depth review of the Contract Notice, and intend to publish our analysis towards the end of this calendar year. The evidence base underpinning this update was therefore largely limited to the dialogue (of varying degrees of formality) which we have held with Network Rail during the first half of 2022, the February response, and our analysis of the May 2022 Board paper.
- 1.14 Given Network Rail's focus on its CP7 procurement during the first half of 2022, there has been slower progress against aspects of those remedies which can be implemented independently of the CP7 procurement exercise. A notable example of this is our recommendation that Network Rail launch a competition education programme for its regional staff as part of Remedy 4. This sequence of priorities was explained by Network Rail in its February response. We will be looking to Network Rail to share its implementation plans for the outstanding recommendations with us as soon as practicable following publication of this update.
- 1.15 We plan to publish a further progress update and appraisal towards the end of this calendar year. This further update will take into account both our more detailed review of Network Rail's Contract Notice and of the wider progress made by Network Rail in response to our full set of recommendations. Following publication of our second update, the principal route by which we will actively monitor these markets will be through data collection and analysis in line with Remedy 1.

2. Progress on remedies

- 2.1 We are satisfied overall with the progress Network Rail has made, particularly in relation to the recommendations which have implications for the procurement stage of CP7. We understand Network Rail's decision to prioritise this.
- 2.2 In this chapter we briefly recap on each of our remedies and discuss progress to date.

Remedy 1 – Increased regulatory oversight

Addressed to: ORR and Network Rail

Summary

- 2.3 This remedy looks to increase transparency and thereby Network Rail's accountability, through enhanced ORR oversight of signalling procurement, using enhanced versions of existing regulatory processes.

Progress

- 2.4 Since the publication of our report, we have made good progress working with Network Rail to agree the specific set of variables that we will monitor. We have agreed that reporting will be on an annual basis. In specifying a dataset, we have tried to strike a balance between minimising the additional reporting burden, whilst providing the level of detail that we will need to monitor effectively.
- 2.5 We will obtain data from Network Rail on major signalling projects by means of a table, structured as set out below. A key requirement of the dataset will be the potential for it to be reconciled back, at a total cost/total SEU level, to the cost/volume totals in Network Rail's regulatory financial statements¹;
- Row fields – project names;
 - Column fields – key information for each project, to include:
 - Technology (conventional or digital);
 - Route to market (such as competitively tendered or awarded through framework, other details including number of bidders where relevant);

¹ This requirement may necessitate the inclusion of 'other' cost and volume categories for smaller projects.

- Name of supplier;
- Openness of interfaces;
- Volumes; and
- Costs, disaggregation to include:
 - (a) Supplier charges vs Network Rail's own costs;
 - (b) Where possible, further information on key cost categories, including design, which will provide clues as to reasons for any cross-sectional and time series differences in unit costs between projects; and
 - (c) Where relevant, details of any instances where there is a divergence between total costs per the regulatory accounts and true re-signalling/SEU costs.

Next steps

2.6 We expect to start receiving this information and be in a position to publish some baseline information towards the end of the current financial year. The first dataset will look backwards to 2021/22, and therefore to CP6 and to current/historic procurement practices. As such it will provide a baseline against which we will be able to track trends in unit costs.

Remedy 2 – A pro-competitive approach to procurement

Addressed to: Network Rail

Summary

2.7 This remedy consisted of recommendations to Network Rail to take decisive steps to maximise its ability to exercise countervailing buyer power, by widening the pool of suppliers and reducing its long-term dependence on the incumbent suppliers.

Progress

2.8 This remedy will be addressed by Network Rail's revised procurement approach for CP7. The new approach will see longer framework contracts (of at least 8-10 years) and use a wider set of selection criteria for both framework and project allocations. The ultimate purpose of this approach is to promote value for money,

by giving Network Rail an improved ability to choose between suppliers for individual contracts.

2.9 Our April letter expressed support for the revised commercial strategy and suggested a number of refinements which, in our view were necessary to ensure that reform led to the scale of changes we envisaged:

- We have discussed the possibility of establishing ‘stopping off points’ in long frameworks to allow unsuccessful bidders and new entrants the opportunity to bid again for work. This possibility will need to be reviewed in light of the new Procurement Bill²; and
- We recommended using a measure such as ‘security of supply’ or ‘industry capacity and experience’ within project allocation criteria, to increase the pool of suppliers.

2.10 Our assessment is that, if the key features of the revised commercial strategy highlighted below are implemented in full, including our suggested refinements as summarised above, Network Rail’s new strategy will have fully addressed our recommendations for Remedy 2. Key specific commitments which Network Rail made to us in its February response were:

- Both framework (with regional framework contracts giving way to national ones) and project allocation will be revamped so as to take into account a wider range of factors including interfacing behaviour; and
- Contract specifications would be outcome based, so as to avoid directly or indirectly prescribing the technology of one or more particular suppliers.

2.11 Network Rail committed to a partial reimbursement of development costs to suppliers in order to mitigate the entry barriers imposed by sunk development costs. Our review of Network Rail’s May 2022 Board paper suggests that its plans to make all of these changes are well underway.

Next steps

2.12 Our review of the Contract Notice will enable us to verify whether these recommendations have been acted on in full.

²<https://www.gov.uk/government/publications/the-procurement-bill-summary-guide-to-the-provisions/the-procurement-bill-a-summary-guide-to-the-provisions>

Remedy 3 – Interfacing

Addressed to: Network Rail

Summary

2.13 This remedy was aimed at increasing the ease of interfacing at the fringes of technology provided by different suppliers. We recommended that Network Rail maintain and enforce contractual obligations requiring suppliers to work together and gave suppliers credit for such co-operation when awarding contracts. We also said Network Rail should strengthen its internal mechanisms to address inter-supplier concerns. Finally, we said that Network Rail should be at the forefront of a move towards common standards ³.

Progress

2.14 Network Rail intends to address a number of the recommendations in this remedy through its revised commercial strategy. Specific relevant measures in the strategy include:

- Retaining contractual requirements relating to open interfacing;
- Introducing mechanisms to limit the costs involved when suppliers work for one another;
- Selection criteria for work allocation that reward suppliers demonstrating positive commitment to open interfacing;
- Supplier commitments and proposals for improving interfacing forming part of the tender evaluation criteria, embedded into framework agreements; and
- All contracts being EULYNX compliant.

2.15 Our review of Network Rail’s May 2022 Board paper suggests that Network Rail’s plans to make these changes are well underway. Our review of the Contract Notice and of Network Rail’s revised procurement process, will enable us to verify this. Imperatives which we brought up in our April letter included that:

³ As explained in our final report, the European Initiative to Linking Interlocking Systems (“[EULYNX](#)”) initiative has the potential to address issues around interfaces for technology.

- Positive interfacing behaviour, in both conventional and digital schemes, should be given significant weight in Network Rail's awards;
- Scoring of Network Rail's supplier interfacing behaviours should be updated regularly, ideally as often as significant new evidence becomes available (such as on the completion of a major project); and
- Network Rail's assessments must be objective, evidence based and fair to all potential bidders. Evidence should be drawn from past behaviour and future commitments but must not favour incumbents (such as by only rewarding credit for past success).

2.16 In addition to the above measures, Network Rail's February response further committed to introducing a forum for suppliers to raise issues for discussion in an open forum. In our April letter we voiced the possibility of lending our support at such meetings if required. Network Rail's efforts to date have understandably focused on those initiatives which are on the critical path for its CP7 procurement programme. This means that those other initiatives which can be progressed independently of this process have been afforded less priority to date. The proposed cross-supplier forum is a key example of this and is therefore a key issue for Network Rail to focus on now.

2.17 Regarding our recommendation that Network Rail should be at the forefront of a move towards common standards, Network Rail has already been active at the international level, and we will continue to monitor progress through our ongoing monitoring of T190plus⁴.

2.18 Our overall assessment is that, if all of the measures summarised above, including our suggested refinements, are implemented in full, then Network Rail will have fully addressed our recommendations for Remedy 3.

Next steps

2.19 As with all measures relating to the procurement stage of CP7, we will be reviewing the Contract Notice in order to ensure full compliance with our remedies and will report back towards the end of this calendar year.

2.20 With regards to the establishment of a supplier forum, we will be encouraging Network Rail to commence work on this measure as soon as practicable and in sufficient time for us to report back towards the end of this calendar year. We will

⁴ <https://www.networkrail.co.uk/industry-and-commercial/research-development-and-technology/research-and-development-programme/target-190plus-sustainable-signalling-renewals/>

know that our recommendations have been acted on in full when the forum is established and we have had the opportunity to verify its fitness for purpose, by reviewing its terms of reference and attending the first meetings.

Remedy 4 – Balancing

Addressed to: Network Rail

Summary

- 2.21 This remedy consisted of recommendations aimed at improving Network Rail’s internal governance in order to address a historic imbalance between long term competition and reliance on existing technology.
- 2.22 Our final report stated that Network Rail, including its regional management, should play a more active role in the oversight of signalling procurement, incentivising regions through performance monitoring, to cultivate new technologies and suppliers, and not unduly penalising regions for taking risks associated with deployment of new technology. We outlined how Network Rail could ensure that advocacy for truly pro-competitive tendering percolates down to all levels of the organisation. To support this, we said that the regions should deliver a competition education programme and that the performance monitoring regime should encourage and incentivise the cultivation, development, and delivery of new technologies.

Progress

- 2.23 Network Rail’s February response stated that the revised strategy for CP7 will, by providing greater certainty over volumes, reduce the risk locally around the introduction of new technology.
- 2.24 Network Rail also committed to implementing additional activities to encourage, review and manage the achievement of an appropriate balancing of objectives. In particular, Network Rail committed to establish:
- an internal review forum with both regional and national representatives in order to monitor, and where appropriate propose, further action and intervention to address any shortfalls against strategic outcomes; and
 - an innovation fund to assist regions with implementing new technology and limit their risk.

- 2.25 These changes, once implemented, in our view have the potential to significantly mitigate against the factors which have historically acted to disincentivise the introduction of new technology at the regional level. We intend to discuss with Network Rail the possibility for mechanisms to ringfence regional performance impacts from the risks associated with new technology.
- 2.26 Network Rail has not yet supplied us with firm details of its plans to implement an education programme per our recommendations. We regard such plans as an important enabler of the cultural change needed to ensure pro-competitive procurement is adopted throughout the organisation, so we look forward to seeing details of these plans in its next update.

Next steps

- 2.27 We will be looking to Network Rail to develop and share plans for implementing an internal review forum, innovation fund and education programme, as soon as practicable, once this is permitted by the timetable for CP7 contract procurement.
- 2.28 Network Rail has indicated that it will be able to provide us with a draft terms of reference for the proposed internal review forum by October 2022. It will also update us by the end of 2022 on the outcome of its discussions regarding the ringfencing of performance impacts from new technology.
- 2.29 As with all of our remedies we want to make a further progress report towards the end of this calendar year. Network Rail's further response needs to be delivered within a timeframe that will permit this.

Remedy 5 – Funding

Addressed to: Funders, ORR, and Network Rail

Summary

- 2.30 This remedy consisted of recommendations aimed at all industry participants including ORR, to highlight the importance of and mitigate issues associated with a persistent historical uncertainty around future re-signalling volumes, at both total market and individual supplier levels.

Progress

- 2.31 Multiple aspects of Network Rail's revised procurement approach as detailed under Remedy 2, should act to mitigate these issues. In particular, Network Rail has committed to:

Office of Rail and Road | Signalling market study

- Strengthen the linkage between supplier tendering success and the volumes of work delivered by suppliers in forthcoming delivery relationships; and
- Encourage further innovation and reduce the dependency on supplier innovation investment by requiring signalling innovation funding in its CP7 research and development funding.

Next steps

2.32 We will continue to engage with this issue through our PR23 programme.



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