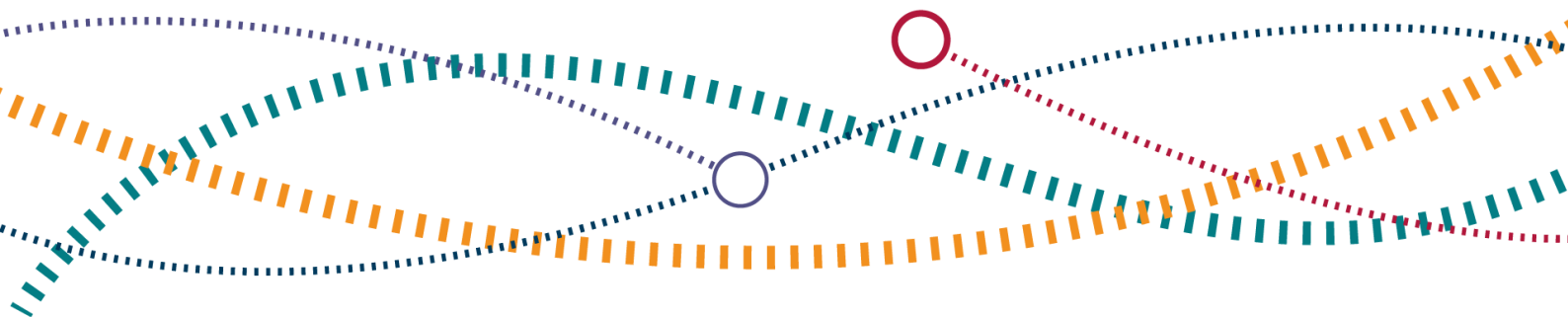




# Statement of Scope

## Signalling Market Study

12 November 2020



# Contents

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<b>1. Introduction</b>	<b>3</b>
ORR's role	4
Market studies	5
Evidence Gathering	6
Invitation to comment	6

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<b>2. Background</b>	<b>9</b>
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<b>3. Scope of the market study</b>	<b>16</b>
<i>Theme 1: Incentives to compete in the market</i>	18
<i>Theme 2: Impact of the digital railway, with a particular focus on the ability of the supply chain to build up capacity</i>	19
<i>Theme 3: Outcomes</i>	19

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<b>Annex A - Use of information provided to ORR</b>	<b>21</b>
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# 1. Introduction

- 1.1 This document sets out the purpose and scope of the Office of Rail and Road's ("ORR's") market study into signalling. It sets out the background to the market, the themes we propose to consider, and possible outcomes.
- 1.2 We previously opened a market study into signalling in January 2020<sup>1</sup> however, due to the impact of COVID-19 and the measures taken in response, from early March 2020 our progress was significantly slowed. We considered that the COVID-19 crisis made it too difficult for some key stakeholders to engage with the study, key evidence was unavailable, and continuing would place too great a burden on critical personnel. We closed the study in April 2020<sup>2</sup> with an intention to open a second market study when we considered circumstances would enable us to carry out the work needed to reach a conclusion.
- 1.3 We continued our work in the signalling market in the intervening period. As set out below, following on from our work in the first market study, we have widened the scope of this study to look at additional barriers to competing in the market, and have included an intention to focus on the ability of the supply chain to build up capacity for the rollout of the digital railway.
- 1.4 We consider now is the right time to open this market study. It is key that any recommendations or intervention arising from this study are able to make an impact in the market, given the significant increase in projected spend over the next five to ten years. We consider the industry is now in a position to assist us with this study following its initial, necessary, response to the onset of the COVID-19 crisis. We consider there is now a reasonable likelihood we will be able to gather the required evidence to complete the study.
- 1.5 We invite submissions from interested parties on any of the issues raised within this document and the accompanying Market Study Notice: Signalling<sup>3</sup>.

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<sup>1</sup> <https://www.orr.gov.uk/monitoring-regulation/rail/competition/market-monitoring/market-study-supply-signalling-systems>

<sup>2</sup> <https://www.orr.gov.uk/sites/default/files/om/signalling-market-study-final-report-2020-05-13.pdf>

<sup>3</sup> <https://www.orr.gov.uk/media/21775>

## ORR's role

- 1.6 ORR is the independent economic and safety regulator for the railways in Great Britain (“**GB**”), and the monitor of performance and efficiency for England’s motorways and trunk roads.
- 1.7 We keep the provision of railway services under review<sup>4</sup> and monitor the competitive situation in rail services markets<sup>5</sup>. ORR holds powers concurrently with the Competition and Markets Authority (“the **CMA**”) to apply competition law in markets relating to the supply of services relating to railways<sup>6</sup>.
- 1.8 ORR has strategic objectives, which include ensuring: a safer railway; better customer service; and value for money for the railway<sup>7</sup>. ORR also has general statutory duties that it considered before taking the decision to launch a market study<sup>8</sup>.
- 1.9 In order to ensure the effective delivery of our statutory duties and strategic objectives we seek to promote and protect the existence of healthy, robust, and competitive supply chains for products and services relating to railways.

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<sup>4</sup> Section 69(1) of the Railways Act 1993 (“**Railways Act**”)

<sup>5</sup> Regulation 34 of the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016 (“**Access and Management Regulations**”)

<sup>6</sup> Under section 67 of the Railways Act, ORR has concurrent functions. The supply of services related to railways is defined under section 67(3ZA).

<sup>7</sup> <http://orr.gov.uk/about-orr/what-we-do/our-strategy/our-strategic-objectives>

<sup>8</sup> Under section 4 of the Railways Act, ORR has to consider which of the statutory duties listed are most relevant to a particular case. Where more than one duty applies, we must weigh and strike a balance between them. In this case ORR considers these duties to be particularly relevant:

- Promoting improvements in railway service performance;
- Protecting interests of users of railway services;
- Promoting the use of the railway network in GB for the carriage of passengers and goods, and the development of that railway network, to the greatest extent that it considers economically practicable;
- Contributing to the achievement of sustainable development;
- Contributing to the development of an integrated system of transport of passengers and goods;
- Promoting efficiency and economy on the part of persons providing railway services;
- Promoting competition in the provision of railway services for the benefit of users of railway services; and
- Enabling persons providing railway services to plan the future of their businesses with a reasonable degree of assurance.

## Market studies

- 1.10 Market studies are one of a number of tools at ORR's disposal to examine possible competition issues and address them if appropriate<sup>9</sup>. They are examinations into whether markets are working well, and possible causes of market failure. Market studies take into account regulatory and other economic drivers in a market, as well as patterns of consumer and business behaviour.
- 1.11 The purpose of a market study is to:
- (a) consider the extent to which a matter in relation to services related to railways has, or may have, effects adverse to the interests of consumers; and
  - (b) assess the extent to which steps can and should be taken to remedy, mitigate or prevent any such adverse effects.
- 1.12 A market study begins with the publication of a Market Study Notice (“a **Notice**”)<sup>10</sup>. We have published the Notice at the same time as this Statement of Scope; it includes details on the subject matter of this study and timing.
- 1.13 Market studies can lead to a range of outcomes. They may conclude that a market be given a clean bill of health. Where a market is not found to be working well however, we may consider several options including:
- (a) taking enforcement action under the Competition Act 1998 or consumer law;
  - (b) dealing with matters which are capable of resolution under our sector specific powers, for example licence enforcement;
  - (c) engaging with industry to develop an industry-led solution, for example, a code of practice;
  - (d) asking the industry to review established industry mechanisms;
  - (e) making recommendations to government to change regulation or public policy;

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<sup>9</sup> The legal test for deciding whether to publish a market study notice, which initiates a market study, is that ORR must consider whether the issue is one where the use of formal information gathering powers (contained in section 174 of the Enterprise Act) is appropriate with a view to deciding whether to make a Market Investigation Reference to the CMA.

<sup>10</sup> As required under 130A of the Enterprise Act 2002 and as given effect by section 67(2C) of the Railways Act.

- (f) making a Market Investigation Reference (“an **MIR**”)<sup>11</sup>; and/or
- (g) accepting undertakings in lieu of making an MIR<sup>12</sup>.

1.14 The above is an illustrative list of possible outcomes and it is not exhaustive. ORR retains an open mind as to which outcomes, or combination of outcomes, may be appropriate to address any concerns that it may identify during the course of this market study.

1.15 Further information on market studies can be found in our guidance “*ORR’s approach to monitoring and reviewing markets*”<sup>13</sup>.

## Evidence Gathering

1.16 In addition to considering responses from interested parties to this statement of scope, we expect to gather evidence through the following methods:

- (a) issuing information requests to industry participants, including current and prospective signalling suppliers and infrastructure managers;
- (b) conducting original qualitative and/or quantitative research;
- (c) analysing existing data sets and research; and
- (d) meeting key interested parties.

1.17 As the study progresses, we may choose to use other means of seeking additional information. Information and updates about this study will be added to the signalling webpage on a regular basis.

## Invitation to comment

1.18 ORR welcomes submissions on this statement of scope from interested parties by no later than **11 January 2020**. In addition to general submissions, we particularly welcome responses on the question set out below, and the proposed focus on the themes set out in chapter 3.

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<sup>11</sup> ORR may make a MIR under section 131 of the Enterprise Act 2002 where the findings of a market study give rise to reasonable grounds for suspecting that any feature, or combination of features of a market relating to the supply of services relating to railways, prevents restricts or distorts competition, and a market investigation appears to be an appropriate and proportionate response. In taking any decision to make a MIR ORR would also considered its General Duties under section 4 of the Railways Act.

<sup>12</sup> Section 154 of the Enterprise Act 2002.

<sup>13</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0007/23974/orr-approach-to-monitoring-and-reviewing-markets.pdf](http://orr.gov.uk/_data/assets/pdf_file/0007/23974/orr-approach-to-monitoring-and-reviewing-markets.pdf)

## Questions

1. Do you agree with our proposed focus on the supply of major signalling projects and products to Network Rail?

2. Do you agree with the focus on the three themes?

3. Are there any other factors we should consider?

4. Are there any market initiatives we should take into account?

1.19 To respond to this invitation to comment, please email or post your submission to:

Email: [SignallingMarketStudy@orr.gov.uk](mailto:SignallingMarketStudy@orr.gov.uk)

Address: Signalling market study  
Competition Team,  
2nd Floor, 2 Rivergate,  
Temple Quay,  
Bristol,  
BS1 6EH

1.20 We may publish responses to this statement of scope in full or in summary as appropriate. In providing responses:

- (a) please supply a brief summary of the interests or organisations you represent, where appropriate;
- (b) please indicate whether you are providing any material that you consider to be confidential, and explain why this is the case. Please provide both a confidential and non-confidential redacted version of your response; and
- (c) if you are responding in an individual capacity (i.e. you are not representing a business), please indicate whether you wish for your response to be attributed to you by name or published anonymously.

1.21 Annex A sets out how the ORR may use information provided to it during the course of this market study.

1.22 Information and updates about this study will be added to the signalling market study webpage<sup>14</sup> on a regular basis.

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<sup>14</sup> <https://www.orr.gov.uk/monitoring-regulation/rail/competition/market-monitoring/market-study-supply-signalling-systems-november-2020>



# 2. Background

## Introduction

- 2.1 This chapter provides an overview of the signalling market, the history of how the technology in GB has developed to date, and its continued development through the digital railway. The digital railway<sup>15</sup> refers to the rail industry's plan to transform the rail network for passengers, business and freight operators by deploying modern signalling and train control technology to increase capacity, reduce delays, enhance safety and drive down costs.
- 2.2 It also sets out the key players in the market.

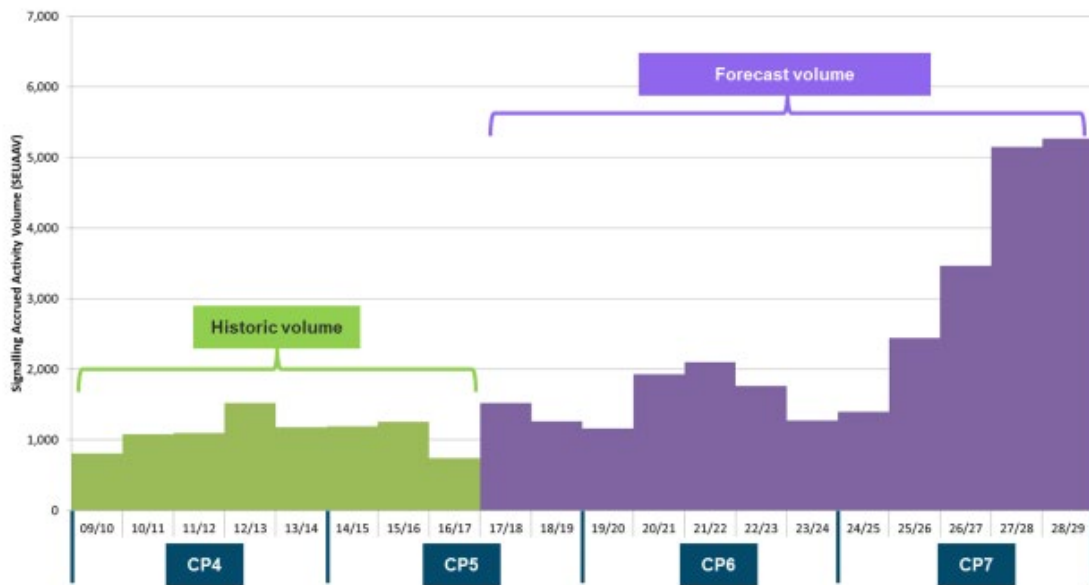
## Significance of signalling

- 2.3 The purpose of a signalling system is to determine the position of trains on the network, control their direction and signal to the driver when it is safe to proceed to the next section of track. Signalling systems are essential to keeping trains safe distances apart across a large and busy network.
- 2.4 Signalling systems also have a role to play in freeing up capacity on the network, which is already constrained, by allowing more trains to run on the network safely. One of the key objectives of the roll out of the digital railway (see below) is to increase the efficiency of systems so that trains can run safely, closer together.
- 2.5 The value of signalling to the rail industry is very significant. Signalling accounted for more than £4 billion of Network Rail's spend over the five-year period between 2014 and 2019. A high proportion of signalling assets are projected to expire within the coming years, leading to a significant increase in the size of the market as NR looks to replace existing systems with digital alternatives.

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<sup>15</sup> <https://digitalrailway.co.uk/>

**Figure 1: Historic and forecast signalling volumes**



**Source:** Digital railway<sup>16</sup>

2.6 The ability of infrastructure managers, notably Network Rail, to drive value when purchasing signalling systems is crucial to its ability to deliver an efficient and reliable railway. Ultimately, excess cost and quality failings are felt by passengers and freight customers. Given the projected spend and the rollout of the digital railway, we consider now is the right time to carry out a market study. It will give us the opportunity to identify issues in the ‘conventional’/existing signalling market that could be preventing Network Rail from obtaining value for money, and assess whether such issues have the potential to hinder the efficient delivery of the digital railway programme.

## History

2.7 In the early days of the railway, there was no fixed signalling system and drivers controlled trains by sight. As trains have long stopping distances, there was a need to control the movement of trains to prevent collisions. The earliest form of ‘signalling’ was to separate train departure times by set intervals (usually 10 minutes). However, this had a number of problems and resulted in a number of rear-end collisions. It also limited capacity on the network.

<sup>16</sup> <https://cdn.networkrail.co.uk/wp-content/uploads/2018/05/Digital-Railway-Strategy.pdf>

- 2.8 Mechanical signalling appeared in the UK in the 19th century. The basic principle is that the route is broken up into “blocks”. Only one train is able to occupy one block at a time. The blocks are long enough to take into account long train stopping distances. Trackside visual signals (traffic lights) are used to tell the driver when it is safe to proceed into the next block.
- 2.9 In the late 20th century British Rail developed key signalling technologies - Solid State Interlocking (“**SSI**”) which is a safety critical system that prevents conflicting movements through an arrangement of tracks such as junctions or crossings; and a computer workstation to control the movement of trains across control areas known as an Integrated Electronic Control Centre (“**IECC**”).
- 2.10 When the railway was privatised in 1994, British Rail set up a tripartite agreement with two companies, Westinghouse and General Electric Signal, to develop and deploy the SSI technology. AEA Technology purchased the right to develop IECC technology.<sup>17</sup>

## Products

- 2.11 Conventional signalling systems consist of various signalling products:
- Wayside equipment, including colour light signals, track circuits, axle counters, point machines, as well as the wayside and in-cab components of the Automatic Warning System (AWS)/Train Protection and Warning System (TPWS);
  - Interlockings and object controllers; and
  - Control systems, incorporating Automatic Route Setting (ARS) and Traffic Management software.
- 2.12 The interlocking is the safety-critical element of the signalling system. It coordinates all wayside<sup>18</sup> signalling apparatus within an area, enabling trains to follow the correct path from origin to destination without collision, only permitting trains to proceed when the route is set, locked and detected in safe combinations.

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<sup>17</sup> Again, like SSI, only Resonate (through its purchase of DeltaRail and AEA Technology, which bought British Rail Research following its privatisation) is authorised to name derivative products as “IECC”. Other firms have developed similar solutions that have many similar functions.

<sup>18</sup> Wayside refers to products installed on the track

- 2.13 The control system coordinates the interlockings in a given control area, ensuring that the route is set according to timetable and aiding the signaller in managing disruptions to the timetable.

## Digital railway

- 2.14 Digital signalling will see the introduction of a range of new technology. This technology will replace and supplement conventional trackside signalling products with modern in-cab technology. This new technology includes the European Train Control System (ETCS), this allows trains to run closer together and to travel at their best speeds while maintaining safe braking distances<sup>19</sup>.
- 2.15 The key element of the digital railway for the signalling market is ETCS which can provide continuous communication between the train and the trackside.
- 2.16 ETCS will replace some trackside signalling equipment with modern, in-cab computer displays and control centre systems. These additional features will place much more complexity on-board the train.
- 2.17 There are different methods of implementing ETCS. As an overlay system it is added to existing systems, effectively, interfacing with rather than replacing the current technology; in this method ETCS relies on the existing interlocking component and the existing lineside signals and train detection trackside equipment. ETCS can also be implemented as an integral part of a signalling system renewal project where the interlocking component is replaced as part of the project.

## Procurement of signalling systems

- 2.18 Signalling systems are purchased by infrastructure managers. Network Rail who purchases for the mainline network and is the largest purchaser of signalling systems in GB. Other infrastructure managers include HS1, HS2, and metro operators such as Transport for London.

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<sup>19</sup> Other technology includes Traffic Management (TM) (which maximises performance as trains flow across the network, maximising the throughput that existing track can support and adapting in real-time as network conditions change to aid rapid recovery and Automatic Train Operation (ATO) and Driver Advisory Systems (DAS) (these provide decision support to drivers in the cab so that they have the information they need at the right time to boost performance and safety).

- 2.19 Metro systems are usually tendered as complete signalling systems, while mainline signalling projects are separated into multiple tenders for discreet sections of the network.
- 2.20 Network Rail procures signalling through framework contracts depending on the scale and type of the signalling work. A high proportion of the expenditure for major signalling renewals works was procured through major signalling frameworks.<sup>20</sup> Network Rail also procured lower value and specialist signalling works through separate lower tier frameworks<sup>21</sup>, typically with a different mix and type of suppliers to the major signalling frameworks.

## Suppliers of signalling systems

- 2.21 Significant or major signalling systems have safety critical complex computer based interlocking as core components or at least require interfacing with interlocking systems.
- 2.22 Suppliers for such systems are typically companies that have proven software capability and have developed interlocking or control signalling products for supply and implementation for multiple customers across different countries, often globally. Larger suppliers are integrated and offer the full suite of signalling products. For the purpose of this study, we describe this type of supplier as Original Equipment Manufacturers (“OEMs”).
- 2.23 OEMs typically access the market for signalling systems by responding to tenders for framework competitions or competitively tendered projects for major signalling projects as principal contractors.
- 2.24 Suppliers for significant signalling systems can also be companies that are not OEMs. These companies obtain access to existing technology from OEMs and

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<sup>20</sup> In CP5 this was the Major Signalling Renewals and Enhancements Framework (MASREF). In CP6 this is the Major Signalling Framework

<sup>21</sup> In CP5 these were:

Type C (Minor Works) Framework– expired October 2016;

IP Telecoms Framework – expired February 2017; and

Level Crossing Framework – expired July 2019

In CP6, these are:

Signalling & Telecoms Framework

Minor Signalling Framework

taking responsibility to design and integrate them into a signalling renewal project. For the purposes of this study, we describe this type of supplier as “**Integrators**”.

- 2.25 Integrators can access the market by responding to tenders for lower tier frameworks or subcontracting for OEMs. The principal contractor for a major signalling project can often contract and project manage smaller suppliers, delivering more specialist equipment or pieces of work. Smaller suppliers of signalling products tend to specialise in hardware or software.

## Previous work into signalling

### The Siemens-Alstom merger enquiry

- 2.26 In February 2017, Siemens AG and Alstom SA (the two largest signalling players in Europe) announced their intention to merge. Between July 2018 and February 2019, the European Commission (“the **Commission**”) conducted an in-depth review of the merger.
- 2.27 The Commission prohibited the merger in February 2019<sup>22</sup>. The key concerns (in relation to the GB market) were:
- (a) Siemens AG and Alstom SA are the two largest players in the GB market, and would obtain significant market power should the merger go ahead;
  - (b) Siemens and Alstom control access to the key interlocking technology and could potentially use this advantage to stifle and restrict competition from smaller niche providers of signalling products, and prevent new entry; and,
  - (c) Network Rail is not able to exercise sufficient buyer power to counter these concerns.
- 2.28 Particularly in relation to interlocking in the UK, the Commission concluded that the merger “*would cause a significant impediment to effective competition in the market for standalone interlocking projects in the UK*”<sup>23</sup>.

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<sup>22</sup> Case M.8677 -Siemens/Alstom, Commission Decision 6.2.2019  
[https://ec.europa.eu/competition/mergers/cases/decisions/m8677\\_9376\\_3.pdf](https://ec.europa.eu/competition/mergers/cases/decisions/m8677_9376_3.pdf),

<sup>23</sup> Case m.8677 -Siemens/Alstom, Commission Decision 6.2.2019,  
[https://ec.europa.eu/competition/mergers/cases/decisions/m8677\\_9376\\_3.pdf](https://ec.europa.eu/competition/mergers/cases/decisions/m8677_9376_3.pdf), para 938

## Market Study into signalling market

- 2.29 As noted above, on 27 January 2020, we launched a market study into signalling<sup>24</sup>, and proposed to explore four themes:
- (a) Theme 1: Access to interlocking technology;
  - (b) Theme 2: Ability of suppliers to compete with alternative interlocking technology;
  - (c) Theme 3: Outcomes; and,
  - (d) Theme 4: Impact of roll out of the digital railway
- 2.30 We made good progress; we held meetings with a range of stakeholders and received a large amount of evidence from Network Rail and key market participants.
- 2.31 However, due to the impact of COVID-19, from early March 2020 our progress was significantly slowed, and led to the decision to close the study in April 2020. We concluded that the need to respond to the crisis made it too difficult for some key stakeholders to engage with the study and key evidence was unavailable, such that we would be unable to gather the key evidence required for us to make a robust decision on whether to make a MIR.<sup>25</sup>
- 2.32 We intend to focus this market study on the concerns that became apparent during our first study. As set out below we have widened the scope of the study to cover additional issues we identified.

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<sup>24</sup> <https://www.orr.gov.uk/monitoring-regulation/rail/competition/market-monitoring/market-study-supply-signalling-systems>

<sup>25</sup> <https://www.orr.gov.uk/sites/default/files/om/signalling-market-study-final-report-2020-05-13.pdf>

# 3. Scope of the market study

## Introduction

3.1 This chapter summarises the products and services that are within the scope of this market study and its proposed geographical scope. We also set out the themes that we will focus on.

## Products and services within scope

3.2 We intend to consider the supply of rail signalling systems from both OEMs and integrators. We intend to look at both current conventional signalling systems and the digital railway as described above.

3.3 Signalling projects are often complex and involve various elements, including some or all of: project specific engineering; design; development and project management; procurement of necessary signalling products; installation; testing; and maintenance.

3.4 We intend to focus on the supply of signalling systems (through projects) that:

- (a) Are classified as “major”;
- (b) Include some level of engineering or design element;
- (c) Are accessed by OEMs and integrators;
- (d) Require the installation of or a requirement to interface with existing or new interlocking or control technology.

3.5 For clarity, we will not therefore be focussing on minor works, (which infrastructure managers often undertake in-house), involving routine maintenance and the like for like replacement of components.

3.6 Our focus will be on the supply of signalling systems tendered to Network Rail.

3.7 We understand that the market dynamics, technical and operating context are different for other infrastructure managers (notably metro operators). Therefore, they take different approaches to the procurement of signalling. We do not intend to focus on high-speed networks or metro operators but are open to hearing



issues from other infrastructure managers, and will consider the impact of wider competition issues on these infrastructure managers.

## Geographic scope

- 3.8 Our market study will cover the supply of signalling systems in GB. Our market study will not cover Northern Ireland as our jurisdiction for carrying out a market study only relates to the supply of services relating to railways in GB<sup>26</sup>.

## Themes we propose to consider

- 3.9 We intend to focus our work around the concerns that became apparent through our first market study into the signalling market. As such, as well as renewing our consideration of themes in the original study, we have widened the scope of this study to look at additional barriers to competing in the market. We have combined these issues into a single theme around incentives. We are also particularly concerned about the ability of the supply chain to build up capacity for the rollout of the digital railway, and have widened the scope of the study to address factors hindering the build-up of capacity or restricting competition.

- 3.10 We will therefore focus our work across three themes:

- (a) Theme 1: Incentives to compete in the market, with a particular focus on:
  - (i) Ability to interface with competitors' technology<sup>27</sup>;
  - (ii) Ability to compete using alternative technology<sup>28</sup>;
  - (iii) Certainty and future sight of pipeline.
- (b) Theme 2: Impact of the digital railway, with a particular focus on the ability of the supply chain to build up capacity<sup>29</sup>; and
- (c) Theme 3: Outcomes, with a particular focus on price<sup>30</sup>.

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<sup>26</sup> Section 69(1)(a) of the Railways Act

<sup>27</sup> This covers the previous Theme 1 in our earlier market study

<sup>28</sup> This covers the previous Theme 2 in our earlier market study

<sup>29</sup> This covers the previous Theme 4 in our earlier market study with an extended focus

<sup>30</sup> This is the same as the previous Theme 3 in our earlier market study

## ***Theme 1: Incentives to compete in the market***

- 3.11 We want to understand the factors affecting incentives to compete in the market. We understand the digital railway will require a significant increase in the capacity of the supply chain. We want to ensure there are no unnecessary barriers to entering or competing in the market.
- 3.12 The holders of the intellectual property of SSI technology have consistently been the key players in the supply of GB signalling systems. We want to understand the extent to which alternative OEM suppliers can bring alternative technology to the GB market and effectively compete with the existing suppliers.
- 3.13 We understand that to date, alternative OEM suppliers have had limited success in bringing alternative technology to the GB market. To understand why, we want to assess the extent of barriers to entry, including, but not limited to:
- (a) Whether accreditation/ approval processes are proportionate, or are unnecessarily making it more difficult for alternative technologies to be deployed;
  - (b) Whether GB specific requirements are making it more difficult for alternative technologies to be deployed;
  - (c) The need for a physical presence in GB or GB expertise; and,
  - (d) The time and cost of developing systems for the UK market.
- 3.14 We want to examine the extent to which suppliers need to interface with a competitor's technology when bidding for signalling projects, and their ability to compete on this basis. We understand that both OEMs and Integrators are likely to need to interface with a competitor's product. We will obtain evidence on the terms and price on which access has been obtained, and analyse bidding data to assess whether bidders are able to place credible bids as a result, and the factors which impact on this.
- 3.15 We want to test whether control of access to GB approved technology is too concentrated and whether owners of such technology are able to distort competition for signalling systems and the wider signalling market.
- 3.16 We will take into account the need to balance encouraging investment in the railways against the need to promote competition through fair and commercially reasonable access to technology.

- 3.17 In our previous market study, we were told that one of the most significant barriers to entering the market was the lack of a certain pipeline of a sufficient volume of work. We want to test the extent to which this affects incentive to compete in the market, both in terms of bidding for frameworks or projects, or investing in developing GB compatible technology.
- 3.18 We understand that the industry is taking steps to address the pipeline issue in the form of the Long Term Deployment plan.<sup>31</sup> We want to understand the progress being made and any factors which could hinder the ability of this work to have an impact on the market.

## ***Theme 2: Impact of the digital railway, with a particular focus on the ability of the supply chain to build up capacity***

- 3.19 As noted above, digital signalling will see the introduction of a range of new technology, and will require a significant increase in the capacity of the supply chain. We want to understand the level of progress being made by the digital railway and any key challenges or barriers hindering the ability of the supply chain to build up this capacity.
- 3.20 We will consider the possible impacts of digital signalling on competition in the market. We are particularly interested in exploring the extent to which interfaces with existing technology are required to enter the digital signalling market.
- 3.21 We want to examine the incentives for alternative suppliers to enter the digital market in GB, and whether barriers identified in Theme 1 are still prevalent in the supply of digital technology.
- 3.22 As noted above, we will take into account current industry initiatives, such as the Long Term Deployment Plan.

## ***Theme 3: Outcomes***

- 3.23 We want to assess the impact of competition on the outcomes that Network Rail is able to obtain. This will involve assessing the level of choice available to Network Rail, the prices it is able to obtain and the level of buyer power.

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<sup>31</sup> <https://www.networkrail.co.uk/running-the-railway/railway-upgrade-plan/digital-railway/digital-railway-strategy/digital-railway-long-term-deployment-plan/>

- 3.24 We will obtain evidence that will enable us to consider the level of choice customers have. We intend to gather bidding data, and carry out an analysis, which looks at the extent to which there is competition for tenders.
- 3.25 We want to understand which factors have an impact on price and in particular, the extent to which, competition for tenders and access to technology has an impact on price, including differences between projects procured through Network Rail's framework agreements for major signalling and where competitive tender has been used as an alternative.
- 3.26 We will assess the available evidence on the quality of service provided to Network Rail.
- 3.27 We will also explore the role played by Network Rail in this market. We intend to examine:
- (a) The impact of Network Rail's procurement strategy on competition in the market; and,
  - (b) Whether Network Rail has, and is able to leverage, buyer power.

# Annex A - Use of information provided to ORR

1. This note sets out how ORR may use information provided to it during the course of this market study.

## Why is ORR asking for information?

2. The information you provide will help us better understand how well the markets for the supply of major signalling systems.

## What will ORR do with the information I provide?

3. Your information will inform our final market study report. The report will set out our findings and any proposed remedies to any problems we find.

4. Where appropriate, we may also use information you provide to take enforcement action, using our competition or consumer powers, or may share your information with another enforcement authority or with another regulator for them to consider whether any action is necessary.

5. We may only publish or share information in specific circumstances set out in legislation (principally in Part 9 of the Enterprise Act 2002). In particular, prior to publication or any such disclosure, we must have regard to (among other considerations) the need for excluding, so far as is practicable:

- any information relating to the private affairs of an individual which might, in our opinion, significantly harm the individual's interests; or
- any commercial information relating to a business which, if published or shared, might, in our opinion, significantly harm the legitimate business interests of that business.

6. We will redact, summarise or aggregate information in published reports where this is appropriate to ensure transparency whilst protecting legitimate consumer or business interests.



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