Anticipated acquisition by Hitachi Rail, Ltd of Thales SA's Ground Transportation Systems Business

Summary of provisional findings

Notified: 8 June 2023

General overview of our findings

1. The Competition and Markets Authority (**CMA**) has provisionally found that the anticipated acquisition (the **Merger**) by Hitachi Rail, Ltd. (**Hitachi**) of Thales SA's Ground Transportation Systems business (**Thales**) (together the Parties) may be expected to result in a substantial lessening of competition (**SLC**) in:

   (a) the supply of digital mainline signalling systems and related services (digital mainline signalling systems) in Great Britain (**GB**); and

   (b) the supply of communications-based train control signalling systems and related services (**CBTC systems**) in the United Kingdom (**UK**) (ie the type of signalling used on metro systems for example, on some lines of the London Underground).

2. The report and its appendices, which will be published shortly after this summary, constitute the CMA's Provisional Findings. We invite any interested parties to make representations on these provisional findings by no later than by **17:00 (UK time) on 29 June 2023**.

3. We will take all submissions received by this date into account in reaching our final decision. Interested parties should refer to the notice of provisional findings for details of how to do this.

4. In our Notice of possible remedies, published alongside our Provisional Findings, we have set out possible options to remedy the provisional SLC: prohibition of the merger, full or partial divestiture of one of the Parties' signalling businesses, or behavioural commitments by the Parties. We also

invite submissions from interested parties on these initial views by **17:00 (UK time) on 22 June 2023**.

Why and how are we reviewing this Merger?

5. Hitachi announced in August 2021 that it had agreed to acquire Thales for a purchase price of €1.66 billion. The Merger was conditional on receiving merger control clearance from different competition agencies, including the CMA.

6. Hitachi is a provider of transport solutions, including rail signalling systems, worldwide. Thales (ie the ground transportation systems business of Thales SA) is active in the supply of rail signalling solutions and ancillary activities, worldwide. The Parties have competed in the past for the supply of digital mainline signalling systems in GB and for the supply of CBTC signalling systems in the UK.

7. While Hitachi and Thales are not headquartered in the UK, the question for the CMA is whether the Merger may have an impact on competition in the UK. This link to the UK can be established based on the turnover of the business being acquired in the UK (ie whether the UK turnover of that business is more than £70 million). In this case, we concluded that the CMA had jurisdiction to review this Merger because Thales significantly exceeded the turnover threshold in the 2021 financial year.

8. In deciding whether a merger may be expected to result in an SLC, the question we are required to answer is whether there is an expectation, ie it is more likely than not, that the Merger will result in an SLC within any market or markets in the UK.

9. Railway signalling is a significant market in GB. A recent report by the British rail regulator, the Office of Rail and Road (**ORR**), estimated that the market for signalling systems in GB for mainline railways alone is worth £800-900 million annually.

10. We have focused on two ways, or 'theories of harm', in which the Merger could give rise to an SLC.

    (a) The first considers whether the Merger may be expected to substantially lessen competition by eliminating the rivalry between the Parties in the supply of digital mainline signalling systems in GB (see paragraph 29 about the effects of the Merger in Northern Ireland).

(b) The second considers whether the Merger may be expected to substantially lessen competition by eliminating the rivalry between the Parties in the supply of CBTC signalling systems in the UK.

11. As part of our investigation, we have gathered information from a wide variety of sources, including: (i) the Parties' submissions and evidence voluntarily provided by the Parties; (ii) a large number of internal business documents from the Parties gathered using our statutory powers; (iii) evidence from third parties, including other suppliers of mainline and urban signalling, Network Rail, Transport for London and other customers who procure and use mainline and urban signalling in the UK and outside the UK; and (iv) evidence from ORR.

12. To determine the impact that the Merger is likely to have on competition, we have considered what is likely to happen absent the Merger. This is known as the counterfactual. In this case, we have provisionally found that the most appropriate counterfactual against which to assess the Merger is the prevailing conditions of competition.

13. Our assessment of the effects of the Merger is forward-looking. We took into account the future evolution of competitive conditions when assessing each of the theories of harm set out above. This includes developments in the Parties' competitive offerings and the competitive offerings of third parties.

Supply of digital mainline systems in GB

Overview

14. Mainline signalling projects involve the installation of mainline signalling systems on a railway network. Mainline signalling systems are fundamental to the safe and efficient operation of modern railways, directing traffic and keeping trains apart to prevent collisions. Conventional and digital signalling systems use different technologies, are subject to different standards and have different functionalities.

15. There are two types of suppliers involved in the delivery of digital mainline signalling projects (i) original equipment manufacturers (**OEMs**), which own the signalling technology used for a particular project, and (ii) integrators, which can play a variety of roles in relation to integrating that technology into a signalling renewal project. OEMs collaborate in different ways and to different extents with integrators in the delivery of digital mainline signalling projects, for example by forming a joint venture or partnership, or by using integrators as subcontractors in carrying out mainline signalling projects.

Integrators may also sometimes license relevant signalling technology from OEMs in order to deliver signalling projects themselves.

16. While there is some convergence and standardisation at European level, mainline signalling systems require adaptation to national standards and suppliers would need to obtain approval before deploying their technologies in GB (ie homologation). The process of adaptation and homologation for a new national market requires significant investment and time. There are operational and technical requirements with which all signalling systems installed on GB mainline railways must comply.

17. While we have focused on competition in the national market for mainline signalling in GB, we recognise that there is also an important global element to competition in mainline signalling. The main competitors operate and compete on a global basis using the same core systems. Suppliers can use digital mainline signalling projects outside GB as references and their effectiveness as competitors in GB may be influenced by their experience both inside and outside GB. In addition, suppliers may invest in innovation for the benefit of their global businesses and in response to global competition.

Focus of our investigation

18. There are plans to deploy digital signalling systems across significant parts of the GB rail network in the next few years.

19. The shift from conventional to digital mainline signalling systems has the potential to increase capacity, lower unit costs, reduce disruption and, overall, lead to improvements in the way the railway operates.

20. Historically, two suppliers, Siemens and Alstom, have been the primary suppliers of mainline signalling in GB. A market study carried out by ORR in 2021 made recommendations aimed at widening the pool of signalling suppliers in the UK and reducing Network Rail's dependency on incumbent suppliers. ORR found that the digitalisation of the mainline network will provide an opportunity to broaden the current supplier base. A number of ORR's recommendations in the same study were reflected in the design of Network Rail's ongoing tender for a major signalling framework agreement, the Train Control Systems Framework (the **TCSF**), which seeks to select four suppliers for future digital mainline signalling projects.

21. The pre-qualification stage (**PQQ**) of the TCSF was launched on 17 March 2023 and the invitation to tender stage (**ITT**) is expected to start in early July 2023. Responses to the ITT will be due around the end of September and the final TCSF award is expected to take place around January 2024.

22. In the Phase 1 Decision, the CMA found that, given Siemens' and Alstom's significant incumbency advantages with respect to the supply of conventional mainline signalling and the transition towards digitalisation of the signalling infrastructure, there was no realistic prospect of an SLC within that market. We have not received any evidence to justify reopening this theory of harm during our investigation. We have, therefore, focused our investigation on the supply of digital mainline signalling systems to Network Rail, as it is the largest procurer of mainline signalling in GB. We have also considered the TCSF in some detail since the outcome of the ongoing tender for the TCSF will likely influence the conditions of competition for future digital mainline signalling procured by Network Rail and other GB customers as it will provide an opportunity for new suppliers to enter GB. However, while the immediate context for our investigation is the TCSF, our competition assessment is relevant to the supply of digital mainline signalling more widely than the competition for the TCSF.

23. The TCSF consists of two lots: Lot 1 for the supply of conventional mainline signalling projects (with an expected value of £1 billion), and Lot 2 for the supply of digital mainline signalling projects (with an expected value of £3 billion) (**Lot 2**). While some uncertainty remains around the timing, implementation, and value of Lot 2 of the TCSF, the most recent tender documentation set out that the tender will include an initial award of a guaranteed workbank that will be split into portions of declining size to be allocated to first, second, third and fourth place, respectively. In addition, the suppliers selected through this tender will have the opportunity to bid for additional projects that will be allocated through mini-competitions. Successful bidders will receive funding from Network Rail towards the product development and adaptation costs of digital mainline signalling technology.

24. We have assessed how closely the Parties compete with each other and whether the removal of the constraint that they would have placed on each other, absent the Merger, may be expected to lead to an SLC in the supply of digital mainline signalling systems in the GB market. We have also assessed the competitive constraints likely to be placed on the Parties by other suppliers that may bid for digital mainline signalling projects. We have taken into account the evidence on the Parties' plans, and the plans of other suppliers, to bid for Network Rail's TCSF.

25. Suppliers can flex their offer when bidding depending on the degree of competitive constraint they anticipate they will face from other bidders. In our competitive assessment, therefore, we seek to analyse the closeness of competition between the Parties and the other suppliers which are likely to be perceived as potential competitors for the TCSF.

26. The evidence we gathered consistently indicates that competition for the supply of digital mainline signalling systems in GB will likely reflect several aspects of suppliers' offerings: (a) *technological capabilities*, including their capability to homologate their signalling products to GB standards and achieve open interfaces; (b) *experience and expertise in successfully undertaking digital signalling projects* to the required standard and needs of the customer, either in GB or in Europe, including experience in homologation of digital mainline signalling technology; (c) *experience in GB mainline signalling*, including suppliers' capabilities to deliver the volume of signalling infrastructure under the TCSF (eg deploying the necessary workforce) and experience of working with Network Rail; (d) ability to *drive down costs and introduce innovations* over time to meet Network Rail's cost reduction targets; (e) *financial standing and size* to handle the associated commercial and financial risks of the contract; and (f) *price* (considered at ITT stage).

27. We note that our Merger assessment is independent from Network Rail's tender evaluation process and is in no way determinative of the outcome of that process and we have not sought to reproduce or anticipate Network Rail's assessment in our Merger assessment.

28. We also note that we are limited in what we can disclose publicly in this document, given the confidential nature of the TCSF tender, including in this summary.

29. The Parties have not competed in the past for the delivery of digital mainline signalling projects in Northern Ireland and there are currently no plans for a future digital tender in Northern Ireland.[1] Therefore, we currently propose to focus our investigation on the impact of the Merger in the supply of digital mainline signalling systems in GB.

Are the Parties likely to be close competitors in the supply of digital mainline signalling in GB?

30. The evidence we gathered indicates that the Parties, absent the Merger, would likely be two of the few OEMs who are well placed to bid for of Lot 2 of the TCSF, and to win a place on that framework (on their own or in partnership with integrators), notwithstanding some level of uncertainty around the timing, implementation, and value of the TCSF.

31. We consider that the Parties are credible competitors. The Parties are the second and fourth largest suppliers by value of digital mainline signalling

[1] Railway network regulations differ between GB and Northern Ireland and authorisation is required by the Department of Transport in Northern Ireland to place mainline signalling products into service in Northern Ireland.

contracts won in Europe, with a combined share of supply of [40–50%], with a significant increment of [10–20%] resulting from the Merger. The Merger would create the largest digital mainline signalling supplier in Europe. The Parties' shares of supply are significant in a highly concentrated market, in which the top four suppliers account for [90–100%] of supply. Siemens ([30–40%]) and Alstom ([20–30%]) are the only other suppliers with a share of supply of over 5%. We consider that the Parties' shares of supply in Europe are indicative of their strength and technical capabilities as digital mainline signalling providers. Given Network Rail's TCSF is designed to bring new suppliers into GB mainline signalling, we consider that suppliers that have demonstrated their competitive strengths in supplying digital mainline signalling systems in other markets are also likely to be the most credible options for Network Rail.

32. The Parties' competitive strengths with respect to management and technical expertise in undertaking digital mainline signalling projects are demonstrated by each of their track records in Europe. Taken overall, Thales has more experience than Hitachi and is matched only by Siemens and Alstom. Only the Parties, Siemens and Alstom have experience in delivering large digital projects (with a value over £100 million). Assessed on the number of countries in which this experience has been gained (markets entered and technologies homologated, ie approved for deployment in the local market), the position is similar, albeit Siemens and Alstom appear to have stronger track records than Hitachi.

33. Both Parties are able to provide a full suite of digital mainline signalling technology and have experience deploying their technology solutions in numerous digital mainline signalling projects. Given their strong technological solutions and extensive experience and track record of delivering mainline signalling projects, including adapting their systems to multiple national markets, both Thales and Hitachi are at a very substantial advantage to the other OEMs that are not currently active in GB mainline digital signalling in seeking to enter and expand in the GB market.

34. The Parties have less local experience in GB mainline signalling than the incumbent OEM suppliers, Siemens and Alstom. Hitachi, having won a place on the most recent procurement framework for signalling, has had more success and more experience than Thales. Hitachi also won the first ever digital mainline signalling project tendered in the UK (the Cambrian Line project). Thales has been active in GB mainline signalling as a supplier of axle counters and as a provider of traffic management systems. Thales and Hitachi may choose to partner with or subcontract to one or more integrators in order to reduce any differences in their respective levels of experience in mainline signalling in GB.

35. With respect to local capacity, we currently understand that all OEMs, apart from Siemens and Alstom, would likely need to increase their UK labour capacity and aspects of their local capabilities to be able to meet the TCSF requirements. The Parties, like other OEMs (see below), can use integrators to address gaps in local capabilities, which they have done in previous tenders.

36. Overall, our provisional view is that, taking all of the evidence in the round, the Parties are likely to be close competitors for the TCSF. While the two differ in terms of their strengths and experience, both can provide a complete suite of signalling technology and can draw on a strong portfolio of management experience from digital projects across a range of countries. This differentiates them substantially from those other OEMs that are not currently active in the GB mainline signalling market.

Are the remaining rivals likely to be sufficient to offset the loss of competition resulting from the Merger?

37. We have found that there are a limited number of credible competitors that would be likely to constrain the Parties following the Merger.

38. The evidence we gathered shows that Siemens and Alstom are stronger than, or at least as strong as, the Parties against each of the assessed competition parameters. Both Siemens and Alstom benefit from strong incumbency advantages and both will likely be strong competitors for the TCSF and exercise a competitive constraint on the Parties. The Parties' internal documents reviewed to date indicate that they considered each other, Siemens, and Alstom as their main potential competitors for past signalling digital tenders in the UK and for the TCSF.

39. The evidence we have considered, including in relation to shares of supply, indicates that the other OEMs present in Europe are CAF, AZD Praha, Indra, Mermec and Progress Rail. CAF is the supplier with the higher share among these OEMs, but none of these players has a share of supply higher than 5%.

40. The evidence indicates that of these potential competitors, apart from Alstom and Siemens, only CAF is likely to exercise a relevant constraint on the Parties (even if a weaker constraint than the Parties pose on each other).

41. CAF is able to provide a full suite of technology, given that it has experience in delivering digital mainline signalling projects, although more limited when compared to Thales and, to a lesser but still significant extent, Hitachi. Although CAF is not active in signalling in GB and does not have previous experience collaborating with Network Rail, it can (as can other OEMs) bid in

partnership with and/or subcontract UK-based integrators. This would allow CAF to benefit from the integrators' capabilities and experience of operating in the UK and with Network Rail.

42. Other OEMs have significantly less experience in delivering digital mainline signalling projects and in homologating their technology in different countries. The evidence we have received to date also indicates that other OEMs may have to rely on multi-supplier technological solutions in which different subsystems of a digital mainline signalling system are provided by different suppliers. Such a solution is likely to increase interfacing and delivery risks.

43. The evidence we gathered also consistently shows that, while some integrators do have material experience in delivering mainline rail projects, their only feasible option to compete for digital mainline signalling projects is to partner with an OEM that holds the necessary technology.

44. Only Siemens, Alstom and to lesser extent CAF match the Parties' strengths across all of the parameters of competition considered in our assessment and would likely exercise a constraint on the Parties. We have provisionally found that these rivals, together or in isolation, are not likely to be sufficient to offset the loss of constraint that will result from the Merger.

45. In a bidding process with up to four winners and a limited number of potential suppliers, the loss of a credible supplier would have a material impact on the intensity of competition for the TCSF tender.

46. Based on our provisional assessment, we consider that the Merger is likely to result in the removal of a direct and significant constraint on each of the Parties. We consider that overall, the remaining constraints post-Merger from Siemens, Alstom and CAF are not likely to be sufficient to offset the loss of competition brought about by the Merger. Therefore, we have provisionally found that the Merger may be expected to result in an SLC in relation to the supply of digital mainline signalling systems in GB.

The harm resulting from the Merger

47. The substantial loss of competition resulting from the Merger is likely to lead to a worse outcome in the initial TCSF tender and future mainline signalling tenders in GB. The Merger could result in reduced choice for Network Rail in terms of the strength and number of bidders and could lead to fewer than four suppliers being appointed in the current tender process and thus available to bid, should they so choose, in future mini-competitions within the TCSF.

48. Overall, we currently consider that the Merger could lead to adverse effects in the supply of digital mainline signalling systems to infrastructure managers in GB through higher prices, reduced innovation, worse terms and/or worse performance levels relative to the situation absent the Merger.

Supply of CBTC systems in the UK

Overview

49. Urban signalling systems are railway signalling systems used for local passenger rail transit, such as metro networks, of which the largest in the UK is the London Underground, and are designed to ensure safety on urban rail networks by preventing collisions and excessive speeds, as well as to improve and increase network capacity. Urban signalling systems typically support much higher train frequencies than mainline signalling systems and, as a result, are generally more complex and more costly.

50. Urban signalling systems are based on either conventional or CBTC technologies. Unlike conventional systems, CBTC systems rely on continuous radio-based communication between the train and the tracks to precisely identify, at all times, the location of a train on the tracks. CBTC signalling works can be either ‘greenfield’ or ‘brownfield’, depending on whether the works are on an active railway.

51. As for the supply of digital mainline systems, the supply of CBTC systems is also characterised by both national and global elements of competition.

Focus of our investigation

52. There is a limited number of CBTC projects expected in the UK in the next 10–15 years; however, the size of each individual project is expected to be substantial. TfL is expected to tender for the resignalling of the Piccadilly and Bakerloo lines on the London Underground with CBTC by around 2035. We have not taken into account in our current assessment potential CBTC tenders for other lines that may occur well after 2035 because of the uncertainty of predicting competitive conditions in this market so far into the future. In addition, we have not identified other projects that are planned in the UK in this time period. We have, therefore, focused our assessment on the competition for the resignalling of the Piccadilly and Bakerloo lines. We assessed whether the Merger is likely to result in the removal of competition between the Parties in these future CBTC tenders and whether that loss of competition would likely lead to an SLC.

53. While there are uncertainties in relation to the design of TfL's future CBTC tenders for the Piccadilly and Bakerloo lines and the capabilities of suppliers at the time of these tenders, we do not have to predict the specific tender outcomes but rather assess the likely applicable conditions of competition on the basis of all the available evidence.

54. Based on an assessment of competition for past projects, we currently consider that competition for the resignalling of the Piccadilly and Bakerloo lines with CBTC is likely to take place across several aspects of suppliers' offerings: (a) *CBTC signalling solutions* and ability to meet the technological requirements set out by TfL; (b) *experience in undertaking CBTC projects* on metro systems that have at least some comparable characteristics to the upcoming projects on the London Underground and in particular complex projects involving the resignalling of existing networks; (c) *local knowledge and capacity*, including experience and knowledge of London Underground systems as well as existing capacity in the UK; and (d) *price*, although safety critical factors are expected to be more important.

55. In our competition assessment, we consider how closely the Parties and their competitors will compete against these parameters.

Is the supply of CBTC systems to the London Underground contestable by new entrants?

56. One of the defining features of competition for the future London Underground tenders is the specialised nature of CBTC projects. Metro systems that are more complex bring greater delivery risks and experienced suppliers are generally better placed for such an undertaking. Complexity in this context ranges from low to high. The London Underground is regarded as being towards the more complex end of this spectrum, owing to the sprawling nature of an aged network that has been in existence for over a century with its multiple lines, intersections, junctions, and narrow deep tube tunnels. The network is used by hundreds of millions of passengers each year with trains operating at speed and high frequency matched by few other networks.

57. Given this complexity, existing suppliers are expected to benefit from a competitive advantage, potentially a significant one, when the future London Underground CBTC contracts come up for tender. They have deployed their technology on the network and have well established relationships with the customer, TfL. They may also have the benefit of being able to draw on a existing workforce and facilities for future projects without the need for considerable further investment. Overall, incumbents' previous experience would likely lower the costs of familiarisation with the network, the customer

and the technologies and, potentially, provide those suppliers with the ability to deploy their solutions more rapidly (compared to new entrants). All of these factors indicate that barriers to entry on the London Underground are high. At present, there are only two suppliers that have delivered CBTC signalling projects on the London Underground: Thales and Siemens.

58. However, the fact that there are only two suppliers currently operating on the London Underground does not necessarily imply that competition is not important or necessary in this market. Although there have been very few tenders for the supply of CBTC systems, the past competitive interactions indicate that TfL has considered suppliers other than its current providers. TfL told us that previous London Underground experience was neither 'essential nor preferred' for future tenders.

59. While there are material incumbency advantages, overall, we consider that the evidence received to date indicates that future London Underground major resignalling projects will be open to competitive tender and that new entrants appear likely be able to compete and act as a constraint on incumbent suppliers, depending on their global experience and overall capabilities as a CBTC supplier.

Is Hitachi likely to bid for complex brownfield CBTC projects in the future?

60. We cannot predict with certainty whether Hitachi will bid for future CBTC tenders for the Bakerloo and Piccadilly lines, absent the Merger. Such uncertainty is an inherent part of the forward-looking assessment that we must conduct. While Hitachi has less experience in delivering complex brownfield CBTC projects than Thales, Hitachi is currently delivering several brownfield projects globally. Hitachi has strong capabilities and increasing experience in brownfield CBTC projects (see below). Therefore, our starting point (subject to evidence to the contrary) is that Hitachi would likely continue to bid for brownfield CBTC projects on a case-by-case basis and be perceived as a potential, and credible, competitor for future CBTC tenders in the London Underground, absent the Merger.

61. We currently consider that the evidence we have received to date is not sufficient to provisionally conclude that, in the absence of the Merger, and despite Hitachi's capabilities and the experience acquired from previous complex brownfield CBTC projects, Hitachi would not bid for future CBTC systems in the London Underground.

Are the Parties likely to be close competitors in future CBTC tenders for the London Underground?

62. According to the CMA's Merger Assessment Guidelines, when competition mainly takes place among few firms, any of these firms would normally be sufficiently close competitors that the elimination of competition between them would raise competition concerns, subject to evidence to the contrary.

63. Thales is the supplier of CBTC systems in around 60–70% of the London Underground. Hitachi and Thales are two of only four other major suppliers of CBTC systems that operate in Europe and across the world (Thales, Siemens, Alstom and Hitachi). We currently consider that the Parties' shares of supply across Europe and in the rest of the world are a good indicator of their strength and technical capabilities as CBTC suppliers and show that the Parties have vast experience in delivering CBTC projects across the world.

64. The Parties' tender data shows that Hitachi and Thales bid against each other relatively frequently and have won CBTC contracts when in direct competition with each other, but on a smaller number of occasions than they bid and lost contracts to Siemens and Alstom.

65. From a technological perspective, both Parties have access to a core CBTC system and have deployed it across a wide portfolio of projects. Thales is likely to benefit from a competitive advantage over Hitachi when competing for London Underground CBTC contracts, given its experience in deploying its technology and having developed a certified solution on the London Underground.

66. Our assessment of Hitachi's management experience and technical expertise indicates that Hitachi is an experienced supplier that is undertaking a number of high-value CBTC brownfield projects, including BART in San Francisco, which Hitachi has described as the second largest brownfield CBTC project in the world. Our analysis also shows that Hitachi has expanded its portfolio of brownfield projects and pool of CBTC brownfield references since TfL's last tender for CBTC systems in 2016. By the time of the next London Underground tender, Hitachi is expected to have completed (or near completed) brownfield projects in Ankara, Philadelphia, Glasgow, Brussels, Baltimore, Paris and San Francisco.

67. Taking all of the evidence in the round, we consider that Hitachi is likely to have the relevant management experience and technical expertise to undertake complex brownfield projects and to compete for future London Underground contracts.

68. Overall, our provisional view is that the Parties are likely to be close competitors for the supply of CBTC systems on the London Underground. Hitachi's lack of previous experience on the London Underground means that it may not be the closest competitor to Thales but nonetheless it could exercise a credible constraint on Thales in the next London Underground tenders, given the limited number of rivals for these tenders.

Are the remaining rivals likely to be sufficient to offset the potential loss of competition resulting from the Merger

69. The evidence shows that Siemens is at least as strong as Thales against each of the assessed competition parameters, and stronger than Hitachi. Alstom, although it does not have previous experience on the London Underground, is a strong global CBTC supplier with considerable experience and technical capabilities. Siemens and Alstom will likely be strong competitors for future London Underground tenders and exercise a competitive constraint on the Parties.

70. Other CBTC suppliers such as Stadler and Mitsubishi have only recently developed or are developing the full functionality for their CBTC technologies and are significantly further behind than the Parties. These suppliers also have limited track record or experience in undertaking brownfield projects and are likely to exercise only a weak or very weak constraint on the Parties.

The harm resulting from the Merger

71. Based on our provisional assessment, we consider that the Merger is likely to result in the removal of a constraint on Thales as the CBTC market leader in the London Underground and that overall, the remaining constraints post-Merger from Siemens and Alstom are not likely to be sufficient to offset the loss brought about by the Merger. Therefore, we have provisionally found that the Merger may be expected to result in an SLC in relation to the supply of CBTC signalling systems in the UK.

72. We consider that the Merger could lead to adverse effects in the supply of CBTC in the UK through higher prices, reduced innovation, worse terms and/or worse performance levels relative to the situation absent the Merger.

Are there any factors that might prevent or mitigate against the SLCs arising?

73. Once we have decided that a Merger could give rise to an SLC, we also consider whether there are any factors that might prevent or mitigate against that SLC from arising.

74. We currently consider that it is not likely that entry or expansion of sufficient scale would occur in a timely manner in order to prevent or reduce the impact of the SLCs we have provisionally found in the supply of digital mainline signalling systems in GB and in the supply of CBTC systems in the UK.

75. The Parties claimed that efficiencies arising from the Merger would create a stronger competitor to Siemens and Alstom globally and in the UK. The evidence submitted by the Parties to date does not indicate that these efficiencies could only be achieved through the Merger. We do not consider that these efficiencies would be timely, likely and sufficient to prevent the SLCs we have provisionally found in the supply of digital mainline signalling in GB and in the supply of CBTC systems in the UK.