

Anticipated acquisition by Hon Hai Precision Industry Co., Ltd of SMART Technologies Inc.

Decision on relevant merger situation and substantial lessening of competition

ME/6623/16

The CMA's decision on reference under section 33(1) of the Enterprise Act 2002 given on 26 August 2016. Full text of the decision published on **29 September 2016**.

Please note that [X] indicates figures or text which have been deleted or replaced in ranges at the request of the parties for reasons of commercial confidentiality.

SUMMARY

1. Hon Hai Precision Industry Co., Ltd (**Hon Hai**) has agreed to acquire all of the outstanding shares of SMART Technologies Inc. (**SMART**) (the **Merger**). Hon Hai and SMART are together referred to as the **Parties**.
2. There is currently no horizontal overlap between the Parties. However, Hon Hai is in the process of acquiring a controlling stake in Sharp Corporation (**Sharp**) (the **Hon Hai/Sharp transaction**). If Hon Hai completes the acquisition of Sharp, the Parties will overlap in the supply of interactive displays,¹ which consist of interactive whiteboards (**IWBs**), interactive projectors (**IPJs**) and interactive flat panels (**IFPs**), in the UK. While SMART currently supplies all of these types of interactive displays, Sharp is active in the supply of IFPs only.
3. Hon Hai is active as a provider of third party electronic manufacturing services (**EMS**), including to some suppliers of interactive displays (but not SMART or Sharp). EMS is the term used when a third party manufactures on behalf of suppliers of electronic end-products (which hold the intellectual property rights

¹ In this decision the term 'interactive displays' refers to all interactive display products, ie IWBs, IPJs and IFPs together.

over the end-products). EMS may include some or all of component selection and procurement, prototyping, production, assembly, testing, failure analysis, logistics and distribution.

4. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that the Parties will cease to be distinct as a result of the Merger, that the share of supply test is met and that accordingly arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
5. The CMA considered whether the Merger may raise competition concerns as a result of the loss of a direct competitor in the supply of interactive displays (ie as a result of horizontal unilateral effects). It also considered whether by bringing together a supplier of EMS (Hon Hai) and a customer of EMS (SMART), the Merger may lead to vertical effects.
6. The CMA believes that the Parties face competition from a large number of alternative providers, and are not particularly close competitors, in the supply of either interactive displays in general or IFPs in particular. The CMA therefore believes that the Merger does not give rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of horizontal effects.
7. On the basis that Hon Hai has a relatively low share of supply of EMS and that there are several alternative EMS suppliers available, the CMA does not believe that Hon Hai holds significant market power, which would be necessary for it to have the ability to foreclose downstream competitors. Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects.
8. The Merger will therefore **not be referred** under section 33(1) of the Enterprise Act 2002 (the **Act**).

ASSESSMENT

Parties

9. Hon Hai (which trades as Foxconn) is a Taiwanese public company. It is a provider of EMS² for electronic products such as computers, mobile phones, video games consoles and televisions. It has operations across the Americas, Asia and Europe. According to the Parties, Hon Hai's worldwide turnover for

² EMS consists of many products and services that are required to produce end products, such as component selection and procurement, prototyping, production, assembly, testing, failure analysis, logistics and distribution.

the financial year ending 31 March 2016 was £92,359 million, of which £[X] was generated in the UK.

10. SMART has its headquarters in Calgary, Canada and is active globally in the presentation/communication tools sector. It specialises in the supply of interactive displays (ie IWBs, IPJs and IFPs), as well as the accompanying collaborative software. According to the Parties, in the financial year 2016, SMART's worldwide turnover was approximately £[X], of which approximately £[X] (on a shipped basis) and £[X] (on a billed basis) was generated in the UK.³
11. Hon Hai is currently involved in the process of acquiring a controlling stake in Sharp Corporation (**Sharp**). Sharp is a Japanese corporation with operations across the Americas, Asia and Europe that develops, manufactures and sells a variety of electronic products, including products incorporating liquid crystal display (**LCD**) panels (eg LCD TV sets) and interactive displays.

Transaction

12. The Arrangement Agreement was signed on 26 May 2016. The transaction is conditional upon, inter alia, the Parties obtaining the applicable merger control clearances (or the expiry of the relevant waiting periods) in Germany, Slovenia and the UK.⁴

Jurisdiction

13. As a result of the Merger, the enterprises of Hon Hai and SMART will cease to be distinct.
14. There is currently no horizontal overlap between the Parties. However, should the *Hon Hai/Sharp* transaction proceed to completion,⁵ there would be a horizontal overlap between the activities of Hon Hai (via its stake in Sharp) and SMART in the presentation/communication tools sector. In particular, the Parties would overlap in the supply of interactive displays.
15. The Parties submitted that, although there are no plausible segments of the interactive display sector where the Parties' activities overlap and the combined share of supply exceeds 25% (including if Sharp's share is taken

³ The Parties explained that there are various reasons for the differences between the 'shipped' and 'billed' turnover in the UK: [X].

⁴ The Parties have obtained clearance from the Bundeskartellamt on 20 June 2016, and from the Slovenian Competition Authority on 30 June 2016.

⁵ On 13 May 2016, Hon Hai formally notified the *Hon Hai/Sharp* transaction to the European Commission (the **Commission**) which cleared the transaction on 20 June 2016 (see [Case M.8023, Hon Hai Precision/Sharp](#)). The *Hon Hai/Sharp* transaction is still waiting for a decision in China, where it was notified on 17 May 2016.

into account), the Parties' combined share of supply is only marginally below 25% ([20-30]% with a [0-5]% increment) in one narrow sub-segment: the supply of interactive displays to education customers in the UK, on a volume basis. On this basis, considering the Merger in the context of the *Hon Hai/Sharp* transaction, the CMA believes that the share of supply test in section 23 of the Act is met (on a 'may be the case' basis).

16. The CMA therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
17. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 11 July 2016 and the statutory 40 working day deadline for a decision is 5 September 2016.

Counterfactual

18. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). For anticipated mergers the CMA generally adopts the prevailing conditions of competition as the counterfactual against which to assess the impact of the merger. However, the CMA will assess the merger against an alternative counterfactual where, based on the evidence available to it, it believes that, in the absence of the merger, the prospect of these conditions continuing is not realistic, or there is a realistic prospect of a counterfactual that is more competitive than these conditions.⁶
19. In this case, there is no evidence supporting a different counterfactual, and the Parties have not put forward arguments in this respect. Therefore, the CMA believes the prevailing conditions of competition (ie in the absence of both the Merger and the *Hon Hai/Sharp* transaction) to be the relevant counterfactual.

Frame of reference

20. The CMA considers that market definition provides a framework for assessing the competitive effects of a merger and involves an element of judgement. The boundaries of the market do not determine the outcome of the analysis of the competitive effects of the merger, as it is recognised that there can be constraints on merger parties from outside the relevant market, segmentation

⁶ [Merger Assessment Guidelines](#) (OFT1254/CC2), September 2010, from paragraph 4.3.5. The [Merger Assessment Guidelines](#) have been adopted by the CMA (see [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, Annex D).

within the relevant market, or other ways in which some constraints are more important than others. The CMA will take these factors into account in its competitive assessment.⁷

21. As set out in paragraph 14 above, while there is currently no horizontal overlap between the Parties, a horizontal overlap in the supply of interactive displays would be created should the *Hon Hai/Sharp* transaction proceed to completion.
22. Currently, Hon Hai does not provide EMS to SMART. However, Hon Hai provides EMS to certain interactive display suppliers (ie [REDACTED]) which compete with SMART. The CMA therefore considered whether vertical effects might arise from the Merger.
23. The CMA also considered possible vertical effects in relation to the planned merger between Sharp and SMART (through Hon Hai's stake in Sharp) (see paragraph 11), as Sharp supplies large LCD panels to SMART's competitors. Large LCD panels are an input for interactive displays which are the primary focus of this decision. However, given that the major providers of large LCD panels operate on a worldwide scale⁸ and that Sharp's share of supply of large LCD panels for TVs worldwide is only [REDACTED]%,⁹ this issue is not considered further in this decision.
24. The following section considers both the frame of reference in which the Parties would overlap (if the *Hon Hai/Sharp* transaction is completed), and the upstream frame of reference in which Hon Hai only is currently active.

Product scope

Supply of IFPs and interactive displays

25. The Parties submitted that the interactive display segment of the supply of presentation/ communication tools can be divided into:

(a) interactive displays,¹⁰ consisting of:

⁷ *Merger Assessment Guidelines*, paragraph 5.2.2.

⁸ *Case M.8023, Hon Hai Precision/Sharp*, 13 May 2016.

⁹ *Case M.8023, Hon Hai Precision/Sharp*, 13 May 2016.

¹⁰ The Commission has examined the supply of display panels in several previous decisions. While it left the precise market definition open, it contemplated segmentations according to size of the panel, the technology used to produce the displays and the end-use application in which the panels are used. See inter alia *Case M.8023, Hon Hai Precision/Sharp*, 13 May 2016; *Case M.8023, Hon Hai Precision/Sharp*, 22 June 2012; *Case M.5762 Innolux/Chi Mei/TPO*, 25 February 2010, *Case M.5589 Sony Seiko Epson*, 22 September 2009; *Case M.5414. Samsung SDI/Samsung Electronics/SMD*, 23 January 2009; and *Case M.3459 Seiko Epson/Sanyo/Sanyo Epson Imaging Devices JV*, 22 September 2004.

- (i) IWBs, which consist of the combination of a non-interactive projector and a whiteboard that incorporates sense/touching technology, allowing users to interact with the image being projected onto the whiteboard;
 - (ii) IFPs, which consist of a flat panel display (eg an **LCD**, light-emitting diode (**LED**) or plasma panel) with built-in interactive technology; and
 - (iii) IPJs, which allow the user to interact with the projected image using a stylus or finger touch.
- (b) interactive TV systems, where users connect their own device (eg a laptop or tablet) to a non-interactive TV at the front of the room via a specific application; and
- (c) other interactive media.
26. Given that the Parties' activities only overlap in the supply of interactive displays and more specifically only in the supply of IFPs (if the *Hon Hai/Sharp* transaction is completed), the supply of interactive TV systems and other interactive media are not considered further in this decision.
27. The Parties submitted that different types of interactive displays are substitutes from a demand-side perspective, as they have a similar cost of ownership across the product lifecycle, and most end-users have opted to purchase IFPs instead of opting for newer models of IWBs when they have come to replace their existing device. In addition, they submitted that different types of interactive displays are substitutes from a supply-side perspective. The Parties explained that the six largest providers of IWBs in the UK all offer IFPs as well. Moreover, according to the Parties, it would be relatively quick and easy for a provider of one type of interactive display to expand into providing another type of interactive display, as each type of interactive display is available on a white-label basis. The Parties therefore submitted that it was not appropriate to segment interactive displays by type into IWBs, IFPs, and IPJs.
28. One competitor and one reseller¹¹ who replied to the CMA's merger investigation said that different types of interactive displays compete in the same space. Two other competitors argued that the substitutability between different types of interactive displays depends on a customer's short-term

¹¹ SMART operates a two-tier distribution system in the UK and Europe. Under this system, SMART does not sell interactive displays directly to end-users. Instead, it sells its products to a distributor who in turn sells the interactive displays to one of a number of non-exclusive authorised resellers. The reseller ultimately sells the product to the end-user.

budget and budget over the life of the product. One competitor observed that enterprise customers would probably be reluctant to substitute IFPs with other devices. It was also observed by several third parties that there is a general market trend away from IWBs and towards IFPs.

29. The CMA found that, although the largest providers of IFPs tend also to supply IWBs, the main providers of IPJs tend to be different. However, two third parties told the CMA that entering the IPJ segment through third party EMS supply would be quick and relatively inexpensive.
30. The CMA notes that, while SMART's 2015 Annual Report states that demand for interactive displays has been negatively affected by competition from alternative products, such as tablet computers,¹² most of SMART's internal documents focus on competition between interactive display suppliers only. Finally, as described above in paragraph 27, demand-side substitutability is asymmetric, insofar as end-users' demand is moving towards IFPs, which often replace older IWBs.
31. The Parties also submitted that interactive displays are sold to two broad sets of customers – education customers and enterprise customers. The Parties told the CMA that education customers typically place greater importance on aftersales support (including training) and the accompanying collaborative software offering. Moreover, interactive displays for enterprise customers are typically more expensive, as enterprise customers tend to be less price sensitive. As a result, the largest providers of interactive displays (including SMART) have different products for education and enterprise customers. In addition, the Parties' internal documents segment the supply of interactive displays by type of customer. These documents also suggest that some suppliers are much stronger in one customer segment than in another.
32. Therefore, notwithstanding the Parties' view that the product lines sold to education and enterprise customers are almost identical, the CMA believes education and enterprise customers may have different needs.
33. For the reasons above, on a cautious basis, the CMA assessed the impact of the Merger on the supply of all types of interactive displays, and the supply of IFPs separately. The CMA also assessed the impact of the Merger with reference to the entire customer population and with reference to education and enterprise customers separately. However, it was not necessary for the CMA to reach a conclusion on the precise product frame of reference, since, as set out below, no competition concerns arise on any of these bases.

¹² Page 41 of [SMART's 2015 Annual Report](#).

Supply of EMS

34. The Commission considered the supply of EMS in the context of the *Hon Hai/Sharp* transaction.¹³ While the Commission did not conclude on the precise product frame of reference in relation to the supply of EMS, third party responses that it received were mixed in relation to (i) the possibility of segmenting it by types of final product and (ii) the appropriateness of including in-house manufacturing by end-product suppliers.¹⁴
35. The CMA has similarly considered that it is not necessary to reach a conclusion in relation to the supply of EMS since, as set out below, no competition concerns arise on any plausible basis. None of the third parties who responded to the CMA's merger investigation indicated that this approach was inappropriate.

Geographic scope

Supply of IFPs and interactive displays

36. The Parties submitted that the supply of interactive displays is worldwide in scope.¹⁵
37. They stated that SMART, like many other providers of interactive displays, has local sales offices across the globe and sells its products in virtually all regions of the world. In addition, they stated that barriers to cross-border trade are low, shipping costs are low relative to the products' price and product standards and specifications do not vary significantly on a country-by-country basis.
38. On the other hand, on the basis of replies to the CMA's merger investigation, the Parties' and other providers' shares of supply in the UK appear significantly different from those in the rest of the world and, albeit to a lesser extent, in the rest of the EEA. On the basis of third party replies, the CMA notes that while most providers are active globally, national distribution arrangements are significant drivers of sales. The Parties accepted that, given that prices do vary to a certain extent geographically, and that a national sales

¹³ [Case M.8023, *Hon Hai Precision/Sharp*](#), 13 May 2016.

¹⁴ [Case M.8023, *Hon Hai Precision/Sharp*](#), 13 May 2016.

¹⁵ The Commission has considered in past decisions that the geographic scope of the supply of display panels was worldwide based on low transportation costs, homogeneous prices and the large volumes of display panel products traded globally across borders but did not in its most recent decision find it necessary to conclude on the precise market definition in that case. See [Case M.8023, *Hon Hai Precision/Sharp*](#), 13 May 2016 paragraph 28. See also [Case M.5762 *Innolux/Chi Mei/TPO*](#), 25 February 2010, [Case M.5589 *Sony Seiko Epson*](#), 22 September 2009; [Case M.5414. *Samsung SDI/Samsung Electronics/SMD*](#), 23 January 2009.

force and aftersales support network are important drivers of customer choice, the appropriateness of a national frame of reference cannot be ruled out.

39. For the reasons set out above, on a cautious basis, the CMA considered the impact of the Merger in relation to the supply of IFPs and interactive displays, both in the UK and worldwide. However it was not necessary for the CMA to reach a conclusion on the geographic frame of reference, since, as set out below, no competition concerns arise on either basis.

Supply of EMS

40. The Commission examined the supply of EMS in the context of the *Hon Hai/Sharp* transaction¹⁶ where it noted that in past decisions, it had considered whether the geographic market for the supply of EMS was EEA-wide or worldwide but ultimately left the precise definition open. The Commission noted in that case that a majority of respondents to its merger investigation that provided EMS said they typically provided such services worldwide.^{17,18} The Commission assessed the impact of the merger at both an EEA and a worldwide level but did not conclude on the precise market definition.
41. Similarly, it was not necessary for the CMA to reach a conclusion on the geographic frame of reference in this case, since, as set out below, no competition concerns arose on any plausible basis (worldwide or EEA-wide).

Conclusion on frame of reference

42. For the reasons given above, the CMA has assessed the impact of the Merger on the:
- (a) supply of interactive displays to education and enterprise customers (both separately and together) in the UK and worldwide; and
 - (b) supply of IFPs to education and enterprise customers (both separately and together) in the UK and worldwide.
43. In relation to vertical effects, the CMA has also considered the supply of EMS worldwide and in the EEA.

¹⁶ [Case M.8023, Hon Hai Precision/Sharp](#), 13 May 2016.

¹⁷ [Case M.8023, Hon Hai Precision/Sharp](#), 13 May 2016, Paragraph 19.

¹⁸ In relation to interactive displays, this is supported by the fact that the final assembly of SMART products is currently performed by contract manufacturers in Mexico, China and South Korea (page 39 of [SMART's 2015 Annual Report](#)).

44. However, it was not necessary for the CMA to reach a conclusion on product and geographic frames of reference, as no competition concerns arise on either basis.

Competitive assessment

Horizontal unilateral effects in relation to the supply of IFPs and interactive displays

45. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or degrade quality on its own and without needing to coordinate with its rivals.¹⁹ Horizontal unilateral effects are more likely when the merger parties are close competitors. The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects through the loss of competition in the supply of IFPs or interactive displays.
46. In order to assess the likelihood of the Merger resulting in horizontal unilateral effects, the CMA has considered:
- (a) shares of supply; and
 - (b) closeness of competition between the Parties.

Shares of supply

47. The Parties provided detailed shares of supply both in the UK and on a worldwide basis.²⁰ Figures for SMART and Sharp are based on actual sales volumes. However, as Sharp does not account for enterprise and education sales separately, the Parties adopted a conservative approach, attributing all of Sharp's sales to each segment under consideration (ie double-counting and overestimating Sharp's share of sales in each customer segment).

¹⁹ [Merger Assessment Guidelines](#), from paragraph 5.4.1.

²⁰ The shares of supply provided by the Parties are based on 2015 total market volumes published by Futuresource Consulting (**Futuresource**), a research and forecasting company that covers the interactive display sector. Futuresource prepares this data by collecting figures for total units sold (by geography) from market participants. IPJ figures do not include IPJs used in the home display context. For the vast majority of participants, Futuresource then estimates the number of units sold by each participant by 'application' (ie education vs enterprise) based on its research regarding participants' positions in the various markets, discussions with customers, its knowledge of supply channels, etc. Futuresource does not rely on actual sales figures provided by participants for this purpose.

Table 1: Shares of supply of IFPs and interactive displays by volume in the UK in 2015

	<i>All interactive displays</i>			<i>IFPs</i>			<i>%</i>
	<i>Overall</i>	<i>Education</i>	<i>Enterprise</i>	<i>Overall</i>	<i>Education</i>	<i>Enterprise</i>	
Sharp	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
SMART	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]	
Combined	[20-30]	[20-30]	[10-20]	[10-20]	[10-20]	[10-20]	
BenQ	[0-5]	[0-5]	[5-10]	[0-5]	[0-5]	[5-10]	
Casio	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Dell	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Epson	[5-10]	[5-10]	[5-10]	[0-5]	[0-5]	[0-5]	
Hitachi	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
HiteVision	[0-5]	[0-5]	[0-5]	[0-5]	[5-10]	[0-5]	
i3 Technologies	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
InFocus	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Julong	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Legamaster	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
LGe	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
NEC	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Optoma	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Panasonic	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Promethean	[10-20]	[10-20]	[0-5]	[10-20]	[10-20]	[0-5]	
Ricoh	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Sahara	[10-20]	[20-30]	[0-5]	[20-30]	[30-40]	[0-5]	
Samsung	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Sony	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Viewsonic	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	[0-5]	
Other	[20-30]	[10-20]	[50-50]	[30-40]	[20-30]	[50-60]	

Source: Provided by the Parties, based on Futuresource data.

48. Table 1 shows that the Parties' combined share of supply of interactive displays in 2015, with reference to the entire UK customer population, was [20-30]% (with an increment of [0-5]%). Considering education and enterprise customers separately, the combined shares of supply in the same period were [20-30]% (with an increment of [0-5]%) and [10-20]% (with an increment of [0-5]%) respectively.
49. Considering the supply of IFPs only, the Parties' combined share of supply in 2015 was [10-20]% (with an increment of [0-5]%), in relation to the entire UK customer population. Considering education and enterprise customers separately, the combined shares of supply of IFPs were [10-20]% (with an increment of [0-5]%) and [10-20]% (with an increment of [0-5]%) respectively.
50. The increment in shares of supply in the UK is therefore very small. Post-Merger, the Parties will continue to face competitors with significant shares of supply, such as Sahara and Promethean, and also BenQ, Samsung, and Epson within the enterprise segment.
51. On a worldwide basis, the Parties' combined shares of supply are still relatively low (see Table 2).

Table 2: Shares of supply of IFPs and interactive displays by volume worldwide in 2015

	<i>All interactive displays</i>			<i>IFPs</i>			%
	<i>Overall</i>	<i>Education</i>	<i>Enterprise</i>	<i>Overall</i>	<i>Education</i>	<i>Enterprise</i>	
Sharp	[0-5]	[0-5]	[20-30]	[0-5]	[0-5]	[20-30]	
SMART	[10-20]	[10-20]	[5-10]	[0-5]	[0-5]	[5-10]	
Combined	[10-20]	[10-20]	[20-30]	[5-10]	[5-10]	[30-40]	

Source: Parties.

Closeness of competition

52. The Parties submitted that SMART rarely competes directly with Sharp. In the education customer segment, customers typically place greater importance on aftersales support (including training) and the accompanying collaborative software offering, neither of which is an area of strength for Sharp. The Parties further explained that Sharp has been more successful in the enterprise sector due to the long-standing relationships it has with certain enterprise customers.
53. The majority of third party responses to the CMA's merger investigation indicated that the Parties are not close competitors.
54. The CMA notes that SMART's internal documents mention Sharp as one among a few key competitors in the supply of interactive displays. This group, however, is large, with eleven other providers being mentioned. Based on the Parties' submissions, the CMA also notes that Sharp focuses on enterprise customers and is a smaller player in the education segment. Moreover, most of Sharp's sales of IFPs are concentrated in the United States and Japan, while SMART's sales are concentrated in Europe.
55. On the basis of the evidence before it, the CMA believes that SMART and Sharp do not compete more closely with each other than with any other major provider of interactive displays.

Conclusion on horizontal unilateral effects

56. The CMA believes that the Parties are not particularly close competitors in the provision of IFPs or interactive displays, and that post-Merger they will continue to face competition from a large number of alternative suppliers. Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of interactive displays or IFPs to education and enterprise customers (both separately and together) in the UK and worldwide.

Vertical effects

57. Vertical effects may arise when a merger involves firms at different levels of the supply chain, for example a merger between an upstream supplier and a downstream customer or a downstream competitor of the supplier's customers.
58. Vertical mergers may be competitively benign or even efficiency-enhancing, but in certain circumstances can weaken rivalry, for example when they result in foreclosure of the merged firm's competitors. The CMA only regards such foreclosure to be anticompetitive where it results in an SLC in the foreclosed market(s), not merely where it disadvantages one or more competitors.²¹ In the present case, the CMA has considered whether Hon Hai could engage in input foreclosure by increasing the price or refusing to supply EMS to competing suppliers of IFPs or interactive displays.²²
59. The CMA's approach to assessing vertical theories of harm is to analyse (i) the ability of the merged entity to foreclose competitors, (ii) the incentive of it to do so, and (iii) the overall effect of the strategy on competition.²³

Ability

60. Hon Hai is an EMS provider to [X] suppliers of interactive displays – [X]. The CMA also understands that Hon Hai has engaged in negotiations to provide EMS to another supplier.
61. In its *Hon Hai/Sharp* decision the Commission found that, if the EMS market is defined excluding in-house manufacturing, Hon Hai and Sharp would have a combined share of supply of [20-30]% worldwide and [30-40]% in the EEA in 2015. The shares of supply would be substantially lower if in-house manufacturing is included.²⁴ The Parties confirmed to the CMA that these figures remain accurate.
62. The Parties submitted that there are a large number of firms that can provide the same EMS that Hon Hai currently provides to the suppliers of interactive displays. These include Compal Electronics, Delta, Flextronics, Jabil Circuit, MiTAC Holdings, Pegatron, Quisda, Sanmina, Shenzhen Kaifa Technology,

²¹ In relation to this theory of harm, 'foreclosure' means either foreclosure of a rival or to substantially competitively weaken a rival.

²² The CMA also concluded early in its investigation that there is no realistic prospect that either SMART or Sharp would have the ability to engage in customer foreclosure in the purchase of EMS or LCD panels. Given the Parties' low combined share of supply of interactive displays and of IFPs worldwide, [10-20]% and [5-10]% by volume respectively, the CMA believes that neither SMART nor Sharp are sufficiently important 'routes to market' for suppliers of EMS or LCD panels.

²³ [Merger Assessment Guidelines](#), paragraph 5.6.6.

²⁴ [Case M.8023, Hon Hai Precision/Sharp](#), 13 May 2016, Table 1.

TVP Technology and Wistron. The CMA also notes that, currently, the vast majority of providers of interactive displays source EMS from such alternative suppliers.

63. On the basis that Hon Hai has a relatively low share of supply of EMS and that there are several alternative EMS suppliers available, the CMA does not believe that Hon Hai holds a level of market power which would be sufficiently strong for it to have the ability to foreclose downstream competitors. The CMA therefore believes that the Parties would not have the ability to foreclose downstream competitors. It is therefore unnecessary to consider whether the Parties would have the incentive to foreclose or if this would have an effect on downstream competition.

Conclusion on vertical effects

64. As set out above, the CMA believes that the Parties do not have the ability to foreclose competing providers of IFPs or interactive displays. Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects.

Third party views

65. The CMA contacted customers and competitors of the Parties. None of the customers who responded to the CMA's merger investigation raised concerns about the Merger. Four competitors who responded to the CMA's merger investigation raised concerns about the Merger.
66. Third party comments have been taken into account where appropriate in the competitive assessment above.

Decision

67. Consequently, the CMA does not believe that it is or may be the case that the Merger may be expected to result in an SLC within a market or markets in the UK.
68. The Merger will therefore **not be referred** under section 33(1) of the Act.

Stephanie Canet
Director, Mergers
Competition and Markets Authority
26 August 2016