

Section 57 of the Competition Act (Cap. 50B)

Grounds of Decision issued by the Competition Commission of Singapore

In relation to the application for decision of the proposed joint venture between SIA Engineering Company Limited and Airbus Services Asia Pacific Pte. Ltd. pursuant to section 57 of the Competition Act

14 June 2016

Case number: CCS 400/003/16

Confidential information in the original version of this Decision has been redacted from the published version on the public register. Redacted confidential information in the text of the published version of the Decision is denoted by [X]

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I. Introduction

The notification

1. On 21 April 2016, SIA Engineering Company Limited (“SIAEC”) and Airbus Services Asia Pacific Pte. Ltd. (“ASAP”) (collectively referred to as the “Parties”) filed a joint notification pursuant to section 57 of the Competition Act (Cap. 50B) (the “Act”) (the “Notification”) for a decision by the Competition Commission of Singapore (“CCS”) as to whether the proposed joint venture (“Proposed JV”) between SIAEC and ASAP (the “Proposed Transaction”) will infringe the section 54 prohibition of the Act, if carried into effect. The scope of the Proposed JV is the provision of maintenance, repair and overhaul (“MRO”) services (specifically, heavy maintenance and, indirectly, line maintenance) in the “Aftermarket”¹ in respect of “Airbus Aircraft Types”² to commercial airlines which operate any Airbus Aircraft Types and are procuring or have procured Services for such Airbus Aircraft Types with their principal place of business in the “Territory”.³
2. In reviewing the Proposed Transaction, CCS contacted fourteen competitors, such as airlines with MRO capabilities and other independent MRO service providers,⁴ and fifteen customers⁵. Out of the third-parties contacted, five third-parties⁶ provided substantive responses to CCS’s questionnaires. Most of the third-parties⁷ indicated that they had no concerns with the Proposed Transaction as there are a significant number of alternative service providers worldwide and it is generally easy to switch between service providers. A number of customers⁸ have responded with nil comments on the Proposed Transaction.
3. At the end of the consultation process and after evaluating all the evidence, CCS concludes that the Proposed Transaction, specifically in the provision of heavy maintenance services, if carried into effect, will not infringe section 54 of the Act.

¹ Defined in clause 1 of the JVA to be [REDACTED].

² Defined in clause 1 of the JVA to be “(i) the Airbus A380 aircraft type, the Airbus A350XWB aircraft type and the Airbus A330 aircraft type; [REDACTED].

³ Defined in clause 1 of the JVA to be [REDACTED].

⁴ [REDACTED].

⁵ The customers contacted are [REDACTED].

⁶ [REDACTED].

⁷ [REDACTED].

⁸ [REDACTED].

II. The Parties

SIAEC

4. SIAEC is a limited liability company incorporated in Singapore. SIAEC has been listed on the Main Board of the Singapore Exchange Securities Trading Limited (“SGX-ST”) since 2000. SIAEC is a subsidiary company of Singapore Airlines Limited (“SIA”) and, as at 2 June 2015, 77.55% of SIAEC’s issued share capital is held by SIA. SIA has been listed on the Main Board of the SGX-ST since 1985. The largest shareholder in SIA is Temasek Holdings (Private) Limited, which is incorporated in Singapore.⁹
5. SIAEC provides MRO services for aircraft, engine and related components to its customers. Specifically, the service offerings of SIAEC include:
 - a. aircraft maintenance and overhaul;
 - b. line maintenance and technical handling;
 - c. component maintenance and overhaul;
 - d. fleet management programme;
 - e. engine overhaul;
 - f. passenger-to-freighter conversion;
 - g. cabin modifications;
 - h. training academy; and
 - i. aircraft painting.¹⁰
6. SIAEC is party to 27 joint ventures with strategic partners and original equipment manufacturers in Australia, China, Indonesia, Ireland, the Philippines, Singapore, Taiwan, the U.S., and Vietnam.¹¹
7. The total (group) worldwide turnover for SIAEC in the financial year ended 31 March 2015 was S\$1,120.6 million.¹² The total (group) turnover for SIAEC in Singapore over the same period was S\$[X].¹³

ASAP

8. Airbus Group SE (“Airbus Group”) is a public company with limited liability incorporated under the laws of Netherlands, having its registered office at

⁹ Paragraph 7.1 of Form M1.

¹⁰ Paragraph 10.5 of Form M1.

¹¹ Paragraph 10.7 of Form M1.

¹² Paragraph 13.1 of Form M1.

¹³ Paragraph 13.3 of Form M1.

Mendelweg 30, 2333 CS Leiden, The Netherlands.¹⁴ The Airbus Group is active in, amongst other things, the design, manufacture, sale and support of commercial aircraft, civil and military helicopters, military aircraft and defence electronics and systems. It organises its business into three main business divisions, namely (i) Airbus S.A.S (“Airbus”), (ii) Airbus Helicopters and (iii) Airbus Defence and Space.¹⁵

9. Airbus, which is headquartered in Blagnac, France,¹⁶ is a wholly-owned subsidiary of the Airbus Group which develops, manufactures, sells and supports commercial aircraft. The Airbus commercial product line comprises aircraft that range in size from the 107-seat single-aisle A318 aircraft to the 525-seat A380 wide-body aircraft.¹⁷ The Airbus business accounts for approximately 70 per cent of the Airbus Group’s total turnover for the financial year ended 31 December 2015.¹⁸
10. ASAP, which is the party to the Proposed Transaction, is a wholly-owned subsidiary of Airbus¹⁹ and is registered and incorporated in Singapore.²⁰ ASAP provides, as an Airbus subcontractor, services related to Airbus aircraft. These services include field service activities,²¹ warehousing activities related to aircraft spare parts, flight operations support²² as well as marketing and promotional support with respect to Airbus aircraft and air traffic management solutions in the region. ASAP is also the Airbus Group entity which is the shareholder in Airbus Asia Training Centre Pte. Ltd. (a joint venture with SIA for the provision of flight training in Singapore).²³
11. Global turnover for Airbus Group was approximately S\$99.45 billion in the financial year ended 31 December 2015.²⁴ Turnover in Singapore for the same period was approximately S\$[X].²⁵

¹⁴ Paragraph 7.8 of Form M1.

¹⁵ Paragraph 10.8 of Form M1.

¹⁶ Paragraph 7.7 of Form M1.

¹⁷ Paragraph 10.9 of Form M1.

¹⁸ Paragraph 10.8 of Form M1.

¹⁹ Paragraph 7.7 of Form M1.

²⁰ Paragraph 10.10 of Form M1.

²¹ Through “field services activities”, Airbus sends representatives on-site to help airlines operate aircraft after aircraft have been delivered. It is not charged to airlines. These representatives do not themselves intervene on the aircraft, as they are sent only to facilitate the relationship with Airbus, by liaising with the right expert(s) within Airbus’ organisation as and when needed.

²² Flight operations support includes e-solutions to safely and efficiently operate Airbus aircraft.

²³ Paragraph 10.10 of Form M1.

²⁴ Paragraph 13.2 of Form M1.

²⁵ Paragraph 13.4 of Form M1.

Relationship between SIAEC and Airbus

12. SIAEC and Airbus have established contracts for the provision of MRO services, both directly and through contracts between SIA and Airbus, namely:
- a. [X]. Airbus sub-contracts some of the activities [X] to SIAEC. SIAEC provides a full spectrum of MRO services to Airbus which includes line and heavy maintenance, [X];²⁶
 - b. [X]; and
 - c. Airbus and SIAEC entered into an agreement on 16 March 2015 to provide maintenance and engineering training services for Airbus aircraft in Singapore through the SIAEC Training Academy.²⁷

III. The Proposed Transaction

13. Pursuant to a Joint Venture Agreement (“JVA”) dated 17 February 2016, the Parties intend to establish a joint venture which will be based in Singapore and jointly controlled by SIAEC and ASAP. The Proposed JV will operate its own hangar facility in Singapore and provide heavy maintenance services to Airbus A380, A350 XWB and A330 aircraft in Singapore.²⁸ [X]. The Proposed JV will offer these services in the Aftermarket in respect of Airbus Aircraft Types to commercial airlines which operate any Airbus Aircraft Types and are procuring or have procured Services for such Airbus Aircraft Types with their principal place of business in the Territory.²⁹
14. The Parties will make [X]. Pursuant to clause 3.1.2 of the JVA, SIAEC will subscribe for 65% of the total issued share capital of the Proposed JV and ASAP will subscribe for 35% of the total issued share capital of the Proposed JV.³⁰ The total capital contribution to the JV is estimated to be approximately [X].³¹ The Parties will also each [X]; and pursuant to the [X].³²
15. CCS notes that the Proposed Transaction is not yet completed as clause 2.1.1 of the JVA requires the Parties to have obtained all applicable approvals under the competition laws from the appropriate governmental authorities [X].³³ The Parties submitted that besides the notification to CCS, the Parties

²⁶ Paragraph 9.1.3 of Form M1.

²⁷ Paragraph 9.1.7 of Form M1.

²⁸ Paragraph 11.1 of Form M1.

²⁹ Paragraph 11.6 of Form M1.

³⁰ Paragraph 11.5 of Form M1.

³¹ Paragraph 11.7 of Form M1.

³² Paragraph 11.3.8-11.3.10 of Form M1; Schedule 7, Part E of the JVA.

³³ Clause 2.1.1 of the JVA.

have also submitted merger notifications to the following authorities: [X]. The [X] issued an unconditional clearance decision on [X].³⁴

16. Section 54(5) of the Act defines a joint venture that constitutes a merger as one that performs, on a lasting basis, all the functions of an autonomous economic entity. Paragraph 3.20 of the *CCS Guidelines on the Substantive Assessment of Mergers* (“*CCS Merger Guidelines*”) states that, a joint venture that falls within the definition of a merger under section 54 of the Act must fulfil the following criteria:
 - a. It must be subject to joint control;
 - b. It must perform all the functions of an autonomous economic entity; and
 - c. It must do so on a lasting basis.

Joint control

17. Joint control over an undertaking exists where two or more parties have the possibility of exercising decisive influence over that undertaking, including the power to block actions which determine the strategic commercial behavior of an undertaking.³⁵ According to the JVA, [X].³⁶ Although the shares [X] in the Proposed JV by SIAEC and ASAP will be in the proportion of 65:35 respectively, CCS notes that [X].³⁷ As such, the consent of the minority shareholder, ASAP, is required for important commercial decisions despite its minority shareholding.
18. The Parties submitted that the Proposed JV is subject to joint control by both parent companies. The Parties submitted that [X]. Further, [X].³⁸ The Parties submitted that the Board Reserved Matters include, in particular, decisions which affect the strategic commercial behavior of the Proposed JV, such as [X].³⁹
19. The Parties’ submitted that the minority shareholder, ASAP, therefore has veto rights over strategic commercial decisions of the Proposed JV and this will confer both SIAEC and Airbus Asia joint control over the Proposed JV.

³⁴ Letter from the Parties dated 24 May 2016; Email from the Parties dated 14 June 2016.

³⁵ Paragraph 3.22 of the *CCS Merger Guidelines*.

³⁶ Clause 6.1.3 of the JVA.

³⁷ Schedule 2, Part B of the JVA.

³⁸ Paragraph 11.3.2 of Form M1.

³⁹ Schedule 2, Part A of the JVA.

20. The Parties further submitted that both SIAEC and ASAP will have the right to [X]. In particular, [X].⁴⁰

Autonomous economic entity

21. In order for a joint venture to operate on a market, perform the functions normally carried out by undertakings operating on that market and conduct its business activities on a lasting basis, the joint venture must have a management dedicated to its day-to-day operations and access to sufficient resources, including finance, staff and assets (tangible and intangible).⁴¹
22. The Parties have submitted that the Proposed JV will have a full management team dedicated to its day-to-day operations, hire its own staff and have access to sufficient resources (including finance and assets) to conduct business activities within the scope provided for in the JVA independently of its parents.⁴² [X].⁴³
23. Pursuant to the [X].⁴⁴ [X].⁴⁵ The Proposed JV may also [X].⁴⁶ Further, SIAEC and Airbus will [X].⁴⁷
24. As noted at paragraph 13 above, the Parties submitted that the Proposed JV will operate its own hangar facility in Singapore and develop its own capability to perform heavy maintenance services directly for Airbus Aircraft Types. The Proposed JV will provide heavy maintenance services [X].⁴⁸
25. Lastly, although the Proposed JV will derive heavy maintenance work from, among others, [X],⁴⁹ the Parties also submit that Proposed JV will have its own [X]. The Parties therefore submitted that the Proposed JV will be geared to play an active role on the market.⁵⁰

⁴⁰ Paragraph 11.3.3 of Form M1.

⁴¹ Paragraph 3.24 of the *CCS Merger Guidelines*.

⁴² Paragraph 11.3.6 of Form M1.

⁴³ Paragraph 11.3.8 of Form M1.

⁴⁴ Paragraph 11.3.9 of Form M1.

⁴⁵ Paragraph 11.3.10 of Form M1.

⁴⁶ Paragraph 11.3.11 of Form M1; Schedule 10, clause 3.2 of the JVA.

⁴⁷ Paragraph 11.3.12 of Form M1.

⁴⁸ Paragraph 11.3.14. of Form M1.

⁴⁹ Paragraph 11.3.16 of Form M1.

⁵⁰ Paragraphs 11.3.15 of Form M1.

Function on a lasting basis

26. The Parties submitted that the Proposed JV is expected to be continuing for an indefinite period of time as evidenced by [X].⁵¹

CCS's conclusion on whether the joint venture constitutes a merger

27. Based on the Parties' submission that the Proposed Transaction consists of the creation, on a lasting basis, of a joint venture in respect of the provision of MRO services in the Aftermarket in respect of Airbus Aircraft Types to commercial airlines which operate any Airbus Aircraft Types and are procuring or have procured Services for such Airbus Aircraft Types with their principal place of business in the Territory and which is subject to effective joint control of its parent companies (i.e. SIAEC and ASAP) and performs all the functions of an autonomous economic entity, the Proposed Transaction constitutes a joint venture pursuant to section 54(5) of the Act.

IV. Competition Issues

28. The Parties submitted that SIAEC and ASAP overlap in the provision of MRO services.⁵² In relation to the provision of MRO services, the Parties noted that the EC had in past decisions segmented MRO into four categories, namely: line maintenance, heavy maintenance, engine maintenance and component maintenance. In this regard, the Parties submitted that applying the EC's segmentations of the MRO sector to the scope of the Proposed JV, the overlaps are directly in heavy maintenance and indirectly in line maintenance for commercial aircraft only.
29. The Parties also submitted that the Parties overlap in fleet management services and that both Airbus and SIAEC provide aircraft maintenance training services where Airbus offers maintenance training services in Singapore through the SIAEC Training Academy. However, as the scope of the Proposed JV does not include the provision of fleet management services and aircraft maintenance training services, the Parties submitted that an assessment of both services is not relevant for the purposes of the Application.⁵³

⁵¹ Clause 24.1 of the Joint Venture Agreement. Paragraph 11.3.4 of Form M1.

⁵² Paragraph 15.1 of Form M1.

⁵³ Paragraphs 15.3 and 15.4 of Form M1.

30. Therefore, for the purposes of the Proposed JV, the Parties submitted that the relevant overlapping services are the service markets for heavy maintenance and line maintenance for all commercial aircraft.
31. CCS notes the submissions by the Parties. In particular, CCS notes that the Proposed JV will only be providing heavy maintenance services and will not be directly involved in providing line maintenance for Airbus Aircraft Types.⁵⁴ Instead, if line maintenance services contracts are or have been [X]. Should the Proposed JV (and its subsidiaries) contract with any customers, it will sub-contract line maintenance services to [X].
32. In light of the sub-contracting arrangements described above, CCS notes that the Proposed JV will not be directly involved in the provision of line maintenance. Given that Airbus is already sub-contracting line maintenance work of Airbus aircraft in Singapore to SIAEC currently, this will not change post-Proposed Transaction.
33. In light of the above and notwithstanding the submission by the Parties that the relevant overlapping services are the service markets for heavy maintenance and line maintenance for all commercial aircraft, CCS is of the view that the appropriate assessment for the purposes of the Notification would be only the provision of heavy maintenance for commercial aircraft.
34. In evaluating the potential impact of the Proposed JV, CCS considered whether the Proposed JV will lead to coordinated, non-coordinated and vertical effects that would substantially lessen competition or raise competition concerns in Singapore in the market for the provision of heavy maintenance for commercial aircraft.

V. Counterfactuals

35. As stated in paragraph 4.6 of the *CCS Merger Guidelines*, CCS will, in assessing mergers and applying the substantial lessening of competition (“SLC”) test, evaluate the prospects for competition in the future with and without the merger. The competitive situation without the merger is referred to as the “counterfactual”. The SLC test will be applied prospectively, that is, future competition will be assessed with and without the merger.
36. The *CCS Merger Guidelines* also state that in most cases, the best guide to the appropriate counterfactual will be prevailing conditions of competition,

⁵⁴ Paragraph 4.2.1 of the JVA states that the JV shall not provide Apron Services, which is defined as line maintenance and “A checks”.

as this may provide a reliable indicator of future competition without the merger. However, CCS may need to take into account likely and imminent changes in the structure of competition in order to reflect as accurately as possible the nature of rivalry without the merger.⁵⁵

The Parties' submissions

37. Airbus submitted that, if the Proposed JV does not materialise, Airbus will [X].⁵⁶
38. SIAEC submitted that in the absence of the Proposed JV it will [X].⁵⁷
39. Based on the Parties' submissions, CCS is of the view that the current prevailing conditions of competition would be the appropriate counterfactual upon which to base its competition assessment.

VI. Relevant Markets

40. The Parties submitted that in previous EC decisions, the EC had considered that MRO services for commercial aircraft are distinct from MRO services for military aircraft and comprise of four separate segments, namely:
- a. Heavy maintenance;⁵⁸
 - b. Line maintenance, including A checks and routine maintenance checks;⁵⁹
 - c. Engine maintenance;⁶⁰ and
 - d. Component maintenance.⁶¹
41. The Parties also submitted that while there are further possible delineations of the MRO services markets i.e. (i) for each of the MRO services market,

⁵⁵ Paragraph 4.7 of the *CCS Merger Guidelines*.

⁵⁶ Paragraph 23.1 of Form M1.

⁵⁷ Paragraph 23.2 of Form M1.

⁵⁸ According to Paragraph 19.1 of Form M1, heavy maintenance involves a detailed inspection of the airframe and certain components, including any applicable corrosion prevention programmes and comprehensive structural inspection and overhaul of the aircraft.

⁵⁹ According to Paragraph 19.1 of Form M1, line maintenance involves light, regular maintenance checks carried out to ensure that an aircraft is fit for flight. Line maintenance includes troubleshooting, defect rectification, overnight maintenance, and component replacement.

⁶⁰ According to Paragraph 20.4 of Form M1, the Parties submitted that the EC has found that engine maintenance comprises the provision of MRO services for aircraft engines.

⁶¹ According to Paragraph 20.4 of Form M1, the Parties submitted that the EC has found that component maintenance generally comprises inspection/test/repair/overhaul services for specific components fitted to the aircraft which can be repaired and are of a significant value e.g., avionics, pumps, actuators, valves, safety equipment, wheels/tyres & brakes etc.

delineation by aircraft manufacturer and aircraft platform type; (ii) by type of aircraft i.e. wide or narrow body aircraft and (iii) for markets for heavy maintenance, to be delineated by type of checks,⁶² these further delineations are no longer relevant⁶³ and in any case, they submitted that the Proposed JV will not result in a SLC on any definition of the relevant market for heavy maintenance. Therefore, it is not necessary to consider possible narrower delineations further.⁶⁴

42. The different types of possible segmentation are described in the following paragraphs.

(a) Product markets

Description of services – MRO Services

43. As highlighted earlier at paragraph 40, the Parties submitted MRO services can be segmented into:
- a. Heavy maintenance;
 - b. Line maintenance, including “A checks” and routine maintenance checks;
 - c. Engine maintenance; and
 - d. Component maintenance.⁶⁵
44. Third-party feedback⁶⁶ has indicated that the above segmentation is common in the industry and that the segments are usually distinct from one another. Specifically, contracts are usually signed for each of the MRO services indicated. CCS also notes that the different segments differ in terms of the types of services and parts, requirements and length of maintenance and as such are not directly substitutable for each other.
45. CCS notes that the Proposed JV’s scope of activities only includes heavy maintenance. In this regard and in light of the third-party feedback received, CCS considers that line maintenance; engine maintenance and component maintenance would not be relevant considerations for the purposes of the assessment.

Heavy maintenance

⁶² Paragraph 20.7 of Form M1.

⁶³ Paragraph 20.10 of Form M1.

⁶⁴ Paragraph 20.12 of Form M1.

⁶⁵ Paragraph 20.3 of Form M1.

⁶⁶ [X].

46. The Parties submitted that heavy maintenance includes “C” and “D checks”, airframe checks or modifications, cabin competitions and modifications and ancillary services.⁶⁷ It entails a detailed inspection of the airframe and certain components, including any applicable corrosion prevention programmes and comprehensive structural inspection and overhaul of the aircraft.⁶⁸
47. “C checks” constitute an intermediate and more detailed inspection of the aircraft’s interior and structure and take between 1 and 2 weeks to perform. Such checks include a series of tasks such as functional and operational systems checks, cleaning and servicing, attendance to minor structural inspections and service bulletin requirements. “C checks” are typically scheduled every 12 to 20 months, depending on the aircraft type, operator and utilisation, or after a specific amount of actual flight hours as defined by the manufacturer.⁶⁹
48. “D checks”, otherwise known as structural checks, comprise a thorough inspection, testing and full overhaul of the aircraft’s structure, its systems and its cabins. “D checks” are the most comprehensive and demanding checks, as the entire aircraft structure is taken apart for inspection and overhaul. Such checks will usually demand around 15,000 to 20,000 man-hours and around one month to complete at suitably equipped maintenance bases. During this check, the exterior paint is stripped and large parts of the outer paneling are removed, uncovering the airframe, supporting structure and wings for inspection. In addition, many of the aircraft’s internal components are functionally checked, repaired/overhauled, or exchanged. Intermediate structural checks occur every five to six years and heavy structural checks occur every 10 to 12 years, depending on the aircraft type and utilisation.⁷⁰
49. However, the Parties also submitted that the term “D checks” is now obsolete, and at least per the Airbus terminology, these checks now fall under “C checks”. “C checks” are termed C1, C2, C3, etc., whereby the “C3” and “C6 checks” are ‘heavy’ C checks (or what were previously known as “D checks”) and are different from the other “C checks” to the extent that they contain structural tasks (inspections for corrosion, etc.) necessitating the removal of

⁶⁷ Paragraph 20.1 of Form M1.

⁶⁸ Paragraph 19.1 of Form M1.

⁶⁹ Response to Question 4 of CCS First RFI dated 24 May 2016.

⁷⁰ Response to Question 4 of CCS First RFI dated 24 May 2016.

the cabin, which leads to a significantly longer “C check” duration and cost.⁷¹

Delineation by aircraft manufacturer and aircraft platform type

50. The Parties submitted that the EC did not arrive at a conclusive view on whether it is necessary to further segment the relevant market by aircraft manufacturer and aircraft platform type. The Parties further submitted that such segmentation is arguably no longer relevant in light of recent developments in industry practice, given that many MRO providers will service multiple aircraft types from different manufacturers.⁷²
51. For example, from a demand-side substitution perspective, the Parties noted that customers do not take into consideration the identity of the specific aircraft manufacturer of their aircraft when choosing their MRO service providers. Customers are free to choose among the multitude of MRO service providers and typically take into consideration the following in their choice: maintenance cost; MRO capabilities; ferry cost; turnaround time; quality of work; and customer service.⁷³ The Parties submitted bidding information that shows customers awarding contracts to a single MRO service provider to service its aircraft fleet which include aircraft manufactured by different aircraft manufacturers.⁷⁴
52. Third-party feedback⁷⁵ suggests that while there are specific areas which would require closer inspections for different types of aircraft, generally there are no significant differences when it comes to maintenance across aircraft types. MRO service providers for heavy maintenance normally service multiple aircraft types and this is common within the industry.⁷⁶

Delineation by type of checks, i.e., C or D checks for heavy maintenance

53. With respect to the further segmentation of the markets for heavy maintenance by types of checks, the Parties submitted that this is no longer relevant in light of the recent development in industry practice. In recent times, the boundaries between different types of checks have become blurred. In this regard, MRO service providers have begun to blend checks by

⁷¹ Response to Question 4 of CCS First RFI dated 24 May 2016.

⁷² Paragraph 20.8 of Form M1.

⁷³ Paragraphs 24.5 and 24.4 of Form M1.

⁷⁴ Paragraph 24.5 of Form M1.

⁷⁵ [X].

⁷⁶ [X].

combining portions of, for example, “C checks” into more regular A checks (performed overnight) in order to avoid the aircraft being out of service for a full C check. This allows the airline to maximise the flying availability of the aircraft as a “phased C check” is broken down and included in “A checks”. “B checks” are also no longer relevant as the tasks which used to be part of “B checks” have been re-grouped into “A or C checks”. The Parties submitted that “B checks” no longer apply in the Airbus terminology. New generation aircraft are also moving towards segmented checks/phased checks instead of the typical “A, B, C and D checks”.⁷⁷ Further, heavy maintenance service providers typically provide, or would be able to provide, all types of heavy and line maintenance checks respectively.

Delineation by wide or narrow aircraft body type

54. The Parties submitted that the division by wide and narrow body aircraft between heavy maintenance service providers is no longer clear cut. Accordingly, the segmentation of the markets for heavy maintenance by wide and narrow body aircraft is no longer relevant.

Regulatory environment

55. In Singapore, there is a requirement for MRO service providers to obtain the necessary regulatory approvals before being able to enter the market. Specifically, these are aviation-related approvals, whereby the applicable civil aviation authority will perform an audit on an applicant’s capability to provide MRO services (including on the applicant’s organisation, facilities and equipment etc.). Such approvals typically take around six months, and are not, in the Parties’ view, difficult to obtain.⁷⁸

CCS’s assessment

56. Generally, CCS notes third-party feedback⁷⁹ that it is not common for MRO service providers to delineate their services further than the four segments of heavy maintenance, line maintenance, component and engines.
57. In light of the above and given the competition assessment below, CCS also does not find it necessary to further delineate the product market definition of heavy maintenance.

⁷⁷ Typically, line maintenance consisted of A and B checks while heavy maintenance consisted of C and D checks.

⁷⁸ Paragraph 18.5 of Form M1.

⁷⁹ [3<].

(b) Geographic Market

Provision of heavy maintenance

58. The Parties submitted that the EC has in previous cases for MRO services considered the market for MRO services to be at least regional (i.e. EEA-wide), if not global. Specifically, the Parties cited that the *KLM/ALITALIA* case where EC determined that MRO services are generally worldwide in geographic scope for the following reason:

“As aircraft are by definition mobile, and the cost of this essential maintenance is high compared to the cost of flying aircraft, users of this service can choose between suppliers in any different locations. The market for these services is therefore worldwide in scope.”⁸⁰

59. The Parties also provided specific instances where heavy maintenance is carried out in a different location from the location of the customers’ principal places of business.⁸¹

Customer	Location of customer’s principal place of business	Location(s) where heavy maintenance services carried out
[X]	Middle East	Singapore
[X]	Europe	Singapore
[X]	Europe	Singapore

60. The Parties submitted that, from a demand-side perspective, the location of the MRO service provider is one of the few relevant considerations when choosing the MRO service provider for the provision of heavy maintenance for their aircrafts.
61. Accordingly, the Parties submitted that the relevant geographic scope of the market for heavy maintenance (including cabin completions and modifications and airframe modifications) is global.

⁸⁰ Paragraph 20.13 of Form M1.

⁸¹ Response to Question 10 of CCS First RFI dated 24 May 2016.

CCS's assessment

62. CCS notes that SIAEC provides heavy maintenance services in Singapore for global customers. Third-party comments⁸² suggest that the location of a service provider is not a major consideration for customers in their choice of heavy maintenance service providers. Specifically, [X] submitted that generally they do procure heavy maintenance from locations where the aircraft usually do not travel to. [X] submitted that it procures heavy maintenance services from [X] in Singapore even though it does not fly here as part of their network schedule.⁸³ [X] submitted that customers of heavy maintenance can do so at any location that has a certified MRO provider; these providers are available in most places around the world.⁸⁴
63. In this regard, CCS is of the view that the relevant geographic market in respect of heavy maintenance services for commercial aircraft is global.
64. In summary, CCS is of the view that the relevant market for the purposes of the Notification is the market for the provision of heavy maintenance globally.

VII. Market Structure

Market shares and market concentration

Global sales of heavy maintenance services (by value)

65. The Parties submitted that the estimated total market size (by value) for the worldwide market for heavy maintenance is approximately [X] in 2015. The Parties submitted the following market share figures for the last three years in Table 1 below.

⁸² [X].

⁸³ Response to Questions 6 and 7 of CCS third-party RFI by [X] dated 3 June 2016.

⁸⁴ Response to Questions 4 of CCS third-party RFI by [X] dated 2 June 2016.

Table 1: Global sales of heavy maintenance services from 2013-2015

	Total Market Size (by value)		
	2013	2014	2015
Global market for heavy maintenance	[X]	[X]	[X]

Market share of Parties and competitors in the global sales of heavy maintenance services

66. The Parties submitted the market share estimates for the merging parties and its competitors in the market for global sales of heavy maintenance services in Table 2 below.

Table 2: Market share of Parties and competitors in the global sales of heavy maintenance services

	2013 ⁸⁵	2014 ⁸⁶	2015
Company	Shares by Value	Shares by Value	Shares by Value
Airbus ⁸⁷	[0 to 5]%	[0 to 5]% ⁸⁸	[0 to 5]% ⁸⁹
SIAEC ⁹⁰	[0 to 5]%	[0 to 5]%	[0 to 5]%

⁸⁵ The Parties consider competitors' market shares in 2013 to be broadly similar to competitors' market shares in 2015 given that there have been no significant mergers or other market developments in the last three years. Specific information on competitors' market shares in 2013 is not available to the Parties.

⁸⁶ The Parties consider competitors' market shares in 2014 to be broadly similar to competitors' market shares in 2015 given that there have been no significant mergers or other market developments in the last three years. Specific information on competitors' market shares in 2014 is not available to the Parties.

⁸⁷ Airbus's market share estimates are based on its turnover information corresponding to its financial year ending 31 December of each respective year. In addition, Airbus's market share estimates include turnover attributable to services which Airbus [X], but exclude turnover attributable to services which are sub-contracted to SIAEC. This is so that such revenue attributable to services which are sub-contracted to SIAEC is not double counted under both SIAEC's and Airbus' market share estimates. The specific amount of turnover attributable to services which are sub-contracted to SIAEC has been excluded from Airbus' market share estimates.

⁸⁸ For Airbus' worldwide heavy maintenance turnover in the financial year ended 31 December 2014, the amount of the turnover that is attributable to services which are sub-contracted to SIAEC, which has been excluded from this Airbus market share estimate, is [X]

⁸⁹ For Airbus' worldwide heavy maintenance turnover in the financial year ended 31 December 2015, the amount of the turnover that is attributable to services which are sub-contracted to SIAEC, has been excluded from Airbus's market share estimates, is [X].

⁹⁰ SIAEC's market share estimates are based on its turnover information corresponding to its financial year ending on 31 March of each respective year.

Proposed JV	[0 to 5]%	[0 to 5]%	[0 to 5]%
Lufthansa Technik	[0 to 5]%	[0 to 5]%	[0 to 5]%
AFI/KLM	[0 to 5]%	[0 to 5]%	[0 to 5]%
ST Aerospace	[5 to 10]%	[5 to 10]%	[5 to 10]%
Ameco Beijing	[0 to 5]%	[0 to 5]%	[0 to 5]%
HAECO	[5 to 10]%	[5 to 10]%	[5 to 10]%
AAR Corp	[0 to 5]%	[0 to 5]%	[0 to 5]%
Evergreen Aviation Technologies Corp	[0 to 5]%	[0 to 5]%	[0 to 5]%

67. CCS notes that the above figures do not add up to 100% even after accounting for rounding errors. The Parties submitted that there is a lack of independent data available on the size of competitors. Further, the Parties do not have access to or visibility of the business activities of competitors. Accordingly, the Parties had provided their best sense estimates of competitors' market shares based on their internal knowledge of the relevant markets.

68. Further, the Parties submitted in addition to the competitors listed in Table 1 above, there remains a large number of smaller players globally who account for the remaining market shares.⁹¹ CCS notes submissions by [X] and [X] which confirms their own market share submitted by the Parties above.⁹²

Singapore sales of heavy maintenance services

69. The Parties submitted the market size for the provision of heavy maintenance in Singapore for all commercial aircraft for the last three years in Table 3 below.⁹³

Table 3: Singapore market size for heavy maintenance

2013	2014	2015
[X]	[X]	[X]

Market share of Parties and competitors in the Singapore sales of heavy maintenance services

⁹¹ Response to Question 5 of CCS First RFI dated 24 May 2016.

⁹² Response to Question 5 of CCS third-party RFI by [X] dated 2 June 2016.

⁹³ Paragraph 22.1 of Form M1.

70. The Parties submitted the estimated market share (by value) for the provision of heavy maintenance in Singapore for all commercial aircraft for the last three years in Table 4 below.⁹⁴ The Parties submitted that they do not have access to or visibility into the business activities of their competitors or any relevant publicly available information.⁹⁵

Table 4: Market share for each of the merger parties

Company	2013	2014	2015
SIAEC	[20-30]%	[20-30]%	[10-20]%
Airbus	[0-10]%	[0-10]%^96	[0-10]%^97
Proposed JV	[20-30]%	[20-30]%	[10-20]%

71. The Parties submitted that the provision of heavy maintenance involves MRO services, which cannot be meaningfully quantified into units of volume. The Parties therefore did not submit the requested market size, and resulting market share data on a volume basis.⁹⁸

CCS's assessment

72. As set out in the *CCS Merger Guidelines*, CCS is generally of the view that competition concerns are unlikely to arise in a merger situation unless the merged entity will have a market share of 40% or more or the merged entity will have a market share of more than 20% with the post-merger CR3⁹⁹ at 70% or more.¹⁰⁰
73. Based on estimates provided by the Parties, CCS notes the combined share (by value) of the Parties in the provision of heavy maintenance globally was between [0 - 10]%. Even if CCS considers the market shares of heavy maintenance in Singapore (which is narrower than the appropriate relevant geographic market as determined above in paragraph 64), CCS notes that the market share of heavy maintenance attributed to the Parties was between [10

⁹⁴ Paragraph 22.3 of Form M1.

⁹⁵ Paragraph 22.4 of Form M1.

⁹⁶ For Airbus' Singapore-wide heavy maintenance turnover in the financial year ended 31 December 2014, the amount of the turnover that is attributable to services which are sub-contracted to SIAEC, which has been excluded from this Airbus market share estimate, is [X].

⁹⁷ For Airbus' Singapore-wide heavy maintenance turnover in the financial year ended 31 December 2015, the amount of the turnover that is attributable to services which are sub-contracted to SIAEC, which has been excluded from this Airbus market share estimate, is [X].

⁹⁸ Paragraph 21.5 of Form M1.

⁹⁹ Paragraph 5.14 of *CCS Merger Guidelines*. CR3 refers to the combined market shares of the three largest firms.

¹⁰⁰ Paragraph 5.15 of the *CCS Merger Guidelines*.

- 30]% in the last three years, CCS notes that there has been no evidence indicating that the post-merger CR3 will be at 70% or more.¹⁰¹ The resulting market shares do not cross the indicative thresholds of between 20% and 40% with CR3 more than 70%. Most notably, CCS notes that the market share of Airbus for heavy maintenance in Singapore was just [0 - 10]% and [0 - 10]% in 2014 and 2015 respectively,¹⁰² [X] was sub-contracted to SIAEC in Singapore.

74. Based on market share estimates alone, this suggests that overlaps between Airbus and SIAEC are limited and that they are not particularly close competitors in the market for the provision of heavy maintenance to commercial aircraft worldwide.

Actual and potential competition

75. The Parties listed the five entities below as their main competitors in the MRO services market:

- a. HAECO;
- b. LufthansaTechnik;
- c. AFI/KLM;
- d. ST Aerospace;
- e. SR Technics; and
- f. Ameco Beijing.¹⁰³

76. The Parties also submitted that some airline operators provide in-house MRO services themselves, and will be able to exert a competitive constraint on the merged entity and that the MRO services market is a highly competitive one, in view of the multitude of independent, third-party competitors, as well as airline in-house MRO service providers.¹⁰⁴ Certain of these competitors may be able to expand productive capacity, if required in order to meet market demand.¹⁰⁵ Although time is required to construct necessary facilities, and to hire aircraft engineers for the purposes of expanding capacity, the Parties do not consider these factors a significant barrier to expansion. Capacity

¹⁰¹ Paragraph 5.15 of the *CCS Guidelines on the Substantive Assessment of Mergers*, CCS is generally of the view that competition concerns are unlikely to arise in a merger situation unless the merged entity will have a market share of 40% or more, or the merged entity will have a market share of between 20% to 40% and with a post-merger CR3 at 70% or more.

¹⁰² Refer to footnotes 96 and 97.

¹⁰³ Paragraph 24.2 of Form M1.

¹⁰⁴ Paragraph 24.3 of Form M1.

¹⁰⁵ For example, Batam Aero Technic (LionAir), which currently has four hangars with 12 bays, has plans to expand to 36 bays. GMF Aeroasia also has plans to build four more hangars within a period of five years.

expansion may also be limited by the availability of suitable airport land for the building of hangars.¹⁰⁶

77. The Parties submitted that it is unaware of any local or overseas MRO service providers that are not currently providing MRO services in Singapore, but could do so relatively quickly on a material scale. However, it submitted that it is possible for airlines to source for certain types of MRO services, such as heavy maintenance, from suppliers across different parts of the world, including in different continents.¹⁰⁷

Feedback from third-parties

78. CCS notes comments from competitors and customers alike that there are a significantly large number of MRO service providers in heavy maintenance that customers can choose from.¹⁰⁸ However, [X] did highlight that currently there is relatively limited global capacity by third-party service providers for heavy maintenance of Airbus A380 aircraft. Most of the maintenance capacity is currently provided in-house by the airlines or airline-owned MRO providers.¹⁰⁹

CCS's assessment

79. CCS is of the view that given that the geographic scope of heavy maintenance for commercial aircraft is global and the fact that there is a multitude of competitors worldwide that provide heavy maintenance services, there are alternative substitutes for customers to choose from post-Transaction which would exert a significant competition constraint on the Parties.

Barriers to entry and expansion

80. As set out in the *CCS Merger Guidelines*, entry by new competitors or expansion by existing competitors may be sufficient in likelihood, scope and time to deter or defeat any attempt by the merger parties or their competitors to exploit the reduction in rivalry flowing from the Proposed Transaction (whether through coordinated or non-coordinated strategies).¹¹⁰

¹⁰⁶ Paragraph 24.10 of Form M1.

¹⁰⁷ Paragraph 24.9 of Form M1.

¹⁰⁸ [X].

¹⁰⁹ Response to Question 13 of CCS third-party RFI by [X] dated 8 June 2016.

¹¹⁰ Paragraph 7.2 of *CCS Merger Guidelines*.

The Parties' submission

81. The Parties submitted that, in general, entry into heavy maintenance requires capital, regulatory approvals (which are obtained and retained through regular audits), access to intellectual property, access to talent (e.g. engineers, technicians, mechanics etc.) and technology. However, such requirements are not, in the Parties' view, unduly restrictive or prohibitive, and potential entrants remain able to enter into the market.¹¹¹ According to the Parties, instances of market entry in the past five years include MAS GMR Aero Technic Limited, Vietstar Aviation Services and Boeing Asia Pacific Aviation Services Pte. Ltd.¹¹²
82. Capital expenditure: The Parties submitted that capital expenditure costs do not constitute a prohibitive barrier to entry, in particular in the case of a new entrant that has existing hangars, or an existing service provider seeking to add new aircraft types to its portfolio.¹¹³ Specifically, the Parties submitted that the capital expenditure required to enter the market for heavy maintenance may vary based on a number of factors, including whether a new entrant is entering the market on a wholly-greenfield basis (e.g. requiring a new-build hangar building or leasing new hangars) or has existing hangars; the specific aircraft type(s) which the hangar will cater to and accordingly, the extent and types of tooling and dockings required in the hangar; and the availability of a qualified workforce and appropriate certifications.¹¹⁴
83. The Parties submitted by way of illustration, with regard to the Airbus Aircraft Types, the estimated capital expenditure for a wholly-greenfield new entrant to enter the heavy maintenance market is composed mainly of the following costs:¹¹⁵
- a. new-build hangar building: the cost of construction (including dockings, etc., and depending on the location) would be approximately [X] for a new-build hangar that is capable of accommodating the A330 / A350 XWB aircraft types, or approximately [X] if accommodating the larger A380 aircraft type. This is a general estimate and could vary depending on the country in which the hangar is built;
 - b. tooling: approximately [X]; and

¹¹¹ Paragraph 28.1 of Form M1.

¹¹² Paragraph 29.1, 29.2 and 29.3 of Form M1.

¹¹³ Paragraph 26.5 of Form M1.

¹¹⁴ Paragraph 26.1 of Form M1.

¹¹⁵ Paragraph 26.2 of Form M1.

- c. training: more than [X] (including staff time off the job).
84. If a new entrant to the heavy maintenance market has an existing hangar (including through leasing new hangars), or if an existing heavy maintenance service provider is seeking to add one of the Airbus Aircraft Types to its portfolio, the capital expenditure costs would be significantly reduced to modification costs in respect of the existing hangar building (instead of new-build construction costs), which could range from [X] depending on the configuration of the existing hangar, in addition to the costs of [X] for the dockings etc. The modification costs could also vary depending on the size and properties of the existing hangar (e.g. ground loads etc.).¹¹⁶
85. Annual expenditure on advertising/promotion: The Parties also submitted that the annual expenditure on advertising and promotion typically comprises [X]% to [X]% of annual turnover.¹¹⁷ However, SIAEC also submitted that it [X].¹¹⁸

Feedback from third-parties

86. [X] commented that for heavy maintenance, it would take over three years to commence operations and obtain the necessary certifications. The costs would be substantial for new entry.¹¹⁹ However, they opined that there are many companies seeking to enter the MRO services market in the region and which are able to cater to Singapore customers. Within Singapore, current providers for business jets such as Jet Aviation, Bombardier and Cessna could also upgrade their operations to provide maintenance for commercial aircraft.

CCS's assessment

87. CCS is of the view that while capital costs for entry for the provision of heavy maintenance are significant in absolute sums, the barriers are not insurmountable as CCS notes that there have been several instances of entry and expansion by current players¹²⁰ in the market.

¹¹⁶ Paragraph 26.3 of Form M1.

¹¹⁷ Paragraph 27.1 of Form M1.

¹¹⁸ Paragraph 27.2 of Form M1.

¹¹⁹ Also opined by [X].

¹²⁰ Instances of expansion by incumbents, includes Lufthansa Technik which started LHT Puerto Rico. New entrant in the region include LionAir.

Countervailing buyer power

The Parties' submission

88. The Parties submitted that airline operators, the key customers of MRO services, are large and sophisticated customers who are well-informed and likely to be able to exercise countervailing buyer power on MRO service providers by taking a whole-life cost approach to MRO services generally (i.e. considering the current cost of the MRO services together with the future cost of MRO services), and by credibly threatening to switch to alternative providers of MRO services, or indeed, to self-supply.¹²¹
89. The Parties submitted that any potential customers have the ability to self-supply or to outsource to other providers in the worldwide provision of heavy maintenance. Particularly, airlines with relatively large fleets that are already able to self-perform MRO services, or have subsidiaries with MRO capabilities include AF/KLM, Lufthansa Technik and Thai Airways.¹²²
90. Further, the Parties submitted that the MRO services market is highly competitive and there are no barriers that would impede customers from switching suppliers. For example, SIAEC may win bids for a particular customer at times, but lose the bid for the same customer at other times. [X].¹²³
91. A customer is also not restricted by the identity of the specific aircraft manufacturer of its aircraft, and is free to choose from the multitude of MRO service providers for MRO services. Customers may award contracts to a single MRO service provider to service their aircraft fleet which include aircraft manufactured by different aircraft manufacturers.¹²⁴

Feedback from third-parties

92. Third-party feedback¹²⁵ suggests that customers do switch frequently between providers of heavy maintenance. [X] also indicated that they have good negotiating power due to their multiple rounds of procurement involving many participating service providers which allows them to

¹²¹ Paragraph 32.1 of Form M1.

¹²² Paragraph 32.2, 32.2.1, 32.2.2 and 32.2.3 of Form M1.

¹²³ Paragraph 32.3 of Form M1.

¹²⁴ Paragraph 32.4 of Form M1.

¹²⁵ [X].

negotiate and obtain an acceptable agreement for the provision of services.¹²⁶ [X] commented that there is reasonable bargaining power available so long as the market is approached early enough to allow a real choice for the services required, and for as long as there are potential new providers coming to the market.¹²⁷

CCS's assessment

93. CCS is of the view customers are sophisticated buyers who have a multitude of existing providers in which they are able to switch to worldwide. CCS also notes that there are no significant barriers to switch and there have been several concrete examples of customers switching heavy maintenance providers.

VIII. Competition Assessment

Non-coordinated effects

94. Non-coordinated effects may arise where, as a result of the Proposed Transaction, the merged entity finds it profitable to raise prices (or reduce output or quality) because of the loss of competition between the merged entities. Other firms in the market may also find it profitable to raise their prices because the higher prices of the merged entity's product will cause some customers to switch to competitors' products, thereby increasing demand for the competitors' products.¹²⁸

The Parties' submissions

95. The Parties submitted that non-coordinated effects will not arise as a result of the Proposed Transaction for the following reasons:¹²⁹
- a. The MRO services market is a highly competitively one, in view of the multitude of independent, third-party competitors, as well as competing in-house MRO service providers, who are able to exert a competitive constraint on the merged entity;
 - b. Capital, regulatory approvals, access to intellectual property, access to talent (e.g. engineers, mechanics etc.) and technology, which are

¹²⁶ Response to Question 15 of CCS third-party RFI by [X] dated 3 June 2016.

¹²⁷ Response to Question 15 of CCS third-party RFI by [X] dated 8 June 2016.

¹²⁸ Paragraph 6.3 of the *CCS Guidelines on Substantive Assessment of Mergers*.

¹²⁹ Paragraph 34.1 of Form M1.

- required for entry into the market for the provision of heavy maintenance are not unduly restrictive barriers to entry;
- c. Customers are able to terminate contracts for MRO services easily and to switch suppliers upon termination of the contracts, and any switching costs involved are neither high nor prohibitive such that customers would be deterred from switching suppliers;
 - d. Customers are also able to, and do, procure MRO services from different MRO service providers to service their aircraft fleet, such that certain of the aircraft are serviced by one MRO service provider, and the remaining aircraft are serviced by other MRO service providers or in-house. Further, a customer is not restricted by the identity of the specific aircraft manufacturer of its aircraft, and is free to choose from the multitude of MRO service providers when procuring MRO services;
 - e. Airline operators, the key customers of MRO services, are large and sophisticated customers who are well-informed and likely to be able to exercise countervailing buyer power on MRO service providers by taking a whole-life approach to MRO services generally (i.e. considering the current cost of the MRO services together with the future cost of MRO services), or by credibly threatening to switch to alternative providers of MRO services;
 - f. There are several factors which customers consider in choosing providers of MRO services, including but not limited to maintenance cost, MRO capabilities, ferry cost, turnaround time, quality of work, and customer service;
 - g. Existing MRO service providers are not prohibited from entering, and do in fact enter, into joint venture arrangements similar to the Proposed JV. The Parties submit that it is not uncommon for market players to be active in such joint ventures providing services similar in scope to those to be provided by the Proposed JV; and
 - h. The Proposed JV will also not give rise to portfolio effects.

CCS's assessment and conclusion on non-coordinated effects

96. CCS notes that, while SIAEC specializes in MRO services and has six hangars in Singapore to provide heavy maintenance services, Airbus is primarily an aircraft manufacturer, which subcontracted [10 – 20]% of its worldwide heavy maintenance services and [90 – 100]% of its Singapore heavy maintenance services.¹³⁰ According to the Parties' competitors, it appears that switching between suppliers for heavy maintenance is neither uncommon nor difficult. Customers can fly anywhere in the world for heavy maintenance. [X] also

¹³⁰ Paragraph 16.2 and footnote 24 of Form M1.

indicated that there are many suppliers in the world that can provide heavy maintenance service for them should they want to switch suppliers.¹³¹ Coupled with the fact that there are a multitude of competitors worldwide who can exert competition constraints on the JV entity, CCS is of the view that the Proposed Transaction would not lead to non-coordinated effects post-Transaction.

Coordinated effects

97. A merger may also lessen competition substantially by increasing the possibility that, post-merger, firms in the same market may coordinate their behaviour to raise prices, or reduce quality or output. Given certain market conditions, and without any express agreement, tacit collusion may arise merely from an understanding that it will be in the firms' mutual interests to coordinate their decisions. Coordinated effects may also arise where a merger reduces competitive constraints in a market, thus increasing the probability that competitors will collude or strengthen a tendency to do so.¹³²

The Parties' submissions

98. The Parties submitted that coordinated effects will not arise as a result of the Proposed Transaction. They submit that the three conditions set out in the *CCS Merger Guidelines* are not met:¹³³
- a. SIAEC and Airbus and other competitors are not able to align their behavior in the market;
 - b. SIAEC and Airbus and other competitors do not have the incentive to maintain coordinated behavior, as there is no credible deterrent mechanism that can be achieved if deviation is detected; and
 - c. Coordinated behavior is not sustainable in the face of other competitive constraints in the market.
99. In addition, the Parties also submitted that coordinated effects will not arise as a result of the Proposed JV. This is in view of the following:¹³⁴
- a. There are numerous competitors of varying sizes, including in-house airline MRO service providers, such that the Proposed JV will be unable to align or coordinate its behavior with other competitors;

¹³¹ Response to Question 13 of CCS third-party RFI by [X] dated 3 June 2016.

¹³² Paragraph 6.7 of the *CCS Guidelines on the Substantive Assessment of Mergers*.

¹³³ Paragraph 35.2 of Form M1.

¹³⁴ Paragraph 35.3 of Form M1.

- b. In any event the competitive landscape of the market would make it extremely difficult for the Proposed JV to monitor compliance with any coordinated activities; and
- c. The presence of large customers and the significant countervailing buyer power which may be exercised by such customers in response to any observed coordinated behavior.

CCS's assessment and conclusion on coordinated effects

100. CCS is of the view that given the number of players in the market and the fact that customers have significant countervailing buyer power, it would be difficult for competitors to coordinate behavior in the market. Further, the Proposed Transaction does not significantly increase the market shares in the market that would raise competition concerns.
101. In light of the above, CCS concludes that the Proposed Transaction does not raise concerns in terms of coordinated effects on competition.

Vertical effects

102. The Parties submitted that there are existing vertical relationships between Airbus and each of SIAEC and SIA where Airbus sub-contracts MRO services to SIAEC under [X]. Airbus's TSP comprises a range of MRO, FTM and Inventory Technical Management services which it offers to third party customers. Airbus currently sub-contracts [X] part of the MRO services [X] to SIAEC and SIAEC performs these services in Singapore.¹³⁵
103. Following the Proposed Transaction, [X]. In respect of line maintenance services to be performed in Singapore, the Proposed JV will then sub-contract these services [X]. The sub-contracting of line maintenance services to be performed in the Territory, but outside Singapore, [X]. The Parties highlighted that the Proposed JV cannot [X], pursuant to paragraph 6 of Part B of the JVA.¹³⁶ In addition, the Parties also submitted that there will be a vertical relationship between [X].¹³⁷

CCS's assessment and conclusion on vertical effects

104. CCS considered the possibility that Airbus may withhold proprietary information resulting in independent MRO service providers not having

¹³⁵ Paragraph 36.1 of Form M1.

¹³⁶ Paragraph 36.2 of Form M1.

¹³⁷ Paragraph 36.3 of Form M1.

access to critical information necessary to compete with the Proposed JV in the market. CCS notes the Parties' submission that while Airbus has some proprietary design engineering and data with respect to the engineering of certain modifications for Airbus aircraft, this data is only relevant for the engineering design of such modifications, but not for the provision of MRO services for such modifications (i.e. modification embodiment). In addition, the Proposed JV will not perform any [X]. Further, structural repair manuals and other repair data and documentation would be made available to MRO service providers by their airline customers or by Airbus directly.¹³⁸

105. As such, CCS is of the view that the possibility of Airbus withholding proprietary information and resulting in independent MRO service providers not having access to critical information necessary to compete with the Proposed JV is low.

VII. Efficiencies

106. The Parties submitted that the Proposed JV will generate the following efficiencies:

- a. [X];
- b. [X];
- c. [X]; and
- d. [X].

CCS's assessment

107. Efficiencies may be taken into account where (i) they increase rivalry in the market so that no SLC will result from the merger and (ii) where they do not avert a SLC, but will nevertheless bring about lower costs, greater innovation, greater choice or higher quality and be sufficient to outweigh the detriments to competition caused by the merger in Singapore.
108. Given that the above competition assessment did not point to an SLC, CCS is of the view that it is not necessary to make an assessment on the claimed efficiencies by the Parties.

¹³⁸ Paragraph 18.4 of Form M1.

IX. Ancillary Restraints

109. Paragraph 10 of the Third Schedule to the Act states that “the section 34 prohibition and the section 47 prohibition shall not apply to any agreement or conduct that is directly related and necessary to the implementation of a merger” (the “Ancillary Restriction Exclusion”). In order to benefit from the Ancillary Restriction Exclusion, a restriction must not only be directly related, but also necessary to the implementation of the merger.¹³⁹ A restriction is not automatically deemed directly related to the merger simply because it is agreed at the same time as the merger or is expressed to be so related.¹⁴⁰ The restriction needs to be connected with the merger but subordinate to its main object.¹⁴¹ In determining the necessity of the restriction, consideration such as whether its duration, subject matter and geographical field of application are proportionate to the overall requirements of the merger will be taken into account.¹⁴²

110. The Parties have submitted that the following constitutes ancillary restrictions to the Proposed Transaction. The restrictions involved in this transaction are detailed in the JVA and consist of non-compete and non-solicitation obligations by SIAEC and Airbus, as well as a restriction on the scope of the Proposed JV’s business. The restrictions are set out below:

(a) SIAEC and Airbus non-compete obligations

111. [X].

112. [X].¹⁴³

113. [X].

114. [X].

CCS’s assessment regarding the Parties non-compete obligations

115. The *CCS Merger Guidelines* state that non-compete clauses, if properly limited, are generally accepted as essential if the purchaser is to receive the full benefit of any goodwill and/or know-how acquired with any tangible

¹³⁹ Paragraph 10.9 of *CCS Merger Guidelines*.

¹⁴⁰ Paragraph 10.12 of *CCS Merger Guidelines*.

¹⁴¹ Paragraph 10.10 of *CCS Merger Guidelines*.

¹⁴² Paragraph 10.13 of *CCS Merger Guidelines*.

¹⁴³ Clause 14.3 of the JVA.

assets. CCS will consider the duration of the clause, its geographical field of application, its subject matter and the persons subject to it. Any restriction must relate only to the goods and services of the acquired business and apply only to the area in which the relevant goods and services were established under the previous/current owner.¹⁴⁴

116. The [X] and it is the Parties' submission that these are directly related and necessary to the joint venture to ensure that the Parties will focus their efforts on the Proposed JV during the duration of the Proposed JV and to protect the interests of the Parties in the Proposed JV, in particular that the Proposed JV will receive the full benefit of the goodwill of the Parties.¹⁴⁵
117. CCS is of the view that the SIAEC and Airbus Non-Compete obligations is limited [X] and therefore does not exceed the scope of the Transaction i.e., [X].¹⁴⁶ CCS notes that [X].
118. The duration of the non-compete obligations is limited to [X].
119. CCS has assessed that it is reasonable that the non-compete obligations between the parent undertakings SIAEC and Airbus and the Proposed JV [X].¹⁴⁷ [X], CCS is of the view that the SIAEC and Airbus non-compete obligations are directly related to and necessary for the Proposed Transaction and in the context of the Proposed Transaction constitutes ancillary restrictions which fall within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as it applies to Singapore.

(b) SIAEC and Airbus non-solicitation restrictions

120. [X] ("Non-Solicitation Restrictions").
121. It is the Parties' submission that the Non-Solicitation Restrictions are directly related and necessary to the joint venture to protect the value of the Parties' respective investments into the joint venture.¹⁴⁸

¹⁴⁴ Paragraph 10.15 of the *CCS Merger Guidelines*.

¹⁴⁵ Paragraph 43.11 of Form M1.

¹⁴⁶ Paragraph 36 and 38 of the EC Notice on Ancillary Restraints.

¹⁴⁷ Paragraph 36 of the EC Notice on Ancillary Restraints similarly states that non-compete obligations can be regarded as directly related and necessary to the implementation of the concentration for the lifetime of the joint venture.

¹⁴⁸ Paragraph 43.13 of Form M1.

CCS's assessment regarding the Parties non-solicitation obligations

122. CCS notes that the scope of the Non-Solicitation Restrictions is narrow, specifically relating to [X]. CCS is of the view that the [X] duration for each of these Non-Solicitation Restrictions is reasonable and allows the Proposed JV to receive the full benefit of the goodwill of the Parties to the Proposed JV.
123. CCS concludes that the Non-Solicitation Restrictions set out in paragraph 120 constitute ancillary restrictions and consequently fall within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as they apply to Singapore.

(c) JV Business Restriction

124. [X].¹⁴⁹
125. The Parties have submitted that the JV Business Restriction is directly related and necessary to the joint venture as [X].¹⁵⁰

CCS's assessment regarding the JV Business Restriction

126. CCS considers that the JV Business Restriction is directly related and necessary to the joint venture and in the context of the Proposed Transaction constitutes an ancillary restriction which falls within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as it applies to Singapore.

X. Conclusion

127. For the reasons above and based on the information available, CCS assesses that the Proposed Transaction is unlikely to lead to SLC concerns, and accordingly, will not infringe the section 54 prohibition if carried into effect.

¹⁴⁹ Paragraph 43.4.2 of Form M1.

¹⁵⁰ Paragraph 43.17 of Form M1.

128. In accordance with section 57(7) of the Act, this decision shall be valid for a period of one year from the date of this decision.



Toh Han Li
Chief Executive
Competition Commission of Singapore