

Notice seeking clearance for the merger of Cargotec Corporation and Konecranes Plc

30 August 2021



KONECRANES®

PUBLIC VERSION

Confidential material in this application has been removed.
Its location in the document is denoted by [].

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SECTION 66 COMMERCE ACT 1986: NOTICE SEEKING CLEARANCE FOR BUSINESS ACQUISITION

30 August 2021

The Registrar
Competition Branch
Commerce Commission, PO Box 2351
Wellington, New Zealand

Pursuant to section 66(1) of the Commerce Act 1986, notice is hereby given seeking clearance of a proposed merger of Cargotec Corporation (**Cargotec**) and Konecranes Plc (**Konecranes**, together with Cargotec, the **Parties**).

EXECUTIVE SUMMARY

- 1 The transaction involves the combination of Cargotec and Konecranes by way of a statutory absorption merger under Finnish law providing for the transfer of all assets and liabilities of Konecranes to Cargotec in consideration for newly issued Cargotec shares (the **Proposed Transaction**).
- 2 Pursuant to a Combination Agreement entered into by Cargotec and Konecranes on 1 October 2020, as well as the Merger Plan which the respective extraordinary general meetings of the Parties approved on 18 December 2020, the Proposed Transaction will be implemented as a statutory absorption merger pursuant to the Finnish Companies Act whereby all assets and liability of Konecranes are transferred without a liquidation procedure to Cargotec and shares are issued to Konecranes shareholders (**Merged Entity**).
- 3 **Cargotec** is a Finnish public limited liability company seated in Helsinki, Finland, and its B-shares are listed on Nasdaq Helsinki Ltd. Cargotec offers many kinds of material flow solutions, ranging from cargo and load handling equipment (manual and automated) to engineering solutions for the maritime industry. Its main activities are divided into three businesses:
 - 3.1 cargo handling equipment and terminal solutions are offered by Kalmar;
 - 3.2 on-road load handling equipment is provided by Hydrauliska Industri AB (**Hiab**); and
 - 3.3 solutions and services for the maritime industry are provided by MacGregor Finland Oy (**MacGregor**).
- 4 **Konecranes** is a Finnish public limited liability company headquartered in Hyvinkää, Finland, and its shares are listed on Nasdaq Helsinki. Konecranes is specialised in lifting solutions for various applications. It offers material handling solutions for general manufacturing and process industries, container handling equipment and respective automation solutions, and many kinds of services and spare parts.
- 5 The Parties overlap globally in relation to the supply of container handling equipment. Container handling equipment is used for the loading and unloading, transportation and handling of shipping containers, principally at port container terminals, and includes cranes, horizontal transport equipment used to transport containers short distances from point A to point B, and mobile equipment used to move and stack containers in the container yard.

6 Globally, the Parties both supply a range of different types of cranes, horizontal transport equipment and mobile equipment. However, based on sales/deliveries between 2017 and 2020, the overlap in New Zealand is limited to three specific types of equipment, each of which the Parties consider constitutes a separate product market:¹

6.1 straddle carriers;

6.2 empty container handlers; and

6.3 forklift trucks.

7 This clearance application therefore focusses on those markets in which the Parties both had sales in the 2017 to 2020 period. The Proposed Transaction would not result in a substantial lessening of competition in any market relevant to New Zealand for the reasons summarised below.

Straddle carriers

8 Straddle carriers are a type of horizontal transport equipment used to transport containers in a container yard. Straddle carriers are mounted on wheels and have a hoisting structure allowing them to lift containers up to four stacks high.

9 For the reasons explained in Part 6 and summarised below, the Proposed Transaction will not substantially lessen competition in the supply of straddle carriers because:

9.1 while the market for straddle carriers has historically been concentrated, these historic market shares do not reflect current or future market dynamics and are not an adequate proxy for the Parties' and their competitors' current and future market positions;

9.2 the straddle carrier market is a highly competitive global bidding market (i.e. bids are sought from suppliers irrespective of where they are located) facing significant and growing competition from Chinese suppliers such as ZPMC and other Original Equipment Manufacturers (**OEMs**) such as Liebherr;

9.3 customers exercise significant buyer power and can easily switch between suppliers;

9.4 there are no insurmountable barriers to market entry and expansion as shown recently, and most notably, with Liebherr and ZPMC. There are several players who already supply straddle carriers regionally or who are active in neighbouring container handling equipment and heavy machinery markets, such as Sany, XCMG and Suzhou Dafang, who are well placed to enter and expand; and

9.5 competition from other equipment types constrains straddle carrier suppliers.

¹ As regards reach stackers, Konecranes has made sales outside the 2017-2020 reference period [] and therefore reach stackers are addressed in Part 7 (global overlap markets) rather than Part 6 (competition assessment). However, because [] is [], the Parties have provided additional New Zealand-specific information in relation to reach stackers.

- Mobile equipment: empty container handlers and forklift trucks**
- 10 Mobile equipment comprises reach stackers, container handlers and forklift trucks and is mainly used to transport and lift containers, other cargo and flat racks in terminals. Reach stackers have a boom with a spreader that grips the container from above allowing it to operate several container rows deep. Container handlers are masted lift trucks able to stack containers only in the first row and up to six containers high.
- 11 For the reasons explained in Part 6 and summarised below, the Proposed Transaction will not substantially lessen competition in the supply of mobile equipment because:
- 11.1 there are a large number of established players that provide mobile equipment. There will be sufficient effective competition in each mobile equipment market even disregarding any market entry and expansion;
- 11.2 global competition has increased in recent years due to the rapid expansion of Chinese players, which have a highly competitive cost position and are able to undercut other suppliers including the Parties by about []% on average for any mobile equipment type;
- 11.3 the structure of demand and customer negotiations contribute to strong competition;
- 11.4 strong, sophisticated customers exercise significant countervailing buyer power; and
- 11.5 barriers to market entry and expansion are low. All types of mobile equipment are produced in versatile manufacturing facilities and manufacturers can easily divert capacity to produce other types of mobile equipment.

PART 1: APPLICANT AND OTHER PARTY DETAILS**Applicant**

- 12 This notice seeking clearance is given by Cargotec s. The applicant can be contacted through the details set out below.

Cargotec

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Physical address: Porkkalankatu 5, 00180 Helsinki, Finland

Website: <https://www.cargotec.com/en/>

Contact persons: Outi Aaltonen
General Counsel
E: []
P: []

Jukka Heinonen
Vice President M&A
E: []

- 13 All correspondence and notices in respect of this application should be directed in the first instance to:

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Other party to the transaction

- 14 Contact details for Konecranes are set out below.

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PART 2: TRANSACTION DETAILS

The Proposed Transaction

- 15 The Proposed Transaction is in substance a global merger of Cargotec's and Konecranes' businesses.
- 16 The Parties entered into a Combination Agreement and Merger Plan on 1 October 2020, and on 18 December 2020 the respective extraordinary general meetings of the Parties approved the Proposed Transaction.
- 17 Pursuant to the Combination Agreement and Merger Plan, the Proposed Transaction will be implemented as a statutory absorption merger pursuant to the Finnish Companies Act whereby all assets and liabilities of Konecranes are transferred without a liquidation procedure to Cargotec. As a result of the Proposed Transaction, Konecranes would automatically dissolve and cease to exist as a separate legal entity.
- 18 Prior to or in connection with the completion of the Proposed Transaction, Cargotec will effect a 3 for 1 split of its shares and issue new shares without payment to the shareholders of Cargotec in proportion to their existing shareholding by issuing two new class A shares for each class A share and two new class B shares for each class B share, including new shares to be issued to Cargotec for its treasury shares. The split will be effected for the purpose of enabling the issuance of the merger consideration under the Merger Plan. Upon the completion of the Proposed Transaction, Konecranes shareholders will receive as merger consideration 0.3611 new class A shares and 2.0834 new class B shares in Cargotec for each share they hold in Konecranes on the record date. The post-completion ownership in the Merged Entity is expected to be approximately 50% for Konecranes shareholders and approximately 50% for Cargotec shareholders.
- 19 The Parties expect to complete the Proposed Transaction immediately upon fulfilment of all necessary conditions, including receipt of merger control approvals.

Transaction documents

- 20 The Combination Agreement is attached as **Appendix 1**.
- 21 The Merger plan is attached as **Appendix 1**.
- 22 Minutes of the extraordinary general meetings of the Parties are attached as **Appendix 1**.
- 23 The Merger Prospectus is attached as **Appendix 1**.

Other competition agencies being notified of the Proposed Transaction

- 24 The implementation of the Proposed Transaction is subject to a range of conditions including receipt of merger control clearances. The Proposed Transaction has been,

25 Completion is expected by the first half of 2022, subject to necessary approvals.

Commercial rationale

26 The rationale for the Proposed Transaction is to combine the Parties' complementary offerings to better address evolving customer needs in an increasingly competitive landscape. In particular:

26.1 The Proposed Transaction will combine two businesses with highly complementary focuses, assets and skillsets.

26.2 The Merged Entity will be able to create a more efficient cost-structure which is necessary to compete effectively on a global market dominated by cost-efficient and State-backed Chinese players who already hold leading positions in the various markets affected by the Proposed Transaction and are further expanding their businesses and offerings globally.

26.3 By pooling Cargotec's and Konecranes' resources, the Merged Entity will be able to further enhance its R&D capabilities and provide a platform for innovation, digitalisation and automation as well as sustainability and electrification. The Merged Entity will be in a position to diversify in material flow, to provide answers to the industry's most pressing needs and to become a lifecycle partner for customers. This strong focus on developing new green technologies and digitalisation will enable the Merged Entity to effectively compete with other "traditional" equipment suppliers, industrial players expanding their business to container handling equipment as well as start-ups and thus to remain a global player in the future. This drive for innovation will also help the Merged Entity to remain a well-regarded employer and to effectively compete in the global market for highly skilled employees.

Relevant industry associations

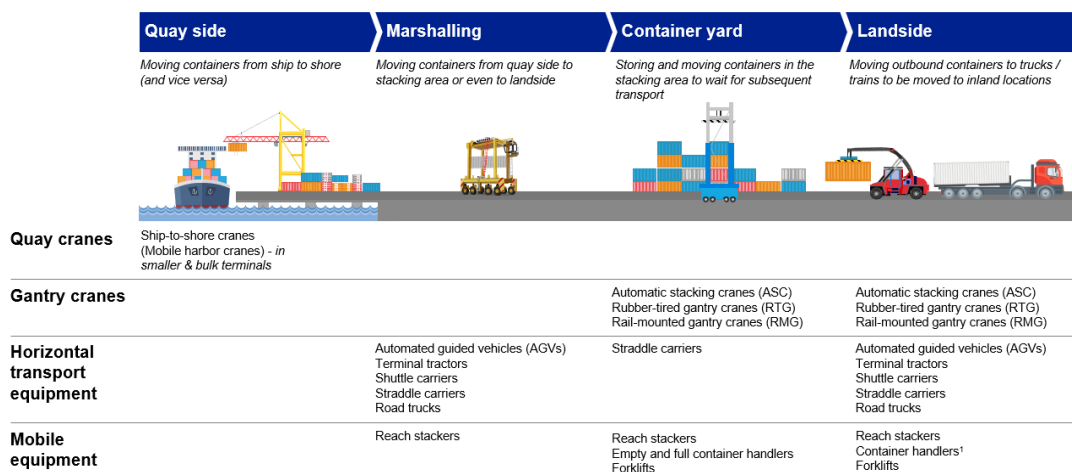
27 We provide details of the Parties' membership of relevant industry associations in New Zealand at **Appendix 7**.

PART 3: BUSINESS ACTIVITIES

SECTION 1: INTRODUCTION TO CONTAINER HANDLING EQUIPMENT

- 28 Container handling equipment is used for the loading and unloading, transportation and handling of containers, general cargo, and bulk. Container handling equipment can be divided into 4 different groups:
- 28.1 Quay cranes are cranes used to load and unload ships and comprise Ship-to-shore cranes (**STS crane**) as well as mobile harbour cranes (**MHC**).
 - 28.2 Gantry cranes include rubber-tired gantry cranes (**RTG crane**), rail-mounted gantry cranes (**RMG crane**), automated stacking cranes (**ASC crane**). They are used in the container yard and landside area for stacking containers and loading/unloading trucks and railcars.
 - 28.3 Horizontal transport equipment comprises straddle carriers, shuttle carriers, automated guided vehicles (**AGV**) and terminal tractors. This equipment is used to transport containers short distances from point A to point B in the container yard, e.g. between the container stacks and quay cranes loading them on ships.
 - 28.4 Mobile equipment comprises reach stackers, container handlers and forklifts and is mainly used to transport and lift containers, other cargo and flat racks in terminals. Reach stackers have a boom with a spreader that grips the container from above allowing it to operate several container rows deep (i.e. they are also able to reach containers located in the second or third row). Container handlers are masted lift trucks able to stack containers only in the first row and up to six containers high.
- 29 Figure 1 below summarises the main types of container handling equipment and their functions at a port container terminal.

Figure 1: Summary of container handling equipment types



1. Including empty container handlers for handling empty containers

- 30 As shown in Figure 1 above, the various types of container handling equipment have overlapping roles, depending on the design of the container terminal. Quay cranes are used to move containers from ship to shore. Gantry cranes are used in container yards and landside to move and stack containers and place containers on outbound transport. Horizontal transport equipment is principally used to move

containers from the quay side to the yard, and from the yard to outbound transport, whereas mobile equipment is generally used to move and stack containers or other cargo in the yard. Some equipment types are more flexible than others. For example reach stackers can be used in both a horizontal transport role and to move and stack containers in the yard.

- 31 Globally, the Parties are active in the supply of cranes, horizontal transport equipment and mobile equipment. However, in New Zealand their recent sales history indicates they overlap principally in relation to straddle carriers, empty container handlers and forklift trucks.

Customers

- 32 End-users of container handling equipment in New Zealand are principally port terminal operators and, to a smaller extent, intermodal terminal operators. Reach stackers and empty container handlers are sometimes – and forklift trucks are widely – used for other applications (distribution centres, industrial environments, etc.). Generally speaking, however, terminal operators are by far the most important end-user group for container handling equipment in New Zealand. [

]. The following table provides an overview of the major container ports in New Zealand.

Table 2: Major container ports in New Zealand²

Port	Cargo capacity (approximately cargo handled in 2019)
Port of Tauranga	1,230,000 TEU ³
Ports of Auckland	939,000 TEU
Lyttelton Port Company	420,000 TEU
Port of Napier	250,000 TEU
Port Otago	180,000 TEU
Port Nelson	120,000 TEU
CentrePort	90,000 TEU
PrimePort Timaru	80,000 TEU
SouthPort	48,700 TEU

- 33 The next most significant group of end-users of container handling equipment in New Zealand are operators of inland intermodal terminals. Such terminals are, in contrast to ports, not at the seaside and are mainly used to shift containers between trains as well as between trains and trucks.

² There are also several other ports in New Zealand which have container handling capabilities. For example:

- Eastland Port (currently rebuilding a wharf to have sufficient strength to allow mobile harbour cranes to operate on it and allow for the use of containers (see [here](#)));
- Port of Taranaki (has 2ha of container terminal); and
- Northport (has 30ha of paved area which can be used for cargo operations (see [here](#))).

³ 20 foot equivalent units (**TEU**).

34 In New Zealand, KiwiRail is a significant inland intermodal terminal operator and has approximately 50 units of container handling equipment, including reach stackers. In addition, there are also other rail hubs, inland hubs and freight hubs owned by ports and specialist transport companies. Several port operators in New Zealand operate intermodal terminals to provide an end-to-end supply chain, or participate in joint ventures that operate intermodal terminals. For example:

34.1 Lyttelton Port Company operates an inland terminal at Rolleston, and

34.2 Ports of Auckland operates two intermodal terminals at Wiri and Te Rapa.

35 Certain equipment types (in particular empty and full container handlers, reach stackers and forklifts) are also sold to other customer groups, including industrial customers,⁴ warehouses, distribution centres⁵ and specialised container operators.⁶ The equipment used by these end-user groups is generally used considerably less frequently than the equipment used by port operators or inland intermodal terminal operators, so these end-user groups do not necessarily need to buy new equipment and often buy used equipment.

36 Customers outside of port and intermodal container terminal operators are large in number but make up a relatively small percentage of the total addressable market for container handling equipment in New Zealand. These end-users tend to procure equipment in smaller numbers (i.e 1-4 units as required) and the equipment procured generally has a lower lifting capacity.

Channels to market

37 OEMs sell to New Zealand customers both directly and via dealers and distributors. Relevant for present purposes, demand for straddle carriers is typically project based and characterised by lumpy and infrequent orders. Most procurements of straddle carriers are therefore tendered on a worldwide basis and OEMs participate directly in such tenders. Sales of straddle carriers via distributors are less common. [

]. Konecranes utilises Port Solutions Limited as an agent for straddle carriers.⁷

38 OEMs also often sell their products via dealers or distributors (which resell the equipment to end-users), to renting or leasing providers (which rent or lease equipment to end-users), and to contractors (which use the equipment to provide services to end-users). This is typical in relation to mobile equipment rather than heavier equipment such as cranes or straddle carriers, which is typically sold directly

⁴ Examples of these customers operating in New Zealand include OJI Fibre Optics (producer of pulp, paper and fibre based packaging), Carter Holt Harvey (timber manufacturer), Nelson Pine Industries (timber manufacturer), Toll Group (freight transport service provider), Rotorua Forest Haulage Limited (forestry and logging provider), Humes NZ (concrete pipe manufacturer), Hynds Pipe Systems (supplier of water pipe systems), OneFortyOne (forestry and milling company) and Laminex (supplier of building products).

⁵ Examples of these customers operating in New Zealand include warehouses and distribution centres such as Fonterra (dairy supplier), Synlait (dairy processing company) and The Warehouse (clothing, electronics and homewares store).

⁶ Examples of these customers operating in New Zealand include ContainerCo (independent shipping container company) and Specialised Container Services (container maintenance, repair and transport facility).

⁷ See: <https://www.portsolutions.nz/products>.

by the OEM and for which there might potentially be a local agent representing the OEM. This is because mobile equipment is procured more frequently and in smaller numbers.

- 39 OEMs rely on distributors', dealers' or agents' networks when their activities in a given geographic area are limited. Dealers and distributors are typically able to provide comprehensive aftersales services, have local market knowledge, and strong customer relations. For example, in New Zealand:
- 39.1 Cargotec [] sells mobile equipment in New Zealand through AB Equipment,⁸ including forklift trucks, reach stackers and empty container handlers.⁹
 - 39.2 Konecranes sells mobile equipment in New Zealand through Port Solutions Limited, and also uses Port Solutions Limited as an agent for straddle carriers.¹⁰
 - 39.3 Hyster-Yale sells mobile equipment in New Zealand through Hyster NZ,¹¹ including forklift trucks, full and empty container handlers, and reach stackers.
 - 39.4 Sany Heavy Industry Co Ltd (**Sany**) sells mobile equipment in New Zealand through Portstar Machinery,¹² including forklift trucks, full and empty container handlers, and reach stackers.¹³
 - 39.5 Shanghai Zhenhua Heavy Industries Co Ltd (**ZPMC**) sells reach stackers in New Zealand through MTS Energy Limited.¹⁴
- 40 Container handling equipment is often, but not exclusively, procured via tenders. Typically heavier equipment such as cranes and horizontal transport equipment is procured via tender. A significant proportion of mobile equipment is also procured via tender, although direct inquiries are also a significant channel for mobile equipment. However, even outside of the context of formal tenders, customers would typically contact several suppliers to elicit quotes, followed by bilateral negotiations. So, in practice, the competitive dynamics between explicitly tendered procurements and direct inquiries are not radically different.

Stages at which competition occurs

- 41 Competition to supply container handling equipment may occur at a number of different stages. When a customer considers investing in a new greenfield container terminal, or restructuring its current operations, it will first have to decide on terminal design, i.e. which equipment set-up to use. Suppliers may compete by proposing different design concepts to meet the customer's need. Once the concept

⁸ [].

⁹ For further information see: <https://abequipment.co.nz/our-brands/kalmar/>.

¹⁰ For further information see: <https://www.portsolutions.nz/products>.

¹¹ Hyster NZ was previously Gough Materials Handling (owned by the Gough Group). Hyster NZ is now owned by Sime Darby Berhad. For further information see <https://hyster.co.nz/>.

¹² For further information see: <https://portstar.co.nz/>.

¹³ [].

¹⁴ For further information see: <https://mts.co.nz/index.php/mts-entrepot-trade/>.

has been determined, customers will then procure the equipment needed to achieve the design concept, and often do so by means of competitive tender.

- 42 In addition, customers can easily switch between suppliers. Customers can operate a mixed fleet (i.e. equipment from different suppliers) within their terminals. This is not only true for different equipment types but also within the same equipment category. Customers may also start with one particular brand for a greenfield project but, at a later stage, diversify with a different supplier when expanding the terminal or replacing old units. By way of example, the Parties understand that Lyttelton Port Company has:

42.1 27 straddle carriers:

- (a) 16 from Konecranes,
- (b) 8 from Liebherr, and
- (c) 3 from Kalmar (Cargotec); and

42.2 [

- (a)
- (b)
- (c)
- (d)].

- 43 Technical advancement has a limited impact on the interoperability of different equipment types and manufacturers. Terminal operators, regardless of whether they operate manual or automated terminals, need a terminal operating system (**TOS**) to manage the logistics of their terminal. An equipment control system (**ECS**) is then used to monitor and guide any automated equipment fleet. TOS and ECS can typically be operated with different types of container handling equipment and other terminal software. To this extent, automation within a port does not require the port operator to only rely on the port handling equipment of one manufacturer. Having said that, one ECS generally controls an entire equipment group. For this reason, customers would not usually combine ECS solutions from different suppliers for the same equipment group.

- 44 That said, customers may use different ECS solutions for different equipment groups. Given the significant degree of interoperability of the software solutions and the port equipment products, it is common for customers to combine equipment and terminal software from different suppliers.

Aftersales services

- 45 Regardless of the type of container handling equipment, a supplier's capability to provide quick, reliable and high-quality services, either directly or indirectly via third parties, is generally an important factor for success in the industry.
- 46 Container handling equipment is usually in heavy use, often 24/7, which makes regular maintenance not only necessary but also important from an operational perspective. Container handling equipment that is moving around freely (i.e. horizontal transport and mobile equipment) is particularly service intense making it important to minimise planned and unplanned downtimes.

47 The principal models for aftersales services are as follows:

47.1 *In-house*: Many customers have significant in-house service capabilities and try to cover repair and maintenance works themselves. For example, the Parties estimate that approximately []% of the straddle carriers in New Zealand are serviced in-house by port operators. In contrast, in New Zealand it is common for port operators to outsource their servicing requirements for mobile equipment.¹⁵ The Parties estimate that approximately []%¹⁶ of all maintenance and repair works for mobile equipment is done in-house.

47.2 *Third party contractors*: distributors and other independent service providers offer a wide range of services for all major container handling equipment types and can provide aftersales services across brands. Independent service providers allow OEMs without a presence in New Zealand to provide the full range of services to customers. For example, ZPMC collaborated with CM Labs Simulations in providing training relevant to the STS cranes it sold to Ports of Auckland.¹⁷

47.3 *OEMs*: OEMs in New Zealand tend to provide services through their affiliated distributors or dealers.¹⁸ For example:

(a) Kalmar NZ customers are serviced by AB Equipment. [

].

(b) Portstar offers servicing for Sany equipment including breakdown repairs, scheduled servicing, product training and re-manufacturing.¹⁹

(c) Hyster NZ provides servicing for Hyster equipment, with an extensive network across New Zealand.²⁰

(d) Port Solutions Limited provides maintenance management and support services for Konecranes machines.²¹ Konecranes established servicing/maintenance services in New Zealand and in Australia in June

¹⁵ [

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¹⁶ [

]. [

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¹⁷ For further information see: <https://www.portstrategy.com/news101/products-and-services/cm-labs-and-zpmc-collaborate-for-crane-training>.

¹⁸ The Parties []. For this reason the Parties are not in competition for the provision of after-sale services or spare parts.

¹⁹ For further information see: <https://portstar.co.nz/services/>.

²⁰ For further information see: <https://hyster.co.nz/forklift-servicing/>.

²¹ For further information see: https://www.portsolutions.nz/?qclid=Cj0KCQjwyZmEBhCpARIsALizmnIsy_rxviO4ZQo3AuS3-2qfbwwv-fHtaf-K0TnKt1QxBFe0rMwtHzcaAo7tEALw_wcB.

2021, enabling Konecranes NZ to provide maintenance and repair services directly to customers in New Zealand.²²

- 48 As there are so many options available to customers for aftersales services it is not a prerequisite that OEMs have their own service presence in New Zealand in order to sell equipment. However, for a large contract/project OEMs would not necessarily consider it to be a disproportionate cost to introduce a service presence for that contract/project. For example, [
-].

Rise of Chinese players

- 49 For the purposes of this application, the most significant industry trend relevant to competition is the rise of Chinese manufacturers. The Chinese government is actively supporting the global expansion of Chinese industrial suppliers, in particular through its 13th Five-Year Plan,²³ and its "Belt & Road"²⁴ and "Made in China 2025"²⁵ initiatives. These State-supported and State-funded efforts are driving long-term, structural changes to the competitive landscape in the maritime and adjacent industries, including the port terminals and equipment industries. Based on current trajectories, Chinese players are set to lead the industry on a global basis.
- 50 Chinese container handling equipment suppliers benefit from State support and resources allowing them to offer highly competitive products at competitive prices, and thereby allowing them to rapidly gain market share. There are no regulatory limitations with regard to State subsidies and supporting Chinese players financially is part of China's comprehensive maritime industry investment plan. In particular, Chinese suppliers benefit from subsidised manufacturing resources, including key raw materials such as steel, and low-cost labour. Additionally, the global expansion of Chinese suppliers is strongly supported by their favourable access to financing by Chinese state-controlled banks.
- 51 The following Chinese suppliers are key competitors in the global container handling equipment markets and are discussed in more detail in Part 6:

²² [

].

²³ China's Five-Year Plans are a series of social and economic development initiatives issued by China for every five-year period dating back to 1953. The 13th Five-Year Plan for the period 2016-2020 has put a very strong emphasis on innovation, including increasing the spending on R&D, raising the quality and volume of Chinese patents and enhancing human capital. In execution of the objectives of the 13th Five-Year Plan Chinese container handling equipment manufacturers such as ZPMC, Sany, and XCMG, have in the last years rapidly developed innovative and high-quality products and aggressively expanded globally.

²⁴ With its "Belt & Road" initiative, launched in 2013, China has been heavily investing in infrastructure in nearly 70 countries to enhance regional connectivity. This includes a particular focus on maritime shipping and railway routes. See "Belt and Road Initiative", available at: <https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative>.

²⁵ "Made in China 2025" is a national strategic plan to further develop China's manufacturing sector. See: <http://www.gov.cn/zhuanti/2016/MadeinChina2025-plan/index.htm> (Mandarin language only).

- 51.1 ZPMC is a global leader in the manufacturing of cranes and is now heavily investing into horizontal transport equipment (and achieving major project wins). ZPMC has in recent years aggressively expanded outside China.²⁶
- 51.2 Sany is a leading manufacturer of heavy industrial equipment and has, within only a few years, grown into one of the most important global suppliers for cranes and mobile equipment.
- 51.3 Xuzhou Construction Machinery Group (**XCMG**) is active in the production of machinery for the construction industry. XCMG recently launched a new series of reach stackers, empty container handlers and forklifts for container and heavy material handling.
- 51.4 Shaanxi Automobile Group Co. Ltd. (**Shaanxi**) is focused on horizontal transport and mobile equipment. It is on a path to become one of the world's leading suppliers of container handling equipment – based on the successful expansion strategy deployed by ZPMC and Sany.
- 51.5 Anhui Heli Co. Ltd. (**Heli**) is the main subsidiary of Anhui Forklift Group Company. It is active in R&D, manufacturing and export of industrial vehicles and is the first listed company in China's forklift industry.
- 52 Moreover, the Chinese government's policy aims at a leading Chinese presence across the entire value chain of the maritime industry globally. Chinese companies are playing an increasingly significant role globally in the entire value chain of the maritime shipping industry. In particular, ZPMC's parent company, China Communications Construction Company Limited, has become increasingly active in port construction globally. Further, China Merchants Group (a State-owned entity and world-leading port investor, developer and operator) has invested in 34 ports in 18 countries and COSCO (a State-owned entity and world-leading shipping and logistics company) has interests in 14 ports outside of China. These relationships help to advance the position of Chinese suppliers in the global market. According to an internal Konecranes document, [
-].²⁷
- 53 Further information regarding the competitive constraint posed by Chinese players is provided in Part 6 (competition assessment) in relation to the specific markets in which the parties overlap.

Sustainability and electrification

- 54 Climate change is a key focus for New Zealand ports. In 2019, New Zealand passed the Climate Change Response (Zero Carbon) Amendment Act 2019 which set a new domestic greenhouse gas emissions reduction target for New Zealand to reduce net

²⁶ This is evidenced by the fact that in the 2019 financial year, ZPMC's operating revenues were RMB 24.6 billion (approximately NZD 5.5 billion), increasing by 12.8% from 2018. Container handling equipment accounted for ~67% of ZPMC's total operating revenues. ZPMC already derives only 50% of its operating revenues from Chinese based customers, generating 14% in Europe, 14% from the rest of Asia, and 9% from North America.

²⁷ As set out on slide 30 of the document titled "Strategy Update – Background materials for consideration", prepared for the Konecranes Board of Directors in January 2019. This document was provided to the NZCC as part of the bundle of 5.4 documents attached to the Form CO (Annex QK 5.4.117.pdf).

emissions of greenhouse gases²⁸ to zero by 2050. International shipping and port operations are a significant source of carbon emissions, so reducing emissions in these sectors is a significant objective for port operators in New Zealand.

- 55 To that end, New Zealand port operators are making decisions to make their operations more sustainable:
- 55.1 Ports of Auckland has a goal of becoming a zero-emissions port by 2040:
- (a) in 2019 the Ports of Auckland launched a pilot hydrogen power programme in which it will build its own hydrogen-generating plant,²⁹ and
 - (b) in 2020 the Ports of Auckland launched their automated straddle carriers to load and unload trucks and operate their container yard. The Ports of Auckland considered automation would help make its operations more sustainable by reducing fuel use, emissions, noise and light pollution and increase capacity without reclamation;³⁰
- 55.2 CentrePort replaced its diesel-operated straddle carriers and transfer vehicles with an electric alternative (electric terminal tractors) in 2020;³¹
- 55.3 Port Nelson has electrified 60% of its small forklift fleet;³²
- 55.4 Lyttelton Port Company established an inland hub in 2016, allowing freight to be consolidated and taken to the port by rail, avoiding up to 195 truck trips a day;³³ and
- 55.5 Port of Tauranga has joined the Certified Emissions Measurement and Reduction Scheme and has committed to invest in low emission technology.³⁴
- 56 Against this background, equipment manufacturers have intensified their R&D and are developing and launching new products with reduced or no CO2 emissions that at the same time meet the required operational targets.

Automation and digitisation

- 57 Automation is driven by port operators' need to conduct their operations more profitably (with a view to managing labour cost, better visibility on business

²⁸ Excluding biogenic methane.

²⁹ See: <https://www.greenport.com/news101/australasia/auckland-looks-to-hydrogen-power>.

³⁰ See: <https://www.poal.co.nz/about-us/Pages/Automation.aspx>.

³¹ See: <https://www.stuff.co.nz/business/119114476/new-zealands-first-electric-port-in-the-making-centreport-general-manager-says> and https://www.gaussin.com/wp-content/uploads/2020/01/PR_CPL_Gaussin_EN_vf.pdf. CentrePort has estimated that this decision would reduce its carbon by approximately 250 tonnes per annum.

³² See: <https://www.stuff.co.nz/environment/climate-news/122081064/port-nelson-weighs-up-alternative-energy-to-cut-carbon-emissions>.

³³ See: <https://www.stuff.co.nz/environment/climate-news/115902088/collaboration-the-key-to-cutting-carbon-port-nelson>.

³⁴ For further information see: <https://webcache.googleusercontent.com/search?q=cache:VBH5m8yYKf4J:https://www.port-tauranga.co.nz/download/neQv07e82zNqI/+&cd=1&hl=en&ct=clnk&gl=nz>.

- processes and equipment performance) and more safely (with a view to reducing accidents).
- 58 Implementation of automation at a terminal typically requires three different layers of automation:
- 58.1 the equipment layer (including automation components such as sensors, radar transponders and electric drives);
 - 58.2 ECS to monitor and guide the automated equipment fleet. The ECS directs individual automated equipment units based on commands from the TOS; and
 - 58.3 TOS to control the logistics of the entire terminal.
- 59 To date, automation of horizontal transport equipment, including straddle carriers, is less common than crane automation as horizontal transport equipment moves around freely within the terminal which significantly increases the complexity of routing and coordinating individual units, in order to avoid traffic jams and collisions and to ensure on-time arrival of each vehicle. Nonetheless the number of automated units in operation is growing.
- 60 The availability of automation for mobile equipment is limited. To the best of the Parties' knowledge, there is no fully automated mobile equipment available on the market yet.
- 61 The size of New Zealand ports has somewhat limited the rate of automation in New Zealand compared to some overseas ports, and electrification is typically a more significant focus for New Zealand port operators. The advantages of automation are more significant at scale, given the upfront investment required to implement automation. That said, as automation reduces costs overall, improves safety and lowers emissions, it is inevitable that automation will at some point become a priority in New Zealand. [
-].
- 62 In 2019 Ports of Auckland commenced a significant automation project and became the first container terminal in New Zealand to use automated straddle carriers to load and unload trucks and operate the container yard.³⁵ This project was tendered globally and won by Konecranes who supplied Ports of Auckland with 27 automated straddle carriers. [
-]. [

].

SECTION 2: CARGOTEC

- 63 Cargotec is a Finnish public limited company seated in Helsinki, Finland and its B-shares are listed on Nasdaq Helsinki. The currently unlisted A shares of Cargotec will be listed on the official list of Nasdaq Helsinki in connection with completion of the Proposed Transaction.

³⁵ For further information see: <https://www.poal.co.nz/about-us/Pages/Automation.aspx>.

- 64 Cargotec is a global provider of cargo and load handling solutions. Cargotec's main activities are divided into three businesses:
- 64.1 cargo handling equipment and terminal solutions are offered by Kalmar,
 - 64.2 on-road load handling equipment is provided by Hiab, and
 - 64.3 solutions and services for the maritime industry are provided by MacGregor.

Cargotec's global activities

- 65 Globally, Cargotec supplies the following cargo handling equipment:

- 65.1 cranes, including:

- (a) STS cranes;
- (b) RTG cranes;
- (c) RMG cranes; and
- (d) ASC cranes (which are effectively automated RMG cranes);

- 65.2 horizontal transport, including:

- (a) straddle carriers;
- (b) shuttle carriers;
- (c) terminal tractors; and
- (d) AGVs (but it should be noted that [

]); and

- 65.3 mobile equipment, including:

- (a) reach stackers; and
- (b) forklift trucks.

- 66 Cargotec also provides the following software products globally:

- 66.1 ECS software product called "KalmarOne" which is generally only sold together with Cargotec's own automated equipment;
- 66.2 a remote monitoring tool software called "Kalmar Insight", a cloud-based performance management tool. This software is not supplied on a stand-alone basis; and
- 66.3 a container and vehicle tracking tool called Kalmar SmartPort.

- 67 Until recently, Cargotec also provided TOS solutions globally via Navis LLC (see paragraph 73 below for further detail).

- 68 Finally, Cargotec also provides the following other services globally:

- 68.1 terminal consultancy services;
- 68.2 aftersales services and spare parts; and
- 68.3 used port handling equipment.

Cargotec's activities in New Zealand

- 69 Cargotec operates its cargo handling equipment business in New Zealand through its wholly owned subsidiary, Kalmar New Zealand Limited (**Kalmar NZ**). [].
- 70 Over the period 2017 to 2020, Cargotec supplied the following products in New Zealand:
- 70.1 terminal tractors;
 - 70.2 manual straddle carriers;
 - 70.3 reach stackers;
 - 70.4 empty container handlers; and
 - 70.5 forklift trucks.
- 71 Cargotec's revenues in New Zealand for these five products over the period 2017 to 2020 is set out in **Appendix 5**.
- 72 Cargotec also provides some ancillary products and services in New Zealand (including terminal consultancy services, aftersales services and spare parts). However, Cargotec only provides these ancillary products/services to customers in New Zealand who have purchased container handling equipment from Cargotec, and does not supply these products/services independently of its sales of container handling equipment.³⁶
- 73 Until recently Cargotec offered TOS software through its subsidiary in New Zealand, Navis Software New Zealand Limited (**Navis NZ**). Cargotec has recently divested its affiliate Navis LLC (including Navis LLC's affiliate Navis NZ). A binding sale agreement for the disposal of the Navis business (including Navis NZ) was signed on 26 March 2021, and³⁷ the divestment of the Navis business (including Navis NZ) closed on 1 July 2021.³⁸
- 74 Cargotec's overall revenues from sales to/in New Zealand (by all three business units – Kalmar, Hiab and MacGregor) amounted to EUR [] million in 2020. The Kalmar business unit achieved revenues of EUR [] million in 2020. Kalmar NZ ceased trading in New Zealand in 2015. Kalmar NZ is currently in the process of re-establishing as a trading entity in New Zealand and intends to recommence trading in New Zealand in 2021. As such, Kalmar NZ is currently lodging nil returns with

³⁶ Kalmar has sold a single piece of used equipment in New Zealand between 2017 and 2020 and Konecranes has made no sales of used equipment in New Zealand between 2017 and 2020.

³⁷ See <https://www.cargotec.com/en/nasdaq/stock-exchange-release--kalmar--/2021/cargotec-sells-navis-business-to-technology-investment-firm-accel-kkr-for-an-enterprise-value-of-eur-380-million/>

³⁸ See: <https://www.cargotec.com/en/nasdaq/press-release/2021/cargotec-has-completed-the-sale-of-its-Navis-business-to-technology-investment-firm-accel-kkr/>

relevant regulators in New Zealand. Kalmar NZ does not have an office in New Zealand, and up until March 2021 did not have any New Zealand-based employees. In March 2021 Kalmar NZ hired a Country Director for New Zealand who works remotely. [].

75 [],³⁹ [].

76 [].

77 [].⁴⁰ [].⁴¹ [].

78 Further information about Cargotec is available on its websites at <https://www.cargotec.com/en/> and <https://www.kalmarglobal.com/>, and in its annual report.⁴² As noted at paragraph 74 above, Kalmar NZ ceased trading in 2015 and accordingly has not been required to prepare audited accounts since that date.

SECTION 3: KONECRANES

79 Konecranes is a Finnish public limited company headquartered in Hyvinkää, Finland, and its shares are listed on Nasdaq Helsinki.

80 Konecranes is a global provider of lifting solutions for various applications. It offers material handling solutions for general manufacturing and process industries,

³⁹ Further detail about the Kalmar mobile equipment supplied by AB Equipment is available at <https://abequipment.co.nz/our-brands/kalmar/>

⁴⁰ [].

⁴¹ [].

⁴² Available at: <https://www.cargotec.com/49262c/globalassets/files/investors/reports/2020/cargotec-annual-report-2020-web.pdf>.

container handling equipment and respective automation solutions and many kinds of services and spare parts.

Konecranes' global activities

81 Globally, Konecranes supplies the following cargo handling equipment:

81.1 cranes, including:

- (a) STS cranes;
- (b) MHC cranes;
- (c) RTG cranes;
- (d) RMG cranes; and
- (e) ASC cranes (which are effectively automated RMG cranes);

81.2 horizontal transport, including:

- (a) straddle carriers;
- (b) shuttle carriers;
- (c) terminal tractors;⁴³ and
- (d) AGVs; and

81.3 mobile equipment, including:

- (a) reach stackers;
- (b) empty container handlers;
- (c) full container handlers; and
- (d) forklift trucks.

82 Konecranes also provides the following software products globally:

82.1 limited TOS solutions through TAB B.V. (a company majority owned by Konecranes);

82.2 ECS software product through TAB called "TEAMS". Konecranes only sells this software together with Konecranes' own automated equipment; and

82.3 a remote monitoring tool software called "TruConnect". This software is only supplied by Konecranes together with its equipment and is primarily used in the industrial segment rather than by terminal operators.

⁴³ It should be noted that [

].

83 Finally, Konecranes also provides the following other services globally:

- 83.1 terminal consultancy services;
- 83.2 aftersales services and spare parts; and
- 83.3 used port handling equipment.

Konecranes' activities in New Zealand

84 Konecranes operates in New Zealand as a branch of its wholly owned subsidiary in Australia, Konecranes Pty Ltd (**Konecranes NZ**). []].

85 Over the period 2017 to 2020, Konecranes has supplied the following cargo handling equipment in New Zealand:

- 85.1 manual straddle carriers;
- 85.2 automated straddle carriers (on a limited scale);
- 85.3 empty container handlers;
- 85.4 full container handlers; and
- 85.5 forklift trucks.

86 Konecranes' revenues in New Zealand for these five products over the period 2017 to 2020 is set out in **Appendix 5**.

87 In []]. Since the []] it is not captured in the market shares and therefore is not identified as an overlapping market for the purposes of this Application.

88 Konecranes also provides ancillary products and services in New Zealand, including:

- 88.1 TEAMS (Konecranes' ECS solution) through TBA B.V;
- 88.2 terminal consultancy services through TBA B.V; and
- 88.3 aftersales services and spare parts.

89 Konecranes offers these ancillary products and services to both Konecranes customers and non-Konecranes customers in New Zealand. []].

90 Konecranes' New Zealand revenue for the financial year ending 31 December 2020 was []]. Konecranes NZ is situated at Unit B, 61 Hugo Johnston Drive, Penrose, Auckland. Konecranes NZ's office and distribution centre are co-located at this address. Konecranes does not have a management team based in New Zealand. Rather, all New Zealand operations are managed from its office in Australia.

- 91 Konecranes NZ does not sell mobile equipment directly to customers in New Zealand. Rather, Konecranes sells mobile equipment in New Zealand through Port Solutions Limited, and utilises Port Solutions Limited as an agent for straddle carriers.⁴⁴ Port Solutions Limited acts as a dealer and agent for Konecranes in New Zealand. In addition, Konecranes also sells container handling equipment in New Zealand via its offices in Germany and Finland.
- 92 Further information about Konecranes is available on its websites at <https://www.konecranes.com/>, and in its annual report.⁴⁵ The most recent audited accounts of Konecranes Pty Ltd are attached at **Appendix 4**.

SECTION 4: OVERVIEW OF THE MAIN OVERLAPS ARISING FROM THE PROPOSED TRANSACTION

- 93 In order to determine relevant overlaps for the purposes of New Zealand, the Parties have assessed recent sales to New Zealand customers. Given the nature of the products, sales are relatively infrequent, and so the Parties have assessed sales in New Zealand in the period 2017 to 2020 to provide a representative view of their current activities in New Zealand. While, globally, the Parties supply a wide range of cranes, horizontal transport and mobile equipment, in the period 2017 to 2020 the Parties' overlapping sales in New Zealand were limited to straddle carriers, empty container handlers and forklift trucks.
- 94 This application therefore focusses on these affected markets in New Zealand, as these are the markets that are represented in recent sales in New Zealand and for which market shares can therefore be estimated with a degree of reliability. All market share estimates for New Zealand are based on deliveries in the period 2017 to 2020. However, recognising that the markets are global in nature, for completeness this application also briefly addresses those overlap markets on the global level that are not represented in recent sales in New Zealand. The applicant does not believe a substantial lessening of competition is likely in any relevant market.
- 95 Market size is estimated using a "bottom up" approach, i.e. by summing up the volumes of the Parties and estimates for their competitors. The Parties have provided data on annual sales of container handling equipment in terms of units of equipment (i.e. on a volume rather than value basis) except for ancillary services. For further information on market share methodologies refer to **Appendix 9**.
- 96 The following table provides an overview of the overlaps arising from the Proposed Transaction.

Table 3: Overview of the Parties' overlapping activities

Key:

	<i>Horizontal global overlap</i>
	<i>Horizontal New Zealand overlap</i>

⁴⁴ For further information see: <https://www.portsolutions.nz/products>.

⁴⁵ Available at: https://investors.konecranes.com/sites/default/files/annual_review_2020.pdf.

Konecranes' Governance and Financial review is also available at: https://investors.konecranes.com/sites/default/files/Annual%20report%202020/governance_and_financial_review_2020_1.pdf.

And their Sustainability Report is available at: https://investors.konecranes.com/sites/default/files/AR2020/sustainability_report_2020.pdf.

Product	Manual / automated	Cargotec Worldwide	Konecranes worldwide	Cargotec New Zealand	Konecranes New Zealand
Cranes					
STS cranes	Manual	X	X		
Gantry cranes	Manual & Automated	X	X		
RTG	Manual & Automated	X	X		
RMG	Manual	X	X		
ASC	Automated	X	X		
Horizontal transport					
Straddle carriers	Manual	X	X	X	X
	Automated	X	X		X
Shuttle carriers	Manual	X	X		
	Automated	X	X		
Terminal tractors	Manual	X	(X) ⁴⁶	X	
Automated guided vehicles (AGV)	Automated	(X) ⁴⁷	X		
Mobile equipment					
Reach stackers	Manual	X	X	X	
Full container handlers	Manual	X	X		X
Empty container handlers	Manual	X	X	X	X
Forklift trucks	Manual – light	X		X	
	Manual – medium-heavy	X	X	X	X
Ancillary products/services⁴⁸					

⁴⁶ [].

⁴⁷ Cargotec only sold AGV once (in 2017, to one single customer) and can hardly be considered an active supplier.

⁴⁸ While the Parties do provide some of these ancillary products and services to a limited extent in New Zealand (as described in paragraphs 72 and 88 above), these are only treated as overlap markets in New Zealand to the extent the Parties supply those services in the market as opposed to solely as part of the supply of their own equipment. Therefore, for the purposes of Table 3 the Parties have not been marked as providing these services in competition with each other in New Zealand and there is no vertical overlap in New Zealand.

Product	Manual / automated	Cargotec Worldwide	Konecranes worldwide	Cargotec New Zealand	Konecranes New Zealand
Used port handling equipment	N/A	X	X	X	
Terminal consultancy services	N/A	X	X		X
TOS	N/A	(X) ⁴⁹	X	(X) ⁵⁰	
ECS	N/A	(X) ⁵¹	(X)		
Retrofitting services	N/A	X	X		
Other automation-related products (e.g. container and vehicle tracking software)	N/A	X			
Spreaders	N/A	X	(X) ⁵²	X	
Aftersales services and spare parts	N/A	X	X		(X) ⁵³

97 As indicated in Table 3 above, the Parties only overlap in respect of the following products in New Zealand based on deliveries made between 2017 and 2020:

97.1 straddle carriers;

97.2 empty container handlers; and

97.3 forklift trucks.

98 The relevant markets for straddle carriers, empty container handlers and forklift trucks are considered in more detail in Part 4 and Part 6. As referenced at

⁴⁹ Until recently, Cargotec provided TOS solutions via Navis LLC but Navis LLC has been divested (see paragraph 73 for further detail).

⁵⁰ Until recently, Cargotec provided TOS solutions in New Zealand via Navis NZ, but Navis NZ has been divested (see paragraph 73 for further detail).

⁵¹ Both Parties sell ECS solutions but to date they have only sold ECS solutions together with their own equipment. The Parties have not made any stand-alone sales of ECS solutions globally and in New Zealand.

⁵² While Konecranes manufactures spreaders that are used as components in their straddle and shuttle carriers, none of these spreaders are sold separately on the merchant market.

⁵³ In June 2021, Konecranes established a Port Services branch in New Zealand. [

], Konecranes also offers services for non-Konecranes equipment (noting that its main focus is servicing Konecranes' own equipment).

paragraph 87, in [

]. Therefore reach stackers are not considered to be an overlapping market for the purposes of this Application.

- 99 Other global overlap markets, for products which the Parties both supply globally but have not both supplied in New Zealand in the period 2017 to 2020, are dealt with in Part 7. Reach stackers are considered in Part 7 as there are no overlapping sales in the reference period. However, given the most recent sale by Konecranes is [], the Parties have provided additional New Zealand-specific information in relation to reach stackers.
- 100 In addition, as set out at paragraph 2.4 of **Appendix 2**, Cargotec supplies spreaders for cranes and mobile equipment in New Zealand through its Bromma business. Spreaders are the piece of container handling equipment used to grip containers and are used as input parts for cranes and mobile equipment. Globally, Konecranes sources spreaders from Bromma (among other suppliers of spreaders) for certain cranes. As far as the Parties are aware, the only piece of equipment that Konecranes has sold in New Zealand in the 2017-2020 period that uses a Bromma spreader as an input is one []. Accordingly, to the extent that there is a vertical overlap in New Zealand in relation to spreaders, it is only in relation to a single unit. Given the minimal overlap we do not propose to consider this vertical overlap further.

Straddle carriers

- 101 Straddle carriers are used for stacking containers at the yard and for (horizontally) transporting containers to and from the yard. They are also used for loading / unloading trucks and railcars, whereby the straddle carrier drives over the truck / railcar and picks up (or puts down) containers from above. This versatility makes straddle carriers a flexible type of container handling equipment that can in principle cover all aspects of container handling without the assistance of other equipment types (except for the loading / unloading of ships, which still requires a quay crane or, in very small ports, a reach stacker).
- 102 Straddle carriers can typically stack four containers on top of each other. However, they usually only stack three containers at a time and use the vertical space above the third container as working room (so-called "1-over-3 straddle carriers"). Straddle carriers stack in single container width, leaving travel room on either side for moving containers into and out of the stack (straddle carriers need a certain amount of space to drive over the containers and pick them up).

Figure 2: Straddle carrier (horizontally) transporting container to/from landside loading area

Figure 3: Straddle carrier stacking containers at the container yard



- 103 Straddle carriers are available in manual and automated form. Most straddle carriers are manually operated by a driver inside a cab that is an integrated part of the vehicle (see Figure 2 above). Automated straddle carriers are still a small niche, accounting for only approximately 7% of average global annual straddle carrier demand. The basic functionalities of automated straddle carriers are identical to those of their manual counterparts, i.e. they are also used for horizontal container transport, stacking at the container yard and loading/unloading at the landside area. Currently, only a very limited share (<5%) of the global straddle carrier fleet has been automated.⁵⁴
- 104 The following table provides an overview of the Parties' respective straddle carrier offering. Further information, including product brochures, is available on their websites: <https://www.kalmarglobal.com/equipment-services/straddle-carriers/> (Cargotec); <https://www.konecranes.com/equipment/container-handling-equipment/straddle-carriers> (Konecranes).

Table 4: Cargotec's global straddle carrier offering

Type	Model	Price in EUR (ca.)
Non-automated	Kalmar FastCharge Straddle Carrier	[]
	Kalmar Hybrid Straddle Carrier	[]
	Kalmar Straddle Carrier	[]
Automated	Kalmar AutoStrad	[]

Table 5: Konecranes' global straddle carrier offering

Type	Model	Price in EUR (ca.)
Non-automated	Konecranes Noell Straddle Carrier electric	[]
	Konecranes Noell Straddle Carrier hybrid	[]

⁵⁴ To date, only nine ports and inland intermodal container terminals globally are using automated straddle carriers, some of which are still in piloting phase. Note that this includes Ports of Auckland.

	Konecranes Noell Straddle Carrier hydraulic	[]
Automated	Konecranes Noell A-STRAD	[]

Empty container handlers

105 Empty container handlers are masted lift trucks used for container handling. Empty container handlers are similar to full container handlers, with the main difference being that empty container handlers have a much lower lifting capacity of only approximately eight to eleven tons, and are therefore not suitable for full container handling. Empty container handlers can grip containers from the side, which allows them to carry two empty containers at a time (i.e. they use so-called side spreaders which allows for “double stacking” – see Figure 4 below). However, empty container handlers typically use top spreaders and only lift one container at a time (“single stacking”).

Figure 4: Empty container handler stacking two empty containers at a time



106 Empty container handlers are available in different sizes and models, including fuel-powered options and models with fully electric drive trains. The lifting capacity of empty container handlers varies between eight and 11 tons and the lifting height is between four and eight containers. As mentioned, there are single stacking and double stacking empty container handlers. Other features, such as speed, are broadly similar across models.

107 The price for an empty container handler varies depending on the specific model but, on average, an empty container handler would typically cost approximately NZD []. As far as the Parties are aware, there are no automated empty container handlers available on the market.

108 Both Parties are active in the supply of empty container handlers. The following tables provide an overview of their offering.

Table 6: Cargotec’s empty container handler offering

Model	Price in NZD (ca.)
Empty container Handler	[]
Electric Empty Container Handler	[]

Table 7: Konecranes' empty container handler offering

Model	Price in NZD (ca.)
Empty Container Handler SMV 3 ECC 80, 4 ECC 80, 5 ECC 80 and 6 ECC 80	[]
Konecranes single stacking empty container handlers 8-9 t	[]
Konecranes Liftace single stacking empty container handlers 9 t	[]
Konecranes double stacking empty container handler 10-11 t	[]
Konecranes Liftace double stacking empty container handler 10 t	[]

Forklift trucks

- 109 A forklift truck is used to lift and move materials over short distances. It is equipped with a fork (onto which the materials are loaded) and a mast (a mechanism for lifting the materials). Forklift trucks have a cabin for the driver although smaller forklift trucks can also be without a cabin and only equipped with a frame and a seat instead. All forklift trucks are generally suitable for any type of material handling, which is why they are used in various industries (e.g. production of heavy equipment, metals, minerals, textiles, lumber, construction industry, warehousing, recycling). They can also be used in ports and terminals for lifting and moving empty containers or other cargo.
- 110 Forklift truck models generally differ in the weight of materials they can lift and move, ranging from lighter lifting capacities (below approximately 10 tons) to medium (approximately 10 to 20 tons) to heavier capacities (between approximately 20 and 70 tons). Lighter versions are often used indoors (e.g. in warehouses), whereas medium and heavy versions are also commonly used outdoors and in heavy industries (e.g. steel and wood handling, or handling of concrete). Medium and heavy forklift trucks may also be used for container handling. Forklift trucks increasingly have environmentally friendly drivetrains, while heavy models (to date) still have fuel engines.

Figure 5: Forklift truck handling general cargo



- 111 Globally, both Parties offer a range of different forklift trucks. However, forklift trucks with a lifting capacity of less than nine tons are only offered by Cargotec and not by Konecranes. Further information, including product brochures, is available on

the Parties' websites: <https://www.kalmarglobal.com/equipment-services/forklift-trucks/> (for Cargotec) and <https://www.konecranes.com/equipment/lift-trucks/forklifts> (for Konecranes).

Table 8: Cargotec's forklift truck offering

Type	Model	Price in EUR (ca.) ⁵⁵
Fuel or electric	Forklift 5-9 t	[]
Fuel or electric	Forklift 9-18 t	[]
Fuel	Forklift 18-52 t	[]

Table 9: Konecranes' forklift truck offering

Type	Model	Price in EUR (ca.)
Fuel or electric	Forklift 10-18 t	[]
Fuel	Forklift 18-33 t	[]
Fuel	Forklift 37-65 t	[]

SECTION 5: NON-OVERLAPPING BUSINESS ACTIVITIES

- 112 The Parties are each active in several areas where the Proposed Transaction does not give rise to any horizontal overlaps or vertical links. Further detail about the Parties' non-overlapping business activities is set out in **Appendix 2**.

⁵⁵ Indicative prices which may vary depending on lifting capacity.

PART 4: RELEVANT MARKETS

113 As described above, in New Zealand the Parties primarily overlap in the provision of:

113.1 straddle carriers; and

113.2 mobile equipment, specifically:

(a) empty container handlers; and

(b) forklift trucks.

114 In this Part 4 the Parties outline market definition analysis for each of these markets identified above.

115 The Commerce Commission (the **Commission**) has not considered any markets directly relevant to the competition assessment of the Proposed Transaction in any published competition assessment. The parties have relied principally on European Commission precedents.

SECTION 1: STRADDLE CARRIERS

116 The European Commission (**EC**) in *Konecranes/Terex MHPS*⁵⁶ found straddle carriers to constitute a separate product market from other types of container transport and/or stacking equipment, such as reach stackers, terminal tractors or gantry cranes. The EC took into consideration that straddle carriers can perform different functions (transporting and stacking) and, due to their versatility, are unlikely to be substitutable with other types of equipment.

117 The Parties consider that straddle carriers constitute a separate product market from other types of container transport and/or stacking equipment.

118 The Parties note that there is generally only limited demand-side substitutability between straddle carriers and other equipment types, with competition between straddle carriers and (i) gantry cranes and (ii) other types of horizontal transport equipment mainly limited to the conceptual stage when a new terminal is designed (i.e. greenfield projects). The Parties will provide further details on this in the context of the competitive assessment in Chapter 7.

SECTION 2: EMPTY CONTAINER HANDLERS AND FORKLIFT TRUCKS

119 In *Konecranes/Terex MHPS*, the EC did not conclude on the exact scope of the mobile equipment market but indicated that it might be appropriate to segment the market according to equipment type.⁵⁷

120 The EC has previously concluded that forklift trucks constituted a separate market⁵⁸ which should not be segmented further due to high supply-side substitutability. In

⁵⁶ Commission Decision of 8 August 2016, case COMP/M.7792 *Konecranes / Terex MHPS*, at [56] and [59].

⁵⁷ Commission Decision of 8 August 2016, case COMP/M.7792 *Konecranes / Terex MHPS*, at [58].

⁵⁸ Commission Decision of 15 February 2017, case COMP/M.8190 *Weichai / Kion*, at [17] et seq.; Commission Decision of 20 December 2006, case COMP/M.4478 *KKR / Goldman Sachs / Kion*, at [9] et seq.; Commission Decision of 19 December 2002, case COMP/M.2844 *Linde / Komatsu / Komatsu*

particular, the EC considered that all forklift trucks, regardless of weight bearing capacity (i.e. from 0.6 to 50 tons), form part of the same market.⁵⁹ The EC noted that *“there is a variety of models differing in weight bearing capacity and type of engine, but all of them share common distinctive characteristics - (they can carry goods in both horizontal and vertical directions, and have a maximum lift height in the range of four to six meters) - and manufacturers of forklift trucks generally produce the entire range of such trucks”*.⁶⁰

- 121 The Parties consider that it is appropriate to segment the mobile equipment market according to equipment type and have therefore proceeded on the basis of separate markets for forklift trucks and empty container handlers, as further explained below.

Forklift trucks

- 122 As noted at 120, the EC has previously concluded that forklift trucks constituted a separate market which should not be segmented further due to high supply-side substitutability.
- 123 The Parties consider the EC’s approach remains appropriate and consider that the market for forklift trucks should not be segmented further based on lifting capacity or the type of engines. In this regard, the Parties note that:
- 123.1 Forklift trucks of various lifting capacity (especially heavier forklifts) can be manufactured using the same facilities and design principles, so there is supply-side substitutability between the different sizes.⁶¹
- 123.2 On the demand side, customers can use different forklift trucks for different industrial applications and may choose to substitute a light forklift with a heavier model (e.g. in order to increase flexibility in terms of materials lifted).
- 124 In any event, the exact delineation of the market can be left open as the Proposed Transaction will not give rise to competition concerns under any plausible market definition. For completeness the Parties provide market data differentiating heavier models in the context of the competitive assessment in Section 7 below.

Empty container handlers

- 125 Consistent with the approach taken with respect to forklift trucks (see above), the Parties do not consider it appropriate to segment the market for empty container handlers based on lifting capacity.
- 126 From a demand-side perspective, there is a certain degree of substitutability between full container handlers, empty container handlers, and reach stackers. In particular, any equipment capable of handling full containers can also handle empty containers. For example, instead of using dedicated empty container handlers, customers can also use reach stackers and full container handlers to handle empty

Forklift, at [20] et seq. and Commission Decision of 15 June 2000, case COMP/M.1950 *Toyoda Automatic Loom Works / BT Industries*, at [8] et seq.

⁵⁹ Commission Decision of 15 June 2000, case COMP/M.1950 *Toyoda Automatic Loom Works / BT Industries*, at [8] et seq.

⁶⁰ Commission Decision of 20 December 2006, case COMP/M.4478 *KKR / Goldman Sachs / Kion*, at [9] et seq.; similarly: Commission Decision of 15 February 2017, case COMP/M.8190 *Weichai / Kion*, at [17].

⁶¹ For example, Cargotec offers light, medium and heavy forklift trucks while Konecranes offers medium and heavy forklift trucks. Konecranes could however easily expand into light forklift trucks using the same production facilities, technologies and processes.

containers, although empty container handlers cannot be used to handle full containers, and there are also significant differences in price between the types of equipment. From a supply-side perspective, full and empty container handlers are largely interchangeable. They are typically manufactured in the same facilities and the input materials and components are largely similar. Differences mainly relate to engine and transmission size as well as to the spreaders used. On this basis, full and empty container handlers may form part of the same product market. In any event, and for the sake of transparency, the Parties have provided market data for full and empty container handlers separately.

- 127 In any event, the exact delineation of the market can ultimately be left open because the Proposed Transaction will not give rise to competition concerns under any plausible market definition.

SECTION 3: RELEVANT GEOGRAPHIC MARKETS

- 128 The EC has previously determined that markets for container handling equipment, including mobile and horizontal transport equipment, to be at least as wide as the European Economic Area (**EEA**), if not worldwide in scope, but has ultimately left the exact geographic market definition open.⁶²

- 129 The Parties consider that container handling equipment markets have many characteristics that strongly point towards global markets. In particular:

129.1 **Major suppliers are active all over the world:** Many major suppliers of mobile and/or horizontal transport equipment, such as ZPMC, Hyster, Sany, Terberg Special Vehicles (**Terberg**), the Parties and others supply container handling equipment on a global basis to customers all over the world. Container handling equipment is often produced in a limited number of production facilities (partly located in lower cost countries such as China) and shipped across countries and continents. For example:

(a) [

].

(b) Konecranes [],⁶³ [

].

(c) ZPMC produces its entire mobile and horizontal transport equipment portfolio exclusively in China from where it ships products to customers all over the world. The same applies to Hyster, Sveltruck and CVS Ferrari (**CVS**) which have production facilities in the Netherlands and China, Sweden and Italy respectively.

⁶² Respondents to the EC's market investigation also confirmed that container handling equipment suppliers are able to deliver their equipment globally – see Commission Decision of 8 August 2016, case COMP/M.7792 *Konecranes / Terex MHPS*, paras 62 et seq.

⁶³ [

].

129.2 **Global expansion is common and has been achieved by many**

suppliers: There are generally no significant obstacles to geographical expansion in the container handling equipment industry:

- (a) Mobile and horizontal transport equipment is largely identical all over the world. The regulatory environment can differ between countries (e.g. regarding environmental regulations and safety standards), which can make limited adaptations to the equipment necessary. However, local customer preferences or regulatory requirements clearly do not hinder global expansion. Suppliers of container handling equipment in New Zealand must obtain certain certificates for the equipment before it can be sold in New Zealand, however this does not impact suppliers' ability to enter/expand in New Zealand.
- (b) There are no significant (actual or perceived) qualitative differences, for instance between the offering of European and non-European (e.g. Chinese) suppliers that could impede expansion by suppliers from emerging markets. In particular, Chinese suppliers have carved out a reputation as tech-savvy and high-performance suppliers.
- (c) It is generally not a prerequisite to successfully sell horizontal transport and mobile equipment that a supplier has its own local sales and service network. While a local network can be beneficial, it is by no means a condition for global success of a supplier and for geographic expansion. If needed, suppliers have the possibility to work together with sales/service partners in a given area (dealers, distributors and/or agents), or they can gradually build up their own network over time. For example, [

].
- (d) Suppliers like Sany have demonstrated that it is possible to expand and build up a service network, providing additional competitive leverage (in addition to its aggressive pricing).
- (e) Most major suppliers are active globally, regardless of where they are located. This is true for companies headquartered in Europe (such as the Parties or Liebherr), in the US (such as Hyster) or in Asia.

129.3 **Transport costs are not an obstacle to inter-continental shipments:**

All types of mobile and horizontal transport equipment are heavy equipment that is transported either as a whole or in parts via ship, rail and/or truck. To the best of the Parties' knowledge, no OEMs manufacture container handling equipment in New Zealand, so all equipment must be transported to New Zealand. While transport costs are not insignificant, they are still relatively low compared to the overall price of these products and clearly do not hinder long-distance shipments, and in any event the Parties also face these costs. While transport costs differ by equipment size and transport distance, they typically do not exceed 5-10% of the total purchase price. From a supplier perspective, it is generally more beneficial to centralise production in order to achieve economies of scale, rather than having a dispersed production set-up to save transport costs. In the Parties' view, these factors strongly indicate that the relevant product markets are indeed worldwide in scope.

130 For completeness, the parties have provided market share information on both a worldwide and New Zealand basis. On either view, the applicant does not believe a substantial lessening of competition is likely.

PART 5: THE COUNTERFACTUAL

- 131 The Parties consider that, in the absence of the Proposed Transaction, both Cargotec and Konecranes would continue to operate as independent businesses on the market and therefore the appropriate counterfactual is the status quo.

PART 6: COMPETITION ASSESSMENT

- 132 As discussed above at paragraph 97, the Parties have identified as relevant markets for the purpose of this application those global product markets in which the Parties have overlapped in terms of sales to New Zealand between 2017 and 2020. Market shares prepared on both a global and national basis are set out below. The Proposed Transaction is not likely to substantially lessen competition in any of these markets.
- 133 As regards those global product markets in which the Parties have not overlapped in New Zealand in the period 2017-2020, the Parties have nonetheless provided estimates of global market shares and explain why the Proposed Transaction is not likely to substantially lessen competition in New Zealand.
- 134 The Proposed Transaction will result in no vertical integration in the relevant markets. With the exception of Cargotec's activities in relation to spreaders (refer to paragraph 2.4 in **Appendix 2**), the Parties do not operate in markets downstream or upstream of the relevant markets in New Zealand. Further detail on vertical links at a global level is provided in Section 3 of Part 7.
- 135 Each relevant market is addressed in turn below. The reasons why the Proposed Transaction will not increase the potential for coordination are set out in section 3.

SECTION 1: STRADDLE CARRIERS

- 136 The Proposed Transaction will not substantially lessen competition in the supply of straddle carriers, be it worldwide or in New Zealand. In summary:
- 136.1 while the market for straddle carriers has historically been concentrated, these historic market shares do not reflect current or future market dynamics and are not an adequate proxy for the Parties' and their competitors' current and future market positions;
- 136.2 the straddle carrier market is a highly competitive global bidding market facing significant and increasing competition from Chinese suppliers such as ZMPC and other OEMs such as Liebherr ;
- 136.3 customers exercise significant buyer power and can switch between suppliers (with some customers running mixed);
- 136.4 there are no insurmountable barriers to market entry and expansion as shown recently, and most notably, with Liebherr and ZPMC. There are several players who already supply straddle carriers regionally or who are active in neighbouring container handling equipment and heavy machinery markets, such as Sany, XCMG and Suzhou Dafang Special Vehicle Co., Ltd. (**Suzhou Dafang**), who are well placed to enter and expand. In addition, Mobicon, an Australian-owned business, offers mini straddle carriers.⁶⁴ Mobicon's heavier models are similar to and compete with the Parties' straddle carriers, especially in smaller terminals; and
- 136.5 competition from other equipment types provides a degree of further constraint on straddle carrier suppliers.

⁶⁴ See: <https://www.mobiconsystems.com/products/>

137 The arguments are expanded in the sections that follow.

Market shares

138 The market for straddle carriers has historically been concentrated, both globally and in New Zealand. This is due to the fact that, historically, the Parties were the only suppliers of straddle carriers, as explained further below. However, these historic market shares do not reflect the future market dynamics and are not an adequate proxy for the Parties' and their competitors' current and future market positions.

139 Table 10 below sets out estimated shares of the global straddle carrier market.

*Table 10: Estimated market shares in the straddle carrier market (manual and automated), **worldwide**, 2017-2020, volume-based*

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Mobicon	[]	[]
Liebherr	[]	[]
Total	[]	100.0

Sources: Generally, all market data provided reflects the Parties' best estimates based on available data. More specifically for straddle carriers, the Parties.

140 For the reasons set out in Part 4 above, the market is global rather than national. However, for completeness, Table 11 below sets out shares of a hypothetical New Zealand market for straddle carriers. These shares reflect the relatively low volume of sales in the New Zealand market. Specifically, Kalmar's recent sales of straddle carriers in New Zealand (2017-2020) comprise:

140.1 []; and

140.2 [].

141 Konecranes' recent sales of straddle carriers in New Zealand comprise:

141.1 [];

141.2 []; and

141.3 [].

142 []. Port of Lyttelton has recently ordered four Konecranes Noell straddle carriers which are expected to be delivered towards the end of 2021.⁶⁵ [

⁶⁵ See: <https://www.konecranes.com/press/releases/2021/lyttelton-port-company-orders-more-konecranes-noell-straddle-carriers>.

].

Table 11: Estimated market shares in the straddle carrier market (manual and automated), **New Zealand**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Konecranes	[]	[]
Cargotec	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Liebherr	[]	[]
Mobicon	[]	[]
Total	[]	100.0

- 143 Cargotec and Konecranes were the first companies that introduced straddle carriers to the market (Konecranes in the late 1960s, Cargotec in the 1970s) and their shares reflect this historic position. Their combined share of deliveries is []% worldwide (2017-2020) and []% in a hypothetical New Zealand market (2017-2020).
- 144 However, the relevant issue is whether the Proposed Transaction is likely to substantially lessen the competition *at future tender rounds*, being the relevant field of competition in which to assess the Proposed Transaction. The absence of any meaningful incumbency advantage means that historical sales/units in use are largely irrelevant to this central question.
- 145 In recent years, other competitors have developed straddle carriers and entered the market. Among them is most notably ZPMC which has announced a plan to expand its production capacity to roughly 200 straddle carriers per year in the short term (likely still in 2021),⁶⁶ which would represent more than []% of the average annual global straddle carrier demand. In addition to ZPMC, other suppliers, especially Liebherr, offer straddle carriers and could constitute viable alternative suppliers to the Parties. Other companies that – to the best of the Parties’ knowledge – have straddle carriers in their portfolio include Mitsubishi Logisnext Co Ltd (**TCM/Logisnext**) (Japan), Mobicon (Australia),⁶⁷ Isoloader (Australia),⁶⁸ Suzhou Dafang (China) and potentially Combilift (Ireland).⁶⁹
- 146 Even when looking at a potential segment for automated straddle carriers only, the Proposed Transactions will not give rise to a significant impediment to effective competition in a forward-looking assessment. Tables 12 and 13 below set out

⁶⁶ See Appendix 11 - ZPMC eyes straddle market expansion.

⁶⁷ Further detail on the straddle carriers offered by Mobicon is available here: <https://www.mobiconsystems.com/products/>

⁶⁸ For the sake of good order, the Parties note that it is not entirely clear whether Isoloader is still active in the supply of straddle carriers – market intelligence suggests that the company may be subject to insolvency proceedings.

⁶⁹ Combilift seems to be more active in the field of shuttle carriers. However, to the best of the Parties’ knowledge, they also participated in straddle carrier tenders, for example in Bangladesh.

estimated shares of the global automated straddle carrier market and a hypothetical New Zealand market for automated straddle carriers.

Table 12: Estimated market shares in the straddle carrier market (automated), **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Konecranes	[]	[]
Cargotec	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Total	[]	100.0

Sources: Generally, all market data provided reflects the Parties' best estimates based on available data. More specifically for straddle carriers, the Parties.

Table 13: Estimated market shares in the straddle carrier market (automated), **New Zealand**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Konecranes	[]	[]
Cargotec	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Total	[]	100.0

- 147 While there is a global overlap (with combined shares of approximately []% worldwide), there is no aggregation in New Zealand. Cargotec has never supplied automated straddle carriers in New Zealand. Furthermore, Konecranes' global position is based on []. [].
- 148 As of today, automated straddle carriers are a small niche of the potential overall straddle carrier market, accounting for only approximately []% of total demand (based on average 2017-2020 annual deliveries). However, the Parties expect demand for automated straddle carriers to gradually increase in the future.
- 149 Automated straddle carriers do not significantly differ from manual straddle carriers in terms of hardware. The main difference is that automated straddle carriers do not have a driver's cab. However, there are technological differences to facilitate fully automatic (i.e. driverless) operation of the vehicle, such as on-board automation systems, sensors, data links for control, monitoring and system diagnostics, etc. Given that the Parties historically lead in the supply of manual straddle carriers, they have also been the first (and up to 2019, the only) suppliers that delivered automated units. However, their current position in the potential automation segment is based on only a handful of automated straddle carrier projects and ZPMC has successfully introduced and marketed automated straddle carriers in the meantime.
- 150 The Parties' main competitor is ZPMC. ZPMC has a global market share for manual straddle carriers of approximately []%. ZPMC is poised for expansion (which will rapidly change the picture in a still small segment). ZPMC has been developing

straddle automation in cooperation with the Chinese tech start-up Westwell Lab. For further detail regarding ZPMC's market position refer to paragraph 157.

- 151 Moreover, retrofitting of existing manual models, which could also be done by non-OEM providers in the future, exerts further constraints in the potential automation segment.

The straddle carrier market is a highly competitive global bidding market

- 152 There are multiple strong suppliers of horizontal transport equipment, including straddle carriers, most of which are active on a global basis. While the supplier base traditionally used to be concentrated with respect to straddle carriers, the market environment is undergoing a significant change.

- 153 Straddle carrier markets have the characteristics of global bidding markets:

153.1 Straddle carriers are largely procured via competitive tenders (both globally and in New Zealand) which are typically open to all suppliers globally. Major projects occur infrequently, making competition for the few open projects available in the market particularly fierce.

153.2 While straddle carriers are almost always procured via global tenders, smaller volumes (e.g. one or two to replace older units) are occasionally also procured via direct customer inquiry. These sales are similarly competitive and usually involve several rounds of negotiations with different suppliers.

153.3 Competition takes place at multiple stages, in particular in greenfield projects. Suppliers compete at the design stage and can advocate for different system solutions. Once the customer has taken its terminal design decision, suppliers compete for the specific equipment types tendered out by the customer.

ZPMC has entered recently and aims at market leadership

- 154 A Chinese State-owned company, and the world's largest heavy-duty equipment manufacturer, ZPMC started to actively promote straddle carriers in 2017 and has delivered its first units only very recently (in 2019). While the company's market shares for 2017-2020 based on deliveries are still low ([]% globally; no deliveries to New Zealand as yet), these figures clearly underestimate ZPMC's actual market impact and future market potential. Notably, ZPMC has achieved its current share of the global market in the space of only two years, which demonstrates its capacity for expansion and the significance of the competitive constraint.

- 155 ZPMC has recently expanded its straddle carrier business globally, leveraging its very strong position in crane markets and existing ties and supply relationships with all major terminal operators worldwide.

- 156 ZPMC has an established relationship with several port operators in New Zealand. For example, Port Otago has two ZPMC STS cranes⁷⁰ and in 2018 ZPMC delivered three STS cranes to Ports of Auckland.⁷¹ With ZPMC's recent expansion into straddle carriers, the Parties expect ZPMC to leverage its existing ties and reputation in New Zealand and participate in any upcoming tenders for straddle carriers, which would be consistent with its global strategy. While the Parties are not aware of any

⁷⁰ See: <https://www.odt.co.nz/business/cranes-busy-dismantling-wharf-giant> and <https://www.portstrategy.com/news101/world/australasia/new-cranes-at-two-ports>

⁷¹ See: <https://www.nzherald.co.nz/nz/zpmc-loading-three-new-ports-of-auckland-cranes/L3ORYU5Y2JPTZCTSBD4SHPSE6E/>.

specific instances of ZPMC approaching customers in New Zealand (which is not to say ZPMC has not done so), they consider there is no reason why ZPMC would not leverage its existing relationships in New Zealand (e.g. with Ports of Auckland and Port Otago) to win major contracts for other types of container handling equipment.

157 ZPMC is participating in global tenders and has in the recent past won large projects in Africa, North America and Europe:

157.1 In December 2018 ZPMC, for the first time, participated in and won a tender for "automation ready" straddle carriers in Europe, namely for the supply of eight units to the new Norvik port in Stockholm, Sweden, operated by Hutchison Port Holdings. These units were delivered in 2020.⁷²

157.2 ZPMC supplied four manual straddle carriers to the Port of Tema in Ghana in 2019.

157.3 In May 2020, ZPMC won a major tender for the supply of manual straddle carriers to the South African State-owned freight transport company and port operator Transnet Port Terminals (**TPT**). The project includes the supply of at least 22 manual straddle carriers, but with an option for another 66 units (i.e. 88 in total). These very recent sales are not fully included in the market data provided to the Commission (which covers deliveries between 2017 and 2020 only) and therefore ZPMC's global market share underestimates ZPMC's commercial success in the field of straddle carriers.

157.4 ZPMC is supplying automated straddle carrier test units, such as to Aarhus port in Denmark, operated by terminal operator APMT. These test units are usually supplied at very favourable conditions, sometimes even for free, to convince customers of the quality and reliability of their equipment. It is likely that these tests will boost ZPMC's presence and win rate in future international tenders.

157.5 In late May 2021, ZPMC won a tender for the supply of five hybrid straddle carriers to HPH Freeport Bahamas. [

].

158 ZPMC is a strong cross-regional competitor. As a recent Chinese entrant, ZPMC instantly started to compete and win tenders globally. Almost all of ZPMC's sales of straddle and shuttle carriers to date have been made to customers outside of China.

⁷² See "Straddle carriers arrive at Stockholm Norvik Port", available at: <https://www.portsofstockholm.com/about-us/news/2020/straddle-carriers-arrive-at-stockholm-norvik-port/>. Generally, customers either order manual or automated units. However, in very few exceptional cases (like in the case of Norvik port), customers request "automation-ready" straddle carriers, meaning that the equipment will initially be operated manually, but the customer wants to have the option to readily switch to automated operations. "Automation-ready" units, while they may not have all the necessary hardware, are "structurally" ready to be fully automated (e.g. brackets and wire harnesses for subsequent installation of automation hardware). Supply contracts for "automation-ready" straddle or shuttle carriers usually comprise an option for subsequent automation by the original equipment supplier. However, automation could generally also be done by a third party (e.g. another OEM, or companies like Siemens, ABB, TMEIC, etc.).

159 While ZPMC's historic market share is limited, the Parties expect ZPMC to gain substantial market share in the near future globally, based on the following factors:

159.1 ZPMC's large scale capacity expansion clearly exceeds expected market growth: ZPMC has publicly announced its plan to expand its global straddle carrier business and build up production capacity to roughly 200 units per year. According to World Cargo News,⁷³ the company has set up a straddle carrier production line for 200 units annually in its existing Nanhui production facility, which the Parties expect to be fully operational by early 2021.⁷⁴ While this capacity may also be used to produce shuttle carriers, the Parties expect that most of the production capacity will be used for straddle carriers (simply because demand for straddle carriers is higher than for shuttle carriers). ZPMC's targeted capacity of approximately 200 units per year corresponds to more than []% of the current average global demand for straddle carriers which amounts to approximately [] units annually. Given that the market for straddle carriers is stagnant and the Parties do not expect an increase in demand over the next few years,⁷⁵ it can be concluded that ZPMC will gain a substantial market share and that this growth will be at the expense of the Parties' market position. More generally, its large-scale capacity and stated growth intentions make it a very credible tenderer at future bidding rounds (in New Zealand and elsewhere) which will require the parties to price accordingly when tendering for new business.

159.2 ZPMC has cost advantages and can, as a result, price very aggressively: ZPMC is the largest heavy-duty equipment manufacturer worldwide and is owned by the Chinese State. As such, ZPMC has access to financial resources and state subsidies, allowing it to price aggressively. ZPMC also has favourable access to cheap Chinese labour and steel, providing it with additional cost-advantages over their competitors.

159.3 ZPMC already has proven references, which is key to global success: Straddle carriers are expensive equipment that is in heavy use and needs to be reliable to ensure the proper functioning of terminal operations. Therefore, a proven track record is typically an important factor that customers will take into account when making a purchasing decision. As explained above, ZPMC has recently gained important global reference projects proving its ability to meet the high standards of global customers. ZPMC can furthermore rely on its industry reputation as leading supplier of other heavy container handling equipment, including quay and gantry cranes.⁷⁶

159.4 ZPMC has a history of aggressive and rapid global expansion in other markets: ZPMC has gained a leading position in global container handling equipment markets in the past and has all the required resources to repeat this strategy for straddle carriers. ZPMC is the clear global leader in STS cranes and all types of gantry cranes. After ZPMC had started to heavily

⁷³ See Appendix 11 - ZPMC eyes straddle market expansion.

⁷⁴ This expectation is mainly based on the fact that ZPMC is due to deliver a large number of straddle carriers to TPT in South Africa in 2021.

⁷⁵ To the best of the Parties' knowledge, there are currently no new straddle terminals being built. As explained, demand for straddle carriers is largely driven by (infrequent) projects and can significantly fluctuate from year to year. On average, though, the Parties expect demand to remain relatively stable over the next few years.

⁷⁶ For example, as discussed above at paragraph 156, ZPMC can leverage its existing relationships with Ports of Auckland and Port Otago.

invest into these products at large scale, it rapidly expanded based on competitive pricing, leveraging its significant cost advantages. In other words, the market share of ZPMC in global crane markets has exploded from virtually 0% to up to 70% within a matter of only ten years or so. It can be expected (and can already be observed) that ZPMC will be using this blueprint for global expansion also with respect to their straddle carrier business.

159.5 There are no quality concerns that could hinder global expansion:

ZPMC has gained a leading position in many different container handling equipment markets. It has also recently secured substantial straddle carrier business outside of China. It is clear from this development that there are no actual or perceived quality concerns in relation to ZPMC's (or other non-Western suppliers') products that would be an obstacle to global expansion. To the contrary, ZPMC is a highly innovative player and very advanced in straddle carrier automation. See, for example, the following excerpt from one of Cargotec's internal documents, []:⁷⁷

160 The Parties consider ZPMC's expansion in the straddle carrier market as a significant market challenge. This is confirmed by the Parties' ordinary course of business documents. For example, ZPMC's drastic expansion with respect to straddle carriers is a widely discussed topic in Cargotec's internal documents. See, for example, the below excerpt from Cargotec's internal document:⁷⁸

⁷⁷ See [].

⁷⁸ See [].

- 161 Konecranes considers (convenience translation from the German original) []⁷⁹
- 162 The Parties consider that this imminent development needs to be taken into account in order to adequately assess any effects the Proposed Transaction might have on the potential global straddle carrier market. While currently ZPMC's shares are still limited, this can be expected to change rapidly when adopting the required forward-looking assessment.
- Other suppliers active in the potential global straddle carrier market**
- 163 Besides ZPMC and the Parties, straddle carriers are also supplied by the Swiss-German equipment supplier Liebherr. Liebherr started supplying straddle carriers around 2010. Since then, Liebherr has supplied more than 30 units (manual diesel-powered straddle carriers) to customers, including in New Zealand. In 2012 Liebherr delivered four straddle carriers to the Port of Lyttelton and three straddle carriers to the Port of Tauranga.⁸⁰ Although Liebherr has not made any sales in New Zealand in the 2017-2020 period (and accordingly is not reflected in the share data at Table 11 above), the Parties expect Liebherr to participate in upcoming tenders for straddle carriers.
- 164 Liebherr has relationships with several port operators in New Zealand and also has the technology, know-how, capacity, customer contacts, etc. in place to ramp up their straddle carrier production in the short term.
- 165 Other companies with straddle carriers in their portfolio include:
- 165.1 **TCM/Logisnext:** TCM/Logisnext is a Japanese company that is part of the Mitsubishi group and specialised in logistics and material handling solutions. The company acquired TCM in 2017. TCM/Logisnext has approximately 12,000 employees and facilities in the US, the Netherlands, Finland, Sweden, Spain, China, Thailand and Singapore. TCM/Logisnext has been supplying manual straddle carriers (diesel-electric), predominantly to customers in Japan (but also to other countries, e.g. Port Klang in Malaysia in 2006). The Parties are not aware of any straddle carrier business recently won by TCM/Logisnext. Nonetheless, they could very likely ramp up production in response to increased demand post-Transaction.
- 165.2 **Suzhou Dafang:** Suzhou Dafang is a subsidiary of Baosteel Engineering Technology Group Co. Ltd. The company is mainly active in the field of special purpose vehicles and equipment. According to publicly available information, Suzhou Dafang also supplies straddle carriers. The Parties are not aware of any straddle carrier supplies by Suzhou Dafang (but they may have sold units to customers in China). Like other Chinese container handling equipment suppliers, Suzhou Dafang will have growing opportunities to broaden its supply following the global investment strategy of Chinese State-owned port operators.

⁷⁹ See [].

⁸⁰ See "Liebherr Container Cranes to deliver 4 straddle carriers to New Zealand", available at: <https://www.ajot.com/news/liebherr-container-cranes-to-deliver-4-straddle-carriers-to-new-zealand>.

165.3 **Combilift:** Ireland-based shuttle carrier supplier Combilift may also be active in the supply of straddle carriers. In any event, any supplier of shuttle carriers can take up supplies of straddle carriers very easily (and vice versa).

165.4 **Mobicon** is an Australian manufacturer and supplier of “mini-straddle carriers” headquartered in Brisbane, Australia.⁸¹ The Parties understand that Mobicon offers manual 1-over-2 straddle carrier solutions. Based on publicly available information, Mobicon’s lightest model (Mobicon 2T) is specifically designed for indoor use (e.g., very small turning radius) and might slightly differ from the Parties’ straddle carrier offering in that regard. That said, while there may be certain differences in product specifications (e.g., travelling speed), Mobicon’s heavier models Mobicon 2HL (1-over-1) and Mobicon 2HS (1-over-2) are similar to and compete with the Parties’ straddle carriers, especially in smaller terminals.⁸²

Customers exercise significant buyer power and can readily switch suppliers

166 As straddle carriers are predominantly used for container handling in ports and inland intermodal container terminals, the primary customers for straddle carriers in New Zealand are port terminal operators. Port terminal operators typically enjoy significant buyer power. Customers typically try to have a sufficient number of alternative (potential) container handling equipment suppliers they can resort to in case they want to switch, and it is not uncommon for customers to actively foster market entry to broaden their potential supplier base. This provides competitors with an established position in one specific market to enter neighbouring markets. For example, the Parties consider that customers that already have an established relationship with ZPMC for the supply of cranes may be likely to reach out to ZPMC in relation to straddle carriers.

167 Straddle carriers are just a small niche of the broader container handling equipment market. Customers typically buy a range of different products (most of which are far more important to the Merged Entity commercially than straddle carriers in terms of sales volumes) and the Merged Entity could simply not afford to risk its good relations with its customers by engaging in a hypothetical high price strategy for straddle carriers post-Transaction. This is evidenced by the fact that, of Konecranes’ total sales into New Zealand in the 2017 to 2020 period, only []% relates to straddle carriers and of Cargotec’s total sales into New Zealand in the 2017 to 2020 period, only []% relates to straddle carriers. The balance of the Parties’ sales is to largely the same customer base in relation to products for which the Merged Entity would face vigorous competition and enjoy comparatively low market share. Customers could therefore discipline the Merged Entity’s pricing in relation to straddle carriers by threatening to switch to competing suppliers in relation to those products that comprise the bulk of the Merged Entity’s New Zealand revenue. This threat would be credible, and rational, and would therefore discipline the Parties to ensure competitive pricing for straddle carriers in response, so as not to put at risk the balance of their (larger) business.

168 In addition, while switching from one supplier of straddle carriers to another, or operating mixed fleets, does involve some costs, it is possible and does occur in New Zealand. Switching costs primarily relate to training of staff on the new equipment,

⁸¹ See: <https://www.mobiconsystems.com/products/>.

⁸² For further information on Mobicon’s offering, please refer to <https://www.mobiconsystems.com/products/>.

establishing a support network for the new equipment and stock piling of spare parts. For example, as discussed at paragraph 42, Lyttelton Port Company operates a mixed fleet of Konecranes, Liebherr and Kalmar straddle carriers.

- 169 In the automation segment, switching between one type of automated equipment to another is possible and requires the additional step of ensuring the proper integration of the equipment into the customer's terminal automation software, which may involve additional training, tests and simulations, etc. For example [

]. In some cases customers want to assume the integration responsibilities, but usually expect the equipment suppliers to take care of integrating the different equipment and software layers. Further, there is no reason why switching to ZPMC would be more difficult to switching to one of the Parties.

No insurmountable barriers to entry

- 170 There are no insurmountable barriers for new suppliers to enter the market. From the Parties' perspective, their success in New Zealand reflects a historical focus rather than any strategic advantage.
- 171 That said, there have been new entries/expansions relatively recently, most notably by ZPMC and Liebherr, and ZPMC especially is poised for drastic expansion in the short term. Moreover, the Parties note that new players, in particular from China, could expand their portfolio and/or geographic reach in the future.
- 172 While there are certain customary conditions of entry, such as product development costs and the need to have proven references, these are by no means insurmountable (as evidenced by recent entries and expansion). In particular, companies that are already active in neighbouring container handling equipment markets could take up supplies of straddle carriers relatively quickly. The lack of insurmountable barriers to entry is demonstrated by the following considerations:
- 172.1 All types of heavy container handling equipment, like quay cranes, gantry cranes and straddle carriers, are produced/assembled in versatile manufacturing facilities and manufacturers can relatively easily divert capacity to produce other types of heavy equipment. For example, a company active in the production of gantry cranes could generally start producing straddle carriers without significant additional investments.
- 172.2 Most of the critical components used to produce straddle carriers are readily available and commonly sourced from third parties.
- 172.3 There are generally no significant impediments in terms of intellectual property rights, know-how, etc. that would hinder a supplier of, e.g., gantry cranes to expand into the production of straddle carriers. In the case of automated straddle carriers, suppliers need access to automation technology, but this does also not constitute a major barrier to entry.
- 172.4 There are generally no actual or perceived quality concerns regarding straddle carriers (and other equipment types) from non-Western suppliers. Amongst others, this is evidenced by the successful market entry of ZPMC in Europe

and other parts of the world. Straddle carriers are relatively uniform products that are very similar all over the world.

172.5 While it may be important for suppliers to have references proving their capability to supply reliable equipment, new entrants can always supply test units to customers, as ZPMC is currently doing, to convince customers and secure future business with these customers.

SECTION 2: MOBILE EQUIPMENT

173 The Transaction will not substantially lessen competition in the mobile equipment market(s). In summary:

173.1 there are a large number of established players that provide mobile equipment. There will be sufficient effective competition in each mobile equipment market from existing players, i.e. even disregarding any market entry and expansion;

173.2 global competition has increased in recent years due to the rapid expansion of Chinese players, which have a highly competitive cost position and are able to undercut other suppliers including the Parties by about []% on average for any mobile equipment type;

173.3 strong, sophisticated customers exercise significant countervailing power; and

173.4 barriers to market entry and expansion are low. All types of mobile equipment are produced in versatile manufacturing facilities and manufacturers can easily divert capacity to produce other types of mobile equipment.

174 Before addressing the market share data in relation to empty container handlers and forklift trucks, we expand on each of the points above and set out comments on the level of competitiveness in relation to mobile equipment more generally.

There are a large number of established players in mobile equipment

175 The following table provides an overview of key suppliers and their mobile equipment offering worldwide. It shows that there are many players other than the Parties that offer mobile equipment, as well as more specialised market participants that currently focus on specific equipment types. The number of market players has increased in recent years, especially due to the rapid entry and expansion of Chinese players.

Table 14: Some of the market players worldwide active in mobile equipment

Company	Empty container handlers	Forklift trucks
Cargotec	x	x
Konecranes	x	x
Sany	x	x
Hyster	x	x
CVS	x	x
Taylor	x	x
Svetruck	x	x

Company	Empty container handlers	Forklift trucks
Liebherr		
Toyota		x
ZPMC	x	x
XCMG	x	x
Heli	x	x
Clark Equipment	x	x
Uplifting	x	x
Dalian Forklift	x	x
CES		x
Hangzhou – Hangcha Forklift		x
FTMH ⁸³	x	x
SOCMA	x	x
LiuGong		x
Lonking		x

176 There are a number of key competitors who will continue to or will soon act as an effective competitive constraint on the Merged Entity following the Proposed Transaction:

176.1 In particular, **Hyster** is one of the world’s leading mobile equipment suppliers and is the market leader in mobile equipment in New Zealand. Based in the US, it has a strong position in all mobile equipment types across the world and it is particularly strong in reach stackers, empty container handlers and forklift trucks.

176.2 In New Zealand, Hyster NZ supplies the full range of mobile equipment⁸⁴ and is a market leader with respect to reach stackers, empty container handlers and forklift trucks. For example, between 2017 and 2020 [

].

176.3 Further, Hyster is at the forefront of innovation – for example it has developed “zero-emission” hydrogen fuel cell technologies as an alternative to electric technologies used by most of its competitors, including the Parties. In 2017, Hyster was the first company to launch an empty container handler

⁸³ Fantuzzi Team Material Handling SPA (**FTMH**).

⁸⁴ For further information see: <https://hyster.co.nz/equipment/hyster-equipment/>.

with a lifting capacity of up to 11 tons, allowing for double handling capabilities (i.e. the possibility to lift two empty containers at once).⁸⁵

176.4 **Sany** has entered and expanded significantly in the global container handling equipment market in the past ten years. It has done so by gradually developing quality products and offering these at very low prices and favourable commercial terms (e.g. terms of payment, warranty periods, broad cancellation rights) and highly competitive financing proposals (e.g. favourable interest-free financing). Sany has already built up an extensive sales and service network outside of China and sells all of its products globally.⁸⁶

176.5 In New Zealand, Sany sells mobile equipment through Portstar Machinery,⁸⁷ providing the full range of mobile equipment. [

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176.6 **Clark Equipment** supply Omega Heavy Trucks (the full range of mobile equipment) into New Zealand.⁸⁸ Clark Equipment is well established in New Zealand and Omega mobile equipment is commonly used in New Zealand. [

].

176.7 **ZPMC** is expected to expand its presence in mobile equipment in the next few years, following its successful global expansion strategy in the market for cranes where it has gained a leading position due to its supply of large volumes at aggressive prices.

176.8 **Heli** is a Chinese construction equipment manufacturer with a strong position in particular in forklift trucks. Heli has established an international sales network. Heli is the largest players in this segment globally with an estimated market share several times higher than the Parties' combined market share.

Global competition has increased in recent years due to the rapid expansion of Chinese players

177 As discussed at paragraphs 49 - 53, there has been expansion of Chinese players across all container handling equipment markets.

178 Due to their highly competitive cost position, Chinese competitors are able to undercut other suppliers. For example, [

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⁸⁵ See "New Hyster 11T Empty Container Handler Lifts Two Reefers With Ease", available at: <https://www.hyster.com/emea/en%E2%80%90press/press%E2%80%90releases/new-hyster-11t-empty-container-handler-lifts-two-reefers-with-ease/>.

⁸⁶ See information on the worldwide network available at: <https://www.sanyglobal.com/network/>.

⁸⁷ For further information see: <https://portstar.co.nz/>.

⁸⁸ For further information see: <https://www.clarkequipment.co.nz/omega/>.

179 Chinese players are also investing heavily in R&D in order to be able to offer innovative features. For example, Sany invested USD 1.6 billion in a global R&D centre in 2011 in relation to container handling equipment.⁸⁹ Sany is at the forefront of reach stacker innovation. In 2018 Sany developed a fully electric reach stacker which is the key innovative feature available in the market⁹⁰ and in 2020, it presented the world's first fully electric empty container handler for which it received industry awards.⁹¹ Cargotec's internal documents refer to Sany's R&D efforts as a competitive threat ([]),⁹² []).⁹³

180 Sany has started supplying New Zealand customers for mobile equipment, winning tenders from CODA Group Freight Services for the supply of two reach stackers. This makes up []% of the equipment won in tenders for reach stackers in New Zealand between 2017-2020. It is expected that the market shares of Chinese players will significantly increase in the foreseeable future, taking into account their significant efforts in improving their offering and becoming even more competitive on price, and their documented expansion plans into different geographic areas. For the purpose of the assessment of the Proposed Transaction, the competitiveness of Chinese players should be taken into account having regard to the clear evidence that their activities will expand significantly in the foreseeable future and in any event within the typical timeframe of the Commission's assessment.

Buyers exercise substantial countervailing power

181 As discussed above at 32, Kalmar NZ estimate that approximately []% of the addressable market in New Zealand for container handling equipment comprises port terminal operators. Of the remaining []%, the greater part is represented by intermodal terminal operators. The customer market is therefore reasonably concentrated, with a comparatively small number of very large and sophisticated customers, who are able to procure in global markets, and devote considerable resources and expertise to tendering processes. Consequently, these customers exercise significant countervailing power in the relevant markets.

182 Moreover, mobile equipment products are largely standardised and there are no significant switching costs for customers. As described above at paragraph 168, customers operate mixed fleets of mobile equipment. For example, Lyttelton Port Company operates a mixed fleet of 23 mobile equipment units sourced from Hyster, Konecranes, Omega and Kalmar.

183 There are only limited switching costs when switching from one supplier of mobile equipment to another, since specific costs mainly relate to commercial negotiations

⁸⁹ See: "Sany America launches reach stackers and empty-container handlers for port, intermodal use", available at: <https://www.pema.org/sany-america-launches-reach-stackers-and-empty-container-handlers-for-port-intermodal-use/>.

⁹⁰ See Appendix 11 - Sany Heavy Equipment International Holdings FY2019, p. 5 and Appendix 10 - Sany Heavy Equipment International Holdings Annual Results 2018, p. 11.

⁹¹ See "Sany SCDE90K7 Electric ECH Nominated for Top Industry Award", available at: <https://www.portstrategy.com/press-releases/2020/sany-scde90k7-electric-ech-nominated-for-top-industry-awar>.

⁹² See [], slide 33.

⁹³ See [], slide 3.

which are incurred regardless of circumstance including when a customer re-orders from the same supplier. Some costs may also relate to the need to stock additional spare parts, but this is mitigated by the fact that spare parts can easily be sourced on a stand-alone basis and there is a limited amount of proprietary spare parts. There are typically no training costs for customer workers to use different equipment as all mobile equipment is commoditised and very similar in its operation.

- 184 Operating mixed fleets may require different operational modes, spare parts management, and additional training for preventive and corrective maintenance. That said, operating mixed fleets is common in New Zealand.

Second-hand sales and lease agreements pose an additional pricing pressure on suppliers

- 185 Mobile equipment has a relatively long lifetime, such that customers have the ability to trade second-hand equipment. The Parties consider that second-hand equipment is a viable alternative to new equipment from customers' point of view (both are used for the same purpose and, considering the long lifetime of equipment, new and used equipment can both offer similar performance and overall operational capability for a sufficiently long time).
- 186 Second-hand equipment therefore places a constraint on suppliers of (new) equipment as an alternative source of supply. This is evidenced by the fact that there is significant trade in second-hand equipment.
- 187 It is also common for customers to lease new equipment from leasing companies or other players who purchase equipment in order to lease it to their own customers (in addition to OEM leasing). In the Parties' view, leasing plays an increasing role in the market for mobile equipment.

There are no significant barriers to entry and expansion

- 188 All types of mobile equipment are produced in versatile manufacturing facilities and manufacturers can easily divert capacity to produce other types of mobile equipment. For example, a company active in the production of forklifts could generally start producing container handlers without significant additional investments within a timeframe of at most 24 months. This applies equally to producers of reach stackers and suppliers of other types of heavy machinery. Indeed, Sany started out as a supplier of heavy machinery and subsequently founded its container handling equipment division which it has been constantly growing since. In fact, as can be seen from the expansion strategies of Chinese players, they usually focus on a given equipment type and then expand their offering.
- 189 There are also no significant impediments in terms of intellectual property rights, know-how, etc. that would hinder a supplier of other mobile equipment, e.g. forklifts, to expand into the production of container handlers.
- 190 As evidenced by the successful global expansion of Chinese players in a few short years, safety and regulatory standards worldwide for mobile equipment are easily met. In addition, quality and performance standards are not meaningful barriers to entry, because newer players are able to rapidly close any gap in technology and/or quality (given also the increasing standardisation of the products and the components used in them). In any event, price is the main competitive parameter.
- 191 Most of the critical components used to produce mobile equipment are readily available and commonly sourced from third parties.

192 In addition to completely new entry, there are even fewer obstacles to geographic expansion of players already active in mobile equipment, as demonstrated by the successful expansion strategies of Chinese suppliers of mobile equipment.

Empty container handlers

193 The Proposed Transaction will not give rise to competitive concerns in the market for empty container handlers regardless of the geographic delineation of the market, worldwide or New Zealand.

Table 15: Estimated market shares in the empty container handler, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Hyster	[]	[]
Sany	[]	[]
Taylor	[]	[]
Svetruck	[]	[]
CVS	[]	[]
FTMH	[]	[]
ZPMC	[]	[]
Others ⁹⁴	[]	[]
Total	[]	100.0

Sources: The Parties' best estimates based on internal PEMA data.

194 The Parties' combined share in the global empty container handler market is []% based on units sold.

195 The table above illustrates that the empty container handler market is characterised by the presence of a number of strong competitors in addition to the Parties. Hyster and Sany are the main competitors on the global market and each has a market share [] than Konecranes' market share (Hyster []% and Sany []% compared to []% for Konecranes). In addition, as shown in Table 15 above, a large number of suppliers offer empty container handlers in the global market.

196 As explained in Part 4, the Parties consider the markets are properly defined as global in scope. However, for completeness, estimated shares on a national basis are set out below. These reflect the Parties' sales in the period 2017 to 2020.

197 Kalmar NZ's recent sales of empty container handlers in New Zealand include:

197.1 [], and

197.2 [].

198 Konecranes' recent sales of empty container handlers include:

198.1 [].

199 [].

Table 16: Empty container handler – **New Zealand**, 2017-2020, volume-based

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Hyster	[]	[]
Omega	[]	[]
Total	[]	100.0

200 Table 16 above shows that the Parties have a combined market share of []%, based on units sold.

201 The major competitor in New Zealand in relation to empty container handlers is Hyster. Kalmar NZ's view is that Hyster has for some years been the most successful supplier of mobile equipment in New Zealand and this is demonstrated in the share estimates above. In addition, following the Proposed Transaction, the Merged Entity will continue to face competition from Omega, and the Parties expect Sany to appear as a strong competitor in New Zealand in a short- to medium-term given its successful expansion outside New Zealand and the recent establishment of a distribution network in New Zealand with Portstar Machinery.

Forklift trucks

202 The Proposed Transaction will not give rise to competitive concerns on the market for forklift trucks regardless of the geographic delineation of the market, worldwide or New Zealand.

Table 17: Forklift trucks (>5t) – **worldwide**, 2017-2020, volume-based⁹⁵

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]

⁹⁵ Forklift trucks are used in many applications like steel mills, pulp and paper, construction, and large logistics sites and warehouses. The forklift market is very broad and also very large in terms of numbers of units delivered compared to other lift truck products and the Parties have limited visibility to the full global market size and deliveries. The global market reports utilized in the market sizing (**WITS**: World Industrial Truck Statistics) only have good coverage of some geographies in their data.

Competitor	Number of units	Estimated share (%)
Konecranes	[]	[]
Combined	[]	[]
Hangzhou - Hangcha Forklift	[]	[]
Heli	[]	[]
Linde	[]	[]
Hyster	[]	[]
Goodsense	[]	[]
Taylor	[]	[]
Svetruck	[]	[]
Sany	[]	[]
Others Cita ⁹⁶	[]	[]
Others Fem ⁹⁷	[]	[]
Others Ita ⁹⁸	[]	[]

These geographies in the case of WITS include Brazil, China, Europe, North America, Japan, and Korea. Mainly the deliveries of the companies from these regions are included. This leaves a large part of the market uncovered, including companies based for example in South America, India, South-East Asia, Oceania and Africa. The reports also do not cover all segments of the market fully: for example, the data available to the Parties from the WITS report does not include forklifts with lifting capacity below 9.1 tonnes for North America. Based on above, there is good evidence that the global market size is larger than the market size figures provided here. Please note that the Parties consider that there are other players for which data has not been reported separately and which currently appear under 'Others' in the market share table, but which are significant players – in particular Hyundai.

⁹⁶ Includes sales reported to CITA in China by Tailift Machinery Equipment, Kion Baoli Forklift, Jiangsu Jingjiang Forklift Truck, Liuzhou Liugong Forklift, Zhejiang Goodsense Forklift, Lonking Forklift, Anhui Jianghuai Yinlian Heavy-Duty Construction Machine, Zheuijiang Noblelift Equipment Joint Stock, Hangzhou Global Friend Precision Machinery, Hyster-Yale Maximal Forklift, EP Equipment, Shandong Volin Heavy Machinery, Linde (China) Forklift Truck, Shanghai Hyster Forklift Manufacturing, DOOSAN Infracore (China), Hyundai Heavy Industries (China) Investment, Toyota Material Handling (Shanghai), Vita-Wheel Holding, Jungheinrich Lift Truck (Shanghai), Unicarriers China, Qingdao Clark Material Handling, Mitsubishi Heavy Industry Forklift Dalian, and Crown Lift Trucks Commercial (Shanghai).

⁹⁷ Includes sales reported to FEM in European countries and exports to China by Crown, J.C.Bamfors Excavators, Jungheinrich, Manitou, Still, and Unicarriers Europe. For forklift trucks between 5-10t lifting capacity 'Others fem' includes also sales from Doosan Industrial Vehicle Europe, Hyster-Yale, Hyundai Construction Equipment Europe, Linde Material Handling, Mitsubishi Logisnext Europe, Toyota Materials Handling Manufacturing (France and Italy).

⁹⁸ Includes sales of equipment with lifting capacity over 20,000 lbs reported to ITA in the United States by Big Joe Forklifts, BT Industries – Canada Ltd., Cat Lift Trucks, Crown Equipment, Guangxi Liugong Machinery Co. Ltd., H C Forklift America Inc (Hangcha's subsidiary), Hoist Material Handling Inc., KION North America Corporation, Lift Rite Inc., Jungheinrich Lift Trucks, The Raymond Corporation, Tora-Max, Unicarriers Americas Corporation, Utelev.

Competitor	Number of units	Estimated share (%)
Others Jiva ⁹⁹	[]	[]
Others Kocema ¹⁰⁰	[]	[]
Total	[]	100.0

Source: Parties' best estimates based on FEM, ITA, CITA, KOCEMA and JIVA reports complemented by the Parties.

Note: 'Others' categories were calculated by subtracting the Parties' estimates of their own and competitors' market shares from the total market size provided by the data provider indicated. The table presents separately only the market players with a share above 0.2%. Market players with a market share below this level include CVS, Dalian and FTMH.

203 For the reasons set out in the market definition section above, the Parties consider the market for forklift trucks to be global in scope. However, the Parties also provide for completeness market shares on a hypothetical New Zealand market for forklift trucks.

204 In terms of recent sales to New Zealand, Kalmar NZ has [

].

205 Konecranes' recent sales of forklift trucks in New Zealand []¹⁰¹

206 []

Table 18: Forklift trucks (>5t) – **New Zealand**, 2017-2020, volume-based

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Hyster	[]	[]
Crown	[]	[]
Toyota	[]	[]
Hyundai	[]	[]
Sany	[]	[]

⁹⁹ Includes the Parties estimates based on JIVA reports for 2018-2019 and their internal data for Komatsu, Mitsubishi Logisnext, Sumitomo NACCO Forklift and Toyota Industries.

¹⁰⁰ Includes KOCEMA based estimates for Doosan Industrial Vehicle Co., Ltd, Hyundai Construction Equipment Co., Ltd, Soosung Lift MFG. Co., Ltd. Estimates have been adjusted by the Parties based on their internal data.

¹⁰¹ []

Competitor	Number of units	Estimated share (%)
Omega	[]	[]
Other	[]	[]
Total	[]	100.0

207 The tables show that the Parties' combined share in the global forklift truck market is []% of units. When looking at a hypothetical New Zealand market, the Parties' combined shares are []%, with a very small increment. The Proposed Transaction does not therefore give rise to an 'affected' market for forklift trucks on a global or hypothetical New Zealand level.

208 Given the Parties' limited combined market share, the Proposed Transaction cannot give rise to competitive concerns in the market for forklift trucks under any geographic market definition. The forklift market is also characterised by the presence of a few larger players (in particular Heli and Hangzhou – Hangcha Forklift which have each a market share several times higher than the Parties' combined market share) at the global level, as well as a few relatively smaller players such as Linde, Hyster and Taylor which have a comparable market share to each Party (see a more detailed discussion of the competitors below).

Heavy-duty forklift trucks

209 The Parties note for completeness that Cargotec's offering in forklift trucks focuses primarily on the production of forklifts trucks designed to handle heavier materials, while Konecranes focuses exclusively on heavier forklift trucks. As discussed in the market definition section above, there are two main kinds of forklift trucks:

209.1 forklift trucks designed to carry lighter materials (e.g. used indoors for handling packages of goods by retailers) which are typically referred to as 'light' forklift trucks; and

209.2 forklift trucks used in other industries designed to handle heavier materials (typically used outdoors for the handling of containers and construction materials) which can be referred to as 'heavy-duty' or industrial forklift trucks. Heavy-duty forklift trucks are made to carry different tonnage ranging from slightly less or approximately 10t to 70t. They could on that basis be roughly divided into medium (e.g. from 10t to up to approximately 20t) and heavy (above 20t) forklift trucks. Heavy-duty forklift trucks are a smaller part of the forklift truck market.

210 It should be noted however that there is no industry-wide definition of light, medium or heavy forklift trucks and that the various providers offer different kinds of lifting capacities (often as part of a broader portfolio), while they apply these terms differently or do not use them at all.

211 As mentioned above, in the following the Parties will provide a further assessment based on a hypothetical segmentation of the forklift truck market, assuming a

potential segment for heavy-duty forklifts, i.e. forklift trucks with a lifting capacity of 10t and more.¹⁰²

- 212 Table 19 below provides the Parties' and their competitors' market shares in the global forklift trucks market (segment for heavy-duty forklift trucks) in the last four years (2017-2020).

Table 19: Heavy-duty forklift trucks (>10t) – **worldwide**, 2017-2020, volume-based

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Hangzhou	[]	[]
Heli	[]	[]
Hyster	[]	[]
Taylor	[]	[]
Svetruck	[]	[]
Linde	[]	[]
Sany	[]	[]
Goodsence	[]	[]
Other Cita	[]	[]
Other Fem	[]	[]
Other Ita	[]	[]
Other Jiva	[]	[]
Other Kocema	[]	[]
Total	[]	100.0

Source: The Parties' best estimates based on internal and FEM, ITA, CITA, KOCEMA, and JIVA data.

Note: The table presents separately only the market players with a share above 1%. Market players with a market share below this level include CVS, Dalian and FTMH.

- 213 For the reasons set out in the market definition section above, the Parties consider the segment for heavy-duty forklift trucks to be global in scope. However, the Parties also provide for completeness market shares on a hypothetical New Zealand segment for heavy-duty forklift trucks.

¹⁰² The heavier delineation is the closest to the Parties' own internal segmentation of heavier forklifts. Indeed, Cargotec's cut-off in terms of lifting capacity is 9t, while it is 10t for Konecranes. The cut-off of 10t, and not 9t, used in market share analyses is dictated by the data limitations, but is also more conservative because Konecranes' forklift offering starts at 10t and the data supports the view that the competitors' sales are significantly larger in the lower lifting capacity segments.

Table 20: Heavy-duty forklift trucks (>10t) – **New Zealand**, 2017-2020, volume-based

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Hyster	[]	[]
Hyundai	[]	[]
Sany	[]	[]
Omega	[]	[]
Other	[]	[]
Total	[]	100.0

- 214 The tables above show that in the hypothetical segment for 'medium/heavy-duty' forklift trucks (i.e. comprising forklift trucks of above 10t), the Parties' combined market share is []% on a global level and []% on a hypothetical New Zealand level.
- 215 The Parties account for a relatively small part of the market and there are several other strong competitors with a comparable market position which will continue to constrain the Parties post-Transaction, such that the Proposed Transaction cannot lead to a significant impediment to effective competition. For instance Omega, Sany and Hyster are in strong positions to compete with the Merged Entity.

SECTION 3: THE RELEVANT MARKETS POST-TRANSACTION WILL NOT BE CONDUCTIVE TO COORDINATED EFFECTS

- 216 The Proposed Transaction will not enhance the ability for the Parties and other competitors to coordinate their behaviour. The relevant markets are not vulnerable to coordination, and this would not be likely to change following the Proposed Transaction:
- 216.1 A number of strong and innovative competitors remain following the Proposed Transaction. At least a dozen of competitors alongside the Parties offer mobile equipment products, including strong players such as Sany, Hyster, Taylor, CVS, Svetruck, Liebherr, ZPMC, XCMG, Toyota. Markets with such a large number of players generally do not raise coordination concerns.
- 216.2 Expected new entries would disrupt any coordination strategy. As detailed above, barriers to entry and expansion into new geographic areas are relatively low. As such, the Parties are expecting a number of companies, including Chinese players such as ZMPC and XCMG (which have already entered the market), to drastically change the market structure in the coming years and disrupt any hypothetical coordination.
- 217 More specifically with respect of the straddle carrier market:
- 217.1 Straddle carrier suppliers' market shares differ significantly and so does their cost structure. This lack of symmetry would render coordination between different suppliers difficult. The key alternative supplier, ZPMC, has every

incentive to compete fiercely against the Merged Entity going forward, considering its documented expansion strategy.

217.2 Straddle carrier suppliers are unlikely to arrive at a common understanding for coordination in a market that is characterised by infrequent and lumpy demand, disruptive technological developments, drastic capacity expansion by one player (ZPMC) and stringent tendering processes dictated by sophisticated customers wielding significant buyer power.

217.3 Straddle carriers are typically purchased via tenders or tender-like processes and suppliers cannot easily observe their competitors' offers, in particular not in private tenders. Also, from this angle, coordination would be very difficult to achieve.

PART 7: GLOBAL OVERLAP MARKETS

- 218 This Part contains an outline of services the Parties both provide globally, but have not both supplied in New Zealand since 2017, and accordingly have not treated as affected markets in New Zealand. Given the global nature of the markets, the Parties have provided this information for completeness, which demonstrates that there is no prospect of a substantial lessening of competition in New Zealand.

SECTION 1: PRODUCTS AND SERVICES SUPPLIED BY BOTH PARTIES GLOBALLY

- 219 Globally, the Parties supply a wide range of cranes, horizontal transport and mobile equipment including:

219.1 Cranes:

- (a) **Quay cranes:** There are a variety of quay cranes used to load and unload containers and other cargo from ships. Quay cranes include: (i) STS cranes; (ii) mobile harbour cranes; (iii) portal harbour cranes; (iv) floating cranes; (v) large jib/boom cranes; and (vi) so called multi-purpose jib cranes. Whilst both Parties offer STS cranes, Cargotec is active only to a very limited extent in this segment.
- (b) **Gantry cranes:** Gantry cranes are cranes with an overhead structure with hoisting machines mounted on a frame which is typically supported by four or more legs connected to a ground level transfer system with the working area inside the support area. Gantry cranes have a variety of field applications and fulfil requirements in various areas (port/rail/road). They are used in the container yard and landside area for stacking containers and loading/unloading trucks and railcars. The Parties supply three types of gantry cranes used in container yards: (i) RTGs; (ii) RMGs; and (iii) ASCs.

219.2 Other forms of horizontal transport:

- (a) **Shuttle carriers:** Shuttle carriers are largely identical to straddle carriers but they are built with shorter legs and can, therefore, only stack one container on top of another (while regular straddle carriers can typically stack three or even four containers high). Because of this, shuttle carriers are generally not used for stacking containers in the yard, but only for horizontal transport.
- (b) **Terminal tractors:** Terminal tractors are vehicles for horizontal transport in container terminals and other environments (e.g. distribution centres). They pull a trailer upon which containers and other heavy loads can be placed. Terminal tractors are not able to pick up and drop containers themselves, but need to be loaded/unloaded using other equipment that is capable of vertically moving containers, such as cranes or reach stackers (so-called passive or coupled operation). Terminal tractors are the most common horizontal transport equipment for containers. As mentioned, []].
- (c) **AGVs:** An AGV is an unmanned software-controlled vehicle for the horizontal transport of containers between the quayside and the container yard. AGV are predominantly used in large ports, whereas

other (inland intermodal and industrial) applications are significantly less important in terms of total sales volumes.

219.3 Other forms of mobile equipment:

- (a) **Reach stackers:** Reach stackers are used for handling containers in ports and inland intermodal container terminals. They have a boom with a spreader that grips the container from above (the so-called “top-spreader”), which allows them to operate several rows deep (i.e. they are also able to reach containers located in the second or third row). Reach stackers can transport containers over short distances and stack them very quickly at various heights (typically up to five containers high, less commonly up to three or six high) depending on the space available adjacent to the stack.
- (b) **Full container handlers:** Full container handlers are masted lift trucks designed for container lifting. They have a lifting capacity of up to 45 tons and, unlike empty container handlers, are able to lift and transport loaded containers. Full container handlers are similar to reach stackers in that they grip containers from above, but they have a straight mast instead of a boom and are therefore only able to reach containers in the first row. Full container handlers can usually stack up to five containers high, while some can stack up to six high (similar to reach stackers).

220 The Parties also provide the following ancillary products and services globally:

220.1 **Terminal consultancy services:** These services pertain to the provision of services related to terminal design and performance management, such as assisting terminal operators in designing their fleets, process optimisation, developing and implementing control systems, and providing support for software implementation.

220.2 **Aftersales services and spare parts:** Aftersales services and spare parts are explained above at paragraphs 45 to 48.

220.3 **Used port handling equipment:** Mobile equipment is also available as used equipment as it is very durable. Terminal tractors and AGVs are also traded to a limited extent on the second hand market. Mobile equipment can be traded after 6-10 years of usage, depending on the customer and the application for which the equipment has been used. Reach stackers and empty container handlers can have two end-users over their lifetime, while forklift trucks can have up to four. There is a large installed base of used equipment on the market which is available to customers as an alternative to new equipment. In addition to OEMs, used equipment is also sold by dealers, traders as well as customers themselves.

220.4 **Equipment retrofitting services:** Instead of buying new container handling equipment, customers may also decide to upgrade or modernise their existing equipment. These equipment upgrades may include mechanical retrofits (e.g., crane heightening, boom extensions, etc.), electric retrofits (e.g., first time electrification, electrification modernisation, etc.) and/or other types of retrofitting, such as upgrades to the drive system, the installation of remote-control technology and automation retrofits.

SECTION 2: MARKET SHARES FOR GLOBAL OVERLAP AREAS

Ship-to-shore (STS) Cranes

Table 21: Estimated market shares in the STS Crane market, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Mitsui	[]	[]
Liebherr	[]	[]
Kirow Ardelt	[]	[]
Sany	[]	[]
Doosan	[]	[]
Kuenz	[]	[]
CSSC	[]	[]
Dalian	[]	[]
JFE	[]	[]
Paceco Espana	[]	[]
Bedeschi	[]	[]
HDHM	[]	[]
KW	[]	[]
Total	[]	100.0

Sources: The Parties and WCN.

- 221 Table 21 illustrates that the Parties' combined global share for STS cranes is only []% based on units sold and the Merged Entity would not be one of the largest 3 OEMs supplying STS cranes globally. Given the Parties' limited combined market share, the Proposed Transaction cannot give rise to competition concerns.

Gantry cranes

- 222 Conservatively, the Parties have considered a segmented market for the three different types of gantry cranes supplied by the Parties: rubber-tired gantry (**RTG**) cranes, rail-mounted gantry (**RMG**) cranes and automated stacking cranes (**ASCs**).

RTG cranes

- 223 RTG cranes are the most common type of gantry crane. They are used for handling containers in and from the stack. RTG cranes typically operate from in a single stack location, but can be driven from stack to stack when required to reconfigure or better manage workload in a yard. They are typically more flexible and cheaper than RMG cranes which are mounted on rails. However, this flexibility comes with a trade-off in terms of operation productivity and maintenance. RTGs can be manual or automated (ARTGs), and ARTGs are essentially man-less RTGs.

Table 22: Estimated market shares in the RTG and ATG Crane market, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Mitsui	[]	[]
Sany	[]	[]
Liebherr	[]	[]
Rainbow-Cargotec ¹⁰³	[]	[]
CSSC	[]	[]
Mitsubishi	[]	[]
Doosan	[]	[]
Mi-Jack	[]	[]
Paceco Espana	[]	[]
Balkran	[]	[]
Hans Kuenz	[]	[]
Total	[]	100.0

Sources: The Parties and WCN

- 224 Table 22 illustrates that the Parties' combined global share for RTG cranes is []% based on units sold. The Parties will continue to face intense competition from a number of suppliers, including Chinese supplier ZPMC who the clear leader at the global level with a share of []%, as well as Mitsui with a share of []%. There are a number of emerging competitors including, among others, large Chinese players such as Sany, CSSC, Wuxi Huadong Heavy Machinery Co. Ltd., as well as Doosan from South Korea. Sany is placed well to compete in New Zealand as it already has a presence in the mobile equipment market.
- 225 Furthermore, OEMs supplying RTG cranes are constrained by OEMs supplying other types of gantry cranes, which all perform the same functions in container terminals and have significant supply side substitutability. There are no significant barriers to entry and expansion as evidenced by the global expansion of Chinese players in a matter of a few years. In addition, the use of RTG cranes is declining globally as many customers opt for ASCs or straddle carriers.
- 226 Against this background and for these reasons, the Proposed Transaction will not give rise to competition concerns in the RTG cranes market.

RMG cranes

- 227 RMG cranes perform the same function as RTG cranes, but are mounted on rails.

Table 23: Estimated market shares in the RMG Crane market, **worldwide**, 2017-2020, volume-based

¹⁰³ Please note that the joint venture Rainbow-Cargotec is listed here as a separate competitor given that Cargotec held less than 50% of this joint venture. It has since been dissolved (2019).

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Kuenz	[]	[]
Baltkran	[]	[]
Tehnoros	[]	[]
DSD Hilgers	[]	[]
Liebherr	[]	[]
Paceco Espana	[]	[]
Hyundai Heavy Industries	[]	[]
Total	[]	100.0

Sources: The Parties and WCN

228 Table 23 illustrates that the Parties combined global share for RMG cranes is only []% based on units sold. The Parties will continue to face intense competition from clear market leader ZPMC who have a market share of []%, Kuenz with a market share of []% and Baltkran with a market share of []%. Given the Parties' limited combined market share, the Proposed Transaction cannot give rise to competitive concerns. Furthermore, as with RTG cranes OEMs are constrained by other types of gantry cranes and there are no significant barriers to entry and expansion.

ASCs

229 ASCs main characteristic is automated performance. They are essentially an automated version of a RMG and nearly identical to equipment known as ARMGs. ASCs and ARMGs are considered together as they are nearly identical and the parties do not typically consider these types of equipment separately in their usual course of business.

Table 24: Estimated market shares in the ASC market, worldwide, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Kuenz	[]	[]
CSSC	[]	[]
Sany	[]	[]
Total	[]	100.0

Sources: The Parties and WCN

230 Table 24 illustrates that the Parties combined global share for ASCs is []% based on units sold. The Parties will continue to face intense competition from clear

market leader ZPMC who have a market share of []%, Kuenz with a market share of []% and CSSC with a market share of []%. Given the Parties' limited combined global market share and the very small increment, the Proposed Transaction cannot give rise to competitive concerns. Furthermore, as with RTG and RMG cranes, OEMs are constrained by other types of gantry cranes and there are no significant barriers to entry and expansion.

Shuttle carriers

Table 25: Estimated market shares in the shuttle carrier (manual and automated) market, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
Total	[]	100.0

Sources: The Parties' best estimates based on internal data.

- 231 Cargotec, having invented the shuttle carrier, still has a high global market share of []%. Konecranes has a global market share of []%.
- 232 Shuttle carriers have had relatively modest success in the market so far. The global market for shuttle carriers is small, with only [] units delivered globally in total between 2017 and 2020. The Parties estimate that manual shuttle carriers account for less than []% of total horizontal transport capacity.
- 233 Shuttle carriers do not have a significant presence in New Zealand. [

]. [

].

- 234 ZPMC has been the third player to launch shuttle carriers globally. To the best of the Parties' knowledge, ZPMC first marketed this product in 2017, when it delivered its first unit to Xiamen Songyu Container Terminal Co. Ltd. in China. Since then, ZPMC has received orders for the supply of two manual shuttle carriers to the Barcelona Europe South Terminal container terminal in 2019.¹⁰⁴ Moreover, it seems

¹⁰⁴ These units are referred to as "straddle carriers" in ZPMC's press release but – to the best of the Parties' knowledge – are shuttle carriers (i.e. 1-over-1 straddle carriers). Please refer to BEST terminal's website in that regard, which refers to shuttle carriers: <http://www.best.com.es/en/the-terminal/#machinery>.

that ZPMC might have won a major shuttle carrier project with the Port of Haifa.¹⁰⁵ These recent wins are not reflected in the market data which understates ZPMC's current and future market position.

- 235 Another shuttle carrier supplier is Ireland-based company Combilift. The company claims to be exporting its solutions to over 85 countries worldwide and offer shuttle carriers suitable for container handling. Combilift has won two projects against the Parties (at least Cargotec participated) in 2020 for the supply of two shuttle carriers each, namely to the Port of Buenaventura, Colombia and the Port of Manzanillo, Mexico. Again, these recent wins do not show up in the market data provided above.
- 236 To the best of the Parties' knowledge, other companies with shuttle carriers in their portfolio include Mobicon (who offer mini 1-over-1 straddle carriers in New Zealand, i.e. shuttle carriers¹⁰⁶) and potentially also TCM/Logisnext and Suzhou Dafang.
- 237 Furthermore, competition from other equipment types constrains shuttle carrier suppliers. From a customer perspective, all horizontal transport solutions are very similar in their basic functionality. While there is more cross-competition in greenfield projects compared to equipment replacements, it is possible. For example, the port of Muuga, Estonia switched from a shuttle carrier and RTG set-up to a terminal tractor and RTG set-up.
- 238 Against this background, and in particular the recent success of several competing suppliers, the Proposed Transaction will not give rise to competition concerns in relation to straddle carriers, despite the Parties' high historic market shares.

Terminal tractors

- 239 Cargotec supplied [] terminal tractors in the 2017 to 2020 period in New Zealand (and have a market share of []%), [].
Konecranes []

[]. This is reflected in the worldwide market shares in the table below.

Table 26: Estimated market shares in the terminal tractor market, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Terberg	[]	[]
Capacity	[]	[]
Tico	[]	[]
Autocar	[]	[]
Shaanxi	[]	[]
Sinotruk	[]	[]

¹⁰⁵ The Parties believe that ZPMC might supply automated shuttle carriers to this customer (ZPMC also supplies other container handling equipment to this port), although this is not certain.

¹⁰⁶ For further information see: <https://www.mobiconsystems.com/products/>.

Competitor	Number of delivered units	Estimated share (%)
Others	[]	[]
Total	[]	100.0

Sources: The Parties' best estimates based on internal data.

- 240 Konecranes' market share is []% worldwide and does not extend to the production level.¹⁰⁷ Accordingly the global overlap in the supply of terminal tractors does not raise competition concerns.

AGVs

- 241 The Parties' activities overlap to a negligible extent in the field of AGV as Cargotec is hardly active in the supply of AGV.

Table 27: Estimated market shares in the AGV market, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
ZPMC	[]	[]
VDL	[]	[]
ST Engineering	[]	[]
Total	[]	100.0

Sources: The Parties' best estimates based on internal data.

- 242 The Proposed Transaction will not result in a global market share increment. [

].¹⁰⁸ [

]. Consequently, the global overlap in the supply of AGV does not raise competition concerns.

- 243 For these reasons the Proposed Transaction will not give rise to competition concerns in the empty container handler market.

¹⁰⁷ [

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¹⁰⁸ [

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Reach stackers

244 The Proposed Transaction will not give rise to competitive concerns in the market for reach stackers regardless of the geographic delineation of the market, worldwide or New Zealand. As explained at paragraph 87, in [

].¹⁰⁹ Cargotec supplied [] reach stackers in the 2017 to 2020 period in New Zealand. The Parties are aware of at least the following sales by other suppliers in New Zealand in the period 2017 to 2020:

244.1 Hyster – 27 units

244.2 Sany – 6 units

244.3 Omega – 5 units.

245 Consequently, even on a hypothetical New Zealand market, the implied combined market share of the Parties would only be approximately []%. Hyster, Sany and Omega are the strongest competitors in this segment in New Zealand.

246 Worldwide shares of the reach stacker market are set out in Table 28 below.

Table 28: Reach stackers – **worldwide**, 2017-2020, volume-based

Competitor	Number of units	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Sany	[]	[]
Hyster	[]	[]
CVS	[]	[]
Taylor	[]	[]
Liebherr	[]	[]
ZPMC ¹¹⁰	[]	[]
Others ¹¹¹	[]	[]
Total	[]	100.0

Sources: Generally, all market data provided reflects the Parties' best estimates based on available data. More specifically for reach stackers, the Parties and data published by PEMA.

¹⁰⁹ For completeness, [

].

¹¹⁰ It was announced in July 2020 that ZPMC had delivered 200 reach stackers between August 2017 and the publication of this announcement (see: "ZPMC enters Cambodian market with reach stacker delivery", available at: <https://www.porttechnology.org/news/zpmc-enters-cambodian-market-with-container-stacker-delivery/>). ZPMC's volume of sales and market share in reach stackers presented in the market share table may therefore be understated.

¹¹¹ Includes sales reported to PEMA by CES, Up lifting, Mitsubishi-Logisnext, Komatsu, Omega, Indital, Load Star, SCA heavy, Toyota / Hoist, Dalian, Hangcha, Heli, Zoomlion, XCMG, SOCMA, Weilong, Zhongli, Zhongtie-Wuxin, Hangzou, and the Parties' estimate for FTMH's sales.

- 247 As shown in Table 28 above, the Parties' combined share in the global reach stacker market is []% based on units sold between 2017 and 2020. There are at least two other competitors which are [] the Parties individually in terms of their market shares in the past three years – Sany and Hyster. Both have sold a comparable number of units in the past three years and have therefore already achieved a [] market share to the Parties individually. These players will be even more incentivised post-Transaction to compete fiercely and increase their market shares on account of the Merged Entity's business.
- 248 In addition, while several other competitors (e.g. CVS and Taylor) have had a reduced market share in the past three years compared to the Parties, Sany, and Hyster, they are nonetheless significant competitors with a well-established track record and will continue to exercise a competitive constraint against the Parties. The structure of negotiations allows smaller competitors to compete on an equal footing for orders, and given their significant experience and track record, these competitors would be able to ramp up easily if the Parties attempted to raise prices post-Proposed Transaction. Finally, the Parties understand there are at least 17 suppliers in the global market with reach stackers in their portfolio. There is, accordingly, a long tail of competitors that would be well positioned to take advantage of any attempt by the Parties to increase prices.
- 249 The Parties believe these key competitors are price competitive. For example:
- 249.1 The Parties estimate that Sany offers these products at a [] []. Such a competitive price combined with sufficiently high quality has made Sany competitive in the eyes of the customers which its market share in the past three years confirms; and
- 249.2 The Parties estimate that Hyster on average prices [] []. This makes Hyster particularly competitive given that it is a player with a well-established track record which has traditionally offered high quality products, equivalent to those offered by the Parties.
- 250 Given Konecranes' limited presence in New Zealand and the strength of the other competitors present in New Zealand, the Proposed Transaction cannot give rise to competitive concerns in relation to reach stackers.

Full container handlers

- 251 Cargotec [] supplied full container handlers in the 2017 to 2020 period in New Zealand, []. Globally, both parties have very limited sales of full container handlers.
- 252 Nowadays, full container handlers are not very common and are increasingly replaced by reach stackers. Cargotec [], and Konecranes' activities are []. This is also reflected in New Zealand as only [] were sold nationally in 2017 to 2020.

Table 29: Estimated market shares in the full container handler, **worldwide**, 2017-2020, volume-based

Competitor	Number of delivered units	Estimated share (%)
Cargotec	[]	[]

Competitor	Number of delivered units	Estimated share (%)
Konecranes	[]	[]
Combined	[]	[]
Taylor	[]	[]
Hyster	[]	[]
CVS	[]	[]
Svetruck	[]	[]
Sany	[]	[]
Others	[]	[]
Total	[]	100.0

Sources: The Parties' best estimates based on internal, FEM and EDA data.

- 253 The table shows that the Parties' combined global share for full container handlers is only []%. Given this limited combined market share, the Proposed Transaction cannot give rise to competitive concerns in relation to full container handlers.

Terminal consultancy services

Table 30: Estimated market shares for terminal consultancy services, **worldwide**, 2017-2020, revenue-based

Competitor	Revenues (in K€)	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Others	[]	[]
Total	[]	100.0%

Source: The Parties and DS Research

- 254 The Parties' global activities in the area of terminal consultancy services are very minimal. Cargotec and Konecranes only generated global sales of around EUR[] and around EUR[] respectively in 2020. As shown in Table 30 above, the Parties estimate that their combined share is approximately []% globally, and any increment arising from the Proposed Transaction would be imperceptible. Cargotec []. Konecranes [].

- 255 Terminal consultancy services are an ancillary and minor business area for the Parties, and they will continue to face strong competition from other specialist players, as well as from customers' in-house capabilities and other OEMs. Therefore the Proposed Transaction cannot give rise to competitive concerns in relation to terminal consultancy services.

Aftersales services and spare parts

- 256 The vast majority of the after-sales services provided by the Parties globally is in support of their own respective container handling equipment, but they may also support their respective customers with services for third party equipment.

Table 31: Estimated market shares for aftersales services and spare parts, worldwide, 2017-2019, revenue-based

Competitor	Revenues (in m€)	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
In-House capabilities	[]	[]
ZPMC	[]	[]
Siemens	[]	[]
ABB	[]	[]
Liebherr	[]	[]
TMEIC	[]	[]
Kuenz	[]	[]
Others	[]	[]
Total	[]	100.0%

Source: The Parties and DS Research

- 257 The Parties' individual and combined shares in the provision of after-sales services are modest at approximately []% globally.
- 258 Most OEMs, as well as the in-house servicing units of most port / terminal operators, are in a position to service various types of container handling equipment. In particular, in-house servicing units play an essential role in this area and act as a significant competitive constraint on the Parties. See above at paragraph 47 for more detail.
- 259 In New Zealand, Cargotec only offers aftersales services and spare parts to customers who have purchased Cargotec equipment. Konecranes has recently established a Port Services branch in New Zealand, [],
- Konecranes also offers services for non-Konecranes equipment (noting that its main focus is servicing Konecranes' own equipment). Because Cargotec only supplies its own equipment customers, aftersales services and spare parts is not treated as an overlapping market in New Zealand.
- 260 The Parties will continue to face competition from a number of strong players, including other OEMs, distributors and dealers, third party service providers, as well as constraint from customers who enjoy significant in-house capabilities. The vast majority of the Parties' installed fleet globally (respectively around []% for Konecranes and around []% for Cargotec) is serviced by third parties or directly by end customers through in-house technical services which acts as a significant competitive constraint on any after-sales services they are commissioned to provide.
- 261 In light of the above, the Proposed Transaction cannot raise any competitive concerns with respect to after-sales services.

Used port handling equipment

- 262 The Parties only have a limited presence selling used mobile handling equipment globally.¹¹² Used mobile equipment sales are primarily made in Europe. For this reason, market shares have only been determined for the European market per individual equipment type based on the number of units which are currently idle and being offered for rental or sale as of February 2021. These overlaps are consistently below []%. Therefore, the Proposed Transaction cannot raise any competitive concerns with respect to used mobile handling equipment.
- 263 The Parties note for completeness that while Konecranes does not sell used port handling equipment in New Zealand, Kalmar NZ provides long-term equipment rentals and sells used container handling equipment in New Zealand. Kalmar NZ []. Because Konecranes does not supply used equipment in New Zealand, this is not treated as an overlapping market in New Zealand.

Equipment retrofitting services

- 264 The Parties have no visibility of their competitors' activities regarding the provision of equipment retrofitting services globally. Therefore, the Parties are not in a position to provide any meaningful estimates of their competitors' market shares in a potential retrofitting market. The Parties have provided their best estimates of the total size of the potential market estimated market shares in Table 32.

Table 32: Estimated market shares for retrofitting services, **worldwide**, 2017-2020, revenue-based

Competitor	Revenues (in m€)	Estimated share (%)
Cargotec	[]	[]
Konecranes	[]	[]
Combined	[]	[]
Others	[]	[]
Total	[]	100.0%

Source: The Parties and DS Research

- 265 The Parties' revenues generated with retrofitting services only account for a small fraction of their total revenues and the Parties' combined shares are only []% globally. From 2017 to 2019, Cargotec generated total retrofitting revenues of approximately EUR [], while Konecranes' total retrofitting revenues amounted to approximately EUR [] over the same time period. Cargotec has []. Konecranes has [].
- 266 There are numerous non-OEM providers of retrofitting services who account for a significant share of the potential retrofitting market. Thus, the estimates provided above very likely significantly inflate the Parties' actual position in a potential market for the provision of retrofitting services.

¹¹² As noted above at 220.3, it is usually mobile equipment that is available as used equipment. Terminal tractors and AGVs are also traded to a limited extent on the second hand market. Konecranes does not trade terminal tractors or AGVs on the second hand market.

267 Given the Parties' limited activities with respect to equipment retrofitting services, the Proposed Transaction cannot give rise to competitive concerns in relation to retrofitting services.

SECTION 3: GLOBAL VERTICAL LINKS

268 The Parties provide several ancillary products and services globally which operate downstream and/or upstream from the Parties' main activities in relation to the provision of container handling equipment, including:

268.1 **Spreaders:** Cargotec supplies spreaders for cranes and mobile equipment globally through its Bromma business. Spreaders are the piece of container handling equipment used to grip containers and are used as input parts for cranes and mobile equipment. There are a number of independent global spreader suppliers.¹¹³ Konecranes does not manufacture spreaders, except for straddle and shuttle carriers, but sources them from third-party suppliers (including Bromma) for certain cranes. For further detail see paragraph 2.4 of **Appendix 2.**

268.2 **Terminal software:** Cargotec provides an ECS product called "KalmarOne". Cargotec generally only sells KalmarOne together with its own automated equipment¹¹⁴ and therefore we have not addressed this product separately. Cargotec also offers a container and vehicle tracking tool called Kalmar SmartPort which is generally not offered on a stand-alone basis. In addition, Konecranes provide limited TOS solutions through TBA B.V. (a company majority owned by Konecranes). Konecranes/TBA has only sold TEAMS together with its own automated equipment.

268.3 **Terminal consultancy services:** As set out in paragraph 254 above, the Parties' global activities in the area of terminal consultancy services are very minimal.

268.4 **Aftersales services and spare parts:** As noted at paragraph 256, the vast majority of the after-sales services provided by the Parties globally is in support of their own respective container handling equipment, but they may also support their respective customers with services for third party equipment. The Parties' individual and combined shares in the provision of after-sales services are modest at approximately []% globally.

268.5 **Other:** There may also be limited global vertical links between the Parties with respect to hoists as well as spare parts and services, but all of these other links are negligible.

269 However, the Parties' individual and combined shares in relation to the provision of these products/services are minimal. For this reason the Parties do not consider there is any realistic prospect of foreclosure arising from the vertical global overlaps between the Parties' business of supplying container handling equipment and the activities described above, and this Application does not consider these global vertical overlaps any further.

¹¹³ These independent spreader suppliers include Elme, RAM, Stinis, Earls Industries, and Mitsui-Paceco.

¹¹⁴ While Cargotec is generally open to sell ECS on a stand-alone basis, there have been no such sales to date.

PART 8: CONFIDENTIALITY

- 270 Confidentiality is sought in respect of the information in this application that is highlighted (***the Confidential Information***). Confidentiality is sought for the Confidential Information for the purposes of section 9(2)(b) of the Official Information Act 1982 on the following grounds:
- 270.1 The Confidential Information is commercially sensitive and valuable information which is confidential to either, or both, Parties.
- 270.2 Disclosure of the Confidential Information would be likely to unreasonably prejudice the commercial position of the Parties.
- 271 The Parties request that they are notified if the Commission receives any request under the Official Information Act 1982 for the release of any part of the Confidential Information. They also request that the Commission seek and consider their views as to whether the Confidential Information remains confidential and commercially sensitive before it responds to such requests.



DECLARATION BY CARGOTEC CORPORATION

We, Outi Inkeri Aaltonen and Mikko Juhani Puolakka, have prepared, or supervised the preparation of this notice seeking clearance.

To the best of our knowledge, we confirm that:

- All information specified by the Commission has been supplied;
- If information has not been supplied, reasons have been included as to why the information has not been supplied;
- All information known to me that is relevant to the consideration of this notice has been supplied; and
- All information supplied is correct as at the date of this notice.

We undertake to advise the Commission immediately of any material change in circumstances relating to the notice.

We understand that it is an offence under the Commerce Act to attempt to deceive or knowingly mislead the Commission in respect of any matter before the Commission, including in these documents.

We are directors/officers of Cargotec Corporation and are duly authorised to submit this notice.

Name and title of person authorised to sign:

Outi Inkeri Aaltonen
Senior Vice President, General Counsel

Mikko Juhani Puolakka
Chief Financial Officer

On behalf of Cargotec

Sign:

Date:

30 August 2021

30 August 2021

APPENDICES

Appendix	Title
Appendix 1	Transaction documents
Appendix 2	Non-overlapping business activities
Appendix 3	Cargotec financial statements and annual report
Appendix 4	Konecranes financial statements and annual report
Appendix 5	The Parties' New Zealand revenue (2017 – 2020)
Appendix 6	Competitor contact details
Appendix 7	Trade / industry associations
Appendix 8	The Parties' key customers
Appendix 9	Market share methodologies
Appendix 10	Pre and post transaction structure chart
Appendix 11	Further relevant documents

APPENDIX 1: TRANSACTION DOCUMENTS

Please see provided separately:

- The Combination Agreement (confidential to the Parties),
- The Merger Plan,
- Minutes of the extraordinary general meeting of Cargotec,
- Minutes of the extraordinary general meeting of Konecranes, and
- The Merger Prospectus.

APPENDIX 2: NON-OVERLAPPING BUSINESS ACTIVITIES

- 1 The Parties are each active in several areas where the Proposed Transaction does not give rise to any horizontal overlaps or vertical links in New Zealand.

Cargotec's non-overlapping business activities

- 2 In New Zealand Cargotec provides the following equipment/services:
 - 2.1 **On-road load handling equipment:** Hiab provides various types of on-road load handling equipment ranging from loader cranes to tail lifts and related services. In addition, Hiab also produces stationary cranes mainly used at recycling sites and sawmills. Load handling equipment includes equipment such as loader cranes, forestry cranes, recycling cranes, truck mounted forklifts, tail lifts, skip loaders and stationary cranes. During the period 2016-2020, Hiab on average achieved annual revenues of EUR [] million in New Zealand.
 - 2.2 **Maritime cargo and load handling:** Cargotec's business unit MacGregor offers equipment for ships. This equipment is mainly used for merchant cargo and passenger ships; offshore oil, gas and renewables sites; fishery, research and marine sites and ships; naval logistics and operations. MacGregor also offers boarding equipment for ports and terminals, such as linkspans (shore ramps) and passenger gangways. Additionally, MacGregor provides related services and spare parts for all of its products. During the period 2016-2020, MacGregor on average achieved annual revenues of EUR [] million in New Zealand.
 - 2.3 **Terminal software:** Cargotec provides its ECS product "KalmarOne". KalmarOne is an open and interoperable automation platform that uses a modular and scalable approach. Customers can pick and choose different modules ranging from individual features (e.g., remote-control software) to full-scale semi- or fully automated operations. This modular approach allows customers to automate their terminal operations step by step within one single automation platform. Cargotec generally only sells KalmarOne together with its own automated equipment. Cargotec also offers a container and vehicle tracking tool called Kalmar SmartPort which is generally not offered on a stand-alone basis.
 - 2.4 **Spreaders:** Spreaders are the piece of container handling equipment used to grip containers and are used as input parts for cranes and mobile equipment. In New Zealand, Cargotec supplies spreaders for cranes and mobile equipment through its Bromma business. During the period 2017-2020, Bromma supplied 4 spreaders to customers in New Zealand for STS and MHC (merchant sales including replacement). Globally, Konecranes sources spreaders from Bromma (among other suppliers of spreaders) for certain cranes. As far as the Parties are aware, the only piece of equipment that Konecranes has sold in New Zealand in the 2017-2020 period that uses a Bromma spreader as an input is one [].

- 3 In addition, Kalmar NZ provides long-term equipment rentals and sells used container handling equipment in New Zealand.

Konecranes' non-overlapping business activities

- 4 In New Zealand Konecranes provides the following equipment/services:

- 4.1 **Industrial equipment:** Konecranes' non-overlapping business activities in this area involves the supply of industrial cranes (e.g. standard cranes) and industrial crane components (e.g. hoists,¹¹⁵ and motors and drives used in non-crane applications) via distributors.
- 4.2 **Terminal consultancy services:** Konecranes offers terminal consultancy services in New Zealand (see paragraph 254 for more detail).
- 4.3 **Port Solutions:**
- (a) **Shipyards cranes:** Shipyards cranes are cranes that are used at shipyards for shipbuilding. Konecranes has a broad offering of these types of cranes to be used in shipyards, including block handling cranes, floating dock cranes, Goliath gantry cranes, plate handling cranes, single boom shipyard cranes and double boom shipyard cranes. Shipyards cranes are distinguished from Cargotec's port cranes in terms of their function and specifications. Shipyards cranes are used as "production equipment" for shipbuilding in shipyards while Cargotec's port cranes are designed for occasional lifting operations of smaller amounts of cargo at small and medium-sized ports.
 - (b) **Mobile harbour cranes:** Mobile harbour cranes (**MHC**) are quayside cranes used for loading and unloading ships. Mobile harbour cranes are typically only used in lower-volume ports and in bulk and general cargo areas of large container terminals. Konecranes does not supply any on-ship or ship-based cranes. The Parties' respective offerings differ significantly in terms of technical specifications, application and price.
- 4.4 **Servicing for industrial cranes and hoists:** Konecranes provides spare parts related to industrial cranes and hoists to its distributors, who in turn may provide routine maintenance to adjust the equipment; compliance inspections to satisfy regulatory requirements; repairs and retrofits (replacement of a hoist or component instead of repairing it or as an improvement), overhauls, modernizations and the sale of spare parts) to customers.
- 5 We note for completeness that Konecranes has recently established a Port Services branch in New Zealand, [
-], Konecranes also offers services for non-Konecranes equipment (noting that its main focus is servicing Konecranes' own equipment).

¹¹⁵ Cargotec does not produce hoists but sources negligible amounts from third parties (potentially including from Konecranes) for industrial use at Cargotec's manufacturing sites. Purchases of hoists amounted to EUR [] in 2019 and EUR [] in 2020.

APPENDIX 3: CARGOTEC FINANCIAL STATEMENTS AND ANNUAL REPORT

- 1 Cargotec's Annual Report 2020 can be accessed at:
<https://www.cargotec.com/49262c/globalassets/files/investors/reports/2020/cargotec-annual-report-2020-print.pdf>
- 2 Kalmar NZ ceased trading in New Zealand in 2015. Kalmar NZ is currently in the process of re-establishing as a trading entity in New Zealand and intends to recommence trading in New Zealand this year. As such, Kalmar NZ has not produced an annual report, audited financial statements or management accounts since 2015.

APPENDIX 4: KONECRANES FINANCIAL STATEMENTS AND ANNUAL REPORT

- 1 Please see provided separately the audited financial statements for Konecranes Australia. Konecranes' audited financial statements are confidential to Konecranes.
- 2 Konecranes' Annual Report, Governance and Financial Review and Sustainability Review 2020 can be accessed at:

https://investors.konecranes.com/sites/default/files/Annual%20report%202020/annual_review_2020.pdf

https://investors.konecranes.com/sites/default/files/Annual%20report%202020/governance_and_financial_review_2020_2.pdf

https://investors.konecranes.com/sites/default/files/Annual%20report%202020/sustainability_report_2020.pdf

APPENDIX 5: THE PARTIES' NEW ZEALAND REVENUE (2017 – 2020)

Product	Manufacturer	Revenue (in €) ¹¹⁶			
		2017	2018	2019	2020
Manual straddle carriers	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Automated straddle carriers	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
All forklifts (>5t)	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Empty container handlers	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Full container handlers	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Heavy-duty forklifts (>10t)	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Reach stackers	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]
Terminal tractors	Cargotec	[]	[]	[]	[]
	Konecranes	[]	[]	[]	[]

¹¹⁶ Please note that for some products there are small positive and negative revenues for years where there are no delivered units. [

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APPENDIX 6: COMPETITOR CONTACT DETAILS

Straddle carriers	
Competitor	Contact details
Liebherr	10 Crooks Road, East Tamaki, Auckland New Zealand [] ¹¹⁷
ZPMC	Sydneystraat 13 Rotterdam 3047 BP NLD – Netherlands []

Reach stackers	
Competitor	Contact details
Hyster	National Sales Manager - Big Trucks & Container Handlers []
Sany	318 Cooper Circle Peachtree City 30269 United States [] Sells in New Zealand through Portstar Machinery: 14/368 Church St Penrose Auckland 1061 []
Omega	30 Salisbury Rd Asquith 2077 NSW Australia

¹¹⁷ The closest New Zealand contact in this segment is based in Australia.

	[] Sells in New Zealand through Clark Equipment: 2 Lady Ruby Drive East Tamaki Auckland []
ZPMC	See above. Sells reach stackers in New Zealand through MTS: MTS Energy Limited Suite A, Unit 7D, 331 Rosedale Road, Albany, Auckland, New Zealand []

Forklift trucks	
Competitor	Contact details
Hyster	See above
Hyundai	28 Kerwyn Ave East Tamaki Auckland []
Crown	226 Gracefield Road Seaview Lower Hutt 5010 +64 4 568 4444
Toyota	Sells through in New Zealand through AB Equipment: 12 Pukekiwiriki Place Highbrook Drive Auckland 2013 [0800 30 30 90 []
Sany	See above
Omega	See above

APPENDIX 8: THE PARTIES' KEY CUSTOMERS

- 1 As explained at paragraphs 75 and 91 above, both Kalmar NZ and Konecranes NZ predominantly sell to end-users in New Zealand via dealer arrangements (Kalmar NZ sells mobile equipment via AB Equipment and Konecranes NZ sells container handling equipment via Port Solutions). This means that it is not possible for the Parties to identify the amount of revenue obtained from the end-users of their container handling equipment.
- 2 To address this, the Parties set out below contact details for their dealers in New Zealand and contact information for the five largest ports in New Zealand, which are the five largest customers of container handling equipment in New Zealand.

Contact details for the Parties' dealers in New Zealand

Name	Address	Telephone	Contact person and email	Konecranes FY2020 revenue (NZD)	Cargotec FY2020 revenue (NZD)
AB Equipment	12 Pukekiwiriki Place Highbrook Drive Auckland 2013	[]	[]	[]	[]
Port Solutions	Level 3, Woburn House 40 Bloomfield Terrace Lower Hutt 5010	[]	[]	[]	[]

Contact details for the five largest ports in New Zealand

Name	Address	Telephone	Contact person and email	Konecranes FY2020 revenue (NZD)	Cargotec FY2020
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					revenue (NZD) ¹¹⁸
Port of Tauranga	2 Salisbury Avenue Mount Maunganui 3116	[]	[]	[]	[]
Ports of Auckland	Ports of Auckland Building 1 Sunderland Street Mechanics Bay Auckland 1010	[]	[]	[]	[]
Lyttelton Port Company	Waterfront House 37-39 Gladstone Quay Lyttelton 8082	[]	[]	[]	[]
Port of Napier	Breakwater Road Napier Port Napier 4140	[]	[]	[]	[]
Port Otago	15 Beach Street Port Chalmers Dunedin 9023	[]	[]	[]	[]

¹¹⁸ [

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APPENDIX 9: MARKET SHARE METHODOLOGIES

1 This section explains the methodological approach adopted to calculate the market shares for products on which the Parties overlap, including all sources, data cleaning steps and transformations. The market data provided in this Application reflects the Parties' best estimates based on currently available data and is subject to ongoing review and validation.

2 The market data was prepared in the first instance in accordance with the descriptions outlined below. For mobile equipment and straddle carriers, this market data was considered and supplemented by the local businesses, who were able to identify further detail about sales and deliveries made in New Zealand. This is reflected in the market data provided in this Application.

STS cranes

3 The Parties have provided data on annual deliveries of STS cranes in terms of units for themselves and their competitors, where the information for the latter relies mostly on World Cargo News (**WCN**) reports. The data were provided at customer level and covers the period 2017-2020.

4 As WCN often reports the same orders in consecutive reports, care has been taken to remove any duplicates. Any discrepancy between WCN data and the Parties' own data has been clarified and corrected by the Parties.

5 Market size is estimated using a "bottom-up" approach, i.e. by summing up the volumes of the Parties and their competitors.

Yard cranes: RMG, ASC / A-RMG and RTG

6 The Parties have provided data on annual deliveries of yard cranes in terms of units for themselves and their competitors; the information for competitors relies mostly on WCN reports.¹¹⁹ The Parties have also provided additional information on deliveries of yard cranes they are aware of and which are not included in the WCN reports. The data were provided at customer level and covers the period 2017-2020.

7 As WCN often reports the same orders in consecutive reports, care has been taken to remove any duplicates. Any discrepancy between WCN data and the Parties' own data has been clarified and corrected by the Parties.

8 Market size is estimated using a "bottom-up" approach, i.e. by summing up the volumes of the Parties and their competitors.

9 ASC market shares include sales of A-RMG.

Mobile equipment: Forklift trucks, reach stackers, and empty and full container handlers

10 The Parties have provided data on annual sales of mobile equipment in terms of units for themselves and their competitors; the information for competitors relies on a mixture of public records of competitors' wins recorded in the Parties' CRM data, internal intelligence on competitors and data from trusted third-party sources, such as the European material handling federation (**FEM**),¹²⁰ the Industrial Truck

¹¹⁹ A delivery is recognised when equipment is handed over to a customer and said customer has signed the acceptance documents.

¹²⁰ FEM stands for the European material handling federation (<https://www.fem-eur.com/>). Reporting members are: Cargotec, Crown, Doosan, Fenwick-Linde, Hyster-Yale, Hyundai, J.C.Bamfors

Association (**ITA**),¹²¹ the China Industrial Truck Association (**CITA**),¹²² the Korea Construction Equipment Manufacturers Association (**KOCEMA**),¹²³ and Port Equipment Manufacturers Association (**PEMA**).¹²⁴

- 11 The data from **FEM** reports forklift truck sales volumes by country for each year over the period 2015-2019. In addition, forklift truck sales are split by equipment class and lifting capacity. The data have been filtered for class 1 and 5 equipment with lifting capacity above 5 tons, to ensure the comparability with the Parties' offerings.¹²⁵ Most of the FEM members report only their European sales and thus the data likely underestimate market size outside of Europe. FEM data are used for markets outside of Europe only whenever more reliable data are not available.
- 12 The data from **ITA** report combine sales for forklift trucks and reach stackers in the United States for each year over the period 2002-2019. In addition, the sales are split by equipment class and lifting capacity, but the data available include only equipment above 20,000 lbs (~9.1tons). The data have been filtered for class 1 and 5 equipment and market size estimates for reach stackers have been deducted from the total numbers to ensure the comparability with the Parties' offerings.¹²⁶
- 13 The data from **CITA** covers forklift trucks sold in China in 2018-2019, split by equipment class and lifting capacity similarly to FEM.
- 14 The data from **KOCEMA** covers forklift trucks sold in Korea and exports from Korea in 2018-2019, split by equipment class and lifting capacity similarly to FEM.
- 15 The data from **JIVA** covers forklift trucks sold in Japan and exports from Japan in 2018-2019, split by equipment class and lifting capacity similarly to FEM.

Excavators, Jungheinrich, Konecranes (2019 onwards), Linde Material Handling, Manitou, Mitsubishi Logisnext, Sany Europe (2020 onwards), Still, Toyota Materials Handling and Unicarriers Europe.

¹²¹ ITA stands for Industrial Truck Association (<https://www.indtrk.org/>), which collects data on industrial trucks in the United States. Reporting members are: Big Joe Forklifts, BT Industries, CAT Lift Trucks, Clark Material Handling Company, Crown Equipment, Doosan Industrial Vehicle America, Guangxi Liugong Machinery, H C Forklift America, Hoist Material Handling, Hyster Company, Kalmar USA, Kion North America, Komatsu Forklifts USA, Lift Rite, Jungheinrich Lift Trucks, Mitsubishi Caterpillar Forklift America, Mitsubishi Forklift Trucks, The Raymond Corporation, Tora-Max, Toyota Material Handling, Unicarriers Americas Corporation, and Yale Materials Handling Corporation.

¹²² CITA stands for China Industrial Truck Association. Reporting members: Anhui Heli, Hangcha Group, Dalian Forklifts, Tailift Machinery Equipment, Kion Baoli Forklift, Jiangsu Jingjiang Forklift Truck, Liuzhou Liugong Forklift, Zhejiang Goodsense Forklift, Lonking Forklift, Anhui Jianghuai Yinlian Heavy-Duty Construction Machine, Zheuijiang Noblelift Equipment Joint Stock, Hangzhou Global Friend Precision Machinery, Hyster-Yale, Maximal Forklift, EP Equipment, Shandong Volin Heavy Machinery, Linde (China) Forklift Truck, Shanghai Hyster Forklift Manufacturing, DOOSAN Infracore (China), Hyundai Heavy Industries (China) Investment, Toyota Material Handling (Shanghai), Vita-Wheel Holding, Jungheinrich Lift Truck (Shanghai), Unicarriers China, Qingdao Clark Material Handling, Mitsubishi Heavy Industry Forklift Dalian, and Crown Lift Trucks Commercial (Shanghai).

¹²³ KOCEMA stands for Korea Construction Equipment Manufacturers Association (<http://www.kocema.org/eng/pages/main.html>).

¹²⁴ PEMA stands for Port Equipment Manufacturers Association (<https://www.pema.org/>). Regular respondents to the mobile equipment surveys are: Cargotec, CVS Ferrari, Hyster-Yale, Konecranes, Liebherr, Mitsubishi Logisnext, Sany.

¹²⁵ See description of the equipment classes e.g. <https://www.slideshare.net/toyotaequipment/forklift-ita-equipment-clas><https://www.slideshare.net/toyotaequipment/forklift-ita-equipment-clas>.

¹²⁶ See description of the equipment classes e.g. <https://www.slideshare.net/toyotaequipment/forklift-ita-equipment-clas><https://www.slideshare.net/toyotaequipment/forklift-ita-equipment-clas>.

- 16 The data from **PEMA** is based on a global annual survey of container handling equipment manufacturers regarding their delivery volumes. PEMA reports total annual regional deliveries for reach stackers and empty container handlers for the period 2010-2019.¹²⁷ Since not all manufacturers participate in the survey, the total sales provided by PEMA are likely underestimated.
- 17 Market sizes are estimated using the third-party sources listed above as a starting point. Details about competitors' sales are not available from public sources; therefore, the Parties have provided their own best estimates of the main competitors' sales. The sales of competitors not reporting to the third-party associations listed before were added to the market size, based on the Parties' internal estimates. When both of the Parties provided an estimate for the same jurisdiction and if the estimates differed, the average of the estimates was used.
- 18 The country-level market sizes for reach stackers are based on PEMA data, augmented by the Parties. In particular, the Parties have allocated PEMA's regional sales figures to countries within each region and adjusted the country-level total sales based on the Parties' views to account for competitors that do not report to PEMA.
- 19 The forklift trucks market size estimate is based on a combination of data reported by FEM, ITA, CITA, KOCEMA, JIVA and the data has been complemented by the Parties for the missing years (KOCEMA and JIVA 2018) and for missing competitors. FEM, CITA, KOCEMA, and JIVA data have been limited to FLT with over 5 tons lifting capacity from equipment classes 1 (electric) and 5 (internal combustion engine), in order to ensure the comparability of the equipment with the Parties' offerings. ITA data has been similarly limited to equipment classes 1 and 5, but the data are only available for equipment with lifting capacity above 20,000 lbs (~9.1 tons) and thus the market size for the United States does not include equipment below this threshold. This means that the US and global market size for forklifts above 5 tons are underestimated. ITA data provide combined sales of forklift trucks and reach stackers by lifting capacity.¹²⁸ In order to estimate the FLT market size we have deducted ITA members' estimated sales of reach stackers from the corresponding equipment sales with the same lifting capacity.
- 20 Forklift trucks are used in many applications. The forklift market is very broad and also very large in terms of numbers of units delivered compared to other lift truck products and the Parties have limited visibility to the full global market size and deliveries. The global market reports utilised in the market sizing (World Industrial Truck Statistics (**WITS**)) only have good coverage of some geographies in their data. These geographies in the case of WITS include Brazil, China, Europe, North America, Japan, and Korea. Mainly the deliveries of the companies from these regions are included. This leaves a large part of the market uncovered, including companies based for example in South America, India, South-East Asia, Oceania and Africa. The reports also do not cover all segments of the market fully: for example, the WITS report for North America does not include forklifts in the <10t lifting

¹²⁷ Regions for RS: Europe, North America, Latin America, China, Indian sub-continent, Other Asia, Australia Pacific, Mid East, and Africa. Regions for ECH: Europe, North America, Latin America, China, Indian Sub, Other Asia, Australasia, Mid East and Africa.

¹²⁸ ITA can also include negligible amount of sales of side-loaders, which are not exactly forklifts, but can be used to perform similar task in certain applications.

capacity category. Based on above, there is good evidence that the global market size is larger than the market size figures provided.

Horizontal transport equipment: AGV and terminal tractors

- 21 The Parties have provided data on annual sales of horizontal transport equipment in terms of units for themselves and their competitors; the information for competitors relies on a combination of public records of competitors wins recorded in the Parties' CRM data and internal market intelligence.
- 22 For terminal tractors, the Parties' data contain information of their country-level sales. Market size estimates are based on Cargotec's internal market intelligence. The market size estimate is broadly in line with an estimate by a third-party provider DS Research.¹²⁹
- 23 For AGV, the market size is estimated by combining the Parties' sales with Konecranes' estimates of competitors' sales at country level which are based on public records. Due to the nature of the data on competitors, the size of the market is likely underestimated.

Horizontal transport equipment: Straddle and shuttle carriers

- 24 The Parties have provided a list of all straddle and shuttle carrier order intakes and deliveries for Konecranes, Cargotec and, to the Parties' best knowledge, for their competitors over the period 2017-2020. This data is provided by year and by customer (i.e. the respective terminal) and differentiates between manual and automated equipment types.
- 25 The market size is then estimated using a "bottom-up" approach, i.e. by summing up the unit volumes of the Parties and their competitors delivered in a given year or period of years.

Ancillary services

Terminal consultancy services

- 26 The global market size is based on total expenditure in global investment (CAPEX) in port terminal construction. In particular, it was considered that terminal consulting services amount to 1% of the CAPEX for port terminal construction. 1% represents TBA's best estimate of the share of terminal consultancy services over the total CAPEX expenditure for ports. The CAPEX data came from DS Research reports.
- 27 The Parties provided information regarding their terminal consultancy services revenue. Information was not available regarding competitors' revenues and therefore competitors' market shares have not been estimated.

Equipment retrofitting services

- 28 The global market size is based on the (i) expected retrofits revenues generated by Konecranes cranes and (ii) the share of the replacement value of Konecranes installed cranes relative to the replacement value of all installed cranes. This data was used to estimate the replacement value of the global installed base of cranes and in turn expected revenues from that installed base. This produced an estimate of the global market size for equipment retrofitting services as retrofitting services are predominantly (if not exclusively) provided for cranes to date. Therefore shares

¹²⁹ See "Container Terminal Foresight 2024", report issued in January 2020 by DS Research.

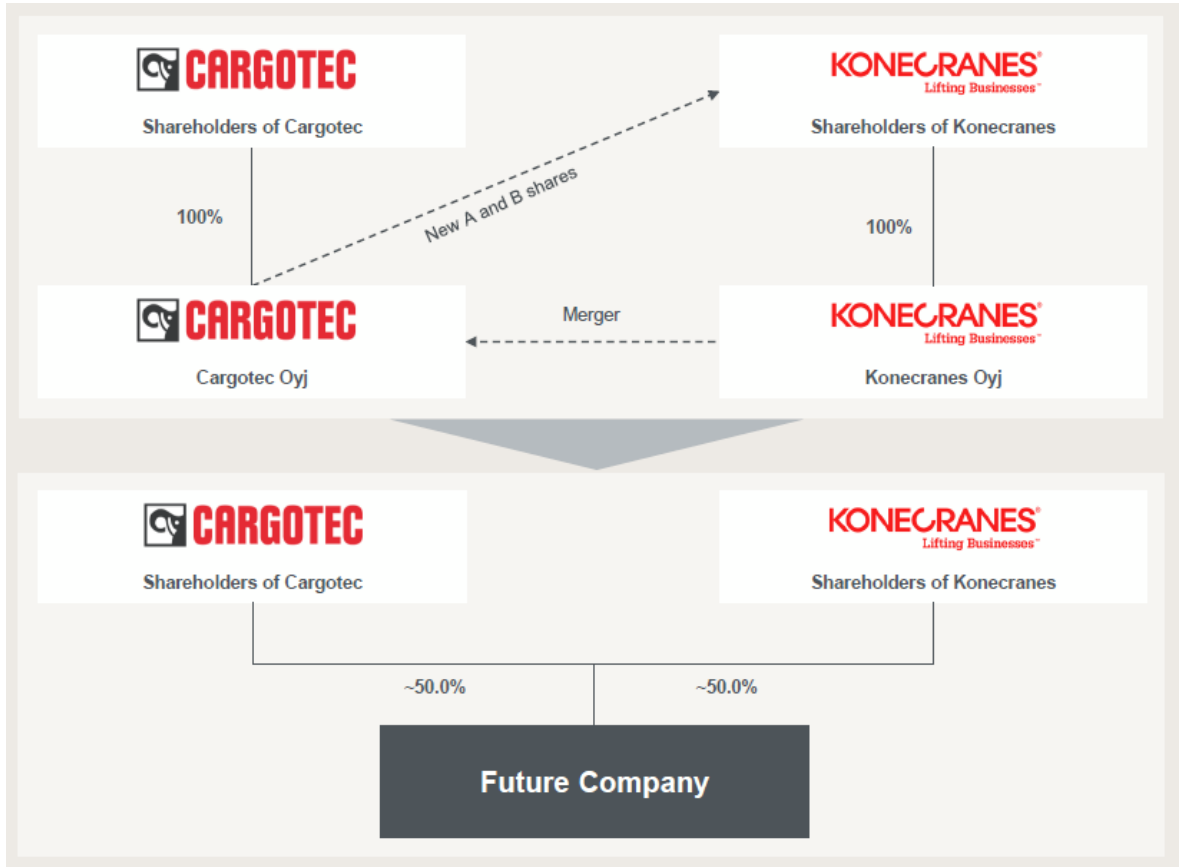
in the supply of cranes can be used as a rough proxy for the Parties' shares in a potential market for the provision of equipment retrofitting services.

- 29 The Parties market shares are determined based of the Parties' annual revenues from retrofitting services. Information was not available regarding competitors' revenues and therefore competitors' market shares have not been estimated.

Aftersales services and spare parts

- 30 The Parties provided data (Konecranes: (i) profit and loss data (ii) service split data; and (iii) service type data, Cargotec: (i) profit and loss data (ii) entity level data and (iii) installed base data) to estimate the Parties' maintenance and spare parts revenue.
- 31 The global market size is estimated based on the expected maintenance and spare parts expenditure generated by the port equipment and industrial and intermodal equipment serviced by the Parties.
- 32 Competitors' shares are based on Cargotec's and Konecranes's estimates of competitors' shares at the country level. Those assessments are based on "best basis" estimates from local sales teams based on their industry knowledge of local market conditions. These are aggregated to determine global estimates.

APPENDIX 10: PRE AND POST TRANSACTION STRUCTURE CHART



APPENDIX 11: FURTHER RELEVANT DOCUMENTS

Please see provided separately:

- ZPMC eyes straddle market expansion,
- [],
- [],
- [],
- Sany Heavy Equipment International Holdings FY2019,
- Sany Heavy Equipment International Holdings Annual Results 2018,
- [], and
- [].