EUROPEAN COMMISSION

Brussels, 13.5.2020
C(2020) 3254 final

PUBLIC VERSION

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

Outotec Oyj
Rauhalanpuisto 9
FI-02230 Espoo
Finland

Subject: **Case M.9585 - OUTOTEC / METSO (MINERALS BUSINESS)**
Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004[1] and Article 57 of the Agreement on the European Economic Area[2]

Dear Sir or Madam,

(1) On 2 April 2020, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Outotec Oyj ('Outotec', Finland) acquires within the meaning of Article 3(1)(b) of the Merger Regulation sole control of the minerals business of Metso Oyj (Finland) (the "Transaction").[3] Outotec is designated hereinafter as the "Notifying Party".

1 OJ L 24, 29.1.2004, p. 1 (the "Merger Regulation"). With effect from 1 December 2009, the Treaty on the Functioning of the European Union (the "TFEU") has introduced certain changes, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout this decision.

2 OJ L 1, 3.1.1994, p. 3 (the "EEA Agreement").

3 Publication in the Official Journal of the European Union No C 123, 16.4.2020, p. 51.

1. THE PARTIES

(2) **Outotec** is incorporated in Finland. It is active mostly in the mineral and metal business on a world-wide basis. Outotec develops technologies and services in two areas: minerals processing, and metals, energy and water.

(3) **Metso Oyj** is also incorporated in Finland. It is active globally in products and services for the mining, aggregates, and recycling industries.

2. THE OPERATION

(4) The Transaction consists of an acquisition of sole control of Metso Oyj's minerals business ("Metso Minerals") by Outotec. Outotec and Metso Minerals together are referred to as the "Parties". The acquisition is based on a Combination Agreement and a Demerger Plan of July 2019. Metso Oyj's will partially demerge so that the minerals business will be transferred out of the group. Metso Oyj's flow control business will continue existing independently under the name Neles. Outotec will acquire Metso Oyj's former minerals business (assets, rights, debts and liability relating to the Metso Oyj's minerals business) and integrate it within its own business. Outotec will continue to exist as a legal entity after the Transaction and be renamed "Metso Outotec". In return for the transfer of this business to Outotec, the shareholders of Metso Oyj will receive newly issued shares in Metso Outotec and hold approximately 78% of its shareholding. The economic entity resulting from the Transaction (the "combined entity") will have an atomistic shareholder structure,[4] consisting of both Metso Oyj's and Outotec's shareholders. Therefore, the combined entity will not be controlled by any of its shareholders after the Transaction.

(5) The Transaction therefore constitutes a concentration pursuant to Article 3(1)(b) of the Merger Regulation.

3. UNION DIMENSION

(6) The Transaction does not meet the jurisdictional thresholds of article 1(2) and 1(3) of the Merger Regulation. The Transaction therefore does not have a Union dimension within the meaning of Article 1 of the Merger Regulation.

(7) The case was capable of being reviewed under the national merger control laws of (i) Austria, (ii) Bulgaria, (iii) Finland, (iv) Germany, (v) Portugal, (vi) Spain and (vii) Sweden.

(8) On 7 November 2019, the Parties informed the Commission by means of a reasoned submission that the concentration should be examined by the Commission. The Commission transmitted the reasoned submission to the Member States. As none of the Member States expressed within 15 working days its disagreement with the referral of the case, the Transaction was deemed to have a Union dimension pursuant to Article 4(5) of the Merger Regulation. On 2 December 2019 the Commission

[4] None of Metso Outotec's shareholders will hold more than 15% of its shares and voting rights. Overall, Metso Outotec's five largest shareholders will hold 32,9% of the combined entity's shares and voting rights.

informed the Parties accordingly of the referral and that the Transaction would have to be notified to the Commission.

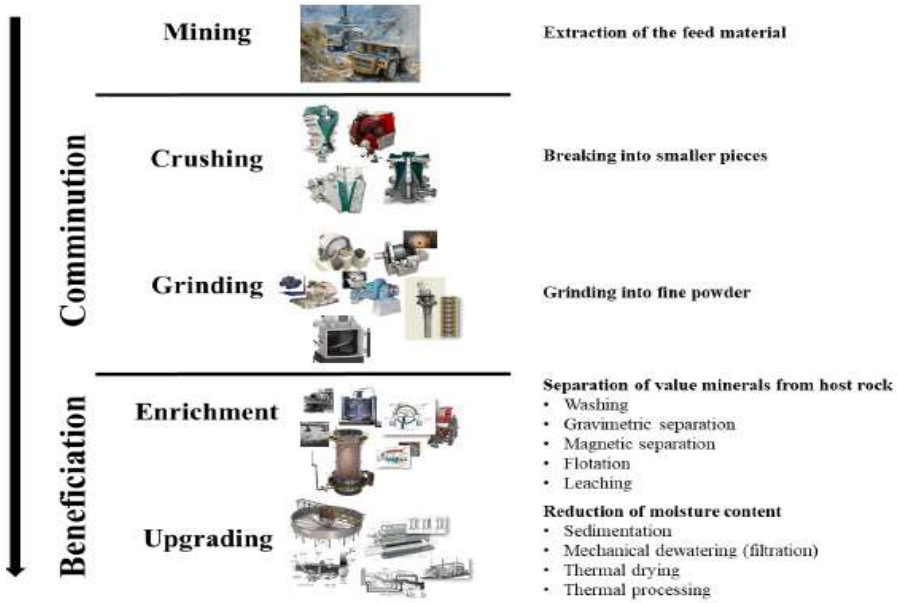
4. INTRODUCTION

4.1. The minerals processing value chain

(9) Minerals processing includes the process steps following the extraction of the feed material from the mine/quarry. In general, the goal of minerals processing activities is either (i) the preparation for further use as construction material (in the case of aggregates) or (ii) the upgrading to allow for even further processing (by smelting or electrolysis) to produce metals or other minerals.

(10) The following chart, submitted by the Notifying Party, provides an overview of the most important steps of the minerals processing business.

Graph 1: Overview of minerals processing business



(11) The Parties' products become relevant once the feed material has been extracted. The first process step following the extraction of the feed material is referred to as comminution. The comminution cycle is primarily concerned with reducing the size of the feed material. The size reduction is necessary to liberate the value minerals from the surrounding host rock. This size reduction is typically achieved through several stages of crushing and grinding. To achieve an efficient size reduction process, the feed material is classified for size between each of the size reduction steps and either carried through to the next step or re-introduced to the previous step if the desired particle size has not yet been achieved.

(12) Once the desired particle size has been achieved in the comminution cycle, the feed material is further processed in several stages referred to as beneficiation. Beneficiation activities aim at increasing purity and "processability" of the value minerals by separating the value minerals from the host rock. Typically, the beneficiation process steps include, in particular, flotation, magnetic separation

leaching, dewatering/filtration, washing, thermal drying, and, in certain instances, initial thermal processing steps (such as iron ore pelletizing).

(13) The Parties' activities overlap in the supply of several types of capital equipment[5] used in the mining and minerals industry, where both Parties are long-established players.

(14) More specifically they overlap in relation to such equipment for: (i) grinding, (ii) flotation, (iii) filtration, and (iv) iron ore pelletizing (and possible segmentations). The Parties' activities also overlap with respect to the supply of aftermarket services, spare parts and wear parts in relation to each of these types of equipment.

4.2. Customers of mining equipment/engineering companies

(15) The ultimate customers of minerals processing equipment are mining companies. Customers are often assisted by specialised engineering companies, in particular (but not only) for greenfield and large brownfield projects.[6]

(16) While all mining projects typically involve engineering, the level of involvement of engineering companies in a mining project varies. Some engineering companies are specialised in conducting the initial study and testing works in order to develop a flowsheet for a project.[7]

(17) The Notifying Party submits that once a project is started, customers generally involve engineering companies to provide engineering, procurement, and construction services (the "EPCs") or engineering procurement construction management services ("EPCMs"):

— EPC contractors develop the project from commencement to final completion, delivering a complete solution, enter into separate agreements with vendors and subcontractors (such as the original equipment manufacturers, referred to as "OEMs") for the project but on their own behalf, carry the risk for the project and guarantee performance of the completed project;

— EPCM contractors are not directly involved in building and construction of the project, but are rather responsible for the overall management on behalf of the customer. EPCM contractors have the duty to supervise, manage and co-ordinate construction interface, and run the procurement and negotiate contracts with sub-contractors and vendors as the agent of the customer.[8]

4.3. Procurement

(18) The typical key steps leading to the procurement of a minerals processing equipment, from a customer's perspective, can be summarised as follows:

---

5 "Capital equipment" refers to standalone pieces of machinery to fulfil a certain function. All other sales are considered as aftersales (spare and wear parts) and services.

6 Form CO, paragraph 1103.

7 Form CO, paragraph 1128.

8 Form CO, paragraph 1130.

— first, a customer may engage an EPC(M) for feasibility studies. OEMs can sometimes be involved at this stage, especially if no EPC(M) is hired. Certain mining companies may also have the relevant in-house engineering capabilities to conduct feasibility studies and thus not require the intervention of an EPC(M);

— second, either the mining company or the EPC(M) organises a tender to procure mining equipment from equipment suppliers (OEMs) on the basis of a request for quotations ("RFQ"). After the tender has been awarded, the selected OEM may conduct additional engineering work to finalize the line ("flowsheet");

— third, once order for the equipment has been placed by the mining company, the OEM procures parts and/or components from its own suppliers;

— the fourth and final step consists in shipping the components and/or equipment to the customer's site, and installing the equipment on site.[9]

(19) The entire process can take several years from initial feasibility studies to the final procurement decision and installation.

(20) According to the Notifying Party, EPC(M)s have significant influence on the procurement process for mining equipment. The Notifying Party submits that EPC(M)s take the lead and act as integrators of the entire mining project in around 40-50% of global cases. The involvement of EPC(M)s tends to be more extensive with the larger and more complex projects, but EPC(M)s are also involved in smaller projects.[10] In cases where EPC(M)s do not have the leading role, mining customers typically rely on their in-house services to ensure the proper performance of the mining project.[11]

4.4. Manufacturing of capital equipment

(21) The Parties operate under a so-called "asset-light" business model. This means that neither Metso Minerals or Outotec have their own production capabilities for their core (large) minerals processing equipment, with some limited exceptions.[12] Instead, both Parties outsource the manufacturing of the required components and parts to third parties. Outotec and Metso Minerals own the required patents, expertise, technical drawings, and engineering capabilities to produce most of their mining equipment.[13]

(22) The Notifying Party explains that minerals processing equipment for mining applications is not "off-the shelf" equipment, but "engineer to order" and tailored to

9 Form CO, paragraph 1160.
10 Form CO, paragraph 1134.
11 Form CO, paragraph 1137.
12 Outotec only has four production facilities (three in Finland and one in China), see Form CO, paragraph 1064.
13 Form CO, paragraph 1059.

each project, and can differ significantly between mining projects. Suppliers thus source components from a number of alternative suppliers located across the globe.[14]

(23) The assembly of the mining equipment is then carried out on-site at the mine or plant. The assembly of mining equipment is usually done by EPC(M) firms (who hire sub-contractors), while the supplier who provided the equipment sends supervisors on site to oversee it. Assembly can also be done by customers with in-house engineering expertise, under the supervision of the OEM.[15]

5. RELEVANT MARKETS

5.1. Product market definition

5.1.1. Grinding

5.1.1.1. Grinding capital equipment

(24) Grinding is a powdering or pulverising process using the rock mechanical forces of impaction, compression, shearing, and attrition. Grinding machinery is used to achieve a size reduction of the feed material (the ore) and to liberate the individual minerals therein. Grinding machinery is part of the comminution (size reduction) cycle, and can be distinguished from crushing equipment because the particle size achieved through grinding is smaller.

(25) The Notifying Party submits that there are three basic methods for applying energy to feed material in a grinding mill in mining applications: tumbling, stirring, and vibration. In addition, high pressure grinding rolls (referred to as "HPGRs") can be used for further size reduction. Moreover, the Notifying Party submits that grinding is typically achieved through the combination of several grinding stages to achieve the desired end product. Several types of grinding mills could thus be used to achieve an intended size reduction.

(26) According to the Notifying Party, the selection of a certain mill type and its interplay in the overall grinding circuit is a complex process. In addition to the operational considerations regarding the effective power range of the mill (usually expressed in kw), the customers' main objective is to balance efficiency, capital expenses ("CAPEX"), and operating expenses ("OPEX") while obtaining the desired grinding result.

(27) According to the Notifying Party, typical decision factors for a mining company when purchasing a grinding mill include (i) the required installed power (which is a function of the characteristics of the feed material (including hardness of the mineral, rock, or ore; variability of the ore in the mine), capacity needed), (ii) the energy efficiency of the application in each mill type, (iii) energy costs, (iv) the desire/capacity to have similar/common equipment with other applications in the plant, (v) the desired output (i.e., required product gradation,), (vi) the space

14 Form CO, paragraph 1063.

15 By way of exception, Outotec assembles its filters in its own factories and filters are then shipped to customer site. See Form CO, paragraph 1064.

available in the processing plant and (vii) other cost considerations (both for the initial purchase and on an operating basis).[16]

(28) In the Notifying Party's view, geographic factors do not play a significant role when choosing a certain mill type. While minor pieces of auxiliary equipment (including lubrication and motors) need to be adapted to the operating conditions (*e.g.*, a mill operated in Siberia vs. a mill operated in Sub-Saharan Africa), the mill type as such is agnostic to geographic considerations as long as it can achieve the desired grinding result.

(29) According to the Notifying Party, there is a high degree of overlap in capabilities for the different types of mills. In essence, while at the extremes (in terms of feed material size and output size) there is a degree of differentiation between the different mills, on balance grinding mills have, according to the Notifying Party, a high degree of overlap in their capabilities.

(30) The efficient use of different types of mills may impose further practical limitations. For instance, certain mill types may be more efficient to achieve a certain size reduction than others. Further, certain mill types have a range of applications that is more suited to specific grinding application (allowing the mill to operate within its efficiency range).

(31) In the Notifying Party's view, two of the most important factors regarding the application range of a specific mill type are the so-called "F100" and the "P80" ranges. The "F100" range is the largest expected feed material that will be fed to the mill. The "P80" range is a size where 80% of the output material will be below the defined size. According to the Notifying Party, there is no industry standard regarding the total application range or on the efficiency ranges of the individual mill types.[17]

(32) From a technical point of view, the following basic grinding mill types can be distinguished: tumbling (horizontal) mills, stirred (vertical) mills, vibrating mills and HPGRs.

Tumbling (horizontal) mills

(33) Tumbling mills comprise a horizontally rotating drum (horizontal mills). The different types of tumbling mills can differ in size and operation. A distinction can be made between autogenous ("AG") and semi-autogenous ("SAG") mills, which are both are used for primary grinding, i.e. the first grinding stage post-crushing.

(34) AG mills use the feed material as grinding media, therefore they do not require additional grinding media such as steel balls. Grinding is achieved by colliding rock on rock or via rock impact on the mill shell liners. SAG mills also use the feed material as grinding media, plus (mainly forged steel ball) grinding media.

(35) Other types of horizontal mills include rod, ball, and pebble mills. The design of ball, rod, and pebble mills is similar to AG and SAG mills, the main difference being

16 Form CO, paragraph 203.

17 Form CO, paragraph 211.

the grinding media used to grind the feed material and the ratio of mill diameter to length.

Stirred (vertical) mills

(36) Stirred mills have a rotating shaft inside a tank, stirring the feed material and grinding media. Size reduction is mostly achieved by attrition and abrasion. Stirred mills are typically used in later stages of the grinding circuit to achieve finer particle sizes and improve grade and/or recovery.

Vibrating mills

(37) Vibrating mills achieve a size reduction through impact, shearing and attrition. Steel balls can be used as grinding media. While vibrating mills are relatively inexpensive and simple to install, they typically have a low capacity (size limitation) and cause a high noise level. Vibrating mills are typically used for specialty applications such as low throughput and small footprint installations, batch grinding and temperature-controlled grinding applications.

HPGRs

(38) HPGRs are a product type in between crushing and grinding as they combine the mechanical forces of crushing between two surfaces and the effect of a coarse grinding mill. HPGRs utilise two counter-rotating rolls in order to crush ore. According to the Notifying Party, HPGRs can be used for broad range of processes from relatively coarse crushing to grinding for pelletizing. Despite its broad use range, HPGRs typically require a previous crushing stage in the comminution cycle to operate properly. [18]

(A) The Parties' activities

(39) The Parties' activities overlap with respect to tumbling mills and stirred mills.[19] More specifically, both Parties offer the main types of tumbling mills, i.e., AG/SAG mills, rod mills, ball mills, and pebble mills, and stirred mills.[20]

(B) Commission precedents

(40) In its decision *Metso/Svedala*[21] the Commission found that a basic distinction could be made between crushers (technically comparable comminution machinery, but leading to a coarser result) used for aggregate production and construction (A&C crushers) on the one hand, and crushers used for mining applications on the other hand.

(41) In the *Metso/Svedala* decision, the Commission also distinguished minerals processing equipment by type and found that grinding mills constituted a separate

18 Form CO, paragraphs 199-231.

19 A very marginal overlap of activities exists also with respect to HPGRs, where Outotec is virtually not active and does not offer any proprietary equipment. Outotec is merely cooperation partner of a third party supplier. […].

20 Form CO, paragraphs 235-240.

21 Commission decision of 24 January 2001, Case COMP/M.2033 Metso/Svedala, paragraphs 48 to 54.

relevant product market.[22] The Commission considered a possible distinction between horizontal tumbling mills on the one hand, which could be further subdivided into autogenous mills, semi-autogenous mills, rod mills and ball mills, other horizontal mills, and vertical mills on the other hand, but ultimately left the question open whether these mill types constituted separate product markets.[23]

(C) The Notifying Party's views

(42) The Notifying Party submits that the supply of grinding mills for the mining and minerals industry constitutes a relevant product market, distinct from such equipment supplied to other industries (e.g., the aggregates industry). The Notifying Party submits that the market should however not be segmented by type of grinding mill (tumbling/stirred mills), by size and/or power categories and that tumbling mills should not be segmented by tumbling mill type (AG, SAG, rod, ball, pebble mills).

Tumbling (horizontal) mills vs. stirred (vertical) mills

(43) The Notifying Party considers that differences between the types of mills (including tumbling vs. stirred) do not warrant distinct relevant product markets. The Notifying Party argues that despite the different grinding methods all mills serve the same purpose, i.e., to reduce the particle size of feed materials.

(44) The Notifying Party submits that the specific choice of grinding equipment is typically dependent on several factors. While certain types of mills can treat coarser material, and others achieve a finer grind, their operating range would typically overlap to some degree. A mill circuit is typically designed to achieve an optimum combination of different mill types to provide the customer a solution optimised, also regarding CAPEX and OPEX, for a full circuit. According to the Notifying Party, this further blurs the delineation between the different mills.

(45) Furthermore, according to the Notifying Party, the bespoke setup of a grinding circuit is not limited to the choice and sequence of mills, but also includes a tailoring of the mill as such to meet the specific requirements of a mining project.

(46) The Notifying Party argues that from the supply side, there is a significant degree of substitutability. First, all major competitors offer all types of tumbling mills. All global competitors also offer vertical mills to complete their portfolio. The Notifying Party contends that no IP barriers prevent competitors from entering this market. It identifies no specific need to obtain access to patents, proprietary know-how, or other IP to compete in grinding or stirred mills such that additional suppliers are expected to start supplying stirred mills in the near future). Therefore, according to the Notifying Party, there are no supply-side considerations mandating a differentiation based on the grinding method.

(47) Consequently, according to the Notifying Party, there would be no relevant barriers for a supplier of horizontal mills to expand into the supply of stirred mills.

(48) The Notifying Party also considers that there are no significant barriers hindering the ability of suppliers of other comminution equipment to expand their offerings into

[22] Commission decision of 24 January 2001, Case COMP/M.2033 Metso/Svedala, paragraph 47.

[23] Commission decision of 24 January 2001, Case COMP/M.2033 Metso/Svedala, paragraph 15.

grinding mills. It explains that such suppliers have started supplying stirred mills in the last ten years.

(49) The Notifying Party further submits that, overall, stirred milling is a relatively new technology within minerals processing. Due to the depletion of high-grade ores globally, much finer grinding would be likely to be required in the future to extract the desired minerals. The Notifying Party believes that this development will generate additional demand for stirred mills in the future and incentivise additional competitors to start offering stirred mills and existing ones to expand their offering.[24]

Size and/or power categories

(50) The Notifying Party contends that the market for tumbling mills should not be segmented by mill size and/or mill power.[25] The Notifying Party submits these explanations with reference to Metso Mineral's technical power band specifications and internal mill diameter references which are as follows: (i) small up to 15 ft (c. 5 m), (ii) medium 15 – 30 ft (c. 5 m to 10 m), and (iii) large, more than 30 ft (c. 10 m). The Notifying Party argues that the choice between different mill sizes/power outputs is primarily capacity-driven. High-capacity mining projects, typically iron ore and copper mines, require larger, more powerful mills to fulfil the throughput requirements than smaller projects (typically gold/zinc/lead mines). According to the Notifying Party, the process as such, i.e., the pulverization of the feed material, however, would not depend on the mill size/power output.

(51) Further, the size and/or power output of a given mill is typically customised to meet the specific requirements of the project. Accordingly, mills can be up- and downscaled to optimise the performance and achieve the desired outcome and there are numerous factors influencing the choice of mill type and grinding flowsheet (i.e., the composition of the grinding circuit) more generally.

(52) In the Notifying party's view, in most instances, a desired result can be achieved by several different setups, including the use of several smaller mills instead of one larger mill, or the use of a ball mill with long retention time instead of a stirred mill for fine grinding due to throughput considerations. Customers would therefore not be tied to a specific mill type or size.

(53) Finally, in the Notifying Party's view, no supply-side arguments justify any segmentation by mill size/power output as most major suppliers can offer mills in all the main desired sizes and power ranges.

Different types of tumbling mills (AG, SAG, rod, ball, pebble mills)

(54) The Notifying Party submits that the market should not be segmented by individual tumbling mill type. The main difference between AG/SAG mills is the addition of steel balls as grinding media for SAG mills and both types of mills are used at the same stage of the grinding circuit. While AG and SAG mills are not perfectly substitutable from a demand-side perspective, the Notifying Party submits that all major manufacturers of AG mills also offer SAG mills. The Notifying Party argues

24 Form CO, paragraphs 243-253.

25 Form CO, paragraphs 255-261, paragraphs 391 to 399.

that because AG/SAG mills are custom-designed to meet the requirements of the individual mining project, the differences between AG and SAG mills would not justify distinguishing relevant markets for the two types of mills. Similarly, no segmentation would be required between rod, ball, and pebble mills. [26]

(55) The Notifying Party states that on this basis all grinding mill types and sizes/powers are fully substitutable with one another. The Notifying Party considers that the precise market definition can be left open since the Transaction does not raise concerns under any market definition that the Commission considers to be plausible.

(D) The Commission's assessment

Tumbling (horizontal) mills vs. stirred (vertical) mills

(56) The Commission has assessed whether a segmentation between tumbling mills and stirred mills is warranted. Contrary to the Notifying Party's view, the results of the market investigation indicate that tumbling mills and stirred mills may form two separate product markets. A vast majority of the mining customers that replied to the Commission's market investigation states that tumbling mills and stirred mills are not substitutable from a demand-side perspective.[27] Most customers indicate that they would not be likely to switch from one type of grinding mill to another type, including between tumbling mills and stirred mills, in the event of a durable price increase of 5–10% for one type of grinding equipment.[28]

(57) Moreover, only half the suppliers of grinding equipment that responded to the market investigation consider that tumbling mills and stirred mills are substitutable from a customers' point of view.[29] A the same time, almost two thirds of suppliers consider that their companies would not be able to easily start offering a specific type of grinding equipment not yet offered or switch between different types of grinding mills[30] and that such a switch would take longer than two years.[31] Only a minority of the suppliers who participated in the market investigation indicates that in case of a durable price increase of 5-10% customers would be likely to switch from one type of grinding mill to another one.[32] This shows that the participants in the market investigation do not share the Notifying Party's views in this respect.

(58) Therefore, in line with the Commission's precedent and the results of the market investigation, the Commission considers that for the purposes of this decision a possible distinction can be made between tumbling mills on the one hand and stirred mills on the other hand.

Size and/or power categories

(59) The Commission has also examined whether tumbling mills should be distinguished on the basis of their different power and size based categories and whether these

26 Form CO, paragraph 254.
27 Questionnaire to Mining Operators ("Q2"), replies to question 8.
28 Q2, replies to question 11.
29 Questionnaire to Suppliers of Mining Equipment ("Q1"), replies to question 9.
30 Q1, replies to question 8.
31 Q1, replies to question 8.1.1.
32 Q1, replies to question 12.

categories may form distinct product markets. The Commission considers that, contrary to the Notifying Party's view, such a segmentations may be warranted. While approximately half of the customers submits that a segmentation by size and/or diameter is appropriate[33] a large majority of suppliers supports such a segmentation.[34] Both customers and suppliers confirm a distinction between small, medium and large tumbling mills would be appropriate because the throughput requirements of a given grinding circuit can only be met with a mill of the correct size.[35]

(60) There are however slightly different views between respondents about the limits between the different categories,. Nevertheless, the replies from suppliers and customers are broadly consistent with the categorisation considered in the Notifying Party's submissions, namely (i) small: 0 – 3,000 kw, (ii) medium: 3,000 – 20,000 kw, and (iii) large: more than 20,000 kw.[36]

(61) Similarly, the results of the market investigation broadly confirm the size/diameter categories considered by the Notifying Party, namely (i) small: up to 15 ft (c. 5 m), (ii) medium 15 – 30 ft (c. 5 m to 10 m), and (iii) large, more than 30 ft (c. 10 m).[37]

(62) On this basis the Commission considers that the relevant product market for grinding equipment could plausibly be segmented into (i) large, (ii) medium and (iii) small mills, for the purposes of this this decision being categorised as follows: (i) small up to 15 ft (c. 5 m), (ii) medium 15 – 30 ft (c. 5 m to 10 m), and (iii) large, more than 30 ft (c. 10 m).

(63) Therefore, the Commission considers that, for the purposes of this decision, it will consider a possible segmentation according to the following power and/or size segment ranges: (i) small: 0 – 3,000 kw/up to 15 ft (c. 5 m), (ii) medium: 3,000 – 20,000 kw/15 – 30 ft (c. 5 m to 10 m), and (iii) large: more than 20,000 kw/30 ft (c. 10 m).[38]

Different types of tumbling mills (AG, SAG, rod, ball, pebble mills)

(64) The Commission has further considered a possible differentiation between AG, SAG, rod, ball and pebble mills to the extent that they may form distinct product markets. The Commission considers that, contrary to the Notifying Party's view, such a segmentation may be warranted. The vast majority of customers that participated in the market investigation indicates that rod, ball and pebble mills are not substitutable, while the substitutability of AG and SAG mills is supported by a vast majority of customers.[39]

---

33 Q2, replies to questions 5, 5.1.1.

34 Q1, replies to question 5.

35 Q1, replies to question 5.1. Q2, replies to questions 6, 6.1.

36 Q1, replies to question 5.1. Q2, replies to question 5.1.

37 Q1, replies to question 5.1. Q2, replies to question 5.1. In the absence of standard categories, the respondents to the market investigation used possible power and size categories that marginally varied between the different respondents.

38 Q1, replies to question 5.1.

39 Q2, replies to question 12.

(65) Similarly, suppliers of grinding equipment indicate that these types grinding equipment are, for the most part, not substitutable. For rod, ball and pebble mills, a majority of respondents indicates that they are not substitutable, while a majority confirms the existence of supply side substitutability between AG and SAG mills, because the main difference between AG and SAG mills is whether grinding media are used or not while the mills are similar.[40]

(66) Accordingly, in line with the Commission's precedent[41] and the results of the market investigation, the Commission considers for the purpose of this decision that rod, ball and pebble mills may form distinct relevant product markets.. Conversely, the Commission considers that AG and SAG mills may belong to the same product market for the purpose of this decision.

(67) In any event, regarding the possible segmentations of the grinding equipment discussed at paragraphs 56 to 66 for the purpose of this decision, the exact product market definition can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition discussed above.

5.1.1.2. Grinding aftermarkets

(68) According to the Notifying Party, the aftermarket for grinding includes three main categories of products or services, namely (i) spare parts (worn out/broken components that are not designed to be replaced regularly), (ii) services (labour to maintain and/or repair the equipment, including the installation of wear and spare parts), and (iii) wear parts (parts that are subject to wear and tear, typically in direct contact with the feed material) designed to be replaced regularly.[42]

(A) The Parties' activities

(69) Both Parties offer spare parts, services, and wear parts for grinding mills; the Notifying Party notes that Outotec's activities in this area are very limited.[43]

(B) Commission precedents

(70) The relevant product market for grinding aftermarket services, spare and wear parts has not been previously examined by the Commission.

(C) The Notifying Party's view

(71) The Notifying Party considers that the aftermarket for grinding mills is distinct from the market for capital equipment, in particular, because customers would source aftermarket parts and services separately from the capital equipment. In addition, the Notifying Party argues that they source much of the service, spare and wear parts from suppliers other than the equipment suppliers, such as engineering houses,

40 Q1, replies to question 13.

41 This is in line with the Commission's considerations in its Metso/Svedala decision (except for pebble mills which was not considered) where the Commission ultimately left the market definition open. See Commission decision of 24 January 2001, Case COMP/M.2033 Metso/Svedala, paragraph 15

42 Form CO, paragraph 451.

43 Outotec is active almost exclusively with respect to its own installed base, Form CO, paragraph 453.

independent parts suppliers, wear part suppliers, or the suppliers' own equipment providers. Furthermore, many customers would have their own internal service departments. At the same time, the Notifying Party indicates that some suppliers (including Outotec) are much less active in the aftermarkets than in the capital equipment market. This means that the commercial focus of these suppliers is to sell their own capital equipment while limiting their aftermarket activity largely or exclusively on servicing their own installed base. These suppliers would typically abstain from securing service contracts for equipment installed by other suppliers. Furthermore, Metso Minerals and Outotec have dedicated services (spare parts, highly engineered wear parts, services) and consumables businesses, separate from their capital equipment businesses, further supporting a separation between the capital equipment segment and the aftermarket segment.

(72) The Notifying Party considers that further segmentation of the grinding aftermarket into (i) services, (ii) spare parts and (iii) wear parts is not warranted. In the Notifying Party's view, aftermarket services and spare parts generally belong to the same market. From the demand-side perspective, while services are not substitutable with spare parts, customers typically source them, during the lifetime of the equipment, from the same supplier or under a contract including an assortment of services and spare parts. From the supply-side perspective, suppliers typically provide a range of both spare parts and services.[44]

(73) With regard to wear parts,[45] the Notifying Party explains that customers tend to buy them separately and they are generally supplied by specialized wear parts suppliers.[46]

(74) The Notifying Party submits that the exact product market definition in this respect can ultimately be left open because no competition concerns would arise under any plausible market definition. [47]

(D) The Commission's assessment

(75) As concerns aftermarkets, the Commission has examined three layers of possible market segmentation: (i) the distinction between the supply of capital equipment and aftermarkets, (ii) the distinction between aftermarkets for each main types of capital equipment, i.e., grinding, flotation, filtration, and iron ore pelletizing, and (iii) within each aftermarket, the distinction between services, spare parts and wear parts.

(76) First, in line with the Notifying Party's view, the results of the market investigation indicate that aftermarkets and the supply of capital equipment belong to separate relevant product markets.

(77) A majority of competitors and customers that responded to the market investigation confirms that aftermarkets constitute a separate market from the supply of capital equipment due to limited substitutability in terms of service characteristics, technicians' skills, prices, and timing delivery.[48] While some customers that

44 Response to RFI 24 of 1 May 2020, question 1.

45 The Notifying Party submits that there is no substantial demand for wear parts outside of grinding.

46 Response to RFI 24 of 1 May 2020, question 1.

47 Form CO, paragraph 459.

48 Q1, replies to question 43; Q2, replies to question 37.

responded to the market investigation express the view that capital equipment and aftermarkets belong to the same product market, this is predominantly based on the fact that these customers purchase aftermarket services, spare and wear parts from the suppliers that installed the capital equipment.[49]

(78) However, the results of the market investigation confirm that the majority of customers procure aftermarket products from the OEMs during a warranty period (typically limited to 1-3 years). After the warranty period has expired, customers can and do switch to third party suppliers.[50] From the supply-side perspective, the results of the market investigation suggest that independent third party providers of aftermarket products offer the same range of services, wear and spare parts.[51]

(79) Second, the Commission notes that both the Notifying Party's submissions and the results of the market investigation indicate that the aftermarkets for each type of capital equipment, i.e., grinding, flotation, filtration, and iron ore pelletizing constitute separate product markets.[52] While there may be a degree of supply-side substitutability as some market players offer a range of aftermarket services and parts, the market investigation confirms that services, spare and wear parts are specific to each type of equipment.[53]

(80) Therefore, for the purpose of this decision, the Commission considers that the aftermarket for each type of capital equipment, i.e., grinding, flotation, filtration, and iron ore pelletizing constitutes a separate market from the supply of the respective mining capital equipment.

(81) Third, the market investigation was inconclusive as to whether aftermarkets should be further segmented into (i) services, (ii) spare and (iii) wear parts.

(82) From the demand-side perspective, a majority of customers that responded to the market investigation does not consider that a further market segmentation between services, spare and wear parts is warranted.[54] However, some grinding customers indicate that typically more supply options exist for wear parts than for spare parts.[55] Customers also indicate that some types of services concerning grinding mills are carried out by capital equipment suppliers and that during the warranty period aftermarket services, spare and wear parts are purchased from these suppliers. After the warranty period, others indicate that they have no general preference for the suppliers from whom they purchased the equipment, but that they choose according to their needs. [56]

(83) From the supply-side perspective, a small majority of capital equipment suppliers is of the view that services, spare parts and wear parts belong to separate markets[57] and

---

49 Q2, replies to question 37.
50 Q2, replies to question 40.1.
51 Q1, replies to question 49.
52 Q2, replies to questions 38 and 38.1.
53 Q2, replies to questions in Section B.1.5.
54 Q2, replies to questions 39 and 39.1.
55 Q2, replies to questions 39 and 39.1.
56 Q2, replies to questions 39.1.
57 Q1, replies to question 45.

a majority of them offer all three elements.[58] Nevertheless, a majority indicates that they could not easily start offering another type of aftermarket product. [59]

(84) In any event, the Commission considers that for the purpose of this decision, the exact definition of the aftermarket in relation to grinding equipment (i.e., whether overall or segmented into services, spare parts and wear parts) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.2. Flotation

5.1.2.1. Flotation capital equipment

(85) The flotation process consists in splitting selected minerals from a water-mineral mix (including other undesired minerals, referred to as "slurry"). The surfaces of specific minerals are made hydrophobic (water repellent) by adding reagents to the slurry. The hydrophobic mineral particles become attached to air bubbles that are introduced into the slurry. The air bubbles – and the mineral parts attached thereto – rise to the top of the slurry to create a froth layer. In addition to the reagent added, retention time and agitation/aeration are the determining parameters for the flotation process.

(86) A flotation circuit typically comprises three stages: roughing, scavenging, and cleaning. First, the roughing process aims to maximise the recovery of minerals from the slurry. Second, the tailings of the roughing stage (in some instances following a re-grind), are introduced to the scavenger stage. The slurry is floated again in order not to lose any valuable minerals that were not floated in the roughing stage. Finally, the rougher/scavenger concentrates[60] are fed to the cleaning stage.[61] Cleaner cells are used to maximize the grade of the final concentrate.

(87) The exact design of a flotation circuit depends on the mineral/ore and the volume to be processed. For example, coal typically only requires a single stage flotation without cleaning of the froth, while copper requires a complex circuit with several stages of scavenging and cleaning (and a regrind of certain fractions).

(88) There are two main types of flotation equipment:

— mechanical cells, the most common type of flotation equipment, uses mechanical agitation (through impellers) to stir the slurry and create optimum particle-bubble contact. Mechanical cells are generally accepted for all three stages of the typical flotation cycle (i.e., roughing, scavenging, and cleaning); and

— column flotation cells, in which the slurry is introduced near the top of the cell and tailings are removed from the bottom, while bubbles are introduced

58 Q1, replies to question 46.

59 Q1, replies to question 47.

60 In many instances following a re-grind in order to achieve the desired final grade.

61 The cleaning stage itself typically comprises several stages to upgrade the feed material further step by step (the feed material is typically re-circulated several times).

near the bottom of the cell. Mixing is achieved by the turbulence provided by the rising bubbles and the counter-flow of down-flowing slurry.

(89) Other flotation methods include flash flotation,[62] pneumatic cells[63] (other than column flotation cells), contact cells,[64] Jameson cells,[65] and Woodgrove (SFR/DFR) cells.[66]

(90) The evolution in flotation technology has led to an increase in the size of the flotation cells. While in the 1970s, a typical flotation cell size was in the order of 3m³, today projects can include flotation equipment with 300-600m³ cells, or even above 600m³ for the largest.

(A) The Parties' activities

(91) The Notifying Party indicates that the Parties' activities overlap only in respect of two types of flotation equipment, namely mechanical and column cells. The Parties' sales overwhelmingly concern mechanical cells, as column cells roughly represent […]% of Metso Minerals' sales of flotation equipment and less than […]% of Outotec's.[67] The Notifying Party further indicates that only Outotec offers flash flotation equipment.

(92) In terms of cell size, Metso Minerals' portfolio includes mechanical cells from 0.34m³ to 300m³ volume and Outotec offers mechanical cells from 0.5m³ to 630 m³ volume. As to column cells, both Parties' portfolio includes equipment with a diameter up to 6 meters.[68]

(B) Commission precedents

(93) The relevant product market for flotation equipment has not been previously examined by the Commission.

(C) The Notifying Party' views

(94) The Notifying Party considers that the supply of flotation equipment for the mining and minerals industry constitutes a separate market. It further states that, within the flotation process area, the relevant product market should not be segmented by (i) types or (ii) cell size.

---

62 Flash flotation represents approximately 2% of the total flotation business. It is used for the recovery of floatable minerals within the grinding circuit. The target material are soft, heavy materials (for instance, free gold) that are ground to the desired size but cannot exit the grinding circuit size classification step due to their high density.

63 Pneumatic cells are primarily used for single stage coal flotations.

64 Contact cells are used for finer grade concentrates. The Notifying Party indicates that this technology is rarely used in practice (Form CO, paragraph 479).

65 The Jameson Cell produces fine bubbles without requiring additional external equipment of spargers and creates an intensive mixing with small bubbles achieving rapid flotation without mechanical agitation.

66 Woodgrove cells aim at handling two functions in one cell, by optimising the processes of particle collection, slurry disengagement, and froth recovery independently.

67 Form CO, paragraphs 503, 625 and 627.

68 Form CO, paragraph 503.

Segmentation by type of flotation equipment: mechanical cells vs. column cells

(95) The Notifying Party states that the market for flotation equipment should not be segmented by type.

(96) From the demand side, the Notifying Party states that most flotation technologies are substitutable. It indicates that, while column cells are typically used for the later cleaning stages in a multistage circuit, mechanical cells and the other flotation technology can be used for each stage of the flotation cycle.[69] In addition, the Notifying Party considers that, compared to the specific process requirements of a mining project, price differences between mechanical and column cells are not decisive for a customer's choice.[70]

(97) From the supply side, the Notifying Party asserts that most suppliers offer or are able to offer both mechanical and column cell technologies. With respect to the suppliers' ability to provide different types of flotation equipment, the Notifying Party states that production capabilities of one or several types of flotation equipment are not decisive, given that most of the OEMs operate under an asset light business model, meaning that the Parties and their competitors do not manufacture flotation equipment themselves and do not have dedicated production lines for mechanical or column cells. In that regard, the Notifying Party argues that most OEMs own the necessary drawings to design, engineer and supervise the installation of both mechanical and column cells, on customer demand. Consequently, the Notifying Party considers that most suppliers may decide to respond to an RFQ regardless of whether it concerns a mechanical cell or a column cell. However, the Notifying Party admits that not all suppliers have an equal strength when it comes to column cells. For example, […], whereas the Notifying Party identifies Eriez as a leader in this technology.[71]

Segmentation by size of mechanical cells

(98) The Notifying Party explains that the main categories of mechanical cell sizes are within the following ranges: cells below 300m³, between 300 m³ and 600 m³ or above 600 m³.[72] However, it considers that the market for mechanical flotation equipment should not be segmented by cell size.

(99) In the Notifying Party's views, from a customer's perspective, there is limited demand for very large cells. A typical flotation bank includes several flotation tanks in a range of cell sizes. The Notifying Party states that the major competitors offer a range of cell sizes to construct a typical flotation bank and respond to customers' needs. The Notifying Party further states that there are no substantial technological barriers to offer different cell sizes and therefore suppliers that currently do not offer the very large flotation cells would face significant barriers to switch their

69 The Notifying Party further indicates that column cells are more widely used for iron ore and industrial application (non-mining) mineral, as they show a higher process performance than mechanical cells in those areas (Form CO, paragraph 509).

70 Form CO, paragraph 509.

71 Form CO, paragraph 509.

72 Form CO, paragraph 494.

production towards larger cells.[73] Finally, the Notifying Party submits that any flotation project includes a variety of cell sizes.[74]

(100) The Notifying Party submits that segmenting the flotation equipment market by type of equipment and by cell size is not justified, and that the relevant product market should be the market for the supply of flotation equipment for the mining and minerals industry.

(D) The Commission's assessment

Segmentation by type of flotation equipment

(101) The Commission has assessed whether flotation capital equipment should be segmented by type of flotation equipment (e.g., mechanical cells, column cells, flash flotation, etc.). In that respect, contrary to the Notifying Party's views, the results of the market investigation show that the different types of flotation equipment (e.g., mechanical cells, column cells, flash flotation, etc.) are neither substitutable from a customer nor a supplier perspective.

(102) In that regard, a majority of suppliers and customers that responded to the market investigation considers that the different types of flotation cells (e.g., mechanical cells, column cells, flash flotation, etc.) are not substitutable.[75]

(103) From the demand-side perspective, respondents indicate that flotation equipment are individually selected based on the mining operators' specific needs and various input and output requirement. According to some respondents, the different types of flotation equipment do not allow to reach the same required recovery rate and capacity, considering the type of ore to be processed. The use of an ill-adapted flotation equipment can thus lead to an inefficient separation process and high lifecycle costs. In that regard, in order to select the most adequate equipment, some respondents indicate that the choice of a flotation plant is preceded by an in-depth study of the properties of ore. The selection of the flotation equipment is then decided based on the results of this study and the required productivity.[76] Respondents to the market investigation further indicate that the flotation equipment is selected in consideration of other criteria, namely the type of separation to be conducted (single stage/multistage flotation circuit) and the stage (roughing, scavenging, cleaning) of the flotation circuit in which the equipment is embedded.[77]

(104) As a consequence, a majority of respondents indicates that they would not be likely to switch form one type of flotation equipment to another in case of a price increase of 5-10%.[78] The customer's choice is not driven by a price comparison between the different types of flotation equipment but primarily by the equipment's ability to proceed with the required beneficiation at the best possible operating costs. For instance, a customer explains that "*the total cost of ownership of making the change would need to be viable. Likewise the impact on the beneficiation process would*

73 Form CO, paragraph 510.
74 Form CO, paragraph 626.
75 Q1, replies to questions 19 and 19.1; Q2, replies to questions 17 and 17.1.
76 Q2, replies to questions 18.1 and 19.1.
77 Q1, replies to questions 20 and 20.1; Q2, replies to questions 18 and 18.1.
78 Q1, replies to questions 22 and 22.1; Q2, replies to questions 20 and 20.1.

need to be technically acceptable in obtaining either the same or better recoveries."[79] Likewise, another customer indicates that the "*selection will be largely the result of the technical solution. Price would play a role IF multiple solutions were available to accomplish the same task.*"[80]

(105) From the supply-side perspective, the market investigation confirms the Notifying Party's position related to the breadth of the product portfolio of flotation equipment suppliers. In that regard, several competitors, such as BGRIMM and Tenova, indicate that they offer at least two types of flotation equipment (mechanical cell, column cell, flash flotation or pneumatic cell).[81] The main competitors' offering in various types if flotation equipment is further confirmed by […].[82]

(106) However, a majority of competitors states that their company would not be able to easily start offering a different type of flotation equipment or switch between the different types of flotation equipment even if prices for this new equipment become more attractive.[83] Besides, half of the competitors that responded to the market investigation indicates that such a switch would require two years or more, which suggests that the development and the marketing of a new flotation equipment would not be possible in a short period for a significant part of the Parties' competitors.[84]

Segmentation by size of mechanical cells

(107) The Commission has further assessed whether mechanical cells should be segmented by size (below 300m³, between 300m³ and 600m³, above 600m³ or other relevant segmentations).[85] In that respect, the results of the market investigation show that, contrary to the Notifying Party's views, the different cell sizes of flotation equipment are not substitutable, from a customer's or a supplier's perspective.

(108) In this regard, a majority of suppliers and customers that responded to the market investigation considers that mechanical cells of different sizes are not substitutable.[86]

(109) From the demand-side perspective, most customers indicate that they typically purchase various sizes of flotation equipment, depending on various parameters such as the desired throughput rate, the type of ore, the number of stages or the flowsheet configuration.[87] For example, a customer indicates that "[f]*lotation cell sizes are*

79 Q2, reply to question 20.1.

80 Q2, reply to question 20.1

81 Q1, replies to question 23.

82 "Supporting fact base for the competition authority filings", dated September 2019, McKinsey, annex 5-98 to the Form CO, slide 23.

83 Q1, replies to question 24.

84 Q1, replies to question 24.1.1.

85 For the purpose of this decision, the Commission will not assess the question of a possible segmentation by size column cells (whose size is typically ranged up to 6-meter diameter), since Outotec's sales of column flotation are non-significant (less than […]% of its flotation equipment sales) and the Parties' combined market share remains below [10-20]% irrespective of the diameter considered (response to RFI 20 of 20 April 2020, question 14).

86 Q1, replies to question 25; Q2, replies to question 22.

87 Q2, replies to question 24.1.

selected to meet a specific process duty and achieve a required residence time. Changing cell sizes would change this and affect the process outcome."[88]

(110) Some respondents further explain that various cell sizes present differentiated properties and are not necessarily used for the exact same purpose throughout the beneficiation process. For example, a customer states that "*separation efficiency decreases as cell size increases. Large cells are only good for economies of scale, not for finessing performance.*"[89] Likewise, another customer indicates having switched from 300m³ cell size to 150 m³ cell size because larger flotation units presented poorer performance.[90] The difference in the flotation plant productivity according to its size is also confirmed by a supplier, who states that "*[t]he size of the flotation machine, ceteris paribus, determines its productivity, so replacing the size without changing the productivity of the entire process is impossible.*"[91] Besides, some respondents indicate that not all cell sizes can be selected at all stages of the beneficiation process. In that regard, one customer indicates that "*larger flotation cells* [are] *for primary flotation, while final cleaning stage will be much small flows and therefore cells used.*"[92]

(111) From the supply-side perspective, competitors confirm offering a broad range of flotation cell sizes. The broad portfolio available with different suppliers is also confirmed by a customer, which states that "*suppliers often supply a full range of cell sizes from small to very large to suit client requirements.*"[93] However, the market investigation provides mixed results as to the suppliers' ability to easily start offering different sizes of cells or switch between different cell sizes of flotation equipment.[94] In that regard, one respondent indicates that such a switch would require less than a year, while other respondents consider that they would need more than two years.[95]

(112) Overall, the market investigation did not provide conclusive results concerning the relevant cell size segmentation.[96] A majority of customers indicates that they purchase various size of cells depending on the particular process duty.[97] Some of them explain that the majority of the cell purchases concerns cells with a size below 100m³ or 300m³ and that cell size above 600m³ are rarely used[98] Most respondents do not provide further explanation in that regard.[99]

(113) An internal document dated […] containing the Notifying Party's own assessment of the relevant cell size categories, […] distinguishes three size segments for mechanical cells, namely "small and medium size cells" (below 300 m³), "large

88 Q2, reply to question 22.1.
89 Q2, reply to question 22.1.
90 Q2, reply to question 24.1.
91 Q1, reply to question 25.1.
92 Q2, reply to question 24.1.
93 Q2, reply to question 24.1.
94 Q1, replies to question 28.
95 Q1, replies question 28.1.1.
96 Q1, replies to questions 26 and 26.1; Q2, replies to questions 23 and 23.1.
97 Q2, replies to questions 24 and 24.1.
98 Q2, replies to question 23.1.
99 Q1, replies to question 26.1; Q2, replies to question 23.1.

cells" (300 m³ and above) and "ultra large cells" (above 600 m³).[100] As a starting point, the Commission will consider these categories for the purpose of this decision. In addition, in order to take due account of the results of the market investigation, the Commission will also assess the impact of the Transaction on mechanical cells below 100m³.

(114) In light of the above, the Commission considers that the market for flotation equipment could be segmented by type. The Commission further considers that the plausible market for mechanical cells could be sub-segmented by cell size. However, for the purpose of this decision, the exact market definition can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.2.2. Flotation aftermarkets

(115) The Notifying Party indicates that flotation aftermarkets and services are very limited and do not constitute a major cost factor for flotation customers compared to comminution (grinding and crushing).[101] Flotation tanks require little to no servicing, and very few consumables (apart from chemical reagents). The only relevant spare parts are impellers used in mechanical cells. Due to their constant rotation in (abrasive) slurry, impellers need to be replaced from time to time: for abrasive rougher stages, the impellers have to be replaced every 12-24 months on average, while the average replacement interval is every 24-36 months for cleaner applications. Some installations can run significantly longer without any need for replacement parts or major service.

(A) The Parties' activities

(116) Both Parties offer spare parts and services for flotation equipment.[102] Metso Minerals' and Outotec's activities almost exclusively rely on their own installed base.[103]

(B) Commission precedents

(117) The relevant product market for flotation aftermarkets has not been previously examined by the Commission.

(C) The Notifying Party's views

(118) Similarly to the grinding aftermarkets, the Notifying Party states that aftermarkets for flotation constitute a market separate from the capital equipment. In that regard,

---

100 Annex 5-98 to the Form CO.

101 In that regard, the Notifying Party estimates that total market volume for grinding services and spare parts is more than 6 times the size of the estimated total market volume for flotation services and spare parts (Form CO, footnote 670).

102 The main wear parts (i.e., consumables) in flotation are chemical reagents, and the Parties neither manufacture nor actively market flotation reagents (Form CO, footnote 674; Response to RFI 24, 1 May 2020, question 2).

103 Form CO, paragraphs 634 and 643. The Notifying Party specifies that Metso Minerals supplies flotation consumables upon specific customer request and that Outotec also conducts retrofits of third-party flotation equipment.

the Notifying Party indicates that customers are not captive to OEMs for aftermarket services and spare parts, but rather source these from third parties. It further indicates that competitors on this market are different from competitors on the equipment market, as OEMs largely focus on their own installed base. Other competitors include the mining customers themselves, global engineering houses, the parties' own sub-suppliers who compete on parts and services, and local workshops.[104]

(119) Similarly to grinding aftermarkets, the Notifying Party submits that the flotation aftermarket should not be further segmented into (i) services, (ii) spare parts and (iii) wear parts.[105]

(120) However, the Notifying Party submits that the exact product market definition can ultimately be left open since the Transaction will not raise concerns regarding the flotation aftermarkets and services under any plausible market definition.[106]

(D) The Commission's assessment

(121) For the purpose of this decision, the Commission considers that, for the same considerations as those applicable to grinding aftermarkets, as set out at paragraphs 76 to 80 above, aftermarkets for flotation equipment are distinct from the market for the supply of the capital equipment.

(122) In line with the Notifying Party's views, respondents to the market investigation confirm that the aftermarket for flotation is separate from aftermarkets for other types of capital equipment (e.g., grinding, filtration, and iron ore pelletizing). Respondents thus indicate that flotation parts (e.g., impellers) require specific process knowledge.[107]

(123) In addition, the market investigation provided inconclusive views as to a possible segmentation between flotation aftermarket services, spare and wear parts.[108]

(124) In any event, for the purpose of this decision, the exact definition of the aftermarket in relation to flotation equipment (i.e., whether overall or segmented into services, spare parts and wear parts) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.3. Filtration

5.1.3.1. Filtration capital equipment

(125) Filtration technology is used in mining to separate solid contents from liquids. It consists of a mechanical removal of liquids from a slurry to obtain the solids and/or recovery of a valuable liquid for, e.g., further processing, transportation,

---

104 Form CO, paragraph 635.

105 The Notifying Party submits that there is no substantial demand for wear parts outside of grinding. See Response to RFI 24 of 1 May 2020, question 1.

106 Form CO, paragraph 636.

107 Q1, replies to questions 44 and 44.1; Q2, replies to questions 38 and 38.1.

108 Q1, replies to question 45.1; Q2, replies to question 39.1.

agglomeration or disposal. The two main pressure dewatering mechanics are (i) compression (replacing the liquid in the filter cake with particles) and (ii) through blow (replacing the liquid in the filter cake with air).[109]

(126) There are several types of filters with different functionalities and pressure ranges that can be used in the mining industry, including (i) vacuum filtration[110], (ii) polishing filters[111] (both low pressure filters), (iii) pressure filters, and (iv) tube press filters.[112]

(127) Only the filters using medium (up to 16 bars) and high (above 16 bars) pressure ranges are collectively referred to as "pressure filters" in the industry.[113] Pressure filters include: filter press, membrane filter, vertical plate filter, horizontal plate filter and revised vertical plate filter.[114]

(A) The Parties' activities

(128) The Notifying Party submits that Outotec's filtration offerings – mainly based on its acquisition of Larox in 2010 – include a wide range of filtration equipment that is not only used for mining applications, but also, for example, in the food, chemical and industrial minerals industries. Metso Minerals' product range is much more limited than Outotec's and almost exclusively used for (heavy-duty) mining applications.[115]

109 Form CO, paragraphs 646-647.

110 Vacuum filtration is the simplest form of through blow dewatering. A low pressure differential created by a vacuum applied to the inside of the filter drum causes air to flow through the filter cake, thereby displacing the contained water. See Form CO, paragraph 655.

111 Polishing filters are another type of low pressure filtration equipment (in the range of 3-4.5 bar pressure). Polishing filters are used for the filtration of very fine (micronic and sub-micronic) particles. See Form CO, paragraph 657.

112 A tube filter is a typical form of high pressure dewatering (generally 25 bar and above). Tube press filtration is a variable volume filter using a flexible membrane to apply high-pressure (up to 100 bar) mechanical compression to the slurry that is dewatered. See Form CO, paragraph 665.

113 Form CO, paragraph 651.

114 Most types of pressure filters are based on the vertical filter press. Filtration in a standard filter press is achieved by pumping slurry into the filter chambers. To speed up the process, inflatable membranes can be added to the plates on the inside of the filter chambers (membrane filter press). Filter presses – be it standard or membrane types – can be oriented vertically (vertical plate) or horizontally (horizontal plate). A typical form of medium pressure dewatering (10-16 bar pressure) is (vertical or horizontal) plate pressure filtration. See Form CO, paragraphs 659-663.

115 Form CO, paragraph 680. Metso Minerals sells VPAs to the industrial minerals customers only on rare occasions. However, Metso Minerals does sell Tube Presses to industrial minerals customers.

(129) With regard to pressure filters, the Parties' offerings are the following[116]:

Type of filters	Outotec	Metso Minerals
Medium pressure		
Standard filter press	Outotec Larox FP	-
Vertical plate filter	Outotec Larox FFP	Metso VPA
Horizontal plate filter	Outotec Larox PF	-
Double side horizontal plate membrane filter	Outotec Larox PF-DS	-
High pressure		
Revised vertical plate filter	-	Metso VPX[117]

(130) Outotec also offers low pressure filters such as vacuum filters and polishing filters.[118] Metso Minerals' activity in low pressure filters (vacuum filtration equipment) has been discontinued in 2013.[119] Instead, Metso Minerals focused on more specialized pressure filters (Vertical plate filter or VPA), specifically designed for mining heavy-duty applications.[120] Metso Minerals also offers high pressure tube press filters, while Outotec does not.

(B) Commission precedents

(131) The relevant product market for filtration equipment has not been previously examined by the Commission

(C) The Notifying Party's views

Segmentation by filters used for mining and non-mining applications

(132) The Notifying Party submits that the relevant market for filtration equipment is not limited to the minerals processing business because similar equipment is also used in many other industries, e.g., food, chemicals, or winemaking.[121]

116 Form CO, paragraph 664.

117 Metso Minerals' VPX is a revised VPA filter. The VPX operates at a significantly higher pressure than Metso Minerals's regular vertical plate filter, the VPA (i.e., up to 10 bar vs. up to 25 bar. [BUSINESS STRATEGY].

118 Form CO, paragraphs 656 and 658.

119 [BUSINESS STRATEGY]. Therefore, the Commission considers that the very limited overlap in the Parties' activities in vacuum filtration will not lead to any competitive concerns. The Commission will thus not further discuss this overlap.

120 Form CO, paragraph 691.

121 Form CO, paragraph 685.

(133) From the supply-side perspective, the Notifying Party considers that suppliers offer a range of filtration equipment for various industries (e.g., chemicals, fertilizers, edible oils, and industrial materials).[122] In the Notifying Party's view, from a product perspective, certain filters can be used for both mining and non-mining applications as the core filtration technology is the same across industries.[123]

(134) Metso Minerals' filters are primarily used in the mining industry. The Notifying Party explains that if Metso Minerals wanted to sell filters for the food industry, it would use the same core technology, but would need to redesign the filters to make them lighter, more suitable for the food applications, and cheaper. According to the Notifying Party, while there are no technological, time related or financial barriers to do so, […].[124] The Notifying Party submits that the fact that […] has no bearing on whether the market is broader.[125]

(135) In the Notifying Party's view, from a demand-side perspective, customers tend to buy equipment that achieves the best outcome. The Notifying Party considers that combinations of different filtration methods can be used to achieve the desired dewatering result.[126]

Segmentation by pressure/filter type

(136) The Notifying Party further submits that the product market for filtration equipment should be defined as a single market and not be further segmented by filtration method or between vacuum filtration, polishing filters, pressure filters, and tube press filters.

(137) From the demand-side perspective, the Notifying Party submits that customers typically do not specify the pressure or filtration method in the RFQ process. The required type of filtration equipment depends on several variables, in particular (i) the characteristics of the feed material (i.e., size and shape of the particles, solids concentration, and particle size distribution), (ii) the desired residual moisture of the filtered cake, and (iii) required filtration capacity. Some other selection criteria include available capital, electric power availability and cost, available manpower, value of commodity, viscosity, toxicity, temperature (ambient/process), and altitude of the project location.[127]

(138) The Notifying Party explains that, based on these parameters, equipment suppliers decide which type of equipment can achieve the desired results from a customer's perspective. In general, the finer the size of the particles in the concentrate, the higher filtering pressure is required to get the desired dewatering result. According to

[122] Form CO, paragraph 686. According to the Notifying Party, other major suppliers, such as FLSmidth, Diemme, Andritz, Matec, Jingjin, TH Filtration, Jord, Ishigaki, BHS, and several other Chinese filter manufacturers (e.g., Tonxing and Zongha Bright) offer filtration equipment to both the mining and non-mining industries.

[123] Form CO, paragraph 689.

[124] Form CO, paragraph 691.

[125] Form CO, footnote 709.

[126] Form CO, paragraph 692.

[127] Form CO, paragraph 694.

the Notifying Party, different types of technologies may be substitutable from the customer's perspective.[128]

(139) The Notifying Party also submits that further segmentation of pressure filters by filter type is not relevant for the assessment of the Transaction. According to the Notifying Party, Outotec has been competing against vertical plate filters with its horizontal plate filter (PF). Likewise, the Notifying Party explains that a competitor (Andritz) has historically been competing against horizontal and vertical plate filters with its hyperbaric disk filter. In the Notifying Party's view, the dewatering result is a more important selection factor rather than the technology used by the equipment.[129]

(140) The Notifying Party argues that the Transaction would not raise competition concerns under any plausible market definition. In the Notifying Party's view, even based on a narrow market definition, namely vertical plate filters for the mining industry, there are several other competitors which continue to constrain the combined entity post-Transaction that therefore the market definition can be left open.

(D) The Commission's assessment

Segmentation by filters used for mining and non-mining applications

(141) The Commission has assessed whether a segmentation between filtration capital equipment for the mining industry and other industries is warranted. In that respect, the Commission notes that the market investigation provided inconclusive results as to whether filtration equipment for mining applications is substitutable with such equipment for non-mining applications.

(142) From the supply-side perspective, the market investigation confirms that some competitors offer filtration equipment that is used also in other industries, such as winemaking, utilities, wastewater treatment and the cellulose industry.[130]

(143) Based on the Notifying Party's submission,[131] Metso Minerals' filters are used almost exclusively for heavy-duty mining applications and are not readily suitable for filtration applications in other industries without further re-designing. The results of the market investigation generally confirm that filter equipment for non-mining applications would also require re-designs and modifications in order to be used in the mining industry.[132]

(144) From the demand-side perspective, respondents to the market investigation consider that filtration equipment for the mining industry is heavy-duty and substitutable with such equipment used in other industries only in "broad terms". According to the

[128] Form CO, paragraph 695.
[129] Response to RFI 20 of 24 April 2020, question 16.
[130] Q1, replies to question 3.1; Q2, replies to question 3.1 and 88.2.
[131] See paragraph 125 of this decision.
[132] Q1, replies to question 98.2; Q2, replies to question 88.2.

results of the market investigation, filtration equipment for the mining industry is different due to customers' technical requirements and specifications.[133]

(145) The Commission considers that for the purpose of this decision the exact product market definition (i.e., whether overall market for filtration capital equipment for all industries or for the mining industry) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible. The Commission carries out the competitive assessment in Section 6.8 of the present decision in the narrowest plausible market where the Parties' activities overlap, i.e., the market for the supply of filtration equipment for the mining industry.

Segmentation by pressure/filter type

(146) The Commission further assessed whether filtration capital equipment should be segmented based pressure or by filter type.

(147) There are mixed views as to whether filtration equipment markets should be segmented by filter type.

(148) A majority of respondents to the market investigation does not consider that pressure filters are substitutable with other types of filtration technology (vacuum, polishing or tube press filters). From the demand-side perspective, pressure and other types of filtration methods are not substitutable due to different ranges of application and specific requirements for filtering different materials (the properties of the slurry).[134] According to a competitor, *"[e]very process has different performance criteria (moisture, capacity, wash result) which leads to certain preferred filtration technology (e.g. pressure filtration may be preferred instead of vacuum filtration) and even to preferred equipment type (e.g. vertical pressure filter instead of horizontal pressure filter).*"[135]

(149) Accordingly, demand for pressure filters is not responsive to price changes. A majority of respondents to the market investigation indicates that customers are not likely to switch from one type of filtration equipment (e.g., pressure filters) to another type of filtration method in case of a 5-10% price increase.[136]

(150) From the supply-side perspective, the results of the market investigation confirm that suppliers offer a range of filters.[137] A majority of competitors that responded to the market investigation consider that starting the supply of different filters or switching between different types of filters would require a substantial investment (between EUR 1-2 million) and time (responses range between 1 and 5 years).[138]

---

133 Q1, replies to question 3.1.
134 Q1, replies to question 29.1; Q2, replies to question 25.1
135 Q1, reply to question 29.1.
136 Q1, replies to questions 35 and 35.1; Q2, replies to questions 31 and 31.1.
137 Q1, replies to question 36.
138 Q1, replies to questions 37 and 37.1.

(151) The market investigation provided mixed results as to whether all types of pressure filters are substitutable or whether pressure filters for mining applications should be further segmented by filter type.[139]

(152) From the demand-side perspective, respondents to the market investigation confirm that filtration equipment is selected on the basis of the following criteria: (i)characteristics of the feed material, (ii) desired residual moisture of the filtered cake, (iii) required filtration capacity, (iv) temperature and altitude of project location, (v)throughput capacity.[140] The specific type of filters are typically chosen pursuant to detailed engineering studies, models etc. in order to select the filter that is best-suited for a given operation/feed material.[141]

(153) Customers indicate that distinguishing relevant markets by filter type may be appropriate due to different performance with the same slurry, different characteristics of the source power, and application conditions.[142] Some respondents point out that using different types of filters will not influence the dewatering result significantly but will have important economic implications.[143]

(154) Competitors, on balance, consider that different types of filter presses are substitutable from a customer's perspective. Some competitors indicate that horizontal or vertical plate filters are substitutable and compete for the same applications.[144] A competitor indicates that Metso Minerals and Outotec competed in a project in Australia, whereby Metso Minerals offered a vertical plate filter and Outotec a horizontal plate filter, indicating that both solutions will deliver the same result for the specific application.[145] Respondents to the market investigation consider that the vast majority of pressure filters (above 90%) are vertical plate filters.[146]

(155) The Commission considers that for the purpose of this decision the exact product market definition (i.e., whether overall market for filters for the mining industry or segmented into pressure filters, and sub-segmented by filter type) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.3.2. Filtration aftermarkets

(156) As explained above for grinding and flotation, the aftermarket for filtration includes: (i) services, (ii) spare parts and (iii) wear parts.

(157) The Notifying Party explains that aftermarket spare parts include filter plates, rubber membranes, gaskets, valves, hydraulic equipment, and made-to-order steel parts. According to the Notifying Party, despite the fact that filter cloth has to be replaced

139 Q1, replies to question 30.1.; Q2, replies to questions 26 and 26.1.
140 Q1, replies to question 33; Q2, replies to question 29.
141 Q2, replies to question 29.1.
142 Q2, replies to question 26.2.
143 Q1, replies to question 30.1.; Q2, replies to questions 26 and 26.1.
144 Q1, replies to question 30.2.
145 Q1, reply to question 93.1.
146 Q1, replies to questions 30.1 and 30.2.

regularly, it is often considered a spare part in the industry. The Notifying Party submits that filtration equipment requires only very limited wear parts.[147]

(A) The Parties' activities

(158) Metso Minerals offers spare parts and services for filtration equipment. While Metso Minerals supplies filter cloth […] also for third-party pressure filters, […].[148]

(159) Outotec also supplies spare parts (including third-party filter cloth) and services for filtration equipment, […].[149]

(B) Commission precedents

(160) The relevant product market for filtration aftermarket services, spare and wear parts has not been previously examined by the Commission.

(C) The Notifying Party's views

(161) In line with grinding and flotation aftermarkets, the Notifying Party submits that the aftermarkets for filtration are separate from the market for filtration equipment. According to the Notifying Party, customers are not captive to OEMs for aftermarket services and spare parts, but rather source these from third parties. Competitors on these markets are different from the capital equipment market, as OEMs largely focus on their own installed base. Other suppliers include the mining customers themselves, global engineering houses, the Parties' own suppliers who compete for parts and services, and local workshops.[150]

(162) Similarly to grinding and flotation aftermarkets, the Notifying Party submits that the filtration aftermarket should not be further segmented into (i) services, (ii) spare parts and (iii) wear parts.[151]

(163) The Notifying Party submits that the exact product market definition can ultimately be left open since the Transaction will not raise concerns regarding the filtration aftermarkets and services under any plausible market definition.

(D) The Commission's assessment

(164) For the purpose of this decision, the Commission considers that, for the same considerations applying to the aftermarkets in relation to grinding and flotation, the aftermarket for filtration is distinct from the capital equipment market.[152]

(165) In line with the Notifying Party's view, respondents to the market investigation confirm that the aftermarket for filtration is separate from aftermarkets for other types of capital equipment (e.g., grinding, flotation and iron ore pelletizing). While

147 Form CO, paragraphs 785-786.
148 Form CO, paragraph 788.
149 Form CO, paragraphs 788-789.
150 Form CO, paragraphs 790-791.
151 The Notifying Party submits that there is no substantial demand for wear parts outside of grinding. See Response to RFI 24 of 1 May 2020, question 1.
152 See Sections 5.1.1.2 and 5.1.2.2 of this decision.

there may be a degree of supply side substitutability as some market players offer a range of aftermarket services and parts, the market investigation confirms that filtration spare and wear parts (e.g., filter cloths) are specific to this type of equipment.[153]

(166) Respondents to the market investigation present mixed views as to whether a further segmentation of the filtration aftermarket into (i) services, (ii) spare parts and (iii) wear parts is warranted.[154]

(167) In any event, for the purpose of this decision, the Commission considers that the exact definition of the aftermarket in relation to filtration equipment (i.e., whether overall or segmented into services, spare parts and wear parts) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.4. Iron ore pelletizing

5.1.4.1. Iron ore pelletizing capital equipment

(168) Pelletizing is the process through which iron ore fines are agglomerated into "iron ore pellets" suitable for use in an iron-making furnace. A typical iron ore pellet is roughly spherical in shape, measuring between 6-16mm in diameter and having a crushing strength of >200kg. Iron ore pelletization is, by definition, only relevant to iron ore operations. Practically all iron ore is used in steel production.[155]

(169) Not all mined iron ore is pelletized. The need for pelletization is linked to the quality of the iron ore being mined, and thus the amount of upgrading that is necessary to process the iron ore. Lower grade iron ore must be finely ground so that impurities (phosphorus, sulphur, etc.) can be separated from the iron ore. Pelletization serves the processability and transportability of such finely ground ore. Higher grade ores do not require the same degree of processing, however, meaning that the ground material is less fine and can be upgraded through magnetic separation and screening, without the need for a full beneficiation process.

(170) The pelletizing process takes place in several steps. First, finely ground iron ore is slightly moistened and mixed with a binder. This mixture is continuously fed to a balling disc or drum that forms spheres from the ore fines (called green pellets). The green pellets are then screened for size and transported to the thermal processing.[156] The thermal processing stage step for iron ore pellets is called indurating. During that process, the green balls are hardened by baking in an oxidizing atmosphere in a

---

153 Q1, replies to questions 44 and 44.1; Q2, replies to questions 38.1 and 40.1.

154 Q2, replies to questions 40.1, 101.1

155 In a first step, the pelletizing process consists slightly moistening infinely ground iron ore and mixing it with a binder. This mixture is continuously fed to a balling disc or drum that forms spheres from the ore fines, called green pellets. The green pellets are screened for size and either transported to the thermal processing stage or crushed and returned to the first step (if too large or too small). The thermal processing step for iron ore pellets is called indurating. During the indurating process, the green balls are hardened by baking in an oxidizing atmosphere in a high temperature furnace. The indurated product is called fired pellets. The final process steps include cooling and screening for size.

156 If too large or too small, green pellets are crushed and return to the first step.

high temperature furnace. The indurated product is called fired pellets. The final process steps include cooling and screening for size.

(171) The need in pelletization is increasing across the world, as higher grade ores have mostly been consumed and mines ore grades are progressively getting lower. In that regard, pelletization is common in North America, Brazil, Russia, Europe, the Middle East and in India and China.[157]

(172) There are two main indurating technologies:

— The straight (or "travelling") grate system, where the pellets are conveyed on straight traveling grates through the entire heat treatment process of drying, pre-heating, indurating, and cooling. To protect the travelling grate from the extreme heat of the indurating process, the green balls have to be placed on top of a layer of already fired pellets (called hearth layer);

— The grate kiln system consist of three consecutive parts, i.e., a traveling grate for drying and pre-heating, a rotary kiln for indurating at very high temperatures, and a cooling section. The rotary kiln is a sloped rotating cylindrical furnace with a burner at the discharge end. Through application of heat and uniform mixing of the pellet bed through tumbling as the kiln rotates the rotary kiln heat-hardens and indurates the pellets.

(173) In addition, the Notifying Party indicates that a new circular pelletizing design in 2013 has been introduced by Primetals Technologies Ltd. This equipment is based on the straight grate technology, but uses a circular design for the indurating process. According to the Notifying Party, the circular pelletizing technology operates similarly to the straight grate technology with the main difference being the mechanical design.[158]

(A) The Parties' activities

(174) Both Parties offer straight grate kiln iron ore pelletizing equipment globally. Only Metso Minerals offers grate kiln pelletizing equipment.[159]

(B) Commission precedents

(175) The relevant product market for iron ore pelletizing equipment has not been previously examined by the Commission.

(C) The Notifying Party's views

(176) The Notifying Party considers that the iron ore pelletizing process is partially substitutable with sintering. It states that the main difference between sintering and pelletizing is the size of the ore to be pyro-processed (i.e. agglomerated). The possible alternative use of sintering or pelletizing equipment concerns lower grade ores which end up in finer particles mainly because they need to be ground more and separated further than high-grade ores, which have less impurities and thus need to

[157] In Australia, where higher quality ore is still being mined, iron ore is hardly ever pelletized.
[158] Form CO, paragraph 815.
[159] Form CO, paragraphs 825 and 826.

be processed less ahead of pyro-processing (i.e., sintering or pelletizing). Certain steelmaker customers, in particular, use sintering instead of iron ore pelletization. However, the Notifying Party further indicates that finer fines resulting from the grinding and separation of lower grade ores cannot usually be processed in a sintering plant and must be agglomerated in a pelletizing plant.[160]

(177) In addition, the Notifying Party submits that the market for iron ore pelletizing should not be further segmented by technology.

(178) From a demand-side perspective, the Notifying Party considers that both pelletizing technologies (straight grate system and grate kiln) are largely substitutable for several reasons.

(179) First, both systems serve the same purpose of indurating iron ore pellets for the steel-making process and there are no compelling technical reasons to opt always for one specific technology.[161]

(180) Second, straight grate system and grate kiln encompass comparable costs over time. A straight grate system has initial capital costs approximately […]% lower than those of a grate kiln system[162] and requires lower maintenance than the latter. However, the price differences between the two technologies are insignificant over time given that the electrical power consumption of a grate kiln system is significantly lower than that of a straight grate system. In addition, in the Notifying Party's views, the initial capital cost of the core pelletizing equipment does not typically drive the choice between the two types of technology, as it only represents around 8% of the total CAPEX for a pelletizing plant.[163]

(181) Third, the Notifying Party submits that due to its greater consistency, some customers consider kiln pellets to have a higher economic value than straight kiln.[164] Grate kiln also provides efficiency gains due to the lower installed power in a grate kiln system. As regards after-sales costs, straight grates are easier to maintain, given that the pallet cars can be taken off-line, while a grate kiln system needs to be shut down for maintenance.[165]

(182) The Notifying Party considers, however, that these differences are not significant in the choice of a pellet plant and that the technologies are largely substitutable.[166] Even if the majority of projects known by the Parties over the past 10 years involved straight grate technology, the Notifying Party submits that both technologies are in use all over the world and, subject to a few exceptions, regional preferences and specificities are rare.[167]

---

160 Form CO, paragraph 828.

161 Form CO, paragraph 830.

162 Notably because a grate kiln requires more structural steel in its build.

163 Form CO, paragraph 831.

164 Form CO, paragraph 832. The product quality of pellets in a grate kiln system is more consistent, because the tumbling action of the kiln facilitates (a) uniform transfer of heat (more consistent strength and lower decrepitation) (b) removing edges and shaping the pellets (resulting in rounded pellets).

165 Form CO, paragraph 832.

166 Form CO, paragraph 832.

167 Form CO, paragraph 834.

(183) From a supply-side perspective, the Notifying Party states that it is not necessary to offer both technologies to establish a market position. For example, […].

(184) In conclusion, the Notifying Party submits the iron ore pelletizing process is partially substitutable with sintering and that segmenting the iron ore pelletizing equipment market by type of equipment is not justified.

(D) The Commission's assessment

(185) The Commission has assessed whether a segmentation between iron ore pelletizing and sintering is warranted.

(186) In that respect, contrary to the Notifying Party's views, the results of the market investigation show that iron ore pelletizing equipment is not substitutable to sintering equipment.[168] In that regard, some respondents explain that iron ore pelletizing equipment and sintering equipment are not used for the same purpose. Iron ore pelletizing aims at the agglomeration of very fine (<75μm) raw materials into spherical products of 9–16mm diameter for transportation and further processing in blast furnaces or direct reduction plants. Sinter plants are used for coarser input material (>1 mm) and installed within the steel works to also recycle plant residues into the plant[169].

(187) Furthermore, the market investigation was inconclusive as to whether different types of iron ore pelletizing equipment (straight grate systems; grate kiln systems; circular pelletizing) should be distinguished for the purpose of market definition. Although a majority of respondents considers, contrary to Notifying Party's views, that the various types of iron ore pelletizing equipment are not substitutable, certain respondents explained that straight grate and grate kiln achieve the same product result, the only difference being that drying, firing and cooling are done in one induration in straight grate and in separate units in grate kiln.[170] Respondents further explained that grate kiln is predominately used for magnetite type of iron ore and straight grate for hematite type of ore and other iron ores.[171] Besides, a number of customers indicates that they purchase several types of iron ore pelletizing equipment.[172] From the supply-side perspective, a majority of competitors considers that they would not be able to easily start offering another type of iron ore pelletizing equipment or switch between different types of iron ore pelletizing equipment.[173] Furthermore, suppliers generally specialize in specific types of iron ore pelletizing equipment.[174]

(188) Nevertheless, for the purpose of this decision, the exact product market definition for iron ore pelletizing (whether overall or segmented by type) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market under any plausible product market definition.

---

168 Q1, replies to question 34; Q2, replies to question 39.
169 Q1, replies to question 39.1.
170 Q1, replies to question 38.1; Q2, replies to question 33.1.
171 Q1, replies to question 38.1.
172 Q2, replies to question 35.
173 Q1, replies to question 41.
174 Q1, replies to question 40.1.

5.1.4.2. Iron ore pelletizing aftermarket

(189) Iron ore pelletizing spare parts include "grate cars" (through which the feed material is transported in the indurating heat and that have to withstand extremely high temperatures), shafts, bearings, and rollers. Aftermarket services include modifications and redesigns of equipment and processes, replacements, repair services, machine inspections, maintenance, and trainings. Services are often carried out by plant maintenance staff, as opposed to suppliers. The main wear parts are additives (binder).[175]

(A) The Parties' activities

(190) Both Parties offer a full range of spare parts and services for pelletizing equipment. The Parties are not active in wear parts (additives for pellet production).[176]

(B) Commission precedents

(191) The relevant product market for flotation aftermarkets has not been previously examined by the Commission.

(C) The Notifying Party's views

(192) The Notifying Party submits that aftermarkets for iron ore pelletizing are separate from capital equipment. It states that customers are not captive from suppliers and can choose from a wide range of alternative competitors.[177] After the warranty period, customers focus on price and look for competing offers from various types of suppliers, namely global engineering companies, independent third parties, local workshops, the mining equipment manufacturers who sell parts in competition with the suppliers and local suppliers able to offer a fast delivery.[178]

(193) Similarly to grinding, flotation and filtration aftermarkets, the Notifying Party submits that the iron ore pelletizing aftermarket should not be further segmented into (i) services, (ii) spare parts and (iii) wear parts.[179]

(194) However, the Notifying Party submits that the exact product market definition can ultimately be left open since the Transaction will not raise concerns regarding the iron ore pelletizing aftermarkets and services under any plausible market definition.[180]

(D) The Commission's assessment

(195) For the purpose of this decision, in line with the Notifying Party's views, the Commission considers that similarly to the aftermarkets in relation to grinding, flotation and filtration, as set out at paragraphs 76 to 80, the aftermarket for iron ore

[175] Form CO, paragraph 887.
[176] Form CO, paragraphs 888 and 889.
[177] Form CO, paragraph 890.
[178] Form CO, paragraph 891.
[179] The Notifying Party submits that there is no substantial demand for wear parts outside of grinding. See Response to RFI 24 of 1 May 2020, question 1.
[180] Form CO, paragraph 893.

pelletizing is distinct from the market for the supply of iron ore pelletizing equipment.

(196) In this regard, respondents to the market investigation confirm that the aftermarket for iron ore pelletizing is distinct from aftermarkets for other types of capital equipment (e.g., grinding, filtration, and iron ore pelletizing). One competitor indicates that pelletizing plants, which can be classified as process plants due to various steps and multiple equipment, require specific technology and skills.[181]

(197) In addition, although one supplier indicates that iron ore pelletizing spare parts and wear parts belong to the same market since they are usually serviced by the suppliers, the number of submissions received by the Commission in response to the market investigation does not allow to reach a definitive conclusion as to a possible segmentation between iron ore pelletizing aftermarket services, spare parts and wear parts.[182]

(198) In any event, for the purpose of this decision, the exact definition of the aftermarket in relation to iron ore pelletizing equipment (i.e., whether overall or segmented into services, spare parts and wear parts) can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5. Other capital equipment

5.1.5.1. Crushing

(199) Crushing is the first step of the comminution cycle. It aims at obtaining the desired product size.

(200) While Metso Minerals produces and sells crushers, Outotec does not own proprietary crushing equipment. [BUSINESS STRATEGY].[183] [BUSINESS STRATEGY]. [184]

(201) In the *Metso/Svedala* decision the Commission considered that crushers used in for mining applications could be segmented by type and that "[j]*aw crushers, gyratory crushers, cone crushers, horizontal shaft impactors, vertical shaft impactors* […] *each belong to specific product markets.*"[185]

(202) The Notifying Party submits that a distinction by crusher type is not justified, considering in particular that most suppliers of crushing equipment offer a broad range of crusher types. However, the Notifying Party considers that the precise market definition can be left open since the Transaction does not raise concerns due to Outotec's limited activities in that matter.[186]

181 Q1, reply to questions 44 and 44.1.
182 Q1, replies to question 45.1; Q2, replies to question 39.1.
183 Form CO, paragraph 909. [BUSINESS STRATEGY].
184 Form CO, paragraph 910.
185 Commission decision of 24 January 2001 in Case COMP/M.2033 *Metso/Svedala*, para. 47.
186 Form CO, paragraph 913.

(203) The Commission considers that the exact market definition can be left open for the purpose of this decision, as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.2. Size control

(204) Crushers and grinding mills do not allow very precise size reduction operations. Therefore, throughout the different stages of the crushing and grinding cycles, the feed material has to be controlled for size. The two main size control methods are screening and classification[187].

(205) Within size control equipment, Metso Minerals offers screens and a range of classification equipment.[188] Outotec's activities are more limited and focus on spiral classifier, screens and hydro-cyclones.[189]

(206) In the *Metso/Svedala* decision the Commission considered that screens, feeders and conveyors also appear to constitute distinct product markets.[190] It further considers that each technology, including screens, should be further segmented by size/application into A&C products on the one hand, and mining products on the other hand.[191] The Commission did not address, however, the potential market for classification.

(207) The Notifying Party submits that the approach to market definition for classification should be similar to the one adopted by the Commission regarding screens.[192] It further submits that the exact product market definition can be left open, considering the Parties' limited activities in size control.[193]

(208) The Commission considers that the exact market definition can be left open for the purpose of this case, as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.3. Washing

(209) Washing is mainly used in the beneficiation process of industrial minerals, coal, aggregates, sand, and gravel. Typical washing equipment includes wet screens and scrubbers.[194]

---

187 Classification uses particle motion for size control.

188 Hydro-cyclones, spiral classifers, gravitational centrifugal, and cyclonic classifiers, gyrators, delta sizers (Form CO, paragraph 927).

189 Form CO, paragraph 928.

190 Commission decision of 24 January 2001 in Case COMP/M.2033 *Metso/Svedala*, paragraph 47.

191 Commission decision of 24 January 2001 in Case COMP/M.2033 *Metso/Svedala*, paragraph 74.

192 Form CO, paragraph 930.

193 Form CO, paragraph 931.

194 For wet screens, material is moved across a screen and sprayed with water, thereby washing away smaller, unwanted particles that fit through the screen media. A tumbling scrubber, used when the feed material contains a high and sticky content of clay and dirt, is a medium-speed washing drum in which solids are scrubbed against solids, thereby removing the impurities (akin to a very large washing machine). For

(210) Within washing equipment, Metso Minerals offers wet screens, tumbling scrubbers and attrition scrubbers.[195] Outotec's washing offering is limited to tumbling scrubbers.[196]

(211) The relevant product market for washing has not been previously defined by the Commission.

(212) The Notifying Party submits that the precise market definition can be left open, since the Parties' activities overlap regarding one type of washing equipment (tumbling scrubbers) for which the Transaction will not raise concerns.[197]

(213) The Commission considers that the exact market definition can be left open for the purpose of this decision, as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.4. Magnetic Separation

(214) Magnetic separation equipment is used to separate (valuable) magnetic or magnetized particles from the feed stream (part of the separation stage within beneficiation).[198] There are two main types of magnetic separation:

— Low intensity magnetic separation ("LIMS"), used for the separation of ferromagnetic particles of up to 300 mm in size;

— High gradient magnetic separation ("HGMS"), used for the separation of paramagnetic particles in very strong magnetic fields. HGMS is limited to a particle size <1mm.

(215) Within magnetic separation equipment, Metso Minerals offers various LIMS models[199] and HGMS equipment.[200] Outotec does not have proprietary LIMS and HGMS equipment. [BUSINESS STRATEGY].[201]

(216) The relevant product market for magnetic separation has not been previously defined by the Commission.

(217) The Notifying Party considers that the relevant product market should not be further sub-segmented by type or size, but rather be defined as magnetic separation.

(218) The Commission considers that the exact market definition can be left open for the purpose of this decision, as the Transaction does not raise serious doubts as to its

---

smaller material (<10mm), attrition scrubbers are used to effectively remove impurities by scrambling the feed material in water tanks with opposing flow directions.

195 Form CO, paragraph 942.

196 Form CO, paragraph 943.

197 Form CO, paragraph 944.

198 Magnetic separation utilizes magnetic, gravitational, and drag forces to separate magnetic from non-magnetic particles.

199 Wet, belt, and dry drums (drum diameters of 3ft up to 4ft) (Form CO, paragraph 954). .

200 Field rating of 3,000 Gauss up to 20,000 Gauss (Form CO, paragraph 954)

201 Form CO, paragraph 955.

compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.5. Sedimentation

(219) Sedimentation is a continuous solid-liquid separation process with settling of solids by gravity.[202]

(220) Within sedimentation equipment, Metso Minerals offers inclined plate settlers (clarification equipment). [BUSINESS STRATEGY]. Outotec focuses on traditional, large-scale thickening tanks and offers paste, compression, and high rate thickeners/clarifiers.[203]

(221) The relevant product market for sedimentation has not been previously defined by the Commission.

(222) The Notifying Party submits that the relevant product market should not be further sub-segmented by type or size, but rather be defined as the overall market for sedimentation.[204]

(223) The Commission considers that the exact product market definition can be left open for the purpose of this decision as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.6. Calcining and Roasting

(224) Calcining is used for the thermal processing of various materials.[205]. There are several types of calcining technologies, including kiln calcining systems (such as rotary kilns) and fluid bed calciners (including for lithium and clay calcining).[206] Roasting is the heating of feed material in the presence of oxygen, seeking to decompose, reduce, or morph the mineralogy of the feed material.[207]

(225) Within calcining and roasting equipment, Metso Minerals is almost exclusively active with its (directly and indirectly heated) rotary kilns used for petroleum coke and lime calcining and certain roasting applications. Metso Minerals only has a very limited presence in fluid bed calcining ([…]). Outotec's activities in calcining and roasting equipment, on the other hand, are based on fluid bed applications.[208] Both Parties provide fluid bed technologies for lithium and clay calcining.

---

202 Sedimentation can be used for (i) clarification and/or (ii) thickening. Clarification is the process for removal of solids from a dilute solid/liquid suspension. Thickening is the process for concentrating particles in a suspension by gravity compression.

203 Form CO, paragraphs 969 and 970.

204 Form CO, paragraph 972.

205 Including limestone (decomposition of limestone (calcium carbonate) into lime (calcium oxide) and CO2), aluminium tri-hydroxide into alumina, and petroleum coke (decomposition of volatile materials in raw petroleum coke.

206 Form CO, paragraphs 982 and 983.

207 Form CO, paragraph 983.

208 Form CO, paragraph 984.

(226) The relevant product market for calcining and roasting has not been previously defined by the Commission.

(227) The Notifying Party submits that the market for calcining may have to be distinguished further by technology. In particular, the various technologies that can be used for calcining and roasting (kilns, fluid beds, grates, etc.) are not substitutable for different applications.[209]

(228) The Commission considers that the exact product market definition can be left open for the purpose of this decision as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.5.7. Materials Handling

(229) The handling of dry materials is typically referred to as materials handling.[210]

(230) While Metso Minerals produces and sells standalone materials handling equipment, Outotec is not active in this area. The Notifying Party notes that Outotec sells plant solutions that include (non-rebranded) third-party materials handling equipment. In addition, Outotec produces and sells limited quantities of specialized conveyors that form part of its dewatering equipment. However, Outotec does not sell any standalone materials handling equipment.[211]

(231) In the *Metso/Svedala* decision, the Commission considered that screens, feeders and conveyors also appear to constitute distinct product markets.[212] The Commission further concluded that each technology should be further segmented by size/application into A&C products on the one hand, and mining products on the other hand.[213] The *Metso/Svedala* decision did not, however, specifically address other types of materials handling equipment.

(232) The Notifying Party submits that a distinction by type of materials handling equipment is not warranted (in particular with a view to the fact that most suppliers of material handling equipment offer a broad range of products). In the Notifying Party's view, that exact product market definition can be left open in light of Metso Minerals' limited presence and Outotec's negligible activities with regard to material handling equipment.[214]

(233) The Commission considers that the exact product market definition can be left open for the purpose of this decision as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

---

209 Form CO, paragraph 994.

210 Materials handling equipment includes everything from railcar dumpers to ship unloading and loading equipment, stockyard equipment (stackers and reclaimers), feeders, and conveyors.

211 Form CO, paragraph 1000.

212 Commission decision of 24 January 2001, Case COMP/M.2033 *Metso/Svedala*, para. 47.

213 Commission decision of 24 January 2001, Case COMP/M.2033 *Metso/Svedala*, para. 74.

214 Form CO, paragraph 1002.

5.1.5.8. Slurry Handling

(234) Slurry handling refers to the hydraulic transportation of solids, i.e., the pumping of slurry. There are several different types of slurry pumps based on their operation environment and application.[215]

(235) Within slurry handling, Metso Minerals offers the following equipment: (i) slurry hoses and slurry pipe systems; (ii) slurry valves (third-party equipment). While Outotec is not active in slurry hoses, pipes, or valves, Outotec's portfolio includes slurry and water pumps, slurry pumps and centrifugal water pumps. However, Outotec does not offer any proprietary equipment.

(236) The relevant product market for sedimentation has not been previously defined by the Commission.

(237) The Notifying Party submits that the relevant product market should not be further segmented by type or size, but rather be defined as slurry handling. However, given Outotec's *de minimis* activities based on third-party products, the Notifying Party submits that the product market definition can ultimately be left open.[216]

(238) The Commission considers that the exact product market definition can be left open for the purpose of this decision as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.6. Engineering services

(239) As set out in Section 4.3, specialised engineering companies in the mining industry offer EPC and EPCM services.

(240) The relevant market for EPC services in the mining industry has not been previously defined by the Commission. However, the Commission previously has assessed the possible market for engineering services in other industries. The Commission concluded that there is a separate market for provision of EPC services for onshore Oil & Gas projects, and considered that a separate EPC market may exist for wind farming. No further market segmentation was considered.[217]

(241) The Notifying Party submits that the same approach should be applied to engineering services in the mining industry, with EPC services being separate from engineering services provided as part of the supply of capital equipment. The Notifying Party further considers that the market should not be segmented by type of engineering services (EPC, EPCM). From the demand side, different services can be

[215] Slurry pumps typically have a dry end (the motor driving the pump) and a wet end (the pump itself). Slurry pumps can be installed dry (drive and bearings are kept out of the slurry and the wet end is closed) or semi-dry (wet end submerged in the slurry). They are typically also classified as horizontal or vertical. See Form CO, paragraph 1010.

[216] Form CO, paragraph 1011.

[217] Commission decision of 22 November 2016 in Case M.8132, *FMC Technologies/Technip*, paragraphs 32-34; Commission decision of 29 October 2013 in Case M.6995, *Reggeborgh/Boskalis/VSMC*, paragraphs 18-20

included depending on the exact scope of the agreement. Furthermore, from the supply side, most engineering companies provide both EPC and EPCM services.[218]

(242) The results of the market investigation confirm that in the mining industry, EPC services constitute a separate market from the supply of capital equipment by OEMs and aftermarkets due to limited substitutability in terms of service characteristics, technicians' skills, prices, liability of suppliers.[219] The market investigation provided mixed results as to whether the possible market for EPC services in the mining industry should be further segmented by type of engineering services into EPC, EPCM or other types of plant engineering services (e.g., EPS[220]).[221] According to a customer , the type of service is *"usually specific to a contract or project and most vendors will tailor their offering to the clients requirements".*[222]

(243) For the purpose of this decision, the Commission concludes that there is a separate market for EPC services in the mining industry. The Commission considers that the question whether the market for EPC services should be further segmented by type of services can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.1.7. Manufacturing of mining equipment

(244) As stated in Section 4.4., the Parties outsource most of the manufacture of equipment parts to suppliers. According to the Notifying Party, this means that there may be upstream markets for the manufacture and supply of individual components. Mining equipment is assembled on-site by the customer or an engineering company, and component suppliers typically deliver their components directly to the customer site.[223]

(245) The Notifying Party submits that, considering that the Parties outsource the manufacture of parts to suppliers, there may be upstream markets for the manufacture and supplier of individual components. Although the Parties are not active on any potential market for the supply of components for minerals processing equipment, the Commission considers that, for the purpose of this decision, the possible upstream market for the manufacturing of mining equipment needs to be addressed, considering potential concerns raised by the Transaction on the supply of components for minerals processing equipment.

(246) No views were expressed by the Notifying Party on potential sub-segmentations related to the market of manufacturing of mining equipment.[224] A majority of mining equipment manufacturers considers that the manufacture and supply of mining equipment to suppliers constitute a separate market from the provision by suppliers

---

218 Form CO, paragraph 1046.

219 Q1, replies to questions 50 and 50.1; 1,Q2 replies to questions 42 and 42.1.

220 Engineering procurement service (EPS) is a contract whereby the EPS provider is responsible at least for some part of the integration engineering, but not the construction works, and does not carry the overall pricing risk and guarantee performance of the completed project.

221 Q1, replies to questions 51 and 51.1; Q2 replies to questions 43 and 43.1.

222 Q2, reply to question 43.1.

223 Response to RFI 20 of 24 April 2020, question 22.

224 Response to RFI 20 of 24 April 2020, question 22.

of mining capital equipment and aftermarkets to mining companies.[225] In that regard, several respondents indicate that suppliers hold a greater responsibility vis-à-vis final customers (mining companies) than the mining equipment manufacturers. The suppliers responsibility involves the production quantity, while manufacturers is responsible for the quality of the equipment delivered. Another respondent further indicates that suppliers provide a larger scope of supply to the mining companies than the mining equipment manufacturers.[226] In addition, the results of the market investigation did not provide conclusive views as to possible sub-segmentations of the market for the manufacturing of mining equipment.

(247) In any event, the Commission considers that the exact product market definition can be left open for the purpose of this decision as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement under any product market definition that the Commission considers to be plausible.

5.2. Geographic market definition

5.2.1. Capital equipment

(248) This section refers to all types of capital equipment assessed in this decision because the same considerations and evidence apply to the different types of capital equipment addressed, namely grinding equipment, flotation equipment, filtration equipment and iron ore pelletizing equipment.

5.2.1.1. Commission precedents

(249) In its *Metso/Svedala* decision the Commission found that the relevant geographic market for crushers sold to mining customers was EEA-wide in scope.[227]

5.2.1.2. The Notifying Party's view

(250) The Notifying Party submits that the relevant markets for mining capital equipment have evolved since 2001, when the *Metso/Svedala* decision was adopted, such that it would be justified to assess the Transaction on a world-wide geographic market for the following reasons.[228]

(251) First, the Notifying Party argues that EEA customers no longer require a significant local or EEA-based presence from their suppliers in tenders for capital equipment. The procurement of mining equipment has become a global process with international players bidding from across regions. The Notifying Party thus explains that non-EEA suppliers (e.g., CITIC, BGRIMM, Woodgrove) regularly participate in tenders in Europe.

(252) Second, the Notifying Party further argues that, within the EEA, today's mining industry operates mostly in a few regions, such as the Nordic countries, the Iberian Peninsula and Eastern Europe. Mining operators active in the EEA are often part of

[225] Q4 – Questionnaire to Mining Equipment Manufacturers ("Q4"), replies to question 3.
[226] Q4, replies to question 3.1.
[227] Commission decision of 24 January 2001 in Case COMP/M.2033 *Metso/Svedala*, paragraph 114.
[228] Form CO, paragraphs 101 to 155.

large global groups.[229] This "globalization" of the customer structure[230] results in a standardisation of purchasing processes and product requirements across borders. As a result, customers' preferences and requirements are no longer strongly regionally differentiated, but tend to be homogeneous across continents, reflecting the customers' global presence and their global approach to sourcing.

(253) Third, the Notifying Party contends that the mining capital equipment markets are characterised by substantial trade flows between the EEA and other regions globally, with a trend towards increasing imports/exports, while some impediments to trade between these regions may exist. In particular, there are no substantial trade barriers with respect to the capital equipment supplied by the Parties (in terms of quotas, tariffs, regulations, technical and safety requirements, or high transportation costs) that would restrict the flow of imports/exports into/out of the EEA.

(254) Fourth, the Notifying Party emphasises that suppliers typically have global organisational structures (e.g., Metso Minerals' grinding division is based in the USA, Outotec's international "centre of excellence" model relies on multiple centres located around the world). This also applies to the Parties' main competitors, such as FLSmidth or the Chinese supplier CITIC, which became a global competitor over the past few years. Therefore, according to the Notifying Party, the main suppliers are active globally, with strong presence both inside and outside of the EEA.

(255) Fifth, the Notifying Party argues that the supply chain for capital equipment is global and that capital equipment components are produced anywhere in the world, shipped to the customer's mine and assembled and installed on-site.

(256) Sixth, the Notifying Party argues that the main capital equipment suppliers in the mining industry are active globally. To demonstrate this, the Notifying Party analysed bidding data according to which the 7 to 12 main mining equipment suppliers of each of the main types of capital equipment are active in three or more regions[231] of the world.

(257) Finally, the Notifying Party also considers that there are no significant price and margin differences across regions showing that there is no appreciable difference in the degree of competitive intensity between the EEA and other regions. […].[232] The Notifying Party also submits that the geographical scope of the relevant market does not differ depending on the product supplied and that the EEA does not present specific characteristics that would identify it as a separate geographic market.

5.2.1.3. The Commission's assessment

(258) Taking into account the Notifying Party's submissions, the Commission has carried out a market investigation with the aim to determine the scope of the relevant geographic market for the types of mining capital equipment assessed in this decision, namely grinding equipment, flotation equipment, filtration equipment and

[229] Such as GE, Boliden, Sibelco, Grupo México, Dundee Precious Metals, Mitsubishi Hitachi, LKAB and others).

[230] Form CO, paragraph 118.

[231] For this purpose the five global regions are defined as: Africa, APAC, the Americas, the EEA, and EMEA. See Form CO, paragraph 135.

[232] Form CO, paragraph 142.

iron ore pelletizing equipment (including all plausible sub-segmentations). The Commission's market investigation has largely confirmed the Notifying Party's position that the relevant geographic market for both (i) capital equipment and (ii) aftermarkets is global in scope.

(259) A vast majority of the customers that responded to the market investigation indicates that they purchase mining capital equipment (i.e., grinding, flotation, filtration, iron ore pelletizing and all plausible segmentations) at global level.[233] Customers thus indicate that they choose the most appropriate equipment on a global basis without local preferences.[234] Only a minority of customers considers that local presence is a key requirement when choosing a capital equipment supplier. Nonetheless, these customers confirm that capital equipment suppliers operate world-wide service networks and/or that local presence is only one out of several criteria taken into account in a decision to purchase capital equipment.[235] The vast majority of customers confirms that no specific barriers to entry or trade exist between different countries or regions of the world.[236]

(260) A vast majority of the suppliers that responded to the market investigation explains that they supply capital equipment globally,[237] and indicates that local presence is a key requirement to win tenders, but confirms at the same time that their global networks allowed them to meet local presence requirements.[238]

(261) On this basis, the Commission concludes that the relevant geographic market for the supply of mining capital equipment, assessed in this decision (i.e., grinding, flotation, filtration, iron ore pelletizing) including the plausible sub-segmentations, is global in scope.

5.2.2. Aftermarkets

(262) The Commission's market investigation also covered aftermarkets comprising services and the supply of spare parts and wear parts for the types of mining capital assessed in this decision, namely grinding equipment, flotation equipment, filtration equipment and iron ore pelletizing equipment (as discussed in Sections 5.1.1.2, 5.1.2.2, 5.1.3.2, 5.1.4.2).

5.2.2.1. Commission precedents

(263) The relevant geographic market for aftermarket services, spare and wear parts for capital equipment in the mining industry has not been previously assessed by the Commission.

5.2.2.2. The Notifying Party's views

(264) The Notifying Party submits that the relevant geographic markets for the aftermarkets in relation to grinding, flotation, filtration, and iron ore pelletizing (and

233 Q2, replies to question 44.
234 Q2, replies to question 44.1
235 Q2, replies to question 45.
236 Q2, replies to question 46, 46.1.
237 Q1, replies to question 52.
238 Q1, replies to question 54, 54.1

possible segmentations of those markets) are global in scope for the following reasons.

(265) First, the Notifying Party argues that a local presence is (nowadays) not a requirement to provide maintenance services. The Notifying Party considers that technology allows supervision by experts based anywhere in the world (for example through remote maintenance), and should an on-site inspection be required, experts can intervene from anywhere in the world. In addition, technological advancements allow for remote support in many instances, thus making a local presence less crucial.

(266) Second, as regards spare parts, the Notifying Party argues that they are typically produced only in a few locations around the globe and are shipped in as needed. Regarding wear parts, they would be typically mass-produced on a global basis and stocked/shipped in as needed. According to the Notifying Party, the market is characterised by the presence of several suppliers not linked to OEMs, which supply, for example, mill linings on a global or regional basis.

(267) The Notifying Party argues that the precise scope of the relevant geographic market can be left open as in any even the Transaction would not raise competition concerns either on an EEA basis or on a worldwide basis.[239]

5.2.2.3. The Commission's assessment

(268) Taking into account the Notifying Party's submissions, the market investigation aimed at determining the scope of the relevant geographic market for the aftermarket services and the supply of spare and wear parts relating to the types of mining capital equipment assessed in this decision, namely grinding equipment, flotation equipment, filtration equipment and iron ore pelletizing equipment (including all plausible sub-segmentations). The market investigation has largely confirmed the Notifying Party's position that the relevant geographic markets for these services and products is global in scope. A majority of customers that responded to the market investigation indicates that aftermarket services, spare and wear parts for mining capital equipment are procured at a global level.[240] Customers indicate that they choose the most appropriate equipment on a global basis and have no local preferences.[241] While a majority of respondents considers that local presence is an important factor when choosing a supplier, the results of the market investigation confirm that most companies are present world-wide and that, in addition, local presence is only one of multiple factors taken into account to select suppliers.[242] Only a minority of customers considers that specific barriers to entry or trade exist in certain countries or regions of the world, referring however to general barriers such as customs or anti-dumping measures.[243]

(269) The majority of suppliers that responded to the market investigation also indicates that that they provide their aftermarket services, spare and wear parts for mining

239 Form CO, paragraphs 156 to 158.
240 Q2, replies to question 47.
241 Q2, replies 47.1
242 Q2, replies to questions 48 and 48.1.
243 Q2, replies to questions 49 and 49.1

capital equipment globally.[244] A vast majority of suppliers considers that local presence is a key requirement to win tenders, but indicate at the same time that they operate global networks and are therefore able to comply with this requirement.[245]

(270) On this basis, the Commission concludes that the relevant geographic market for aftermarkets and the supply of spare parts and wear parts in relation to grinding, flotation, filtration, and iron ore pelletizing are global in scope.[246]

5.2.3. Other capital equipment

(271) In the *Metso/Svedala* decision the Commission considered that the markets for crushers used for mining applications were EEA-wide.[247] The relevant geographic markets for size control (for mining applications),[248] washing, magnetic separation, sedimentation, calcining and roasting, material handling, slurry handling have not been previously defined by the Commission.

(272) The Notifying Party considers that, for the reasons set out in relation to the markets for grinding, flotation, filtration and iron ore pelletizing equipment (see Section 5.2.1.3), the geographic definition for the markets for crushing, size control, magnetic separation, sedimentation, calcining and roasting, material handling, slurry handling should be considered as global in scope.[249]

(273) The Commission considers that, based on the Notifying Party's submission, the market conditions described in sections 5.1.1.1., 5.1.2.1., 5.1.3.1. and 5.1.4.1., related to the geographic scope of the markets for grinding, flotation, filtration and iron ore pelletizing apply irrespective of the type of mining equipment considered in this decision.

(274) Therefore, the Commission considers that, for the purpose of this decision, the markets for crushing, size control (for mining applications), washing, magnetic separation, sedimentation, calcining and roasting, material handling, slurry handling (and possible segmentations) are global in scope.

5.2.4. Engineering services

(275) The Notifying Party submits that engineering services in the mining industry are provided at a global level in line with the Commission's precedents relating to engineering services in other industries.[250]

(276) The results of the market investigation confirm that EPC services in the mining industry are provided and procured at a global level.[251]

---

244 Q2, replies to question 47.

245 Q1, replies to questions 56, 56.1.

246 The effects of the Transaction on a possible EEA-wide geographic market will not be assessed for the purposes of this decision.

247 Commission decision of 24 January 2001 in Case COMP/M.2033 *Metso/Svedala*, para. 114.

248 In its decision *Metso/Svedala*, the Commission considered that the geographic markets for screens, feeders and conveyors for A&C applications (and not for mining applications) was national (paragraph 72).

249 Form CO, Section 6B and paragraphs 914, 932, 960, 973, 993, 1003 and 1014.

250 Commission decision of 22 November 2016 in Case M.8132, *FMC Technologies/Technip*, paragraph 49.

251 Q1, replies to question 58; Q2, replies to question 50.

(277) The Commission considers that, for the purpose of the this decision, the geographic market for EPC services (and possible sub-segmentations) in the mining industry is global in scope.

5.2.5. Manufacturing of mining equipment

(278) The Notifying Party did not provide its views related to the geographic definition of the potential market for the manufacturing of mining equipment.[252]

(279) The results of the market investigation indicate that mining equipment are provided to OEMs at global level.[253]

(280) The Commission considers that, for the purpose of the this decision, the geographic market for the manufacturing of mining equipment (and possible sub-segmentations) in the mining industry is global in scope.

6. COMPETITIVE ASSESSMENT

6.1. Framework for the competitive assessment

6.1.1. Horizontal non-coordinated effects

(281) The Horizontal Merger Guidelines describe horizontal non-coordinated effects as follows: "A merger may significantly impede effective competition in a market by removing important competitive constraints on one or more sellers who consequently have increased market power. The most direct effect of the merger will be the loss of competition between the merging firms. For example, if prior to the merger one of the merging firms had raised its price, it would have lost some sales to the other merging firm. The merger removes this particular constraint. Non-merging firms in the same market can also benefit from the reduction of competitive pressure that results from the merger, since the merging firms' price increase may switch some demand to the rival firms, which, in turn, may find it profitable to increase their prices. The reduction in these competitive constraints could lead to significant price increases in the relevant market."[254]

(282) A merger giving rise to such non-coordinated effects might significantly impede effective competition, in particular by creating or strengthening the dominant position of a single firm, one which, typically, would have an appreciably larger market share than the next competitor post-merger. Furthermore, mergers in oligopolistic markets involving the elimination of important competitive constraints that the merging parties previously exerted upon each other together with a reduction of competitive pressure on the remaining competitors may, even where there is little likelihood of coordination between the members of the oligopoly, also result in a significant impediment of competition.

(283) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant horizontal non-coordinated effects are likely to result from

252 Response to RFI 20 of 24 April 2020, question 22.
253 Q4, replies to questions 4 and 4.1.
254 Horizontal Merger Guidelines, para. 24.

a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force.[255] That list of factors applies equally regardless of whether a merger would create or strengthen a dominant position, or would otherwise significantly impede effective competition due to horizontal non-coordinated effects. Furthermore, not all of these factors need to be present to make significant horizontal non-coordinated effects likely and it is not an exhaustive list.[256]

(284) Finally, the Horizontal Merger Guidelines describe a number of factors, which could counteract the harmful effects of the merger on competition, including the likelihood of buyer power, entry and efficiencies.

6.1.2. Conglomerate effects

(285) According to the Non-Horizontal Merger Guidelines, in most circumstances, conglomerate mergers do not lead to competition problems.[257]

(286) However, foreclosure effects may arise when the combination of products in related markets confer on the combined entity the ability and incentive to leverage a strong market position from one market to another closely related market by means of tying or bundling or other exclusionary practices. The Non-Horizontal Merger Guidelines distinguish between bundling, which usually refers to the way products are offered and priced by the combined entity[258] and tying, usually referring to situations where customers that purchase one good (the tying good) are required to also purchase another good from the producer (the tied good).

(287) Tying and bundling as such are common practices that often have no anticompetitive consequences. Nevertheless, in certain circumstances, these practices may lead to a reduction in actual or potential rivals' ability or incentive to compete. Foreclosure may also take more subtle forms, such as the degradation of the quality of the standalone product.[259] This may reduce the competitive pressure on the combined entity allowing it to increase prices.[260]

(288) In assessing the likelihood of such a scenario, the Commission examines, first, whether the combined firm would have the ability to foreclose its rivals,[261] second, whether it would have the economic incentive to do so[262] and, third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus

255 Horizontal Merger Guidelines, paras. 27 *et seq.*

256 Horizontal Merger Guidelines, para. 26.

257 Non-Horizontal Merger Guidelines, paragraph 92.

258 Within bundling practices, the distinction is also made between pure bundling and mixed bundling. In the case of pure bundling the products are only sold jointly in fixed proportions. With mixed bundling the products are also available separately, but the sum of the stand-alone prices is higher than the bundled price.

259 Non-Horizontal Merger Guidelines, para. 33.

260 Non-Horizontal Merger Guidelines, para. 93.

261 Non-Horizontal Merger Guidelines, para. 95 to 104.

262 Non-Horizontal Merger Guidelines, para. 105 to 110.

causing harm to consumers.[263] In practice, these factors are often examined together as they are closely intertwined.

(289) In order to be able to foreclose competitors, the combined entity must have a significant degree of market power, which does not necessarily amount to dominance, in one of the markets concerned. The effects of bundling or tying can only be expected to be substantial when at least one of the merging parties' products is viewed by many customers as particularly important and there are few relevant alternatives for that product.[264] Further, for foreclosure to be a potential concern, it must be the case that there is a large common pool of customers for the bundled or tied products, which is more likely to be the case when the products are complementary.[265] The foreclosure effects of bundling and tying are likely to be more pronounced in industries where there are economies of scale and the demand pattern at any given point in time has dynamic implications for the conditions of supply in the market in the future. Conversely, the scope for foreclosure tends to be smaller where the merging parties cannot commit to making their tying or bundling strategy a lasting one.[266] Finally, bundling is less likely to lead to foreclosure if rival firms are able to deploy effective and timely counter-strategies, such as single-product companies combining their offers.[267]

(290) The incentive to foreclose rivals through bundling or tying depends on the degree to which the strategy is profitable.[268] Bundling and tying may entail losses or foregone revenues for the combined entity.[269] However, they may also allow the combined entity to increase profits by gaining market power in the tied goods market, protecting market power in the tying good market, or a combination of the two.[270]

(291) It is only when a sufficiently large fraction of market output is affected by foreclosure resulting from the concentration that the concentration may significantly impede effective competition. If there remain effective single-product players in either market, competition is unlikely to deteriorate following a conglomerate concentration.[271] The effect on competition needs to be assessed in light of countervailing factors such as the presence of countervailing buyer power or the likelihood that entry would maintain effective competition in the upstream or downstream markets.[272]

6.2. Market data methodology

(292) As regards the market share data used in the Form CO, the Notifying Party notes that the Parties generally have limited visibility regarding the size of the affected markets and the sales and shares of their main competitors. This is because mining customers

263 Non-Horizontal Merger Guidelines, para. 111 to 118.
264 Non-Horizontal Merger Guidelines, paragraph 99.
265 Non-Horizontal Merger Guidelines, paragraph 100.
266 Non-Horizontal Merger Guidelines, paragraphs 101-102.
267 Non-Horizontal Merger Guidelines, paragraph 103.
268 Non-Horizontal Merger Guidelines, paragraph 105.
269 Non-Horizontal Merger Guidelines, paragraph 106.
270 Non-Horizontal Merger Guidelines, paragraph 108.
271 Non-Horizontal Merger Guidelines, paragraph 113.
272 Non-Horizontal Merger Guidelines, paragraph 114.

typically purchase equipment through competitive tenders to which the Parties are not always invited.

(293) The Notifying Party's market share estimates used for the purposes of this decision are based on estimates produced by McKinsey for sales to mining customers (referred to below as "McKinsey Data").

6.2.1. McKinsey Data

(294) The Notifying Party has commissioned a study from the consultancy firm McKinsey for the purpose of assessing the Transaction. The Notifying Party submits that McKinsey's modelling tool is considered as one of the most reliable databases on the mining industry.

(295) The methodology used by McKinsey relies on a modelled estimated size for the global mining market for the four main capital equipment markets (grinding, flotation, filtration, and iron ore pelletizing) and their respective segments.[273] The Parties' market shares in value were calculated taking into account the actual sales recorded by each Party and the market size estimates provided by McKinsey for the period 2014-2018.[274]

(296) The Commission has relied on value market shares based on McKinsey data as a primary source for assessing the Parties' market position in this decision.

6.2.2. Pooled bidding data

(297) The Notifying Party has also submitted bidding data to the Commission, which had been compiled for the purpose of assessing the Transaction. Each Party identified mining projects of which they were aware of in the last seven to ten years. Following this exercise, they then identified same projects that appeared in both Outotec's and Metso Minerals' datasets, and added tenders identified by only one of the Parties and finally combined these in order to create a "pooled" bidding dataset.[275] The Notifying Party used the pooled bidding dataset as an alternative source for market shares as well as a tool to assess the closeness of competition between the Parties. However, the pooled bidding data is incomplete.[276] First, it does not include the projects to which the Parties were not invited to submit bids, and the projects that they were not aware of over the relevant period. Second, as it relies on the Parties' market knowledge, the dataset lacks complete and verified information on the participation of other competitors, and overlooks the participation of suppliers in certain tenders that the Parties were unaware of. As a result, the participation of competitors is likely underestimated. Third, the Notifying Party submits that while the Parties tend to keep a good record of won tenders, their lost bids are likely to be under-reported. The Commission also notes that in some instances the identity of winners has not been recorded, hence further underestimating the wins of the Notifying Party's competitors.

273 Form CO, Annex 7.1.

274 For some segments the market share estimates were provided for the period 2014 – 2019.

275 Form CO, paragraph 173.

276 Response to RFI 17 of 2 April 2020.

(298) In light of these shortcomings, market shares based on wins from recorded tenders in the pooled bidding data cannot be considered to constitute reliable estimates.[277] As explained in Section 6.2.1, the Commission primarily relies on McKinsey market share estimates to assess the Parties' position. However, the Commission used the pooled bidding dataset to examine the closeness of competition between the Parties and to supplement the results of the market investigation. The Commission analysed the Parties bidding behaviour and winning rates in the markets of grinding, flotation and filtration in competitive tenders[278] based on the Parties' pooled bidding data for the period 2013-2019, and iron ore pelletizing for the period 2010-2019. The difference between those two periods results from the fact that the Parties were able to submit data over a longer period of time in iron pelletizing. Bidding analysis conducted on the basis of the Parties' pooled bidding data should be interpreted in light of the fact that the information on other competitors is likely under-reported. Therefore, the Commission considers that its analysis of the participation and winning patterns in the present case constitutes a conservative measure of the closeness of competition between the Parties and likely overstates the competitive pressure on each other.

(299) The results of the Commission's analysis are presented in respective competitive assessment sections for each product market.

6.2.3. Installed base data (for grinding)

(300) The Parties' installed base data refer to grinding equipment installed by the different suppliers throughout 2014-2019 and is based on the Parties' internal tracking of the relevant projects of which they are aware. The Commission analysed these data, but the resulting market share estimates were not sufficiently precise to serve as a basis for the competitive assessment. The lack of preciseness follows from the fact that the Parties are often not aware of projects if they are not invited to submit bids[279], similar to the situation described for the pooled bidding data (see Section 6.2.2. above). The Commission has thus not relied on these data for its findings in this decision.[280]

6.3. Procurement in the mining industry

(301) The results of the market investigation confirm that the vast majority of customers procures capital equipment through competitive tender procedures.[281] According to a customer: *"The tender process allows us to better understand technically and commercially what is available in the market at any given point in time"*.[282] Respondents to the market investigation explain that bilateral negotiations are much more limited and are mainly used for the replacement of existing equipment (when it is not materially different from installed equipment) or for repeat orders.[283]

---

277 Form CO, paragraph 176.

278 Competitive tenders are defined as tenders with more than one participant.

279 Form CO, paragraph 186.

280 The Commission's assessment for iron ore pelletizing will address the Parties' installed base capacities based on market studies coming from mining industry experts (see Section 6.10.3.).

281 Q1, replies to question 59; Q2, replies to question 51.

282 Q2, reply to question 51.1.

283 Q2, replies to question 52.1.

(302) A typical tender process, according to the results of the market investigation, involves several rounds and discussions of technical and commercial terms.[284] In their competitive tenders, customers invite between 2 and 5 bidders in order to compare technical features of the equipment, price and general contractual terms and conditions.[285]

(303) The main criteria for selecting suppliers of mining equipment include, *inter alia*, technical performance and quality, suppliers' reputation and track record, price and total cost of ownership, availability and quality of service support, and delivery times.[286]

(304) The majority of customers does not consider that a prior commercial relationship would render an OEM a more credible bidder for greenfield projects.[287] For brownfield projects, certain customers indicate the incumbent supplier may have an advantage if the project concerns an expansion or replacement of already installed equipment; however, that advantage is not systematic, as it also requires that the customer is satisfied with the existing technology and commercial relationship.[288] Other customers consider that the existence of a prior commercial relationship does not play an important role even in brownfield projects. Several competitors that responded to the market investigation also indicate that for brownfield projects, regarding which they are not the incumbent, they would submit a bid if the customer is seeking to change the installed equipment and technology.[289]

(305) A vast majority of customers that responded to the market investigation involves specialised engineering companies in mining projects.[290] The customers' decision to involve specialised engineering companies is driven by the value and technical complexity of the project.[291] Engineering companies are primarily involved in greenfield projects and large-scale brownfield projects, whereas the majority of customers relies on in-house procurement and engineering departments for other small-scale brownfield projects.[292] Customers which procure EPC or EPCM services from engineering companies indicate that an in-house team would typically oversee their work.[293]

(306) If requested by customers, an engineering company may also tailor and run the tender process according to the mining company's specifications (i.e., under an EPCM contract).[294] In that regard, engineering companies seek to obtain the most suitable offers at the most competitive conditions on behalf of the customer, by designing tenders (e.g., as a package for multiple types of equipment or as discrete lots) and inviting suppliers to bid accordingly. The involvement of engineering

284 Q1, replies to question 60; Q2, replies to question 52.
285 Q1, replies to question 61; Q2, replies to questions 51.1., 56 and 56.1
286 Q2, replies to question 53.
287 Q2, replies to questions 54 and 55.
288 Q2, replies to question 56.
289 Q1, replies to question 64.1.
290 Q2, replies to question 60.
291 Q2, replies to question 61.1.
292 Q2, replies to question 61.
293 Q2, replies to question 60.1.
294 Q2, replies to question 60.

companies in the tender process is particularly important for small and middle-sized mining companies, which do not have their own in-house engineering services.[295]

6.4. Grinding capital equipment

(307) As mentioned above is Section 5.1.1., the Parties' activities overlap in respect of tumbling mills (including the potential market segmentations, i.e. tumbling mills segmented into ball mills, SAG/AG mills, pebble mills, rod bills and into size/power categories) and stirred mills.

6.4.1. Market shares

(308) The Notifying Party submits market share information for 2014 to 2018 based on the McKinsey data for grinding mills (all types).

Table 1 - Overall market for grinding equipment in the mining industry (all mill types)

Competitors	Global (2014-2018)	
	Sales in value (EUR million)	Market share
Outotec	[…]	[10-20]%
Metso Minerals	[…]	[10-20]%
Combined	[…]	[30-40]%
FLSmidth	[…]	[10-20]%
CITIC	[…]	[10-20]%
thyssenkrupp	[…]	[5-10]%
Others	[…]	[30-40]%
Total	[…]	100%

Source: Form CO

(309) As regard a possible world-wide market for tumbling mills (including all types), the Notifying Party estimates that the combined entity's market shares would be similar to that in the overall market for grinding mills, given that tumbling mills account for the vast majority of grinding mills. The combined entity's world-wide market share would therefore not exceed [30-40]%.[296]

(310) The Notifying Party also submits market share data segmented by tumbling mill type. Although it was not able to provide an estimate of the market shares of its competitors, the Notifying Party identified the combined entity's main competitors in each tumbling mill type. On this basis, the Parties' world-wide market shares by

[295] Non-confidential minutes of call with Andritz, 11 December 2019, paragraph 8.

[296] Response to RFI 24 of 1 May 2020, question 4 a.

tumbling mill type are set out below, and the names of the main competitors in each segment:[297]

- Ball mills: Outotec [10-20]%, Metso Minerals [10-20]%, combined [20-30]% - main competitors FLSmidth, CITIC, thyssenkrupp;

- SAG/AG mills: Outotec [10-20]%, Metso Minerals [10-20]%, combined [30-40]% - main competitors FLSmidth, CITIC, thyssenkrupp;[298]

- Pebble mills: Outotec [0-5]%, Metso Minerals [0-5]%, combined [0-5]% - main competitors thyssenkrupp, FLSmidth, CITIC; and

- Rod mills: Outotec [5-10]%, Metso Minerals [0-5]%, combined [10-20]% - main competitors CITIC, thyssenkrupp, FLSmidth.

(311) Similarly, the Notifying Party provided the Parties' combined market share estimates for a possible market segmentation of tumbling mills by power and/or size categories as discussed in Section 5.1.1.1 (paragraphs 59 to 63) above, and the names of the Parties' main competitors in each possible market:[299]

- 0 to 3,000 kw/up to 15 ft (c. 5 m): Outotec [10-20]%, Metso Minerals [10-20]%, combined [20-30]%, main competitors: FLSmidth, CITIC, thyssenkrupp;

- 3,000 kw to 20,000 kw/15 to 30 ft (c. 5 to 10 m): Outotec [10-20]%, Metso Minerals [10-20]%, combined [20-30]%, main competitors FLSmidth, CITIC, thyssenkrupp;

- More than 20,0000 kw/30 ft (c. 10 m): Outotec [0-5]%[300], Metso Minerals [30-40]%, combined [30-40]%, main competitors FLSmidth, CITIC, Cemtec.

(312) As regards a possible market for stirred mills, the Notifying Party estimates that Outotec has a world-wide market share of [10-20]%, Metso Minerals of [20-30]% and that both Parties combined have a world-wide market share of [30-40]%. According to the Notifying Party, the main competitors for stirred mills are Glencore, CITIC and Eirich.[301]

(313) The Parties' main competitors in this market are companies that are mostly active globally. FLSmidth is headquartered in Denmark with global operations supplying a large portfolio of grinding equipment, and covering all the types of grinding mills in in which the Parties' activities overlap. CITIC is a major Chinese supplier of grinding equipment with global coverage supplying equally all types of grinding mills in question. thyssenkrupp is a multinational conglomerate based in Germany focusing on industrial engineering and steel production and is a major player in the global grinding mill industry. Cemtec, also based in Germany and active world-

297 Response to RFI 22 of 28 April 2020, question 4.

298 The Notifying Party estimates that if a distinction is made between AG and SAG mills, the market shares for each of these two segmentations would be identical to those of the overall market for AG/SAG mills, response to RFI 24 of 1 May 2020, question 4 a.

299 Response to RFI 23 of 28 April 2020, question 1.

300 […].

301 Response to RFI 22 of 28 April 2020, question 4.

wide, has a diverse grinding mill portfolio covering all types of mills covered by this decision.

(314) In addition, there are other companies with strong regional (and, for some, increasingly global) competition such as NCP, Glencore, Eirich, CRIMM, Loesche, Farnell and Thompson (mostly North America), NHI and BGRIMM (China), Uralmash (Russia and CIS). Turkish suppliers Ersel and Remas have won projects for small mills in Europe in the last years.

6.4.2. The Notifying Party's views

(315) The Notifying Party submits that the Transaction does not raise competition concerns in relation to grinding equipment on a worldwide geographic market for the reasons set out below.

(316) The Notifying Party argues that the Parties' global combined share over the period 2014-2018 ([30-40]%) is moderate. Over this period, Metso Minerals is estimated to have ranked fourth with [10-20]% of sales and was smaller than market leader FLSmidth ([10-20]%) and CITIC ([10-20]%).

(317) The Notifying Party also argues that in both tumbling mills including any plausible segmentations of these markets (i.e., ball mills, SAG/AG mills, pebble mills and rod mills and broken down by size/power categories) and stirred mills the Parties are exposed to competition from major global operators such as FLSmidth (DK), CITIC (China), thyssenkrupp (DE), Cemtec (DE), NCP (SA), Glencore (UK/CH), Eirich (DE), BGRIMM (China), Loesche (DE), Ersel (TK) and other – EU and non-EU - operators. The Parties notably emphasise that Chinese suppliers such as CITIC have significantly improved their position over the past years, to a point where they now exercise a strong competitive constraint on existing global suppliers, in particular as they can offer their products at a much lower price.

(318) The Notifying Party also argues that the Parties are not particularly close competitors. The Parties bidding data thus indicates that […].

(319) Further, the Notifying party emphasises that no barriers to entry and expansion exist as there would be no significant technological differentiation between the various competitors, and the smaller regional competitors would not face significant technological barriers to expand their market presence. The Notifying Party also submits that OEMs typically do not manufacture the equipment themselves, but rather use sub-suppliers to provide all parts of the equipment.

(320) The Notifying Party also argues that competition is significantly enhanced by the fact that grinding equipment is typically sourced through highly competitive bidding processes, ensuring strong competition irrespective of the size of the project in question.

(321) The Notifying party submits that the arguments above (paragraphs 315 to 320 to) apply *mutatis mutandis* to each segmentations of the grinding equipment market assessed by the Commission, i.e., grinding mills broken down by type (stirred mills, tumbling mills overall and tumbling mills broken down into AG/SAG mills, ball mills, pebble mills, and rod mills) as well as tumbling mills broken down by size, namely small mills, medium mills and large mills.

(322) In addition, the Notifying Party emphasises that for tumbling mills, the Parties will remain subject to significant competition from sophisticated international competitors and smaller, more regionally active suppliers alike. In particular, it submits that tumbling mills are even more commoditized than other types of grinding mills (including stirred mills), with a greater number of competitors constraining the Parties post-Transaction.

(323) Regarding stirred mills, the Notifying Party emphasises that the combined entity will also face several large global competitors, namely Glencore, CITIC, Eirich, FLSmidth, thyssenkrupp, and a number of smaller competitors. Metso Minerals, who introduced stirred mill technology many years ago, has lost its incumbent position following the entry of several global competitors. The Notifying Party expects that the stirred mills market will continue to attract additional competitors in the future. In addition, the Notifying Party considers that stirred mills are subject to substitution from ball (and other tumbling) mills to a significant extent.

(324) Furthermore, the Notifying Party considers their main competitors for small and medium-sized mills to be largely similar as all global competitors offer mills in the given power ranges. The top competitors include (in order of estimated market position) FLSmidth, CITIC, thyssenkrupp, NCP, Cemtec, NHI, and Uralmash. The number of competitors in the plausible segmentation for small grinding mills is the highest of all size-segments, with a significant number of smaller regional and local competitors. The Notifying Party submits that overall, there are more than a dozen global and regional suppliers for small grinding mills, including A.M. King, Cemtec, ChristianPfeiffer, CITIC, Eirich, Ersel, Farnell & Thompson, FLSmidth, NCP, Osborn, Remas, Sepro, Sturtevant, Tenova, thyssenkrupp, Weir, and Westpro.

(325) Lastly, the Notifying Party emphasises that Metso Minerals and FLSmidth are the main competitors regarding large grinding mills. Throughout the past five years, the Parties consider that FLSmidth was the clear market leader with a global share of [60-70]%. In the more distant past, CITIC has installed a number of large grinding mills as well. For its part, […].

6.4.3. Commission's assessment

(326) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of possible horizontal non-coordinated effects, and in particular through the creation or strengthening of a dominant position, in the market for the supply of grinding equipment and possible segmentations.

(327) First, the Parties' combined market share remains moderate both in the overall market and in any of the plausible segmentations assessed for the purposes of the this decision (i.e., tumbling mills broken down by mill type and size/power category and stirred mills). The Notifying Party estimates that the Parties' world-wide combined market share for tumbling mills only does not exceed [20-30]%. Further, the Notifying Party estimates that (i) the Parties' combined market share only exceeds [30-40]% in the area of stirred mills and large tumbling mills (potentially reaching [40-50]%, whereby the increment in large tumbling mills is low), (ii) is [30-40]% in ball mills and AG/SAG mills, and (iii) remains below [20-30]% for pebble mills, rod mills and medium tumbling mills. In all these plausible segments, the combined entity will continue to face competition from several major global

players, in particular FLSmidth, CITIC, thyssenkrupp, as well as Cemtec (DE), NCP (SA), Glencore (UK/CH), Eirich (DE), BGRIMM (China), Loesche (DE), Ersel (TK) and other – EU and non-EU-based - operators.[302] There are additional global and regional suppliers for small grinding mills.[303]

(328) Second, Outotec and Metso Minerals are not particularly close competitors with regard to the supply of grinding equipment. In this respect, while Outotec and Metso Minerals are indeed considered to be competitors in the grinding mills business[304], they have a differentiated offering. One of the respondents in the market investigation states that Outotec and Metso Minerals "*compete only in mills up to 12 feet in diameter, however, there is multiple participation of suppliers in this segment. For larger diameters, Metso's competition would be FLSmidth, thyssenkrupp, CITIC."*[305] An internal document submitted by the Notifying Party confirms that Outotec and Metso Minerals have a different commercial focus, […].[306]

(329) This assessment was confirmed by the results of the market investigation. Both customers and competitors consider that major suppliers, in particular FLSmidth, thyssenkrupp and CITIC, but also Cemtec and Christian Pfeifer can be considered very close, and in some respects closer competitors to Outotec and Metso Minerals respectively than the Parties are to one another, both on the overall market for grinding equipment and the plausible segmentations investigated for the purposes of the this decision.[307]

(330) In addition, the analysis of the Parties' bidding data also confirms that the Parties are not the closest competitors as regards the common participation in tenders in which they respectively participated in the period 2013-2019. Outotec competes most frequently against […] in terms of common tendered value [308] ([…]%), followed by […]. Moreover, […] also won the largest value share amongst other competitors in tenders in which Outotec participated ([…]%), followed by […]. Similarly, the closest competitor in terms of common participation to Metso Minerals was also […], followed by […]. In terms of won value, […] of tenders in which Metso Minerals participated, while […] of the tendered value in tenders in which Metso Minerals participated for the period 2013-2019. In view of the foregoing and without prejudice to the data limitations described in Section 6.2.2 above, the bidding data overall indicate that the Parties are not the closest competitors.

(331) Further, as explained at paragraphs 328 and 329 above, the results of the market investigation indicate that the Parties' offering within grinding equipment is differentiated, such that competitive dynamics within each possible segmentation of that market may provide more accurate indications of their closeness of competition.

---

[302] This list of competitors is confirmed by an internal document, […].

[303] The competitors Cemtec (Germany) and Ersel and Remas (Turkey) are […].

[304] Q1, replies to question 76; Q2, replies to question 66.

[305] Q2, reply to question 66.1.

[306] […].

[307] Q2, replies to questions 67 to 70; Q1, replies to question 77.

[308] The share of tendered value with other competitors is a measure of common participation in tenders expressed in project value rather than project count. This measure indicates the percentage of one firm's total tendered value, which is also bid for by another competitor. As an illustration, when analysing firm's Y total tendered value, a 100% participation rate of firm X would indicate that firm X also bid for every euro in the same tenders that company Y bid for.

In this regard, however, the Commission observes that the number of tenders within each possible segmentation of the market for grinding equipment is more limited. The results of the bidding analysis at that level should therefore be interpreted with caution. With that in mind, the results of the bidding analysis for tumbling mills leads to similar competitive dynamics as on the overall grinding mills market, with […] representing the largest value share in terms of participation and wins in both tenders in which Metso Minerals and Outotec participated respectively. In stirred mills, […]. In light of the limited data, the Commission considers that these results overstate the closeness between the Parties. Indeed, the market investigation, as discussed above, revealed that the Parties are not the closest competitors, including as regards stirred mills. Moreover, the high common participation with other competitors FLSmidth, Glencore, CITIC, and in Metso Minerals' tenders, Eirich, indicates that a sufficient competitive pressure in this segment will remain post-Transaction.

(332) Third, the results of the market investigation confirm that, post-Transaction, there will remain sufficient alternative suppliers to maintain a similar level of competition in the market for the supply of grinding equipment, in particular FLSmidth, CITIC, thyssenkrupp, Cemtec, Glencore and Eirich. This was indicated by a clear majority of the customers that participated in the market investigation.[309]

(333) Moreover, half of the customers of grinding equipment that participated in the market investigation considers that they would consider inviting Chinese suppliers in a tender for grinding equipment[310], which suggests that the combined entity will be subject to competitive constraints post-Transaction. In this context, one customer explained that "*China has progressed far in recent times in respect to quality control and is worthy to be considered in tender invites where they meet qualifications"*.[311] The Notifying Party's internal documents also supports the view that the Chinese operator CITIC exercises an effective and significant competitive constraint.[312]

(334) It should also be noted that a majority of customers that participated in the market investigation indicates that the impact of the Transaction on competition in respect of grinding equipment is expected to be neutral or positive.[313]

(335) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market or in the EEA as it does not give rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of grinding capital equipment for the mining industry (and all plausible market segments).

309 Q2, replies to question 72.
310 Q2, replies to question 71.
311 Q2, replies to question 71.1.
312 […].
313 Q2, replies to question 114.

6.5. Grinding aftermarket

(336) As indicated, both Parties offer spare parts, services, and wear parts for grinding mills. The Notifying Party emphasises that Outotec's activities in this area are very limited, as Outotec is active almost exclusively with respect to its own installed base.

6.5.1. Market shares

(337) Based on McKinsey estimates the Parties' market shares for grinding services and spare parts are set out in the table below:

Table 2 – Grinding aftermarket services and spare parts 2014 – 2018 (global)[314]

Competitors	Sales in value (EUR million)	Market share
Outotec	[…]	[0-5]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	***[0-5]%***
Others	[…]	[90-100]%
Total	[…]	100%

Source: Form CO

(338) The Notifying Party confirms that if the aftermarket is split in (i) services and (ii) spare parts (without wear parts), the Parties' combined market share would equally remain below [0-5]% in each of these two sub-segmentations.[315]

(339) The Notifying Party confirms that the market shares for grinding wear parts are similar to those set out in the table above for services and spare parts, with a combined global share of approximately [0-5]%.[316]

(340) The Notifying Party submits that Metso Minerals has a more substantial presence only regarding the supply of one type of spare part, i.e. mill lining. In a potential overall mill lining market, Metso Minerals estimates that its share would be in the order of around [10-20]%. The Notifying Party considers that there is no overlap in this market segment and, in any event, Outotec's share and competitive position would be below [0-5]% regardless of the precise market segmentation.[317]

6.5.2. The Notifying Party's views

(341) According to the Notifying Party, the Transaction will not result in competitive concerns regarding aftermarket products and services for grinding mills globally,

314 Form CO, paragraph 461, confirmed by response to RFI 24 of 1 May 2020, question 1.
315 Response to RFI 24 of 1 May 2020, question 1.
316 Form CO, paragraph 461, confirmed by response to RFI 24 of 1 May 2020, question 1.
317 Response to RFI 24 of 1 May 2020, question 1.

primarily because both Parties largely – almost exclusively for Outotec – focus on servicing their own installed base.

(342) Moreover, the Notifying Party submits that the aftermarkets for grinding mills are even more competitive than the capital equipment side, with a large number of additional suppliers competing with the equipment suppliers.

(343) According to the Notifying Party, this is illustrated by the fact that the aftermarkets for minerals processing equipment generally are not captive. In that respect, the Notifying Party submits that Metso Minerals' sales share for spare parts for its own grinding installed base is at around [30-40]%, while Outotec's share regarding spare parts for its own grinding installed base is approximately [40-50]%. Moreover, Metso Minerals estimates its share of sales of spare parts for other suppliers' installed grinding mills at only around [0-5]%, while Outotec's activities outside its own installed base are negligible.

(344) The Notifying Party also argues that the Transaction will not result in any competitive concern regarding grinding mill aftermarket services, spare parts and wear parts under any market segmentation as the Parties' estimated combined global share in each plausible segment does not exceed [5-10]% (with a maximum combined market share of [10-20]% if mill linings were considered to constitute a separate product market).

6.5.3. Commission's assessment

(345) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market with respect to non-coordinated horizontal effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of grinding aftermarket services, spare and wear parts.

(346) First, the Transaction does not give rise to a horizontally affected market in relation to the grinding aftermarkets services, wear parts and spare parts, as the combined entity's market share will remain well below [10-20]% in all plausible segmentations of the market (i.e., in a market for aftermarket services and spare parts, for wear parts only and separately for services and spare parts).

(347) Second, the Parties' share of sales related to third parties' installed base is not significant, i.e., below […]% for each of them. At the same time, the Commission notes that, based on the Notifying Party's submission, more than […]% of the Parties' installed grinding equipment is serviced by other suppliers, comprising a mix of competitors, such as engineering houses and third-party parts suppliers.[318]

(348) The results of the market investigation show that only few customers indicate that they procure grinding aftermarket spare and wear parts and services directly from the capital equipment suppliers, especially after the end of the warranty period,[319] showing the existence of a merchant aftermarket for grinding equipment. After the end of the warranty period, customers are free to procure wear parts, spare parts and

[318] Form CO, paragraph 466.

[319] Q2, replies to question 101.

services from third-party suppliers, a large majority of customers respondents indicates that they already have switched away from the OEM from which they procured the capital equipment to other suppliers for the purchase of aftermarket services, spare and wear parts.[320] Customers further explain that the selection of alternative aftermarket suppliers would typically rely on criteria such as cost, quality of service, quality of parts or reliability of supply.[321] One respondent summarises mining companies' objectives in these terms: "*The objective during the warranty period is to maintain the relationship with OEM in order to preserve the warranty in the case of an event. However, this must be previously aligned with the maintenance strategy defined by each organization. In general, once this period is over, other aspects such as lower costs, maintaining or increasing the level of production are privileged.*"[322] Another customer indicates that "*During the warranty period aftermarket services, spare or wear parts are purchased from OEMs, after the warranty period - we usually look for alternatives.*"[323]

(349) The results of the market investigation also indicate that customers can procure wear parts, spare parts and services from a large number of suppliers. In that regard, a majority of respondents considers that more competitors are active in the supply of aftermarket services, spare and wear parts than in the supply of capital equipment.[324] Furthermore, a majority of customers would consider inviting Chinese suppliers to bid for the provision of aftermarket wear parts, spare parts and service.[325] A majority of competitors also considers that the competitive pressure exerted by Chinese suppliers for the provision of aftermarket wear parts, spare parts and services is moderate to intense.[326] In addition to this competition from globally active competitors, some respondents further explain that local suppliers exert an important competitive pressure in the aftermarket.[327]

(350) Finally, overall, the results of the market investigation do not raise concerns related to the provision of grinding spare parts, wear parts and services by the combined entity.

(351) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market or in the EEA by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in relation to aftermarket(s) for grinding equipment.

6.6. Flotation capital equipment

(352) As mentioned in Section 5.1.2., the Parties' activities overlap in respect of two types of flotation equipment, namely mechanical and column cells. The Parties' sales

[320] Q2, replies to question 102.
[321] Q2, replies to question 102.2.
[322] Q2, reply to question 102.2.
[323] Q2, reply to question 40.2.
[324] Q1, replies to question 109.
[325] Q2, replies to question 100.
[326] Q1, replies to question 110.
[327] Q1, replies to question 109.1 ; Q2, replies to question 99.1.

overwhelmingly concern mechanical cells, as column cells roughly represent […] of Metso Minerals' sales of flotation equipment and less than […] of Outotec's.[328]

(353) In terms of cell size, Metso Minerals' portofolio includes mechanical cells from 0.34m³ to 600m³ volume and Outotec offers mechanical cells from 0.5m³ to 630m³ volume.[329] As to column cells, both Parties' portfolio includes equipment with a diameter up to 6 meters.[330]

6.6.1. Market shares

(354) Based on McKinsey estimates, the market for the supply of flotation equipment will be affected at the global level, with a combined market share of [30-40]% in value, as shown in Table 3 below. The increment will be limited, as Metso Minerals' market share in value (in value) remains below [0-5]%. The Notifying Party confirms that the combined entity's market share in the market for the supply of flotation equipment (and possible segmentations) for the period 2015-2019 does not materially differ from their market shares in the period 2014-2018.[331]

328 Form CO, paragraphs 503, 625 and 627.

329 Response to RFI 20, 24 April 2020, question 13. The Notifying Party indicates that while large 600m³ flotation cells are technically part of Metso Minerals's current product offering, […] (Form CO, footnote 507).

330 Form CO, paragraph 503.

331 Response to RFI 20 of 24 April 2020, question 15.

Table 3 - Overall market for flotation equipment in the mining industry

Competitors	Global (2014-2018)[332]	
	Sales in value (EUR million)	Market share
Outotec	[…]	[30-40]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	**[30-40]%**
Competitors	[…]	[60-70]%
incl. FLSmidth	[…]	[10-20]%
incl. BGRIMM	[…]	[10-20]%
incl. Woodgrove	[…]	[10-20]%
incl. Eriez	[…]	[5-10]%
incl. others[333]	[…]	[20-30]%
Total	[…]	100%

Source: Form CO

(355) The Notifying Party also provided market share information for a possible segmentation of the world-wide flotation equipment market between mechanical cells and column cells.

(356) The Notifying Party submits that the Parties' combined market share in the possible market for mechanical cells for the period 2014-2018 does not materially differ from its market share in the overall market.[334] In that regard, the combined entity market share in the market for mechanical cells would be [30-40]% (Outotec [30-40]%, Metso Minerals [0-5]%).[335]

(357) The combined entity's market share does not materially differ when considering the plausible mechanical cells market sub-segmented by cell size, as shown in Table 4 below. The increment resulting from the Transaction is more important in the potential market segment for mechanical cells below 100m³ ([5-10]%) than in the potential market segment between 100m³ and 300m³ and between 300m³ and 600m³ ([0-5]%). The Parties' activities do not overlap on the potential market segment for mechanical cells above 600m³, as Metso Minerals does not supply such cells.

---

332 Form CO, paragraph 513.

333 Including Glencore and NHI.

334 Mechanical flotation cells represent the large majority of sales of flotation equipment (approximately […]%, based on the Parties' bidding data).

335 Response to RFI 24, 1 May 2020, question 6.a.

Table 4 – Mechanical cells sub-segmented by size

Mechanical cells	Global (2014-2019)		
	Outotec	Metso Minerals	Combined
Below 100 m³	[20-30]%	[5-10]%	[30-40]%
Between 100m³ and 300m³	[20-30]%	[0-5]%	[20-30]%
Between 300m³ and 600m³	[30-40]%	[0-5]%	[30-40]%
Above 600m³	[40-50]%	-	[40-50]%

Source: Response to RFI 22.

(358) As regards the potential market for column cells, the combined entity's market share estimated in value and in number of projects would remain below [10-20]% at the global level (in value Metso Minerals [5-10]% and Outotec [5-10]%; in number of projects: Metso Minerals [10-20]% and Outotec [5-10]%).[336] Furthermore, given the Parties' limited presence,[337] the combined entity's market share will remain below [10-20]% in all possible size segments.[338]

(359) The Parties' main competitors in the overall market for flotation equipment (and possible segmentations) include FLSmidth (Denmark), BGRIMM (China), Woodgrove (Canada), and Eriez (USA).

(360) FLSmidth is the second largest supplier of flotation equipment. The Notifying Party states that FLSmidth is one of the only suppliers with the capabilities and references to compete for all types of flotation projects, including very large flotation cell equipment.[339] BGRIMM's flotation equipment portfolio includes mechanical cells (including cells above 600m³), column cells and flash flotation.[340] Woodgroove offers SFR and DFR cell technology and supplies equipment globally.[341] Eriez is the global leading provider of column cells.[342]

---

[336] Form CO, paragraph 623. The Parties' market shares for column cells have been estimated on the basis the Parties' bidding data, which lists […] projects for the years 2014-2018 globally.

[337] Columns cells represent […]% of Metso Minerals' flotation equipment sales and less than […]% of Outotec's flotation equipment sales.

[338] The Notifying Party indicates that over the period 2015-2019, the Parties won […] projects only related to column cells ([…] by Outotec and […] by Metso Minerals), all of them concerning equipment with a diameter below or equal to […] meters. Even when considering a possible segmentation for small and/or medium size column cells (below […] meters), the Parties' combined market share remains below [20-30]% (response to RFI 20 of 24 April 2020, question 14).

[339] Form CO, paragraphs 533 to 543.

[340] Form CO, paragraphs 544 to 549.

[341] Form CO, paragraphs 550 to 557.

[342] Form CO, paragraphs 558 to 562.

6.6.2. The Notifying Party's views

(361) The Notifying Party submits that the Transaction is unlikely to give rise to horizontal non-coordinated effects in the market for the supply of flotation equipment and its possible segmentations for the reasons set out below.

(362) First, although the combined entity's market share exceeds [30-40]% on a global basis, the Transaction will result in a very small increment. Metso Minerals' market share prior to the Transaction is indeed only [0-5]%, well below Outotec's most important competitors such as FLSmidth, BGRIMM and Woodgrove.[343] In that regard, the Notifying Party indicates that, historically, Metso Minerals has not been a strong competitive force in flotation and [BUSINESS STRATEGY].[344]

(363) Second, the Notifying Party considers that the combined entity will remain subject to significant competition from major suppliers post-Transaction. In the Notifying Party's views, the market for flotation equipment has never been as competitive as it is currently.[345] While Outotec and FLSmidth have historically been the two main suppliers of flotation equipment, they are increasingly facing competitors offering competitive solutions in technology and price, such as BGRIMM,[346] Woodgrove, Eriez and Glencore.[347] In addition, the Notifying Party cites a variety of local and regional competitors, such as Tenova S.p.A. (Techint Group, Argentina), MBE-Coal & Minerals Technology (India), ENPROTEC (South Africa), Northern Heavy Industries Group Co. (NHI, China), Westpro Machinery (USA), Yılmaz Process Technology (YPT – Turkey), Zakład Działalności Innowacyjnej INNOVATOR (Innovator, Poland), or RIVS (Russia).[348]

(364) Third, the Notifying Party argues that, given Metso Minerals' limited activities in the flotation market, the Parties cannot be regarded as particularly close competitors. According to the Parties' bidding analysis, FLSmidth appears to be the Parties main competitor in for flotation capital equipment.

(365) The Notifying Party further indicates that the bidding data underestimate the competitive pressure exerted by the Parties' competitors, given that Outotec was not able to identify the runner-up for more than half of all projects that it was awarded. While it can be assumed that Metso Minerals was not a runner-up for these projects (as Metso Minerals would otherwise have reported such information), it is, in the Notifying Party's views, likely that […] was a runner-up on several of these bids.[349] In addition, the Notifying Party considers that, for the reasons set out in Section 6.2.2., the Parties' internal statistics likely underestimate competition from […].[350]

---

343 Form CO, paragraph 519.

344 Form CO, paragraph 530.

345 Form CO, paragraph 526.

346 In addition, the Notifying Party states that BGRIMM is a state-owned company receiving preferential treatment from the Chinese government (in securing licensing approvals and low-cost bank financing) which allows it to offer lower equipment prices compared to other mining equipment suppliers (Form CO, paragraph 547).

347 Form CO, paragraphs 533 to 566.

348 Form CO, paragraphs 567 to 595.

349 Form CO, paragraph 601.

350 Form CO, paragraphs 605 and 606.

(366) In addition, in the Notifying Party's views, the closeness of competition between FLSmidth and Outotec is also reflected in their leadership in the supply of large flotation cells. Moreover, BGRIMM has recently installed a 680m³ flotation cell (purported to be the largest flotation cell ever installed)[351]. While Outotec has installed approximately […] flotation cells of 300m³, Metso Minerals […] for its 300 m³ flotation cells ([…]).[352]

(367) Fourth, the Notifying Party explains that flotation equipment is largely sourced via global and highly competitive bidding processes, where the Parties face sophisticated purchasers and EPC companies with significant buyer power. It further argues that the customers' strong position is strengthened by the regular involvement of highly specialized EPC(M)s, in particular for greenfield and large brownfield projects. These EPC(M)s have significant market insight and organize very competitive tenders globally. By issuing such international tenders, mining customers will continue to receive competitive bids from several established suppliers and this will ensure that they will maintain a large choice of suppliers post-transaction.[353]

(368) Fifth, the Notifying Party submits that there is no price transparency in the competitive bidding processes, and it is impossible for bidders to adjust their prices to those of competitors. Moreover, new projects take place so infrequently that every supplier must bid aggressively in order to be competitive. Therefore, the Notifying Party does not believe that other competitors such as FLSmidth, Eriez, BGRIMM, or Woodgrove would take advantage of the Transaction to price less aggressively.[354]

6.6.3. Commission's assessment

(369) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement as a result of possible horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of flotation equipment and possible sub-segments thereof.

(370) First, the Transaction would result in only moderate market shares, regardless of any plausible market product segmentation.

(371) On the overall market for flotation equipment, the combined entity's market share will be [30-40]%, with a [0-5]% increment coming from Metso Minerals (Outotec [30-40]%). The Parties' market share does not differ when considering a potential market for mechanical cells. The Notifying Party's estimates related to the Parties' market share are in line with the estimates provided by one of the Parties' main competitor during the market investigation. In addition, this competitor's estimates indicate that its own market share is higher than those provided by the Notifying Party ([20-30]% according to this competitor and [10-20]% according to the

351 Form CO, paragraph 495.
352 Form CO, paragraph 603.
353 Form CO, paragraphs 607 to 610.
354 Form CO, paragraph 611.

Notifying Party, both for the overall market for flotation equipment and for the potential market for mechanical cells).[355]

(372) The combined entity's market share does not significantly change when considering different sizes of mechanical cells. In that regard, the combined entity's market share does not exceed [30-40]% in any of the overlapping market segmentations (below 100m³, between 100m³ and 300m³, between 300m³ and 600m³).[356] Furthermore, the increment is limited (less than [5-10]% but closer to [0-5]% in most segmentations).

(373) Second, the Parties are not the closest competitors for flotation equipment. A majority of respondents to the market investigation considers that the Parties do not compete head-to-head in this market.[357] Several customers thus highlight that the Parties' activities in flotation equipment overlap only to a limited extent, given that they do not provide comparative offerings in cell size and that Outotec has a larger flotation installed base globally.[358] In that regard, some respondents indicate that Outotec currently provides a wider range of mechanical cell sizes than Metso Minerals and that the latter has a larger installation base for column cells.

(374) In addition, and despite the limitations inherent with the Parties' bidding data presented in Section 6.2.2. above, such data suggest that Metso Minerals does not constitute Outotec's closest competitive constraint in the overall flotation market. Rather, Outotec competes most frequently against […] in terms of tendered value ([…] of common tendered value), followed by […] in the period 2013-2019. The largest won value share of these tenders among Outotec's competitors was won by […], followed by […]. Moreover, Metso Minerals […] in terms of tendered value […], followed by […]. In light of data limitations and the results of the market investigation as discussed above, the Commission considers that the Parties are not the closest competitors and there is sufficient number of other players in overall flotation market.

(375) Furthermore, the Parties do not appear to constrain one another in the potential market of column flotation. While Metso Minerals participated in […] in the period 2013-2018. […] of such tendered value in the period 2013-2018.

(376) The competitive dynamics in the potential market for mechanical flotation are similar to the overall market: […] common participation in tenders) and main competitive constraint […]. Similarly to overall market, athough the largest won value share of tenders in which Metso Minerals participated was won by […] largest common participation rate in terms of tendered value with Metso Minerals […] followed by […]. In light of the results of the market investigation as discussed above, the Commission considers that the Parties are not the closest competitors and there is a sufficient number of other players in mechanical flotation market.

(377) Third, a vast majority of respondents to the market investigation, including both competitors and customers, considers that, post-Transaction, there will remain sufficient alternative suppliers to maintain a similar level of competition in the

355 Non-confidential minutes of call with FLSmidth, 11 December 2019.

356 Outotec' market share on the market segment for mechanical cells above 600m³ exceeds [40-50]%, but […].

357 Q1, replies to question 85; Q2, replies to question 75.

358 Q2, replies to question 75.1.

market for the supply of flotation equipment and its possible segmentations such as FLSmidth, BGRIMM, Eriez and Woodgrove.[359]

(378) In that regard, many respondents consider FLSmidth as the Parties' main competitor. For instance, a customer explains that "*Metso is much smaller in flotation equipment supply and competes with the smaller companies, not Outotec/FLS.*"[360] Likewise, a competitor submits that "*Outotec And Metso are competitors, but real competition is between Outotec and FLS.*"[361] Additional respondents submit that other suppliers, such as BGRIMM, Eriez, or Woodgrove, also provide competitive offerings, to different extents.[362] In that regard, some respondents consider BGRIMM's product portfolio in flotation equipment as broad as FLSmidth's and Outotec's ones, while Woodgrove (providing new types of cells supposed to provide comparable outcomes to the traditional mechanical flotation technology) and Eriez (specialised in column cells) provide smaller offerings.[363] For instance, a customer describes the Parties' competitors for flotation equipment as follows: "*FLS produces and supplies mostly mechanical cells which are still the largest installed base of flotation capital equipment. BGRIMM makes everything, and while its installed base is mostly Asia, there are new operations in Australia and elsewhere that have BGRIMM equipment. Eriez is mostly in the column and related equipment space. Woodgrove has a small installed base but it is growing.*"[364]

(379) Furthermore, respondents to the market investigation do not raise competition concerns when considering different cell sizes of mechanical flotation equipment. Customers indicate that important suppliers such as FLSmidth or BGRIMM offer various cell sizes. In addition, several competitors, such as Tenova or NPO Passats, also indicate that they supply or are able to supply various cell sizes.[365] Some respondents suggest that the potential market for the supply of mechanical cells above 300m³ is more concentrated than the overall flotation market or the potential market for mechanical cell below 300m³, given than only few OEMs (including the Parties) provide large and very large mechanical cells. However, the results of the market investigation confirm that FLSmidth and BGRIMM exercise a significant competitive constraint on the merging parties in that segment.[366]

(380) The Parties' internal documents also suggest that significant competitive constraints will remain post-Transaction. For instance, […][367]. An internal document of Metso Minerals […][368]. In addition, Outotec's internal document […] identifies several competitors, […] for each of the flotation equipment type (mechanical flotation, sub-segmented by size and flotation columns) provided by both Parties.[369]

---

359 Q1, replies to questions 89 and 89.1; Q2, replied to questions 79 and 79.1.
360 Q2, reply to question 77.1.
361 Q1, reply to question 85.1.
362 Q1, replies to questions 86 and 87; Q2, replies to questions 76 and 77.
363 Q1, replies to question 87.2.
364 Q2, reply to question 76.1.
365 Q1, replies to questions 27.1 and 28.
366 Q2, replies to questions 76.2 and 77.2.
367 Annex 7-20 to the Form CO, slide 10.
368 Annex 7.31 to the Form CO, slide 2. Not dated.
369 Annex 5-98 to the Form CO, slide 23.

(381) Fourth, a majority of respondent considers that there are no substantial barriers to enter the market for flotation equipment, as flotation cells of all types are relatively simple devices even if they are subject to regular improvement.[370] Some customers indicate, however, that a proven track record and strong reputation remain important to be selected.

(382) In addition, the results of the market investigation indicate that customers may sponsor entry in the market for flotation equipment. For example, the Jameson cell technology was developed by the mining company Glencore in partnership with the University of Newcastle Research Associates (Australia). According to Glencore, this partnership aimed at developing "*a low cost machine to recover fine particles in cleaner applications.*"[371]

(383) Fifth, overall, a majority of competitors and customers considers that the Transaction will have a neutral impact on the intensity of competition in the market for flotation equipment.[372]

(384) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market, or in the EEA, in the market for the supply of flotation capital equipment (and possible sub-segments) for the mining industry.

6.7. Flotation aftermarkets

(385) As set out in Section 5.1.2., both Parties offer spare parts and services for flotation equipment.

6.7.1. Market shares

(386) Based on McKinsey estimates, the Parties' combined share in value will remain well below [10-20]% at the global level, as stated in Table 5 below.

[370] Q2, replies to questions 81 and 81.1.
[371] Q2, reply to question 82.
[372] Q1, replies to question 126.2; Q2, replies to question 114.2.

Table 5 – Flotation services and spare parts – 2014-2018 (global)[373]

Competitors	Value of sales (in EUR million)	Market share
Outotec	[…]	[5-10]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	**[5-10]%[374]**
Others	[…]	[90-100]%
Total	[…]	100%

Source: Form CO

(387) The Notifying Party further indicates that the combined entity's market share would not materially differ when considering flotation services and spare parts separately, i.e., around 5% on each possible sub-segmentation.[375]

6.7.2. The Notifying Party's views

(388) The Notifying Party considers that the Transaction is unlikely to have a negative impact on the aftermarket for flotation equipment, considering the Parties' combined market share of less than [5-10]% and a very limited increment of [0-5]%.[376] According to the Notifying Party, the aftermarkets for flotation equipment are more competitive than the market for capital equipment for several reasons.

(389) The Parties' activities related to aftermarket services almost exclusively rely on their own installed bases. In that regard, the flotation aftermarket is generally limited in scope and the only relevant spare parts are the impellers[377] in mechanical cells that have to be replaced every […] months on average for more abrasive rougher stages, and every […] months for cleaner applications. Thus, the first replacements of flotation spare parts generally occur after the initial warranty period on […] months from the start of the operation (or […] months from delivery, whichever expires

[373] The Notifying Party indicates that these estimates do not include wear parts because of lack of internal information. However, this do not change the assessment, given that the main consumables in flotation are chemical reagents and that the Parties neither manufacture nor actively market flotation reagents (Form CO, footnote 674).

[374] The Notifying Party indicates that in addition to the sales of spare parts and associated services, Metso Minerals estimates that around […] of its un-allocated service labour revenues (amounting to […] globally throughout the period 2014-2018) are attributable to flotation. These revenues have not been incorporated in the estimates in the table below. If one attributes […] of Metso Minerals' overall revenues un-allocated service labour revenue (i.e. €[…]) to flotation, Metso Minerals' revenues in flotation aftermarkets would increase to €[…]. This would however not significantly change the Parties' combined market share, as Metso Minerals' share would remain at around [0-5] (Form CO, footnote 675).

[375] Response to RFI 24, 1 May 2020, question 2.

[376] Form CO, paragraph 644. This estimate takes into account Metso Minerals' un-allocated service labour revenue related to flotation aftermarkets.

[377] Impellers are moving parts of a flotation equipment, used to stir the slurry and create optimum particle-bubble contact.

first).[378] After the warranty period, the Parties have to face open competition from engineering companies, third-party suppliers or suppliers that manufacture the parts in the first place for the Parties and may work directly with the mining customers for aftermarket business.[379] The Notifying Party further indicates that the Parties' sales share for spare parts for their own flotation installed bases during the period 2014-2018 is limited (around [20-30]% for Metso Minerals and [20-30]% for Outotec). Besides, the Parties' sales share for flotation aftermarkets outside their own installed base is not significant (below [0-5]%).[380]

6.7.3. Commission's assessment

(390) The Commission considers that for the reasons set out below the Transaction does not raise serious doubts as to its compatibility with the internal market with respect to non-coordinate horizontal effects in the flotation aftermarket (and possible sub-segmentations).

(391) First, the Transaction does not give rise to a horizontally affected market in relation to the flotation aftermarket as a whole as the combined entity's market share (between [5-10]% and [5-10]%) will remain well below [10-20]% under any possible segmentation.[381] In addition, the Parties' share of sales related to third-parties' installed base is non-significant, below [0-5]% for each of them.

(392) Second, the Parties do not overlap for wear parts and their share for the provision of spare parts for their own installed base, remain limited (around [20-30]%). In that regard, only few customers indicate that they tend to procure flotation aftermarket parts and services directly from the capital equipment suppliers after the warranty period.[382]

(393) Furthermore, based on the results of the market investigation,[383] the Commission considers that the findings set out at paragraphs 347 to 349 above with respect to grinding aftermarkets, regarding the customers' possibility to choose between a large range of third-party suppliers (i.e., different from the capital equipment supplier), similarly apply to flotation aftermarkets.

(394) Finally, overall, the results of the market investigation do not raise any concerns related to the provision of flotation spare parts, wear parts and services by the combined entity.

(395) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market or in the EEA by giving rise to horizontal non-coordinated effects, in particular through the creation or

---

378 Form CO, paragraph 640.

379 Form CO, paragraphs 640 and 643.

380 Form CO, paragraph 643. Outotec also conducts retrofits of third-party flotation equipment. Neither Party manufactures or actively markets flotation consumables (i.e., chemical reagents).

381 Response to RFI 24, 1 May 2020, question 2. The attribution of Metso Minerals' un-allocated service labour revenue related to flotation aftermarkets would not significantly change the Parties' combined market share, as Metso Minerals' share would remain at around [0-5]% (Form CO, footnote 675).

382 Q2, replies to question 99.1 and 102.1 .

383 Q1, replies to questions in Section D.2.; Q2, replies to questions in Sections B.1.5. and D.2.

strengthening of a dominant position, in relation to the aftermarket(s) for flotation equipment.

6.8. Filtration capital equipment

(396) As set out in Section 5.1.3, the Parties' activities overlap only in respect to pressure filters (in particular as regards vertical plate filters) in the mining industry.

6.8.1. Market shares

(397) Based on McKinsey's estimates, the Transaction gives rise to a horizontally affected market for the overall supply of filtration equipment for the mining industry at a global level. As shown in Table 6 below, the Parties' combined market share in the overall market for filtration equipment is [20-30]% for the period 2014-2018, with a limited increment of [5-10]% added by Metso Minerals.[384]

(398) The Notifying Party confirms that the Parties' combined market share in the market for the supply of filtration equipment (and plausible segmentations) for the period 2015-2019 does not materially differ from their market share in the period 2014-2018.[385]

Table 6 - Overall market for filtration equipment in the mining industry

Competitors	**Global (2014-2018)**	
	Sales in value (EUR million)	**Market share**
Outotec	[…]	[20-30]%
Metso Minerals	[…]	[5-10]%
Combined	[…]	***[20-30]%***
Competitors	[…]	[70-80]%[386]
incl. FLSmidth	-	[10-20]%
incl. Diemme	-	[10-20]%
incl. Andritz	-	[10-20]%
incl. Jingjin	-	[5-10]%
incl. Ishigaki	-	[5-10]%
incl. Matec	-	[0-5]%

384 Form CO, paragraph 705.
385 Response to RFI 20 of 24 April 2020, question 17.
386 Response to RFI 22 of 28 April, question 2.

Competitors	Global (2014-2018)	
	Sales in value (EUR million)	Market share
incl. Tenova	-	[0-5]%
incl. Berdichev / Progress	-	[0-5]%
Others	-	[10-20]%
Total	1000	100%

Source: Form CO

(399) The Notifying Party submits that the Parties' combined market share in the possible segment for pressure filters for the mining industry does not materially differ from its market share in the overall market as shown in Table 7 below.

Table 7 – Pressure filters

Competitors	Global (2014-2018)	
	Sales in value (EUR million)	Market share
Outotec	[…]	[20-30]%
Metso Minerals	[…]	[5-10]6%
Combined	[…]	***[20-30]%***
Competitors	[…]	[70-80]%
Total	[…]	100%

Source: Form CO

(400) Based on the Parties' best estimates their combined market share in a possible market for vertical plate filters at a global level for the period 2014-2018 would be around [20-30]%, (with an increment added by Metso Minerals at around [5-10]%).[387]

(401) The Parties' main competitors in the market for filtration equipment (and possible segmentations) include FLSmidth, Diemme, Andritz and a number of smaller players such as Matec (Italy), Tenova (Germany), Jingjin (China), Ishigaki (Japan).[388]

[387] Response to RFI 21 of 26 April, question 1.

[388] The Notifying Party submits that additional competitors include, Evoqua Water Technologies, Diefenbach SRL, Tecnicas de Filtracion, TH Filters, and Flowrox. See Form CO, paragraph 760.

(402) FLSmidth's filtration offering is close to that of Outotec, and includes pressure filters, vacuum filters and filter media.[389] Diemme is a brand of the Aqseptence Group headquartered in Germany. Diemme offers a wide range of filter presses currently available in the global market. Its filtration equipment is used also in other industries such as the food, pharmaceutical, construction industries.[390] Andritz AG is based in Austria and also offers a wide range of filtration equipment used in several industries.

6.8.2. The Notifying Party's views

(403) The Notifying Party submits that the Transaction is unlikely to give rise to horizontal non-coordinated effects in the market for the supply of filtration equipment (and its possible segmentations) for the reasons set out below.

(404) First, the Notifying Party submits that the Parties' combined market share in the global market for filtration equipment for mining applications, remains limited at [20-30]%, with a small increment added by Metso Minerals (estimated at [5-10]%). The Parties' combined market share in possible sub-segmentations does not materially differ from their market share in the overall market and remains at around [30-40]%.

(405) Second, in the Notifying Party's view, in the overall filtration market, the Transaction will not have any appreciable effect on competition. Metso Minerals' equipment will not significantly strengthen Outotec's position. The Notifying Party argues that post-Transaction the combined entity will continue to be constrained by a large number of competitors that are able to effectively compete, including on price.[391]

(406) The Notifying Party considers that FLSmidth and Outotec are the market leaders in filtration equipment for the mining industry, followed by a large group of global competitors. Regional competitors, including Chinese competitor Jingjin, are also gaining a global reach and are very price competitive.[392]

(407) The Notifying Party submits that vertical plate filters are the most common type of pressure filters sold to the mining industry and that all competitors listed at Table 6 above offer such products.[393]

(408) Third, the Notifying Party argues that the Parties are not close competitors. According to the Notifying Party, in the overall filtration market, Outotec has a broad portfolio of filtration equipment, whereas Metso Minerals has a more limited offering. Other competitors supply a wider range of filters, for example, FLSmidth has an offering closer to that of Outotec.[394]

---

389 Form CO, paragraphs 727-732.
390 Form CO, paragraphs 733-739.
391 Form CO, paragraphs 720 and 725.
392 Form CO, paragraph 721.
393 Response to RFI 20 of 24 April 2020, question 16.
394 Form CO, paragraph 761.

(409) The Notifying Party considers that Metso Minerals is not an important competitive force above and beyond its (limited) market position. In particular, […].[395]

(410) Fourth, the Notifying Party submits that there are no significant barriers to enter the market for filtration equipment for the mining industry as evidenced by recent examples. The Notifying Party refers to Diemme, which has manufactured filters for water treatment applications, but began supplying the mining industry. Other competitors who have recently entered the mining industry based on their prior activities in water treatment applications include Matec, Lasta, Diefenbach and Evoqua (formerly Siemens filtration).[396] The Parties also face new market entries from component/aftermarket suppliers, such as filter cloth manufacturers.[397]

(411) Fifth, the Notifying Party considers that, as with grinding and flotation equipment, filtration equipment is largely sourced via highly competitive bidding processes, where the Parties will continue to face sophisticated purchasers (mining companies) and highly specialized EPC companies that enjoy significant buyer power.[398]

6.8.3. Commission's assessment

(412) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of possible horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of filtration equipment for the mining industry and its possible segmentations.

(413) First, the Parties' combined market share remains limited in all plausible segmentations (i.e., the overall market for filtration capital equipment for the mining industry, pressure filters and vertical plate filters). In the overall market for filtration equipment for the mining industry, the Parties' combined market share is [20-30]% at a global level, with a small increment ([5-10]%) added by Metso Minerals. The combined entity's share of the possible pressure filters market does not materially differ from its market share in the overall filtration equipment market. Even in the narrowest plausible market for vertical plate filters, the Parties' market share remains moderate (around [30-40]% at a global level, see paragraph 399). The increment brought by the Transaction remains below [5-10]% also in this possible market.

(414) Second, Metso Minerals is not Outotec's closest competitor with regard to the overall supply of filtration equipment. The market investigation provided mixed results as to whether Outotec and Metso Minerals compete head-to-head in this space.[399] On the one hand, a majority of respondents to the market investigation considers that Outotec and Metso Minerals' compete closely.[400] On the other hand, however, the results of the market investigation, indicate that Outotec's closest competitor is FLSmidth and that Andritz and Diemme are also considered as close competitors to Outotec, on par with Metso Minerals. Furthermore, customers indicate that Metso Minerals' offering is much more limited, while Outotec is a

395 Response to RFI 19 of 10 April 2020, question 8.
396 Form CO, paragraph 772.
397 Form CO, paragraph 774.
398 Form CO, paragraph 775.
399 Q1, replies to question 93; Q2, replies to question 83.
400 Q2, replies to questions 85 and 85.1.

leading supplier with a broad portfolio.[401] In that respect, respondents to the market investigation indicate that Metso Minerals is not an important player in filtration, as it offers types of filters for which there are a number of similar manufacturers.[402] Some customers thus indicate that Metso Minerals is not invited to participate in their tenders, while others explain that Metso Minerals does not participate in every project due to its limited offering.[403]

(415) In addition, and despite the limitations in the Parties' bidding data presented in Section 6.2.2 above, the bidding data suggest that Metso Minerals does not appear as Outotec's closest competitor in the possible market for pressure filters. Outotec's most frequent competitor in terms of tendered value was […] of common tendered value with Outotec, followed by […] in the period 2013-2019. The largest won value share of these tenders among Outotec's competitors was won by […]. Furthermore, winners of […] of the awarded value in tenders in which Outotec participated have not been recorded in the Parties' dataset, hence further understating the winning rates of Outotec's competitors other than Metso Minerals. Moreover, […].

(416) The Parties' internal documents also confirm that Outotec and Metso Minerals are not each other's closest competitors. Outotec refers to […].[404] In its internal documents, Metso Minerals […].[405] In particular, with regard to filtration equipment, Metso Minerals considers that, other than Outotec, […] are its main competitors and have a stronger market position than itself.[406]

(417) Therefore, on balance, the Commission considers that Outotec and Metso Minerals are not close competitors in the market for filtration equipment.

(418) Third, the results of the market investigation confirm that, post-Transaction, there will remain sufficient alternative suppliers to maintain a similar level of competition in the market for the supply of filtration equipment in the mining industry and its possible segmentations.[407] In addition to FLSmidth, Diemme and Andritz, respondents to the market investigation consider that Jingjin, Ishigaki, Tenova, Matec are also credible competitors. Customers also mention local suppliers of filtration equipment such as BHS, Bokela, and Diefenbach.[408]

(419) Even within the narrowest possible market in which the Parties' activities overlap, i.e., vertical plate filters, several credible alternative suppliers will continue to exert a competitive constraint on the combined entity. The Parties' main competitors in vertical plate filters are FLSmidth, Andritz, Diemme. Based on the Notifying Party's submission, all players listed at Table 6 are also present in this possible market and compete with the Parties.[409] The market investigation also confirms that there are credible alternative suppliers in this possible market. According to a customer that

401 Q2, replies to questions 83 and 83.1.
402 Q2, replies to question 84.1.
403 Q2, replies to question 83.1.
404 […].
405 […].
406 […].
407 Q1, replies to questions 97 and 97.1; Q2, replies to questions 87 and 87.2.
408 Q1, replies to questions 94, 94.1, 95 and 95.1; Q2, replies to questions 84, 84.1, 85 and 85.1.
409 Response to RFI 22 of 28 April, question 3.

responded to the market investigation, for Metso Minerals' more limited offering, *"there are a number of similar manufacturers"*.[410]

(420) Moreover, a majority of customers that responded to the market investigation would consider inviting Chinese suppliers to bid for the provision of filtration equipment.[411] For example, some customers explain that Jingjin is a frequent bidder in their tenders.[412]

(421) Fourth, a majority of customers considers that there are no substantial barriers to enter the market for filtration equipment.[413] Reputation and a proven track record are nevertheless listed by some as factors liming potential entry, also considering that the mining industry is conservative with some specific requirements for the equipment.[414]

(422) The results of the market investigation indicate that customers sponsor entry in the market for filtration equipment. For example, a customer has a partnership with a Chinese supplier to develop an alternative to replace the ceramic plate currently supplied by Outotec.[415] Boliden and Metso Minerals had a joint partnership dating back to 1980s to develop new pressure filter technology, which "*later on became world leading*".[416]

(423) Finally, the vast majority of customers that responded to the market investigation consider that the Transaction will have a neutral impact on the intensity of competition in the market for the supply of filtration equipment and its plausible segmentations (i.e., the overall market for filtration capital equipment for the mining industry, pressure filters and vertical plate filters). While a majority of competitors indicate that the impact of the Transaction will be negative, respondents did not submit any further elements substantiating their views.[417]

(424) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market or in the EEA by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of filtration capital equipment (and possible segmentations) for the mining industry

410 Q2, reply to question 85.2.

411 Q2, replies to question 86.

412 Q2, replies to question 86.1.

413 Q2, replies to questions 88 and 88.1.

414 Q2, replies to question 88.1.

415 Q2, reply to question 86.1.

416 Q2, replies to question 89.

417 Only one competitor put forward substantiated views. According to this competitor, Outotec and Metso Minerals are close competitors. The respondent further considers that, as a result of the Transaction, the combined entity will become dominant in the EEA and especially in Northern Europe thus making it more difficult for small local players active in the Nordic countries such as Flowrox to compete. However, the Commission takes note of the fact that the geographic scope of the market for the supply of filtration equipment is global as confirmed by the results of the market investigation. Therefore, the Commission carried out the competitive assessment on that basis.

6.9. Filtration aftermarkets

(425) As set out at paragraph 158-159, both Parties offer spare parts and services for filtration equipment.

6.9.1. Market shares

(426) Based on McKinsey estimates, the Parties' combined share in value will remain well below [10-20]% at the global level, as stated in the table below.

Table 8 – Filtration services and spare parts – 2014-2018 (global)[418]

Competitors	Value of sales (in EUR million)	Market share
Outotec	[…]	[10-20]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	**[10-20]%[419]**
Competitors	[…]	[80-90]%
Total	[…]	**100%**

Source: Form CO

(427) The Notifying Party further indicates that the combined entity's market share would not materially differ when considering filtration services and spare parts separately, i.e., around [10-20]% in each possible market.[420]

6.9.2. The Notifying Party's views

(428) The Notifying Party submits that the Transaction will not result in competitive concerns regarding aftermarkets for filtration equipment globally, primarily because the suppliers do not compete in any material way.

(429) First, based on McKinsey's estimates, the Notifying Party submits Parties' combined global share for filtration services and spare parts is low ([10-20]%). In addition, the

---

[418] The market shares include filter cloth (spare parts). According to the Notifying Party, there are no relevant consumables (wear parts) for filtration equipment. Furthermore, the Notifying Party explains that service contracts typically cover an entire mining operation and those typically consist of equipment of several suppliers with all kinds of different sizes. In addition, customers often perform services in-house. Therefore, service shares cannot be reasonably estimated separately. See Form CO, footnote 779.

[419] In addition to the sales of spare parts and associated services, Metso Minerals estimates that around […]% of its un-allocated service labour revenues are attributable to filtration. Throughout the 2014-2018 reference period, Metso Minerals generated revenues of un-allocated service labour in the order of EUR […] globally. If one were to attribute […]% of these revenues (i.e., EUR […]) to filtration, Metso Minerals' revenues to be included would increase to around EUR […], but Metso Minerals' global share would remain at around [0-5]% globally. See Form CO, footnote 779.

[420] Response to RFI 24, 1 May 2020, question 2.

increment brought about by Metso Minerals' very limited activities is very low ([0-5]%).[421]

(430) Second, the Notifying Party considers that the aftermarkets for filtration equipment are much more competitive than the capital equipment market. According to the Notifying Party, this illustrates the fact that the aftermarkets for minerals processing equipment are not captive. In that respect, the Notifying Party submits that Metso Minerals' sales share for spare parts for its own filtration installed base is low at around [30-40]% ([20-30]% for filter cloth), while Outotec's share regarding spare parts for its own filtration installed base is approximately [30-40]% during the period 2014-2018. Moreover, Outotec's filtration spare part sales are […].

(431) Third, in the Notifying Party's view, warranties have had a limited effect on filtration aftermarkets, not least because the warranty period is generally very limited ([…] months from delivery and […] months from commissioning, whichever expires first). According to the Notifying Party, as soon as the initial warranty period expires, the customers have incentives to explore and source from third parties, for example for costs reasons, lead time, etc.[422]

6.9.3. Commission's assessment

(432) The Commission considers that for the reasons set out below the Transaction does not raise serious doubts as to its compatibility with the internal market with respect to non-coordinated horizontal effects in the filtration aftermarket and possible segmentations thereof.

(433) First, the Transaction does not give rise to a horizontally affected market in relation to any filtration aftermarket as the combined entity's market share remains below [10-20]% (at around [10-20]%) overall as well as under any plausible segmentation (i.e. filtration spare parts and services).[423] In addition, Metso Minerals' sales related to third-parties' installed base are non-significant, below [0-5]% for filter cloth (spare parts).

(434) Second, the Parties' activities for the provision of spare parts and services for their own installed base, remain limited (i.e., Outotec and Metso Minerals provide aftermarket products only to around […]% of their installed base).[424] In that regard, few customers indicate that they procure filtration aftermarket parts and services directly from the capital equipment suppliers after the warranty period.[425]

(435) Furthermore, based on the results of the market investigation,[426] the Commission considers that the findings set out at paragraphs 347 to 349 with respect to grinding

---

421 Form CO, paragraph 795.

422 Form CO, paragraph 798.

423 The attribution of Metso Minerals' un-allocated service labour revenue related to filtration aftermarkets would not significantly change the Parties' combined market share, as Metso Minerals' share would remain at around [0-5]% (Form CO, footnote 779).

424 See paragraph 429 of the present decision. Metso Minerals' sales share for spare parts for its own filtration installed base at around [30-40]% ([20-30]% for filter cloth), while Outotec's share regarding spare parts for its own filtration installed base is approximately [30-40]% during the period 2014-2018.

425 Q2, replies to question 99.1 and 102.1 .

426 Q1, replies to questions in Section D.2.; Q2, replies to questions in Sections B.1.5. and D.2.

aftermarkets, regarding the customers' possibility to choose between a large range of third-party suppliers (i.e., different from the capital equipment supplier), similarly apply to filtration aftermarkets.

(436) Finally, overall, respondents to the market investigation do not raise any concerns related to the provision of filtration spare parts, wear parts and services by the combined entity.

(437) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market or in the EEA, by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in relation to the aftermarket(s) for filtration equipment.

6.10. Iron ore pelletizing capital equipment

(438) As mentioned in Section 5.1.4., the Parties only overlap as regards straight grate iron ore pelletizing equipment globally. Unlike Metso Minerals, Outotec does not offer grate kiln iron ore pelletizing equipment.[427]

6.10.1. Market shares

(439) Based on McKinsey estimates, the overall market for the supply of iron ore pelletizing equipment will be affected at the global level, with a Parties' combined market share of [30-40]%, as shown in the table below. The increment will be limited, as Metso Minerals' market share in value (in value) remains at [0-5]%.[428]

[427] Form CO, paragraphs 825 and 826. Although Metso Minerals' product portfolio includes grate kiln equipment, the company has not sold such equipment for […] years (Form CO, paragraph 1172).

[428] Form CO, paragraph 838. The Parties' combined market share does not materially differ when considering the period 2014-2019 ([30-40]%, of which [20-30]% for Outotec and [5-10]% for Metso Minerals, response to RFI 20, 24 April 2020, question 4.b.).

Table 9 - Overall market for iron ore pelletizing equipment[429]

Competitors	Global (2014-2018)	
	Value of sales (In EUR million)	Market share
Outotec	[…]	[20-30]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	**[30-40]%**
Competitors	[…]	[60-70]%
incl. Sinosteel	-	[20-30]%[430]
incl. Kobelco	-	[10-20]%
incl. Uralmash	-	[10-20]%
incl. Primetals	-	[5-10]%
incl. NHI	-	[5-10]%
Total	[…]	100%

Source: Form CO

(440) The Parties' are not aware of any iron ore pelletizing projects in the EEA throughout the past five years.[431]

(441) Regarding installed capacity, the Parties' combined market share is estimated at [40-50]% (Outotec [20-30]%; Metso Minerals [20-30]%).[432]

(442) The Notifying Party submits that the Parties' combined market share in the possible market for straight grate iron ore pelletizing equipment for the period 2014-2018 does not materially differ from its market share in the overall market. In that regard, the combined entity market share in the market for straight grate would amount to [40-50]% (Outotec [30-40]%, Metso Minerals [0-5]%).[433] In addition, as already

[429] The total sales include primarily straight grate and grate kiln with a small share of other technologies. The market sizing excluded mini- and micro-pelletizing. (Form CO, paragraph 881).

[430] Form CO, paragraph 848.

[431] Form CO, paragraph 979.

[432] Response to RFI 19, question 4; response to RFI 25, question 1.a.

[433] Form CO, paragraph 881; Response to RFI 24, 1 May 2020, question 7. In addition, The Parties' combined market share does not materially differ when considering the period 2014-2019 ([40-50]%, of which [30-40]% for Outotec and [5-10]% for Metso Minerals) (Response to RFI 20, 24 April 2020, question 4.b.).

mentioned, the Parties' activities do not overlap in the potential market for the supply of grate kiln iron ore pelletizing equipment.[434]

(443) The Parties' main competitors in the market for iron ore pelletizing equipment (and possible segmentations, i.e., straight grate iron ore pelletizing equipment and grate kiln iron ore pelletizing equipment) include Sinosteel (China), Uralmash (Russia), Kobelco (Japan), Primetals (United Kingdom) and Nothern Heavy Industries Group Co (NHI – China).

(444) Sinosteel, based on the Parties' estimates, is the number two player globally in iron ore pelletizing, after Outotec.[435] Uralmash provides iron ore pelletizing equipment in Asia, Europe and Middle-East.[436] Kobelco provides grate kiln pelletizing process worldwide, and also bids for straight grate projects (in India and Iran).[437] Northern Heavy Industries Group Co (NHI – China) is a group of five state-owned enterprises offering a range of mining equipment including traveling grate machines.[438] Primetals (United Kindgom), founded in 2013 by Siemens, Mitsubishi and partners, offers circular pelletizing design based on the straight grate technology.[439]

6.10.2. The Notifying Party's views

(445) The Notifying Party submits that the Transaction is unlikely to give rise to horizontal non-coordinated effects in the market for the supply of iron ore pelletizing equipment (and its possible segmentations) for the reasons set out below.

(446) First, although the combined entity's market share exceeds [30-40]% in value on a global basis, the Transaction will result in a very limited increment stemming from Metso Minerals' low market share ([0-5]%) for the period 2014-2019. The Notifying Party explains that […].[440]

(447) In addition, the Notifying Party submits that assessing the combined entity's market position on the basis of its installed capacity (where Metso Minerals' share amounts to [20-30]%) is not relevant to evaluate its post-Transaction market power. Indeed, the vast majority of Metso Minerals' installed capacity in straight grate and grate kilns was installed in the 1980s and the 1990s.[441] In the Notifying Party's view, this historical position should be contrasted with the more recent performance of Metso Minerals, whose market share is of [0-5]% over the 2014-2018 period.

(448) Second, the Notifying Party states that the combined entity will face competition from several large global suppliers, such as Uralmash, Sinosteel, Kobelco and NHI. In addition, recent global entrants in the pellet plant market will continue to

434 Outotec does not offer grate kiln. In any case, […].

435 Form CO, paragraphs 846 and 847.

436 Form CO, paragraphs 849 to 851.

437 Form CO, paragraph 856.

438 Form CO, paragraphs 858 to 860.

439 Form CO, paragraphs 861 to 864.

440 With the recent exception of […].

441 […]% of Metso Minerals' installed capacity in grate kilns was installed in the 1990s or before (almost […]% before the 1980s) and approximately […]% of the straight grate installed capacity was installed in the 1990s and before (approx. […]% in the 80s and before). RFI 19, paragraph 11.

constrain the combined entity, such as Primetals or Paul Wurth.[442] In addition, the Notifying Party cites a variety of local competitors, such as Jiangsu Honda (China), Gang Engg, and VT Corp (India), Stemcor (United Kingdom), Mecon (India), SAIL (Steel Authority India Ltd. - India).[443]

(449) Third, the Notifying Party states that, due to its relatively weak market position, Metso Minerals exerts only a limited competitive constraint on Outotec. In that regard, the Notifying Party states that Outotec, when winning a tender, typically faces a number of bidders, including Uralmash, Kobelco, Primetals, Sinosteel, and Paul Wurth,[444] and that the Parties' are not each other's closest competitors.

(450) Fourth, the Notifying Party states that iron ore pelletizing equipment are, like other mineral processing equipment, submitted to highly competitive bidding processes involving sophisticated customers and specialised engineering companies that enjoy significant buyer power. It further states that, regarding iron ore pelletizing, the total number of projects is very low compared to the total number of mining projects (as not every mine has a pelletizing plant). In the Notifying Party's view, given the limited number and the large scale of pelletizing plant projects, tenders are typically particularly competitive. This materializes by starting the bidding process with a long list of suppliers (up to five), which is then narrowed down by customers to a shortlist of two or three final bidders.[445]

(451) Considering the competitive process, the Notifying Party states that previous sales successes are no indication of the competitive conditions for future pelletizing plants projects, […].[446] Moreover, the Notifying Party submits that tenders are particularly price-competitive in the most active regions in mining business, including China, India and Russia. The Notifying Party estimates that local Indian and Chinese suppliers (such as Gang Engineering, VT Corp., Sinosteel, and NHI China) offer iron ore pelletizing equipment at significantly lower prices (in some cases prices are […]% lower, depending on the scope and quality requested).[447]

6.10.3. Commission's assessment

(452) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market as a result of possible horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of iron ore pelletizing equipment (and possible segmentations).

(453) The Parties' combined market shares are only moderate. Based on the sales value for the period 2014-2018, the Transaction will result in a very limited increment of [0-5]%, stemming from Metso Minerals' position, leading to a combined market share of [30-40]% (Outotec [20-30]. In light of a few awards to Metso Minerals in 2019, the Commission requested additional estimates, extending the period covered to 2019, but resulting estimates do not differ materially and would not lead to a

442 Form CO, paragraph 844.
443 Form CO, paragraph 868.
444 Form CO, paragraph 870.
445 Form CO, paragraph 873.
446 Form CO, paragraph 874.
447 Form CO, paragraph 875.

different assessment (Outotec [20-30]%, Metso [5-10]%).[448]The Parties' combined market share are higher when considering a potential market for straight grate iron ore pelletizing equipment for the period 2014-2018 ([40-50]%). However, the increment remains limited (Metso Minerals [0-5]%).[449]

(454) Nevertheless, in the course of the market investigation, a competitor submitted that the combined entity would hold a dominant position due to its important installed based and would benefit from a competitive advantage stemming from its portfolio, which includes the two most widespread iron ore pelletizing technologies globally, namely straight grate and grate kiln.[450] In addition, a customer further submitted that the Parties offer leading innovative technology equipment, in terms of efficiency and emission level.[451]

(455) The Commission considers that the Transaction does not give rise to competitive concerns based on the below considerations.

(456) First, market share estimates based on installed base overstate the Parties' current competitive position in the market for iron ore pelletizing equipment. Indeed, the results of the market investigation indicate that mining equipment, including iron ore pelletizing, have a very long lifetime, which can last several decades.[452] The Notifying Party estimates that the combined entity's share of installed capacity in iron ore pelletizing amounts to [40-50]%.[453] However, as explained by the Notifying Party, Outotec's and Metso Minerals' installed base is a result of their historical presence in the supply of iron ore pelletizing equipment. As such, the majority of their plants, still currently active, have been delivered and installed several decades ago[454] and partly relates to equipment installed by companies subsequently acquired

448 Response to RFI 20, paragraph 11.

449 The assessment for the period 2014-2019 does not significantly change the Parties' market share (combined entity's market share of [40-50]% (Outotec [30-40]%; Metso Minerals [5-10]%) (Reply to RFI 20, paragraph 11).

450 Non-confidential minutes of call with Primetals of 25 March 2020, paragraphs 6 and 8; Q1, reply to question 100.1.

451 Non-confidential version of Arcelor-Mittal's contribution of 30 April 2020.

452 Non-confidential minutes of call with FLSmidth of 11 December 2019, paragraph 9.

453 This market share is significantly lower than the one estimated by Primetals. However, the Commission considers that Primetals' estimate does not provide an accurate view of the merged entity's position. First, Primetals' estimate represents installed base capacities over a 20 year period, therefore including capacity installed two decades ago. As a result, although this equipment may still be in use due to its long lifetime, this estimate reflects a historic activity and does not provide an accurate view of current competitive conditions for the reasons set out at paragraph 455 of this decision. Second, Primetals indicates that its estimate, based on data available from the Steel Institute VDEh, market information and published data in internet, may not be exhaustive (slide 20 for straight grate). For its own estimate of the merged entity's market share of installed base capacities, the Notifying Party used WoodMac Iron Ore Long Term Outlook data, McKinsey's estimates, as well as its best estimates. It includes plants that were operational during all or part of the period 2010-2019, irrespective of the time of their startup. In addition, the Notifying Party indicates that McKinsey used VDEh as one of its primary sources, among others, but significantly modified the list provided by this institute based on custom research to adjust for current situation in project timings (delays), bankruptcies, etc. (reply to RFI 25, question 1.c.).

454 For instance, […]% of Metso Minerals' installed capacity in grate kilns was installed in the 1990's or before (almost […]% before the 1980's) and approximately […]% of the straight grate installed capacity was installed in the 1990's and before (approx. […]% in the 80's and before).

by the Parties several decades ago.[455] Consequently, market shares in terms of installed capacity may disproportionately reflect past awards and, conversely, provide a limited representation of the Parties' current position.

(457) Consequently, estimates based on installed base do not reflect the current competitive dynamic. In this regard, as set out at paragraph 438, the combined entity's market share based on the sales value for the periods 2014-2018 and 2014-2019 remains moderate.

(458) Second, despite the limitations of the Parties' bidding data presented in Section 6.2.2. above, such bidding data suggest that Metso Minerals does not appear to be the closest competitor to Outotec in the potential market of straight grate equipment.[456] […] Therefore, the bidding data is already focused on the overlap of the straight grate technology.

(459) Outotec most frequently competes with […] of common tendered value against Outotec, followed […] in the period 2010 - 2019.[457] The largest won value share of these tenders among Outotec's competitors was […], followed by […]. Moreover, […] presented significant participation rates against Metso Minerals […].

(460) Third, the combined entity will continue to face several alternative suppliers post-Transaction, which will maintain a similar level of competition in the market for the supply of iron ore pelletizing equipment and the possible straight grate equipment segmentation thereof. In that regard, the results of the market investigation indicate that major competitors such as Sinosteel, Uralmash or Kobelco are active in the market for iron ore pelletizing and as regards straight grate equipment specifically.[458] This result is consistent with the market share estimates provided by the Notifying Party, which indicate that the combined entity will face competitive pressure exerted by Sinosteel ([20-30]%), Kobelco ([10-20]%), Uralmash ([10-20]%) or NHI ([5-10]%).[459] The assessment does not differ when considering a specific market for straight grate equipment. Indeed, the Parties' strongest competitors are mainly active on that potential market and hold, during the period 2014-2019, significant market shares (Sinosteel around [20-30]%,[460] Uralmash [10-20]% and NHI [5-10]%[461]). In this regard, the complainant customer confirms that it also procures iron ore pelletizing equipment (straight grate and grate kiln) from the above-mentioned competitors.[462]

(461) Fourth, contrary to claims that iron ore pelletizing would be characterised by high technical and commercial barriers to enter, such as prior knowledge of processing

---

455 For instance, Metso Minerals' current pelletizing plants installed base mostly rely on previously acquired companies, like Dravo/Lurgi in 2001 (reply to RFI 19, paragraph 10).

456 Although the results of the market investigation suggest that the Parties are close competitors (Q1, replies to questions 100 and 100.1 ; Q2, replies to questions 90 and 90.1.).

457 The Commission notes that two smaller competitors have also competed for value of […]% with Outotec, however, it related solely to two large projects in India which got eventually cancelled.

458 Q1, replies to questions 101 and 102; Q2, replies to questions 91 and 92.

459 Form CO, footnote 805 and reply to RFI 20, paragraph 18.

460 Response to RFI 20, paragraph 18,

461 Response to RFI 22, paragraph 15.

462 Non-confidential version of Arcelor-Mittal's contribution of 30 April 2020.

the ore and experience from reference plants,[463] a majority of respondents to the market investigation indicates that there are no substantial barriers to enter the market for iron ore pelletizing equipment.[464] Besides, several companies recently entered this market. Companies like Uralmash or Sinosteel have been able to develop straight grate technologies similar to those of the Parties.[465] The Notifying Party provides additional examples of other recent entrants, such as Primetals, NHI, Paul Wurth or Stemcor/Mecon. Some of these companies have been able to enter the market based on their previous know-how from adjacent industries (such as sintering) or experience with similar technology, as EPC providers.[466]

(462) Fifth, the Commission notes that the demand for iron ore pelletizing mostly concerns straight grate equipment, which represent almost 80% of the market.[467] Consequently, the combined entity's offering in grate kiln product would concern slightly more than 20% of the overall demand.

(463) In addition, the Parties' activities do not overlap in grate kiln, since Outotec does not provide such equipment. Furthermore, Metso Minerals' portfolio, which include both technologies, has not contributed to strengthen its market position in the overall market for iron ore pelletizing. Indeed, Metso Minerals' market share remains quite limited ([…]%) and its recent sales in iron ore pelletizing equipment […][468].

(464) In any event, the Commission considers that the combined entity will face sufficient competition in both technologies. As already mentioned for straight grate, the combined entity will compete with important competitors such as Uralmash and Sinosteel. In grate kiln, the combined entity will face competition from important suppliers such as Kobelco, whose market share is estimated at 15-20% at least.[469]

(465) Sixth, the majority of customers that responded to the market investigation or submitted their views to the Commission, including both large global mining companies and smaller operators, confirms that the Transaction would have a neutral impact on the intensity of competition in the market for iron ore pelletizing equipment.[470]

(466) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market, or in the EEA, by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of iron ore pelletizing capital equipment (and possible segmentations) for the mining industry.

---

463 Q1, reply to question 105.1.

464 Q1, replies to question 105; Q2, replies to question 95.

465 Outotec and Metso Minerals both offer straight grate iron ore pelletizing equipment originating from a design developed by U.S. manufacturer Dravo in the 1950s (Form CO, paragraphs 821 and 825, reply to RFI 19, paragraph 1).

466 Response to RFI 19, paragraph 5.

467 Form CO, paragraph 881.

468 Form CO, paragraph 1173. Metso Minerals' most recent sales in 2018 and 2019 […].

469 Response to RFI 22 of 28 April, questions 3.a. and 3.b.

470 Q1, replies to question 126.4 ; Q2, replies to question 114.4. It is worth noting that a majority of customers considers that the Transaction will have a neutral impact on the intensity of competition.

6.11. Iron ore pelletizing aftermarkets

(467) As mentioned in Section 5.1.4., both Parties offer a range of spare parts and services for pelletizing equipment. The Parties are not active in iron ore pelletizing wear parts (consumables, i.e., additives for pellet production).[471]

6.11.1. Market shares

(468) Based on McKinsey estimates, the combined entity's market share in value will remain well below [10-20]% at the global market, as stated in the table below.[472]

Table 10 - Iron ore pelletizing services and spare parts[473]

Competitors	2014-2018	
	Value of sales (in EUR million)	Market share
Outotec	[…]	[0-5]%
Metso Minerals	[…]	[0-5]%
Combined	[…]	**[0-5]%**
Others	[…]	[90-100]%
Total	[…]	100%

Source: Form CO

(469) The Notifying Party further indicates that the combined entity's market share would not materially differ when considering iron ore pelletizing services and spare parts separately, i.e., around [0-5]% on each possible market.[474]

6.11.2. The Notifying Party's views

(470) The Notifying Party states that the Transaction will not raise competitive concerns on the aftermarkets for iron ore pelletizing equipment.

(471) In that regard, the Notifying Party submits that the Parties mainly provide aftermarket services and parts for their own installed bases. The Notifying Party

---

471 Form CO, paragraphs 888 and 889; Response to RFI 24, 1 May 2020, question 2.

472 The Notifying Party further indicates that in addition to the sales of spare parts and associated services, Metso Minerals estimates that around […]% of its un-allocated service labour revenues (amounting to €[…] globally throughout the period 2014-2018) are attributable to iron ore pelletizing. These revenues have not been incorporated in the estimates in the table below. If one attributes […]% of Metso Minerals' overall revenues un-allocated service labour revenue (i.e. €[…]) to iron ore pelletizing, Metso Minerals' revenues in iron ore pelletizing aftermarkets would increase to €[…]. This would however not significantly change the Parties' combined market share, as Metso Minerals' share would remain below [0-5]% globally.

473 The Notifying Party indicates that these estimates do not include wear parts because of lack of internal information. However, this does not change the assessment, given that the main consumables in flotation are chemical reagents and that the Parties neither manufacture nor actively market flotation reagents.

474 Response to RFI 24, 1 May 2020, question 2.

estimates that Metso Minerals' share for its own installed base is approximately [10-20]% for spare parts ([5-10]% for third-party equipment) and [0-5]% for service labour ([0-5]% for third-party equipment) for the period 2014-2018.[475] Besides, for the same period, Outotec's share for its own installed base (accounting for around […]% of its aftersales revenues in relation to iron ore pelletizing) is below [5-10]% across services and spare and wear parts.[476]

(472) The Notifying Party further submits that customers are free to procure aftermarket services from a large range of competitors beside OEMs. Competitors include the customers themselves, global engineering houses, specialized parts suppliers (including strong competition from Chinese suppliers, e.g., for pallet cars), the OEMs' sub-suppliers and local suppliers.[477] In addition, the Notifying Party states that the design of most pelletizing plants is very similar, allowing open competition in the aftermarkets and service segment irrespective of the make of the equipment. The Notifying Party further states there are generally no IP rights or other barriers preventing independent aftermarket suppliers from making and selling copycat spare and wear parts for iron ore pelletizing.[478]

(473) Consequently, the Notifying Party indicates that the majority of Outotec and Metso Minerals iron ore pelletizing installed base globally is supplied with aftermarket products from and services by third parties.[479]

6.11.3. Commission's assessment

(474) The Commission considers that, for the reasons set out below, the Transaction does not raise serious doubts as to its compatibility with the internal market with respect to non-coordinate horizontal effects in any aftermarket(s) for iron ore pelletizing equipment, including its possible segmentations.

(475) First, the Transaction does not give rise to a horizontally affected market in relation to the iron ore pelletizing aftermarket, as the combined entity's market share (between [0-5]% and [0-5]%) will remain well below [10-20]% under any possible segmentation.[480] In addition, Metso Minerals' sales of parts to other OEM's equipment are negligible (less than €[…] annually).[481]

(476) Second, the Parties' share for the provision of spare parts, and services for their own installed base, remain limited (Metso Minerals: around [10-20]% for spare parts and [0-5]% for service labour; Outotec: below [5-10]% across services and spare parts).[482]

---

475 Form CO, paragraph 894.

476 Form CO, paragraph 898.

477 Form CO, paragraph 898.

478 Form CO, paragraph 899.

479 Form CO, paragraph 902.

480 Response to RFI 24, 1 May 2020, question 2. The attribution of Metso Minerals' un-allocated service labour revenue related to iron ore pelletizing aftermarkets would not significantly change the Parties' combined market share, as Metso Minerals' share would remain below [0-5]% (Form CO, footnote 860).

481 Form CO, footnote 858. The Notifying Party further states that Outotec supplies re-engineered parts for competitors' straight grate plants outside the EEA.

482 Form CO, paragraph 898.

(477) Furthermore, based on the results of the market investigation,[483] the Commission considers that the findings set out at paragraphs 347 to 349 with respect to grinding aftermarkets, regarding the customers' possibility to choose between a large range of third-party suppliers (i.e., different from the equipment supplier), similarly apply to flotation aftermarkets.

(478) Finally, overall, the results of the market investigation do not raise any concerns related to the provision of flotation spare parts and services by the combined entity.

(479) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market, or in the EEA, by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in relation to aftermarket(s) for iron ore pelletizing equipment.

6.12. Other capital equipment markets

6.12.1. Market shares

(480) The Transaction gives rise to horizontally affected markets in the following possible markets: (i) crushing, (ii) LIMS (a possible market based on segmentation of the overall market for magnetic separation), (iii) sedimentation, and (iv) fluid bed technologies for lithium and clay calcining (a possible market based on segmentation of the overall calcining and roasting market).[484]

(481) As regards crushing, Metso Minerals' market share is around [20-30]% in the period 2014-2018 at a global level. Outotec's activities in relation to crushing are very limited and its market share is estimated at below [0-5]% for the same period. The Parties' main competitors in the possible market for crushing are FLSmidth ([10-20]%), thyssenkrupp ([10-20]%), Sandvik ([5-10]%), Tenova ([5-10]%), Weir ([0-5]%), and CITIC ([0-5]%).

(482) As regards the possible market for LIMS, Metso Minerals' market shares is around [20-30]% in the period 2014-2018 at a global level. Outotec's activities (selling of rebranded third party equipment) are very limited and its market share is estimated at below [5-10]% for the same period. The Parties' main competitors in the possible market for LIMS are Eriez ([30-40]%), Stearns ([10-20]%), Steinert ([10-20]%), Malvern ([5-10]%), and BGRIMM ([5-10]%).[485]

(483) In the possible market for sedimentation, Outotec's market share is around [10-20]% in the period 2014-2018 at a global level, while Metso Minerals' market share remains below [0-5]% for the same period. The Parties' main competitiors in the possible market for sedimentation are FLSmidth ([30-40]%), WesTech ([5-10]%), Tenova ([5-10]%), Roytec, and Andritz.[486]

---

[483] Q1, replies to questions in Section D.2.; Q2, replies to questions in Sections B.1.5. and D.2.

[484] In all remaining markets (and possible segmentations) set out in Section 5.1.5., the combined entity's market share will remain below [20-30]%. Therefore, the Commission will not further assess these markets in Section 6.12.3 of this decision.

[485] Form CO, paragraph 962.

[486] Form CO, paragraph 976.

(484) In the possible market for fluid bed technologies for lithium and clay calcining, the combined entity's market share in the period 2014-2018 is estimated at around [20-30]% at a global level, with a very limited increment added by Outotec (below [0-5%]). FLSmidth is main competitor in this market with a market share around [10-20]%. Other competitors, including local and regional suppliers together account for the remaining [60-70]% of the market.[487]

6.12.2. The Notifying Party's views

(485) The Notifying Party submits that the Transaction will not raise concern in the markets for crushing, magnetic separation, sedimentation, calcining and roasting (and any possible market segmentation, i.e., LIMS and fluid bed technologies for lithium and clay calcining).

(486) In that regard, the Notifying Party indicates that the combined entity's market share in any of these market remains moderate with a very limited increment (below [0-5]%).[488] The Notifying Party further states that the combined entity will continue to face a sufficient number of alternative suppliers in each of the markets.[489] In addition, the Notifying Party considers that the Parties' activities overlap only to a limited extent in the markets for crushing and magnetic separation because Outotec does not offer proprietary equipment and does not offer such equipment on a standalone basis.[490]

6.12.3. Commission's assessment

(487) The Commission considers that the Transaction does not raise doubts as to its compatibility with the internal market with respect to non-coordinated horizontal effects, in particular through the creation or strengthening of a dominant position, in the possible markets for (i) crushing, (ii) LIMS (a possible market based on segmentation of the overall market for magnetic separation), (iii) sedimentation, and (iv) and fluid bed technologies for lithium and clay calcining for the following reasons.

(488) First, the combined entity's market share remains limited and the increment brought by the Transaction is very small (below [0-5]% in all horizontally affected markets).

(489) Second, the combined entity will continue to face several alternative suppliers post-Transaction in all markets concerned, which will maintain a similar level of competition in the market (see paragraphs 481-484).

(490) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of a dominant position, in the market for the supply of crushing, LIMS, sedimentation, and fluid bed technologies for lithium and clay calcining.

---

487 Form CO, paragraph 994.

488 Form CO, paragraph 907.

489 Form CO, paragraphs 916, 934, 936, 962, 963, 976, 994, 995, 996, 1005 and 1016.

490 Form CO, paragraphs 909, 928, 955, 1000 and 1015.

6.13. Manufacturing of equipment for the mining industry

(491) As explained in Section 4.4., the Parties operate under a so-called "asset-light" business model. This means that neither Metso Minerals nor Outotec have their own production capabilities for their core (large) minerals processing equipment, with some limited exceptions.[491] Instead, both Parties outsource the production of the equipment (i.e., the required mining components) and parts to mining equipment manufacturers.

(492) As explained in Sections 6.4. to 6.11., the Commission considers that the combined entity would not hold a dominant position on the markets for the supply of mining capital equipment and aftermarkets.

(493) Nevertheless, in the course of the market investigation, a competitor submitted that the combined entity would enjoy sufficient buying power in the upstream markets for the manufacturing of equipment for the mining industry and aftermarkets such that it would have the ability to limit competing suppliers' access to the necessary inputs from mining equipment manufacturers. Consequently, the Notifying Party's competitors would not be able to provide mining equipment on the downstream markets for the supply of such equipment. The complainant submits that the combined entity would use its market power on the downstream markets for the supply of mining equipment to incite upstream mining equipment manufacturers not to provide mining equipment to its competitors, including the complainant.

(494) However, the results of the market investigation show that the functioning of the market for the manufacturing of mining equipment will prevent the combined entity from limiting its competitors' access to the necessary input from equipment manufacturers.

(495) In that regard, a large majority of manufacturers indicates that supply agreements between the equipment manufacturers and suppliers typically do not include exclusivity provisions[492] nor provisions for volume/amount commitments (in terms of supply or purchase).[493] In addition, a vast majority of mining equipment manufacturers indicates that the Parties represents less than a third of their overall revenues.[494] Even if some manufacturers submit that the proportion of their revenues achieved with the Parties is higher when considering the provision of mining equipment only,[495] they further explain that the provision of mining equipment to the Parties is not steady throughout the years, depending on the overall market development in the mining business and the success of the different suppliers in winning individual projects.[496]

(496) Overall, a large majority of respondents considers that their company would still be able to sell mining equipment and spare/wear parts to suppliers other than the combined entity after the transaction, considering in particular the existence of a

---

491 Outotec only has four production facilities (three in Finland and one in China), see Form CO, paragraph 1064.

492 Q4, replies to questions 11 and 16.

493 Q4, replies to questions 12 and 17.

494 Q4, replies to question 8.

495 Q4, replies to question 8.

496 Q4, replies to question 8.1.

sufficient demand stemming from the Parties' competitors.[497] Also, a majority of mining equipment manufacturers submits that the combined entity would not be able to impose exclusivity agreements for equipment and spare/wear parts after the Transaction.[498] Furthermore, a majority of respondents indicates that the combined entity will not be able to degrade terms and conditions for the sales of mining equipment and spare/wear parts after the Transaction.[499]

(497) Based on the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market, or in the EEA, by giving rise to horizontal non-coordinated effects, in particular through the creation or strengthening of buying power in the markets for the manufacturing of equipment for the mining industry.

6.14. Conglomerate effects

(498) The Transaction creates potential conglomerate relationships between the Parties given the complementarity between their offerings. In particular, post-Transaction, the combined entity may have the ability and incentive to increase its bundled sales of: (i) comminution and beneficiation equipment (i.e. supplying a "full line" of equipment for the mining industry); (ii) equipment and aftermarket services, spare and wear parts; (iii) engineering services and equipment.

6.14.1. The Notifying Party's views

6.14.1.1. Bundles of equipment

As regards ability

(499) The Notifying Party submits that the combined entity will not have the ability to foreclose its rivals through any bundling strategies[500] for the reasons set out below.

(500) First, the Notifying Party submits that the combined entity will lack sufficient market power in each type of mining equipment.[501] Furthermore, in the Notifying Party's view, customers do not view the Parties' products as particularly important and there are sufficient alternatives for each of the Parties' offerings.[502]

(501) Second, the Notifying Party argues that any potential conglomerate effects by bundling different types of equipment are excluded where a customer purchases only one type of equipment. In this regard, the Notifying Party states that customers rarely run joint tenders for the supply of two (or more) of grinding, filtration, flotation and/or pelletizing equipment (i.e., this only occurred in […] for the period

497 Q4, replies to questions 19, 21 and 21.1.

498 Q4, replies to question 20.

499 Q4, replies to questions 22 and 22.1.

500 The Notifying Party submits that in the case of minerals processing equipment, technical tying is not a viable option because each mining project is different, i.e., not every mine requires the same type/size/sequence of equipment, and there are no interoperability issues between different types of minerals processing equipment. (See Form CO, paragraph 1032).

501 Form CO, paragraphs 1024-1025.

502 Form CO, paragraph 1029

2013-2019[503]). In addition, based on the Parties' bidding data, in the majority of projects covering more than one type of equipment, each type of equipment was sourced through a separate tender process. [504]

(502) The Notifying Party further submits that tenders typically limit the ability of the combined entity to bundle equipment. Tenders are often carried out by large and sophisticated engineering companies with significant market insight. In addition, tender specifications limit the ability of suppliers to bundle different equipment if this would fall outside the scope of the tender.[505] The Notifying Party further argues that there is no history of bundling in areas where Outotec has a relatively strong position (e.g., flotation, filtration, and iron ore pelletizing)..[506]

(503) Third, the Notifying Party considers that there are no significant economies of scale such that rivals' competitiveness would not decrease even if they lost sales due to an increase in the Parties' bundled sales. Furthermore, according to the Notifying Party, a bundling practice cannot have a lasting character given that mines are typically one-off projects without continuous repeat orders and technical specifications change between the time of the original orders and expansions/replacements.[507]

(504) Fourth, the Notifying Party considers that the Parties' competitors will have the ability to deploy effective and timely counter-strategies. The Notifying Party explains that other suppliers such as FLSmidth (offering a broad mining equipment portfolio) can respond to any bundling attempts by offering a similar bundle, while other suppliers could enter into ad hoc partnerships/consortia to replicate the bundle.[508] The Notifying Party further considers that competitors can defeat bundling strategies by differentiating themselves through innovation, price or customer proximity.[509]

As regards incentive

(505) According to the Notifying Party, the combined entity will not have an incentive to force bundles of equipment on customers seeking to procure individual equipment as such strategy is likely to result in loss of sales and will thus be unprofitable.[510]

As regards effects

(506) The Notifying Party considers that any hypothetical attempts of the combined entity to increase its bundled offerings will not lead to any reduction in actual or potential

503 Estimates based on the Parties' bidding data.
504 Form CO, paragraphs 1027-1028.
505 Form CO, paragraphs 1035-1036.
506 Form CO, paragraph 1030.
507 Form CO, paragraphs 1031-1032.
508 The Notifying Party provides examples of Chinese consortia that employs such a strategy and other competitors such as Andritz and Weir Minerals that have entered into a long-term strategic cooperation agreement to offer joint tailing solutions.
509 Form CO, paragraph 1033-1034.
510 […]. See Form CO, paragraphs 1037-1039.

rival's ability or incentive to compete since competitors and customers could easily defeat it.[511]

6.14.1.2. Other types of bundles

(507) The Notifying Party submits that the analysis at paragraphs 499-506 applies *mutatis mutandis* to other possible bundles listed at paragraph 498.

(508) With regard to the possible bundles of mining equipment and aftermarket services, spare and wear parts, the Notifying Party submits that while many RFQs already include some aftermarket products, the duration of such requests is typically limited to the warranty period (around two years). It argues that there is very limited scope for bundles concerning equipment and aftermarket products after the warranty period has expired as customers generally procure such aftermarket services, spare and wear parts separately from mining equipment. This is demonstrated by the Parties' limited market shares on their own installed base in the aftermarkets for each grinding, flotation, filtration, and iron ore pelleting equipment.[512]

(509) The Notifying Party further argues that it will not have the ability or incentive to increase bundled sales of mining equipment and aftersales services, spare and wear parts by extending the duration of the warranty period. According to the Notifying Party, extending the warranty period carries risks for suppliers, because, at the time of the equipment tender, it is challenging to predict the future demand for aftermarket parts and services over the long lifespan of minerals processing equipment.[513]

(510) The Notifying Party further explains that the industry standard warranty period of up to 24 moths coincides with the warranty periods that component manufacturers grant to the suppliers. In order to extend the warranty period for mining companies, suppliers need to negotiate a similar extension with component suppliers, who will likely apply an additional charge or deny an extension.[514]

(511) With regard to a possible bundle between EPC services and the provision of equipment, the Notifying Party submits that Outotec's EPC activities are very limited. The Notifying Party argues that the combined entity will not have the ability to foreclose competitors because customers are reluctant to rely on mining equipment suppliers to act as EPCs and prefer to involve an independent player in order to ensure the most competitive outcome of the tender process. According to the Notifying Party, the combined entity will not have an incentive to increase the sale of any possible bundles of engineering services and equipment because EPC services are not the Parties' core activity and they do not have the technical resources to take on EPC projects (other than in very limited instances).[515] Furthermore, any attempt to significantly increase the Parties' presence in this market could lead to

511 Form CO, paragraph 1039.
512 Form CO, paragraph 1041.
513 Form CO, paragraph 1041.
514 Response to RFI 19 of 10 April 2020, question 10.
515 Form CO, paragraphs 1042-1058.

corresponding losses in the equipment market if EPC companies turn to the Parties' competitors as a result.[516]

6.14.2. Commission's assessment

(512) For the reasons stated below, the Commission considers that the combined entity will not have the ability and incentive to foreclose competitors by bundling and tying different types of equipment and/or services. Even if the combined entity engaged in a strategy to foreclose rivals though bundling, such a strategy would not have a significant detrimental effect on competition.

6.14.2.1. Bundles of capital equipment

As regards ability

(513) First, the Commission considers that the combined entity does not have a sufficient degree of market power to leverage its position in the supply of any type of mining equipment (i.e., grinding, flotation, filtration, iron ore pelletizing, and any possible segmentations) as established in Sections 6.4, 6.6, 6.8 and 6.10 of this decision. In all the markets concerned, the Commission found that the Parties are not particularly important competitors and there are a several credible alternative suppliers.

(514) Second, the Commission considers that the combined entity is unlikely to be able to significantly increase its bundled sales of different types of capital equipment post-Transaction in light of customers' demand patterns.

(515) In its assessment, the Commission considers that the more customers tend to buy both products (instead of only one of the products), the more demand for the individual products may potentially be affected through bundling.[517]

(516) The majority of customers that responded to the market investigation procures individual capital equipment rather than bundles of equipment.[518] The results of the market investigation indicate that customers hold separate tenders for each piece of equipment they purchase, even in greenfield projects.[519] In addition, the majority of competitors that responded to the market investigation do not offer bundles of equipment.[520]

(517) The results of the market investigation indicate that while there may be certain advantages of purchasing bundles of equipment (e.g., lower transaction cost, better price, increased technical performance and greater accountability of the vendor providing a complete solution),[521] customers generally prefer to select individual

---

516 Form CO, paragraph 1058.

517 Non-Horizontal Merger Guidelines, paragraph 100.

518 Q2, replies to question 62.

519 Based on the results of the market investigation, customers organise tenders for equipment primarily in view of project schedules. It is thus possible that customers hold separate tenders for different types of equipment at the same time (mostly depending on delivery times) or gradually as the equipment becomes necessary. See Q2, replies to questions 64 and 64.1.

520 Q1, replies to question 114.

521 Q2, replies to question 62.2.

equipment that *"best suits the process duty"*.[522] Respondents to the market investigation consider that the disadvantages of procuring a bundle of equipment are, *inter alia*, dependency on a single supplier, potential lower quality, technical difficulties in replacing the equipment with equipment from a different supplier (without a whole process redesign), and possible difficulties in obtaining aftermarket services for an integrated solution.[523]

(518) A small number of responding customers indicates that, mostly in greenfield projects, they purchase bundles of equipment.[524] Nevertheless, the results of the market investigation confirm that customers seeking to procure bundles of equipment would typically involve EPC(M)s or system integrators[525]. As explained at paragraph 17, under an EPC contract, the engineering company provides a complete solution to customers, whereby it procures equipment from suppliers of capital equipment. Under an EPCM contract, the engineering company, acting on behalf of a customer, runs tenders and engages with mining capital equipment suppliers.[526] Generally, EPC(M)s are considered as more neutral than a supplier having a full-line portfolio. A small number of responding customers would purchase a full line of equipment from a capital equipment supplier covering the equipment in its portfolio.[527]

(519) Third, respondents to the market investigation consider that the combined entity will have the technical ability to respond with a bundled offer if a customer issues a request for a quote (RFQ) or a tender seeking to procure individual equipment.[528] In that regard, respondents explain that Outotec's and Metso Minerals' products are rather complementary than competing, and as a result of the Transaction, the combined entity will cover the full range of mining capital equipment. According to a customer that responded to the market investigation *"as such, there would be increased scope for the combined entity to offer a greater scope of work/service to bundle or package offerings"*. [529]

(520) However, the Commission notes that having a *"broad range or portfolio of products does not, as such, raise competition concerns"*.[530] Therefore, the fact that the Transaction combines the complementary offerings of the Parties does not in itself translate into the ability to impose a bundled offering on customers seeking to procure individual equipment.

(521) The majority of the respondents to the market investigation considers that the combined entity is likely to be successful in increasing its bundled offerings.[531] However, only few respondents believe that such an increase would have a negative

---

522 Q2, replies to question 103.

523 Q2, replies to question 62.2.

524 Q2, replies to question 62.1.

525 A system integrator is a supplier that provides a full end-to-end solution by sourcing equipment it does not have in its portfolio from other suppliers of mining capital equipment. A system integrator provides performance guarantee for all equipment supplied to the customer.

526 Q2, replies to question 63.

527 Q2, replies to question 63.

528 Q1, replies to questions 115 and 116; Q2, replies to questions 105 and 106.

529 Q2, replies to question 105.1.

530 Non-Horizontal Merger Guidelines, paragraph 104.

531 Q1, replies to question 118.1; Q2, replies to question 107.1.

impact on competition and make it more difficult for stand-alone players to compete. The vast majority of customers and competitors that responded to the market investigation considers that post-Transaction there will remain sufficient demand from customers procuring individual equipment.[532] The results of the market investigation indicate that customers, including EPC(M)s, will continue to mix and match equipment of different suppliers *"as a risk mitigation mechanism"* and in order to select the equipment that is best suited for their applications. [533]

(522) Fourth, the Commission notes that stand-alone competitors have effective and timely counter-strategies available in order to be able to effectively withstand a potential foreclosure strategy by the combined entity, as confirmed by the vast majority of respondents to the market investigation.[534]

(523) The majority of competitors and customers that responded to the market investigation considers that already today there are competitors who could match the combined entity's bundled offering, such as FLSmidth and thyssenkrupp. In addition, competing stand-alone suppliers can sell their equipment to customers who seek to purchase a bundled offering also by engaging with EPC(M)s.[535] The results of the market investigation also indicate that competitors could enter into partnerships in order to replicate the combined entity's offering.[536]

As regards incentive

(524) In light of the foregoing, the combined entity is unlikely to have an incentive to engage in a pure bundling or tying strategy. As explained at paragraph 516, the majority of customers is not interested in procuring bundles of equipment but instead prefers to purchase mining capital equipment on a stand-alone basis. If the combined entity pursued a pure bundling or tying strategy, it would risk losing sales from customers who prefer to mix and match equipment from different suppliers. As a result, some customers may cease purchasing equipment from the combined entity.

(525) It also appears unlikely that the combined entity will have the incentive to foreclose competitors through a mixed bundling strategy. Even if the merged entity offered bundles at a discounted price, given customers' purchasing patterns such a strategy is unlikely to divert a large proportion of demand for individual equipment to the merged entity's bundled offerings such that stand-alone players will be unable to compete. Moreover, a bundle does not necessary lead to a lower price. A customer that procured a full-line of equipment from Outotec (acting as an EPC) explains that "*the package may have been more expensive than a solution where the prices for all elements are negotiated separately, […]. But the higher price also includes a more convenient risk allocation between Outotec and [the customer]".*[537]

---

[532] Q1, replies to question 119; Q2, replies to question 108.
[533] Q1, replies to question 119.1; Q2, replies to question 108.1.
[534] Q1, replies to question 120; Q2, replies to question 109.
[535] Q2, replies to question 109.1.
[536] Q1, replies to question 120.2; Q2, replies to question 109.1.
[537] Non-confidential minutes of call with AMG mineração of 13 February 2020, paragraph 13.

(526) In its assessment of the likely incentives of the combined entity, the Commission may also take into account factors such as the type of past strategies adopted on the market.[538]

(527) Some respondents to the market investigation point out that already before the Transaction, the Parties had the *"sole ability to provide full end-to-end solutions"* and *"a number of bundled solutions for mining and processing"*. However, the Commission notes that the Parties' technical ability to sell bundled offers pre-Transaction did not result in any material increase in their position in markets where their activities are more limited, as evidenced by the Parties' stable market shares in the period 2014-2018.

(528) Furthermore, the Parties' competitors such as FLSmidth and thyssenkrupp already today cover the full line of equipment in their respective portfolios and are able to offer bundles of different types of equipment to customers. In addition, customers have the possibility to procure bundles of equipment by engaging EPC(M)s. However, irrespective of the availability of these options in the market already before the Transaction took place, a majority of customers that responded to the market investigation purchases individual mining capital equipment instead of bundles of different equipment.

(529) In view of the above, the Commission considers that the combined entity is unlikely to have an incentive to engage in a foreclosure strategy through bundling or other exclusionary strategies.

As regards effects

(530) In its analysis, the Commission considers that it is only when a sufficiently large fraction of market output is affected by foreclosure resulting from the concentration that the concentration may significantly impede effective competition. If there remain effective single-product players in either market, competition is unlikely to deteriorate following a conglomerate concentration.[539]

(531) Even if the combined entity engaged in a bundling, tying or other exclusionary strategy, for all the reasons set out at paragraphs 513-529, such strategy is unlikely to result in a significant reduction of sales prospects of stand-alone rivals in the market leading to a reduction in rivals' ability or incentive to compete. As established above, post-Transaction there will remain a sufficient number of competitors that offer stand-alone mining capital equipment. Furthermore, competitors will be able to deploy effective and timely counterstrategies.

6.14.2.2. Other types of bundles

(532) The Commission considers that for the reasons set out at paragraphs 513-531, the combined entity will not have the ability and incentive to leverage its position from any market for the supply of capital equipment into (i) the respective aftermarkets (including services, spare and wear parts) and (ii) the market for EPC services by bundling or other exclusionary practices, for the following reasons.

538 Non-Horizontal Merger Guidelines, paragraph 109.

539 Non-Horizontal Merger Guidelines, paragraph 113.

(533) With regard to the possible bundle of capital equipment and aftermarket services, spare and wear parts, the Commission notes that already pre-Transaction such bundles are widely offered by suppliers of mining capital equipment during the warranty period. The results of the market investigation confirm that capital equipment typically carries a warranty period of around 1-3 years.[540] Therefore, the Transaction will not result in any merger-specific impact with regard to such bundles.

(534) On balance, the results of the market investigation indicate that the combined entity is unlikely to have the ability and incentive to increase its sales of capital equipment and aftermarket services, spare and wear parts by extending the warranty period.[541] Some customers consider that suppliers are not likely to extend the warranty or that an extended warranty period would increase the cost of the procured equipment. Others express the view that the offered warranties are not the main selection criteria for purchasing capital equipment. A customer responding to the market investigation also expresses the view that at times customers have difficulties enforcing existing warranties such that an extended warranty would be meaningful only if it is provided by a supplier with a strong track record of honouring warranties.[542] Furthermore, as demonstrated by the results of the market investigation, after the warranty period expires, a majority of customers procure aftersales services, spare and wear parts from suppliers other than the OEM.[543] This is further demonstrated by the Parties' limited market shares in relation to their own installed base.

(535) With regard to the possible bundle of EPC services and mining capital equipment, the Commission notes that, based on the Notifying Party's submission, Outotec's market share in the market for EPC services at a global level remains below [0-5]% in the period 2014-2018[544], as also confirmed by the Parties' bidding data. Based on the Notifying Party's submission, this is due to the fact that the Parties do not have the resources required to act as EPCs on a larger scale.

(536) Furthermore, a customer who procured EPC services from Outotec explained that even under an EPC contract, customers can select the supplier of capital equipment and are free to change suppliers for a certain type of equipment.[545] Therefore, it is unlikely that the combined entity will be successful in bundling its sales of EPC services and of its own equipment.

(537) In view of the above, the Commission considers that the Transaction would not significantly impede effective competition in the internal market as a result of possible conglomerate effects.

[540] Q2, replies to questions 58.1 and 59.
[541] Q2, replies to question 110.
[542] Q2, reply to question 110.1.
[543] Q2, replies to question 101.
[544] Response to RFI 20 of 24 April 2020, question 23.
[545] Non-confidential minutes of call with AMG of 13 February 2020, paragraph 12.

7. CONCLUSION

(538) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

For the Commission

(Signed)
Margrethe VESTAGER
Executive Vice-President