



EUROPEAN COMMISSION
DG Competition

***Case M.10859 - TRAFIGURA / ECOBAT RESOURCES
STOLBERG***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 31/01/2023

***In electronic form on the EUR-Lex website under
document number 32023M10859***



EUROPEAN COMMISSION

Brussels, 31.1.2023
C(2023) 866 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 Where possible the information omitted has been replaced by ranges of figures or a general description.

Trafigura Group Pte LTD.
10 Collyer Quay
#29-01/05
Ocean Financial Centre
Singapore 049315

**Subject: Case M.10859 - TRAFIGURA / ECOBAT RESOURCES STOLBERG
Commission decision pursuant to Article 6(1)(b) of Council Regulation
No 139/2004¹ and Article 57 of the Agreement on the European Economic
Area²**

Dear Sir or Madam,

- (1) On 22 December 2022, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Trafigura Group Pte Limited ('Trafigura' or the 'Notifying Party', Singapore) acquires within the meaning of Article 3(1)(b) of the Merger Regulation sole control over Ecobat Resources Stolberg GmbH ('ERS', Germany), (the 'Transaction')³. Trafigura and ERS are designated hereinafter as the 'Parties'.

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 ('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 C8, 10.1.23, p. 2.

1. THE PARTIES

- (2) Trafigura is an independent commodity trader, specialising in the oil, minerals and metals markets. It is active in two main lines of business, namely physical commodity trading and related logistics including shipping and chartering, and various activities relating to industrial infrastructure.
- (3) Trafigura controls several companies, including Nyrstar,⁴ which is an integrated mining and metals business, focused on lead and zinc production. In the EEA, Nyrstar is active in zinc smelting at its facilities in Auby (France), Balen (Belgium) and Budel (the Netherlands). Nyrstar also produces lead sulphate in these facilities, as a by-product of zinc smelting. Nyrstar also has a fumer at Hoyanger (Norway).⁵
- (4) ERS is currently owned and controlled by Ecobat LLC. It owns a lead smelting facility located at Stolberg, Germany (the ‘Stolberg Plant’). The Stolberg Plant primarily produces lead metal, as well as other base and precious metals including doré silver and sulphuric acid, recovered as by-products of the lead smelting process.

2. THE TRANSACTION

- (5) Pursuant to the share purchase agreement entered into between Trafigura Holding SARL⁶ and ECOBAT Resources Germany GmbH⁷ on 5 July 2022, Trafigura Holding has agreed to purchase 100% of the issued and to be issued share capital of ERS in exchange for cash consideration of approximately EUR [...]. As a result of the Transaction, the sole control of ERS will be pass from Ecobat LLC to Trafigura.

3. UNION DIMENSION

- (6) The undertakings concerned have a combined aggregate worldwide turnover of more than EUR 5 000 million (Trafigura: EUR 193,535.5 million; ERS: EUR [...] million in 2021). Each of them has an EU-wide turnover in excess of EUR 250 million (Trafigura: EUR [...] million; ERS: EUR [...] million in 2021) but they do not achieve more than two-thirds of their aggregate EU-wide turnover within one and the same Member State. The Transaction therefore has Union dimension.

4. PROCEDURE

- (7) In this case, the Commission received an initial notification on 3 November 2022. Subsequently, the Commission carried out a first phase 1 market investigation (the ‘First Investigation’). The Parties withdrew their initial notification on 30 November 2022.

⁴ Commission Decision 139/2004/EC/ in Case M.7779 – Trafigura / Nyrstar, OJ C 26, 23.1.2016, p.1.

⁵ For ease of reference, the paragraphs below only refer to Trafigura, including when referring to Nyrstar’s activities.

⁶ Trafigura Holding SARL is a fully-owned subsidiary of Trafigura.

⁷ Wholly-owned subsidiary of Ecobat LLC.

- (8) The Parties notified the Transaction anew on 22 December 2022 and the Commission carried out a second market investigation (the ‘Second Investigation’).
- (9) Umicore SA/NV (‘Umicore’) requested to be registered as an interested third party in the course of both market investigations and expressed input foreclosure concerns in connection with Trafigura’s supplies of lead sulphate. Umicore is the parent company of the Umicore Group which is active in materials technology and recycling. Its activities are organized in three business groups: Catalysis, Energy & Surface Technologies and Recycling. Each business group is divided into market-focused business units.
- (10) According to Umicore, the merged entity will have the ability and incentive to restrict or degrade Umicore’s access to Trafigura’s Type 1⁸ lead sulphate post-Transaction.
- (11) In its Hoboken Plant, Umicore uses lead sulphate for the production of a number of base and precious materials including (i) high premium lead metal (99.99% purity grade), (ii) gold and (iii) silver. As by-products of its activities, the Hoboken Plant also produces (iv) sulphuric acid, (v) bismuth alloy, (vi) copper matte and (vii) sulphur-copper dross.⁹ According to Umicore, the merged entity will be able to force the Hoboken Plant out of these downstream markets because:¹⁰
- (a) Umicore is not vertically integrated and in order to purchase feedstock for its production in the Hoboken Plant, Umicore needs to purchase feedstock on the merchant market;¹¹
 - (b) the lead smelting process in the Hoboken Plant presents certain characteristics that require the use of Type 1 lead sulphate (as opposed to lead concentrate and other types of lead sulphate);
 - (c) Trafigura has a significant market share for the supply of lead sulphate to third parties in the EEA and Type 1 lead sulphate in particular;
 - (d) other suppliers of lead sulphate in the EEA are vertically integrated, which limits their incentive to supply lead sulphate to Umicore.
- (12) Likewise, Umicore submits that the Transaction would give the merged entity the incentive to foreclose Umicore as the Transaction will enable Trafigura to enter or expand in the downstream markets for (i) premium lead metal (99.99%), (ii) sulphuric acid, (iii) bismuth alloy and (iv) doré silver.¹² Accordingly, the Transaction would give Trafigura an incentive to foreclose Umicore on these markets.¹³

⁸ As defined in Section 5.1 below.

⁹ In addition, the Hoboken plant uses lead sulphate for the production of a number of other base and precious materials but ERS does not produce or sell these materials and so the Transaction does not give rise to vertical relationships in this respect.

¹⁰ Umicore’s briefing paper submitted to the European Commission by Umicore SA/NV on 29 November 2022, section 3.

¹¹ I.e. it does not operate any zinc smelter in Europe and does not produce lead sulphate.

¹² Umicore does not produce sulphur copper dross and did not express concerns in this respect.

¹³ Umicore’s briefing paper submitted to the European Commission by Umicore SA/NV on 29 November 2022, section 4.

- (13) Finally, Umicore submits that such foreclosure would have a significant impact on the downstream markets for:¹⁴
- (a) premium quality lead (i.e. 99.99% and 99.985% lead metal) for which Umicore estimates its market share to be around 10 to 20% in the EEA (and around 0 to 5% worldwide);¹⁵
 - (b) bismuth alloy, for which Umicore estimates its market share to be around 20 to 30% in the EEA (and around 5 to 10% worldwide);
 - (c) silver, for which Umicore estimates its market share to be around 30 to 40% in the EEA (and around 0 to 5% worldwide);
 - (d) gold, for which Umicore estimates its market share to be around 30 to 40% in the EEA (and around 0 to 5% worldwide).

5. MARKET DEFINITIONS

- (14) Trafigura sells lead sulphate in the EEA, [...], which in turn uses lead sulphate to produce lead metal, sulphuric acid, bismuth alloy, doré silver, copper matte and sulphur-copper dross. Accordingly, the Transaction gives rise to vertical relationships¹⁶ between:
- (a) Trafigura's activities on the market for the supply of lead sulphate in the EEA (upstream);
 - (b) ERS' activities on the markets for the supply of (i) lead metal, (ii) sulphuric acid, (iii) bismuth alloy, (iv) doré silver, (v) copper matte, and (vi) sulphur-copper dross in the EEA (downstream).
- (15) Sections 5.1 - 5.6 will discuss the definitions of each of these markets in turn.¹⁷

5.1. Lead sulphate

- (16) Lead sulphate is a by-product of zinc or lead smelting and a secondary feedstock to the lead smelting process. Zinc smelters therefore supply lead sulphate to lead smelters, who are able to recover lead and other saleable commodities from lead sulphate.
- (17) On the one hand, Trafigura produces lead sulphate at its zinc smelting facilities, including its EEA facilities at Aubry (France), Balen (Belgium) and Budel (the

¹⁴ As for sulphuric acid, Umicore estimates its market share to be less than 1% in the EEA and worldwide.

¹⁵ Umicore's briefing paper submitted to the European Commission by Umicore SA/NV on 29 November 2022, section 5.

¹⁶ The horizontal overlaps between the Parties' activities do not give rise to affected markets under any of the plausible market definitions, as assessed in this section.

¹⁷ Umicore also expressed concerns in connection with (i) rhodium, (ii) platinum, (iii) palladium, (iv) tellurium, (v) indium, (vi) selenium, (vii) sodium antimonate, (viii) ruthenium and (ix) iridium. Umicore produces all of these materials and uses lead sulphate to this end (Umicore's briefing paper of 29 November 2022). However, [...] so the Transaction does not give rise to vertical relationships in this respect. As a result, these products are not further discussed in this Decision. Instead, the assessment will focus on the vertical relationships arising in connection with lead sulphate (upstream) and (i) lead metal, (ii) sulphuric acid, (iii) bismuth alloy, (iv) doré silver, (v) copper matte, and (vi) sulphur-copper dross (downstream).

Netherlands) and its Australian facility in Hobart.¹⁸ On the other hand, ERS uses lead sulphate as feedstock in its smelting operations.

5.1.1. Product market

- (18) The Commission has not previously defined the relevant product market for the supply of lead sulphate. The Notifying Party considers lead sulphate as a distinct product market and submits that no further segmentation would be relevant.
- (19) In this respect, the results of the investigations confirm the view that lead sulphate constitutes a separate market, distinct from other feedstock used for lead production.
- (20) From a demand perspective, a distinction can be made between primary feedstock (i.e. lead concentrate) and secondary feedstock (i.e. lead sulphate and recycled materials). While primary feedstock generates heat when smelted, secondary feedstock and lead sulphate in particular consume heat when smelted.¹⁹ In this regard, the investigations confirmed that lead smelters are required to manage the heat balance of their lead smelting process, which limits demand substitutability between primary and secondary feedstock.²⁰ This is also consistent with the Parties' internal documents.²¹
- (21) Likewise, demand substitutability between secondary feedstock (i.e. lead sulphate and recycled materials) appears limited. For instance, as one vertically integrated zinc smelter explained '*Secondary smelters only use materials derived from the recycling of batteries. These materials are very clean and consistent with high lead content and low impurities*'. As a result, secondary smelters cannot substitute lead sulphate for recycled materials and, conversely, primary smelters cannot substitute recycled materials for lead sulphate.
- (22) This is consistent with the results of the First Investigation, in which the majority of participants confirmed that switching from lead sulphate to other feedstock (including primary and other secondary feedstock) would require significant investments and considerable time for customers.²²
- (23) From a supply perspective, lead sulphate, lead concentrate and scrap materials come from different sources and are supplied by different undertakings. In this respect, zinc smelters producing lead sulphate as a by-product are not able to produce metal concentrates (which are the result of mining operations) or metal scrap (which is produced by final users of metal products).

¹⁸ The only competitor of Trafigura on the merchant market for the supply of lead sulphate in the EEA is Glencore which operates zinc smelters that produce lead sulphate in Germany (Nordenham), Italy (Portovesme), Spain (Asturiana de Zinc) and the UK (Britannia Refined Metals).

¹⁹ Form CO, para. 6.161.

²⁰ Responses to the First Investigation, eQ1 – question 6.

²¹ Form CO, Attachment M (Annex 8) and Attachment P (response to question 1).

²² Responses from a lead metal customer to the First Investigation, eQ1 – question 6.

- (24) Within lead sulphate, the results of the investigations suggest that a further segmentation based on the composition of the lead sulphate could be appropriate. One lead smelter explained in this regard that a distinction can be made between:²³
- (a) lead sulphate from zinc smelters that have a goethite or jarosite residue pond ('Type 1 lead sulphate'). This lead sulphate has a relatively high concentration of lead and precious metals (such as gold and silver) and high moisture, because the iron content is captured in the precipitated goethite or jarosite molecules and separated in the residue pond.
 - (b) lead sulphate from zinc smelters that do not have a goethite or jarosite residue pond ('Type 2 lead sulphate'). This lead sulphate has a higher concentration of iron, and therefore a lower concentration of lead and precious metals (such as gold and silver) and lower moisture.
 - (c) lead sulphate can also result from the treatment of lead ('Type 3 lead sulphate'). In that case, it contains flue dusts and other residues. However, the composition of this type of lead sulphate is different from the by-product of zinc smelters as it typically has very low content of precious metals, if any.
- (25) From a demand perspective, these three types of lead sulphate present different characteristics, especially in terms of moisture content, which plays an important role for lead smelters. As one lead smelter explained: *'All lead smelters pay attention to the moisture content, because the smelters need the capability and capacity to dry / process the lead concentrates or lead sulphates'*.²⁴
- (26) This is consistent with the information submitted by the Parties showing that [...].²⁵ Again, the requirements of lead smelters in terms of heat balance limits demand substitutability between different types of lead sulphate with different moisture content.
- (27) From a supply perspective, the circle of lead sulphate producers vary according to the type of lead sulphate (e.g. zinc smelters only produce Type 1 or 2 lead sulphate whereas other players can only produce Type 3 lead sulphate). As a result, supply-substitutability seems limited, at least between Type 1 and Type 2 lead sulphate on the one hand, and Type 3 lead sulphate, on the other hand.
- (28) In any event, for the purpose of this Decision, the distinction between different types of feedstock for lead production and between different types of lead sulphate can be left open, as the Transaction does not raise serious doubts under any plausible product market definition. Nevertheless, for the purpose of this Decision, the Commission will assess the effects of the Transaction under any product market definition that the Commission considers plausible, by distinguishing a separate market for lead sulphate with a further segmentation according to type of lead sulphate (as defined above).

²³ Responses to the First Investigation, eQ1 – question 7.1.

²⁴ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 21.

²⁵ Form CO, Attachment P (response to question 2).

5.1.2. Geographic market

- (29) The Commission has not previously defined the relevant geographic market for lead sulphate. The Notifying Party considers that the market for lead sulphate is likely to be worldwide.
- (30) The results of the investigations suggest that the geographic market for lead sulphate is at least EEA-wide and potentially broader (e.g. worldwide or worldwide excluding China). The vast majority of respondents to the First Investigation indicated that prices for the supply of lead sulphate are similar across the EEA.²⁶ In addition, the majority of participants confirmed that lead smelters can purchase lead sulphate from suppliers from all over the world.²⁷
- (31) Moreover, several participants explained that Europe is a net exporter of lead sulphate.²⁸ In particular, all participants to the First Investigation confirmed that imports into the EEA represent less than 20% of the volumes consumed in the EEA.²⁹ Among them, the majority estimates that imports represent around 10% of the EEA market.³⁰
- (32) This is consistent with the data submitted by the Parties³¹ and other market participants, which confirm that lead is a low value and bulky product for which transport costs are significant.³² For instance, as one lead smelter explained: ‘*the market for lead sulphate [is] no broader than the EEA, as this product (at least in its regular quality) does not travel much, due to the high transportation costs and also because of its moisture content (there is a moisture limit for transportation by ship)*’.³³
- (33) In any event, for the purpose of this Decision, it can be left open whether the market of lead sulphate is global or EEA-wide, as the Transaction does not raise serious doubts under any market definition that the Commission considers plausible. Nevertheless, for the purpose of this Decision, the Commission will assess the effects of the Transaction under the narrowest plausible geographic market definition, i.e. at EEA level.

5.2. Lead metal

- (34) Lead metal can be produced from lead concentrate (primary production) or the recycling of lead scrap, such as used batteries or lead sulphate (secondary production). The large majority of lead metal is used in the production of batteries, including for automotive or industrial applications. High purity grade lead is also used for certain other niche applications, such as the production of optical devices or submarine cables.

²⁶ Responses to the First Investigation, eQ1 – question 14.

²⁷ Responses to the First Investigation, eQ1 – question 10.

²⁸ Within the volumes of lead sulphate sold by Trafigura, exports represented [...] % of its overall sales in 2019, [...] % in 2020 and [...] % in 2021 (Form CO, Attachment Q).

²⁹ Responses to the First Investigation, eQ1 – question 11.

³⁰ Responses to the First Investigation, eQ1 – question 11.

³¹ Form CO, Attachment Q.

³² See e.g. responses to the Second Investigation, eQ 1 – questions C.B.3 and C.B.4.

³³ Minutes of a call with Umicore of 4 October 2022, para. 5.

- (35) Trafigura is active in the production of lead metal at its multi-metal recycling facility at Port Pirie in Australia. ERS is also active in the production of lead metal at the Stolberg Plant. Both plants use primary feedstock (i.e. lead concentrates) and secondary feedstock ([...]).

5.2.1. *Product market*

- (36) In previous decisions, the Commission found that lead metal constitutes a distinct product market from lead concentrates and from other refined metals.³⁴ The Commission also previously considered whether it would be appropriate to define separate product markets for each grade of lead metal (99.99%, 99.985% and 99.97% purity grade lead metal), in particular for applications that set higher requirements in terms of lead purity input.³⁵
- (37) While ultimately leaving the question open, the Commission also considered a distinction between lead metal alloys and lead metal.³⁶ Finally, the Commission rejected a distinction according to the feedstock used for the production of lead, i.e. lead made from concentrates (primary lead) and recycled lead (secondary lead).³⁷
- (38) The Parties do not contest that similar conclusions may also apply in this case. Therefore, the Parties presented information on the market for lead as a distinct product market from other metals, as well as for the different purity grades of lead metal.
- (39) During the Second Investigation, the majority of respondents indicated that there are significant differences between grades, in particular as regards the applications they are used for.³⁸ The majority of respondents explained that while not all customers purchase all types of lead metal,³⁹ customers cannot change the grade of lead they use for the purpose of their activities.⁴⁰ For some specific niche applications (e.g. optical glass, submarine cables) only 99.99% purity lead can be used.⁴¹ Lower grade (99.985% purity or less) accounts for the large majority of overall demand, roughly around 90%. This grade of lead is mostly used for the production of batteries.⁴²

³⁴ Commission Decision 4064/89/EEC in Case No IV/M.470 - Gencor/Shell, OJ C 271, 29.9.1994, p.3, para. 10; Commission Decision 4064/89/EEC in Case No COMP/M.2413 - BHP/Billiton, OJ C 238, 24.9.2001, p.5, para. 8; Commission Decision 139/2004/EC in Case No COMP/M.4256 - Xstrata/Falconbridge OJ C 253, 19.10.2006, p.6, para 27; Commission Decision 139/2004/EC in Case No COMP/M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, para. 318.

³⁵ Commission Decision 4064/89/EEC in Case No COMP/M.3134 - Arcelor/Umicore/Duology JV, OJ C 186, 6.8.2003, p.27, para 13; Commission Decision 139/2004/EC in Case No COMP/M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, para. 318.

³⁶ Commission Decision 139/2004/EC in Case No COMP/M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, para. 319.

³⁷ Commission Decision 139/2004/EC in Case No COMP/M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, para. 321.

³⁸ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 15.

³⁹ Responses from a lead metal customer to the Second Investigation, eQ2 – question B.2-1.

⁴⁰ Responses from a lead metal customer to the Second Investigation, eQ2 – question C.A.3.

⁴¹ Minutes of a call with a lead metal customer of 15 December 2022, para. 9; Minutes of a call with a lead metal customer of 23 November 2022, para. 5; Minutes of a call with a lead metal customer of 23 November 2022, para. 3.

⁴² Minutes of a call with a lead metal customer of 23 November 2022, para. 3; Minutes of a call with a lead metal customer of 23 November 2022, para. 5.

- (40) As regards the difference between lead metal and lead metal alloys, the responses to the market investigations show that there are significant differences between lead metal and lead metal alloys, particularly in terms of chemical composition (e.g. calcium or antimony content).⁴³ Besides, the investigations did not elicit any result that would justify distinguishing primary and secondary lead metal.
- (41) In any event, given that the Transaction does not give rise to serious doubts under any plausible product market definition, the Commission considers that it can be left open whether the market for lead metal should be subsegmented according to purity grade. Nevertheless, for the purpose of this Decision, the Commission will assess the effects of the Transaction under all plausible product market definitions, i.e. on separate markets for lead metal with a distinction by grade (i.e. 99.99%, 99.985%, 99.97% and lower).

5.2.2. *Geographic market*

- (42) In previous decisions, the Commission considered the geographic market for lead metal to be worldwide.⁴⁴ In contrast, in Glencore/Xstrata, the Commission considered the definition of a worldwide market excluding China or even an EEA-wide market. To support this view, the Commission explained that imports from regions outside the EEA seemed impracticable due to transport costs. Ultimately, the precise geographic market definition was left open.⁴⁵
- (43) The Parties submit that the market for lead metal is worldwide. Therefore, the Parties present information on a worldwide basis. For completeness, the Parties also provided information on a worldwide-excluding-China basis and at EEA level.
- (44) The results of the market investigations are not conclusive. Some of the market participants consider the market to be worldwide in scope,⁴⁶ while others restrict the market as being EEA-wide in scope. In particular, some customers have indicated that due to transport costs and delivery times, lead metal is not regularly imported.⁴⁷
- (45) In any event, it can be left open whether the relevant market is global or EEA-wide because the Transaction does not give rise to serious doubts irrespective of the geographic scope. Nevertheless, for the purpose of this Decision, the Commission will assess the effects of the Transaction under the narrowest plausible geographic market definition, i.e. at EEA level.

⁴³ Minutes of a call with a lead metal customer of 15 December 2022, para. 8.

⁴⁴ Commission Decision 4064/89/EEC in Case M.470 - Gencor/Shell, OJ C 271, 29.9.1994, p.3, para 11; Commission Decision 4064/89/EEC in Case M.2413 - BHP/Billiton, OJ C 238, 24.8.2001, p.5, para 9; Commission Decision 139/2004/EC in Case M.4256 - Xstrata/Falconbridge, OJ C 253, 19.10.2006, p. 6, para 27; Commission Decision 139/2004/EC in Case M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, para 321.

⁴⁵ Commission Decision 139/2004/EC in Case M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, paras 326, 327.

⁴⁶ Minutes of a call with a lead metal customer of 15 December 2022, para. 9; Minutes of a call with a lead metal customer of 28 November 2022, para. 7; Responses from a lead metal customer to the Second Investigation, eQ2 – question C.B.2.

⁴⁷ Minutes of a call with a lead metal customer of 28 November 2022, para. 9; Minutes of a call with a lead metal customer of 23 November 2022, para. 3; Minutes of a call with a lead metal customer of 23 November 2022, para. 6.

5.3. Doré silver

- (46) Doré silver is a semi-refined alloy produced during the lead smelting process, which typically comprises approximately 95% silver and 5% gold depending on the producer (although the proportion of silver is sometimes higher).
- (47) Doré silver is sometimes used without further processing, for similar purposes to silver and gold, including as decorative coating, dental alloy, in electronics, for jewellery and also has industrial application. Otherwise, it acts as an intermediary material used in the production of both gold and silver, which occurs as a result of further purification and separation of the two metals. It is valued by reference to prevailing silver market prices (discounted for the cost of removing impurities as required).
- (48) Trafigura is active in the production of doré silver, at its recycling facility at Port Pirie (Australia). ERS also produces doré silver at the Stolberg Plant. Large precious metals refiners such as Aurubis and Umicore buy the doré silver produced by ERS with a view to recovering the gold and silver content, along with other products containing silver and precious metals.

5.3.1. Product market

- (49) The Commission has not previously considered the production of doré silver specifically. In past cases, the Commission considered separate product markets for the production of silver and for the production of gold⁴⁸, and segmented the production of refined metal by metal type.⁴⁹
- (50) The markets for the production of silver and gold are distinct due in particular to the metals' different physical characteristics, their different usage and different price levels.⁵⁰
- (51) The Parties note that reliable third-party information is not available on a total market basis in respect of the production of doré silver, and as such the Parties are unable to approximate the size of the market with accuracy. Given that doré silver comprises approximately 95% silver (although this is dependent on the producer) and as it is typically priced by reference to the silver price, the Parties consider that the silver metal market provides a reasonable proxy for the size of the doré silver market.
- (52) The Commission considers that the Transaction does not give rise to serious doubts irrespective of whether doré silver is considered to be part of the broader silver market, part of the broader gold market, or a separate market of its own. Therefore, the precise scope of the product market definition can be left open. Nevertheless,

⁴⁸ Commission Decision 4064/89/EEC in Case No IV/M.470 - Gencor/Shell, OJ C 271, 29.9.1994, p.3, para. 10; Commission Decision 4064/89/EEC in Case No IV/M.660 – RTZ/CRA, OJ C 22, 26.1.1996, p.10, para. 12; Commission Decision 4064/89/EEC in Case No COMP/M.2062 - Rio Tinto/North, OJ C 250, 31.8.2000, p.4, para. 16; Commission Decision 4064/89/EEC in Case No COMP/M.2413 - BHP/Billiton, OJ C 238, 24.8.2001, p.5, para. 8.

⁴⁹ Commission Decision 4064/89/EEC in Case No COMP/M.2413 - BHP/Billiton, OJ C 238, 24.8.2001, p.5, para. 8.

⁵⁰ Commission Decision 4064/89/EEC in Case No COMP/M.2413 - BHP/Billiton, OJ C 238, 24.8.2001, p.5, para. 8.

for the purpose of this Decision, the Commission will assess the effects of the Transaction under the all plausible product market definitions, i.e. on a separate market for doré silver but also on a broader product market that would include doré silver as well as silver or gold.

5.3.2. *Geographic market*

- (53) The Commission has not previously considered the production of doré silver specifically. In respect of the production of gold and silver, the Commission considered the geographic scope of the market to be worldwide because these metals are actively traded on a global basis as commodities.⁵¹ The market investigations have not called this conclusion into question.
- (54) In line with this approach, the Parties provided information on the market for doré silver on a worldwide basis.
- (55) In any event, the precise scope of the geographic market definition for doré silver can be left open because the Transaction does not give rise to serious doubts irrespective of the geographic scope.

5.4. **Sulphuric acid**

- (56) Sulphuric acid is a corrosive chemical mainly used in the chemical and fertiliser industries. It can also be used in the manufacture of pulp and paper, paints and pigments, explosives, plastics, detergents and a variety of specialty chemicals. It is also used for processing mineral ores, metal refining, petrochemical processing and water treatment.⁵²
- (57) Both Parties are active in the production of sulphuric acid as a product of the smelting processes at their respective smelters. The Parties consider sulphuric acid to be a mere by-product, in the sense that neither of the Parties adjusts its smelting operations in order to increase the output volumes of sulphuric acid. The volume of sulphuric acid produced is simply a function of the smelting process, which is geared towards maximising recovery of the primary outputs (lead metal and doré silver).

5.4.1. *Product market*

- (58) In its previous decisions, the Commission considered that sulphuric acid constitutes a separate market, which should not be further segmented according to production

⁵¹ Commission Decision 4064/89/EEC in Case No COMP/M.2062 - Rio Tinto/North, OJ C 250, 31.8.2000, p.4, para. 16; Commission Decision 4064/89/EEC in Case No COMP/M.2413 - BHP/Billiton, OJ C 238, 24.8.2001, p.5, para. 9.

⁵² Commission Decision 139/2004/EC in Case M.4256 - Xstrata/Falconbridge, OJ C 253, 19.10.2006, p. 6, para. 32.

methods.⁵³ However, the Commission left open the plausibility of a larger market for sulphuric acid that would also include waste acids and carbon dioxide.⁵⁴

- (59) Neither of the Parties is active in the production or trading of waste acids, beyond the production of sulphuric acid. The Parties have therefore provided information on the basis of the narrowest plausible product market definition, that is sulphuric acid.
- (60) Given that the Transaction does not give rise to serious doubts under any plausible product market definition, the Commission considers that the precise scope of the product market definition can be left open. Nevertheless, for the purpose of this Decision, the Commission will assess the effects of the Transaction under the narrowest plausible product market definition, i.e. the market for sulphuric acid.

5.4.2. *Geographic market*

- (61) The Commission previously considered the geographic market for the supply of sulphuric acid to be at least regional (in that case North-West Europe),⁵⁵ although it ultimately left the exact market definition open.
- (62) The Parties do not contest that similar conclusions may also apply in this case. They provided production volumes and market shares on both a North-West Europe and EEA-wide basis.
- (63) Given that the Transaction does not give rise to serious doubts under any plausible geographic market definition, the Commission considers that the precise scope of the geographic market definition can be left open. Nevertheless, for the purpose of this Decision, the Commission will assess the Transaction under the narrowest plausible market definition (i.e. North-West Europe) as well as at EEA level.

5.5. **Bismuth alloy**

- (64) Bismuth alloy is produced by ERS as a by-product in the lead smelting process. It is generally comprised of c. 80 to 90% lead and c. 10 to 20% bismuth. Bismuth alloy is predominantly used in the further refining of bismuth and lead metals.
- (65) ERS is active in the production of bismuth alloy as a by-product of its smelting process. ERS considers bismuth alloy to be a mere by-product, in the sense that it does not adjust its smelting operations in order to increase the output volumes of bismuth alloy. The volume of bismuth alloy produced is simply a function of the smelting process, which is geared towards maximising recovery of the primary outputs (lead metal and doré silver).

⁵³ Commission Decision 4064/89/EEC in Case No COMP/M.3284 - Outokumpu Oyj/Boliden AB, OJ C 25, 29.1.2004, p.3, para. 76. Sulphuric acid can be produced by burning elemental sulphur or roasting iron pyrite ('chemical production'). It can also be produced as a by-product of the waste sulphur gases produced during the smelting process of various metals, including zinc, copper, nickel and lead ('smelter production').

⁵⁴ Commission Decision 4064/89/EEC in Case No COMP/M.3284 - Outokumpu Oyj/Boliden AB, OJ C 25, 29.1.2004, p.3, para. 75.

⁵⁵ Comprising Benelux, Denmark, Finland, France, Germany, Norway, Poland, Sweden, the United Kingdom and, see Commission Decision 4064/89/EEC in Case No COMP/M.3284 - Outokumpu Oyj/Boliden AB, OJ C 25, 29.1.2004, p.3, para. 80.

5.5.1. *Product market*

- (66) The Commission has not previously considered the production of bismuth alloy specifically.⁵⁶ In line with the Commission's general approach of segmenting metal production by metal type, the Parties consider that bismuth alloy constitutes a distinct product market.
- (67) The Commission considers that, depending on its precise metal content, bismuth alloy may be considered to be part of the wider markets of bismuth metal and lead metal. Given that the Transaction does not give rise to serious doubts under any plausible product market definition, the Commission considers that the precise scope of the product market definition can be left open. For the purpose of this Decision, the Commission will assess the effects of the Transaction under the narrowest plausible product market definition, i.e. on a separate market for bismuth alloy.

5.5.2. *Geographic market*

- (68) The Commission has not previously considered the production of bismuth alloy. The Parties assume that the relevant geographic market for bismuth alloy is global in scope. This conclusion is supported by the fact that traders engage in the trading of bismuth alloy at global level and ERS's bismuth alloy was [...].⁵⁷
- (69) Given that the Transaction does not give rise to serious doubts under any plausible geographic market definition, the Commission considers that the precise scope of the geographic market definition can be left open. For the purpose of this Decision, the Commission will assess the effects of the Transaction based on both an EEA-wide and a worldwide market for bismuth alloy.

5.6. **Copper intermediate products**

- (70) ERS produces copper matte and sulphur-copper dross as a by-product of its smelting operations.

5.6.1. *Product market*

- (71) In its previous decisions, the Commission considered that copper intermediate products and copper final products (such as copper cathodes) belong to separate product markets.⁵⁸ The market investigations in this case did not call this conclusion into question.
- (72) According to the Notifying Party, copper matte and sulphur-copper dross are similar products as they are both intermediate materials in the copper refining process.

⁵⁶ Bismuth alloy was briefly mentioned but not specifically discussed in Commission Decision of 139/2004 in Case No COMP/M.4450 – Umicore/Zinifex/Neptune, OJ C 65, 21.3.2007, p.1, para. 67.

⁵⁷ Form CO, page 47.

⁵⁸ Commission Decision 139/2004/EC in Case M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p.1, paras. 222-225.

(73) In any event, given that the Transaction does not give rise to serious doubts under any plausible product market definition, the Commission considers that the precise scope of the product market definition can be left open. Nevertheless, for the purpose of this Decision, the Commission will assess the effect of the Transaction under the narrowest plausible product market definition, i.e. with a distinction between copper matte and sulphur-copper dross.

5.6.2. *Geographic market*

(74) In its previous decisions, while leaving the exact geographic market definition open, the Commission considered that the markets for copper intermediate products and copper final products (such as copper cathodes) are global.⁵⁹ The Notifying Party does not dispute this approach and the market investigations in this case did not call it into question.

(75) In any event, given that the Transaction does not give rise to serious doubts under any plausible geographic market definition, the Commission considers that the precise scope of the product market definition can be left open. Nevertheless, for the purpose of this Decision, the Commission will assess the effect of the Transaction both on the basis of worldwide and EEA-wide markets for copper matte and sulphur-copper dross.

6. COMPETITIVE ASSESSMENT

(76) The Transaction gives rise to vertically affected markets between:⁶⁰

- (a) Trafigura's activities on the market for the supply of lead sulphate in the EEA (upstream);
- (b) ERS' activities on the markets for the supply of (i) lead metal, (ii) sulphuric acid, (iii) bismuth alloy, (iv) doré silver; and (v) sulphur-copper dross in the EEA (downstream).

6.1. Legal framework

(77) Pursuant to Article 2(2) and (3) of the Merger Regulation,⁶¹ the Commission must assess whether a concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position. In this respect, a merger can entail horizontal and/or non-horizontal effects.

(78) With particular regard to non-horizontal effects, a merger can entail such effects when it involves companies operating at different levels of the same value chain or in closely related markets.

(79) In assessing potential vertical effects of a merger, the Commission analyses, among others, whether the merger results in foreclosure so that actual or potential rivals'

⁵⁹ Commission Decision 139/2004/EC in Case M.6541 - Glencore/Xstrata, OJ C 109, 11.4.2014, p. 1, paras. 230, 249 and 269.

⁶⁰ Given that the products that ERS produces in the largest quantities (in terms of volume) are lead metal and sulphuric acid (Form CO, Annex 7), the assessment below starts with these two vertical relationships.

⁶¹ Annex XIV of the EEA Agreement contains specific provisions as regards the EEA.

access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing those companies' ability and/or incentive to compete.⁶² Such foreclosure may discourage entry or expansion of rivals or encourage their exit. Foreclosure can be found even if the foreclosed rivals are not forced to exit the market. It is sufficient that the rivals are disadvantaged and consequently led to compete less effectively. Such foreclosure is regarded as anti-competitive where the merging companies — and, possibly, some of their competitors as well — are as a result able to profitably increase the price charged to consumers.

- (80) The Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings ('Non-Horizontal Merger Guidelines') distinguish between two forms of foreclosure: (i) input foreclosure, when access of downstream rivals to supplies is hampered,⁶³ and (ii) customer foreclosure, when access of upstream rivals to a sufficient customer base is hampered.⁶⁴
- (81) In assessing both types of foreclosure, the Commission assesses whether the merged entity (i) would have the ability to engage in foreclosure, (ii) whether it would have the incentive to do so, and (iii) what would be the overall impact on effective competition in the affected markets.
- (82) The Commission will assess whether the Transaction gives rise to serious doubts due to vertical non-coordinated effects on the markets examined in Section 5.

6.2. Lead sulphate (upstream) / lead metal (downstream)

- (83) Trafigura's lead sulphate can be used as a feedstock for the production of lead. As ERS is active in the production of lead metal, a vertical relationship exists between the Parties' activities. As explained below, Trafigura's market share on the upstream merchant market for the supply of lead sulphate in the EEA exceeds 30%. Accordingly, this vertical relationship gives rise to affected markets.

6.2.1. Market shares

6.2.1.1. Lead sulphate (upstream)

- (84) The Notifying Party was unable to provide market share estimates for the supply of lead sulphate in the EEA as there is no tradable market and no reliable third-party data to estimate the size of this market. Furthermore, the majority of lead sulphate producers in the EEA are vertically integrated and do not publicly report their production of lead sulphate.
- (85) The only data that the Notifying Party was able to provide corresponds to zinc production volume data in the EEA. This may serve as a rough proxy of the shares of lead sulphate producers since lead sulphate is a by-product of zinc. According to this data, Trafigura accounts for [30-40]% of the zinc produced in the EEA,

⁶² Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 265, 18.10.2008, p.6-25, paras. 20-29. ('Non-Horizontal Merger Guidelines')

⁶³ Non-Horizontal Merger Guidelines, para. 31.

⁶⁴ Non-Horizontal Merger Guidelines, para. 58.

Glencore for [30-40]%, Boliden for [20-30]% and Boleslaw for [5-10]%.⁶⁵ However, there is a weak correlation between the amount of zinc metal produced by a zinc smelter and the amount of lead sulphate it produces. Besides, zinc smelting is not the only source of lead sulphate. For example, Jean Goldschmidt is a processor of metallurgical residues that produces Type 3 lead sulphate.⁶⁶ As a result, these figures do not accurately reflect the Parties' and their competitors' positions.

- (86) In this context, the Commission relied on the results of its investigations to estimate market shares for the supply of lead sulphate in the EEA. Based on the results of the investigations, market shares can only be estimated on the merchant market and in volume. As a result, they only take into account sales to third parties and do not account for volumes consumed internally by vertically integrated producers.⁶⁷
- (87) In light of the data received from the Parties and market participants, the merchant market for the supply of lead sulphate in the EEA would represent approximately [...] dmt.⁶⁸ On this market Trafigura sells [...] dmt and account for [more than 50%] of the market.⁶⁹ This is also in line with the estimates received from individual participants when asked about Trafigura's market share and consistent with the fact that Trafigura is the only zinc smelter in the EEA without its own lead smelting division.⁷⁰
- (88) On this merchant market for lead sulphate, the investigations also confirmed that Glencore and Jean Goldschmidt are the only significant competitors of Trafigura in the EEA.⁷¹
- (89) If a distinction is made by type of lead sulphate (i.e. Type 1, Type 2 and Type 3 lead sulphate, as defined above in paragraph 24), Trafigura only sells Type 1 and Type 2 lead sulphate. That being said, the concerns expressed in the course of the investigations exclusively focused on Type 1 lead sulphate.
- (90) In this respect, Umicore estimates that Trafigura accounts for [more than 50%] of the market for the supply of Type 1 lead sulphate in the EEA. Furthermore, the results of the investigations confirm that only Trafigura, Glencore, Boliden, ZGH and KCM produce Type 1 lead sulphate in the EEA.⁷² However, Glencore appears to be the only significant competitor active in the merchant market at this

⁶⁵ Form CO, Table 6.22.

⁶⁶ Form CO, para. 6.143.

⁶⁷ According to the Parties' data, vertically integrated lead smelters account for approx. [20-30]% of the market for lead metal in the EEA (para. 97).

⁶⁸ Dry metric tons.

⁶⁹ Form CO, Annex 6; Umicore's response to RFI2; Form CO, para. 6.145 and response from a market participant to the First Investigation, eQ1 – question 2.

⁷⁰ Responses to the First Investigation, eQ1 – question 15. Later specified that this relates to EEA but would roughly also correspond to worldwide since there are close to no merchant market sales outside the EEA.

⁷¹ Responses to the First Investigation, eQ1 – question 15.

⁷² Responses to the Second Investigation, eQ1 – question D.1-1. However, Boliden, ZGH and KCM consume all their production internally.

stage.⁷³ Boliden confirmed that it plans to expand its zinc smelting operations at Odda (Norway) which may increase its production of Type 1 lead sulphate in the future. However, Boliden is not currently active on the merchant market for Type 1 lead sulphate and there is no guarantee that Boliden would enter the merchant market.⁷⁴

- (91) Finally, Trafigura's production of lead sulphate has been relatively stable over the past three years⁷⁵ and nothing suggests that the above market shares significantly varied over time.

6.2.1.2. Lead metal (downstream)

- (92) Table 1 compiles the Parties' market shares for the production of lead metal worldwide over the past three years:

Table 1 – Shares of lead metal production, by grade worldwide (2019-2021)⁷⁶

Worldwide	2019		2020		2021	
	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)
99.94-99.97%						
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
99.985%						
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
>99.99%						
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
All grades						
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]

Source: Form CO, Table 6.3 (estimates based on Wood Mackenzie data, Trafigura market knowledge and the Parties' internal data).

- (93) Table 2 compiles the Parties' market shares for the supply of lead metal worldwide over the past three years:

⁷³ Responses to the Second Investigation, eQ1 – question D.1-1. Because Jean Goldschmidt is not a zinc smelter, it only produces Type 3 lead sulphate.

⁷⁴ Responses to the Second Investigation, eQ1 – question B.6-1.

⁷⁵ Form CO, Annex 6. The lead sulphate production of Trafigura in 2019 ([...] dmt), 2020 ([...] dmt) and 2021 ([...]) remained stable.

⁷⁶ Kmt stands for kilo-metric tons.

Table 2 - Shares of lead metal supply, by grade worldwide (2019-2021)⁷⁷

Worldwide	2019		2020		2021	
	Share of supply (%)	Volumes (kmt)	Share of supply (%)	Volumes (kmt)	Share of supply (%)	Volumes (kmt)
99.94-99.97%						
Trafigura	[5-10]%	[...]	[5-10]%	[...]	[10-20]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[5-10]%	[...]	[5-10]%	[...]	[10-20]%	[...]
99.985%						
Trafigura	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[5-10]%	[...]	[5-10]%	[...]	[10-20]%	[...]
>99.99%						
Trafigura	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
All grades						
Trafigura	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
Combined	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]

Source: Form CO, Table 6.5 (estimates based on Wood Mackenzie data, Trafigura market knowledge and the Parties' internal data).

- (94) The Parties submit that there is no reliable third party source for the purpose of calculating market size estimates for lead metal in the EEA with a distinction by grade. In this context, the Parties were only able to provide their best estimates of their own market shares for the supply of lead metal in the EEA on a market that includes all different types of grades, as presented in Table 3:

Table 3 – Shares of lead metal supply, EEA (2019-2021)⁷⁸

EEA	2019		2020		2021	
	Share of supply (%)	Volumes (kmt)	Share of supply (%)	Volumes (kmt)	Share of supply (%)	Volumes (kmt)
All grades						
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[5-10]%	[...]	[5-10]%	[...]	[0-5]%	[...]
Combined	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
TOTAL	100%	[...]	100%	[...]	100%	[...]

Source: Form CO, Table 6.10 (estimates based on Wood Mackenzie data and Trafigura market knowledge and the Parties' internal data).

6.2.2. Input foreclosure

- (95) On balance, the results of the investigations indicate that the merged entity may have the ability to foreclose Umicore (i.e. the production in its Hoboken Plant) but not competition in the market for lead metal from other lead smelters in the EEA. Moreover, the results of the investigations confirmed that the merged entity would have no incentive to cut supplies of lead sulphate to Umicore. In any event, the results of the investigations confirmed that a potential foreclosure of Umicore

⁷⁷ Kmt stands for to kilo-metric tons.

⁷⁸ Kmt stands for to kilo-metric tons.

would not have a significant impact on competition for the supply of lead metal in the EEA.

6.2.2.1. Ability

- (96) Overall, the results of the investigations suggest that the merged entity will not have the ability to foreclose any of the lead smelters in the EEA with the exception of, possibly, Umicore who accounts only for a limited part of the market.⁷⁹
- (97) In particular, the results of the investigations suggest that the merged entity will lack the ability to foreclose:
- (a) secondary lead producers: these producers do not use Trafigura's lead sulphate but process scrap battery metal and paste and as such would be unaffected by the merged entity's foreclosure strategy. According to the Parties' data, these other lead smelters represent [80-90]% of the downstream market for the supply of lead metal in the EEA;⁸⁰
 - (b) lead smelters vertically integrated with a zinc smelter: these lead smelters produce their own lead sulphate for the purpose of their own lead smelting activities. According to the Parties' data, these other lead smelters represent [20-30]% of the downstream market for the supply of lead metal in the EEA.⁸¹
- (98) The above lead smelters together account for around 80 to 90% of the EEA market for premium lead (including 99.99% and 99.985% lead metal).⁸²
- (99) On the other hand, the results of the investigations confirmed that the merged entity may be able to foreclose Umicore's (i.e. its Hoboken Plant):
- (a) the investigations confirmed that the merged entity will have a significant degree of market power on the upstream merchant market for the supply of lead sulphate in the EEA.⁸³ In this respect, Trafigura's market share for the supply of lead sulphate in the EEA is significant ([exceeding 50%]).⁸⁴ Likewise, if a distinction is made between different types of lead sulphate, the results of the investigations indicate that Trafigura's market share would also be significant ([exceeding 50%] for Type 1 lead sulphate);⁸⁵
 - (b) the investigations confirmed that lead sulphate constitutes a significant input for lead smelters downstream.⁸⁶ In this regard, market participants confirmed

⁷⁹ Umicore's Hoboken Plant is the only plant from Umicore producing lead metal (Umicore's response to RFI 1, question 14).

⁸⁰ Form CO, Attachment Q, Table 2.

⁸¹ Form CO, Attachment Q, Table 2. Some of the vertically integrated firms that are able to self-supply and process lead sulphate produce primary as well as secondary lead metal (e.g. Glencore Nordenham). Therefore, there is an overlap between volumes of secondary lead producers and the volumes of vertically integrated firms, which explains why the sum of the market share of secondary lead producers and vertically integrated lead producers exceed 100%.

⁸² According to Umicore's own estimates, Umicore represents only a small share of the downstream market for the supply of premium lead metal in the EEA (10-20%)

⁸³ Non-Horizontal Merger Guidelines, para. 35.

⁸⁴ See above section 6.2.1.1.

⁸⁵ Umicore's response to RFI 1, question 7.

⁸⁶ Non-Horizontal Merger Guidelines, para. 34.

that lead smelters cannot substitute lead concentrate or other feedstock for lead sulphate and vice versa. In this respect, 55% of the opinions expressed by respondents confirmed that switching from lead sulphate to other categories of feedstock and vice versa would require significant investments and considerable time.⁸⁷

This is also consistent with the information submitted by the Parties, according to which ‘*most primary feedstocks generate heat when processed, whereas secondaries consume heat. Lead sulphates (Type 1 and 2) and other secondaries, such as battery paste, may vary in metal content, moisture content, and impurity levels, but importantly they are all “heat consumers”*’.⁸⁸ These technical differences thus limit demand-side substitutability between primary feedstock (i.e. lead concentrates) and secondary feedstock (i.e. lead sulphate and battery paste);

- (c) the investigations also confirmed that Trafigura’s lead sulphate (including Type 1 and Type 2 lead sulphate) represents a significant input for Umicore’s Hoboken Plant in particular due to the individual specifications of this plant.⁸⁹ Indeed, lead smelters confirmed that they have individual specifications in terms of moisture, sulphate and silica content because of the characteristics of their lead smelting processes.

As one lead smelter explained: ‘*All the lead smelters pay attention to the moisture content, because the smelters need the capability and capacity to dry / process the lead concentrates or lead sulphates*’.⁹⁰ As a result, the majority of respondents to the First Investigation confirmed that there are significant differences between different types of lead sulphate (i.e. Type 1, Type 2 and Type 3 lead sulphate);⁹¹

- (d) although Umicore may source the lead sulphate it needs at least partially from Glencore, the Commission notes that the volumes of lead sulphate previously sold by Glencore on the merchant market are insufficient to cover all of Umicore’s needs.⁹² As a result, Trafigura may be able to foreclose Umicore at least partially.

- (100) In view of the above, the Commission considers that the merged entity may have the ability to foreclose Umicore post-Transaction, but will not be able to foreclose other competing lead smelters active in the EEA.

⁸⁷ Responses to the First Investigation, eQ1 – question 6.

⁸⁸ Response to 2P1 RFII-1, question 7.

⁸⁹ Umicore could theoretically invest in a new lead smelter with different specifications. However, this is likely to represent a significant investment and to take time. Besides, the operation of a new lead smelter would still require access to lead sulphate. Given that no independent lead sulphate producer (i.e. non-vertically integrated) offers on the merchant market sufficient quantities of lead sulphate for Umicore’s current operation, Umicore would have no guarantee to secure access to sufficient volumes of lead sulphate for the operation of new lead smelter. As a result, such alternative would not be economically viable.

⁹⁰ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 21.

⁹¹ Responses to the First Investigation, eQ1 – question 7.

⁹² Form CO, para. 6.145 and Umicore’s response to RFI 2.

6.2.2.2. Incentive

- (101) For the sake of completeness and assuming that the merged entity were to have the ability to foreclose downstream producers in a way that it could negatively affect the overall availability of inputs for the downstream market in terms of price or quality (quod non), the Commission investigated whether the merged entity would have the incentive to do so, i.e. whether such strategy would be profitable. The results of the investigations show that such strategy would entail significant losses for Trafigura and lead to limited gains for it downstream. It follows that an input foreclosure would not be profitable for the merged entity.⁹³
- (102) *First*, cutting the Hoboken Plant's supplies would entail significant costs for Trafigura. Since lead sulphate is an inevitable by-product of zinc, Trafigura would continue to produce it in the same quantities even if it were to foreclose Umicore.
- (103) The investigations confirmed that the only way for zinc smelters to reduce their production of lead sulphate would be to curtail their zinc smelting activities, but this would not be economically rational. As one zinc smelter explained: *'Monetized by-products are good but this doesn't influence the level of zinc production of a zinc smelter'*.⁹⁴
- (104) This is also confirmed by the Parties' past behaviour on the market since [...], even though ERS was one of the main purchasers of Trafigura's lead sulphate in the EEA.⁹⁵
- (105) If Trafigura were to engage in input foreclosure, Trafigura would need to stockpile these volumes or find alternatives. [...],⁹⁶ the merged entity will have to turn to alternatives solutions, namely:
- (a) the merged entity could try to process these volumes of lead sulphate in ERS' facility. However, ERS currently processes around [...] dmt⁹⁷ of lead sulphate per year⁹⁸ (approx. [...] % of Trafigura's production in 2021) and Trafigura's internal documents confirm that ERS' maximum capacity is around [...] dmt of lead sulphate processed per year,⁹⁹ which is also in line with the conservative estimate used in the economic report submitted by the Parties ([...] dmt).¹⁰⁰ In a conservative approach, it can thus be assumed that the merged entity would need to dispose of at least [...] dmt of lead sulphate per year,¹⁰¹

⁹³ Non-Horizontal Merger Guidelines, para. 40.

⁹⁴ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 11.

⁹⁵ Form CO, Annex 6: the lead sulphate production of Trafigura in 2017 ([...] dmt), 2018 ([...] dmt), 2019 ([...] dmt), 2020 ([...] dmt) and 2021 ([...]) remained stable.

⁹⁶ Trafigura has some temporary storage at [...] (amounting to a maximum of c. [...] kt available for lead sulphate volumes, under normal operation) but this is designed to provide sufficient space for the inbound zinc concentrate deliveries (stock management, blending, financing, onward delivery to smelters) required for its zinc smelting activities (Notifying Party's response to RFI 1-2, question 3, annex 1).

⁹⁷ Dmt stands for dry metric tons.

⁹⁸ Response to RFI I-2, Annex 5.

⁹⁹ Response to RFI I-3, Annex 3.

¹⁰⁰ Form CO, Attachment Q.

¹⁰¹ Trafigura's lead sulphate production in 2021 ([...] dmt) minus ERS' maximum treatment capacity ([...] dmt).

- (b) the merged entity could try to sell additional volumes of lead sulphate to other customers in the EEA. However, the [...] that purchases lead sulphate from Trafigura in the EEA is [...]. Over the past five years, [...] purchased between [...] dmt and [...] dmt of lead sulphate per year from Trafigura.¹⁰² In a conservative approach, it can thus be assumed that the merged entity would be able to sell up to [...] dmt to [...], which means that the merged entity would still need to dispose of at least [...] dmt;¹⁰³
- (c) the merged entity could ship these excess volumes to customers located outside the EEA. However, the data submitted by the Parties confirms that this would entail significant transport costs (i.e. EUR [...] per dmt compared to EUR [...] per dmt when supplying Umicore).¹⁰⁴ In addition, the Commission notes that when Trafigura supplied lead sulphate to customers outside the EEA, it did so at a loss of EUR [...] compared to an average profit of EUR [...] per dmt when Trafigura sold lead sulphate to the Hoboken Plant.¹⁰⁵

Overall, this is consistent with the qualitative evidence collected during the investigations. As one zinc smelter explained, ‘*lead sulphate is a fairly low value bulk product for which the transport costs have a big influence on its sales value*’.¹⁰⁶ Likewise, another lead sulphate producer explained that ‘*Due to transport constraints [...] we prefer to sell nearby via road transport, limiting transit time and transport cost concerned*’;¹⁰⁷

- (d) alternatively, the merged entity could ship these excess volumes to Australia and process them in Trafigura’s facility in Port Pirie. [...].¹⁰⁸
 [...].¹⁰⁹ [...],¹¹⁰ [...].¹¹¹

This is consistent with Trafigura’s internal documents, as shown in Figure 1, which confirm that one of the rationale of the Transaction is [...]:

Figure 1 - Trafigura’s internal document: [...]

[...]

Source: Form CO, Attachment E.11

- (106) In view of the above, it is considered that Trafigura would incur significant revenue losses if it were to cut the Hoboken Plant’s supplies of lead sulphate in the EEA. According to the data submitted by the Parties, this net revenue loss can be estimated at a minimum of EUR [...] million per year.¹¹²

¹⁰² Form CO, Annex 6.

¹⁰³ Trafigura’s lead sulphate production in 2021 ([...] dmt) minus ERS’ maximum treatment capacity ([...] dmt) minus the volumes sold to [...] ([...] dmt).

¹⁰⁴ Form CO, Attachment Q, Table 4.

¹⁰⁵ Form CO, Attachment Q, Table 7.

¹⁰⁶ Responses to the Second Investigation, eQ 1 – question C.B.2.

¹⁰⁷ Responses to the Second Investigation, eQ 1 – question C.B.3 and C.B.4.

¹⁰⁸ Form CO, Attachment E.11.

¹⁰⁹ Form CO, Attachment Q, Table 4.

¹¹⁰ Form CO, Attachment Q.

¹¹¹ Form CO, Attachment Q.

¹¹² Form CO, Attachment Q, section 3.4.5.2.

- (107) *Second*, the gains that the merged entity could possibly get from an input foreclosure strategy would be limited.
- (108) *In the first place*, the exit of the Hoboken Plant from the market is unlikely to translate into a significant increase in ERS' sales because:
- (a) according to Umicore's own estimates, the Hoboken Plant's production represents only a small share of the downstream market for the supply of premium lead metal in the EEA (10 to 20%) and even less for the supply of lead metal at large; and
 - (b) ERS is not a particularly close competitor of the Hoboken Plant since the latter only produces 99.99% lead metal [...].¹¹³ Moreover, other vertically integrated primary lead smelters as well as secondary lead smelters produce and sell 99.99% lead metal in the EEA.
- (109) *In the second place*, the exit of the Hoboken Plant from the market is unlikely to translate into a significant increase in lead metal premiums since a number of alternative suppliers, which together account for around 80-90% of the market for the supply of premium lead (including 99.99% and 99.985% lead metal) would remain unaffected.¹¹⁴
- (110) *Third*, Glencore's past behaviour shows that Glencore has been supplying Umicore's Hoboken Plant and third parties in spite of the fact that Glencore is a vertically integrated lead sulphate producer with its own lead smelting division.¹¹⁵ This in turn suggests that the merged entity, which as a vertically integrated business will be in a position comparable to Glencore, is unlikely to have the incentive to cut supplies and foreclose Umicore post-Transaction.
- (111) *Fourth*, Trafigura's internal documents, as shown in Figure 2, confirm that it would not be economically rational for the merged entity to cut supplies of lead sulphate to Umicore's Hoboken Plant.

Figure 2 – Trafigura's internal document: [...]

[...]

Source: Form CO, Attachment E.11

- (112) In particular, Trafigura's internal documents (see Figure 3 below) show that [...].

Figure 3 Trafigura's internal document: [...]

[...]

Source: RFII-3, attachment 3

¹¹³ Form CO, Annex 7. The volumes in 2021 were [...] ([...] tons) due to the closure of ERS' facility in Stolberg after the flood in July 2021.

¹¹⁴ i.e. vertically integrated lead smelters and lead smelters that use other types of feedstock for the production of lead metal.

¹¹⁵ Responses to the First Investigation, eQ1 – question 2. See in this respect: Non-Horizontal Merger Guidelines, para. 45, footnote 7.

- (113) In view of the above, the Commission concludes that the merged entity lacks the incentive to foreclose Umicore post-Transaction by restricting or cutting its supplies of lead sulphate to that plant.

6.2.2.3. Impact

- (114) The results of the investigations also confirm that if Umicore were to exit the market, the impact of such exit on competition would remain, at most, limited.

- (115) *First*, according to Umicore’s own estimates, the Hoboken Plant’s market share for the supply of premium lead metal in the EEA (including 99.99% and 99.985% lead metal) is limited (10 to 20%). *Second*, a number of downstream lead smelters would remain unaffected, together accounting for 80-90% of the market. *Third*, the investigations did not elicit anything suggesting that Umicore would play a significant competitive role compared to other lead smelters on the market.

- (116) In view of the above, the Commission concludes that any potential input foreclosure would have a limited impact on effective competition for the supply of lead metal in the EEA.

6.2.2.4. Conclusion

- (117) In light of the foregoing, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of input foreclosure in connection with Trafigura’s activities for the supply of lead sulphate (upstream) and ERS’ activities for the supply of lead metal (downstream).

6.2.3. Customer foreclosure

- (118) The results of the investigations confirmed that: (i) the merged entity will not have the ability to foreclose competing lead sulphate producers (upstream), (ii) the merged entity will lack the incentive to do so and, in any event, (iii) such strategy would not have a significant impact on the market.

- (119) *First*, [...] ([...] ¹¹⁶). [...] is vertically integrated and could absorb any volumes no longer purchased by ERS post-Transaction.¹¹⁷

- (120) *Second*, the merged entity is unlikely to have the incentive to foreclose competing producers of lead sulphate in the EEA since ERS’ market share on the downstream market for the supply of lead metal in the EEA remains limited ([5-10]%,). In addition, [...] is vertically integrated and has sufficient internal demand for lead sulphate to absorb any volumes potentially no longer purchased by ERS post-Transaction.¹¹⁸

¹¹⁶ Form CO, page 66.

¹¹⁷ [...] ability to absorb additional volumes of lead sulphate is shown by the fact that: (i) [...]; (ii) [...] integrated smelting operations have been processing the lead sulphate volumes, which the Stolberg Plant was unable to process since its closure in July 2021, and (iii) [...].

¹¹⁸ In the EEA, [...].

- (121) This is also consistent with [...] past behaviour on the market given that [...] both (i) produces lead sulphate that it consumes internally and (ii) purchases lead sulphate from third parties ([...]). This behaviour shows that [...] has no incentive to foreclose competing producers of lead sulphate and suggests that Trafigura's incentive to engage in this type of conduct would be limited.
- (122) *Third*, even if Trafigura had the ability and incentive to foreclose competing producers of lead sulphate, the impact of such strategy would be limited. Lead sulphate is a by-product of zinc and zinc smelters are unlikely to downsize their activities simply because they have fewer opportunities to monetize their lead sulphate. This point was confirmed by competing zinc smelters.¹¹⁹ Accordingly, zinc smelters are likely to continue producing the same volumes of lead sulphate, even if they lose an outlet in the EEA for the volumes of lead sulphate they produce.
- (123) This is consistent with the fact that no lead sulphate producer expressed concerns in the course of the two investigations.
- (124) In light of the foregoing, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of customer foreclosure in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of lead metal (downstream).

6.3. Lead sulphate (upstream) / sulphuric acid (downstream)

- (125) Lead sulphate supplied by Trafigura can be used as an input in the smelting process resulting in the production of sulphuric acid as a by-product. As ERS is active in the production of sulphuric acid, a vertical relationship exists between the Parties' activities. Because Trafigura's market share on the upstream merchant market for the supply of lead sulphate in the EEA exceeds 30% (see above, Section 6.2.1.1), this vertical relationship gives rise to affected markets.

6.3.1. Market shares: sulphuric acid

- (126) The Parties are both active in the production of sulphuric acid. Table 4 sets out the Parties' production volumes and market shares of sulphuric acid on an EEA-wide and North-West Europe basis:

Table 4 – Market shares: sulphuric acid – EEA (2019-2021)

EEA	2019		2020		2021	
	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
<i>Combined</i>	[0-5]%	[...]	[0-5]%	[...]	[0-5] %	[...]

Source: Form CO, Table 6.15 (estimates based on CRU data and the Parties' internal data).

¹¹⁹ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 9.

Table 5 – Market shares: sulphuric acid – North-West Europe (2019-2021)

North-West Europe	2019		2020		2021	
	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)	Share of production (%)	Volumes (kmt)
Trafigura	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
<i>Combined</i>	[5-10]%	[...]	[5-10]%	[...]	[5-10]%	[...]

Source: Form CO, Table 6.16 (estimates based on CRU data and the Parties' internal data).

6.3.2. Input foreclosure

- (127) On balance, the results of the investigations indicate that the merged entity may have the ability to foreclose Umicore (i.e. the production in its Hoboken Plant) (Section 6.2.2 above) but not competition in the market for sulphuric acid from other producers. This is because no other downstream producer of sulphuric acid processes meaningful volumes of Trafigura's lead sulphate.
- (128) Moreover, the results of the investigations confirmed that the merged entity would have no incentive to cut supplies of lead sulphate to Umicore. In any event, the results of the investigations confirmed that a potential foreclosure of Umicore on the downstream market for the supply of sulphuric acid would not have a significant impact on competition on that market.
- (129) *First*, the merged entity will not have the incentive to engage in input foreclosure since:
- such strategy would result in upstream losses of at least EUR [...] million per year (see above, para. (106)). This is [...] the total sales of sulphuric acid generated by ERS in the downstream market in 2020;¹²⁰
 - ERS would not be able to increase those downstream sales of sulphuric acid so as to fully recoup the upstream losses. This is because sulphuric acid is a mere by-product of ERS' smelting operation and it would be economically irrational for ERS to maximize the supply of a by-product to the detriment of its primary outputs;
 - the amount of downstream sales diverted to the merged entity as a result of the hypothetical foreclosure strategy would be vanishingly small. This is because both the main target of the foreclosure strategy (Umicore) and its beneficiary (ERS) have market shares of around 0 to 5% in the downstream market of sulphuric acid irrespective of the geographic market definition;¹²¹
 - Glencore's past behaviour shows that Glencore has no incentive to foreclose Umicore since Glencore is a vertically integrated lead sulphate producer with its own lead smelting division which produces and sells sulphuric acid. Yet Glencore sells lead sulphate to third parties,¹²² which in turn suggests that the

¹²⁰ Form CO, Annex 7.

¹²¹ Form CO, Annex 7; Umicore's response to RFI 2, question 9.

¹²² Responses to the First Investigation, eQ1 – question 2.

merged entity is unlikely to have the incentive to foreclose the Hoboken post-Transaction;¹²³

- (e) as mentioned above, this is consistent with Trafigura's internal documents which confirm that it would not be economically rationale for the merged entity to cut the Hoboken Plant's supplies of lead sulphate.¹²⁴
- (130) *Second*, the impact of such strategy would remain limited since the main target of this hypothetical strategy (Umicore) has negligible market shares in the downstream market (0 to 5%).
- (131) In view of the above, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of input foreclosure concerns in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of sulphuric acid (downstream).
- 6.3.3. *Customer foreclosure*
- (132) The results of the investigations confirmed that: (i) the merged entity will not have the ability to foreclose competing lead sulphate producers (upstream), (ii) the merged entity will lack the incentive to do so and, in any event, (iii) such strategy would not have a significant impact on the market.
- (133) *First*, [...].¹²⁵ [...] is vertically integrated and could absorb any volumes no longer purchased by ERS post-Transaction.¹²⁶
- (134) *Second*, Trafigura will not have the incentive to foreclose competing producers of lead sulphate in the EEA since ERS' market share on the downstream market for the supply of sulphuric acid in the EEA remains limited ([0-5]%). In addition, [...] is vertically integrated and has sufficient internal demand for lead sulphate to absorb any volumes potentially no longer purchased by ERS post-Transaction.¹²⁷
- (135) This is also consistent with [...] past behaviour on the market. [...] both (i) produces lead sulphate that it consumes internally and (ii) purchases lead sulphate from third parties (e.g. [...]). This behaviour shows that [...] has no incentive to foreclose competing producers of lead sulphate, otherwise [...] would stop purchasing lead sulphate from third parties. This suggests that Trafigura's incentive to engage in this type of conduct would similarly be limited.
- (136) *Third*, even if Trafigura had the ability and incentive to foreclose competing producers of lead sulphate, the impact of such strategy would be limited. Lead sulphate is a by-product of zinc and zinc smelters are unlikely to downsize their activities simply because they have fewer opportunities to monetize their lead

¹²³ Response to 2P1 RFI3, question 1.

¹²⁴ Form CO, Annex E.11.

¹²⁵ Form CO, page 66.

¹²⁶ [...] ability to absorb additional volumes of lead sulphate is shown by the fact that: (i) [...]; (ii) [...] integrated smelting operations have been processing the lead sulphate volumes, which the Stolberg Plant was unable to process since its closure in July 2021, and (iii) [...].

¹²⁷ In the EEA, [...].

sulphate. This point was confirmed by competing zinc smelters.¹²⁸ Accordingly, zinc smelters are likely to continue producing the same volumes of lead sulphate, even if they lose an outlet in the EEA for the volumes of lead sulphate they produce.

- (137) This is consistent with the fact that no lead sulphate producer expressed concerns in the course of the two investigations.
- (138) In light of the foregoing, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of customer foreclosure in connection with Trafigura’s activities for the supply of lead sulphate (upstream) and ERS’ activities for the supply of sulphuric acid (downstream).

6.4. Lead sulphate (upstream) / bismuth alloy (downstream)

- (139) Lead sulphate supplied by Trafigura can be used as an input in smelting processes resulting in the production of bismuth alloy as a by-product. As ERS is active in the production of bismuth alloy, a vertical relationship exists between the Parties’ activities. Because Trafigura’s market share on the upstream merchant market for the supply of lead sulphate in the EEA exceeds 30% (see above, Section 6.2.1.1), this vertical relationship gives rise to affected markets.

6.4.1. Market shares: bismuth alloy

- (140) Trafigura does not produce bismuth alloy¹²⁹ but ERS produces volumes of bismuth alloy that it sells [...]. There is no public or third-party data available on the market for bismuth alloy. As a result, the Parties were only able to provide their best estimates of ERS’ market shares for the supply of bismuth alloy in the EEA over the past three years:

Table 6 – Market shares: bismuth alloy – EEA (2019-2021)

EEA	2019		2020		2021	
	Vol. (%)	Val. (%)	Vol. (%)	Val. (%)	Vol. (%)	Val. (%)
ERS	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%

Source: Form CO, Annex 7 (estimates from the Parties)

6.4.2. Input foreclosure

- (141) On balance, the results of the investigations indicate that the merged entity may have the ability to foreclose Umicore (i.e. the production in its Hoboken Plant) (Section 6.2.2 above) but not competition in the market for bismuth alloy from other producers. This is because no other downstream producer of bismuth alloy processes meaningful volumes of Trafigura’s lead sulphate.
- (142) Moreover, the results of the investigations confirmed that the merged entity would have no incentive to cut supplies of lead sulphate to Umicore. In any event, the results of the investigations confirmed that a potential foreclosure of Umicore on

¹²⁸ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 9.

¹²⁹ Form CO, para. 6.96(iii).

the downstream market for the supply of bismuth alloy would not have a significant impact on competition on that market.

- (143) *First*, the merged entity will not have the incentive to foreclose Umicore's access to its supplies of lead sulphate since:
- (a) such strategy would result in upstream losses of at least EUR [...] million per year (see above, para. (106)). This is more than [...] the total downstream sales of bismuth alloy generated by ERS in 2020;¹³⁰
 - (b) ERS would not be able to increase those downstream sales of bismuth alloy so as to fully recoup the upstream losses. This is because bismuth alloy is a mere by-product of ERS' smelting operation and it would be economically irrational for ERS to maximize the supply of a by-product to the detriment of its primary outputs;
 - (c) the amount of downstream sales diverted to the merged entity as a result of the hypothetical foreclosure strategy would be small. This is because both the main target of the foreclosure strategy (Umicore) and its beneficiary (ERS) have market shares of 5 to 10% and [0-5]%, respectively, in the downstream market of bismuth alloy at the worldwide level (c. 20 to 30% and [0-5]% respectively at the EEA level);¹³¹
 - (d) Glencore's past behaviour shows that Glencore has no incentive to foreclose Umicore since Glencore is a vertically integrated lead sulphate producer with its own lead smelting division, which produces and sells bismuth alloy. Yet Glencore sells lead sulphate to third parties,¹³² which in turn suggests that the merged entity is unlikely to have the incentive to foreclose the Hoboken Plant post-Transaction;¹³³
 - (e) as mentioned above, this is consistent with Trafigura's internal documents which confirm that it would not be economically rationale for the merged entity to cut the Hoboken Plant's supplies of lead sulphate.¹³⁴
- (144) *Second*, the impact of such strategy would remain limited since the main target of this hypothetical strategy (Umicore) has a limited market share on the downstream market (5 to 10% at worldwide level and c. 20 to 30% at the EEA level).
- (145) In view of the above, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of input foreclosure concerns in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of bismuth alloy (downstream).

6.4.3. *Customer foreclosure*

- (146) The results of the investigations confirmed that: (i) the merged entity will not have the ability to foreclose competing lead sulphate producers (upstream), (ii) the

¹³⁰ Form CO, Annex 7.

¹³¹ Form CO, Annex 7; Umicore's response to RFI 2, question 9.

¹³² Responses to the First Investigation, eQ1 – question 2.

¹³³ Response to 2P1 RFI3, question 1.

¹³⁴ Form CO, Annex E.11.

merged entity will lack the incentive to do so and, in any event, (iii) such strategy would not have a significant impact on the market.

First, [...] ([...]¹³⁵). [...] is vertically integrated and could absorb any volumes no longer purchased by ERS post-Transaction.¹³⁶

- (147) *Second*, Trafigura will not have the incentive to foreclose competing producers of lead sulphate in the EEA since ERS' market share on the downstream market for the supply of bismuth alloy in the EEA remains limited ([0-5]%). In addition, [...] is vertically integrated and has sufficient internal demand for lead sulphate to absorb any volumes potentially no longer purchased by ERS post-Transaction.¹³⁷
- (148) This is also consistent with [...] past behaviour on the market given that [...] both (i) produces lead sulphate that it consumes internally and (ii) purchases lead sulphate from third parties ([...]). This behaviour shows that [...] has no incentive to foreclose competing producers of lead sulphate, otherwise [...] would stop purchasing lead sulphate from third parties. This suggests that Trafigura's incentive to engage in this type of conduct would similarly be limited.
- (149) *Third*, even if Trafigura had the ability and incentive to foreclose competing producers of lead sulphate, the impact of such strategy would be limited. Lead sulphate is a by-product of zinc and zinc smelters are unlikely to downsize their activities simply because they have fewer opportunities to monetize their lead sulphate. This point was confirmed by competing zinc smelters.¹³⁸ Accordingly, zinc smelters are likely to continue producing the same volumes of lead sulphate, even if they lose an outlet in the EEA for the volumes of lead sulphate they produce.
- (150) This is consistent with the fact that no lead sulphate producer expressed concerns in the course of the two investigations.
- (151) In light of the foregoing, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of customer foreclosure concerns in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of bismuth alloy (downstream).

6.5. Lead sulphate (upstream) / doré silver (downstream)

- (152) Lead sulphate supplied by Trafigura can be used as an input in smelting processes resulting in the production of doré silver as a by-product. As ERS is active in the production of doré silver, a vertical relationship exists between the Parties' activities. Because Trafigura's market share on the upstream merchant market for

¹³⁵ Form CO, page 66.

¹³⁶ [...] ability to absorb additional volumes of lead sulphate is shown by the fact that: (i) [...]; (ii) [...] integrated smelting operations have been processing the lead sulphate volumes, which the Stolberg Plant was unable to process since its closure in July 2021, and (iii) [...].

¹³⁷ In the EEA, [...].

¹³⁸ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 9.

the supply of lead sulphate in the EEA exceeds 30% (see above, Section 6.2.1.1), this vertical relationship gives rise to affected markets.

6.5.1. Market shares

(153) The Parties explained that there is no reliable third party information available on the market for doré silver. However, given that doré silver comprises approx. 95% of silver and as it is typically priced by reference to the silver price, the Parties consider that the silver metal market provides a reasonable proxy for the size of the doré silver market. However, due to the lack of available data, the Parties were only able to provide market share estimates at worldwide level and were not able to provide estimates of their competitors' market shares on this market.

(154) Against this background, the table below sets out the Parties' production volumes and market shares of doré silver worldwide:

Table 7 – Market shares: doré silver – Worldwide (2019-2021)

Worldwide	2019		2020		2021	
	Share of production (%)	Volumes (mt)	Share of production (%)	Volumes (mt)	Share of production (%)	Volumes (mt)
Trafigura	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
ERS	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]
<i>Combined</i>	[0-5]%	[...]	[0-5]%	[...]	[0-5]%	[...]

Source: Form CO, Table 6.14 (estimates based on Silver Institute data and the Parties' internal data)

(155) Neither Party trades doré silver (nor silver) that it did not itself produce so their combined shares would not be different on a supply basis.

6.5.2. Input foreclosure

(156) The Commission considers that this vertical relationship does not raise any input foreclosure concerns. In this respect, it can be noted that if doré silver were considered a separate market, no input foreclosure would be possible since ERS is the only producer of doré silver that processes meaningful volumes of Trafigura's lead sulphate.

(157) However, according to Umicore's concerns, doré silver could be considered as part of a broader market including silver or gold, which are doré silver'. On such a market, doré silver supplied by ERS may be in competition with gold and silver supplied by the Umicore's Hoboken Plant, which are also produced based on Trafigura's lead sulphate. Umicore may therefore be the target of a hypothetical input foreclosure strategy.

(158) On balance, the results of the investigations indicate that the merged entity may have the ability to foreclose Umicore (i.e. the production in its Hoboken Plant) (Section 6.2.2 above) but not competition in the market for doré silver from other producers. This is because no other downstream producer of doré silver processes meaningful volumes of Trafigura's lead sulphate.

(159) Moreover, the results of the investigations confirmed that the merged entity would have no incentive to cut supplies of lead sulphate to Umicore. In any event, the

results of the investigations confirmed that a potential foreclosure of Umicore on the downstream market for the supply of doré silver would not have a significant impact on competition on that market.

- (160) *First*, the merged entity is unlikely to have the incentive to engage in foreclosure because:
- (a) the Transaction will not materially change Trafigura's incentives given the negligible position of ERS in the downstream markets (with a market share of [0-5] %);
 - (b) any hypothetical diversion of customers from the Hoboken Plant to ERS would be limited (if any) as the two businesses are not close competitors: the Hoboken Plant supplies silver metal and gold metal while ERS supplies doré silver and [...];¹³⁹
 - (c) Glencore's past behaviour shows that Glencore has no incentive to foreclose Umicore since Glencore is a vertically integrated lead sulphate producer with its own lead smelting division, which produces and sells silver and gold. Yet Glencore sells lead sulphate to third parties,¹⁴⁰ which in turn suggests that the merged entity is unlikely to have the incentive to foreclose Umicore post-Transaction;¹⁴¹
 - (d) as mentioned above, this is consistent with Trafigura's internal documents which confirm that it would not be economically rationale for the merged entity to cut the Hoboken Plant's supplies of lead sulphate.¹⁴²
- (161) *Second*, the impact of such strategy would remain limited since the Hoboken Plant also has a negligible position downstream (c. 0 to 5% for silver and 0 to 5% for gold at the global level).
- (162) In view of the above, the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of input foreclosure concerns in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of doré silver (downstream).

6.5.3. *Customer foreclosure*

- (163) The results of the investigations confirmed that: (i) the merged entity will not have the ability to foreclose competing lead sulphate producers (upstream), (ii) the merged entity will lack the incentive to do so and, in any event, (iii) such strategy would not have a significant impact on the market.

First, [...] ([...]¹⁴³). [...] ([...]) is vertically integrated and could absorb any volumes no longer purchased by ERS post-Transaction.¹⁴⁴

¹³⁹ Response to RFI 2, page 6.

¹⁴⁰ Responses to the First Investigation, eQ1 – question 2.

¹⁴¹ Response to 2P1 RFI3, question 1.

¹⁴² Form CO, Annex E.11.

¹⁴³ Form CO, page 66.

- (164) *Second*, Trafigura is unlikely to have the incentive to foreclose competing producers of lead sulphate in the EEA since ERS' market share on the downstream market for the supply of doré silver in the EEA remains limited ([0-5]%). In addition, [...] is vertically integrated and has sufficient internal demand for lead sulphate to absorb any volumes potentially no longer purchased by ERS post-Transaction.¹⁴⁵
- (165) This is also consistent with [...] past behaviour on the market given that [...] both (i) produces lead sulphate that it consumes internally and (ii) purchases lead sulphate from third parties (...). This behaviour shows that [...] has no incentive to foreclose competing producers of lead sulphate, otherwise [...] would stop purchasing lead sulphate from third parties. This suggests that Trafigura's incentive to engage in this type of conduct would similarly be limited.
- (166) *Third*, even if Trafigura had the ability and incentive to foreclose competing producers of lead sulphate, the impact of such strategy would be limited. Lead sulphate is a by-product of zinc and zinc smelters are unlikely to downsize their activities simply because they have fewer opportunities to monetize their lead sulphate. This point was confirmed by competing zinc smelters.¹⁴⁶ Accordingly, zinc smelters are likely to continue producing the same volumes of lead sulphate, even if they lose an outlet in the EEA for the volumes of lead sulphate they produce.
- (167) This is consistent with the fact that no lead sulphate producer expressed concerns in the course of the two investigations.
- (168) In light of the foregoing, the Commission concludes that the Transaction does not give rise to serious doubts as to the compatibility of the Transaction with the internal market or the functioning of the EEA Agreement as a result of customer foreclosure in connection with Trafigura's activities for the supply of lead sulphate (upstream) and ERS' activities for the supply of doré silver (downstream).

6.6. Lead sulphate (upstream) / copper intermediate products (downstream)

- (169) Lead sulphate supplied by Trafigura is used by ERS as an input in smelting processes resulting in the production of sulphur-copper dross and copper matte. Therefore, a vertical relationship exists between the Parties' activities. Because Trafigura's market share on the upstream merchant market for the supply of lead sulphate in the EEA exceeds 30% (see above, Section 6.2.1.1), this vertical relationship gives rise to affected markets.

¹⁴⁴ [...] ability to absorb additional volumes of lead sulphate is shown by the fact that: (i) [...]; (ii) [...] integrated smelting operations have been processing the lead sulphate volumes, which the Stolberg Plant was unable to process since its closure in July 2021, and (iii) [...].

¹⁴⁵ In the EEA, [...].

¹⁴⁶ Minutes of a call with a lead sulphate producer of 7 December 2022, para. 9.

6.6.1. *Market shares: copper intermediate products*

- (170) Although Trafigura produces sulphur copper dross, Trafigura is not active on this downstream market because it refines all of the sulphur copper dross it produces into copper cathodes. As for copper matte, Trafigura does not produce any.¹⁴⁷
- (171) In this context, only ERS is active on the markets for sulphur-copper dross and copper matte. Given the absence of public or third-party data on these markets, the Parties were only able to provide their best estimates of ERS' market shares over the past three years in the EEA:

Table 8 – Market shares: sulphur-copper dross – EEA (2019-2021)

EEA	2019		2020		2021	
	<i>Vol. (%)</i>	<i>Val. (%)</i>	<i>Vol. (%)</i>	<i>Val. (%)</i>	<i>Vol. (%)</i>	<i>Val. (%)</i>
ERS	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%

Source: Form CO, Annex 7 (estimates from the Parties)

Table 9 – Market shares: copper matte – EEA (2019-2021)

EEA	2019		2020		2021	
	<i>Vol. (%)</i>	<i>Val. (%)</i>	<i>Vol. (%)</i>	<i>Val. (%)</i>	<i>Vol. (%)</i>	<i>Val. (%)</i>
ERS	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%

Source: Form CO, Annex 7 (estimates from the Parties)

- (172) This vertical relationship, however, does not raise any input or customer foreclosure concerns in the downstream markets of sulphur-copper dross or copper matte since no other supplier of sulphur-copper dross or copper matte processes meaningful volumes of Trafigura's lead sulphate.¹⁴⁸

¹⁴⁷ Response to 2P1 RFI3, question 3. Trafigura trades limited volumes of copper matte but estimates that its market share for the supply of copper matte would remain [0-5]% both at worldwide and EEA levels.

¹⁴⁸ Form CO, Annex 6. For the sake of completeness, the Hoboken Plant processes Trafigura's lead sulphate into copper cathodes. However, copper cathodes are a finished product (having copper purity of 99.95%) which is not substitutable with intermediate, low purity products such as sulphur-copper dross and copper matte (see Section 5.6.1 above). In any event, ERS' shares in the market of sulphur-copper dross and copper matte and the Hoboken Plant's shares in the market of copper cathodes are around 0 to 5%. Form CO, Annex 7; response to RFI 2 to Umicore, question 9.

7. CONCLUSION

- (173) For the above reasons, the European Commission decides not to oppose the notified concentration 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