Completed acquisition by Ausurus Group Limited through its subsidiary European Metal Recycling Limited of CuFe Investments Limited

Provisional findings

Appendices and glossary

Appendix A: Terms of reference and conduct of the inquiry

Terms of reference

1. In exercise of its duty under section 22(1) of the Enterprise Act 2002 (the **Act**) the Competition and Markets Authority (**CMA**) believes that it is or may be the case that:

   (a) a relevant merger situation has been created, in that:

      (i) enterprises carried on by Ausurus Group Ltd through its subsidiary European Metal Recycling Limited have ceased to be distinct from enterprises carried on by CuFe Investments Limited; and

      (ii) the condition specified in section 23(1)(b) of the Act is satisfied; and

   (b) the creation of that situation has resulted, or may be expected to result, in a substantial lessening of competition within a market or markets in the United Kingdom for good or services, including the market for purchasing waste scrap metal in the area around certain sites operated by CuFe Investments Limited in London, and the market for shredding waste scrap metal in the area around the site operated by CuFe Investments Limited in Hitchin.

2. Therefore, in exercise of its duty under section 22(1) of the Act, the CMA hereby makes a reference to its chair for the constitution of a group under Schedule 4 to the Enterprise and Regulatory Reform Act 2013 in order that the group may investigate and report, within a period ending on Tuesday 24 July 2018 on the following questions in accordance with section 35(a) of the Act:

   (a) whether a relevant merger situation has been created; and

   (b) if so, whether the creation of that situation has resulted, or may be expected to result, in a substantial lessening of competition within any market or markets in the United Kingdom for goods or services.

Adam Land
Senior Director, RBFA
Competition and Markets Authority
7 February 2018

Conduct of the inquiry

1. On 7 February 2018, we published the administrative timetable for the inquiry and biographies on the panel members of the inquiry group conducting the inquiry. On 8 March 2018, we published an issues statement, setting out the areas of concern on which the inquiry would focus.

2. We invited a wide range of third parties to comment on the Merger. We sent detailed questionnaires to a number of competitors, suppliers and customers. Evidence was also obtained from third parties through hearings, telephone contact, written information requests and a survey. A summary of evidence from interviews and hearings with third parties is published on our case page. We also used evidence from the CMA's phase 1 inquiry into the Merger.

3. We received written evidence from the Parties and a non-confidential version of their response to the phase 1 decision is published on our website.

4. On 9 March 2018, members of the inquiry group, accompanied by staff, attended a site visit at the premises of EMR and MWR.

5. In addition to a number of meetings and calls with the Parties, we also held separate hearings with EMR and MWR on 23 April 2018. We also received from the Parties responses to a range of information requests.

6. In the course of our inquiry, we sent to the Parties a number of working papers setting out some of the evidence and analysis we were considering. We also sent them an annotated issue statement, indicating our emerging thinking and invited them to comment.

7. A non-confidential version of the provisional findings report has been placed on the inquiry case page.

8. We would like to thank all those who have assisted us in our inquiry so far.

Appendix B: The Merging Parties

Introduction

1. This appendix sets out a factual overview of the Parties and their operations including for each of them its:

   (a) Group structure;

   (b) History and key milestones; and

   (c) Financial information.

European Metal Recycling Limited

Overview

2. European Metal Recycling Limited (EMR) is a UK based company with metal recycling operations in the UK, Europe and the USA. EMR operates 65 sites in the UK.[1]

3. The principal activities of EMR in the UK relate to the recycling of ferrous and non-ferrous metals from a range of waste streams, such as end-of-life vehicles (ELV), durable consumer goods, industry, construction and demolition.[2]

Ownership structure

4. EMR is a wholly owned subsidiary of Ausurus Group Limited, which is its ultimate parent company, registered in England and Wales. The Ausurus Group is a private company owned by the Sheppard family. The Ausurus Group comprises the EMR business, property businesses in the UK and US (Praedius Limited) and a plastics recycling business (Invenens Limited).[3] European Metal Recycling Limited is a parent company of a number of subsidiaries in the UK, Europe and the US.

Figure 1: Ausurus Group structure (simplified)

[✂]

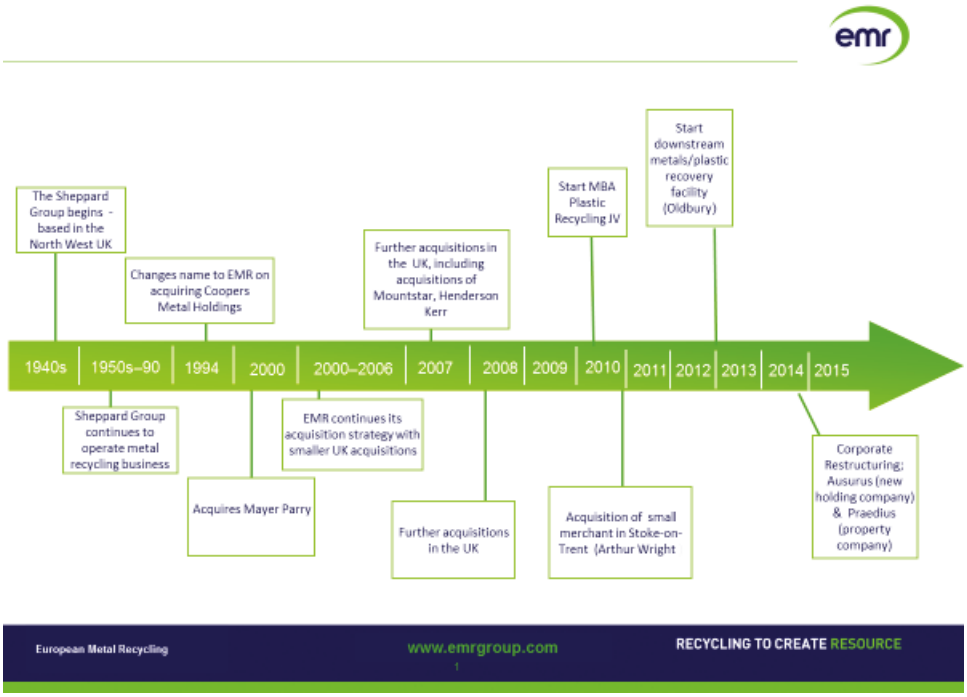
Source: Ausurus Group Limited

[1] [✂]
[2] [✂]
[3] [✂]

History and key milestones

5. A timeline of the EMR Group history is provided below.

Figure 2: EMR Group timeline.[4]



6. The EMR Group has always been and continues to be owned by the Sheppard family. EMR told us that the strategy of the EMR Group has been pursuing growth both by acquisition and through organic means, starting from a single site in Rochdale in the 1940s.

7. In the UK, the acquisition of Mayer Parry Recycling in the 2000 was of significance in increasing the geographical coverage of EMR sites. Before that acquisition, EMR had been predominantly located in the North and the Midlands. EMR told us that until the acquisition of MWR, the only major UK acquisition in the last 10 years was that of the scrap metal operations of Sita in 2013 (which was the subject of a merger investigation by the Office of Fair Trading).[5] In 2016 EMR acquired a dormant company, [✂][6] for £[✂].

8. Otherwise in the last 10 years EMR acquisitions have been principally focused on the USA and, to some extent, continental Europe.

[4] [✂]
[5] [✂]
[6] [✂]

9. A corporate restructuring in 2014 saw the establishment of a new holding company, Ausurus Group Ltd which became the immediate parent of EMR.[7]

10. The principal reason for the restructuring was [✂].[8]

11. EMR has also invested in non-metals related industries. For example:

    (a) In 2007 EMR formed a joint venture, MBA Polymers United Kingdom Limited. In May 2015, the EMR group acquired an additional [40-50%] equity interest (bringing the overall stake to [70-80%]) in the joint venture and assumed management control. This company operates a plastics recycling facility. On 28 February 2016 EMR disposed of its entire interest in MBA polymers (United Kingdom) Limited to a fellow subsidiary, Invenens Limited.

    (b) In 2008 the Group formed Innovative Environmental Solutions UK Limited, a waste-to-energy joint venture (in which EMR had a [40-50%] share and board representation; it now owns 100% of this company). In May 2015, the plant generated its first electricity to the grid[9] although it is currently non-operational.

Financial performance

12. EMR does not publish standalone UK statutory accounts for its UK waste metals business. EMR's accounts cover its UK, European, US and overseas/international businesses.[10]

13. EMR turnover was £2.2 billion in 2016 (this is the most recent year for which annual accounts are available).[11] EBITDA for the year (before exceptional items) was £[✂].

14. The table below shows the trends in turnover and profit for EMR group for the last 5 years. Turnover fell from 2013 until 2015. The accounts state this was due to a variety of factors but mainly a reduction in demand for scrap metal and the resultant fall in scrap prices.[12] The turnover growth in 2016 was due to sales volume growth. EBITDA and operating profit generally followed the turnover trend, with the exception of 2015 results with a fall in EBITDA driven

[7] [✂]
[8] [✂]
[9] [✂]
[10] [✂]
[11] [✂]
[12] [✂]

by price reductions and the liquidation of brought-forward inventory.[13] Gross margin has increased over the period 2013 to 2017.

Table 1: EMR Group turnover and profit 2013-2017.

	2013	*2014*	*2015*	*2016*	*2017*	£m
Turnover	2,810	2,522	2,020	2,221	[✂]	
Gross profit	371	354	391	531	[✂]	
EBITDA	145	123	43	138	[✂][14]	
Operating profit*	73	43	7	94	[✂]	

* Before exceptional items and goodwill and share of JV/associates
[✂].

15. EMR's annual management accounts provide a breakdown of its financial results into [✂].

16. The total UK revenue for EMR was £[✂] in 2017 and EBITDA (excluding profits from affiliates) was[15] £[✂].[16] Analysis of the data over the last 3 years shows that EMR's UK revenue makes up around [✂] of EMR's total revenues and [✂] of its profits.

17. The table below presents the trends in EMR UK turnover and profit.

Table 2: EMR UK turnover and profit 2013-2017.

	2013	*2014*	*2015*	*2016*	*2017*	*£m*
Turnover	[✂]	[✂]	[✂]	[✂]	[✂]	
Cost of sales	[✂]	[✂]	[✂]	[✂]	[✂]	
Gross profit	[✂]	[✂]	[✂]	[✂]	[✂]	
Operating profit (excluding depreciation)	[✂]	[✂]	[✂]	[✂]	[✂]	
EBITDA	[✂]	[✂]	[✂]	[✂]	[✂]	
Gross margin	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	
Operating profit margin	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[5-10]%	
EBITDA margin	[5-10]%	[5-10]%	[5-10]%	[10-20]%	[5-10]%	
Tonnage					[✂]	
Ferrous	[✂]	[✂]	[✂]	[✂]	[✂]	
Non-Ferrous	[✂]	[✂]	[✂]	[✂]	[✂]	
Total	[✂]	[✂]	[✂]	[✂]	[✂]	

[✂]

18. EMR UK tonnage and turnover [✂]. The result appears to be due to [✂]. Gross profit has [✂]. The results appear to be [✂].

[13] [✂]
[14] [✂]
[15] [✂]
[16] Based on EMR management accounts.

UK operations

19. EMR runs 65 metal recycling sites. The full list is set out in Annex A. Of these sites 18 are feeder sites. EMR operates deep sea dock sites at Cardiff,[17] Liverpool, Tilbury and Tyne,[18] and short sea docks at Glasgow, Eccles, Southampton, Newhaven, Sunderland and Great Yarmouth.[19] [20] The rest are processing sites. EMR operates a shredder at 8 of these sites (Birmingham, Hartlepool, Liverpool, East Tilbury, Erith, Newhaven, Portsmouth, Willesden and Leeds). The Erith shredder is currently not operational.[21]

20. EMR manages its sites [✂]. The regional areas are London, North East, West Midlands, Wales, Bedfordshire/Northamptonshire, East Anglia, Kent.[22]

Sales volume

21. EMR's sales of scrap in the year to December 2016 were [✂] of ferrous and [✂] of non-ferrous scrap, comprising [✂] ([60-70]%) export and [✂] ([30-40%]) domestic sales.[23]

22. Around [20-30]% of EMR's sales volumes come directly in a 'ready-to-sell' form from other well-established scrap metal dealers, with EMR providing a service of logistics, aggregation and financial facilitation of supply to end customers.[24]

23. EMR provided us with sales and purchase volumes for its sites, including the sales and purchases for 'truck trade' (which does not enter EMR sites).[25]

24. EMR's [✂] site generates the largest volume of external sales ([✂] tonnes in 2017). The next site by volume of sales is [✂] (nearly [✂] tonnes each year) and [✂] ([✂] million tonnes in 2017).

25. In terms of purchases, approximately [20-30]% of ferrous scrap that EMR buys is processed.[26] EMR sites receive around [40-50]% of their scrap from other EMR sites (eg feeder sites).

[17] [✂]
[18] [✂]
[19] [✂]
[20] [✂]
[21] [✂]
[22] [✂]
[23] [✂]
[24] [✂]
[25] Located in the same regions as MWR sites or within 50km of an MWR sites.
[26] [✂]

26. The table below lists the depots that account for the greatest volumes of EMR's ferrous scrap metal purchases in each region, excluding internal sales.

27. Non-ferrous scrap accounts for smaller volumes of purchases (and sales). Newmarket in the East Anglia region purchased [✂] tonnes of non-ferrous scrap in 2016 (c. [✂] in 2014 and 2015), other depots purchases are significantly smaller ([✂] tonnes and below).

Table 3: EMR UK purchases 2016

		000 t	
Region	*Depot*	*Ferrous*	*Non-ferrous*
London and Kent	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]
West Midlands	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]
North East	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]
Wales	[✂]	[✂]	[✂]
East Anglia and Northamptonshire	[✂]	[✂]	[✂]

[✂]

28. [✂] of scrap metal supply (30-50%) in London, East Anglia and the North East comes from [✂]. In West Midlands [30-40]% of scrap comes from industrial supply. Wales has a much smaller scrap metal operation with most of the scrap [✂].

29. [✂] are the next biggest sources of supply for London. [✂] form the smallest proportion of purchases across the business.[27]

Cufe Investments Limited/Metal and Waste Recycling Limited

Introduction

30. Metal and Waste Recycling Limited (MWR) is a UK based metal and waste recycler. It processes over 800,000 tonnes per annum of ferrous and non-ferrous metals.[28] In the year ended 30 April 2017 (FY17) MWR reported a turnover of £162.9 million producing an operating profit of £4.4 million and Earnings before Interest and Tax (EBITDA) of £7.0 million. £96.7 million of

[27] [✂]
[28] [✂]

turnover (59%) was generated from sales to the UK, £29.1 million (18%) from sales to Europe and £37.1 million (23%) from sales to Asia.

Group structure

31. MWR's immediate parent company is CuFe Investments Limited, a company which, prior to the merger, was majority owned by funds managed or advised by Bain Capital Credit LP (BCC) ([✂] %) with the remainder held by management (including the chairman) ([✂]%).[29] A simplified ownership structure of MWR is shown in Figure 2.

Figure 2: MWR simplified ownership structure

[✂]

32. MWR had pre-merger two subsidiaries:

(a) Foreman Recycling Limited (Foreman) which is non-trading. Foreman was acquired in 2005. The business processed paper, cardboard and plastics. In 2015, MWR sold the business and assets of Foreman's for £[✂] but retained the legal entity.

(b) GD Metal Recycling Ltd which is dormant.

History and key milestones

33. The key dates and events in the history of MWR are:

(a) 1970 – formed as G.A.D Holdings Ltd (name changed to G.D. Metal Recycling Ltd in 1998).

(b) 1970 to 2005 – a combination of organic growth and acquisitions including in 1998 the opening of a wharf facility (Pinns Wharf - London) and in 2003 the acquisition of H Williams & Sons Ltd in Hitchin.

(c) 2005 – name changed to Metal & Waste Recycling Ltd.

(d) 2006 – acquired by Barclays Private Equity. 6000HP shredder installed at Hitchin.

(e) 2007 – 2010 further acquisitions.

[29] [✂]

(f) 2010 – established a new site at Seaham including a dock facility. £1.5 million cable granulator investment in Edmonton, capable of processing over 3,000 tonnes per month.

(g) 2011 – established new facility in Telford.

(h) 2012 – 17 February BCC acquired a tranche of MWR's senior debt as part of a portfolio of corporate debt purchased from Lloyds Bank.

(i) 2013 – 20 March BCC acquired the MWR debt owned by Barclays Bank.

(j) 2013 – 26 March BCC completed a restructuring and a debt for equity swap acquiring MWR from Barclays Private Equity as part of this debt for equity swap.

(k) 2013 – installed dedicated aluminium baler at Hockley.

(l) 2014 – established a new site in Newport.

(m) 2015 – refurbishment of Hitchin fragmentiser/shredder. £[✂] investment in Danieli Downstream[30] for increased recovery.

(n) 2016 - £[✂] investment in shredder/trommel at Hitchin for improved waste treatment and metals recovery.

(o) 2017 – relocation of Telford operations to a new site with 24/7 capability and steel baling capacity.

Sites

34. MWR manages its sites in four regions as shown in Table 4. MWR owns, holds the head lease, or has use rights at 12 sites, of which 8 are in use, and processes over [✂] tonnes per year of ferrous and non-ferrous metals. Of the 8 sites there are 2 with dock facilities for short-sea exports (only one of which is an MWR site, the other MWR has access to). MWR also exports scrap metal via containers. In addition to the sites below MWR has in the past used pop up/temporary sites close to major sources of raw material.

[30] Shredding brings material into size and density specification while the downstream equipment cleans the material, removing contaminants and fines material that would not be handled in the furnace.

Table 4: MWR sites by region

London	*North East*	*West Midlands*	*Hitchin*
Edmonton (HO) Neasden Rookes (M) Pinns Wharf dock (A)	Seaham Yard and Dock	Cradley Hockley (M) Telford* Cox's Lane (Cradley)(M) Walsall (M) Newport (Wales)	Hitchin

HO: Head Office
M: Mothballed
A: Access agreement. Not owned

35. A description of the sites and services in each of the 4 regions is set out below.

London

36. There are four sites in London, two of which have waste metal recycling operations; Edmonton and Neasden; Pinns Wharf, a short sea export dock facility to which MWR has access; and Rookes (Edmonton) which is currently under a sub-licence to a third party.

37. Edmonton is the Head Office of MWR and its principal processing facility in London. It covers 6.25 acres. It has a shear and a cable granulator. Neasden acts as a feeder site, primarily for Edmonton. It does not have any processing facilities on site.[31]

38. Pinns Wharf is a dock storage and export facility. [✂]. PWR also provides this service to other waste metal business eg Robert Gibbs.[32]

39. The Edmonton Rookes site was vacated by MWR in November 2016 and sub-licensed to TJ Waste. The head lease runs until [✂]. EMR submitted that it was[33] [✂].[34]

40. The London sites are summarised in Table 5.

Table 5: MWR London regional sites

Sites	*Current operation*	*Size/capacity (t/m)* *Total capacity*	*Utilisation*	*Operations*	*Equipment*
Edmonton (Head Office)	[✂] Split shear [✂] other ferrous [✂]	[✂] shear [✂] , other ferrous [✂] PF- can support additional [✂]	Overall [✂]% shear [✂]%, other [✂]%	Head Office Ferrous Non-Ferrous Cable Recycling and Granulation Container Exports Factory Collections Weighbridge Purchases	Shear, Granulator (3k t p/m)* Baler Burning and container loading capability

[31] [✂]
[32] Phase 1 response to information request 30 October 2017 paragraph 10.2
[33] [✂]
[34] Phase 1 response to information request 30 October 2017 paragraph 10.3

		tonnes			Cranes
Neasden	[✂]	[✂]	[✂]%	Ferrous Non-ferrous Weighbridge purchases	
Rookes (Edmonton)	-	[✂]	n/a	Mothballed/Sub-licenced to TJ Waste	
Pinns Wharf dock				Short sea supply dock that MWR does not own but has access to	

* [✂]
[✂]

North East

41. There is one site in the North East - Seaham[35]. MWR's Seaham depot is located on a bonded dock site and is mainly used to serve one customer – Unipres. It is a secure facility that does not accept drop-off or drive in supply of metal.[36]

42. The Seaham yard and dock are further described in Table 6.

Table 6: MWR Seaham regional sites

Sites	*Current operation*	*Size/capacity (t/m) Total capacity*	*Utilisation*	*Operations*	*Equipment*
Seaham Yard and Dock (short sea)	Baler - * Site - [✂]	Baler – [✂] Site – [✂]	Baler – [✂] Site - [✂]	Ferrous Non-Ferrous Container & Bulk exports Factory collections	Harris baler Cranes

* Baler current operation usage not stated in report.
[✂]

Midlands

43. There are 5 sites in the Midlands (although there are 2 sites in Telford – counted as 1 here). Newport (Wales) is also included in the Midlands for management purposes. Of the Midland sites, 2 are operational as scrap metal sites with two, Walsall and Hockley[37], mothballed and one a non-scrap metal site.

44. MWR recently shut down one of its Telford site and opened a new site elsewhere in Telford (June 2017). MWR's operations at the Telford 2 site were relocated due to problems with complaints about noise.[38] Telford 2 site is still under a head lease to MWR but EMR stated that [✂].[39]

[35] [✂]
[36] [✂]
[37] As from shortly after the transaction completed.
[38] [✂]
[39] Phase 1 response to information request 30 October 2017 paragraph 10.4

45. The Walsall site was closed by MWR in December 2016.[40] EMR submitted that [✂].[41]

46. The Midlands sites are summarised in Table 7.

Table 7: MWR Midlands regional sites

Sites	Size/capacity (t/m)			Operations	Equipment
	Current operation	Total capacity	Utilisation		
Cradley*	Shear (Cradley) [✂] FE Baling [✂] NF baling [✂] Loose cuts and other ferrous [✂]	Shear (Cradley) [✂] FE Baling [✂] NF baling [✂] Loose cuts and other ferrous [✂]	Shear (Cradley) [✂] FE Baling [✂] NF baling [✂] Loose cuts and other ferrous[✂]	Ferrous Container Exports Total waste Management Factory collections Weighbridge purchases Non-Ferrous Tolling/Logistics Ferrous Non-ferrous Cardboard/Plastics baling General waste mothballed	Shear, Steel [✂] & Aluminium [✂] balers [✂] Aluminium balers [✂] Aluminium baler & [✂] steel baler 1 paper baler Unused 12in baler onsite
Hockley					
Telford (2 sites)**	Total [✂]	Total [✂]	Total [✂]		
Cox's Lane (Cradley)					
Walsall	-	[✂]			
Newport	[✂]	[✂]	[✂]		

* The operations and equipment were not split out between the Midland sites.
** [✂]
[✂]

Hitchin

47. There is one site in Hitchin. Hitchin's 6000 HP Lynx shredder was refurbished in 2015 and new investment was made in a [✂]. Further investment was made in the site in 2016/17 with additional shredder/trommel equipment (£[✂]) to reduce waste costs and increase metals recovery. The site layout was also improved to increase capacity to grow non-ferrous purchasing.

Table 8: MWR Hitchin regional site

Size/capacity (t/m)				
Current operation	Total capacity	Utilisation	Operations	Equipment
[✂]	[✂]	[80-90%]	Shredding Ferrous Non-Ferrous ELV Container exports Weighbridge purchases	6,000 HP Lynx Shredder/fragmentiser Danieli KSS Downstream plant Doppstadt Trommel and shredder

[✂]

[40] [✂]
[41] Phase 1 response to information request 30 October 2017 paragraph 10.4

Financials

48. The year end for CuFe Investments Limited and Metal and Waste Recycling Limited is 30 April. In the following section we refer to Financial Years (FY) eg the year ended 30 April 2017 is FY17.

Metal and Waste Recycling Limited

49. The financial performance of MWR for the five years ending 30 April 2017 (FY13 to FY17) is shown in Table 9. The summary shows that turnover reached a peak in FY14 at £307.7 million before falling significantly to a low of £121.4 million in FY16. Turnover was £162.9 million in the year immediately prior to the merger. FY15 and FY16 saw a sharp fall in turnover, whereas Gross, EBITDA and operating margin increased significantly. [✂]. The company was profitable in each of the five years.

Table 9: MWR summary financial performance FY13 to FY17

£'000

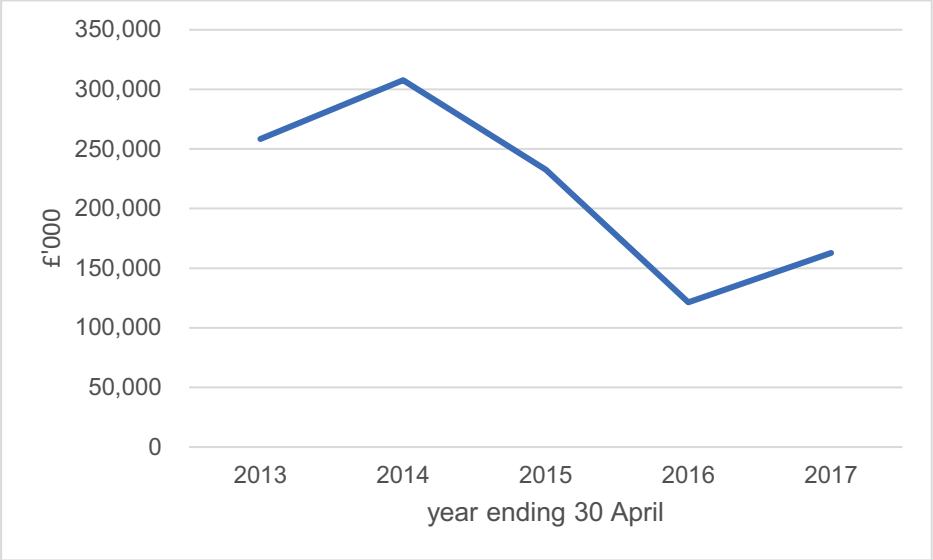
	FY13	FY14	FY15	FY16	FY17
Turnover	258,473	307,715	232,642	121,397	162,911
Cost of sales	-232,929	-278,801	-203,672	-99,692	-135,997
Gross profit	25,544	28,914	28,970	21,705	26,914
Gross Profit Margin	*9.9%*	*9.4%*	*12.5%*	*17.9%*	*16.5%*
EBITDA	3,355	4,723	6,036	5,382	7,033
EBITDA margin	*1.3%*	*1.5%*	*2.6%*	*4.4%*	*4.3%*
Operating profit	608	2,406	3,594	3,026	4,411
Operating margin	*0.2%*	*0.8%*	*1.5%*	*2.5%*	*2.7%*

[✂]
Note: Operating profit before exceptionals.

Turnover

50. Turnover was impacted in 2015 by: the loss of high value copper cable sales; the breakdown of the Hitchin shredder (which was out of operation for 8 months); and (to a lesser extent) the sale of Foreman. In addition, MWR reported in its annual report a decrease in the commodity price (of ferrous and non-ferrous metals) in FY15 and FY16, with a recovery in FY17. The impact of these changes in turnover is illustrated graphically in Figure 3.

Figure 3: MWR Turnover 2013 to 2017



Source: Statutory accounts

51. Table 10 shows the composition of turnover split between London Cable (copper granulation contract), Hitchin, Foreman's and the remaining MWR operations. London Cable reduced from [✂]. The Hitchin Shredder broke down at the end of May 2015. This left the site largely non-operational for 8 months during FY16. [✂]. Annual revenue without the pay-out was therefore £ [✂] for Hitchin in FY16 compared with £ [✂] in the prior year.

Table 10: Split of MWR turnover FY14 to FY17

				£'000
	FY14	*FY15*	*FY16*	*FY17*
London Cable	[✂]	[✂]	[✂]	[✂]
Hitchin	[✂]	[✂]	[✂]	[✂]
Foreman's	[✂]	[✂]	[✂]	[✂]
MWR balance	[✂]	[✂]	[✂]	[✂]
Intercompany	[✂]	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]	[✂]
Turnover	[✂]	[✂]	[✂]	[✂]

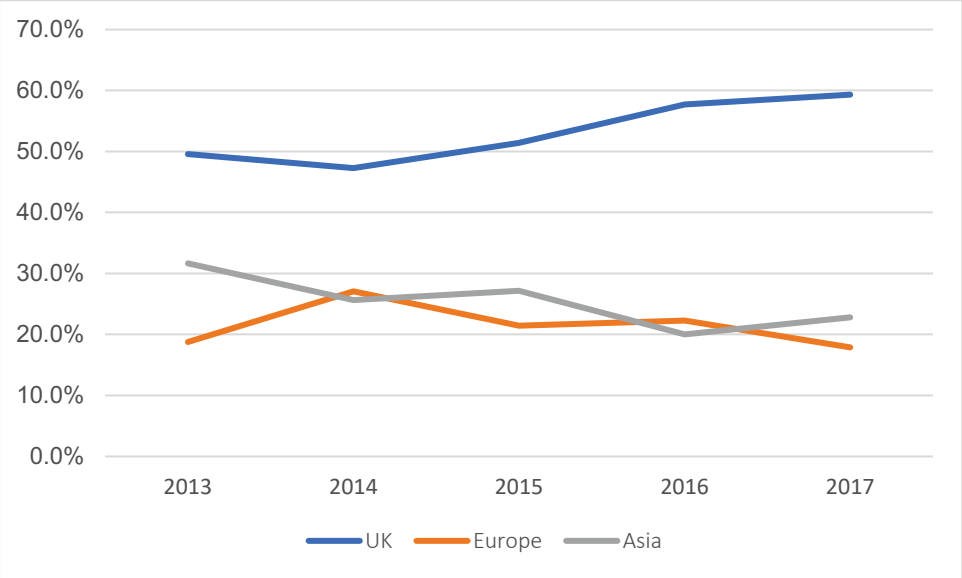
52. The majority of turnover arises from sales in the UK. UK sales have grown from [✂] to [✂]% over the period from FY13. In contrast sales into Asia have fallen from [✂] to [✂] Sales to Europe, although increasing significantly in FY14 have reduced over the period to under [✂]%. The split of turnover is shown in Table 11 and graphically in Figure 4.

Table 11: Turnover split by sales region

					£'000
	FY13	*FY14*	*FY15*	*FY16*	*FY17*
UK	128,107	145,497	119,578	70,054	96,649
Europe	48,536	83,309	49,873	27,046	29,138
Asia	81,830	78,909	63,191	24,297	37,124
	258,473	307,715	232,642	121,397	162,911
Percentage					
UK	49.6%	47.3%	51.4%	57.7%	59.3%
Europe	18.8%	27.1%	21.4%	22.3%	17.9%
Asia	31.7%	25.6%	27.2%	20.0%	22.8%
	100.0%	100.0%	100.0%	100.0%	100.0%

[✂]

Figure 4: Turnover percentage split by region 2013- 2017



Source: Statutory accounts data

Gross profit

53. The changes in sales profile described below impacted on the reported gross margin. As part of the Project Ferrum financial data pack an adjusted gross margin was calculated[42] which:

[42] Note: Project Ferrum uses the consolidated accounts of CuFe Investments for its adjusted figures. As Turnover to Gross profit for CuFe is the same as MWR for FY15-FY17 we have used these Project Ferrum figures with no adjustments as a comparison to MWR.

(a) stripped out the actual results of London Cable (operations ceased in July 2015) and Foreman's (sold September 2014)

(b) [✂].

54. Table 12 we show the statutory account figures (as set out in Table 9) in comparison with the adjusted numbers as set out in the Project Ferrum financial data pack. We have made further adjustments to the Project Ferrum figures to mirror statutory account disclosure so they are comparable to those set out in the statutory accounts in Table 9.[43]

Table 12: Statutory accounts compared to adjusted gross profit/margin

£,000

	FY15	FY16	FY17
Turnover (statutory accounts)	[✂]	[✂]	[✂]
Cost of sales	[✂]	[✂]	[✂]
Gross profit	[✂]	[✂]	[✂]
Gross Profit Margin	*[10-20%]*	*[10-20%]*	*[10-20%]*
Turnover (Adjusted)	[✂]	[✂]	[✂]
Cost of sales	[✂]	[✂]	[✂]
Gross profit	[✂]	[✂]	[✂]
Gross Profit Margin	*[10-20%]*	*[10-20%]*	*[10-20%]*

Source: Management accounts; Project Ferrum financial pack.

55. The statutory accounts stated that the gross margin improvements in FY17 were as a result of additional processed tonnage and tight control of costs - cost control recurring theme through the accounts since Bain Capital acquired.

Regional financials

56. This section looks at the management accounts of MWR. These are [✂].

Turnover and gross margin

57. The split of turnover between the [✂], Spennymoor (sold by MWR on 26 September 2014) and London Cable for the 3 financial years ending FY17 is shown in Table 13. It shows that [✂] accounts for the greatest proportion of the group turnover (c [✂]%). [✂] contributes nearly [✂]% of the group

[43] [✂]

turnover. The inter-company balance is not [✂] in the management accounts. [✂].

Table 13: Sales split by region (management accounts)

£,000

	FY14	FY15	FY16	FY17
London	[✂]	[✂]	[✂]	[✂]
Hitchin	[✂]	[✂]	[✂]	[✂]
Midlands	[✂]	[✂]	[✂]	[✂]
Seaham	[✂]	[✂]	[✂]	[✂]
MWR Group	[✂]	[✂]	[✂]	[✂]
London Cable	[✂]	[✂]	[✂]	[✂]
Spennymoor	[✂]	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]	[✂]
Inter-company	[✂]	[✂]	[✂]	[✂]
Consolidated sales	[✂]	[✂]	[✂]	[✂]

[✂]

58. Gross profit margin (i.e. after processing costs). It is difficult to analyse gross profit margin year on year between regions due to the numerous different grades of ferrous and non-ferrous metal, intercompany movements and the volatility in price. The table though shows that [✂]. This would indicate that MWR has [✂] which is in line with statements in the statutory accounts that cost control has been an important area for management and also the investment in capital equipment.

Table 14: Gross margin by region (management accounts)

%

	FY14	FY15	FY16	FY17
London	[✂]	[✂]	[✂]	[✂]
Hitchin	[✂]	[✂]	[✂]	[✂]
Midlands	[✂]	[✂]	[✂]	[✂]
Seaham	[✂]	[✂]	[✂]	[✂]
London Cable	[✂]	[✂]	[✂]	[✂]
Spennymoor	[✂]	[✂]	[✂]	[✂]
MWR	[✂]	[✂]	[✂]	[✂]

[✂]

Tonnage

59. The table below illustrates the volume of sales and purchases of the last 3 years. MWR sales of ferrous scrap metal [✂] each year, with the purchases of ferrous scrap [✂]. Fragmentiser sales and purchases [✂] over the same

period. Non-ferrous scrap metal sales and purchases [✂] in 2016 and [✂] in 2017 [✂].

60. [✂].

Table 15: Sales and purchases tonnage 2015-2017.

Sales			
Tonnes	FY15	FY16	FY17
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]
Frag non-ferrous	[✂]	[✂]	[✂]
Tolling Volume	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]
Purchases			
Tonnes	**FY15**	**FY16**	**FY17**
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]
Tolling Volume	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]

[✂]

Table 16: Sales, Purchases, Margin and Margin (%) 2015 - 2017.

			Tonnes
	FY15	*FY16*	*FY17*
Sales			
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Cable Non-ferrous	[✂]	[✂]	
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]
Purchases			
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Cable Non-ferrous	[✂]	[✂]	
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]
Margin			
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Cable Non-ferrous	[✂]	[✂]	
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]
Margin %			
Ferrous	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]
Cable Non-ferrous	[✂]	[✂]	
Merchanting	[✂]	[✂]	[✂]
Fragmentiser	[✂]	[✂]	[✂]

Forecast

61. MWR forecast (as set out in Project Ferrum briefing document) showed [✂] (see Table 17). The forecast assumed:

    [✂].[44] [45]

[44] [✂]
[45] [✂]

Table 17: Forecast per Project Ferrum

		£,000
	FY18	**FY19**
Sales	[✂]	[✂]
Gross Margin	[✂]	[✂]
Gross Margin %	[✂]	[✂]
EBITDA	[✂]	[✂]
EBITDA %	[✂]	[✂]
Purchased tonnage	[✂]	[✂]
Sold tonnage	[✂]	[✂]

[✂]

62. In the latest forecast the 2018 EBITDA expectation [✂].[46]

63. In June 2017, the London region [✂].[47]

64. Hitchin was [✂]. This was partly due to [✂]. Purchased tonnage was [✂].[48]

65. Both Midlands and Seaham regions [✂]. Seaham also has [✂].[49]

[46] [✂]
[47] [✂]
[48] [✂]
[49] [✂]

Appendix C: Transaction

Introduction

1. This appendix sets out a factual overview of:

   (a) the consideration and financing of the transaction

   (b) the transaction timeline

   (c) EMR's rationale for the transaction

   (d) Other parties involved in the sales process for MWR

2. The sale process was carried out under the name 'Project Ferrum' by Livingston Partners LLP.

Consideration and financing

3. On 25 August 2017, European Metal Recycling Limited (**EMR**) acquired CuFe Investments Limited (**CuFe**), holding company of Metal & Waste Recycling Limited (**MWR**) from Sankaty European Investments Sarl.

4. CuFe was an investment financed by funds managed or advised by Bain Capital Credit LP (**BCC**). The investment was owned via a chain of intermediary holding companies see Figure 5 .

Figure 1: **MWR ownership structure (abridged)**[1]

[✂]

5. The entire share capital of CuFe was purchased for £[✂] million paid in cash on the date of completion. As part of the transaction loan notes were redeemed, which amounted to £[✂] million paid by the purchaser, meaning that total proceeds were £[✂] million.[2]

6. From the total consideration of £[✂] million, £[✂] was distributed to BCC and the remaining £[✂] was paid to the MWR management.[3]

[1] [✂]
[2] Livingstone Project Ferrum Briefing document (sales document) states FY18 run-rate Earnings before Interest Tax Depreciation and Amortisation (EBITDA) as £[✂] and a budget EBITDA FY18 of £[✂] giving a EBITDA multiple on equity value of between 2.5x and 2.9 and on total consideration (enterprise value) of between 5.2x and 5.9x.
[3] [✂]

7. EMR financed the transaction through bank facilities.[4]

Transaction timeline

8. BCC is a global credit specialist. BCC stated that its investment in MWR was part of its regular investment activities.[5] BCC had acquired MWR through a series of debt purchases and a debt for equity restructuring. In 2012 it acquired MWR's senior debt as part of a portfolio of corporate debt purchased from Lloyds Bank. In March 2013 it acquired the MWR debt owned by Barclays Bank. It then undertook a restructuring and a debt for equity swap acquiring control of MWR (92.15% equity) in the same month. Management controlled the remaining 7.85%.[6]

9. BCC told us that it took control of MWR to restructure, turn around and ultimately realise a return on its investment through a sale.[7] It stated that given the timing and age of the funds and accounts that owned the shares in MWR it looked to sell MWR as soon as commercially appropriate. We note two points in this regard:

   (a) MWR's statutory accounts consistently discuss the actions taken by the business to control costs following its acquisition by BCC. This suggests a business being prepared for sale from the point of acquisition in line with BCC's stated objective for MWR.

   (b) An internal paper from MWR indicates that it considered it would be difficult to continue to grow the business further in the increasingly competitive market without greater access to investment and global markets.[8] We note in this context that no acquisitions were made in the period of BCC's ownership.

10. The BCC board decided to go ahead with a divestment of CuFe on 1 May 2017.[9] A briefing document was sent to six interested parties on 12 May 2017. These were [✂] and EMR Limited (EMR). These companies are described in more detail in the following sections. Offers were received on 6 June 2017 from 4 of these parties:

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[4] [✂]
[5] [✂] BCC invests across the full spectrum of credit strategies including leveraged loans, high-yield bonds, distressed debt and special situations, direct lending, structured products, non-performing loans and equities.
[6] [✂]
[7] [✂]
[8] [✂]
[9] [✂] MWR began preparations for the sale of the business around February/March 2017 with a view to complete in late 2017

Table 1: First round bids for CuFe

Bidder	Headline Enterprise value
EMR	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	

11. From these offers EMR and [✂] were selected for the second phase follow up sessions with MWR management. A comparison of the first round offers made by EMR and [✂] is set out in table 19.

Table 2: Comparison of EMR and [✂] first round offers.

	EMR	[✂]
EV	£50 million (including £5 million exclusivity premium) Based on EBITDA £[✂] and 5-6x multiple plus £10 million for synergies	£50 million Based on £[✂] EBITDA and 5x multiple
Funding	Cash reserves and existing banking facility	Equity (from [✂]) and debt (including asset based finance)
Timing of completion	End of July 2017	2-3 months ([✂] did not put in an exact time. 2-3 months would equate to around the end of July – August)
Strategy	Integration with EMR's existing business with the aim to capture some of the synergies mentioned in Project Ferrum briefing document. EMR did not believe that all the synergies in the briefing document were realisable.	Platform for growth in the metal recycling sector and complements its existing steel making activities. Ferrum will provide [✂] with the right distribution capabilities to realise its vision.

[✂]

12. Second round offers were received from EMR and [✂] on 10 July 2017. Following this EMR was granted exclusivity on 14 July 2017 and provided access to the data room. The Share Purchase Agreement was signed on [✂] 2017.

EMR merger rationale

13. EMR told us that the acquisition of MWR represents an opportunity for EMR to broaden its geographical presence in the UK and improve its financial performance.

14. EMR noted in its investment opportunity report to its Board that MWR had benefited from a much-improved market in posting stronger financial performance in FY 2017, as well as seeing the benefits of various management initiatives to rationalise costs, improve efficiencies, increase volumes, increase focus on non-ferrous operations as well as returns from

capital improvement programs.[10] MWR reported a EBITDA profit of £7 million in FY17.

Synergies

15. EMR 'conservatively estimated' that there were a number of synergies which would produce an additional £[✂] benefit per annum. The estimated synergies were:[11]

(a) **£**[✂] through retention of sales margin in-house:

(i) **£**[✂] through a change in sales strategy. MWR historically operated by selling the majority of its arisings to other export oriented companies, such as EMR, Sims, Nortons, or through brokers for export. The business, due to lack of appropriate facilities, has not itself focussed on export markets other than through container and short sea sales.[12] EMR, with its ability to sell material via its existing facilities into the deep-sea markets at enhanced premiums and with cost synergies/low additional cost, would conservatively benefit from a £[✂] margin improvement which, on the basis of [✂] per annum being suitable for this market, equates to additional margin of £[✂] per annum.

(ii) **£**[✂] of additional margin per annum from direct sales of non-ferrous material to end users as opposed to MWR's current practice of selling to brokers.

(b) **£**[✂] through

(i) a reduction of the senior management base ***(£***[✂]); and

(ii) absorption of various head office functions ***(£***).

(c) **£**[✂] through protection of the EMR margin made on the current [✂] of material sold by MWR to EMR each year (the expectation is that this would be lost if a third party successfully acquired MWR ie that third party would either use the MWR material themselves or sell direct to the end user).[13]

[10] [✂]
[11] [✂]
[12] Short sea movements are generally classed as <12,000MT shipment and deep sea 20,000--50,000MT shipments. MWR exports short sea sales through Pimms Wharf.
[13] MWR sold material to EMR which was generally exported deep sea as MWR did not have direct access to this market.

16. EMR also anticipated the following strategic synergies.[14] These we note are aligned with the geographical location of the two parties' sites. These were:

(a) Benefits from combining MWR's site network with EMR's, eg

(i) The merger provided a [✂] location within the M25, alleviate a capital outlay of [✂];

(ii) MWR's mothballed [✂] would be well located for the anticipated [✂] project ([✂]). This EMR believed had the capacity to generate £[✂] of incremental EBITDA per annum (based on prior volumes);[15]

(iii) There was a possibility to rationalise the sites in [✂];

(iv) A specific contract (recently won by EMR from MWR) can be serviced with existing infrastructure, potentially saving £1.5m capex.

(b) MWR holds strong industrial contracts and would enhance EMR capabilities in this sector.

(c) Enhancement of collection and processing capabilities in major cities (London and Birmingham) provides improved stability of scrap sourcing regardless of market conditions.

17. MWR also thought that a deal with EMR could help reduce competition for feed, improve yield and reduce waste cost in the Hitchin operation.[16]

Other parties involved in the sales process for MWR

18. Six parties were provided with briefing documents for the sale of CuFe. Of these, [✂] in addition to EMR made offers: [✂]. We look below at these.

[✂]

Rationale

19. [✂].

20. [✂].

[14] [✂]
[15] [✂]
[16] [✂]

Offer and synergy benefits

21. [✂].

22. [✂]

Counterfactual

23. [✂].[17]

24. [✂].[18]

[✂]

Rationale

25. [✂].[19] [20]

26. [✂].

27. [✂].

Offer and synergy benefits

28. [✂].

29. [✂].

Counterfactual

30. [✂].

[✂]

31. [✂].[21]

32. [✂].

[17] [✂]
[18] [✂]
[19] [✂]
[20] [✂]
[21] [✂]

Offer and synergy benefits

33. [✂].[22]

34. [✂].[23]

Counterfactual

35. [✂].

Other companies

36. Information packs were sent to [✂].

37. [✂].[24] [✂].

38. [✂].

39. MWR also produced synergy information for [✂].[25] No information pack though was sent to [✂], indicating that it did not sign a NDA to get the sale information and so were unlikely to have been interested in acquiring MWR (although there may have been other reasons a NDA was not signed).

[22] [✂]
[23] [✂]
[24] [✂]
[25] [✂]

Appendix D: Market shares

Introduction

1. This appendix sets out the methodology and results of our assessment of market shares. We calculated shares for the Parties and other metal recyclers based on volumes for:

   (a) Non-new production steel (NPS) ferrous sales to UK final customers on a national basis;

   (b) Non-ferrous sales to UK final customers on a national basis;

   (c) Sales of NPS to UK final customers on a national basis;

   (d) Purchase of shredder feed in the South East, including London; and

   (e) Purchase of ferrous and non-ferrous (excluding shredder feed) in the London region;

   (f) Purchase of all metals in the West Midlands, Wales and the North East regions.

2. This appendix is structured as follows:

   (a) First, we describe the data used in our calculations;

   (b) Second, we set out the methodology; and

   (c) Finally, we present the Parties' comments.

Data

3. We collected three main sets of data, as follows.

   (a) From the Parties, we collected:

      (i) High-level summaries of the total purchase and sales volumes at each of their sites in the 2017 calendar year.[1] We received their total volume of purchases and sales and the value of these transactions, as well as subsets of the total; split into Ferrous Metals, Non-Ferrous Metals, New Production Steel, and Shredder Feed. For MWR this excluded transactions between their own sites and therefore

[1] [✂]

represented only sales and purchases from other third parties, whereas for EMR it included these intra-firm transactions initially but EMR subsequently provided data with these intra-firm transactions removed.

(ii) Details of every transaction that involved the purchase of waste scrap and processed scrap metal made by the Parties in the calendar year 2017. This data set included the transaction date, value (£), weight (Metric Tonnes), metal grade, the site at which the metal was purchased, the supplier's name, location, and a categorisation of the supplier's type of business.

(iii) Details of every transaction that involved the sale of waste scrap and processed scrap metal made by the Parties in the calendar year 2017. This data set included the transaction date, value (£), weight (Metric Tonnes), metal grade, the site from which the metal was sold, the customer's name, location, and a categorisation of the customer's type of business.

(b) We collated questionnaire responses from competitors, suppliers and customers.

(i) The Parties provided us with an extensive list of competitors for their London and West Midlands sites at the outset of the Phase 2 investigation.[2] We continued to use the list of main competitors provided in the Phase 1 investigation for Wales and the North East, and therefore these lists have not expanded.

(ii) We requested that competitors provide us with the total volume purchased and sold within the last financial year, and to break this down by site location and grade wherever possible. Throughout our calculation of market shares, we used the purchase and sales volumes provided by the competitor where these were available.

(iii) For suppliers of New Production Steel (NPS), we requested the total volumes of NPS that they supplied in 2017, and the identity of the Metal Recycler(s) to which they supplied it. This was used in the calculation of New Production Steel market shares.

(iv) From customers, we requested that they provide us with their purchase volumes from the Parties, their top list of suppliers, viable alternative suppliers, and a list of tender bids that they submitted. The

[2] [✂]

responses of customers who bought NPS was used in the calculation of New Production Steel market shares.

(c) We used a data set collected by the Environment Agency ("EA") which includes the site operator, address, contact information, and the waste received in 2016, 2015 and 2014. All operators of regulated waste management facilities have to provide the EA with details of the quantities and types of waste they deal with i.e. waste received into site and waste sent on from site to other facilities or processes.[3] We have only used the 2016 volumes provided in this data set where other sources were not available. The Parties made a number of submissions regarding the accuracy of the EA data; these are discussed further in the Parties' Comments section below.

Methodology and Results

4. To determine the set of relevant competitors within each geographic area, we requested that the Parties provide us with an extensive list of competitors for their London and West Midlands sites.[4] We continued to use the list of main competitors provided in the Phase 1 investigation for Wales and the North East, and therefore these lists have not expanded. The total number of competitors identified by the parties are given in Table 20.

5. As set out in the chapter on market definition, we found that around feeder and processing sites, the large majority of volumes come from within a radius of 50km around the sites; for shredder sites this is 115km. Therefore, our calculation of market shares for purchasing in London, West Midlands, Wales and the North East is based on all competitor sites within 50km of one of the Parties' sites. Our calculation of the market shares at shredder sites in the London area, similarly, includes all sites with a shredder within 115km of MWR Hitchin, EMR Willesden or EMR East Tilbury.

6. The purchase and sales shares are based on volume data for each site for each competitor. In calculating purchase volume share we have relied on responses to our information requests from metal recyclers where available, and EA values when not available. Table 20 details the number of competitors for which we used questionnaire responses.

[3] [✂]
[4] [✂]

Table 1: Sources of purchase volumes

Area	*No. Competitor sites Submitted by Parties*	*No. of Relevant Competitor sites identified by CMA*	*… For which we used questionnaire responses*	*… For which we used EA data*	*… For which we did not have data*
London	92	[✂]	[✂]	[✂]	[✂]
West Midlands	229	[✂]	[✂]	[✂]	[✂]
Wales	32	[✂]	[✂]	[✂]	[✂]
North East	14	[✂]	[✂]	[✂]	[✂]
Shredders in the South East, including London	38	[✂]	[✂]	[✂]	[✂]

[✂]

Notes:
1. Does not include EMR or MWR sites.
2. "No. of Relevant Competitors identified by CMA" determined by only including those within 50km of one of the Parties' sites for London, West Midlands, Wales and North East, and within 115km of one of the Parties' sites for Shredders in London Area. (Distances are based on straight-line, rather than road, distances.)
3. All of the competitor sites submitted by the parties within the North East were within 50m of one of the Parties' sites. The CMA identified also identified [✂] as a large competitor in the North East, who currently operate 4 sites.

7. EMR site-level data included, for some sites, significant volumes that were transferred from other EMR sites rather than purchased at that site. For consistency with other respondents' volume data and to reflect volumes that are most relevant to local competition, these have been excluded in all market shares except for assessment of shredders in the London area.

8. Metal recyclers frequently sell metal to one another, and the purchase shares here are calculated based on some volumes which include purchases of this type. This means that purchase shares do *not* represent only shares of purchases from original sources, but include a degree of 'double counting' as waste scrap metal is traded between recyclers. Because larger metal recyclers in particular purchase a substantial share of their volumes from other metal recyclers, the volumes of larger players will be particularly affected by this issue.

9. Given it is not possible to calculate purchase shares at all level of the supply chain (purchase from original sources, purchase from metal recycler for shredding, purchase from shredder site for export, and so on), our volume shares represent a mix of each metal recycler's position at each level.

10. We took the view that the volumes captured in our overall purchasing figures reflect a metal recycler's overall position in the market. Where a large metal recycler has high volumes that include scrap purchased from smaller recyclers, this is likely to reflect the fact that it has the processing facilities or more efficient routes to market or both that are needed to be competitive in the purchase of that material.

National Ferrous Sales

11. To estimate the total volume of ferrous sales to UK customers, we used an estimate provided by the Parties.[5] The total market size is based on figures from the EEF, which estimates that 3.6m tonnes of ferrous metal arising from recovered used steel scrap in the UK is supplied to UK steelworks. Of this, 1.6m tonnes arise within steelworks, rather than being traded on the open market.[6] In our analysis of national ferrous sales we only include the total quantity of ferrous scrap traded on the open market, because arisings within steelworks is not a suitable alternative source for UK customers.[7]

12. In the calculation of the share of known ferrous sales to UK customers, we only included the Parties' sales to final customers; excluding sales to other metal recyclers and metal trades. MWR and EMR submitted that although there are no accurate estimates, they believe most of their sales to traders are subsequently exported.[8]

13. Additionally, we calculated the share of non-nps ferrous sales to UK customers by only including the non-NPS ferrous grades. NPS sales was defined as a separate market and so we aimed to avoid conflating significant sales of NPS with other ferrous sales. We removed the NPS volumes for six large competitors and the Parties, from which we had received the relevant information on NPS sales in their questionnaire responses. Because we could not make this adjustment for the entire market, the Parties' non-NPS ferrous market share would be under-estimated.

[5] [✂]
[6] EEF is the trade association for the UK Steel industry, [✂]. Its source is Index Mundi, which is a data portal that gathers facts and statistics from multiple sources.
[7] Note that within our assessment of the market share for the sale of New Production Steel, we calculate market shares including and excluding self-supply by steel manufacturers.
[8] [✂]

Table 2: National market shares for Non-NPS ferrous sales to UK customers

	Total volume of ferrous sales	*Volume of ferrous sales to UK customers*	*Share of known ferrous sales to UK customers (%)*	*Volume of NPS sales to UK customers*	*Volume of non-nps ferrous sales to UK customers*	*Share of known ferrous non-NPS sales to UK customers (%)*
EMR	[✂]	[✂]	[30-40%]	[✂]	[✂]	[20-30%]
MWR	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Parties Combined	[✂]	[✂]	*[30-40%]*	[✂]	[✂]	*[20-30%]*
[✂]	[✂]	[✂]	[5-10%]	[✂]	[✂]	[5-10%]
[✂]	[✂]	[✂]	[5-10%]	[✂]	[✂]	[5-10%]
[✂]	[✂]	[✂]	[5-10%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[5-10%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Other sites	65,000	688,793	34%	-	688,793	39%
Total	*7,778,788*	*2,000,000*	*100%*	*250,238*	*1,749,762*	*100%*

[✂]
1. Includes some sites for EMR and Sims which are outside of overlap areas.
2. Assumes a total size of UK non-ferrous sales to be 2,000,000MT.
3. "Volume of ferrous sales to UK customers" excludes sales to traders and metal recyclers for the Parties.

14. At Phase 1 we estimated that EMR's share of ferrous sales was [20-30%], and MWR's share is [0-5%]. The lower, updated figures presented in Table 21, above are driven by the removal of sales to UK metal recyclers and metal traders from the *"Volume of ferrous sales to UK customers"* for the Parties.

National non-ferrous sales

15. The Parties provided an estimate for total sales of non-ferrous processed scrap metal. While there is no estimate of total domestic supply available, figures for total non-ferrous exports from the UK are available from the ISSB, which estimated these at 855,000 tonnes in 2016.[9] EMR then used the same domestic-supply-to-export-ratio for the total market size as it applies to EMR, which exports [70-80%] of its supply. So EMR assumed that 855,000 tonnes total exports in 2016 equates to [70-80%] of the total market size. This would

[9] [✂] ISSB is a leading supplier of global trade data for steel and raw materials.

result in a total market size of tonnes, with sale to UK customers totalling 366,328 tonnes.[10]

16. It is difficult to judge how accurate it is to assume that [70-80%] of the total market size is exported. We note that MWR only exports [20-30%] of its supply of non-ferrous metal,[11] hence when using MWR's domestic-supply-to-export-ratio the overall size of the supply of non-ferrous processed scrap metal would be significantly larger. However, for the competitors listed in Table 22 below for which we have domestic sales and export sales, the proportion of sales which are exported is [70-80%]. Therefore, there is some limited corroboration that 70% of the total market size is indeed exported.

17. Because the remaining metal recyclers which are not listed in the table below are likely to be many small suppliers of non-ferrous scrap, we consider the Parties' approach of using a large, export-oriented suppliers' domestic-supply-to-export-ratio to be reasonable and may understate the Parties' market share.

Table 3: National market shares for non-ferrous sales

	Volume of non-ferrous sales	*Volume of non-ferrous sales to UK final customers*	*Share of known non-ferrous sales (%)*
EMR	[✂]	[✂]	[20-30%]
MWR	[✂]	[✂]	[0-5%]
Parties Combined	[✂]	[✂]	*[20-30%]*
	[✂]	[✂]	[10-20%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	-	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	[0-5%]
	[✂]	-	-
	[✂]	-	-
	[✂]	[✂]	[0-5%]
	[✂]	[✂]	*100%*

Source: Parties' and competitors' submissions, Annexure 10.1(a) for total market size.
Note:
1. Includes some sites for EMR and [✂] which are outside of overlap areas.
2. Assumes a total size of UK non-ferrous sales to be 366,328 tonnes.
3. "Volume of non-ferrous sales to UK customers" excludes sales to traders and metal recyclers for the Parties.
4. [✂] and [✂] are both non-ferrous specialists. We have not received sufficient detail in their questionnaire responses to estimate the proportion of sales to UK customers.

[10] The customer [✂] estimated that the total volume of non-ferrous metal traded in the UK in 2017 is approximately 379,000 tonnes; similar to the estimate made here.
[11] [✂] Total quantity exported in 2017: 7,179 tonnes. Total quantity sold in 2017: 30,308 tonnes.

Sales of New Production Steel to UK customers

18. The CMA has collated New Production Steel (NPS) sales volumes for 39 competitors throughout the UK. Because NPS is not recorded separately in the EA data our estimates of these shares are based only on data we received directly from competitors, customers and suppliers.

19. For 12 metal recyclers, their sales volumes were provided directly by the metal recyclers; this allowed us to split their volumes between sales to UK customers, sales to other metal recyclers and exports. For 16 metal recyclers, we used data from customers' NPS purchase data relating to their top five suppliers of NPS; this allowed us only to estimate their sales to UK customers. For the remaining 11 recyclers, we used the Parties' estimates of NPS contracts held by those competitors.

20. Our market share estimates in the column *"Share of all known NPS sales"* are likely to overestimate the Parties' shares, as we do not have full data on all competitors or all customers' purchases. However, because we have received the purchase volumes directly from the largest metal recyclers, we expect that these shares are broadly representative of the Parties' positions in the market.

21. EMR has estimated that the total arisings of NPS in the UK at approximately 1.8 million tonnes, which includes available and contestable arisings from steel manufacturers and their integrated downstream businesses (who may choose to self-supply). Therefore, we have also estimated each recyclers' share of NPS sales using 1.8 million tonnes as the estimate of the total market size.

Table 4: Metal recyclers' sales of NPS, (MT)

	Shares of NPS sales to final UK customers	*Volume sold to final UK customers*	*Volume sold to Metal recyclers*	*Volume exported*	*Unknown (Parties' estimate)*	*Total volume of NPS*	*Share of all known NPS sales*	*Share of all NPS sales (estimated 1.8m tonne market)*
EMR	[40-50%]	[✂]	[✂]	[✂]	[✂]	[✂]	[40-50%]	[20-30%]
MWR	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[10-20%]	[10-20%]
Parties Combined	*[50-60%]*	[✂]	[✂]	[✂]	[✂]	[✂]	*[60-70%]*	*[30-40%]*
[✂]	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[10-20%]	[5-10%]
[✂]	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[5-10%]	{5-10%]
[✂]	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[5-10%]	[0-5%]
[✂]		-	-	-	[✂]	[✂]	-	[0-5%]
[✂]	-	-	-	-	[✂]	[✂]	-	[0-5%]
[✂]	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
[✂]	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
[✂]	-	-	-	-	[✂]	[✂]	-	[0-5%]
[✂]	-	-	-	-	[✂]	[✂]	-	[0-5%]
[✂]	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
[✂]	-	-	-	-	[✂]	[✂]	-	[0-5%]
[✂]	[0-15%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
[✂]	-	-	-	-	[✂]	[✂]	[0-5%]	[0-5%]
Other known volumes (from 26 other competitors)	22%	[✂]	[✂]	[✂]	[✂]	[✂]	3%	2%
Total known volumes	100%	[✂]	[✂]	[✂]	[✂]	[✂]	100%	63%
Parties' estimated total including self-supply						[✂]	-	*100%*

[✂]
*For these recyclers we do not know their true volumes; the figures shown are the Parties' estimates.
Note:
1. "0" values are actual 0's; "-" represent unknown values.
2. For the Parties we classified all sales to UK metal traders as the volume exported.
3. "Share of all known NPS sales" measures the share of sales volumes as a proportion of all sales provided by the involved parties to the CMA. It does not include Parties' estimates of NPS sales volumes.

22. As a sensitivity check, we estimated the shares for the sales of NPS to UK customers after excluding the NPS purchases from other metal recyclers. We could only exclude these volumes for the Parties, [✂], as we only received sufficiently detailed questionnaire responses for these competitors. After making this change, the Parties' combined share decreases slightly to [40-50]% with a [5-10]% increment.

Market shares for regional purchasing markets

Shredders in the South East

23. The Parties submitted a list of 39 competing shredder sites across the UK.[12] We based our market share calculations on all relevant competitor sites that are currently operating relevant shredders, and are within 115km of one of the Parties' shredder sites at (MWR Hitchin, EMR Willesden, and EMR East Tilbury).

24. Having sent questionnaires to the main competitors to confirm that they indeed had a functioning shredder comparable to the those operated by the Parties, we excluded two competitors that responded that they did not operate such equipment - [✂] and [✂][13] - from further analysis.

25. We expect that at shredder sites, shredder feed is unlikely to be the only scrap purchased. The Environment Agency data does not differentiate between shredder feed and other grades of scrap. Therefore, we estimated the size of shredder feed purchases at these sites using the following sources:

    (a) For the Parties, we used the shredder feed purchase volumes provided to the CMA;

    (b) For [✂], we used their questionnaire responses;

    (c) For competitors which only have a shredder at their site, we assume that 100% of their purchases are shredder feed;

    (d) For competitors which have other processing equipment at their site, we assume that 50% of their purchases are shredder feed.[14]

[12] [✂]
[13] [✂] do not own a shredder. [✂] have a low-powered shredder which currently mainly shreds aluminium and plastics, and therefore does not pose a strong competitive constraint on the Parties.
[14] This is close to the proportion of purchases made by the Parties across their sites in the region which is shredder feed (52%).

26. These market shares are shown in Table 24.

Table 5: **Share of shredder feed purchases at shredder sites within 115km of Hitchin or Willesden or East Tilbury**

Site	*Total Purchase volumes*[15]	*Estimated volume of shredder feed purchases*	*Share of shredder feed purchases at shredder sites within 115km of Hitchin*	*Share of shredder feed purchases at shredder sites within 115km of Willesden*	*Share of shredder feed purchases at shredder sites within 115km of East Tilbury*	*Share of shredder feed purchases within 115km of any of the Parties' sites*
MWR Hitchin	[✂]	[✂]	[20-30%]	[20-30%]	[20-30%]	[20-30%]
EMR Willesden	[✂]	[✂]	[10-20%]	[10-20%]	[10-20%]	[10-20%]
EMR East Tilbury	[✂]	[✂]	[20-30%]	[20-30%]	[20-30%]	[20-30%]
EMR Newhaven	[✂]	[✂]		[0-5%]	[0-5%]	[0-5%]
EMR Portsmouth	[✂]	[✂]		[5-10%]		[5-10%]
Parties Combined	[✂]	[✂]	[60-70%]	[70-80%]	[70-80%]	[60-70%]
[✂]	[✂]	[✂]	[10-20%]			[10-20%]
[✂]	[✂]	[✂]	[5-10%]	[5-10%]	[5-10%]	[5-10%]
[✂]	[✂]	[✂]	[5-10%]	[5-10%]	[5-10%]	[0-5%]
[✂]	[✂]	[✂]	[5-10%]	[0-5%]	[5-10%]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]	[0-5%]	[0-5%]	[0-5%]
[✂]	[✂]	[✂]		[0-5%]	[0-5%]	[0-5%]
[✂]	[✂]	[✂]		[0-5%]	[0-5%]	[0-5%]

[✂] and Environment Agency estimates. Purchase volumes are the 2017 calendar year (when provided by the party) or 2016 Environment Agency data. [✂] and [✂] shredder feed purchase volumes were from their questionnaire responses. Shredder feed purchase volumes for the Parties were from RFI responses. Shredder feed purchase volumes for [✂], [✂], [✂] and [✂] were estimated by assuming 50% of their purchase volumes were shredder feed (this is close to the Parties' proportion of shredder feed purchased of [50-60%]). We understand that [✂] only has a shredder at its site, so 100% of its volumes were assumed to be shredder feed.

27. As a sensitivity test, we calculated the shares of purchases of all grades of metal at shredder sites. This does not involve any assumptions regarding the proportion of purchases which are shredder feed. Our calculations show that the Parties' combined share of purchases at shredder sites within 115km of MWR Hitchin, EMR Willesden or EMR East Tilbury is [60-70]%, with an increment of [20-30]%. These shares are similar to the shares of shredder feed presented above.

28. As a further sensitivity test, we also considered whether the Parties' shares are significantly different when assessed on the basis of a wider geographic area by also considering shares of shredder site purchase volumes within 140km of Hitchin, Willesden or East Tilbury. This added EMR Birmingham, four competitor sites near Nottingham and 2 competitor sites near Birmingham. Our calculations show that the Parties' combined share of all

[15] Purchase volumes for EMR include inter-depot purchases both within the "Total Purchase volumes" and the "Estimated volume of shredder feed purchases". Excluding inter-depot purchases from EMR's total purchase volumes, and applying the same proportion of purchases which are shredder feed as in the table above, we calculate that their combined market share is [✂] all sites within 115km of any of the Parties' sites.

purchases within 140km of Hitchin, Willesden or East Tilbury is [40-50%], with an increment of [10-20%]. Additionally, our calculations show that the Parties' combined share of shredder feed purchases within 140km of Hitchin, Willesden or East Tilbury is [50-60%], with an increment of [10-20%].

London

29. At the outset of the Phase 2 investigation, the Parties provided an extensive list of 92 competitor sites in the London area.[16] We based our market share calculations on 71 relevant competitor sites that are within 50km of one of the Parties sites.

30. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table 25.

Table 6: Volume shares of waste scrap metal purchases in the London region

	Number of sites in the London region	*Total Volume Purchased*	*Share of Purchases*
EMR	10	[✂]	[40-50%]
MWR	3	[✂]	[5-10%]
Parties Combined	*13*	[✂]	*[40-50%]*
[✂]	[✂]	[✂]	[5-10%]
[✂]	[✂]	[✂]	[5-10%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
[✂]	[✂]	[✂]	[0-5%]
Other processing sites	47	439,685	18%
Total	*84*	*2,438,410*	*100%*

[✂]
Notes:
1. Total volumes purchased exclude inter-depot purchases for the Parties.
2. Number of sites for MWR includes MWR Edmonton, MWR Neasden and MWR Pinns Wharf. Total volume for MWR Pinns Wharf is 0 because the total volume purchased excludes inter-depot purchases.
3. Number of sites in the London region only include competitors which are within 50km of one of the Parties' London sites. Distances are based on straight-line, rather than road, distances.

31. In the CMA's reference decision, we estimated that the Parties combined share of purchases within the London area was [60-70%]. This difference was

[16] [✂]

primarily due to the inclusion of inter-depot transactions within EMR's purchase volumes, which we have now excluded.

32. As a sensitivity check, we calculated the market shares of London sites only including the estimated purchases of non-shredder feed scrap. In the London region, EMR operates two shredders, and LKM, Van Dalen, Charles Muddle and Spartan Metals operate one. We only included purchase volumes of non-shredder feed for EMR, Van Dalen and Charles Muddle, which were provided to us by those recyclers themselves. We made no adjustments to LKM's volumes. The estimated combined share of purchases for the Parties after this adjustment is [40-50%] with an increment of [5-10%].[17]

West Midlands

33. At the outset of the Phase 2 investigation, the Parties provided an extended list of 229 competitor sites in the West Midlands.[18] We based our market share calculations on 192 competitor sites that are within 50km of one of the Parties sites.

34. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table 26.

[17] It is likely that a significant proportion of ASM and Total Waste Management's purchases are shredder feed, as these metal recyclers sell substantial volumes of shredder feed to the Parties. However, we do not make any adjustments for these sites, and note that the Parties' combined market shares would increase if we did.
[18] [✂]

Table 7: Volume shares of waste scrap metal purchases in the West Midlands

	Total Volume Purchased in WM	*Share of Purchases in WM*
EMR	[✂]	[30-40%]
MWR	[✂]	[5-10%]
Parties Combined	[✂]	*[30-40%]*
[✂]	[✂]	[10-20%]
[✂]	[✂]	[10-20%]
[✂]	[✂]	[10-20%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
Other processing sites	231,516	11%
Total	*2,032,592*	*100%*

[✂]
Notes:
1. Total volumes purchased exclude inter-depot purchases for the Parties.
2. Total Volume Purchased includes only purchases at competitors' sites within 50km of one of the Parties' West Midlands sites.

Wales

35. During the Phase 1 investigation, the Parties submitted a list of 32 main competitor sites in the Wales area.[19] We based our market share calculations on 23 competitor sites that are within 50km of one of the Parties' sites.

36. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table 27.

[19] [✂]

Table 8: Volume shares of waste scrap metal purchases in the Wales area

	Total Volume Purchased	*Share of Purchases*
EMR	[✂]	[20-30%]
MWR	[✂]	[0-5%]
Parties Combined	[✂]	*[20-30%]*
[✂]	[✂]	[50-60%]
[✂]	[✂]	[5-10%]
[✂]	[✂]	[5-10%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
Other processing sites	23,301	3%
Total	*779,622*	*100%*

[✂]
Notes:
1. Total volumes purchased exclude inter-depot purchases for the Parties.
2. Total Volume Purchased includes only purchases at competitors' sites within 50km of one of the Parties' Welsh sites.

37. As a sensitivity check, we calculated market shares only for Party and competitor sites which have postcodes inside of Wales. As a result, we excluded four competitor sites and one EMR site. Based on this approach, the Parties' combined share of purchases within Wales are [40-50%] with an increment of [5-10%].

38. As an additional sensitivity check we included [a metal recycler's] site, which is a processing site that has a shear, baler and ELV rig. It is 52km away from the closest Party site, and therefore just falls outside of our 50km market definition. After including this site, the Parties' combined share of purchases fall to [20-25%] with an increment of [0-5%].

North East

39. During the Phase 1 investigation, the Parties submitted a list of 14 main competitor sites in the North East.[20] All 14 of these sites were within 50km of one of the Parties' North East sites. We additionally identified G O'Brien and Sons as a competitor in the North East, who operate 4 sites. Therefore, we assessed the market shares in the North East using 18 competitor sites in total.

40. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table 28.

[20] [✂]

Table 9: Volume shares of waste scrap metal purchases in the North East

	Total Volume Purchased	*Share of Purchases*
EMR	[✂]	[50-60%]
MWR	[✂]	[5-10%]
Parties Combined	[✂]	*[50-60%]*
[✂]	[✂]	[10-20%]
[✂]	[✂]	[5-10%]
[✂]	[✂]	[5-10%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
[✂]	[✂]	[0-5%]
Other processing sites	8,849	1%
Total	*845,084*	*100%*

[✂]
Notes:
1. Total volumes purchased exclude inter-depot purchases for the Parties.
2. Total Volume Purchased includes only purchases at competitors' sites within 50km of one of the Parties' North East sites.

Parties' comments

New production steel

41. With respect to NPS, the Parties have noted that a share of purchases of [35-40%] is broadly consistent with their own estimates that the Parties' share of sales of ferrous scrap metal at [35-40%].[21] They argue that, based on this, the CMA would not normally have concerns.

42. The Parties' estimates include self-supply volumes, which they state cannot be discounted from the overall size of the market, because suppliers can and do switch between self-supply, tolling and selling to metal recyclers.[22] In Table 23 above, we have estimated the Parties' shares of NPS when self-supply is included in the overall size of the market.

Regional purchasing markets

43. The Parties submitted their own estimates of market shares as shown in Table 29, below.

[21] [✂]
[22] [✂]

Table 10: Comparison of Parties' and CMA market share estimates

Region	*EMR response to the Issues letter*	*CMA reference decision*	*EMR response to the Phase 1 decision*	*EMR response to AIS and Working Papers*	*CMA current estimate*
London	[35-40%]	[65-70%]	[45-50%]	40-45%	[45-50%]
North East	[50-55%]	[70-75%]	[60-65%]	-	[55-60%]
West Midlands	[30-35]	[40-45%]	[40-45%]	-	[35-40%]
Wales	-	[20-25%]	[10-15%]	-	[20-25%]
Shredders in the South East, including London	-	[55-60%]	[30-35%] (140km) [20-25%] (115km)	-	[65-70%] (Shredder feed only)

Note: Market shares are based on all grades purchased, except for the market shares for shredders in the South East, including London, where EMR and the CMA have estimated the market share for shredder feed only.

44. There will be significant differences between the market share estimates made by the Parties and the CMA due primarily to differences in data sources. The CMA has used competitor, customer and supplier questionnaire responses wherever these were available.

45. The Parties suggested that there was inconsistency in the CMA's phase 1 calculations between the high share of purchases that the Parties appeared to account for, and the lower share of sales that they represented. However, in respect of regional shares of purchases, our current estimates and the Parties' are not materially different.

West Midlands

46. With respect to our calculation of purchase shares in the West Midlands, the Parties have submitted that our previous estimate of [30-40%] is not at a level which should raise significant concerns. The Parties have also submitted that because it is impossible to have a share of sales which differs significantly from their share of purchases, that [30-40%] is likely to overstate the Parties' position.

47. They have additionally submitted that our assessment does not take into account the constraints exerted by metal recyclers who are outside of the West Midlands but compete to purchase waste scrap metal in the West Midlands. This includes S Norton (Liverpool), Rollason (Telford), and Moores Metals (Stoke).

Shredder feed

48. The Parties have submitted[23] that geographic area over which competition takes place for the purchase of shredder feed is wider than 115km. Additionally, they note that in our initial assessments, the CMA used total

[23] [✂]

volumes of purchases rather than the purchases of Shredder Feed. As described above, we have run sensitivity checks where we increase the catchment area to 140km, as suggested by the Parties, and estimated the shares of purchases based only on shredder feed.

London

49. With respect to the London area, the Parties submitted that the CMA's market share assessment is likely to overstate the Parties' position[24] because:

(a) it does not take account of the volumes purchased by the remaining 37 (Greater London) – 92 (Wider London) competitor sites identified by the CMA;

(b) it is unclear whether the CMA's share of supply figures include purchases by [a metal recycler];

(c) EMR has previously estimated and presented lower shares of purchases (40-45%).

50. The CMA's decision to assess competition within a 50km-catchment area takes into account 71 competitor sites within the London area. This market shares assessment includes purchase volumes by two [✂] sites ([✂] and [✂]), and does not include purchase volumes for its [✂] site (as this is a dock which just received inter-depot purchases). The purchase volumes for [✂] were provided directly by [✂] to the CMA.

Environment Agency data

51. The Parties have raised several issues with the Environment Agency data set:

(a) In this data, only scrap metal merchants operating a site under a licence are required to submit volume data to the Environment Agency. This will result in an underestimate of the total market size.

(b) The Parties submitted[25] that that some sites appear to have not submitted data and others under-report volumes.

(c) It aims to record all volumes passing through sites, so may include some intra-company flows (which would tend to exaggerate the market shares of firms that have multiple sites). However, we think that this effect is limited given that we have received data directly from many of the largest

[24] [✂]
[25] [✂]

recyclers. Given that we have corrected the Parties' and large competitors' volumes for this effect, any remaining effect would be to overstate the volumes of small competitors and cause a resulting understatement of the Parties' market shares.

52. We recognise that the EA data has limitations. However, the CMA's analysis at Phase 1, which compared the volumes within the EA data set with data provided by metal recyclers showed that the average error was 11%. We therefore we have continued to use EA data where other data was not available.

53. Additionally, within our analysis of non-NPS ferrous sales and non-ferrous sales we use an estimate of the total market size agreed with the Parties. Within our local analysis of London, the West Midlands, Wales and the North East, we have included the purchase volumes for the largest competitors, and therefore it is unlikely that we have underestimated the size of the total market by a significant amount.

Appendix E: Entry and Expansion

Introduction

1. The Appendix covers the following:

   (a) Recent history of entry and expansion and potential new entry in the provision of scrap metal collection, processing and sales in the UK;

   (b) Regulatory framework;

   (c) Practicalities of setting up a new scrap metal site, such as availability of suitable sites, set up costs, payback periods and access to port facilities.

2. We use the term entry to cover all new sites irrespective of whether the site operator has existing operations in that or another area of the country. Expansion covers the broadening of the scope of activities on a site eg through the addition of a shear, or expanding a site by taking on the lease of an adjacent site.

Recent history of entry and expansion and potential entry

3. EMR submitted a list of entry and expansion (including sites that changed ownership) over the last 5 years, by region. This is summarised in Table 30 below.

Table 1: **Metal recyclers entry and expansion in the last 5 years.**

Region	*New sites*	*Acquired sites*
London	8	2
Midlands	13	4
North East	5	
Other regions	41	2
Total	67	8

[✂]

4. Table 31 shows new sites from Table 30 split by region and activity. The new shredder sites were: Recycling Lives (Preston), A Brook (Yorkshire), Fletcher Metals (Yorkshire). There were no new shredder installed in the London area.

Table 2: New sites by activity and region in the last 5 years.

Region	*Feeder*	*Shear/baler*	*Shredder*	*Total*
London	6	2		8
Midlands	12	1		13
North East	4	1		5
Other regions	23	15	3	41
Total	45	19	3	67

[✂]

5. EMR also summited information on a number of sites that have been expanded with new equipment. These sites are shown in **Table 32**.

Table 3: Expansion by activity and region in the last 5 years.

Region	*Shear*	*Baler*	*Shredder*	*Total*
London	2	-	-	2
Midlands	3	1	-	4
North East	1	-	-	1
Other regions	2	1	1	4
Total	8	2	1	11

[✂]

6. In addition, EMR stated that in recent years new shredding sites had been set up by several other operators, including Sackers (Ipswich), Lord and Midgely (Hull), Van Dalen (Sheffield), Light Bros (Lewes), Hawkeswood (Birmingham), Wards (Ilkeston), and SG Dalton (Edinburgh).[1] These shredders do not appear in the tables above. It is possible that it was set up longer than 5 years ago.

7. We also note that in some cases the EMR data indicates that sites were upgraded to processing but no detail of equipment has been provided – so it is possible that some of the sites categorised as feeder sites also have some processing capability.

8. The tables on entry and expansion show that:

   (a) Of the 67 new sites in the last 5 years, 45 (65%) were feeder sites. Only 3 new sites had shredders installed on them. The remaining 19 processing sites all had shears installed (with 2 sites also including a baler).[2]

[1] [✂]
[2] [✂] in the Midlands and [✂] in the North East.

(b) There have been only 8 new site entries in London in the last 5 years with three quarters of these (6) being feeder sites. The Midlands has seen 13 new sites with 12 of these being feeder sites. The shredder listed in Table 3 (on the expansion of activity) was installed by Singleton in Manchester on an existing site.

9. In relation to expansion, the majority occurred through the addition of a shear, with only two sites [✂] in the South West and [✂] in the Midlands) adding a baler.

10. Scrap metal sites need to have either a permit from the Environment Agency (standardised or bespoke)[3] or a T9 exemption (available if the facility poses a low risk to the environment, and processes under 1,000 tonnes at any point in time). Table 33 sets out the number of permits issued by the Environment Agency over the last 3 years. Table 34 shows the T9 exemptions over the same period.

Table 4: **Environment Agency permits data (September 2017).**

Region	*New permits*		
	2017	*2016*	*2015*
London (incl Hertfordshire and Kent)	3	4	6
West Midlands (incl Staffordshire and Warwickshire)	7	8	1
Nationwide	37	37	56
	47	**49**	**63**

[✂]

Table 5: New T9 registrations

Region	*2017*	*2016*	*2015*
London	57	219	92
Midlands	69	233	102
Nationwide	967	3,902	931
	1,093	**4,354**	**1,125**

[✂]

11. We note that data from the Environment Agency (which licenses scrap metal sites) indicates some entry in London that is not included in Tables 1 and 2. This is likely due to the different methods of information compilation. Tables 4 and 5 are also likely to include expansion in terms of new leases on adjacent sites if these require permits/registrations, which we have included in table 3. The tables show:

(a) A larger number of T9 exemptions being issued than standard/bespoke permits. This indicates that entry has been occurring more in feeder sites

[3] [✂]

than in processing sites (although some smaller sites may have limited processing capabilities). This is in line with the analysis provided by EMR.

(b) There has been a falling number of new permits in London over the last 3 years. In 2017 only 3 permits were issued in London, to: Platinum International Limited (metal recycling site in Crawley, Kent), Sims Group Ltd (for storage of scrap at its Sheerness dock), and Clapgate Autos Ltd (for a vehicle depollution facility in Brentwood, Essex). The registrations in previous years were also for ELV companies (with the exception of NRM metal recycling in Ilford).

(c) There was a substantial increase in the number of T9 registrations in 2016. This may reflect the recovery in scrap metal prices that year following a period of falls.

12. Third parties also provided evidence of their entry or expansion.

13. [✂].

14. [✂] site in order to process more metal.[4]

15. Bayliss Recovery Limited has opened a 1.5 acre site in Cardiff for the processing of ferrous and non-ferrous metal and ELVs. The new site was opened in order to expand to a larger site in a prime city centre location.[5]

16. There is also evidence of companies developing export capabilities:

(a) [✂].[6]

(b) [✂].[7]

(c) TSR recently purchased a dock with a shredder in Dagenham from Van Dalen, indicating that there is movement in the market.[8]

(d) [✂] deep sea dock [✂].[9] [✂].

(e) [✂] opened a deep sea dock facility [✂].

[4] [✂]
[5] [✂]
[6] [✂]
[7] [✂]
[8] [✂]
[9] [✂]

Potential future entry and expansion

Existing UK metal recyclers

17. We have been made aware of the following entry and expansion plans of existing UK metal recyclers across the UK:

(a) EMR stated it was expanding sites in [✂] and has plans to open new sites in [✂].[10]

(b) [✂].[11]

(c) [✂]. It stated that it had identified a limited number of potential sites, but it was proving to be challenging due to planning, regulatory/licensing issues and commercial terms (eg limited lease duration versus investment for compliance infrastructure).[12]

(d) Liberty's Recycling division has a published aim to developing a network of advanced collection and processing facilities for both ferrous and non-ferrous metals. Its website states that its 'strategy is to build 5m tonnes pa melting capacity in the UK over the next 5 years. The scrap assembly and processing operations will be strategically placed across the country, in regions of high scrap generation and close to Liberty's melting, rolling and engineering facilities. These include South Wales, the West Midlands, Yorkshire and Scotland.'[13] [✂].[14]

(e) Ward Brothers told us that it was looking to expand into West Midlands to compete for factory contracts – it sees an opportunity in that space now that MWR has been acquired by EMR. Ward Brothers said that out of 15 factory contracts previously held by MWR in the North East, Ward Brothers has now taken 7. It is also planning to open a site in the Wolverhampton area in 2019.[15]

(f) [✂].[16]

[10] [✂]
[11] [✂]
[12] [✂]
[13] [✂]
[14] [✂]
[15] [✂]
[16] [✂]

18. We are also aware that Sims has recently purchased Morley Waste Traders Limited, a metal recycler with 10 sites in West Yorkshire and Humberside. This is currently being looked at by the CMA.[17]

New entrants to UK

19. The Parties submitted that some large industrial companies have started to self-supply scrap metal ('closed loop' arrangements) using in-house companies or preferred partners to recycle the metal waste. The Parties believe that these metal recyclers could enter the wider UK metal recycling market. The Parties believe the following are potential entrants (and have seen both [✂] and [✂] participating in recent tenders):[18]

    (a) Toyota Tsusho division "Green Metals" which markets Toyota's automotive scrap metal. It bills itself as a large scrap metal trader across the world.

    (b) [✂]. [✂] have let a short term (12 month) contract to [✂] to allow [✂] to make longer term plans.

    (c) [✂].

    (d) [✂].

20. Green Metals told us that at present it was not tendering for any contracts and its future strategy regarding large automotive manufacturers was not yet decided. In addition, it did not plan to open any metal recycling sites.

21. We note that TSR recently acquired Van Dalen Metals Recycling and Trading, a Dutch metal recycler that includes a single site UK operation in London consisting of [✂].

22. [✂] told us that it is a new company that started in 2014 so to get contracts it is currently relying on existing links with international companies that also have operations in the UK (such as [✂] and [✂]). [✂].[19]

Specialist entrants

23. The Parties told us that over recent years changes in regulation have brought new entrants to the market in specific areas. Ozone Depleting Substance regulations mean that fridge recycling requires specialist facilities. The majority of these are operated by businesses that are new to the industry, eg

[17] [✂]
[18] [✂]
[19] [✂]

the new Telford fridge recycling plant set up by white goods retailer AO.com. Previously all fridges were recycled through the scrap industry.[20] AO.com has acquired Shropshire based The Recycling Group (TRG) to form the UK's largest fridge and electrical waste recycling company. The CEO of AO said at a 2017 conference that the company anticipates recycling more than one fifth of the fridges thrown away annually, in the first year of operation.[21]

24. The Parties told us that similar developments have been seen in waste electrical goods and ELVs with more vehicles now passing through an auction and salvage route prior to scrapping than was previously the case.[22] In addition, the Parties argued that car breakers may start shredding ELVs themselves rather than using metal recyclers to increase the margins it receives on the scrap metal.

25. The Parties also submitted that some general waste companies have also entered the market, eg Viridor is a waste company which now also operates recycling facilities for fridges and waste electrical goods. Another example is Kuusakoski, a Finnish metal recycler has acquired a waste electricals recycling facility in the UK.[23] [✂].[24]

Regulatory framework

Environmental regulations

26. The key points relating to regulation are:

(a) In England and Wales, scrap metal recyclers are required to obtain an Environment Agency licence. This is a standardised permit that sets out how to conduct the activity lawfully and without risk of pollution. Operations that pose greater environmental risks (eg are next to a sensitive ecological area) require a bespoke permit. To obtain such a permit a formal application would need to be made to the Environment Agency (England) or Natural Resources Wales (Wales). Bespoke permits may need to be applied for in some circumstances.

(b) Permits are typically granted within 3 months from application and start at £1,630. In addition, there is an annual subsistence fee of £1,850 and if the licence is surrendered a fee is payable of £3,590.

[20] [✂]
[21] [✂]
[22] [✂]
[23] [✂]
[24] [✂]

(c) Scrap yards that pose a lower risk to the environment and process under 1,000 tonnes at a time can apply for an exemption permit (T9 metal recycling exemption). The exemption is automatic and immediate once the application is made online. A T9 waste exemption allows an operator to treat scrap metal by sorting, grading, shearing by manual feed, baling, crushing or cutting it with hand-held equipment.[25]

(d) Recyclers also require a licence from a local authority and are required to record the identity of all suppliers.

(e) Mobile collectors do not require a site licence and operate under a scrap metal dealer licence.

(f) There are no particular regulatory requirements associated with any of the equipment typically used by scrap metal merchants (such as shredders).

(g) There are additional regulations and permits associated with specialist metal recycling such as ELV.

27. Regulations are uniform across England and uniform across Wales.[26] If the requirements of the licence/permit are met there are no limits to the number of licences that can be issued. The costs of the licences and permits are low.

Planning permission

28. In addition to regulatory licences/permits a new scrap metal site requires planning permission. An application for a planning permission decision needs to be made to a local authority. Local authorities take into account objections such as noise and disturbance resulting from use, and the use of hazardous materials. These may make planning permissions more difficult to obtain, eg in densely populated areas. It also means that the ability to obtain planning permission may be very different in different parts of England and Wales. As a result, the ease or not of obtaining planning permission in one area of England and Wales does not translate to another locality.

29. Equipment requiring planning permission includes: balers; shears (fixed); and shredders. Granulators do not tend to require planning permission; nor do mobile equipment eg mobile shears.

30. Planning permission decisions are typically obtained within 8-13 weeks.[27]

[25] [✂]
[26] We do not assess Scotland or Northern Ireland which have their own regulations as there is no overlap between the merger Parties in these areas.
[27] https://www.gov.uk/planning-permission-england-wales/after-you-apply

Setting up a new site

31. In this section we look at:

(a) Availability of suitable sites;

(b) Set up costs;

(c) Access to port facilities

Availability of suitable sites

32. The Parties told us that a large number of scrap metal sites are licensed every year (currently 650 permitted sites in England, 1,500 operating under a T9 exemption and 1,500 ELV sites).[28]

33. Third parties told us that they struggle to find suitable large sites, particularly in London, due to there being no availability of space to buy or rent long-term, the value of potential residential development pushing up the price of the land and the difficulty of getting planning permission, in particular for processing and shredder sites, due to associated noise.

34. In relation to the London area:

(a) [A metal recycler] told us that it is looking to acquire a larger site in London (with room for a shredder) but it could only find short leases (maximum 5 years). It also said that the value of land is frequently skewed by the value of potential residential development on the site. [This metal recycler] explained that in its view there is enough scrap available for another 4-6,000 horsepower shredder in London. [✂]. [This metal recycler] does have the route to market from London but needs the infrastructure.

(b) [✂].

35. We were told that setting up a site in other parts of England and Wales is easier than setting up in London:

(a) [A metal recycler] told us that expansion into the West Midlands is easier than London, although getting harder, as land agents are banking land in expectation of economic growth. In the Midlands the issue is more around getting planning permissions than the land availability. The land cost is high but it is available, unlike in London.

[28] [✂]

(b) Ward Brothers is currently looking at 2 sites in the West Midlands, one of which is an old foundry that has existing planning permission for use as a scrap metal recycler due to its previous use. Such sites that have existing planning permissions and are not likely to be usable for housing are available in the Midlands but not necessarily elsewhere (particularly London).

(c) [✂].

36. The information memorandum on [✂] sent to [✂] referred to 'high barriers to entry due to prohibitive planning and authorisation requirements' as one of the key features of the business.[29]

Set up cost and time

37. The Parties submitted that set up costs are low and equipment is readily available. They told the CMA that time and cost depend on the type of operation that is being set up. Total costs range from a feeder site starting at £400,000 to shredding with costs of £2 to £5 million, depending on size and complexity. These costs do not include the cost of land (freehold or leasehold).

38. The Parties submitted that a completely new entrant to the market would typically look to install smaller, lower cost equipment and to build its capability rather than immediately going for larger, more powerful but more expensive options and a completely new entrant could hire rather than buy equipment. The Parties told the CMA that established metal recycling companies would be able to acquire, set up and run such equipment without difficulty.

39. We look at the costs of infrastructure and plant and equipment below.

Infrastructure costs

40. In terms of infrastructure the Parties stated that site requirements included impermeable surfaces and sealed drainage. The Parties told us that these (depending on pre-existing services and size of site) and equipment installation costs can range from £25,000 up to hundreds of thousands of pounds.

[29] [✂]

Table 6: New site infrastructure costs

					£
Costs	*0.5 acre*	*1 acre*	*1.5 acre*	*3 acre*	*4 acre*
Concrete and groundworks	[✂]	[✂]	[✂]	[✂]	[✂]
Drainage interceptor	[✂]	[✂]	[✂]	[✂]	[✂]
Stone and roll parking area	[✂]	[✂]	[✂]	[✂]	[✂]
Fencing	[✂]	[✂]	[✂]	[✂]	[✂]
Gate	[✂]	[✂]	[✂]	[✂]	[✂]
Total building costs	[✂]	[✂]	[✂]	[✂]	[✂]
Non-ferrous building and equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Weighbridge	[✂]	[✂]	[✂]	[✂]	[✂]
ELV, building and equipment	[✂]	[✂]	[✂]	[✂]	[✂]
Office and welfare	[✂]	[✂]	[✂]	[✂]	[✂]
Perimeter lighting	[✂]	[✂]	[✂]	[✂]	[✂]
Communications and CCTV	[✂]	[✂]	[✂]	[✂]	[✂]
Services connection	[✂]	[✂]	[✂]	[✂]	[✂]
Total equipment costs	[✂]	[✂]	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]

[✂]

41. The table calculates concrete and groundworks as linear costs whereas equipment (eg weighbridge etc) are relatively static as they are assumed to be relatively similar irrespective of the size of site. This means that as site size increases the sunk cost element of cost increases as a proportion of the total. It is assumed in this that equipment has some resale value. Concrete and groundworks do not as they would have to be removed at the end of a lease.

Plant and Equipment cost

42. The Parties provided their estimate of costs of the equipment that may be required to set up a metal recycling site. They stated that there is a wide range, depending on required capacity and whether the equipment is rented or purchased.[30]

Balers

43. The Parties submitted that a new Louritex Baler (400 x400mm bale size) would cost £135,000 plus installation costs of around £10,000, while a

[30] [✂]

refurbished Henschel Baler would cost £40,000 plus installation costs of around £10,000.

44. Installation for a baler typically takes around three weeks. All balers require planning permission.[31]

Shears

45. The Parties submitted that a used Taurus C662 free standing shear would cost around £275,000 with no significant installation costs as sits on its own legs. A new Bonfigioli Squalo shear will cost around £422,000 with limited installation costs. Installation time would typically be less than one week.

46. For a more powerful shear such as the Leimbach 960 tonne shear, the Parties considered the cost would be around £1.2 million or, for a refurbished model, around £540,000. This would process 25-30 tonnes per hour. The installation cost would be approximately £100,000.

47. All shears that are fixed to the ground will require the same permissions as balers although there are mobile versions that can be pulled by an articulated vehicle.

48. EMR told us that it is planning to install a shear in [✂].[32]

49. EMR is also planning to install a [✂]. The total expected cost is £[✂].

50. Third parties told us the following:

(a) [A metal recycler] told us that shears cost £600,000 – £2 million. It also confirmed that a shear or a shredder can go anywhere with a licence. It said that the issues are the size and the availability of land and getting planning permission, which are very problematic in London in particular.

(b) [✂] said that a new shear (with baler) costs around £750,000 from [✂]

Shredders

51. The Parties submitted that shredders can vary in size and therefore cost.

52. They submitted that an entry level refurbished shredder that will shred 20-25 tonnes per hour (Zato Car Shredder) could be purchased from £200,000 plus installation costs of around £35,000. In comparison a new Bonfiglioli car

[31] [✂]
[32] [✂]

shredder would cost £1.3 million including installation and would shred 18-22 tonnes per hour.

53. A more powerful 6000HP shredder would cost approximately £5.9 million new or £750,000 for a refurbished model (based on a Lynx shredder). This would give production of around 145 tonnes to 195 tonnes per hour. Installation costs would be around £1.6 to £2 million.

54. Installation is done by the manufacturers and can take from 3 to 8 weeks.

55. The Parties told us that mobile shredders are also available and can be hired at relatively low cost. They said that a number of competitors, such as Recycling Lives, Charles Muddle, Dentons, Bayliss, SG Boswell, Lee Saunders and Singletons, use mobile shredders.[33]

Granulators (Copper)

56. The Parties submitted that a reconditioned Matrix Granulator which processes one tonne per hour would cost around £138,000 plus installation costs of around £10,000. In comparison a new Eldan Granulator, which processes 2 tonnes an hour would cost around £385,000 plus installation costs of around £10,000. Installation can be completed in two weeks.

57. Granulators are usually housed inside a small building but have a small footprint. No planning permission is required. The granulator only requires a concrete pad and a waterproof structure over it.

Trommel

58. EMR told us that the pricing of trommels[34] varies widely dependent on many factors including size/capacity; age and condition; whether the trommel is mobile or static; and whether it is a standalone trommel or includes loading and/or discharge conveyors. A small static trommel can be purchased second hand from £5,000 with the larger, mobile and brand new trommels available for £200,000.[35]

59. If rented, the rental cost for a large new Doppstadt trommel on wheels would be approximately £1,300 per week (plus transport costs) for a minimum rental period of four weeks. A mobile track trommel would be approximately £1,800 per week (plus transport) for the same minimum rental period of four weeks.

[33] [✂]
[34] Trommel is a machine that separates scrap metal from dirt.
[35] [✂]

Container tilter

60. Containerisation requires a recycler to install a container tilter. The Parties told us that these can vary in cost depending on make and specification and can cost £45,000-£70,000 new. Container tilters are available second hand and prices vary depending on specification and condition.[36]

61. [A metal recycler] told us that from its experience a container tilter costs £65,000-85,000 new or [✂] second hand.[37]

Timing

62. The Parties also told us that licensing and set up time for greenfield sites ranges from:

(a) around two months at the entry level to

(b) 6-12 months for a mid-range site and

(c) around 18 months to two years for a top tier large processing site.

63. Alternatively, the Parties submitted that entry by way of acquiring an existing site can be achieved sooner by transferring an existing permit to the new operator.[38]

64. [A metal recycler] told us that in terms of timing, getting a new site with a shredder installed (including permissions) would take 3 years, optimistically. For a feeder site it is a lot quicker: [✂].[39]

[36] [✂]
[37] [✂]
[38] [✂]
[39] [✂]

Table 7: Summary of set up costs and time

Type of site and average size	*Purchase/lease cost*	*Installation cost*	*Equipment cost*	*Lead time*
Feeder (0.5 - 2 acres)	Land value (highest in London due to residential development potential)	£400k -£1m (up to 500k per acre)	Minimal: skips, fleet, crane (can be hired - Container tilt -£30k-£85k	6-12 months
Processing (3.5 acres)	Land value (highest in London due to residential development potential)	£1m - £1.5m*	Shear £275k-£2m Baler £50k-£150k Trommel -£5k-£200k Container tilt £30k-£85k	18 months – 2 years
Large processing (6.5 acres)	Land value (highest in London due to residential development potential)	£2m – £4m*	Shredder £235k-£6m. Once a shredder is installed, it is unlikely to be moved.	Up to 3 years

Note: processing sites require a planning permission which costs £1,630. There is no extra cost for a shredder.
* Costs are based on a linear calculation. Not all costs are linear though so this is likely to overstate set up costs for larger sites.

Payback period

65. Expected payback periods for set-up costs appear to vary between scrap metal recyclers. S Norton told us that it takes a long term view on investment in the sites and would expect a 7-10 year payback.[40]

66. EMR told us that it typically expects an investment into feeder and processing yards to pay back within 2-3 years and investments in shredding sites within 3-5 years. EMR also said that each investment proposal is assessed on its own merits and the payback periods will depend not just on site locations (due to land values/rent and rates variances, local labour costs, etc.) but also on factors such as:

(a) the level of work required to the site (i.e. whether the site requires a new concrete base, whether existing buildings and utility supplies are fit for purpose, site security requirements, etc.);

(b) the plant and equipment required at the site as well as whether that equipment is available new or second hand;

(c) the forecast tonnage for the site; and

(d) the proportion of ferrous to non-ferrous material expected.[41]

[40] [✂]
[41] [✂]

Access to export facilities

67. Scrap metal can be exported via a deep-sea route to the US, Indonesia, China, India or a short-sea route to Europe. The choice of route depends on the destination. Another export route is by container, primarily for eastbound destinations. We set out below the evidence we have on whether access to port facilities is a barrier to entry.

68. [A metal recycler] told us that all docks are either owned or rented by a metal recycler, ie there are no spare docks. [✂] has established [✂]. The dock with a shredder in Dagenham was recently purchased by TSR from Van Dalen, indicating that there is movement in the market.

69. Ward Brothers told us that it is renting a space at Sunderland port. It also said that it is easy for a new entrant to arrange a short-sea dock space as well. For example, Sunderland port is run by a council so no single company can have sole use of the dock.[42]

70. Deep sea dock availability may be more limited, but a number of companies operate without deep sea dock facilities. Recyclers can access to the container market via traders once a container tilt has been installed on the site. These are inexpensive at £65-85,000 (or half of this second hand).[43]

71. Container shipping is therefore an accessible route to overseas markets for smaller operators. A small operator with feeder sites can get access to the container export market for non-ferrous and some ferrous scrap through a trader, who is an intermediary between the scrap metal suppliers in the UK and the customers overseas.

72. [A metal recycler] told us that there are only two or three other players who export similar quantities and distances to them. More players are active in short sea exports (ie to Spain and Portugal) with between three and five exporting from the South East, and half a dozen more across the rest of the UK (for example, [✂], [✂], [✂], [✂], [✂]. This includes [✂] which has docks in [✂].[44]

73. [A metal recycler] said that only two or three players are deep sea exporters (ie to Turkey, India and Pakistan). [✂] submitted that deep-sea exports from London have always been via EMR, and that EMR has a 97-99% share of the UK deep-sea export market (with [✂] accounting for the other 1-3%).[45]

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[42] [✂]
[43] [✂]
[44] [✂]
[45] [✂]

74. S Norton exports the great majority of its scrap metal, mostly by sea in bulk vessels of 25-60,000 tonnes from port facilities at Liverpool and Southampton and some in containers. It also operates a small dock facility at Barking, exporting in vessels up to [✂] tonnes.[46]

75. Ampthill Metals (a smaller player with 2 sites) told us that it does not bid for some contracts if the volumes are low as it cannot get sufficient volumes to ship to Turkey or Spain. It said that shipping to South East Asia is easier as there are containers that are returning from the UK and are discounted for the return journey.[47]

[46] [✂]
[47] [✂]

Glossary

Catchment area	The area from which most of the customers or suppliers of a store or site are drawn. This provides useful information on how far customers or suppliers are willing to travel to use the store or site in question. In this case, we have calculated catchment areas covering suppliers that account for 80% of each site's purchase volumes.
Ausurus	Ausurus Group Limited, holding company of EMR
Baling	Compressing waste scrap metal, such as end-of-life vehicles, into small, manageable bales for transport or further processing
CuFe	CuFe Investments Limited, holding company of MWR
CMA	Competition and Markets Authority
Collection suppliers	Typically companies that produce large amounts of waste requiring removal from their site
Container shipping	Scrap metal is packed in shipping containers and transported, which could be over short or long distances
Customers	Businesses that buy processed scrap metal from metal recyclers, often metal processors, mills or foundries
Deep-sea shipping	Scrap metal is transported loosely packed in the hull of a ship over long distances – eg from the UK to Asia or the USA. Given their size, these ships require access to deep-sea ports.
Door trade	Suppliers that deliver their waste scrap metal to a recycling site, including the general public, tradespeople and other, typically smaller, suppliers
ELV	End-of-life vehicles
EEF	The representative body of British manufacturing, including firms in the steel industry
EMR	European Metal Recycling Limited
Factory contracts	Long-term or rolling contracts held with factories, mills or other businesses that produce waste scrap metal and supply this to metal recyclers
Feeder site	Site operated by a metal recycler at which scrap metal is collected before being transported to another site where it is processed

	Feeder sites tend to be a smaller sites with little or no processing facilities
Ferrous	Iron based (including steel)
FY	Financial year
Grade	Different specifications of ferrous and non-ferrous metal, distinguished, for example on the basis of metal composition, size and shape. Different grades of the same metal might have different prices.
ISSB	International Steel Statistics Bureau
Local areas	UK regions in which EMR and MWR overlap (ie London, West Midlands, Wales, North East, South East and East of England)
Metal recycler	Businesses such as EMR or MWR that buy waste scrap metal and supply processed scrap metal
Mixed waste	Waste that has large amounts of non-metal combined with the metal, for example ELVs, white goods and electronics
MT	Metric tonnes
MWR	Metal and Waste Recycling Limited
NPS	New production steel. Steel which is newly produced and typically has little or no other metals or materials in it. Sources of NPS are typically factories that produce it as a by-product of their own manufacturing process, eg automotive manufacturers. It can come in bales, sheets, strips, cuttings and stampings.
Non-ferrous	Non-iron based, including aluminium, copper, lead and zinc
Parties	**EMR** and **MWR** are together referred to as the Parties
Processing	Processing of scrap metals after collection involves sorting and weighing, and may also include shearing, shredding and baling/compacting - to improve ease of handling and transport, as well as to separate different materials.
Processing site	Site operated by a metal recycler which has processing equipment, such as a shear or a baler.
Shearing	Reducing the size of large pieces of metal by cutting them to parameters set by the US-based Institute of Scrap Recycling Industries

SLC	Substantial lessening of competition
Short-sea shipping	Scrap metal is transported loosely packed in the hull of a ship over short distances without crossing an ocean – typically from the UK to Europe – and typically involving smaller loads than deep-sea shipping
Shredder	An industrial machine which reduces the size of scrap metal and separates the metal from any non-metal components
Shredder feed	Scrap metal that needs to be shredded into fist-sized lumps. This metal is often end-of-life vehicles or other sources of waste scrap metal that have large amounts of non-metal combined with the metal.
Shredding site	Site operated by a metal recycler with a shredder
Suppliers	Businesses (eg factories, demolition firms, other metal recyclers) that provide waste scrap metal to metal recyclers.
Waste scrap metal	Metal that metal recyclers buy from suppliers in order to process it for selling it on to customers. Also known as ‘scrap metal arisings’.