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

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:

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

   (d) 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

3. 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.

4. 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 of suppliers to the Parties' sites. 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.

5. 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.

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

7. 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.

8. 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.

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

10. We would like to thank all those who have assisted us in our inquiry.

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 B.1: Ausurus Group structure (simplified)

[✂]

Source: [✂]

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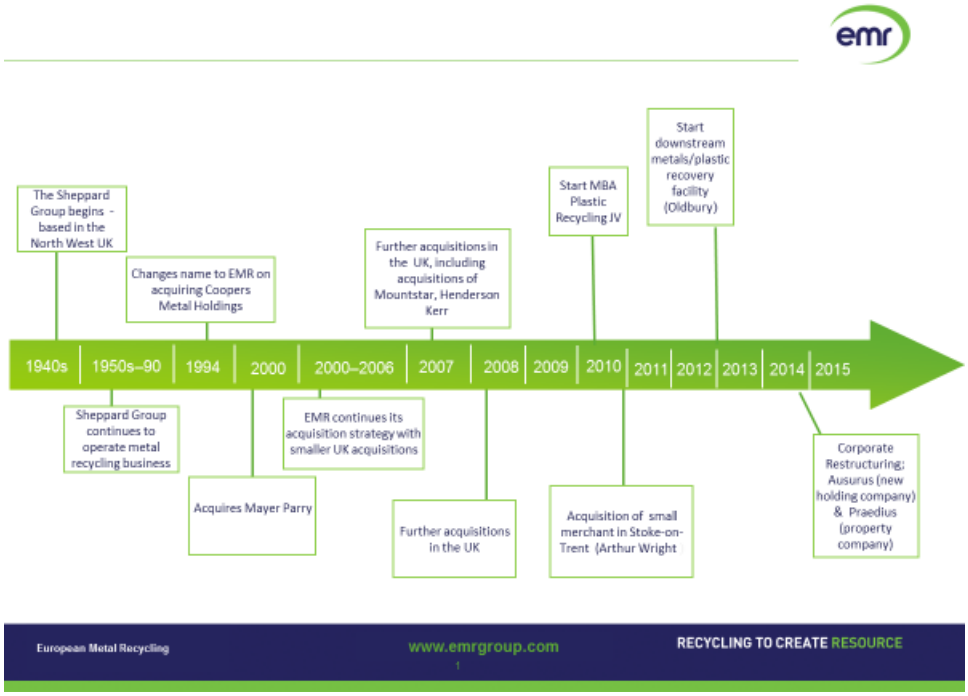
[1] [✂]
[2] [✂]
[3] [✂]

History and key milestones

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

Figure B.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.

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[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 five years. Turnover fell between 2013 and 2015. The accounts state that 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

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

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

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

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

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

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 £[✂].[14] Analysis of the data over the last three 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 B.2: EMR UK turnover and profit 2013-2017.

					£m
	2013	*2014*	*2015*	*2016*	*2017*
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					*Tonnes*
Ferrous	[✂]	[✂]	[✂]	[✂]	[✂]
Non-Ferrous	[✂]	[✂]	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

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

[13] [✂]
[14] [✂]

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,[15] Liverpool, Tilbury and Tyne,[16] and short-sea docks at Glasgow, Eccles, Southampton, Newhaven, Sunderland and Great Yarmouth.[17][18] 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.[19]

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

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.[21]

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

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).[23]

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 [✂] ([✂] tonnes in 2017).

25. In terms of purchases, approximately [20-30] of ferrous scrap that EMR buys is processed.[24] EMR sites receive around [40-50] of their scrap from other EMR sites (eg feeder sites).

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[15] Although this has not generally been used by EMR for deep sea shipments in recent years.
[16] Although this is not a quayside site (EMR's site is located a short distance from the actual quay which is a public port).
[17] EMR also has dockside sites at Sharpness and Shoreham but these have not been used for bulk export for several years. The quay at Erith is used for occasional internal transfer by barge.
[18] [✂]
[19] [✂]
[20] [✂]
[21] [✂]
[22] [✂]
[23] Located in the same regions as MWR sites or within 50km of an MWR sites.
[24] [✂]

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 ([✂] in 2014 and 2015), other depots purchases are significantly smaller ([✂] tonnes and below).

Table B.3: EMR UK purchases 2016

Thousands (tonnes)

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

Source: [✂]

28. [✂] of scrap metal supply (35-45%) in London, East Anglia and the North East comes from [✂]. In the West Midlands [30-40%] of scrap comes from industrial sources. EMR in Wales has a much smaller scrap metal operation with most of the scrap [✂].

29. [✂] and other [✂] are the next biggest sources of supply for EMR in London. [✂] form the smallest proportion of purchases across the business.[25]

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 handles approximately 550,000 tonnes per annum of ferrous and non-ferrous metals.[26] 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

[25] [✂]
[26] http://www.metalandwaste.com/about-us/our-history/ [✂]

Earnings before Interest and Tax (EBITDA) of £7.0 million. £96.7 million of 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) ([✂]%).[27] A simplified ownership structure of MWR is shown in Figure B.3.

Figure B.3: MWR simplified ownership structure

[✂]

Source: [✂]

32. MWR had two subsidiaries pre-merger:

    (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 in 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. 6,000hp shredder installed at Hitchin.

[27] [✂]

(e) 2007 to 2010 - further acquisitions.

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

(g) 2011 – established new facility in Telford in the West Midlands.

(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 in the West Midlands.

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

(m) 2015 – refurbishment of Hitchin shredder. £[✂] investment in Danieli Downstream[28] 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 . MWR owns, holds the head lease for, or has use rights at 12 sites, of which 8 are in use, and handles approximately [✂] tonnes per year of ferrous and non-ferrous metals. Of the eight sites there are two with dock facilities for 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 temporary sites close to major sources of scrap metal.

[28] 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 B.4: MWR sites by region

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

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

35. A description of the sites and services in each of the four 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.

38. Pinns Wharf is a dock storage and export facility. [✂]. The site is owned by Pinns Wharf Limited (PWL). [✂]. [✂] PWL also provides this service to other waste metal business eg Robert Gibbs.[29]

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 [✂].[30]

40. The London sites are summarised in Table .

[29] [✂]
[30] [✂]

Table B.5: MWR London regional sites

		Size/capacity (t/m)			
Sites	*Current operation*	*Total capacity*	*Utilisation*	*Operations*	*Equipment*
Edmonton (Head Office)	[✂] Split shear [✂] other ferrous [✂]	[✂] shear [✂], other ferrous [✂] PF- can support additional [✂] tonnes	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 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	

* [✂]
Source: [✂]

North East

41. There is one site in the North East - Seaham[31]. 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.[32]

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

Table B.6: MWR Seaham regional sites

		Size/capacity (t/m)			
Sites	*Current operation*	*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
Source: [✂]

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

[31] [✂]
[32] [✂]

sites with two, Walsall and Hockley[33], 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. Telford 2 site is still under a head lease to MWR but EMR stated that [✂].[34]

45. The Walsall site was closed by MWR in December 2016. EMR submitted that [✂].[35]

46. The Midlands sites are summarised in Table B.7.

Table B.7: MWR Midlands regional sites

Sites	*Current operation*	*Total capacity*	*Size/capacity (t/m) Utilisation*	*Operations*	*Equipment*
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	Shear, Steel [✂]& Aluminium [✂]balers
Hockley				Non-Ferrous Tolling/Logistics	[✂] Aluminium balers
Telford (2 sites)**	Total [✂]	Total [✂]	Total [✂]	Ferrous Non-ferrous	[✂] Aluminium baler & [✂] steel baler
Cox's Lane (Cradley)				Cardboard/Plastics baling General waste	1 paper baler
Walsall	[✂]	[✂]		mothballed	Unused 12in baler onsite
Newport	[✂]	[✂]	[✂]		

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

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.

[33] As from shortly after the transaction completed.
[34] [✂]
[35] [✂]

Table B.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

Source: [✂]

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 B.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. Both EBITDA and operating margin were maintained in 2017. The company was profitable in each of the five years.

Table B.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%*

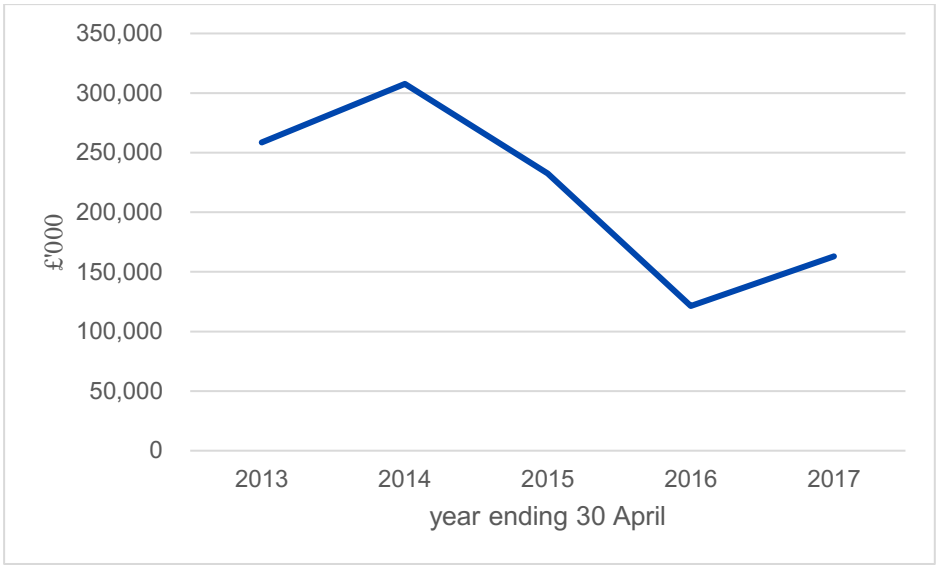
Source: Statutory accounts
Note: Operating profit before exceptionals.

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 B.4.

Figure B.4: MWR Turnover 2013 to 2017



Source: Statutory accounts

51. Table 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 B.10: Split of MWR turnover FY14 to FY17

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

Source: [✂]

52. The majority of turnover arises from sales in the UK. UK sales have grown from 50% to 59% over the period from FY13. In contrast sales into Asia have fallen from 32% to 23%. Sales to Europe, although increasing significantly in

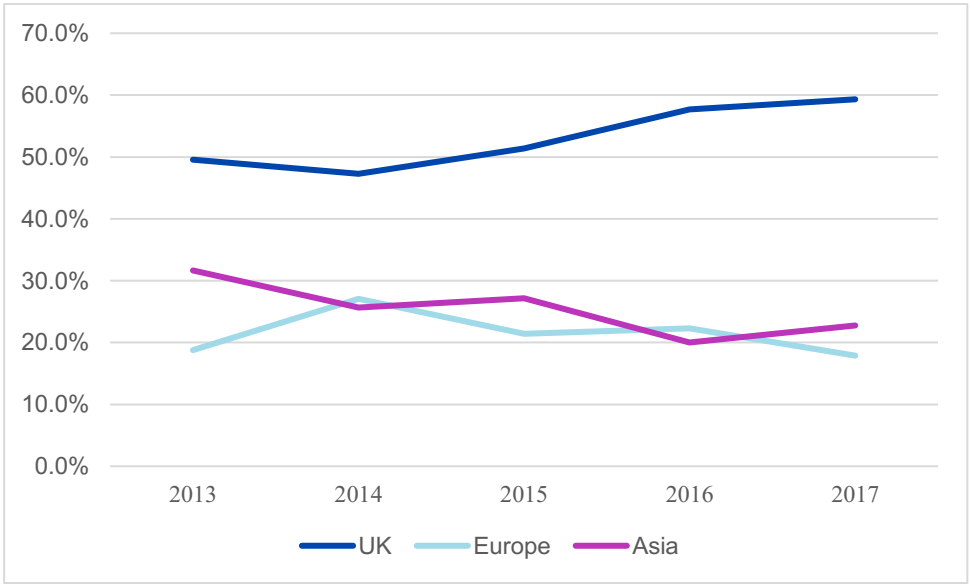
FY14 have reduced over the period to under 20%. The split of turnover is shown in Table B.11 and graphically in Figure B.5.

Table B.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%

Source: Statutory accounts

Figure B.5: 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[36] which:

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

[36] [✂]

(b) [✂].

54. In Table we show the statutory account figures (as set out in Tabe B.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 B.9.[37]

Table B.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: [✂]

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 B.13. It shows that [✂] accounts for the greatest proportion of the group turnover ([✂]%). [✂] contributes nearly [✂]% of the group turnover. The inter-company balance is not [✂]in the management accounts. [✂].

[37] [✂]

Table B.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	[✂]	[✂]	[✂]	[✂]

Source: [✂]

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 B.14: Gross margin by region (management accounts)

%

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

Source: [✂]

Tonnage

59. The table below illustrates the volume of sales and purchases of the last 3 years. MWR sales of ferrous scrap metal [✂] by [✂]% each year, with the purchases of ferrous scrap [✂]in 2016 and nearly [✂]% in 2017. Fragmentiser sales and purchases [✂] over the same period. Non-ferrous scrap metal sales and purchases [✂] in 2016 and [✂] in 2017 [✂] the 2015 volume level.

60. It is worth noting that [✂]. For example, the [✂].

Table B.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	[✂]	[✂]	[✂]

Source: [✂]

Table B.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	[✂]	[✂]	[✂]

Source: [✂]

Forecast

61. MWR forecast (as set out in Project Ferrum briefing document) showed [✂] (see Table B.17). The forecast assumed: [38]

    (a) [✂];

    (b) [✂];

    (c) [✂];

[38] [✂]

(d) [✂].

(e) [✂].

(f) [✂].[39]

Table B.17: Forecast per Project Ferrum

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

Source: [✂]

62. In the latest forecast the 2018 EBITDA expectation [✂].[40]

63. In June 2017, the London region [✂] This was mainly due to [✂][41]

64. Hitchin was [✂]. This was partly due to [✂]. Purchased tonnage was [✂] the same time in the previous but [✂], leading to [✂] per month. [✂].[42]

65. Both Midlands and Seaham regions [✂]. Seaham also has [✂].[43]

[39] [✂]
[40] [✂]
[41] [✂]
[42] [✂]
[43] [✂]

Annex A: EMR recycling sites.[44]

Site name	*City/town*	*Postcode*	*Fe/NFe*	*Feeder only?*	*Processing?*	*Export?*
Bedford	Bedford	MK42 9DT	Both		Shear	
Bellshill	Bellshill	ML4 2QW	Both		Shear	Container
Biggleswade	Biggleswade	SG18 8BD	NFe			Container
Birmingham Landor Street	Birmingham	B8 1AE	Both		Shredder	Container
Blackburn	Blackburn	BB1 3EU	Both		Shear	
Blaydon	Blaydon on Tyne	NE21 5RZ	Both		Shear	Container
Boreham	Chelmsford	CM3 3AW	Both	Feeder		
Bradford	Bradford	BD4 8AE	Both		Shear, baler	
Brentford	Brentford	TW8 9HA	Fe		Shear	
Brentford (Non-Ferrous)	Brentford	TW8 9HF	NFe		Shear	Container
Burnopfield	Newcastle	NE16 6EA	NFe		Granulator	Container
Canning Town	London	E16 4SZ	Both		Shear, baler	Container
Cardiff	Cardiff	CF10 4ED	Both		Shear	Bulk
Chard	Chard	TA20 1BB	Both	Feeder		
Coventry	Coventry	CV6 5DJ	Both		Shear	
Darlaston	Darlaston	WS10 8LW	Both		Shear, baler	Container
Darlington	Darlington	DL1 2PB	Both	Feeder		
Dundee	Dundee	DD3 6QR	Both	Feeder		
East Tilbury	East Tilbury	RM18 8QR	Fe		Shredder	
Eccles	Eccles	M30 0SA	Fe			Bulk
Erith	Erith	DA8 2AD	Both		Shear	
Glasgow	Glasgow	G14 0BX	Both		Shear	Bulk
Gloucester	Gloucester	GL2 5DF	Both		Shear	
Great Yarmouth	Great Yarmouth.	NR30 3LD	Both			Bulk
Hartlepool	Hartlepool	TS25 1NS	Both		Shredder, shear	Container
Hyde	Hyde	SK14 2DX	Both	Feeder		
Kettering	Kettering	NN15 6JR	Both	Feeder		
Kilmarnock	Kilmarnock	KA1 4EU	Both	Feeder		
Kingsbury	Tamworth	B78 2LB	Both		Shear	Container
Leeds Cross Green	Leeds	LS9 0SW	Both		Shredder	Container
Leeds Hunslet	Leeds	LS10 1SP	NFe	Feeder		
Lincoln Beevor Street	Lincoln	LN6 7AD	Both		Shear	
Liverpool	Liverpool	L20 8EW	Both		Shear	
Liverpool Alexandra	Bootle	L20 1BX	Fe		Shredder	Bulk
Manchester Oldham Road	Manchester	M40 2BP	Both		Shear	
Marske	Marske By Sea	TS11 6HB	Both	Feeder		
Middlesbrough	Middlesborough	TS2 1LE	Both	Feeder		
Mitcham	Mitcham	CR4 4HX	Both		Shear	
Newhaven	Newhaven	BN9 0AB	Both		Shredder	Bulk

[44] [✂]

Site name	*City/town*	*Postcode*	*Fe/NFe*	*Feeder only?*	*Processing?*	*Export?*
Newmarket	Newmarket	CB8 7ND	Both		Shear	Container
Northampton	Northampton	NN5 5JR	Both	Feeder		
Norwich Lenwade	Norwich	NR9 5SN	Both		Shear	
Norwich Waterworks Road	Norwich	NR2 4EB	Both	Feeder		
Nottingham	Nottingham	NG7 2SF	Both		Shear	
Oldbury	Oldbury	B69 3EU	Neither	N/A	Waste only	
Plymouth	Plymouth	PL4 0ST	Both		Shear	
Portsmouth	Portsmouth	PO3 5NX	Both		Shredder	Container
Rochdale	Rochdale	OL16 3DD	Both		Baler	
Rochester	Rochester	ME2 4DZ	Both	Feeder		
Salford	Salford	M5 4DY	Both		Shear, baler	Container
Sharpness	Berkeley	GL13 9UX	Both		Shear, baler	Bulk, container
Sheffield Attercliffe	Sheffield	S9 3YD	Both		Shear	Container
Sheffield Hillsborough	Sheffield	S6 1QG	Both	Feeder		
Sheffield Old Lane	Sheffield	S20 3GZ	Both	Feeder		
Shoreham	Shoreham	BN43 6RN	Both		Shear	Bulk
Smethwick	Smethwick	B66 2PG	Both		Shear, baler	
Southampton	Southampton	SO14 5AP	Both		Shear	Bulk
St Helens	St Helens	WA9 4JA	Both	Feeder		
Sunderland	Sunderland	SR4 6TY	Both	Feeder		
Swindon	Swindon	SN2 8DZ	Both		Shear, baler	
Tilbury Dock	Tilbury	RM18 7EH	Fe			Bulk
Tyne Dock	South Shields	NE34 9PL	Fe			Bulk
Wandsworth	Wandsworth	SW8 4TR	Both		Shears	
Willesden	Willesden	NW10 6QY	Fe		Shredder	Container
Wolverhampton (closed)	Wolverhampton	WV2 2HU	Both (closed)	Feeder (closed)		
Worksop	Worksop	S80 3ET	Both	Feeder		

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 C.1.

Figure C.1: **MWR ownership structure (abridged)**[45]

[✂]

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.[46]

6. From the total consideration of £[✂] million, £[✂] was distributed to BCC and the remaining £[✂] was paid to the MWR management.[47]

[45] [✂]
[46] [✂]
[47] [✂]

7. EMR financed the transaction through bank facilities.[48]

Transaction timeline

8. BCC is a global credit specialist. BCC stated that its investment in MWR was part of its regular investment activities.[49] 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 ([✂]% equity) in the same month. Management controlled the remaining [✂]%.[50]

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.[51] 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.[52] 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.[53] 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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[48] [✂]
[49] [✂]. 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.
[50] [✂]
[51] [✂]
[52] [✂]
[53] [✂]

Table C.1: First round bids for CuFe

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

Source: [✂]

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 C.2.

Table C.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	£[✂] 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.

Source: [✂]

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.[54] 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 £10 million benefit per annum. The estimated synergies were:[55]

(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, S Norton, 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.[56] 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

[54] [✂]
[55] [✂]
[56] 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.

would either use the MWR material themselves or sell direct to the end user).[57]

16. EMR also anticipated the following strategic synergies. [58] 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 relocation option for [✂]. This EMR noted would, based on its recent efforts to secure a location within the M25, alleviate a capital outlay of [✂];

(ii) MWR's mothballed [✂] would be well located for the anticipated BT Phase II cable extraction project ([✂]). This EMR believed had the capacity to generate £[✂]of incremental EBITDA per annum (based on prior volumes);[59]

(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.[60]

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: [✂], [✂] and [✂] We look below at these.

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[57] MWR sold material to EMR which was generally exported Deep Sea as MWR did not have direct access to this market.
[58] [✂]
[59] [✂]
[60] [✂]

[✂]

Rationale

19. [✂] told us that superior quality, high grade scrap is critical for their business. This is because [✂] of this steel requires a specific grade of scrap – low residual scrap/ New Production Steel (NPS).

20. [✂] told us that it is very [✂]low residual scrap, so access to competitively priced scrap on the domestic market is important for the company. EMR is the main player in NPS ([✂] believe EMR has a share of [✂]with MWR the next largest player ([✂]).[61] [✂].

Offer and synergy benefits

21. [✂].

22. [✂][62] [✂]:

    (a) [✂][63] [✂].

    (b) [✂]:

        (i) [✂];

        (ii) [✂].

Counterfactual

23. [✂].[64]

24. We know the main rationale for the acquisition for the steel producer was [✂]. This raises the question in relation to whether it would run the remainder of the MWR business (ferrous and non-ferrous) in a similar manner to pre-merger. In our assessment we take into account in particular:

    (a) The price offered was based on an EBITDA for the entire business and not just NPS. Given the amount of NPS both in terms of volume and value that MWR processed in comparison with MWR's total volumes and value and that the non-metal recycler acquired the majority of its NPS from EMR

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[61] [✂].
[62] [✂]
[63] [✂].
[64] [✂]

not MWR it would not make economic sense for it to acquire MWR and not run the non-NPS business as previous. MWR was profitable.

(b) The non-metal recycler has [✂].[65]

[A Metal Recycler]

Rationale

25. [A metal recycler] told us that it has not been successful at winning industrial contracts. It said that breaking into the low residual market is very expensive due to the need to have a site close to the factory, specialised infrastructure and a combination of the price, service level and relationships that it cannot provide. [✂] found that factories did not switch contracts even when the price offered was competitive.[66] Therefore, [✂] believed the best way to expand into either the London region or the low residual market is to purchase an existing scrap metal recycler.[67]

26. A purchase of MWR would have enabled the company to expand in the low residual ferrous market, obtain factory contracts in the Midlands and an enhanced London presence.

27. [This metal recycler] told us that it has been looking for a site in London but were unable to find somewhere of required size that it was able to rent long-term and get relevant planning permissions for. [✂]currently does not have any sites in London.

Offer and synergy benefits

28. [This metal recycler] offered £[✂] in Round one of bidding. It did not get invited to the second round as [✂] and EMR bid higher.

29. The Project Ferrum briefing document[68] sent to [✂] said together [✂] and MWR would:

(a) [✂]; and

(b) [✂]:

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[65] [✂]
[66] [✂]
[67] [✂]
[68] [✂]

(i) [✂];

(ii) [✂];

(iii) [✂];

(iv) [✂];

(v) [✂].

Counterfactual

30. [✂] has a number of sites in the West Midlands, North East England, Wales and the wider London area. The chosen counterfactual cannot raise potential competition issues, and a counterfactual involving the other UK metal recycler [✂]would possibly raise such concerns. Given that there were other bidders that did not raise such concerns whose bids were also in excess of [✂] bid we did not consider it necessary to look in detail at the overlap between the [✂] and the MWR areas of operation and as such have not concluded on whether [✂] would have been able to acquire MWR under the counterfactual.

[✂]

31. [✂] is a global metal recycler primarily engaged in the collection, recycling, disassembling, sorting and processing of mixed metal scrap and other resources to recover reusable resources including ferrous and nonferrous metals, precious metals, plastic, paper and spare parts. The Group currently has a presence in [✂]. It does not have any UK presence. Additionally, [✂] sells high quality metal scraps, scrap PCB boards, and other products to various end users including copper refineries, foundries, smelters, and steel mills, as well as aluminum and copper products to manufacturers worldwide.[69]

32. [✂].

Offer and synergy benefits

33. [✂] offered £[✂] million in Round one. Livingstone's summary of offers[70] states that after further conversations it was clear that [✂] would not be able

[69] [✂]
[70] [✂]

to move from its offer in any material way (possibly because identified synergies were low). It was not invited into Round two.

34. The Project Ferrum briefing document[71] sent to [✂] stated that together [✂] and MWR would:

(a) Create a strategically aligned group with huge growth opportunities in the UK and internationally, and

(b) Immediate identified synergies of £3.8 million comprising:

(i) £0.6 million of cost savings from operational overlap;

(ii) £3.2 million of commercial synergies based on incremental margin through sales to end users rather than traders.

Counterfactual

35. The non-UK metal recycler has operations in Europe, China and the Far East, and North America. It has no UK activities and therefore would likely raise no competition concerns.

Other companies

36. Information packs were sent to [✂] and [✂].

37. [✂].[72] [✂]met with MWR in 2011 and bid for the business. Synergies identified include potential export opportunities to the US or Turkey. No bid was received from [✂].

38. [✂]is a Global recycling company headquartered in [✂]. [✂]. It has a UK operation in [✂]

39. [✂][73] [✂]

[71] [✂]
[72] [✂]
[73] [✂]

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.[74] 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

[74] [✂]

excluded transactions between their own sites and therefore 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.[75] We continued to use the list of main competitors used 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.

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[75] [✂]

(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 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.[76] 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.[77] We continued to use the list of main competitors used 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 D.1.

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,

[76] https://data.gov.uk/dataset/c7c3c433-4656-44e9-9e1c-a4a565bf7b56/waste-data-interrogator-2016
[77] [✂]

and EA values when not available. Table D.1 details the number of competitors for which we used questionnaire responses.

Table D.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	71	21	28	22
West Midlands	229	195	17	54	125
Wales	18	22	7	7	8
North East	13	19	8	6	5
Shredders in the South East, including London	38	7	5	2	0

Source: Number of competitor sites submitted by parties for London/West Midlands: [✂]
Notes:
1. In our calculation of NPS purchases and sales, the CMA identified 187 competitors. We used questionnaire responses for 13, the Parties' estimates for 104, data provided by NPS suppliers for 15, and did not have data for 55.
2. Does not include EMR or MWR sites.
3. "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.)
4. All of the competitor sites submitted by the parties within the North East were within 50m of one of the Parties' sites. The CMA also identified [✂]as a large competitor in the North East, who currently operate 4 sites, and [✂], who currently operate 2 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.[78] 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.[79] 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.[80]

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.[81]

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.

[78] [✂]
[79] 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.
[80] 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.
[81] [✂]

Table D.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%]*
Enablelink	[✂]	[✂]	[5-10%]	[✂]	[✂]	[5-10%]
ELG Haniel Metals Ltd	[✂]	[✂]	[5-10%]	[✂]	[✂]	[5-10%]
Ward Bros Steel Ltd	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Benfleet	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
GES Recycling	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Sims	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Van Dalen	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
B Shakespeare	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Donald Ward	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Ampthill	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
A Goodman	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Charles Muddle	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
H Ripley & Co	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Nationwide	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Sackers	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
S Nortons	[✂]	[✂]	[0-5%]	[✂]	[✂]	[0-5%]
Other sites	65,000	688,793	34%	-	688,793	39%
Total	*7,778,788*	*2,000,000*	*100%*	*250,238*	*1,749,845*	*100%*

Sources: [✂]
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 the CMA 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 D.2, 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.[82] 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 855,000t total

[82] [✂]

exports in 2016 equates to [70-80%] of the total market size. This would result in a total market size of 1,221,400 tonnes, with sale to UK customers totalling 366,328 tonnes[83].

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,[84] 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 D.3 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.

[83] 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.
[84] [✂]

Table D.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%]*
Sims	[✂]	[✂]	[10-20%]
Benfleet	[✂]	[✂]	[0-5%]
Ward Bros Steel Ltd	[✂]	[✂]	[0-5%]
H Ripley & Co	[✂]	[✂]	[0-5%]
Ampthill	[✂]	[✂]	[0-5%]
Charles Muddle	[✂]	[✂]	[0-5%]
S Norton	[✂]	[✂]	[0-5%]
Enablelink	[✂]	[✂]	[0-5%]
Donald Ward	[✂]	[✂]	[0-5%]
B Shakespeare	[✂]	[✂]	[0-5%]
Remet	[✂]	[✂]	-
Alutrade	[✂]	-	-
Other sites	-	199,975	55%
Total	*1,277,301*	*366,328*	*100%*

Source: [✂]
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 366,328MT.
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.

Sales of New Production Steel to UK customers

18. The CMA has collated New Production Steel (NPS) sales volumes for 40 competitors throughout the UK. Because New Production Steel 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 13 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 15 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 1.8m tonnes as the estimate of the total market size.

Table D.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 including export*	*Share of all NPS volumes including self-supply*
EMR	[40-50%]	[✂]	[✂]	[✂]	[✂]	[✂]	[40-50%]	[20-30%]
MWR	[5-10]	[✂]	[✂]	[✂]	[✂]	[✂]	[10-20%]	[10-20%]
Parties Combined	*[50-60%]*	[✂]	[✂]	[✂]	[✂]	[✂]	*[60-70%]*	*[30-40%]*
Enablelink	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
Ward Bros Steel Ltd	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
GES Recycling	[5-10%]	[✂]	[✂]	[✂]	[✂]	[✂]	[5-10%]	[5-10%]
Sims	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[5-10%]	[5-10%]
B Shakespeare	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
S Norton	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[5-10%]	[0-5%]
O Brien	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
Green Earth Recycling	[0-5%]	[✂]	[✂]	[✂]	[✂]	[✂]	[0-5%]	[0-5%]
KA Anderson*	-	-	-	-	[✂]	[✂]	-	[0-5%]
SSUK*	-	-	-	-	[✂]	[✂]	-	[0-5%]
Adams*	-	-	-	-	[✂]	[✂]	-	[0-5%]
One Stop Recycling*	-	-	-	-	[✂]	[✂]	-	[0-5%]
Sheffield Forgemasters	-	-	-	-	[✂]	[✂]	[0-5%]	[0-5%]
Other known volumes (from 27 other competitors)	20%	66,687	0	6,200	0	72,887	3%	2%
Total known volumes	100%	315,442	128,315	715,876	169,809	1,159,633	100%	64%
Parties' estimated total including self-supply						*1,800,000*	-	*100%*

Source: [✂]
*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, [✂] and [✂], 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[85]. 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 [✂][86] - 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 [✂], [✂], [✂], [✂] and [✂], 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.[87]

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[85] [✂]
[86] [✂] does not own a shredder. [✂] has a low-powered shredder which currently mainly shreds aluminium and plastics, and therefore does not pose a strong competitive constraint on the Parties.
[87] This is close to the proportion of purchases made by the Parties across their sites in the region which is shredder feed [50-60]%.

26. These market shares are shown in Table D.5.

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

Site	*Total Purchase volumes*	*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%]	[10-20%]
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%]***	***[60-70%]***	***[60-70%]***
B W Riddle	[✂]	[✂]	[10-20%]			[5-10%]
Sackers Recycling	[✂]	[✂]	[5-10%]	[5-10%]	[5-10%]	[5-10%]
Ampthill Metals	[✂]	[✂]	[5-10%]	[0-5%]	[5-10%]	[0-5%]
Van Dalen	[✂]	[✂]	[0-5%]	[0-5%]	[0-5%]	[0-5%]
Charles Muddle	[✂]	[✂]	[0-5%]	[0-5%]	[0-5%]	[0-5%]
MDJ Light Bros	[✂]	[✂]		[0-5%]	[0-5%]	[0-5%]
H Ripley	[✂]	[✂]		[0-5%]	[0-5%]	[0-5%]
Total	**1,159,774**	**1,011,522**				

Source: [✂] 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 from their questionnaire responses. Shredder feed purchase volumes for the Parties from RFI responses. Shredder feed purchase volumes for [✂]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.
Note: The total purchase volumes and volume of shredder feed purchases for the Parties include inter-depot trade. This is for the market shares to reflect the total quantities of shredder feed processed at the shredder sites.

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 [10-20]%. 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, 4 competitor sites near Nottingham and 2 competitor sites near Birmingham. Our calculations show that the Parties' combined share of all 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 [40-50]%, 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.[88] 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. We calculated market shares based on all scrap metal purchases, as well as non-shredder feed purchase volumes. We focus on this as our main measure, as it better reflects the defined product market. These market shares are shown in Table D.6

[88] [✂]

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

	Number of sites in the London region	*Total Volume Purchased (MTs)*	*Share of Purchases (%)*	*Volumes excluding shredder feed (MTs)*	*Share of non-shredder feed purchases (%)*
EMR	10	[✂]	]30-40%]	[✂]	[30-40%]
MWR	3	[✂]	[5-10%]	[✂]	[5-10%]
Parties Combined	***13***	[✂]	***[40-50%]***	[✂]	***[30-40%]***
Sims	[✂]	[✂]	[0-5]%	[✂]	[5-10%]
S Norton	[✂]	[✂]	[0-5]%	[✂]	[5-10]%
Benfleet	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
London City Metals	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
ASM	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
Total Waste Management	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
LKM Metals	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
The Remet Company	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
BFA Recycling	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
Scrap Co	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
H Ripley & Co	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
Southwark Metals	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
ELG Haniel Metals	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
Nationwide	[✂]	[✂]	[0-5]%	[✂]	[0-5]%
Other sites	46	496,397	19%	358,263	17%
Total	**83**	**2,682,244**	**100%**	**2,077,415**	**100%**

* [✂]
Source: [✂]
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. [✂]
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 primarily due to the inclusion of inter-depot transactions within EMR's purchase volumes, which we have now excluded. Additionally, we have calculated market shares that exclude shredder feed purchased by metal recyclers at shredder sites, and have received additional volumes from two additional metal recyclers (London City Metals and Southwark Metals) as well as an additional site for an existing metal recycler (Sims' dock at Sheerness).

West Midlands

32. At the outset of the Phase 2 investigation, the Parties provided an extended list of 229 competitor sites in the West Midlands.[89] We based our market

[89] [✂]

share calculations on 195 competitor sites that are within 50km of one of the Parties sites.

33. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table D.7.

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

	WM total volumes (MT)	*% share WM volumes*
EMR	[✂]	[30-40%]
MWR	[✂]	[5-10%]
Parties Combined	[✂]	*[30-40%]*
Sims	[✂]	[10-20%]
S Norton	[✂]	[0-5%]
GES Recycling	[✂]	[0-5%]
Enablelink	[✂]	[5-10%]
Ward Recycling	[✂]	[10-20%]
B Shakespeare	[✂]	[0-5%]
A Goodman & Sons	[✂]	[0-5%]
Alutrade**	[✂]	[0-5%]
Richards & Jerrom	[✂]	[0-5%]
Wades of Wednesbury	[✂]	[0-5%]
Whites of Coventry	[✂]	[0-5%]
Beaver Metals (Flexdart)	[✂]	[0-5%]
Other recyclers in WM	327,636	16%
Total	**1,986,417**	**100%**

Source: [✂]
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

34. During the Phase 1 investigation, the Parties submitted a list of 18 main competitor sites in the Wales area.[90] We based our market share calculations on 22 competitor sites that are within 50km of one of the Parties sites.

35. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table D.8.

[90] [✂]

Table D.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%]*
Sims	[✂]	[50-60%]
GD environmental	[✂]	[5-10%]
JC Thomas	[✂]	[5-10%]
Bayliss Metals	[✂]	[0-5%]
ELG Haniel Metals LTD	[✂]	[0-5%]
Other processing sites	23,301	3%
Total	**779,622**	**100%**

Source: [✂]
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.

36. 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 4 competitor sites and 1 EMR site. Based on this approach, the Parties' combined share of purchases within Wales are [30-40%] with an increment of [5-10%].

37. As an additional sensitivity check we included Sims' Skewen 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 [20-30%] with an increment of [0-5%].

North East

38. During the Phase 1 investigation, the Parties submitted a list of 13 main competitor sites in the North East.[91] All 13 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, as well as GES Recycling, who operate 2 sites. Therefore, we assessed the market shares in the North East using 19 competitor sites in total.

39. We obtained purchase volumes from competitors' questionnaire responses where these were available, and used EA data otherwise. These market shares are shown in Table D.9.

[91] [✂]

Table D.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%]*
Ward Bros Steel Ltd	[✂]	[10-20%]
O'Brien	[✂]	[5-10%]
Sims	[✂]	[5-10%]
Jebb Metals	[✂]	[0-5%]
Pout & Foster	[✂]	[0-5%]
J Denham	[✂]	[0-5%]
Other sites	25,335	3%
Total	**861,570**	**100%**

Source: [✂]
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

40. 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%].[92] They argue that, based on this, the CMA would not normally have concerns.

41. 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.[93] In Table D.4 above, we have estimated the Parties' shares of NPS when self-supply is included in the overall size of the market.

Regional purchasing markets

42. The Parties submitted their own estimates of market shares as shown in Table D.10, below.

[92] [✂]
[93] [✂]

Table D.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%	[30-40%] (Shredder feed only)
North East	[50-55%]	[70-75%]	[60-65%]	-	[55-60%]
West Midlands	[30-35]	[40-45%]	[40-45%]	-	[30-40%]
Wales	-	[20-25%]	[10-15%]	-	[20-20%]
Shredders in the South East, including London	-	[55-60%]	[30-35%] (140km) [20-25%] (115km)	-	[60-70%] (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.

43. 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.

44. 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

45. 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.

46. 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

47. The Parties have submitted[94] that that geographic area over which competition takes place for the purchase of shredder feed is wider than

[94] [✂]

115km. Additionally, they note that in our initial assessments, the CMA used total 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

48. With respect to the London area, the Parties submitted that the CMA's market share assessment is likely to overstate the Parties' position[95] because:

    (a) it does not take account of the volumes purchased by the remaining 37 (Greater London) – 92 (wider London)[96] competitor sites identified by the CMA in its initial phase 2 analysis;

    (b) it is unclear whether the CMA's share of supply figures include purchases by Sims;

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

49. 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 three Sims sites (Aldershot, Yateley, and Sheerness).The purchase volumes for Sims were provided directly by Sims to the CMA.

Environment Agency data

50. The Parties have raised several issues with the Environment Agency dataset:

    (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[97] 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

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[95] [✂]
[96] Ie including sites within 50km of Hitchin and Bedford as well as of MWR's sites in Edmonton and Neasden and of EMR's sites that are within 50k of Edmonton and Neasden
[97] [✂]

limited given that we have received data directly from many of the largest 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.

51. We recognise that the EA data has limitations. However, the CMA's analysis at Phase 1, which compared the volumes within the EA dataset 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.

52. 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. This 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 requirements for operating in the sector.

   (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 the establishment of all new sites irrespective of whether the site operator has existing operations in that area or another area of the country. We use the term expansion to cover the broadening of the scope of activities on an exisiting site (eg through the addition of a shear) or the expansion of an existing site by taking on the lease of an adjacent site.

Recent history of entry and expansion and potential entry

Recent history of entry

3. Table E.1 below summarises the number of new sites that have been established over the last five years (based on information submitted to us by EMR).

Table E.1: **Entry by region in the last five years**

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

Source: [✂]

4. Table E.2 below shows the type of activity that is carried out in the 67 new sites set out in Table E.1.

Table E.2: Entry by activity and region in the last five 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**

Source: [✂]
Note: 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.

5. Tables E.1 and E.2 show that:

   (a) 45 of the 67 new sites (65%) were feeder sites where no processing takes place;

   (b) only three of the 67 new sites had shredders installed on them – the new shredder sites were: [✂], [✂], [✂]. There were no new shredders installed in the London area; and

   (c) the remaining new sites (19) had shears installed on them (2 sites also included a baler).[98]

6. In addition to the information provided in Tables E.1 and E.2, EMR told us that in recent years new shredding sites had been set up by several other operators, including [✂], [✂], [✂], [✂], [✂], [✂], and [✂].[99]

7. In addition to the evidence provided by EMR, we understand that 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.[100]

Recent history of expansion

8. Table E.3 below summarises the number of existing sites that have expanded over the last five years (based on information provided by EMR).

[98] [✂] in the Midlands and [✂] in the North East
[99] [✂]
[100] [✂]

Table E.3: Expansion by activity and region in the last five 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**

Source: [✂]

9. Table E.3 shows that:

   (a) most expansion occurred through the addition of a shear, with only two sites [✂] in the South West and[✂] in the Midlands) adding a baler; and

   (b) there was only one instance of the addition of a shredder – this was installed by Singleton in Manchester.

10. In addition to the evidence provided by EMR:

   (a) [✂][101][✂]; and

   (b) [✂] site, in order to process more metal.[102]

New permits or registrations

11. Scrap metal sites are required to obtain either a permit (standardised or bespoke)[103] or a T9 exemption[104] from the Environment Agency.

12. Tables E.4 and E.5 below set out the number of permits and T9 exemptions issued by the Environment Agency over the last three years. As well as demonstrating evidence of entry, the tables are likely to include expansion in terms of new leases on adjacent sites if these require permits/registrations, which we have included in Table E.3 above.

[101] The machine was acquired in 2013.
[102] [✂]
[103] Operations that pose greater environmental risks (eg are next to a sensitive ecological area) require a bespoke permit.
[104] The Environment Agency provides a T9 exemption if the facility poses a low risk to the environment and processes under 1,000 MT at any point in time.

Table E.4: **Environment Agency permits data**

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

Source: [✂]
Note: The 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

Table E.5: New T9 registrations

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

Source: [✂]
Note: The 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

13. Tables E.4 and E.5 shows that:

(a) a larger number of T9 exemptions have been issued than standard/bespoke permits. This indicates that entry has been occurring more in feeder sites than in processing sites (although some smaller sites may have limited processing capabilities). This is in line with the analysis provided by EMR (see Tables E.2 and E.3);

(b) there has been a falling number of new permits issued in London over the last three 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); and

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

Export capabilities

14. In addition to the entry and expansion detailed above, we have also seen evidence of companies developing export capabilities:

(a) In early 2016, J Denham Metals invested in infrastructure and equipment to increase containerised export capacity at the two sites it operates in the North East. The loading capability doubled to 200 containers a week.[105]

(b) In March 2018, GES Recycling, which began operating in the UK in 2014, established two short-sea docks [✂].[106]

(c) TSR recently purchased a dock with a shredder in Dagenham from Van Dalen.[107]

(d) Donald Ward Limited has [✂] a deep sea dock facility at Immingham docks [✂].[108] [✂]

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

Potential future entry and expansion

Existing UK metal recyclers

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

(a) EMR told us that it was expanding sites in [✂]and has plans to open new sites in [✂].[109]

(b) [✂]:

(i) [✂];

(ii) [✂];

(iii) [✂];

(iv) [✂]; and

(v) [✂]. [110]

(c) [✂] had identified a limited number of potential sites, but it was proving to be challenging due to planning, regulatory/licensing issues and

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[105] [✂]
[106] [✂]
[107] [✂]
[108] [✂]
[109] [✂]
[110] [✂]

commercial terms (eg limited lease duration versus investment for compliance infrastructure).[111]

(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 five million tonnes per annum melting capacity in the UK over the next five 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 reaWales, the West Midlands, Yorkshire and Scotland.'[112] [✂].[113]

(e) Ward Brothers told us that it was looking to expand into the West Midlands to compete for factory contracts – it told us that it saw an opportunity in that space now that MWR had been acquired by EMR. Ward Brothers said that out of 15 factory contracts previously held by MWR in the North East, it has taken seven. It is also planning to open a site in the Wolverhampton area in 2019.[114]

(f) LKM Recycling (a medium sized company in Sittingbourne) is looking to expand in Surrey. It told us that there is a possibility to buy a small existing yard there. LKM are also looking at a small yard in London.[115]

(g) We are also aware that Sims has recently purchased Morley Waste Traders Limited, a metal recycler with 10 sites in West Yorkshire and Humberside.[116]

New entrants to the UK

16. The Parties told us that they had seen both [✂] and [✂] participating in recent tenders.[117]

17. [✂] 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.

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[111] [✂]
[112] http://www.libertyhousegroup.com/our-businesses/liberty-recycling/
[113] [✂]
[114] [✂]
[115] [✂]
[116] https://www.gov.uk/cma-cases/sims-group-uk-morley-waste-merger-inquiry
[117] [✂]

18. [✂] told us that it was a new company (it commenced operations in 2014) and therefore, it relied on existing links with international companies that also had operations in the UK (such as [✂] and [✂]) to secure contracts. However [✂]told us that it was positioned to grow local contracts as well and that its plan was to target companies with large volumes, primarily in the automotive sector. [✂] told us that that it was difficult to secure contracts when its competitors were large companies with infrastructure in place and which were already known to the suppliers. [✂] has a port facility in the North East and [✂].[118]

Specialist entrants

19. The Parties told us that over recent years changes in regulation had 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 the new Telford fridge recycling plant set up by white goods retailer, AO.com. Previously all fridges were recycled through the scrap industry.[119] AO.com has acquired Shropshire based The Recycling Group (TRG) to form the UK's largest fridge and electrical waste recycling company. In 2017, the CEO of AO said that the company anticipates recycling more than one fifth of the fridges dispoed of each year in its the first year of operation.[120]

20. The Parties told us that similar developments had 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.[121] In addition, the Parties argued that car breakers may start shredding ELVs themselves rather than using metal recyclers to increase the margins it received on the scrap metal.

21. The Parties also submitted that some general waste companies had 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, which has acquired a waste electricals recycling facility in the UK.[122] A further example is Veoila, which is involved in the recovery of multi fractional, recyclable commodities in the circular

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[118] [✂]
[119] [✂]
[120] See https://resource.co/article/newly-formed-ao-recycling-unveils-game-changing-weee-recycling-plant-11946, [✂]
[121] [✂]
[122] [✂]

economy arising from a variety of sources, including commercial, industrial and municipal contracts. Some of these streams will be recovered metals.[123]

Regulatory requirements

Environmental regulations

22. In England and Wales, scrap metal recyclers are required to obtain a licence from the Environment Agency licence. This is a standardised permit that sets out how to conduct an activity lawfully and without risk of pollution. Operations that pose greater environmental risks (eg they are next to a sensitive ecological area) require a bespoke permit. To obtain such a permit, the party is required to submit a formal application to the Environment Agency (England) or Natural Resources Wales (Wales).[124]

23. Permits are typically granted within three months from application and the cost of the permit starts at £1,630. In addition, there is an annual subsistence fee of £1,850 and if the licence is surrendered, a fee of £3,590 is payable.

24. Scrap yards that pose a lower risk to the environment and process under 1,000 metric tonnes at any one time can apply for an exemption permit (ie a T9 metal recycling exemption). The application is made online and comes into effect automatically and immediately upon submission of the application. 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.[125]

25. Scrap metal recyclers also require a licence from the relevant Local Authority and are required to record the identity of all its suppliers.

26. Mobile collectors do not require a site licence and operate under a scrap metal dealer licence.

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

28. There are additional regulations and permits associated with specialist metal recycling, such as ELV.

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[123] [✂]
[124] Regulations are uniform across England and uniform across Wales. We have not considered the regulations in Scotland or Northern Ireland, as there is no overlap between the Parties in these areas.
[125] [✂]

29. If the requirements of the licence/permit are met, there are no limits to the number of licences that can be issued.

Planning permission

30. A new scrap metal site requires planning permission. An application for a planning permission decision needs to be made to the relevant Local Authority.

31. In assessing an application for planning permission, Local Authorities take into account objections, such as noise and disturbance resulting from use and the use of hazardous materials. These objections may make planning permissions more difficult to obtain, for example, 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..

32. Equipment requiring planning permission includes balers, shears (fixed) and shredders. Granulators and mobile equipment (eg mobule shears) do not tend to require planning permission.

33. Planning permission decisions are typically obtained within eight to 13 weeks.[126]

Setting up a new site

34. In this section, we consider the practicalities of setting up a new site, including:

    (a) the availability of suitable sites;

    (b) set up costs;

    (c) timing; and

    (d) access to port facilities.

Availability of suitable sites

35. The Parties told us that a large number of scrap metal sites are licensed every year (currently 650 permitted sites in England, 1,500 sites operating under a T9 exemption and 1,500 ELV sites).[127]

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[126] https://www.gov.uk/planning-permission-england-wales/after-you-apply
[127] [✂]

36. Third parties told us that they struggle to find suitable large sites, particularly in London, due to:

(a) there being no availability of space to buy or rent in the long-term;

(b) the value of potential residential development pushing up the price of the land; and

(c) the difficulty of obtaining planning permission, in particular for processing and shredder sites, due to associated noise.

37. In relation to the London area:

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

(b) [✂].

38. Third parties told us that setting up a site in other parts of England and Wales was easier than setting up a site in London:

(a) [A metal recycler] told us that expansion into the West Midlands was easier than London, although it was becoming more difficult, as land agents were banking land in expectation of economic growth. [This metal recycler] told us that in the Midlands, planning permission was more of an issue than the availability of land.

(b) [✂] is currently looking at two sites in the West Midlands, one of which is an old foundry that has existing planning permission for use as a scrap metal recycler. Sites that have existing planning permission and are not likely to be developed for housing are available in the Midlands, but not necessarily elsewhere (particularly London).

(c) [✂].

39. 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 sector.[128]

Set up costs

40. The Parties submitted that set up costs were low and equipment was readily available, although the costs depended on the type of operation that was being set up, including its size and complexity. The Parties told u that total costs, excluding the cost of land, ranged from £400,000 for a feeder site to £2 million to £5 million for a shredding site.

41. The Parties submitted that a completely new entrant to the market would typically look to purchase or hire l smaller, lower cost equipment and to build its capability rather than immediately going for larger, more powerful but more expensive options.

42. The Parties told us that established metal recycling companies would be able to acquire, set up and run such equipment without difficulty.

Infrastructure costs

43. Table E.6 below summarises the infrastructure costs of setting up a new site.

[128] [✂]

Table E.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	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]
Note: Concrete and groundworks are linear costs, whereas equipment costs 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 total costs. It is assumed that equipment has some resale value, but concrete and groundworks do not, as they would have to be removed at the end of a lease.

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

Balers

45. The Parties submitted that a new Louritex Baler (400x400mm bale size) would cost £135,000 plus installation costs of around £10,000, while a refurbished Henschel Baler would cost £40,000 plus installation costs of around £10,000.

46. Installation for a baler typically takes around three weeks. All balers require planning permission.[129]

[129] [✂]

Shears

47. The Parties submitted that a used Taurus C662 free standing shear would cost around £275,000 with no significant installation costs, as it is freestanding. The Parties told us that a new Bonfigioli Squalo shear would cost around £422,000 with limited installation costs. Installation time would typically be less than one week.

48. 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 to 30 metric tonnes per hour. The installation cost would be approximately £100,000.

49. All shears that are fixed to the ground will require the same planning permission as balers, although there are mobile versions that can be pulled by an articulated vehicle and do not require planning permission.

50. EMR told us that it was planning to install a shear in [✂].[130]

51. EMR told us that it was also planning to install a [✂]. The total expected cost is £[✂].

52. Third parties told us the following:

    (a) [A metal recycler] [✂] told us that shears cost between £600,000 and £2 million. It also confirmed that a shear or a shredder could be located anywhere with a licence.

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

Shredders

53. The Parties submitted that shredders could vary in size and therefore cost.

54. They submitted that an entry level refurbished shredder that would shred 20 to 25 tonnes per hour (eg a Zato Car Shredder) could be purchased from £200,000 plus installation costs of around £35,000. In comparison, a new Bonfiglioli car shredder would cost £1.3 million (including installation) and would shred 18 to 22 tonnes per hour.

55. 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

[130] [✂]

give production of around 145 tonnes to 195 tonnes per hour. Installation costs would be around £1.6 million to £2 million.

56. Installation is performed by the manufacturers and can take from three to eight weeks.

57. The Parties told us that mobile shredders were also available and could 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, used mobile shredders.[131]

Granulators (Copper)

58. 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.

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

Trommel

60. EMR told us that the pricing of trommels[132] varied widely and depended on many factors, including size/capacity; age and condition; whether the trommel was mobile or static; and whether it was standalone or included loading and/or discharge conveyors. A small static trommel could be purchased second hand from £5,000 with the larger, mobile and brand new trommels available for £200,000.[133]

61. 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.

[131] [✂]
[132] A trommel is a machine that separates scrap metal from dirt.
[133] [✂]

Container tilt

62. 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 from £45,000 to £70,000 new. Container tilters are also available second hand and prices vary depending on specification and condition.[134]

63. [A metal recycler] [✂] told us that from its experience, a container tilter costs between £[✂] and [✂] new or [✂] second hand.[135]

Timing

64. The Parties told us that the licensing and set up time for a new greenfield site ranged from:

    (a) around two months for an entry level site; to

    (b) six to 12 months for a mid-range site; to

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

65. Alternatively, the Parties submitted that entry by way of acquiring an existing site could be achieved sooner by transferring an existing permit to the new operator.[136]

66. [A metal recycler] told us that securing a new site with a shredder installed (including permissions) would take three 3 years, optimistically, but the process would be quicker for a feeder site [✂].[137]

67. Table E.7 below summarises our understanding of the timing and costs of setting up a new site.

[134] [✂]
[135] [✂]
[136] [✂]
[137] [✂]

Table E.7: New site set up costs and timing

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	18months – 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

68. The expected payback period for the setup costs of a new site appears to vary between scrap metal recyclers.

69. S Norton told us that it took a long term view on investment in the sites and would expect a seven to ten year payback.[138]

70. EMR told us that it typically expected an investment into feeder and processing yards to pay back within two to three years and investments in shredding sites within three to five years. EMR also said that each investment proposal was assessed on its own merits and the payback period would 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 set up the site (ie whether the site required a new concrete base, whether existing buildings and utility supplies were fit for purpose, site security requirements, etc.);

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

    (c) the forecast tonnage for the site; and

[138] [✂]

(d) the proportion of ferrous to non-ferrous material expected.[139]

Access to export facilities

71. 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.

72. We set out below the evidence we have on whether access to port facilities is a barrier to entry.

73. [A metal recycler] told us that all docks were either owned or rented by a metal recycler (ie there were no spare docks).

74. However, we understand that GES Recycling has only been operating in the UK since 2014 and has established two short-sea docks in the North East and [✂] Further, the dock with a shredder in Dagenham was recently purchased by TSR from Van Dalen, indicating that there is movement in the market.

75. [✂] told us that it was renting a space at Sunderland port. It also said that it was 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.[140]

76. [A metal recycler] told us that there were only two or three other players who exported similar quantities and to similar distances to them.

77. [A metal recycler] said that only two or three players were deep sea exporters (ie to Turkey, India and Pakistan). [✂] submitted that its deep-sea exports from London had always been via EMR, and that EMR had a 97-99% share of the UK deep-sea export market (with [✂] accounting for the other 1-3%).[141]

78. 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.[142]

79. Ampthill Metals (a smaller player with 2 sites) told us that it did not bid for some contracts if the volumes were low, as it could not secure sufficient

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[139] [✂]
[140] [✂]
[141] [✂]
[142] [✂]

volumes to ship to Turkey or Spain. It said that shipping to South East Asia was easier, as there were containers that were returning from the UK and were discounted for the return journey.[143] Deep sea dock availability may be more limited, but a number of companies operate without deep sea dock facilities. Recyclers can gain access to the container market via traders once a container tilt has been installed on the site. These are inexpensive at £65,000 to £85,000 (or half of this second hand).[144]

80. 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.

[143] [✂]
[144] [✂]

Appendix F: Tables used in London chapter

1. Table F.1 below lists the main Parties' shears in the London region, including their models and nominal maximum throughput of scrap metal.

Table F.1: Main Parties' shears in the London region

Main Party	*Site*	*Shear*	*Nominal maximum throughput – tonnes per hour*
MWR	Edmonton	Leimbach HS 1,300-tonne	Not supplied
EMR	Bedford	Leimbach 960-tonne	26
EMR	Boreham	Lefort 850-tonne	20
EMR	Brentford Non-Ferrous	Lefort 600-tonne	5
EMR	Brentford Ferrous	Lefort 1,000-tonne	26
EMR	Canning Town	Harris 2,000-tonne Lefort 915-tonne	32 24
EMR	Erith	Leimbach 1,300-tonne	35
EMR	Mitcham	Lefort 1,000-tonne Lefort 1,250-tonne	26 34
EMR	Wandsworth	Vezzani 1,200-tonne	26

Source: [✂]

2. Table F.2 lists competitors' shears in the London region. This includes the source of information for each competitors' site, EMRs' submission and the estimated nominal throughput.

Table F.2: Competitors' shears in the London region

Metal recycler	*Site*	*Competitor response or publicly-available source*	*Submission from EMR*	*Estimated nominal throughput – tonnes per hour (based on Parties' submissions)*
Sims	Yateley	[✂]	[✂]	[✂]
Sims	Aldershot	[✂]	[✂]	[✂]
Sims	Sheerness	[✂]	[✂]	[✂]
S Norton	Barking	[✂]	[✂]	[✂]
Benfleet	Thundersley, Benfleet	[✂]	[✂]	[✂]
Benfleet	Basildon	[✂]	[✂]	[✂]
Benfleet	Thurrock	[✂]	[✂]	[✂]
London City Metals	Silvertown	[✂]	[✂]	[✂]
ASM	Aylesbury	[✂]	[✂]	[✂]
ASM	Kings Langley	[✂]	[✂]	[✂]
Total Waste Management	Basildon	[✂]	[✂]	[✂]
LKM	Sittingbourne	[✂]	[✂]	[✂]
BFA	Uxbridge	[✂]	[✂]	[✂]
Scrap Co	Erith	[✂]	[✂]	[✂]
Scrap Co	Paddock Wood	[✂]	[✂]	[✂]

Sources: [✂], [✂], publicly-available sources.
Notes:
1.The estimated nominal throughput numbers are based on EMR's estimates in relation to its own shears, as set out in Table F.1, above, as well as capacity estimates that the Parties submitted in response to our AIS and working papers (Annex 10).
2. As set out in Chapter 9, we take account of the views of a number of third parties that have raised the issue of shear capacity among competitors, particularly the fact that some metal recyclers operate mobile shears which are likely to have lower capacity than static shears of equivalent cutting force (in terms of tonnes). This is noted above, where we have that information.

3. Table F.3 lists the main competitor sites located within 50km of MWR's London Sites, split into 0-30km and 30-50km distances.

Table F.3: Main competitor sites located within 50km of MWR sites

Site	*<30KM*	*30KM - 50KM*
MWR Edmonton	The Remet Company (1)	Benfleet (3)
	London City Metals (1)	Total Waste Management (1)
	S Norton (1)	LKM Metals (1)
	Total Waste Management (1)	**EMR Tilbury Dock**
	BFA Recycling (1)	**EMR East Tilbury**
	EMR Canning Town	**EMR Boreham**
	EMR Willesden	**EMR Rochester**
	EMR Wandsworth	
	EMR Erith	
	EMR Brentford	
	EMR Mitcham	
MWR Neasden	BFA Recycling (1)	Total Waste Management (1)
	The Remet Company (1)	Benfleet (1)
	London City Metals (1)	Sims (2)
	S Norton (1)	**EMR Erith**
	EMR Willesden	**EMR Tilbury Dock**
	EMR Brentford	**EMR East Tilbury**
	EMR Wandsworth	
	EMR Canning Town	
	EMR Mitcham	

Notes:
1. This includes competitors with total purchase volumes of non-shredder feed of 60,000MT or greater (above 2% of the share of the non-shredder feed London market), as well as the Parties' sites.
2. Distances are straight-line distances.

4. Table F.4 lists the main competitor sites located with 50km of EMR's London sites, split into 0-30km and 30-50km distances.

Table F.4: Main competitor sites located within 50km of EMR sites

Site	*<30KM*	*30KM - 50KM*
EMR Boreham		Benfleet (1)
		Sims (1)
		LKM Metals (2)
	Total Waste Management (2)	S Nortons (1)
	Benfleet (2)	London City Metals (1)
		The Remet Company (1)
		MWR Edmonton
EMR Brentford	BFA Recycling (1)	S Nortons (1)
	The Remet Company (1)	Sims (2)
	London City Metals (1)	Total Waste Management (1)
	MWR Neasden	Benfleet (1)
	MWR Edmonton	
EMR Canning Town	The Remet Company (1)	
	London City Metals (1)	BFA Recycling (1)
	S Norton (1)	Benfleet (2)
	Benfleet (1)	Total Waste Management (1)
	Total Waste Management (1)	LKM Metals (1)
	MWR Edmonton	
	MWR Neasden	
EMR East Tilbury	Benfleet (3)	
	LKM Metals (1)	
	Total Waste Management (1)	Total Waste Management (1)
	S Norton (1)	**MWR Edmonton**
	Sims (1)	**MWR Neasden**
	London City Metals (2)	
	The Remet Company (1)	
EMR Erith	S Nortons (1)	
	London City Metals (1)	Sims (1)
	The Remet Company (1)	LKM Metals (1)
	Benfleet (3)	BFA Recycling (1)
	Total Waste Management (2)	**MWR Neasden**
	LKM Metals (1)	
	MWR Edmonton	
EMR Mitcham	The Remet Company (1)	
	London City Metals (1)	Benfleet (1)
	S Nortons (1)	Total Waste Management (1)
	BFA Recycling (1)	Sims (2)
	MWR Edmonton	LKM Metals (1)
	MWR Neasden	
EMR Rochester	LKM Metals (2)	S Nortons (1)
	Benfleet (3)	London City Metals (1)
	Sims (1)	The Remet Company (1)
	Total Waste Management (1)	Total Waste Management (1)
		MWR Edmonton
EMR Tilbury Dock	Benfleet (3)	
	LKM Metals (1)	LKM Metals (1)
	S Nortons (1)	Total Waste Management (1)
	Total Waste Management (1)	**MWR Edmonton**
	London City Metals (1)	**MWR Neasden**
	The Remet Company (1)	
	Sims (1)	
EMR Wandsworth	The Remet Company (1)	
	London City Metals (1)	Benfleet (2)
	S Nortons (1)	Total Waste Management (2)
	BFA Recycling (1)	Sims (1)
	MWR Edmonton	LKM Metals (1)
	MWR Neasden	
EMR Willesden	The Remet Company (1)	
	BFA Recycling (1)	Total Waste Management (1)
	London City Metals (1)	Benfleet (1)
	S Nortons (1)	Sims (2)
	MWR Edmonton	
	MWR Neasden	

Notes:
1. This includes competitors with total purchase volumes of non-shredder feed of 60,000MT or greater (above 2% of the share of the non-shredder feed London market), as well as the Parties' sites.
2. Distances are straight-line distances.

Appendix G: Market definition – additional tables

1. This appendix sets out summary tables based on the Parties' transaction data, which relates to:

   (a) The types of suppliers that the Parties purchase from at their sites in London and the West Midlands; and

   (b) The size of the catchment areas from which the Parties' purchase scrap metal from their suppliers at their sites.

Supplier types

2. Tables G.1 to G.4. below, present a breakdown of the Parties' suppliers in the London and West Midlands regions since a number of features of the Parties' distribution of suppliers may be of relevance to our assessment of the relevant product markets.

Table G.1: EMR suppliers in London, by type and ferrous/non-ferrous split, 2017

	Ferrous			*Non-Ferrous*		
Supplier type	*No. of suppliers*	*% of volumes*	*% of value*	*No. of suppliers*	*% of volumes*	*% of value*
Car breakers	[✂]	[5-10%]	[✂]	[✂]	[0-5%]	[✂]
Demolition	[✂]	[20-30%]	[✂]	[✂]	[5-10%]	[✂]
Door Trade	[✂]	[10-20%]	[✂]	[✂]	[30-40%]	[✂]
Industrial	[✂]	[5-10%]	[✂]	[✂]	[10-20%]	[✂]
Metal recycling	[✂]	[30-40%]	[✂]	[✂]	[20-30%]	[✂]
Other	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
Waste recycling	[✂]	[10-20%]	[✂]	[✂]	[10-20%]	[✂]
	[✂]					[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

Table G.2: EMR suppliers in W Midlands, by type and ferrous/non-ferrous split, 2017

	Ferrous			*Non-Ferrous*		
Supplier type	*No. of suppliers*	*% of volumes*	*% of value*	*No. of suppliers*	*% of volumes*	*% of value*
Car breakers	[✂]	[10-20%]	[✂]	[✂]	[0-5%]	[✂]
Demolition	[✂]	[5-10%]	[✂]	[✂]	[0-5%]	[✂]
Door Trade	[✂]	[10-20%]	[✂]	[✂]	[20-30%]	[✂]
Industrial	[✂]	[30-40%]	[✂]	[✂]	[40-50%]	[✂]
Metal recycling	[✂]	[20-30%]	[✂]	[✂]	[20-30%]	[✂]
Other	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
Waste recycling	[✂]	[5-10%]	[✂]	[✂]	[0-5%]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

3. In brief, this breakdown shows that for EMR:

   (a) [✂];

(b) [✂]; and

(c) [✂].

Table G.3: MWR suppliers in London, by type and ferrous/non-ferrous split, Jan-Aug 2017

	Ferrous			*Non-Ferrous*		
Supplier type	*No. of suppliers*	*% of volumes*	*% of value*	*No. of suppliers*	*% of volumes*	*% of value*
Factory	[✂]	[5-10%]	[✂]	[✂]	[5-10%]	[✂]
Merchants	[✂]	[80-90%]	[✂]	[✂]	[70-80%]	[✂]
Other	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
Waste	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
Weighbridge	[✂]	[5-10%]	[✂]	[✂]	[10-20%]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

Table G.4: MWR suppliers in the West Midlands, by type and ferrous/non-ferrous split, Jan-Aug 2017

	Ferrous			*Non-Ferrous*		
Supplier type	*No. of suppliers*	*% of volumes*	*% of value*	*No. of suppliers*	*% of volumes*	*% of value*
Factory	[✂]	[60-70%]	[✂]	[✂]	[50-60%]	[✂]
Merchants	[✂]	[30-40%]	[✂]	[✂]	[30-40%]	[✂]
Other	[✂]	[0-5%]	[✂]	[✂]	[5-10%]	[✂]
Waste	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
Weighbridge	[✂]	[0-5%]	[✂]	[✂]	[0-5%]	[✂]
	[✂]		[✂]	[✂]		[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

4. Although MWR's supplier classification is different,[145] for its London sites we see that [✂] are the main source of purchases, while for its West Midlands sites [✂] account for the majority of MWR's purchases, with [✂] making up most of the rest.

Supplier catchment areas

5. As set out in chapter 6, both the Parties and the CMA have calculated the catchment areas that capture the extent of the area over which suppliers to the Parties' sites are located. Table G.5, below, presents the Parties' analysis of their sites' catchment areas in the overlap regions – London, the South East, the West Midlands, the North East and in Wales.

[145] Note that MWR used different supplier classifications to EMR pre-merger. In our commentary, above, we have note the closest approximation, eg, 'merchants' and 'metal recyclers' are likely to cover the same types of suppliers.

Table G.5: 80%-volume catchment areas for the Parties' sites by supplier type (km)

	All suppliers	*Car-breakers*	*Demolition*	*Door Trade*	*Industrial*	*Metal Recycling*	*Waste Recycling*	*Other*
EMR sites	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MWR sites	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

6. This analysis shows that:

(c) There is a greater degree of variation across supplier types for MWR sites compared to EMR sites, where four of the seven categories have an 80% catchment area that is within 5 km of the overall average;

(d) MWR sites have, on average, wider catchment areas than EMR sites for most types of suppliers (with the exception of 'Waste Recycling' and 'Other'), which is consistent with EMR's larger site network; and

(e) The overall pattern of distances travelled are not systematically and substantially different between different supplier types. For example:

(i) For industrial suppliers, these tend to display somewhat wider catchment areas than the overall catchment areas for both Parties;

(ii) However, looking at metal recyclers, among EMR suppliers these tend to display slightly narrower catchment areas than other supplier types, while the opposite is the case for MWR's metal recycler suppliers, as they tend to have wider catchment areas than other supplier types;

(iii) For demolition suppliers, these display slightly wider catchment areas than the average EMR supplier, but among MWR suppliers, their catchment areas are slightly narrower.

7. Table G.6 sets out the 80%-volume catchment areas for suppliers of different sizes for the Parties' London, South East and West Midlands sites.

Table G.6: Catchment areas for Parties' sites in London, the South East and West Midlands, all metals, January to August 2017 (km)

Parties' sites	*<1 MT*	*1-5 MTs*	*5-50 MTs*	*50-100 MTs*	*100-500 MTs*	*500-1,000 MTs*	*>1,000 MTs*
EMR sites							
London and South East							
Boreham	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Brentford	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Canning Town	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
East Tilbury	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Erith	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Mitcham	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Rochester	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Tilbury Dock	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Wandsworth	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Willesden	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
West Midlands							
Birmingham	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Coventry	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Darlaston	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Kingsbury	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Smethwick	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
MWR sites							
London and South East							
Edmonton	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Neasden	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Hitchin	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
West Midlands							
Cradley	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Hockley	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Telford	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]

8. This analysis indicates that, in general, suppliers with low overall volumes are likely to be located closer to the Parties' sites, but the pattern is only clear for the smallest suppliers, with those supplying under 5 tonnes per year tending to have smaller catchment areas.

Appendix H: MWR's purchases of NPS and from suppliers that tender contracts

1. Table H.1 below shows the proportion of EMR's and MWR's purchases of scrap metal from tendered contracts that represented NPS prior to the Transaction.

Table H.1: Tendered NPS as a proportion of all tendered purchases, 2015 – Aug 2017

	EMR		*MWR*	
Region	*NPS bought via tender (MT)*	*% of volumes from tendering suppliers that was NPS*	*NPS bought via tender (MT)*	*% of volumes from tendering suppliers that was NPS*
WM	[✂]	[✂]	[✂]	[✂]
NE	[✂]	[✂]	[✂]	[✂]
Wales	[✂]	[✂]	[✂]	[✂]
UK	[✂]	[✂]	[✂]	[✂]

Source: [✂]
Note: We were unable to determine from the Parties' supplier transaction data the proportion of EMR's and MWR's purchases of scrap metal that came from tendered contracts. Therefore, for the purpose of this analysis, we assumed that all purchasers came from tendered contracts.

2. Table H.2 below shows the proportion of EMR's and MWR's purchases of NPS that was purchased from tendered contracts prior to the Transaction.

Table H.2: Tendered NPS as a proportion of all NPS purchasers, 2015 - Aug 2017

	EMR		*MWR*	
Region	*NPS bought from suppliers that tender (MT)*	*% of total NPS purchases*	*NPS bought from suppliers that tender (MT)*	*% of total NPS purchases*
WM	[✂]	[✂]	[✂]	[✂]
NE	[✂]	[✂]	[✂]	[✂]
Wales	[✂]	[✂]	[✂]	[✂]
UK	[✂]	[✂]	[✂]	[✂]

Source: [✂]
Note: We were unable to determine from the Parties' supplier transaction data the proportion of EMR's and MWR's purchases of scrap metal that came from tendered contracts. Therefore, for the purpose of this analysis, we assumed that all purchasers came from tendered contracts.

3. Table H.3 below shows the relative importance for each of MWR's sites of the purchasing of NPS and the purchasing of NPS from tendered contracts, and the relative importance of each site to MWR's overall purchasing of NPS and the purchasing of NPS from tendered contracts.

Table H.3: MWR's sites

MWR's sites	*Total volume (MT)*	*Proportion that is NPS*	*Proportion that is from suppliers that tender*	*Proportion of NPS that comes from this site*	*Proportion of tendering suppliers' volumes that come from this site*
Cradley	[✂]	[✂]	[✂]	[✂]	[✂]
Edmonton	[✂]	[✂]	[✂]	[✂]	[✂]
Hitchin	[✂]	[✂]	[✂]	[✂]	[✂]
Hockley	[✂]	[✂]	[✂]	[✂]	[✂]
Neasden	[✂]	[✂]	[✂]	[✂]	[✂]
Newport	[✂]	[✂]	[✂]	[✂]	[✂]
Seaham	[✂]	[✂]	[✂]	[✂]	[✂]
Telford	[✂]	[✂]	[✂]	[✂]	[✂]

Source: [✂]
Total volume of NPS across all sites is [✂]. Total volume of tendered volumes across all sites is [✂]

4. Table H.4 below shows the proportion of MWR's NPS sales to all UK customers (including UK traders and other UK metal recyclers) that were made from each site prior to the Transaction (from January 2017 to August 2017).

Table H.4: Proportion of MWR NPS sales to all UK customers (2017, pre-merger)

Location	*%*
London	[✂]
West Midlands	[✂]
Cradley	[✂]
Hockley	[✂]
Telford	[✂]
Wales	[✂]
North East	[✂]
Total	[✂]

Source: [✂]

Appendix I: Supplier survey

Introduction

1. The CMA commissioned a survey of suppliers of waste metal to the Parties' sites in London, the South East and West Midlands. The survey was based on supplier contact details provided by the Parties. Fieldwork for the survey was carried out between 9th March and 3rd April 2018 by the market research agency DJS Research Ltd (DJS). The CMA has published DJS's report of the survey[146] which includes a description of the methodology, the questionnaire and main findings.

2. This appendix adds some more detail to the description of the survey method and our interpretation of results. It also presents some further analysis of results, conducted by the CMA, in tables from which numbers are used in the main body of the report.

Construction of the sample frame

3. Our population of interest was anyone, business or individual, who had since 1 January 2017 supplied more than £100 pounds' worth or more than 10 tonnes of waste metal to one of the EMR or MWR sites in the West Midlands, London or South East. The sampling frame was constructed as follows:

   (a) EMR provided the CMA with data detailing every transaction since 1 Jan 2017 at each of its 16 West Midlands, London or South East sites.

   (b) MWR provided the CMA with data detailing transactions since 1 Jan 2017 at each of its 6 West Midlands, London or South East sites.

   (c) The survey did not aim to collect information about the very smallest suppliers, so suppliers who supplied £100 pounds' worth or less and 10 tonnes or less of metal were removed.

   (d) The two largest suppliers for each site were also removed (the CMA collected information from these suppliers directly).

   (e) All suppliers for which the Party had not provided a telephone number were removed. This was about 70% of suppliers in total.

   (f) The remaining suppliers formed the basis of the sampling frame. This was indexed by a supplier ID, with variables for the volume of metal recycled,

[146] https://assets.publishing.service.gov.uk/media/5b1537a240f0b634a8cf7f68/Survey_report.pdf

whether it was ferrous or non-ferrous, the prices received and, for the EMR sites, whether the metal had been collected or delivered.

4. The resulting sample frame did not cover the very largest and smallest suppliers. Evidence about the largest suppliers was gathered through other methods, and very small suppliers amount, in total, to only a very small proportion of the merger Parties' businesses.

5. The proportion of suppliers for which the Parties supplied telephone contact numbers was low (30%). This was not random and will have introduced some bias; we know, for example, that the sampling frame under-represented the door trade. It also had an impact on the number of completed interviews, which was lower than originally expected and limited the analysis we were able to do.

6. The number of large suppliers removed from the survey because they were being contacted directly was small. But their average spend since 1 Jan 2017 was £830,000 (compared to an average of all recyclers for whom telephone numbers were available of only £27,000) and in terms of spend they made up 10% of the market. The CMA has taken this into account when evaluating the survey evidence.

Choice of 'focal site'

7. After excluding the two largest suppliers at each site, the CMA passed to DJS details for each supplier for whom telephone details were available. It was necessary to assign each supplier to a 'focal site'. If a supplier had used EMR, but not MWR, in 2017, it was assigned to the EMR site to which it had provided most metal. Similarly, if a supplier had used MWR, but not EMR, in 2017, it was assigned to the MWR site to which it had provided most metal. Where a supplier had used both EMR and MWR sites, it was assigned to EMR or MWR at random with an equal probability of being assigned to either Party. The result of this process of de-duplication is that the resulting sample of customers for each of the Parties under-represented suppliers who also supplied the other merger Party.

Assessing the level of competition

8. A copy of the questionnaire may be found in the DJS report. Respondents were asked diversion questions[147] asking for their next best alternatives if the Party's sites had been closed down and an unprompted question[148] on what other recyclers they could have used.

9. In addition to the diversion questions and the unprompted question on what other recyclers the respondent could have used, respondents were also asked a prompted question about five competitors at each site. A list of the top 6 competitors at each site was constructed. If the respondent had already mentioned a competitor as one it would divert to or one it could use then the competitor was regarded as a viable alternative. If it had not been mentioned then the respondent was asked about it directly in a prompted question.[149] A combination of the diversion questions, the unprompted 'could use' question and the prompted question enabled the CMA to assess whether the 'top 6' competitors at each site were regarded as 'viable alternatives' by the respondent.[150]

10. The Parties were asked to comment on a draft version of the questionnaire, and provide a list of the top 6 competitors at each of the survey sites. EMR said that listing the top 6 competitors artificially restricts the competitor set and that different supplier groups will have different top 6s.[151] They said that it was not possible to produce a single list as, for example, a list for those suppliers who delivered their metal would be different from a list for those who had it collected, and lists for suppliers of ferrous and non-ferrous metals would differ. There was therefore a risk of missing important competitors.

11. The CMA understands this risk and was careful, when analysing survey results, to focus on the unprompted questions mentioned above when identifying potential competitors. However, the prompted questions were useful in providing additional evidence, albeit for the restricted subset of competitors about which the respondents were asked.

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[147] Questions 21 and 22b in the survey questionnaire: Q21: "And, again, thinking about the last occasion, what would you have done if ALL EMR/MWR sites had closed down?"; Q22b: "And which site or recycler would you have used?"
[148] Question 23a in the survey questionnaire: "Are there any other waste metal recyclers or sites you could have used?"
[149] Question 23b in the survey questionnaire: "Several other competitors work in this area. Could you have used <competitor> instead?"
[150] The intention was to be able to assess whether each of the 'top 6' competitors and the merger Party were viable alternatives. Due to a change in the questionnaire during fieldwork and routing issues caused by that the relevant questions were not asked about the merger Party to all respondents.
[151] [✂]

Sample response

12. The resulting sampling frame comprised a list of 10,926 suppliers, all of which were issued by DJS. By the end of fieldwork, 800 interviews were completed. An analysis of the interview status at the end of fieldwork for all suppliers on the list is as follows:

Table I.1: Breakdown of sample outcomes

	Number
Total sample available	10,926
Of which:	
Unused due to quotas full (EMR at Bedford, Coventry and Kingsbury)	3,651
Total sample issued	7,275
Of which:	
Unusable sample (eg number unobtainable)	2,362
Sample still 'live' at close of fieldwork	1,427
Refusal	2,686
Completed interviews	800

Source: CMA analysis

13. The refusal rate is 77%.[152] This is a reasonable refusal rate for this type of survey. The number of cases regarded as unusable and the number still live at the end of fieldwork are both quite high, giving rise to some potential for a small bias towards those that were easier to contact.

14. EMR, in its response to Preliminary Findings, said that 1,716 non-shredder suppliers in London refused to respond and that, of these, *"998 were sufficiently unconcerned [about the impact of the merger] to not have time to respond"*. We do not regard this interpretation to be valid as the supplier was not told that the survey was about the merger when asked to participate.

15. As described above, the Parties provided telephone numbers for about 30% of their suppliers in the surveyed focal sites. This was less than we had anticipated and meant that the number of completed interviews for most sites fell well short of the target of 120.[153] The responses from suppliers of waste metal to EMR's Bedford site were not analysed as the site is outside the London MWR sites' catchment areas for non-shredder waste metal. Further, the CMA only analysed the results for suppliers of waste metal to the Hitchin site for whom the nature of the metal being supplied suggested that it was likely to be shredded; there were 20 of these.

16. The resultant number of completed interviews was: 209 for suppliers of waste metal to EMR London sites, 313 for EMR West Midlands, 28 for MWR London

[152] The refusal rate is the number of refusals as a percentage of those spoken to ('Refused' plus 'completed interviews' from the table above: 2686/[2686+800]).
[153] See Table 1 of the DJS report.

sites, 22 for MWR West Midland sites, and 108 for the MWR site at Hitchin of which 20 supplied material needing shredding. These figures are based on aggregation across regions and do not take account, through weighting, of the relative sizes of each of the sites, either in terms of the number of suppliers or the total volume or value of metal at each site.

17. Respondents to the survey varied widely in the volume and value of metal they supplied.[154] No attempt was made in the sampling to over-sample larger suppliers; each supplier on the sample frame was equally likely to be chosen.[155] And in the analysis no weighting was used to give more influence to the large suppliers. In this sense, the results of the survey may be seen to be dominated by small suppliers who account for only a small proportion of the Parties' businesses, and survey results have been interpreted accordingly.

18. The CMA has taken account of sample sizes and the characteristics of the achieved sample in its analysis and interpretation of the survey dataset. Where sample sizes are below 100, we have taken a view in line with our usual practice[156] that population inference is too imprecise to be robust and have presented results in actual numbers (eg 34 of the 63 respondents …) rather than percentages (45% of suppliers …) to reflect this. Small sample sizes have also limited the extent to which we have reported results for sub-populations of suppliers (eg for suppliers to particular sites or of a particular size or type).

19. The analysis of the suite of diversion questions shows that about two-thirds of suppliers who stated they would divert to a third party were unable to name the party they would divert to. This is not as informative as in surveys where a higher proportion of respondents are aware of their alternatives. However, the proportion of EMR suppliers who stated that they would divert to MWR as the next best alternative was close to zero in both London and the West Midlands; and many third parties also had extremely low diversion proportions. When sample proportions are this low, providing there is reasonable coverage, population inference tends to be fairly robust even if we do not have the degree of representativeness or sample sizes that are usually required.

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[154] See Figures 3 and 4 of the DJS survey report.
[155] Nevertheless, large suppliers were over-represented in the responding sample. 68 out of 237 London respondents (29%) and 43 out of 335 West Midlands respondents (13%) were in the top decile of the Parties' suppliers. This is mainly due to the high proportion of small suppliers being excluded from the sample frame due to the lack of a phone number (paragraph 3(e)).
[156] See "Good practice in the design and presentation of survey evidence in merger cases", CMA May 2018.

CMA analysis

20. The CMA has done some analysis of the survey data to investigate the competition provided by competitors to the Parties. In Tables 2 to 12 below we present four measures:

    (a) Who respondents have sold waste metal to since the start of 2017.[157]

    (b) An analysis of next best alternatives based on responses to the suite of diversion questions.[158]

    (c) An assessment of whether the respondent has named the competitor as one they could use. For this purpose, a competitor is regarded as one a respondent could use if it has been mentioned either in response to a diversion question[159] or to the unprompted question about who else the respondent could have used.[160]

    (d) An assessment of which recyclers the respondent regarded as a viable alternative from a list of named competitors.[161] Where the recycler was not regarded as a viable alternative the respondent was asked for reasons why.[162]

21. Measures (a) and (b) are reported in the DJS report.[163] The analysis presented in this appendix is more detailed than that presented in the DJS report. The results shown here also differ slightly from those in the DJS report.

22. There are several reasons for this discrepancy.

    (a) First, in our analysis of diversion behaviour, we have assigned weights to multi-responses in such a way that each respondent retains an equal influence on the results. For example, a supplier may have mentioned Sims and Southwark as two recyclers to which they could have diverted. The DJS report would have regarded them as mentioning two third-

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[157] This analysis is based on responses to question S01 of the survey questionnaire: "Since the start of 2017, who have you sold metal to?
[158] This analysis is based on responses to questions 19, 20b, 21 and 22b of the survey questionnaire. Q19: "The last time you used the EMR/MWR site to recycle metal. If the EMR/MWR site had closed down, what would you have done instead?". Q20b: "And which site(s) or recycler(s) would you have used?". See footnote 2 for Q21 and Q22b.
[159] Either question 20b or question 22b of the survey questionnaire.
[160] Question 23a of the survey questionnaire.
[161] A recycler is regarded as a viable alternative if the respondent mentioned it in Questions 20b, 22b or 23a of the survey questionnaire or answered 'Yes' to question 23b. It was regarded as not viable if the respondent answered 'No' to question 23b.
[162] Question 24 of the survey questionnaire: "Why would you not have used the following companies?"
[163] Tables 5 and 6 of the DJS survey report

parties. In our analyses of diversion, we would give them each a weight of a half.

(b) Second, a supplier may have mentioned three different Sims sites as possible sites to divert to and would have been counted three times in the DJS report. We count them as a single third-party.

(c) Third, analysis of the diversion question requires back-coding of some answers; this involves interpreting and coding some open text responses to survey questions. Our interpretation will not always be the same as DJS's and this could lead to some discrepancies.

(d) Finally, in their own survey analysis, the Parties noted that: "the survey also asks both diversion questions (including and excluding an own-party option) to all respondents, rather than asking the second question (excluding an own-party option) only to those respondents that indicated they would switch to another site of the same party".[164] The intention was that the second diversion question should only have been asked of those who stated they would switch to another site of the same party. However, a routing error seems to have affected some of the early responses. We have tried to correct where possible but the routing has not always been clear.

Suppliers to London

23. Results of the analysis of the 209 responses from suppliers to EMR sites in London (this excludes Bedford), and 28 from MWR (this excludes Hitchin so only includes Edmonton and Neasden) are presented in Table 2 below.

24. Results for suppliers to EMR show that recyclers named in the diversion questions include Scrap Co. (Erith), Sims and New Era, all of which were mentioned more often than MWR. The high number of mentions of Scrap Co. (Erith) is due to the high level of response from the Erith site (64 of the 209 respondents were from the Erith site).

25. Results for suppliers of waste metal to the MWR sites need to be interpreted with caution, as there were only 28 respondents. EMR, Sims and ASM, were all mentioned more than once in diversion questions, but numbers were low.

[164] [✂]

Table I.2165: Mentions of competitors (unprompted) – Suppliers to London

	*Suppliers to EMR**			*Suppliers to MWR†*		
Recycler	*Used in 2017*	*Diversion*	*Could use (unprompted)*	*Used in 2017*	*Diversion*	*Could use (unprompted)*
EMR				7	1.5	3
MWR	3	2	3			
Scrap Co (Erith)	2	9	10	0	0	0
Sims	6	5	11	2	1.8	3
New Era	1	4	4	0	0	0
Southwark Metals	0	3	3	0	0	0
Total Waste Management / TWM	1	2	2	0	0	0
Universal Metals	1	2	3	0	0	0
Benfleet	0	1.3	5	0	0	0
London City Metals / C&C	1	1.3	3	0	0	0
Vinton	0	1	3	0	0	0
Capital Metal Recycling / Capital Metals	0	0	2	0	0	0
Churches / FJ Church	1	0	2	0	0	0
LKM Metals	2	0	0	0	0	0
Medway Metals	2	0	1	0	0	0
Sackers	0	0	2	0	0	1
ASM	0	0	0	1	1.3	2
Other named third party‡	21	9.3	19	5	2.3	7
Unknown party	0	87	0	0	16	0
Would not divert		7				
Don't know (to first diversion question)		24			1	
Unclear routing/response		51			4	

Source: CMA analysis
* Base = 209
† Base = 28
‡ This is the aggregation of all competitors for whom, individually, none of the cell sizes in this table were greater than 1.

26. Table 3 illustrates the results of the 'viable alternative' analysis. Only 28 of the 173 EMR suppliers to London sites included in the analysis regarded MWR as a viable alternative. However, a large number (111 of 137) who said it was not a viable alternative gave the reason that they had never heard of it or did not know much about it. Of the other recyclers asked about in Table 3 most were not named as viable by a majority of respondents. The main reasons for not considering the recycler viable were that the respondent either had not heard of it or knew little about it. The other factor mentioned frequently was the distance to the recycler. For MWR suppliers (Table 4), 14 of the 26 respondents regarded EMR as a viable alternative.

[165] Respondents could name more than one recycler they used in 2017 or could use so the totals for these columns need not sum to the base size. However, as response to the diversion question has been weighted the column total for this will sum to the base size.

Table I.3: Viability of named recyclers (prompted)– EMR suppliers (London)

	Whether respondent could use the recycler[166]				*Reasons for not being able to use it*[167]			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
MWR	28	137	8	173	111	18	8	1
A1 Metals	1	1	0	2	0	1	0	0
APM Metals	4	11	0	15	8	3	0	0
ASM	4	33	0	37	18	15	2	0
Ace Car Breakers	2	12	1	15	6	6	1	0
Ampthill	1	5	0	6	0	2	2	1
BFA	11	28	0	39	20	9	2	0
Benfleet	14	70	3	87	41	24	7	1
Capital Metals	8	15	1	24	9	5	3	0
Celsa	1	1	0	2	1	0	0	0
Charles Muddle	2	20	1	23	13	7	0	1
FJ Church	6	79	2	87	53	22	5	1
Donald Ward	2	4	0	6	0	3	0	1
H Ripley & Co	14	107	5	126	64	33	10	2
LKM Metals	12	67	2	81	44	17	6	2
London City Metals	7	10	0	17	8	0	2	0
Mid Kent Metals	2	13	0	15	8	4	1	0
Nationwide (Ardleigh)	3	18	0	21	13	5	0	0
New Era	15	7	1	23	6	1	0	0
Nortons (Barking)	19	105	4	128	66	30	11	1
Payne Metals	13	24	0	37	20	4	2	0
Remet	17	80	2	99	61	17	4	0
S Nortons	6	33	0	39	23	12	1	0
Sackers	5	20	0	25	12	7	0	1
Scrap Co (Erith)	35	42	2	79	28	6	7	1
Sims (Avonmouth)	7	36	0	43	19	17	1	1
Sims (Sheerness)	1	1	0	2	0	1	0	0
Sims Aldershot	6	39	2	47	19	19	1	0
Southwark Metals	18	44	2	64	30	12	4	0
TWM	12	28	2	42	12	10	7	0
Van Dalen	5	18	0	23	14	3	2	0

Source: CMA analysis

[166] The derivation of these columns are as follows.
1. 'Yes': The respondent mentioned the recycler at Questions 20b, 22b or 23a of the survey questionnaire or answered 'Yes' to Question 23b.
2. 'No': The respondent answered 'No' or 'No because I've never heard of them' to Question 23b of the survey questionnaire.
3. 'Don't Know': The respondent answered 'Don't Know' to Question 23b of the survey questionnaire.
4. 'Total': This equals the number of suppliers included in the 'viable alternative' analysis. This varies because the 'top 6' lists of competitors used in the analyses varied from site to site.

[167] Questions 23b and 24 of the survey questionnaire. The base sizes for the 'reasons for not being able to use the recycler' are the number of 'No' responses in column 2. However, respondents could give more than one reason for not being able to use the recycler so the sum of the columns can be greater than the number of 'No' responses.

Table I.4: Viability of named recyclers (prompted)– MWR suppliers (London)168

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
EMR	14	11	1	26	3	3	5	0
Acre Metals	1	5	0	6	5	0	0	0
BFA	1	5	0	6	5	0	0	0
Benfleet	6	16	0	22	7	7	4	0
Capital Metals	2	4	0	6	4	0	0	0
Horn Lane Metal	1	4	1	6	4	0	0	0
London City Metals	8	14	0	22	6	4	6	0
Nortons (Barking)	6	15	1	22	9	6	2	0
Purdys Metals	0	6	0	6	5	1	0	0
Remet	7	15	0	22	10	3	4	0
SMR	0	6	0	6	6	0	0	0
Sims (Sheerness)	6	16	0	22	7	10	2	0
Van Dalen	6	16	0	22	9	6	3	0

Source: CMA analysis

Suppliers of shredder feed to MWR Hitchin[169]

27. The analysis of Hitchin looked at suppliers who supplied material likely to need shredding.[170] There were 20 of these suppliers; the competitors reported by these respondents are as shown in the Table 5.

28. Of the 20 respondents, four said they would divert to an EMR site and three named other recycling sites. Seven stated they would divert to another recycler but were unable to say which one.

[168] See Table 3 for a description of the columns.
[169] Separate analysis is not presented here for the EMR shredder sites at Willesden and East Tilbury because the sample sizes were very low at these sites.
[170] There was no question in the survey that asked about the need for a shredder but Question 15 asked about the last time the respondent used the focal site: "Thinking of this last occasion, what type of waste did it include?" Answers were coded into one of 31 categories. We regarded the waste as likely to need to use a shredder if it was classified in one of the following three categories: 'end-of-life vehicle', 'iron or light iron' or 'washing machine'

Table I.5: Mentions of competitors (unprompted) – Suppliers of shredder feed to MWR Hitchin

Recycler	*Used in 2017*	*Diversion*	*Could use (unprompted)*
EMR	2	4	4
Ampthill	0	1	1
E & S Metals (Hitchin)	0	1	1
Simply Recycling Solutions	0	1	1
Robert Gibbs	0	0	1
Sims	0	0	1
William Bedfords	0	0	1
Nationwide (Hitchin)	3	0	0
Williams	1	0	0
Unknown party		6	
Would not divert		1	
Don't know (to first diversion question)		2	
Unclear routing/response		4	

Source: CMA analysis
Base = 20

29. In the 'viable alternative' analysis EMR was named as viable by 10 out of 16 respondents. Of the six who did not mention it as being a viable option five gave the reason that they had never heard of it or didn't know much about it. Of the other recyclers named, Ampthill was regarded as viable by eight of the twenty respondents asked. The other competitors were mentioned less frequently.

Table I.6: Viability of named recyclers (prompted)– MWR Suppliers (shredder feed) – Hitchin171

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
EMR	10	6	0	16	5	1	0	0
Ampthill	8	12	0	20	8	3	1	0
Donald Ward	1	16	3	20	10	6	0	0
S Norton / Nortons	4	16	0	20	13	3	0	0
Sackers	2	18	0	20	10	7	1	0
Sims (Avonmouth)	3	17	0	20	11	6	0	0
Sims (Nottingham)	2	18	0	20	10	8	0	0

Source: CMA analysis

Suppliers to the West Midlands

30. In the West Midlands, very little diversion from EMR to MWR was reported by respondents.[172] Several suppliers stated they would divert but were unable to

[171] See Table 3 for a description of the columns.
[172] The DJS analysis reports a single supplier suggesting they would divert to MWR. The Parties dispute this: *"Note that the CMA's survey results indicates there was a single supplier that switched. This entry does not correspond with the underlying data where the respondent coded as having indicated MWR as alternative has*

name the recycler they would use. However, lot of different recyclers have been cited as alternatives: Whites of Coventry, Milver, WM Briers, Sims and HM Taroni were all mentioned at least six times in the diversion questions.

31. The sample size of MWR suppliers in the West Midlands was small. Only 22 suppliers responded to the survey so the results need to be treated with caution. EMR was the only recycler mentioned more than once as a supplier to which to divert, but six others named an alternative site they would divert to and seven of the 22 respondents mentioned Sims as a site they could use.

Table I.7: Mentions of competitors (unprompted) – Suppliers in the West Midlands

	*Suppliers to EMR**			*Suppliers to MWR†*		
Recycler	*Used in 2017*	*Diversion*	*Could use (unprompted)*	*Used in 2017*	*Diversion*	*Could use (unprompted)*
EMR				6	3.3	5
MWR	1	1	1			
Whites of Coventry	4	13.5	16	0	0	0
Milver	1	11.8	18	0	0	0
WM Briers	0	7	9	0	0	0
Sims	3	6.2	13	0	0.3	7
HW Taroni	3	6	9	0	0	0
Donald Ward	2	4	6	0	0	0
Beaver Metals (Flexdart Ltd)	0	4	4	0	0	0
One Stop Recycling	2	3.5	4	0	0	0
Autobits	1	2	2	0	0	0
Mercia Metals	0	1	2	0	0	0
Rowley Autoservices	0	1	2	0	0	0
Other named third party‡	17	14	27	12	5.3	13
Unknown party	0	125	0	0	7	0
Would not divert		14			0	
Don't know (to first diversion question)		48			2	
Unclear routing/response		51			4	

Source: CMA analysis
* Base = 313
† Base = 22
‡ This is the aggregation of all competitors for whom, individually, none of the cell sizes in this table were greater than 1.

32. In the 'viable alternative' analysis, the majority of MWR suppliers (16 out of 19) regarded EMR as a viable alternative (Table 9), whereas only 40 of 251 EMR suppliers regarded MWR as viable (Table 8). In each case never having heard of the Party, or not knowing much about it was the main reason for not stating the Party was viable.

actually responded 'Other' and specified "Hockley Road" as a response. The MWR Hockley is on Park Road. We believe the respondent could have meant BA Perkins Scrap Metal, a competitor, based on Hockley Road in Tamworth. (B77 5EB)." (Footnote 13 of [✂]). All the tables in this appendix use the DJS coded dataset, but we acknowledge that this may include a small amount of miscoding.

Table I.8: Viability of named recyclers (prompted)– EMR Suppliers – West Midlands173

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
MWR	40	206	5	251	175	28	4	3
B Shakespeare	11	45	4	60	34	7	4	1
Beaver Metals	30	88	3	121	70	14	4	0
Donald Ward	38	265	10	313	204	53	11	2
Enablelink	30	270	13	313	219	42	13	2
Hawkeswood	3	18	1	22	11	1	4	2
Milver	62	56	2	120	33	4	19	1
One Stop Recycling	35	201	5	241	158	40	4	2
R Davies Metals	7	50	3	60	34	13	4	0
S Norton / Nortons	1	11	0	12	7	2	1	1
Sims (Nottingham)	16	116	1	133	60	53	6	1
Sims (Smethwick)	60	245	8	313	152	87	12	1
Tandom Metallurgical	7	41	2	50	30	7	4	0
Whites of Coventry	68	49	2	119	31	14	7	0

Source: CMA analysis

Table I.9: Viability of named recyclers (prompted)– MWR Suppliers – West Midlands[174]

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
EMR	16	3	0	19	2	0	1	0
Alutrade	3	1	0	4	1	0	0	0
B Shakespeare	7	9	0	16	5	0	3	1
Beaver Metals (Flexdart Ltd)	5	11	0	16	8	0	1	2
ELG Haniel	1	3	0	4	3	0	0	0
EWMS	1	1	0	2	0	0	1	0
Enablelink	4	12	0	16	8	0	3	1
GES Recycling	0	2	0	2	1	0	1	0
HW Taroni	3	1	0	4	1	0	0	0
JD Metals	1	1	0	2	0	0	1	0
JMS Breakers	1	1	0	2	0	0	1	0
James Rollason	1	1	0	2	0	0	1	0
Mason Metal	1	3	0	4	3	0	0	0
Milver	2	2	0	4	2	0	0	0
One Stop Recycling	7	9	0	16	6	0	1	2
R Davies Metals	3	13	0	16	10	0	2	1
Sims (Landor Street)	10	6	0	16	4	1	0	1
Sims (Smethwick)	4	2	0	6	2	0	0	0

Source: CMA analysis

[173] See Table 3 for a description of the columns.
[174] See Table 3 for a description of the columns.

Industrial suppliers to the West Midlands

33. Twenty-six EMR respondents and eight MWR respondents in the West Midlands were identified as industrial suppliers.[175] Of the 16 EMR respondents who stated they would divert to another recycler, four were able to name the recycler they would use and none named MWR. Of the six MWR respondents who stated they would divert, four could name the recycler, one of which named EMR.

Table I.10: Mentions of competitors (unprompted) – Industrial suppliers in the West Midlands

	*Suppliers to EMR**			*Suppliers to MWR†*		
Recycler	*Used in 2017*	*Diversion*	*Could use (unprompted)*	*Used in 2017*	*Diversion*	*Could use (unprompted)*
EMR				0	1	0
MWR	0	0	0			
Andrews Recycling	0	1	1	0	0	0
B Shakespeare	0	0	1	0	0	0
Beaver Metals (Flexdart Ltd)	0	1	1	0	0	0
Enablelink	0	0	0	1	0	0
Griffin and Stringer	0	0	0	0	1	1
Hawkeswood	0	1	1	0	0	0
J A Laurence	1	0	0	0	0	0
Old Hill	0	0	0	1	0	0
P E Metals	1	1	1	0	0	0
Roba Metals	0	0	0	1	1	1
Sims	0	0	0	0	0	2
Talywain Salvage	0	0	0	0	1	1
Unknown party	0	12	0	0	2	0
Don't know (to first diversion question)		6			0	
Unclear routing/response		4			2	

Source: CMA analysis
* Base = 26
† Base = 8

34. An analysis of the 'viable alternative' questions shows that 5 out of 18 EMR suppliers stated MWR was a viable alternative and 12 stated it was not. Eleven of those who stated it was not gave as a reason that they had never heard of MWR or did not know much about it. Comparisons with other competitors is difficult, as not all of the respondents were asked about each competitor, but Sims (Smethwick) was mentioned as a viable alternative by 11 out of 26 respondents.

35. Six out of seven MWR respondents regarded EMR as a viable competitor. Sims (Landor Street) (5 out of 8), and B Shakespeare and One Stop Recycling (3 out or 8 each) were the most frequently mentioned of the rest.

[175] We used Question 1 of the survey questionnaire "Which of the following best describes the nature of your business?" to define an 'industrial supplier'. Question 1 had 15 possible responses. A respondent was classed as being an industrial supplier if was coded as 'Manufacturer', 'Industrial company (commercial steel work/installations)' or 'Engineering (including installation)'.

36. For both EMR and MWR, the large proportion of suppliers who had never heard of the recycler, combined with the small sample size, means this analysis needs to be interpreted with caution.

Table I.11: Viability of named recyclers (prompted)– EMR Industrial Suppliers – West Midlands[176]

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
MWR	5	12	1	18	11	1	0	0
B Shakespeare	5	12	0	17	10	2	0	0
Beaver Metals	2	3	0	5	2	0	1	0
Donald Ward	5	19	2	26	14	4	1	0
Enablelink	6	18	2	26	16	1	1	0
Hawkeswood	1	1	0	2	0	0	0	1
Milver	3	1	0	4	0	0	1	0
One Stop Recycling	2	5	2	9	2	2	1	0
R Davies Metals	3	14	0	17	13	1	0	0
Sims (Nottingham)	1	4	0	5	0	3	1	0
Sims (Smethwick)	11	14	1	26	9	4	1	0
Tandom Metallurgical	3	12	0	17	11	1	0	0
Whites of Coventry	2	1	1	4	0	1	0	0

Source: CMA analysis

Table I.12: Viability of named recyclers (prompted)– MWR Industrial Suppliers – West Midlands[177]

	Whether respondent could use the recycler				*Reasons for not being able to use it*			
Recycler	*Yes*	*No*	*Don't Know*	*Total*	*Never heard of/ Don't know much about*	*Too far/ difficult to get to*	*Other reason*	*No reason given*
EMR	6	1	0	7	1	0	0	0
B Shakespeare	3	5	0	8	4	0	1	0
Beaver Metals (Flexdart Ltd)	1	7	0	8	7	0	0	0
Enablelink	1	7	0	8	6	0	1	0
One Stop Recycling	3	5	0	8	5	0	0	0
R Davies Metals	1	7	0	8	7	0	0	0
Sims (Landor Street)	5	3	0	0	3	0	0	0

Source: CMA analysis

[176] See Table 3 for a description of the columns.
[177] See Table 3 for a description of the columns.

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
Baler	Machinery that compresses 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.
Shearer	Large machinery that reduces the size of large pieces of metal by cutting to standard sizes
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’.