

INVESTORS DAY

PERFORMANCE UPDATE

Monbat Group

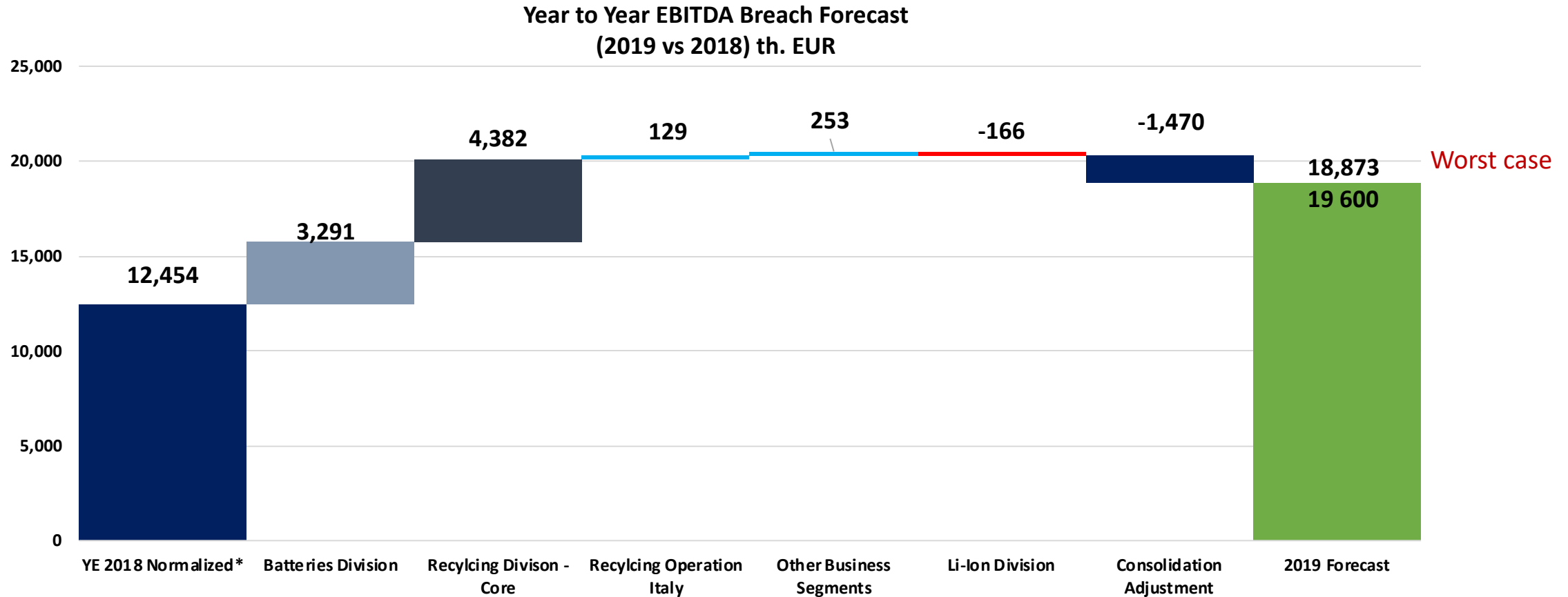
26th of September 2019

Agenda

- YTD August Group Results;
- Year End Forecast;
- Long term performance expectations – preliminary update of the 5Y Business Plan;
- Strategic investment projects – portfolio review;
- Status of corporate bond utilization;
- Q&A

Current results

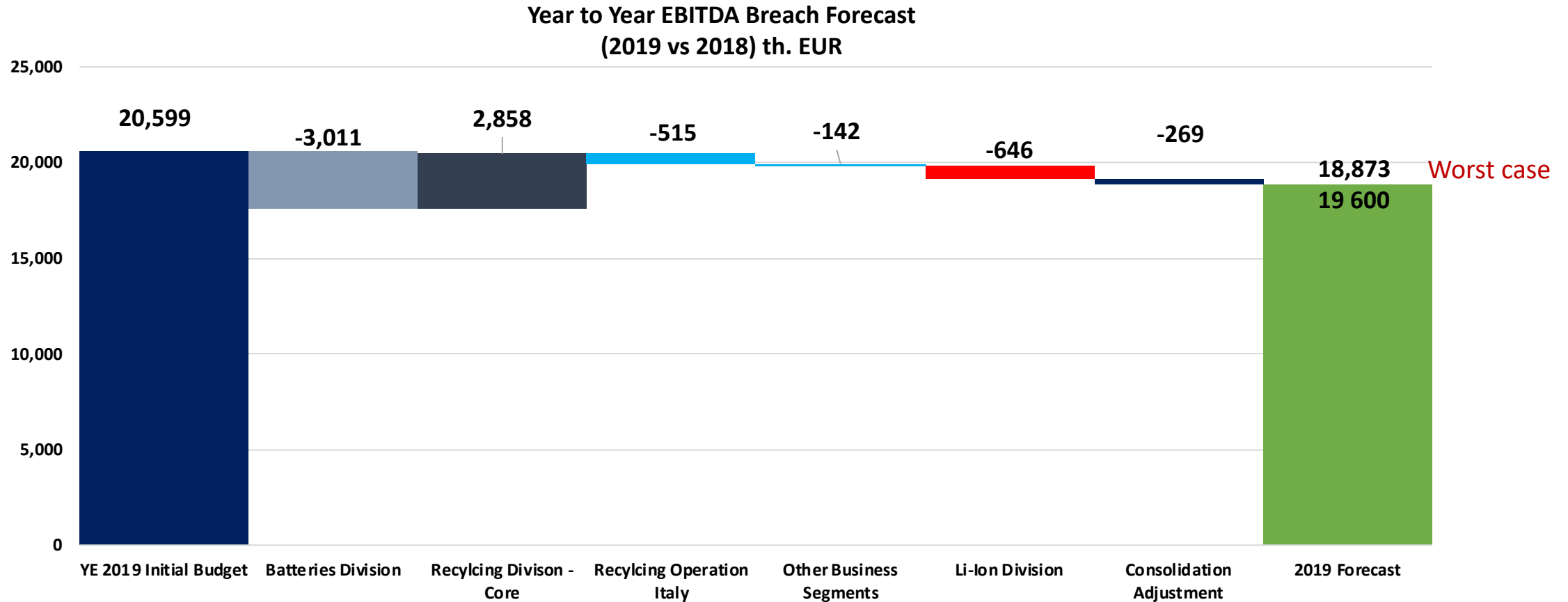
EBITDA (cont.operations) bridge on a Y-t-Y basis



* Consolidated EBITDA from continuing operations adjusted with one-off impairments due to first-time adoption of IFRS 9 (600 K EUR) and normalizations due to IFRS 16 expected first time-adoption in next (320 K EUR)

Current results

EBITDA (cont.operations) bridge b/w budget and forecast 2019



Rolling 5Y Business Plan

Core business – re-gaining the organic growth



	Measure	2017 Actual	2018 Actual	2019 Updated	2020	2021	2022	2023
CORE BUSINESS - ORGANIC GROWTH								
Volumes								
Batteries	Pcs	2,567,548	2,866,725	3,194,981	3,711,581	4,027,729	4,345,476	4,487,340
<i>Volume Pieces Growth %</i>			11.65%	11.45%	16.17%	8.52%	7.89%	3.26%
Lead & Lead Alloys - Harris Process (Antimony and High Tin Alloys) - Third Party Sales	MT	7,794	2,759	5,061	3,515	3,515	3,515	3,515
Lead & Lead Alloys - Intercompany Production	MT	38,768	34,929	38,781	52,789	57,437	58,150	58,148
Consolidated Revenue	EUR (000)	160,120	150,288	165,959	185,770	203,146	220,227	225,918
Consolidated Gross Profit (without amortisation expense)	EUR (000)	37,100	30,815	38,188	47,004	52,136	55,589	56,728
Consolidated Gross Profit %	%	23%	21%	23%	25%	26%	25%	25%
Adjusted Consolidated EBITDA - continuing Operations Updated	EUR (000)	20,051	12,454	19,599	28,373	32,949	35,728	36,565
Organic growth pace					8,774	4,576	2,779	837
Consolidated EBITDA %	%		8%	12%	15%	16%	16%	16%
EBITDA Organic growth rate	%		-38%	57%	45%	16%	8%	2%

16,9m EUR

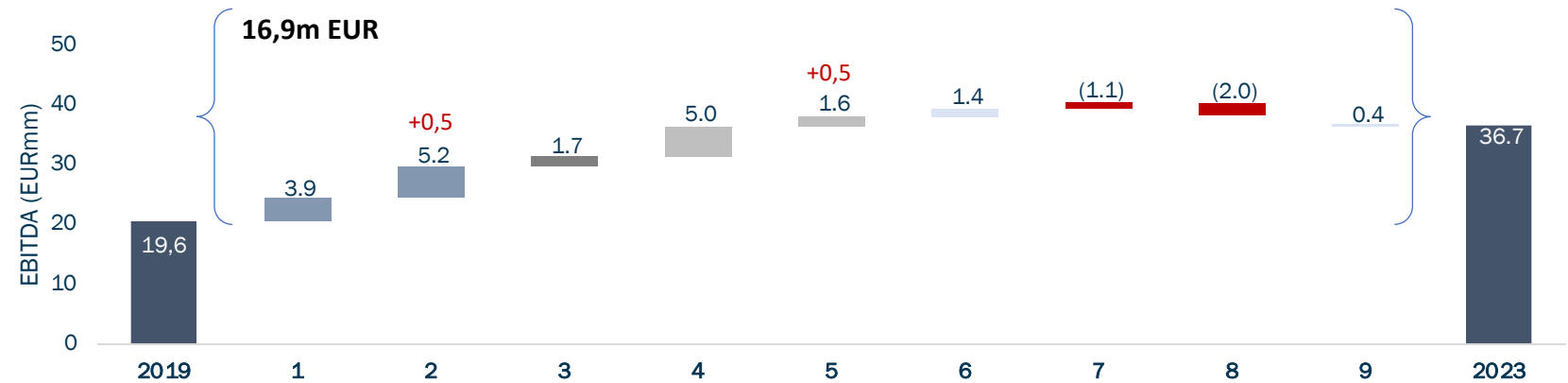
Monbat managed to re-gain its operational performance level of 2017, after a challenging 2018, respectively will head to the envisaged growth path.

The growth pace setting will be confirmed as part of the annual group planning cycle, which will be completed by mid of December 2019.

Nevertheless, the intended growth drivers are listed by area and year by year on the following slides. At the final closure of the new 5 years rolling business plan, it is expected that calibration might take place only between the periods 2020 and 2021. It is not expected a decommitment to the current 2023 target.

Rolling 5Y Organic growth

Key growth drivers



1. Additional group synergies from the acquisition of the recycling plant in Italy – EUR 3.9mm

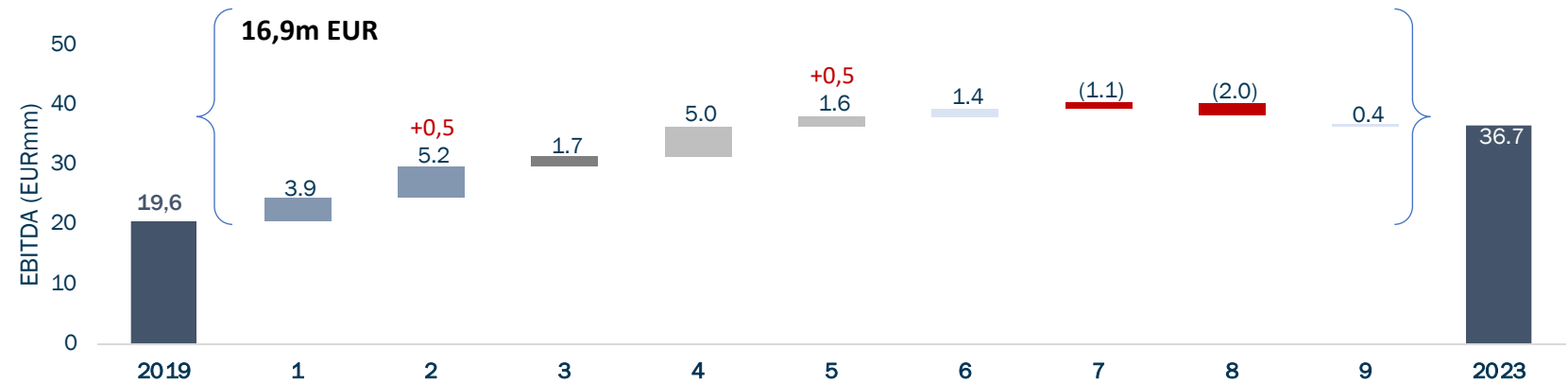
- The recycling plant in Italy was acquired by Monbat Group in late 2017.
- The acquisition of the plant allowed the Group to gain access to the institutionally regulated (COBAT and other smaller scrap collection and distribution organizations) Italian scrap market, which will increase the group-wide availability of scrap batteries at favourable purchase price.
- The Group's intention is to operate only the first part of the recycling production process and **transport the by-products – metals and paste** – to the other three recycling plants where spare production capacity is available. It will result in decreasing second/metallurgy and third/refinery phase production overheads per MT of lead and lead alloys produced and **achieving group EBITDA synergy effects**
- Produced paste during Q4 2018 and Jan-May 2019 is around 7,000 MTs – reflected in an increase of the working capital of **almost EUR 7.0mm**. This cash will be released into the group in 2019/20
- BP 2020 expected group EBITDA from the recycling plant in Italy (including the effects in the other recycling plants obtained on second and third production phases) stands at **EUR 4.6mm**
- BP 2021 to 2023 expected group EBITDA from the recycling plant in Italy (including the effects in the other recycling plants obtained on second and third production phases) stands at **EUR 5.6mm** (up from 2019P figure of **EUR3.9mm**), with the increase of scrap batteries processed from 36.000 MTs in 2020 to 42.000 MTs in 2021

2. Starter LoB - volume increase and production overheads optimisation effect - EUR5.2mm

- The effect represents an expected increase in quantity of starter batteries sold coupled with expected volume driven production overheads optimization for the period 2020-2023 for a total of EUR 685K increase pieces or for a combined 4 year-growth of 24.4% against the BP 2019 base
- The budgeted increase is well supported by 2019 YTD August volume results (18% increase compared to PY) and is in line with the current strategy that involves geographical diversification into regions that have high seasonal demand which coincides with Europe's low season (i.e. South Africa and Middle East)
- The Group has a backlog of battery orders for app. 150k pieces that are rolled forward each month due to lack of current production capacity
- The Group has budgeted EUR 4mm CAPEX in 2021 in order to increase production capacity in the starter product line with 500 K pieces, reaching production capacity of 3.5 million pieces

Rolling 5Y Organic growth

Key growth drivers



3. Stationary LoB - Volume increase and production overheads optimisation effect – EUR 1.7mm

- The effect represents an expected increase in quantity of stationary batteries sold for the period 2020-2023 for a total of 69k pieces increase or a combined 4 year-growth of 39.6% against the BP 2019 base
- Current demand is higher than current production capabilities of the Group (the Group has a backlog of 2 months orders due to lack of current production capacity)
- Opportunity for further sales increase in the Africa; local Nigerian market approached via establishment of own subsidiary (Energy Batteries Nigeria)
- Measures are taken to resolve bottleneck production issues without much investment (hire third shifts; solve staffing issues; BP for 2019 includes small CAPEX for curing equipment) which would increase production capacity in 2020 with app. 40k pieces

4. Commercial fleet LoB - volume increase and production overheads optimisation effect – EUR 5.0mm

- The effect represents an expected increase in quantity of commercial fleet batteries sold coupled with expected volume driven production overheads optimization for the period 2020-2023 for a total of 300k pieces increase or for a combined 4 year-growth of 66.3% against the BP 2019 base
- BP base for 2019 shows increase with app. 100k pieces against YTD 2018 volumes;
- In 2016 the Group invested over EUR5mm in production capacity increase, throughput optimisation and quality enhancement (doubling the existing production capacity and reaching 750k pieces)
- New grid production technology was acquired at the end of 2018 and became operational in Q2 2019 enabling the production of grids at lower cost; the Group considers the possibility to pass through the cost decrease to the final customers thus stimulating volumes
- A redesign of existing battery portfolio is being performed with expected overall cost saving. The Group considers the possibility to pass through partially the cost saving as a decrease to current prices, thus further stimulating volumes sold
- Steps have been undertaken to shift some of the Starter LOB production from Monbat to Start AD in 2020 with minimal CAPEX, thus utilizing the spare capacity of the plant and unlocking production capacity in Monbat AD.

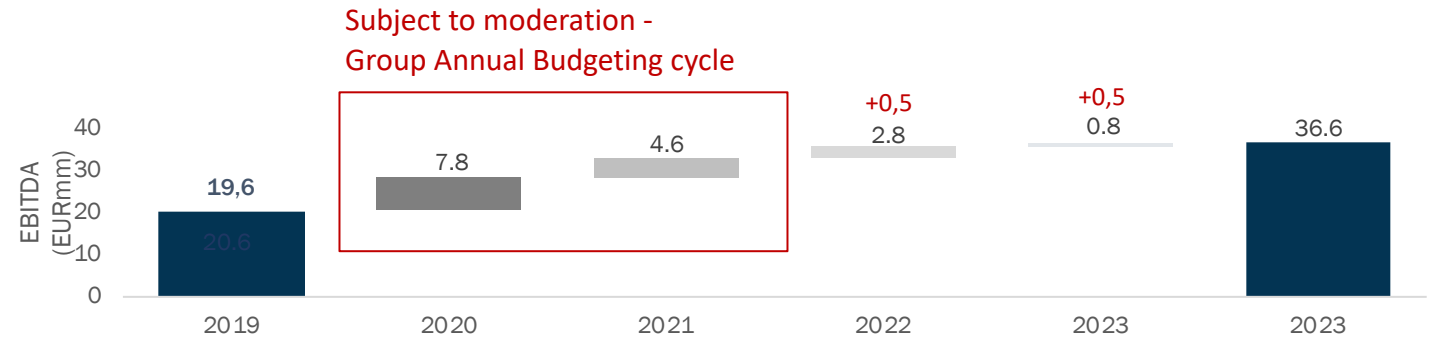
- 5. Increase of volumes of lead and lead alloys produced in recycling business segment (due to higher volume of production in Monbat/Start and thus more technological waste processed) – EUR 1.6mm
- 6. Lithium-Ion Business Segment expected to reach break-even point in 2020 - EUR 1.4mm
- 7. Increase in volume discounts on sales of batteries – (EUR1.1mm)
- 8. OPEX increase (including outbound transport) – (EUR2.0mm)
- 9. Others

Rolling 5Y Organic growth

5 Years pace setting

It is expected that calibration might take place only between the periods 2020 and 2021 as part of the Group annual budgeting process.

It is not expected a decommitment to the current 2023 target.



2020

2021

2022/23

Key Driver

- **EUR 3.0m** - Additional Group synergy effect from the recycling operation in Italy;
- **EUR 1.2m** - Volume increase and production overheads optimisation effect in the starter LoB (moderate CAPEX needed - introducing additional shifts and resolving staffing issues in order to optimize production throughput) - 5.5% increase to BP 2019 base
- **EUR 0.6m** - Volume increase and production overheads optimisation effect in the stationary LoB (no additional CAPEX needed - introducing additional shifts and resolving staffing issues in order to optimize production throughput) - 13.1% increase to BP 2019 base
- **EUR 1.5m** - Volume increase and production overheads optimisation effect in the commercial fleet LoB (spare capacity for additional 300 K pieces from 2019 BP baseline) - 22% increase to BP 2019 base
- **EUR 1.35m** - Li-Ion business segment reaching EBITDA break-even point
- **EUR 0.5m** - Increase of volumes of lead and lead alloys produced in recycling business segment (due to higher volume of production in Monbat/Start and thus more technological waste processed)
- **(EUR 0.8mm)** - Increase in volume discounts on sales of batteries and OPEX increase (outbound transport) -Other

Key Driver

- **EUR 1.0m** - Additional Group synergy effect from the recycling operation in Italy
- **EUR 1.6m** - Volume increase and production overheads optimisation effect in the starter LoB (EUR 4.0m additional CAPEX budgeted; 500 K pieces) - 6.7% increase to BP 2020 base
- **EUR 0.5m** - Volume increase and production overheads optimisation effect in the stationary LoB (2 m. EUR additional - 30 K pieces) - 9.4% increase to BP 2020 base
- **EUR 1.8m** - Volume increase and production overheads optimisation effect in the commercial fleet LoB (**spare capacity still available**) - 18.2% increase to BP 2020 base
- **EUR 0.6m** - Increase of volumes of lead and lead alloys produced in recycling business segment (due to higher volume of production in Monbat/Start and thus more technological waste processed)
- **(EURO.9m)** Increase in volume discounts on sales of batteries and OPEX increase (outbound transport)

Key Driver

- **EUR 1.6m** - Volume increase and production overheads optimisation effect in the starter LoB (no additional CAPEX) - 6.2% increase to BP 2021 base
- **EUR 0.5m** - Volume increase and production overheads optimisation effect in the stationary business LoB (no additional CAPEX) - 9.3% increase to BP 2021 base
- **EUR 1.7m** - Volume increase and production overheads optimisation effect in the commercial fleet loB (**reaching full capacity of the plant**) - 15.4% increase to BP 2021 base
- **EUR 0.5m** - Increase of volumes of lead and lead alloys produced in recycling business segment (due to higher volume of production in Monbat/Start and thus more technological waste processed)
- **(EUR1.1mm)** - Increase in volume discounts on sales of batteries and OPEX increase (outbound transport)

Rolling 5Y Inorganic growth

Strategic project domains

33m EUR						-4 623	27 500	92 482
13 500		13 200	63 295	1 400	287	64 982		
36 595								
ORGANIC GROWTH								
STRATEGIC ARENAS	Scaling core business via acquisition	Product innovation		Focused diversification in lithium-ion batteries (PHASE 1)	Niche diversification in recycling		Not Budgeted Projects	
Strategic premise	<p>Integration benefits from XXX, Tunisia</p> <ol style="list-style-type: none"> 1. Enable economy brand production in Africa, which can be added to the current EU-based client footprint 2. Enable additional SLI capacity 3. Direct reach to the expanding African market by the expanding gradually the production and the commercial hub in Tunisia <p>Integration benefits from STC, Italy</p> <ol style="list-style-type: none"> 4. Lowering the cost of all engineering-based projects in the Recycling Division by utilising the available in-house capabilities 5. Achieving better yield and lower processing costs in recycling by adopting STC propriety and novelty technology 6. Enlarging the stand-alone commercial projects of STC by leveraging the group credentials 	<p>Nano tubes/graphine technology</p> <ol style="list-style-type: none"> 1. Producing own propriety nano tubes and graphine with novelty environmental friendly technology for internal and external use 2. Decrease the direct material CoGS (+/- plates) in wide range of batteries 3. Increase the performance of selected range batteires, which allows price premium justification 4. Enable recurring and enlarging external application solution-based business outside the battery industry <p>Bi-polar battery technology</p> <ol style="list-style-type: none"> 1. Bringing into life a breakthrough lead-based technology that will have both structural CoGS improvement as well as strong price premium justification by positining these batteries next to lithium-ion equivalents 2. Produce 48V batteries targeted for the industry, where Monbat have already a string footprint, easy and sible accessible market 3. Utilise almost the same sourcing base as the conventional lead batteries at extremely favourable environmental prouction 		<p>EAS Batteries GmbH</p> <ol style="list-style-type: none"> 1. Revitilised and EU-based technology for high power cells, which are laready certified by the European Space Agency 2. Product lauch of modular-based high power systems in the very broad context of hybrid engines 3. Enabling battery systems solutions with high price premium due to the sensitivity of safety and high peak performance in market segments, such as aerospace, defense, marine, mining, public transportation 4. Already establishing credible base of clients, which are industry leaders in the respective market segments 6. Progressively increasing market demand for battery systems, which shall support multiple hybrid-engine vehicles of any type. 	<p>Thin</p> <ol style="list-style-type: none"> 1. Derive to pure thin, which can be directly used internaly and incrementally decrease the direct CoGS of the batteries 		<p>Seperator recycling</p> <ol style="list-style-type: none"> 1. A break-though method which will enable to recycle the only currently non-reyclable material and contribute to direct saving of the costs associated with storing this dangerous waste material 2. Easy attraction to all industry peers to dispose this material at very competitive price 3. Commercialise the derivative porudcts of the recycling process, such as Synthetic amorphous silica, ABC and PP 4. Decrease the purchase, respectively the direct battery CoGS by utilising for internal group use the respective ABC and PP material base <p>EAS (PHASE 2)</p> <p>Mass production scaling -500k cells</p>	
Key projects	<ol style="list-style-type: none"> a. Acquisition of STC and service-based interlock within the Group b. Acquisition of the Tunisian target and integration across Monbat Group Divisions 	<ol style="list-style-type: none"> a. A.R.T. Monbat - Nano tubes - green field investment in pilot plant b. ABC - Bi-polar batteries - green field investment in pilot plant 		<ol style="list-style-type: none"> a. EAS Batteries revitalisation project reach break-even point and EBITDA generation at 1,4m EUR 	<ol style="list-style-type: none"> a. Thin project 		<ol style="list-style-type: none"> (a) Seperator project - 12m EUR CAPEX to reach 5m EUR EBITDA (b) EAS mass production project - 23m EUR CAPEX to each an annual EBITDA level of 20-26m EUR 	
Acquisition and Investment CAPEX	10,7m EUR	17m EUR		0,7m EUR	0,5m EUR		35,9 EUR	

Rolling 5Y Inorganic growth

Strategic projects portfolio

STRATEGIC INVESTMENT PROJECTS																
ARENAS	PROJECTS	Stage	Ranking			EBITDA CONTRIBUTION					UPSIDE POTENTIAL *+*	INCURRED INVESTMENT	BOND UTILISATION	NEW INVESTMENT	TIME to BENEFIT	NOTE
			Strategic fit	Value contribution	Enterprise risks	2019	2020	2021	2022	2023						
INTEGRATED ORGANIC GROWTH	Recycling Italy	Execution	HIGH	HIGH	MODERATE	1 600	4 600	5 400	5 400	5 400	0	13 700	8 000	1 000	A	7m EUR from the investment in WC will be deleveraged. Already integrated in the core business budgeting.
ACCELERATED GROWTH THROUGH ACQUISITIONS	South Africa - Retail	Execution	HIGH	MODERATE	LOW	500	800	1200	1500	1500	0	350			A	Already integrated in the core business budgeting.
	Tunisian target	In closure stage	HIGH	HIGH	MODERATE	0	2 700	3 800	5 600	9 000	4 000	0	0	10 000	B	
	STC - Italy	Execution	HIGH	MODERATE	MODERATE	70	900	2 400	3 400	4 500	1 500	1 576	1 340	700	B	
EXPAND THROUGH ECOSYSTEM INTEGRATION	Not promising targets															
BREAKTHROUGH INNOVATION	Bi-polar /ABC	In R&D stage	HIGH	HIGH	MODERATE	0	0	6 350	8 000	10 500	5 622	0	0	13 600	C	
	Nano tubes /A.R.T. Monbat/	Project Deployment	HIGH	MODERATE	MODERATE	0	300	1 500	2 200	2 700	1 800	0	0	3 400	B	
	Thin	Project Deployment	HIGH	LOW	LOW	0	287	287	287	287	0	0	0	500	A	
	High Power LFP Batteries EAS PHASE 1	Execution	HIGH	MODERATE	MODERATE	-1 530	169	1 400	1 400	1 400	0	10 475	9 427	700	A	
	High Power LFP Batteries EAS PHASE 2	Project Feasibility	HIGH	HIGH	MODERATE			2 400	8 700	20 000	6 000	0	0	23 864	C	NOT YET BUDGETED
TOTAL PORTFOLIO						-1 460	4 356	15 737	20 887	28 387	12 922	12 051	10 767	28 900		

Rolling 5Y Organic growth

Strategic projects replacement value

REPLACEMENT VALUE CURVE - STRATEGIC PROJECTS	2019	2020	2021	2022	2023
ROLLING MASTER PLAN 2019	2 600	9 200	19 600	29 730	33 010
STRATEGIC PROJECTS - EBITD	70	4 356	15 737	20 887	28 387
VARIANCE TO ROLLING MASTER PLAN 2020	-2 530	-4 844	-3 863	-8 843	-4 623
NON BUDGETED UPSIDE					12 922
NET REPLACEMENT VALUE @ 2024					41 309
PRELIMINARY 5Y MASTER PLAN REVIEW					
REPLACEMENT VALUE CURVE - CONSOLIDATED	2019	2020	2021	2022	2023
ORGANIC GROWTH CURVE	19 599	28 373	32 949	35 728	36 565
STRATEGIC PROJECTS	70	4 356	15 737	20 887	28 387
CONSOLIDATED	19 669	32 729	48 686	56 615	64 952
"BEST CAN DO" 2019 5 YEAR	23 199	37 573	52 549	65 458	69 575
VARIANCE to "BEST CAN DO"	-3 530	-4 844	-3 863	-8 843	-4 623
NON BUDGETED UPSIDE					12 922
NET REPLACEMENT VALUE @ 2024					73 252

Corporate bond utilization

Date		
20.07.2018	Amount Raised	28 015 000
20.07.2018	Finance Costs	222 415,06
	Net Amount of Proceeds	27 792 585
26.06.2018	Capitalization Monbat Holding GmbH	5 400 000
05.12.2018	Capitalization Monbat Italy via Monbat Recycling Bulgaria	8 000 000
25.03.2019	Capitalization Monbat Holding GmbH	2 227 500
25.07.2019	Acquisition of STC Srl. - 85% cash consideration of total amount of Purchase Consideration	1 340 033
	Total Utilized Amount	16 967 533
	Total Available Funds	10 825 052
19.09.2019	Capitalization Monbat Holding GmbH	1 800 000
	Expected Available Funds	9 025 052
	PI	8 000 000
	EAS	9 427 500
	STC	1 340 033
		18 767 533

APPENDIX

Year end 2018 Forecast

ALL AMOUNTS IN EUR'000

2019 YEAR END Forecast vs 2018 and 2017 YEAR END ACTUAL								
	2017 Actual Audited	2018 Actual Audited Normalized *	2019 August Actual + YE Forecast	Variance abs (2019 vs 2018)	Variance %	Variance abs (2019 vs 2017)	Variance %	
BUSINESS SEGMENT - LEAD-ACID BATTERIES and RECYCLING	21,212	13,680	21,482	7,802	57.0%	270	1.3%	
Battery Division - Monbat AD and Start AD	9,142	9,576	12,867	3,291	34.4%	3,725	40.7%	
Recycling Division core - MRB, MRR, MRS, YU Monbat	12,494	5,436	9,817	4,382	35.1%	-2,677	-21.4%	
Recycling Division - New Investment in Italy (PI and MI)	-424	-1,332	-1,203	129	30.5%	-779	183.8%	
Other - EBN, MRO, Monbat Sped, Monbat Holding Tunisia, ART Monbat	-164	-95	159	253	-154.4%	323	-196.8%	
BUSINESS SEGMENT - LITHIUM-ION BATTERIES	-1,032	-1,832	-1,998	-166	-16.1%	166	-16.1%	
CONSOLIDATION ADJUSTMENT	35	701	-769	-1,470	4199%	-804	-2297%	
CONSOLIDATED OPERATIONAL EBITDA from continuing operations	20,051	12,454	18,873	6,419	32.0%	-1,178	-5.9%	
* Consolidated EBITDA from continuing operations adjusted with one-off impairments due to first-time adoption of IFRS 9 (600 K EUR) and normalizations due to IFRS 16 expected first time-adoption in next (320 K EUR)								

Year end forecast– 2019

Guidelines

2019 Year END Estimate

Business conditions

- Relatively stable and slightly increasing LME index in Q3 2019. Nevertheless, due to prudence the revised budget has been prepared with LME level of 1,800 EUR per tonne which is also the level of LME used in the preparation of the initial budget
- No favourable LME spread as experienced in H1 2017 on the sales of Lead and lead alloys both to third and related parties and also no unfavourable LME spread as experienced in H2 2018 on the sales of Lead alloys.
- Expected losses in the Lithium-ion Business segment due to the time-consuming go-to-market approach and CAPEX cycle.
- Administrative hurdles with the transportation of metals in PI leading to untapped potential.

Our Response

- Proactive approach of the sales team in the battery division (geographical diversification) which led to battery volumes increase with 17.4% YTD August 2019 compared to PY; expected YE increase compared to PY as of YE of at least 11.5%;
- Higher expected processing of paste from PI Italy in H2 2019 to match the gap of expected shortfall in metals sourcing.
- Proactive management participation in the Lithium-ion business segment with expected EBITDA break-even point to be reached beginning of 2020.

Our Result

- The Year END Consolidated EBITDA estimate will be in the range of 18.9-19.6m EUR, which represents an increase of 32% compared to prior year
- The EBITDA estimate of the core business segment of the lead-acid batteries will be 21.5 m EUR, which is overachieving 2017 levels even though there are no substantial budgeted and incurred positive effects driven by the LME movement

PERFORMANCE STEERING							
Period: August 2019							
EBITDA & NET PROFIT							YTD August 2019
VALUE (EUR)	Actuals		Business Plan 2019	Y-t-Y Performance		Gap to BP	
	YTD 2018 August	YTD 2019 August	YTD 2019 BP August	Y-t-Y (YTD BASIS)	%	Gap to BP	%
Sales	97,543	107,625	103,455	10,082	10.3%	4,170	4.0%
Net Profit before tax from cont. operations (w/out OctaLight)	1,428	5,320	5,069	3,892	272.7%	251	5.0%
EBITDA from cont. operations (w/out OctaLight)	7,985	12,337	12,197	4,352	54.5%	140	1.1%
Net Profit Ratio %	1%	5%	5%	3.48%		0.04%	
EBITDA Ratio %	8%	11%	12%	3.28%		-0.33%	
EBITDA CONTRIBUTION MIX (EUR)	Actuals		Business Plan 2019	Y-t-Y Performance		Gap to BP	
	YTD 2018 August	YTD 2019 August	YTD 2019 August	Y-t-Y (YTD BASIS)	%	Gap to BP	%
EBITDA Battery Division	6,066	7,780	10,170	1,713	28.2%	(2,390)	-23.5%
EBITDA Recycling Division - core	4,386	6,885	3,942	2,499	57.0%	2,943	74.7%
EBITDA Recycling Division - new investment Italy	(1,285)	(714)	(770)	571	44.4%	56	-7.3%
EBITDA FROM OTHER BUSINESS STREAMS	(127)	98	200	225	-177.3%	(102)	-51.0%
EBITDA Business Segment Lithium-ion Batteries	(1,512)	(1,398)	(1,350)	115	7.6%	(48)	3.5%
Consolidation Adjustments Itercompany profit elimination	458	(313)	6	771	-168.4%	(319)	-5317.5%
EBITDA from continuing operations	7,985	12,337	12,197	4,352	54.5%	140	1.1%
Divisions contributions to the consolidated EBITDA							
EBITDA Battery Division	76%	63%	83%	-13%		-20%	
EBITDA Recycling Division - core	55%	56%	32%	1%		23%	
EBITDA Recycling Division - new investment Italy	-16%	-6%	-6%	10%		1%	
EBITDA FROM OTHER BUSINESS STREAMS	-2%	1%	2%	2%		-1%	
EBITDA Business Segment Lithium-ion Batteries	-19%	-11%	-11%	8%		0%	
Consolidation Adjustments Itercompany profit elimination	6%	-3%	0%	-8%		-3%	

EBITDA BATTERY DIVISION							YTD August 2019	
VALUE (EUR)	Actuals		Business Plan 2019	Y-t-Y Performance		Gap to BP		
	YTD 2018 August	YTD 2019 August	YTD 2019 August	Y-t-Y (YTD BASIS)	%	Gap to BP	%	
Volumes Battery Division (batteries pcs)	1,689,253	1,982,365	2,071,520	293,112	17.4%	(89,155)	-4.3%	
Revenue Batteries Division - batteries related only	80,294	89,537	90,965	9,243	11.5%	(1,428)	-1.6%	
EBITDA Battery Division	6,066	7,780	10,170	1,713	28.2%	(2,390)	-23.5%	
EBITDA Battery Division margin %	8%	9%	11%	1.13%		-2.49%		
EBITDA RECYCLING DIVISION CORE							YTD August 2019	
VALUE (EUR)	Actuals		Business Plan 2019	Y-t-Y Performance		Gap to BP		
	YTD 2018 August	YTD 2019 August	YTD 2019 August	Y-t-Y (YTD BASIS)	%	Gap to BP	%	
Volumes Recycling Division (MT) includes intercompany sales - Lead and Lead Alloys	22,776	23,630	26,078	854	3.7%	-2,449	-9.4%	
Volumes Recycling Division (MT) Harris process Antimony Lead and Lead High in Tin	2,098	3,889	2,343	1,790	85.3%	1,546	66.0%	
Revenue Recycling Division includes intercompany sales - Lead and Lead Alloys	49,603	47,011	52,355	(2,592)	-5.2%	-5,343	-10.2%	
Revenue Recycling Division - Harris process Antimony Lead and Lead High in Tin	5,613	8,050	5,350	2,436	43.4%	2,699	50.4%	
EBITDA Recycling Division	4,386	6,885	3,942	2,499	57.0%	2,943	74.7%	
EBITDA Recycling Division margin %	8%	13%	7%	4.56%		5.67%		

Monbat Group performance highlights

YTD August 2019 HIGHLIGHTS

YTD August 2019 PERFORMANCE COMPOSITION

Market Behaviour

- Overall lower LME YTD August 2019 in comparison to YTD August 2018. Relatively stable index throughout the period. Slightly increasing LME in Q3 2019 surpassing Dec 2018 levels.
- High demand for batteries due to geographical shift of sales to territories with high season that complements Europe's low season.

Our Response

- Proactive approach of the sales team in the battery division (geographical diversification) which led to battery volumes increase with 17.4% YTD August 2019 compared to PY
- Decrease of the % of LME offered to scrap battery suppliers.
- Increase in processing of the antimony lead used in Harris process for sales to third parties

Our Result

- Consolidated EBITDA -12.3m EUR matching the normalized BP and overachieving PY by 54.5%

Batteries

- Positive sales volume variance against PY due to battery sales increase with app. 300 K pieces compared to August 2018
- Slight negative sales variance against BP due to lower sales than budgeted YTD August 2018
- Time lag in indexing sales prices in Jan/Feb 2019 leading to negative Price-COGS variance against BP

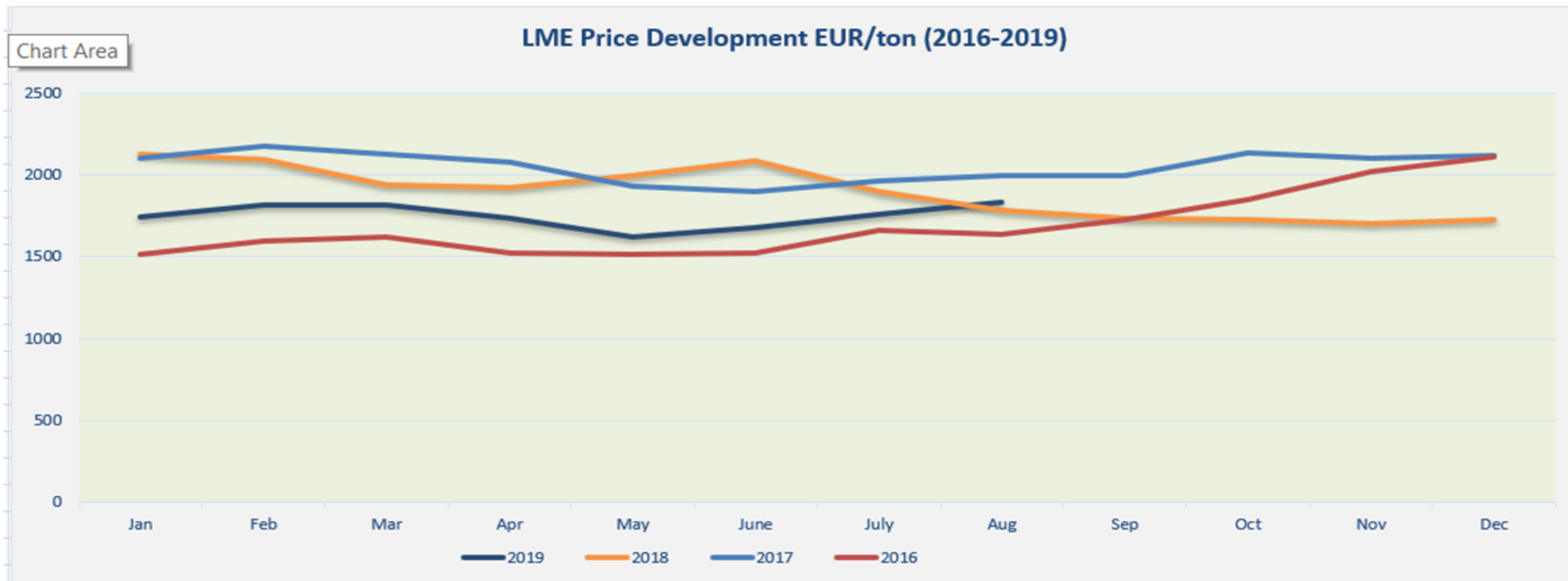
Recycling - core

- Positive Volume variance against PY
- Slight Positive LME effect in month of August 2019 against negative LME effect in same month of PY
- Subsidy received in MRS
- Positive Price-COGS effect against BP driven by – sourcing at better prices, higher yields and better optimization of the production process; slight positive LME effect in August 2019

Other business segments

- Higher consolidation adjustments due to higher results of the Recycling division as compared to PY and BP

LME Movement (2016-2019)



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2019	1,742	1,814	1,816	1,732	1,624	1,674	1,758	1,836				
2018	2,123	2,093	1,942	1,922	1,997	2,088	1,900	1,788	1,738	1,727	1,707	1,726
2017	2,101	2,180	2,129	2,081	1,928	1,896	1,967	1,996	1,996	2,132	2,105	2,118
2016	1,517	1,596	1,624	1,523	1,516	1,525	1,658	1,640	1,731	1,850	2,022	2,113