

automotive | industrial | retail

METAIR SITE VISIT – TURKEY 2017





This presentation has been prepared to provide investors with supplementary disclosure relating to the strategy, financial and operational information of previously published annual and interim results.

In addition, Metair wished to update margin guidance for the Automotive Component Vertical.

The supplementary information covers the following areas:

- ✓ General strategic path disclosure, including impact and Metair response to disruptive technology
- Geographic revenues and margins
- Geographic volumes
- Local currency operating profit for Mutlu and Rombat
- Invested capital by business vertical
- ✓ Last twelve month ("LTM") financial and operational analyses

As such, this information should be read with and understood within the context of Metair's annual integrated report, as well as previously released annual and interim results presentations





- Opening observation Who is Metair?
- Disruptive Technology Metair Electric Vehicle (EV) adaptability
- Enhancement of Metair strategy
- Financial & Operational supplementary disclosures
- Prospects
- Q&A



Metair Investments Limited is a 70-year old listed company on the Johannesburg Securities Exchange (JSE) who is invested in 11 companies in South Africa and 5 International operations covering two distinct business verticals.

The Energy Vertical operates locally and internationally while the Automotive Components Vertical operates in South Africa only.



In the Energy Vertical our product offering range from lead acid batteries to Li-ion energy solutions for the automotive, retail, standby, mining, utilities, telecommunications and OEM industry.

In the Automotive Components Vertical our product offering ranges from Wire Harnesses (engine room main, instrument cluster & panel, etc.), Heat Exchange products (radiators, pipes & hoses, condensers, evaporator cores, HVAC units, etc.), Lighting products (headlights, taillights, signal lights, etc.), Plastic products (door panels, center consoles, chromed parts, etc.), Suspension parts (coil springs, leaf springs, stabilizer bars, shock absorbers, etc.) and Brake systems (brake shoes, disks, drums, etc.) for the OEM and Aftermarket industries.

ENHANCED METAIR GLOBALISATION STRATEGY COMPANY DESIGN



Metair's strategy for our Energy Storage Vertical is to become the world leader in the supply of energy source products used in control and energy solutions across the full spectrum of mobility options and to nurture our Automotive Components Vertical with participation in selected growth opportunities.



OPENING OBSERVATION INVESTEE COMPANIES



Manufacturing IP in product development Key OE Company Ownership partnerships relationships Logo Key business area and products 🚱 🕭 🚳 🖘 🕬 🕬 Batteries, solar systems, backup systems, MUILU Mutlu Akū 100.0% ~ isuzu 🧱 Olokar Musei 🚣 🛐 standby systems, charging systems hand 🛞 🥌 🚆 🔛 Batteries, solar systems, backup systems, standby Cattery First National Battery 100.0% ~ (\pm) ISUZU <u>.</u> systems, charging systems, Battery Centre franchise Batteries, solar systems, backup systems, standby systems KUIIIBAI 🖦 🚯 😒 99.4% ~ Rombat 🔍 🔛 😁 🤍 🐨 🕒 ~ Supreme Spring 100.0% Coil springs, leaf springs, stabiliser bars, torsion bars Brake pads, brake discs, brake shoes, hydraulics and other Alte ╯ ATE 100.0% braking components Headlights, tail lights, reflectors, plastic injection mouldings, IMOTECH (1 1 Lumotech 100.0% 💬 🥌 🛞 ~ commercial lighting including streetlights and warehouse lights Tenneco 🕮 🛄 😁 ~ 25.1% Shock absorbers, struts, track control arms **TENNECO** Automotive Hesto <u>ه</u> HESTO 74.9% Wiring harnesses, instrument cluster/combination meters ~ Hamesses Valeo Valeo SA 49.0% ~ ۷ 🕑 Front end modules Smiths SAME ~ 👷 🥹 😁 🕗 100.0% Plastic injection moulding Plastics Automould ~ 100.0% Plastic injection moulding 🎇 👹 😁 😃 Air-conditioning and climate control systems, air Smiths and a 75.0% ~ 🎬 😐 😁 😃 cleaners, radiators, wiper systems, engine control units, Manufacturing washer systems, charge air coolers, reserve tanks titule <u>ب</u> Unitrade 100.0% ~ Automotive cable, automotive wire Dynamic Battery National and international distribution of key battery group DYNAMC 100.0% Services products Associated Battery \mathbb{N} Manufacturers 25.0% Automotive and solar batteries abm (East Africa) ~ MOII GmbH & Co. 25.1% International distribution of key battery group products



Metair continues to operate in an exciting and very dynamic environment. We remain well positioned to take advantage of changing technological trends, especially in our energy storage vertical where market conditions and dynamics are subject to technology shifts in the mobility space, particularly the possible accelerated mass introduction of Electric Vehicles (EV's).



METAIR ELECTRIC VEHICLE ADAPTABILITY DISRUPTIVE TECHNOLOGIES





METAIR AS A VISIONARY – Metair group companies built two EV's in 2012.

 METAIR MINDSET - To accept the EV challenge and possibility of a 100% EV production scenario sometime in the future.
To plan the group's path to real EV relevance and EV proof the business.
METAIR ACTION - To enhance our strategy in order to facilitate a smooth and sustainable transition to EV reality.

METAIR ELECTRIC VEHICLE ADAPTABILITY 2012: IN-HOUSE PRODUCTION OF TWO EV'S



Design of Metair EV from first principles:



Retrofit internal combustion engine with electric motor and battery power source:





Is our current product range required in EV's?



WHAT IS OUR CURRENT PRODUCT RANGE?

- Wiring harnesses Copper
- Lighting Plastics
- Heat exchange products Aluminium
- Plastic products Plastics
- Ride control products Steel & composites
- Energy storage batteries Lead, Li-ion



GAIN IMPORTANCE & RELEVANCE

PRODUCTS	RELEVANCE	INCREASE
Wiring harnesses	Gain	80% increase in copper
Lighting	Gain	Increase in aesthetics
Heat exchange products	Gain/Loss	20% increase in aluminium
Plastic products	Gain	EV >20% heavier
Ride control products	Gain	Increase in comfort
Energy storage batteries	Gain	Increase in electrical demand



Is our current product range required in EV's?



YES most definitely



BUT when?



- EV's >20% heavier than ICE-V
- 70% of the carbon footprint is in the production of the vehicle
- More commodities in EV's require more conversion energy carbon footprint is larger than ICE-V
- Lifecycle carbon footprint of EV's that is charged by electricity grid, powered by fossil fuels, are higher than ICE-V
- First disruption will come from elimination of diesel derivatives from the export models in next vehicle launches



Hybrid vehicles will increase in importance and share the diesel derivative

elimination with petrol derivatives

 Start/Stop battery storage solutions are the gateway technology in the pathway to full EV technology



ENERGY STORAGE ADVANCEMENT





METAIR LAUNCHES PROGRAMME TO DELIVER LOCALLY PRODUCED LITHIUM-ION STORAGE SOLUTIONS IN SA, TURKEY AND ROMANIA

- Programme aims to balance the use of locally available commodities with internationally recognised chemistry solutions
- Partnership approach with academia and industry agencies on production and certification
- R3 million UWC funding over three years to support prototype lithium-ion production and to train a local post-doctoral fellow at the Argonne National Laboratory in the USA
- Aligned with Metair's strategy to be a leading market player in energy solutions for the full mobility spectrum
- Production will focus on mining cap lamp cells, 12 volts lithium ion automotive batteries, 48V lithium ion battery for Energy Storage application and Solar panel recharge.

LITHIUM ION BATTERY – ELECTRODE MANUFACTURE AT ESIL, UWC, CAPE TOWN





18650 Cell Type









LITHIUM ION BATTERY – ELECTRODE MANUFACTURE AT ESIL, UWC, CAPE TOWN







LITHIUM ION BATTERY – MIB COLLABORATION













LITHIUM ION BATTERY – CELL DESIGN TYPES





Source: M + W Group, 2015



12V LITHIUM ION BATTERY DEVELOPMENT







D BASF The Chemical Company

Lithium-ion Battery Cathode Materials



HED[™] LFP-400

Lithium Iron Phosphate Cathode Materials

BASF offers a portfolio of application specific cathode materials to support **high energy density**, **safety**, and **improved efficiency** for lithium-ion batteries.

Sample Analysis		
Composition	LiFePO ₄ (carbon coated)	
1 st discharge capacity* (0.1C)	156 +/- 2 mAh/g	
Discharge Capacity* 10C	96 +/- 6 mAh/g	
D50	9-11 μm	
Tap density	~ 1 g/cm ³	
Carbon content	3.6 +/- 0.2 wt %	
BET surface	23 +/- 3 m²/g	
*holf coll data upsalandarad		





half-cell data, uncalendared

LITHIUM ION BATTERY – PRIMEMOTORS COLLABORATION



Metair's first vehicle converted from Internal Combustion Engine to a full electric vehicle. The EV was produced in cooperation with Primemotors in Romania and fitted with in-house Lithium Ion battery technology. The EV conversion showcases Metair's understanding and adaptation of disruptive technology.





ENHANCEMENT OF METAIR STRATEGY MOBILITY SOLUTION & MARKET DEVELOPMENT INFLUENCE



ENHANCED METAIR GLOBALISATION STRATEGY HOW DO WE DELIVER ON THE STRATEGY





- First 3 X 5 strategy ٠
- 2005 2010
- R5 billion turnover ٠
- **R500 million PBIT** ٠
- Second 3 X 5 strategy ٠
 - 2011 2014
- 50% Aftermarket ٠
- 50% OE ٠

٠

- 50% Batteries ٠
- Third 3 X 5 strategy ٠
- 2 Stage process ٠
- **5** Continents ٠
- 50 Million batteries ٠
- In 5 years ٠

- Two distinct business verticals established Automotive **Energy Storage** Components
- Energy Vertical takes strategic dominance ٠
- Foundation laid to build on

DELIVERED

DELIVERED



- Intellectual property in Start Stop Technology
- Successful industrialization of Start Stop Technology
- Global carbon emission reduction drive
- Reduction of all types of pollution coming from mobility options
- Customer need for alternative suppliers
- Requests for technology transfer
- Global energy solution focus
- Continuous increase in energy demand in mobility
- Accelerated introduction of electric vehicles

ENHANCED METAIR GLOBALISATION STRATEGY MAIN DRIVERS BEHIND GLOBAL STRATEGY





ENHANCED METAIR GLOBALISATION STRATEGY CURRENT LOCATIONS: DUE TO REQUEST FOR TA'S







"In order to maximise the span between the front and the back end of the technology spectrum Metair and our partners want to over-lay our energy solution offering across the full mobility spectrum in both developed and

emerging market economies"

ENHANCED METAIR GLOBALISATION STRATEGY MOBILITY SPECTRUM





ENHANCED METAIR GLOBALISATION STRATEGY MARKETS: DEVELOPED AND EMERGING





ENHANCED METAIR GLOBALISATION STRATEGY COMPANY DESIGN



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ENHANCED METAIR GLOBILISATION STRATEGY ACCESS TO EXPERTS





DR RAINER WAGNER MOLL Batterien Chemistry/Electrochemistry, Electrochemical PhD



DR DENİZ ŞEKER Mutlu R & D Director Mechanical Engineering



DR MUHSIN MAZMAN Mutlu New Technologies & Laboratory Manager Chemistry



DR SUAT YILDIRMAZ Mutlu Senior BMS Engineer Electrical – Electronics Engineering



Rombat PhD. Philosophiae Doctor Technical Science , Electrical machines, apparatus and electrical drives

DR CSAPO MARTINESCU ERNEST ELOD



DR LOUIS DENNER MIB BSc, BSc Hons, MSc and PhD

DR FRANK GÜTHLEIN MOLL Batterien PhD on Inorganic Catalysis

DR BORIS STEINER MOLL Batterien Degree in Physics, PhD in Engineering Sciences





。 超威動力控股有限公司 CHAOWEI POWER HOLDINGS LIMITED

	Name	Major
1.	Dr Sun Yanxian	Electrochemistry
2.	Dr Liu Xia	Condensed Matter Physics
3.	Dr Zhang Hongtao	Materials Science and Engineering
4.	Dr Chang Linrong	Chemistry
5.	Dr Deng Jiyang	Materials Science
6.	Dr Li Hongtao	Polymer Chemistry and Physics
7.	Dr Ren Ning	Electrochemistry
8.	Dr Ke ke	Materials Science



BACKGROUND ON CHAOWEI POWER HOLDINGS LTD



。 超威動力控股有限公司 Chaowei Power Holdings Limited





- Listed on the Hong Kong Stock Exchange
- Acquired a stake in Moll in 2013
- Group's manufacturing and management headquarters is located at Changxing County, Zhejiang Province, China
- Largest producer of lead-acid e-bike batteries in China
- Annual production capacity in excess of 140 million batteries
- Produces approximately 300 000 Lithium-ion pouch type cells per annum
- Its major production facilities are located in close proximity to markets and regions in 7 provinces of China with the strongest demand for lead-acid motive batteries





- Manufactures and sells lead-acid and Li-ion batteries and other related products for the use in
 - Electric bikes
 - Electric vehicles
 - Special-purpose electric vehicles
 - Storage batteries
- Innovative Product Technology / Leading Industry Development
 - Leading player in China
 - Growing market demand
 - Advanced technology
 - Leading environmental friendly process
 - Extensive distribution network
 - Diversified product portfolio





FINANCIAL & OPERATIONAL SUPPLEMENTARY DISCLOSURES



FINANCIAL HIGHLIGHTS

METAIR'S RECENT HISTORY HAS BEEN INFLUENCED BY A NUMBER OF SPECIFIC EVENTS WHICH ARE UNLIKELY TO RECUR IN THE SHORT TO MEDIUM TERM





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FINANCIAL HIGHLIGHTS METAIR'S RECENT HISTORY HAS BEEN INFLUENCED BY A NUMBER OF SPECIFIC EVENTS WHICH ARE UNLIKELY TO RECUR IN THE SHORT TO MEDIUM TERM <u>2015:</u> <u>2013:</u>

- Mutlu export to CIS countries impacted by weakening currencies due to lower oil price
- Increased R&D expenditure
- Rombat loss of recycling profit (lead price avg \$1786/t)
- Model launch preparation SA

303

2014



400

200

0

Acquisition of Mutlu

Transaction costs

- Strong results from Mutlu, R346m PBIT
- Normal AC year pre model change

219

2013

2016:

2015

248

Model launch major customer, margins dropped to 6% from 9.5%

229

2016

FNB competitive position and factory move, impacted margins by 7-8%

289

Jun'17(LTM)

- 2013CTM 2017 (June)
- Recovering in auto margins to 9.9% an LTM basis
- Impact of TRY/ZAR conversion effectively c.R80m on LFL Basis
 - H₂ impact of currency still not reflected in LTM HEPS, neither is unusually strong H₂ from AC in 2016



ENERGY STORAGE VERTICAL AT A GLANCE -LTM JUNE'17



3 0 0 0 2 500 2 000 **ENERGY STORAGE** 1 500 1000 500 0 OE REVENUE BY OPERATION (LTM) (R'm) **OPERATING PROFIT** REVENUE **R5.7 BILLION R550 MILLION 57% Contribution 57% Contribution 3.3K EMPLOYEES** 6 COUNTRIES (incl. Associates) 7 MANUFACTURING SITES AND 3 RECYCLING FACILITIES **R&D CENTRES IN GERMANY AND TURKEY** 5.5 5.0 **PBIT MARGIN:** 9.4% 4.5 4.0 ROIC: 14.7% 3.5 3.0



Mutlu Group Rombat FNB

VOLUMES (LTM) ('m)

OE AFM Local AFM Exports Indus.

TRY / ZAR Avg

* before inter-co eliminations

675 55%



AFTERMARKET REVENUE BY OPERATION (LTM) (R'm) * before inter-co eliminations



Mutlu Group Rombat FNB

MWH PER COMPANY JUNE'17 (LTM)



 Mutlu Rombat









METAIR – LTM JUNE'17 FINANCIAL METRIC ANALYSIS





ENERGY STORAGE



1) Mutlu contributed > 45% of total vertical revenue

GEOGRAPHICAL - REVENUE (LTM) (R'm) - REVENUE (H1) (R'm) GEOGRAPHICAL - PBIT (LTM) (R'm) - PBIT (H1) (R'm) ENERGY STORAGE - PBIT (LTM) (R'm) 700 11,2%11,4% 7 0 0 0 600 10,4%10,3%10,3%10,4%10,4%10,0%10,4% 600 6 0 0 0 500 500 5 000 400 279 2 866 254 2 736 386 360 2 4 8 6 400 4 0 0 0 2 199 300 300 3 000 1 203 988 1 180 200 88 200 1 1 38 115 2 0 0 0 1 008 94 45 585 517 100 43 100 1000 196 1 720 1 807 1 847 888 928 88 0 0 0 16 16 16 16 Dec16 17 17 16 16 16 Oct 16 Vov 16 Jan 17 Feb 17 17 Dec15 16 16 17 lun 16 Dec15 16 16 5 un 16 8 Var Vay Π 3 Aug Se S Vlar Aay Apr Apr 5 보 보 댶 뒫 PBIT FNB Rombat Mutlu Group FNB Rombat Mutlu Group * before inter-co eliminations * before inter-co eliminations 2016 shows the FNB competitive position and factory move, impacted margins by 7-8% 4) Mutlu local currency PBIT vs ZAR 5) Rombat currency impact much less, with good 6) ROIC & LME prices TRY devaluation since acquisition +-25% PBIT and margin improvement ENERGY STORAGE ROIC (LTM) 14.7% 14,0% 14,0% 14,1% 15% MUTLU PBIT (LTM) ('m) - TRY / ZAR ROMBAT PBIT (LTM) ('m) - LEI / ZAR 500 100 120 35 79 82 97 94 10% 30 400 80 100 1 1 8 9 1 0 9 9 1 185 25 57 54 386 80 67 29 1 1 0 9 300 360 60 26 20 . 60 5% 279 41 200 40 15 254 18 40 10 13 100 20 2 074 1 945 1 592 2 073 20 5 0% 0 0 1612 1512 606 706 un 17 Net working capital Other invested capital - Mutlu Group (ZAR) Average Lead price (TL) Average Lead price (USD) MUTLU PBIT MARGIN % (LTM) - TRY **ROMBAT PBIT MARGIN % (LTM) - LEI** 10 000 2 700 9 000 2 500 16% 10% 9% 8% 7% 6% 5% 4% 13.5% 8 000 (G 2 300 C 2 100 S 2 100 S 1 900 12,6% 14% 8.1% 11,5% 7,4% 7 000 11.3% 12% 6 000 5,5% 10% 5 000 1 700 F 4.2% 4 000 8% 1 500 6% 3% 2% 4% 2% 19 Avg Lead Price Ava Lead Price 0% Year Avg 2015 - TL5 377 Year Avg 2016 - TL5 969 Avg 2017 - TL8 227 0% Year Avg 2015 - \$1 786 Year Avg 2016 - \$1 869 un 17 un 16 Dec16 Dec15 Dec16 lun 17 5 Avg 2017 - \$2 281

2) And contributed > 60% of vertical PBIT. The graphs show the 2015 impact of Mutlu loss of CIS country exports and subsequent strong recovery on sale of spare capacity and improved volumes

3) Energy storage vertical PBIT largely flat over the past 18 months despite TRY currency depreciation against the ZAR, much higher lead input cost and margin loss at FNB in 2016



R'm

4 0 0 0

3 500

3 0 0 0

2 500

2 0 0 0

1 500

1 0 0 0

500

ENERGY STORAGE VOLUMES (* rounded)

4) Delayed timing of PSA exports in Rombat contributed to lower OEM exports (model launch related), focus on quality of volumes

2) Energy Storage auto volumes has grown significantly from 2015 volumes of 7.2m to 7.8m

5) Local pricing conditions and price corrections in SA impacted on AM sales, focus on quality of volumes

6) Industrial sales at FNB and Mutlu improved after loss of Telecomms contracts in FY16

AUTOMOTIVE COMPONENTS

PROSPECTS

The prospects statement, as contained in the Integrated Annual Report of Metair for 2016, indicated that the group will only feel the real effect of the Turkish Lira devaluation in 2017 as the currency settles at a lower level.

The good improvement in first half results should support a sustained performance for the full year, when compared to 2016, as we face the full year impact of the Turkish Lira devaluation.

This business vertical managed to renew most of the business associated with the new model launch in support of the next business cycle linked to new model launches.

The major challenges to the next five- to seven-year cycle in South Africa relates to the production volume and margins outlook for newly secured business.

The margins achieved for the period are higher than the guidance provided previously of between 6% and 8%, as well as the targeted 8% for full year 2017 as mentioned during our 2016 year-end presentation.

Guidance Update

However, new model launches are always associated with lower margins, and therefore the company maintains its guidance that the achievement of targeted production volumes and efficiencies associated with the new technology and continued stabilisation of manufacturing processes should result in sustainable medium term PBIT margins on new business of between 7% and 9%.

PROSPECTS ENERGY STORAGE VERTICAL

The second half of the year traditionally benefits from seasonal demand brought about by the winter period associated with the market served by Rombat and Mutlu in Europe and the Middle East.

In the South African market we expect moderately improved trading conditions.

Strong seasonal demand in our winter markets supported by achievement of some geo-political stability in Turkey could support a continued good local currency performance in the second half in-country. The challenge continues to be the devaluation of the Turkish Lira as it affects the Rand translated results.

Q & A

The information supplied herewith is believed to be correct but the accuracy thereof at the time of going to print is not guaranteed. The company and its employees cannot accept liability for loss suffered in consequence of reliance on the information provided. Provision of this data does not obviate the need to make further appropriate enquiries and inspections. The financial information has not been reviewed or reported on by the Company's external auditors.