

### **2016 Interim Presentation**

### 27<sup>th</sup> July 2016

www.morganadvancedmaterials.com

• Introduction and key highlights – Pete Raby

• 2016 interim results – Peter Turner

• Strategy and operational update – Pete Raby



- A solid start to 2016 in a challenging market, in line with management expectations
- No change to full year guidance
- Strategy implementation on track



## 2016 interim results Peter Turner



### Group performance summary

	H1 2016 <sup>1</sup>	H1 2015 <sup>1</sup>	% change from H1 2015	
			As reported	At constant currency
	£m	£m	%	%
Revenue	475.4	469.2	1.3%	-2.4%
Group underlying operating profit <sup>2</sup>	55.1	61.1	-9.8%	-13.9%
Group underlying operating profit margin % <sup>2</sup>	11.6%	13.0%		
Cash flow from operations	47.5	59.2	-19.8%	
Underlying earnings per share	10.5p	12.6p	-16.7%	
Interim dividend per share	4.0p	4.0p		

1 Results before specific adjusting items

2 Group underlying operating profit is before specific adjusting items and amortisation of intangibles



### **Divisional performance**

	Reven	ue (£m)	EBITA	A (£m)	EBITA m	argin (%)
	H1 2016	H1 2015	H1 2016	H1 2015	H1 2016	H1 2015
Thermal Ceramics	193.9	186.0	25.6	26.6	13.2%	14.3%
Molten Metal Systems	20.6	20.6	2.9	2.6	14.1%	12.6%
Thermal Products	214.5	206.6	28.5	29.2	13.3%	14.1%
Electrical Carbon	75.6	78.1	10.3	12.1	13.6%	15.5%
Seals and Bearings	47.6	47.7	6.6	6.9	13.9%	14.5%
Technical Ceramics	121.8	120.2	12.8	15.0	10.5%	12.5%
Carbon and Technical Ceramics	245.0	246.0	29.7	34.0	12.1%	13.8%
Composites and Defence Systems	15.9	16.6	1.1	0.4	6.9%	2.4%
Corporate costs			(2.7)	(2.5)		
Restructuring costs			(1.5)			
Group	475.4	469.2	55.1	61.1	11.6%	13.0%



### Cash flow summary

	H1 2016 £m	H1 2015 £m
Cash from trading*	70.7	74.9
Change in working capital	(16.3)	(9.0)
Change in provisions	(6.9)	(6.7)
Cash flow from operations	47.5	59.2
Net capital expenditure	(17.7)	(31.8)
Net interest paid	(6.2)	(4.9)
Tax paid on ordinary activities	(8.3)	(17.4)
Restructuring costs and other one-off items	(4.2)	(2.6)
Free cash flow before acquisitions and dividends	11.1	2.5
Dividends paid	(20.0)	(20.0)
Cash flows from other investing and financing	(1.4)	2.5
Exchange movement	(15.3)	4.9
Opening net debt	(216.0)	(207.0)
Closing net debt	(241.6)	(217.1)

- Working capital outflow following strong performance in H2 2015
- Capital expenditure significantly lower than prior year due to one-off Swansea site purchase in 2015
- Net debt:EBITDA\*\* at 1.7x (FY 2015: 1.6x) due to FX movements

\* Cash from trading is EBITA adjusted for depreciation and profit on sale of plant and machinery

\*\* Annualised H1 2016 EBITDA divided by Net Debt



### Pensions update

Deficit movement since 31 Dec 2015 (£m)		
Deficit at 31 December 2015	(205)	
Foreign exchange	(10)	
Return on assets	30	
Contributions (net of service costs)	9	
Settlements	4	
Change in liabilities	(99)	
Deficit at 30 June 2016	(271)	

#### Annual cash contributions

	2016
Funded scheme contributions	£20m
- UK	£10m
- USA	£8m
- Rest of World	£2m

£m	30 June 2016	31 December 2015
Assets	531	519
Liabilities	(802)	(724)
Deficit	(271)	(205)
UK bond yields	2.8%	3.7%
US bond yields	3.8%	4.5%



### Financial summary

- H1 performance in line with expectations
- Group underlying operating profit margin at 11.6%
- Underlying EPS at 10.5p
- Interim dividend maintained at 4.0p



## Strategy and operational update Pete Raby



### Thermal Ceramics: performance summary

£m	H1 2016	H1 2015	Reported change %	Constant currency change %
Revenue	193.9	186.0	4.2%	0.6%
EBITA	25.6	26.6	-3.8%	
EBITA margin %	13.2%	14.3%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Japan growing strongly</li> <li>Europe continuing to grow</li> <li>North American market down, continuing trend from 2015 H2</li> <li>Margin declines with higher margin North America sales replaced by lower margin European sales</li> </ul>	<ul> <li>Growth opportunities: automotive, fire protection, energy</li> <li>Operational improvements: lean manufacturing, capacity utilisation, procurement</li> <li>Continued Superwool® conversion</li> </ul>	<ul> <li>Industrial</li> <li>Chemical and petrochemical</li> <li>Metals</li> <li>Automotive</li> </ul>



### Molten Metal Systems: performance summary

£m	H1 2016	H1 2015	Reported change %	Constant currency change %
Revenue	20.6	20.6	0.0%	-1.4%
EBITA	2.9	2.6	11.5%	
EBITA margin %	14.1%	12.6%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Modest revenue decline due to weaker sales in China and North America</li> <li>Margins benefitting from productivity improvements</li> </ul>	<ul> <li>Operational improvements: lean manufacturing, equipment efficiency</li> <li>Sales effectiveness: value selling</li> <li>R&amp;D: new product development and introduction for the automotive market</li> <li>Talent development</li> </ul>	<ul> <li>Automotive (aluminium)</li> <li>Construction (copper)</li> </ul>



### Electrical Carbon: performance summary

£m	H1 2016	H1 2015	Reported change %	Constant currency change %
Revenue	75.6	78.1	-3.2%	-6.0%
EBITA	10.3	12.1	-14.9%	
EBITA margin %	13.6%	15.5%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Market decline in North America and China on the back of weak industrial and mining and flow through into traction</li> <li>Growth in rail in Europe and consumer in China</li> <li>EBITA margin decline due to volume reduction and adverse mix change</li> </ul>	<ul> <li>Growth opportunities: rail, energy</li> <li>Operational improvements: capacity utilisation, automation</li> <li>Sales effectiveness: key account management, customer roadmaps, value selling</li> <li>R&amp;D: Carbon Centre of Excellence</li> </ul>	<ul> <li>Rail</li> <li>Industrial equipment</li> <li>Power generation and distribution</li> <li>Iron and Steel</li> <li>Mining</li> </ul>



### Seals and Bearings: performance summary

£m	H1 2016	H1 2015	Reported	Constant currency change %
Revenue	47.6	47.7	-0.2%	-4.4%
EBITA	6.6	6.9	-4.3%	
EBITA margin %	13.9%	14.5%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Constant currency declines driven by oil and gas and industrial downturn</li> <li>Margin decline from volume partially offset by cost reductions</li> </ul>	<ul> <li>Growth opportunities: automotive, aerospace, consumer appliances</li> <li>Sales effectiveness: key account management</li> <li>R&amp;D: Carbon Centre of Excellence developing new carbon materials</li> <li>Talent: growing application engineering capability</li> </ul>	<ul> <li>Oil and gas</li> <li>Automotive</li> <li>Industrial</li> <li>Water pumps</li> <li>Aerospace</li> <li>Home appliances</li> </ul>



### Technical Ceramics: performance summary

£m	H1 2016	H1 2015	Reported change %	Constant currency change %
Revenue	121.8	120.2	1.3%	-3.6%
EBITA	12.8	15.0	-14.7%	
EBITA margin %	10.5%	12.5%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Revenue decline largely driven by electro-ceramic sales declining into hard disk drive (HDD) applications</li> <li>Margin decline follows the fall in high margin HDD sales</li> </ul>	<ul> <li>Growth opportunities: aerospace, medical, electronics</li> <li>Operational improvements: yield/scrap, OTD, quality</li> <li>Sales effectiveness: key account management, sales performance management</li> <li>R&amp;D: metals and joining Centre of Excellence, process innovation</li> </ul>	<ul> <li>Aerospace</li> <li>Medical</li> <li>Industrial</li> <li>Ceramics and glass</li> <li>Electronics</li> </ul>



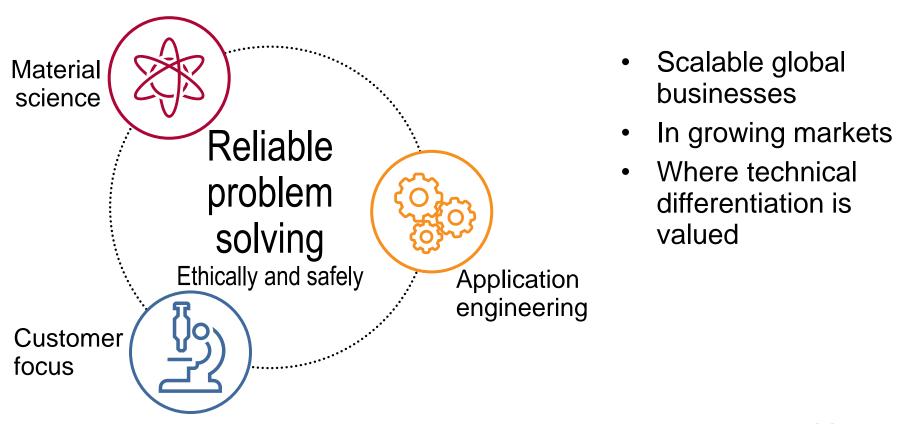
# Composites and Defence Systems: performance summary

£m	H1 2016	H1 2015	Reported change %	Constant currency change %
Revenue	15.9	16.6	-4.2%	-4.2%
EBITA	1.1	0.4		
EBITA margin %	6.9%	2.4%		

Performance commentary	Strategic focus	Main markets
<ul> <li>Defence markets remain relatively subdued</li> <li>Helmets growing following the Canadian win</li> <li>Margins improve due to cost reduction and favourable mix</li> </ul>	<ul> <li>Growth opportunities: personal protection, vehicle protection, non-ballistic composites</li> <li>Sales effectiveness: diversification of customer base</li> <li>R&amp;D: new product development and introduction</li> </ul>	<ul> <li>Military vehicles support (UK MoD)</li> <li>Soldier protection and bomb suits</li> <li>Vehicle armour</li> </ul>



Our vision is to be renowned for world-class material science, application engineering and customer focus



→ Strengthen the Group to deliver resilient financial performance and faster growth



### Six execution priorities

1. Move to a global structure

2. Extend our technology leadership

3. Improve operational execution

4. Drive sales effectiveness and market focus

5. Increase investment in people management and development

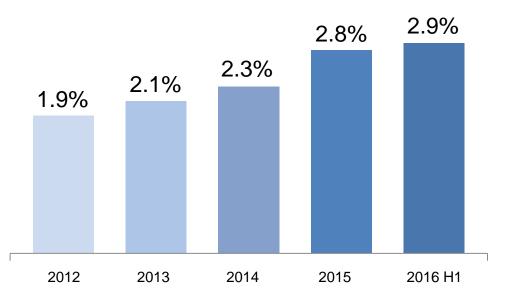
6. Simplify the business



# Extend our technology leadership by increasing R&D investment

2

R&D as a percentage of sales, 2012-2016 H1



- Investment at 2.9% of sales in H1
- Fibre investment:
  - Developing new chemistries for more extreme environments
  - Prioritising projects for key
     business growth opportunities
- Structural Ceramics investment:
  - Accelerating ceramic cores developments required for next generation engines

# → In the next 3-5 years we plan to increase R&D investment by around 1% of sales



### Two new Centres of Excellence

2

	Location	Priorities
1. Metals and Joining	<ul> <li>Hayward, California with our brazed alloys business and one of our ceramic joining and metallisation facilities</li> </ul>	<ul> <li>Applications for joining in highly corrosive environments</li> <li>Complex joint configurations</li> <li>Bio-compatible applications</li> <li>Higher temperature applications</li> <li>Assemblies with high coefficient of thermal expansion</li> </ul>
2. Carbon Science	<ul> <li>Penn State University, PA based in Innovation Park</li> </ul>	<ul> <li>Enhanced materials with lower friction and wear for longer application life</li> <li>New products to operate at higher temperatures, higher pressures, in more corrosive environments to deliver longer life</li> </ul>

→ Investing £2-3m per year in these two Centres of Excellence by 2020



#### Capital allocation and productivity

	Delivery	Quality	Efficiency
Thermal Ceramics Global procurement, manufacturing strategy and plant utilisation	0	•	••
Molten Metal Systems Global sourcing and streamlined global manufacturing strategy	•	0	•
Electrical Carbon Focus on increasing utilisation and plant optimisation	•	•	•
Seals and Bearings Reduce turnaround times and product cost	0	0	٠
Technical Ceramics Focus on improving yield, scrap rates, quality and lead times	••	••	•
Composites and Defence Systems Targeted product cost out	•	0	•

#### → Reduce costs by £3m in 2017 to re-invest in the business



### Driving sales effectiveness and market focus





# Increasing investment in people management and developing Morgan's future leaders





### Summary

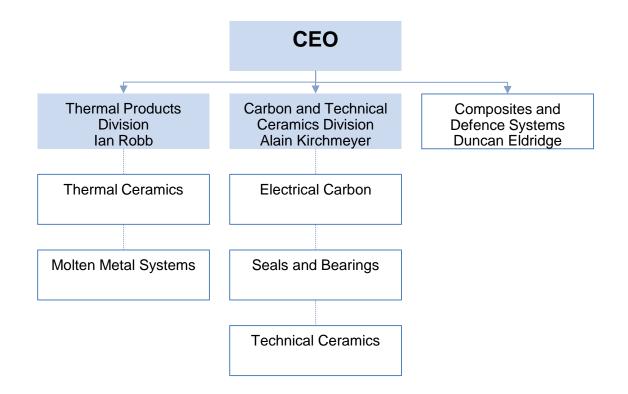
- A solid set of results in challenging market conditions
- Strategy implementation on track
- We continue to take a cautious view of market conditions, focusing on increasing our efficiency and reinvesting in the business
- Guidance for the full year unchanged



## Appendix



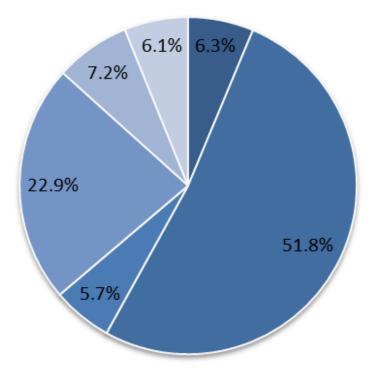
### We have implemented a global structure



- Structure implemented 1 March 2016
- Six product-based global business units
- Delivering sales wins through the new structure in Technical Ceramics
- Improving capacity management in Thermal Ceramics and Electrical Carbon



### End market mix chart



#### Energy

- Petrochemical and industrial
- Electronics and telecomms
- Transportation
- Security and defence
- Healthcare



### Reported statutory figures

	Results before specific adjusting items	Specific adjusting items	Total
	H1 2016 £m	H1 2016 £m	H1 2016 £m
Revenue	475.4	~~~~	475.4
Operating costs before restructuring costs, other one-off items and amortisation of intangible assets	(418.8)	-	(418.8)
Profit from operations before restructuring costs, other one-off ite and amortisation of intangible assets	ms 56.6	-	56.6
Restructuring costs and other one-off items: Restructuring costs Net pension settlement credit	(1.5)	- 3.8	(1.5) 3.8
Profit from operations before amortisation of intangible assets	55.1	3.8	58.9
Amortisation of intangible assets Impairment of intangible assets	(3.3)	-	(3.3)
Operating profit	51.8	3.8	55.6
Finance income Finance expense	0.7 (10.5)	-	0.7 (10.5)
Net financing costs	(9.8)	-	(9.8)
Share of profit of associate (net of income tax)	0.4	-	0.4
Profit before taxation	42.4	3.8	46.2
Income tax expense	(12.7)	(1.5)	(14.2)
Profit for the period	29.7	2.3	32.0
Profit for the period attributable to: Owners of the parent Non-controlling interests	26.7 3.0	2.3	29.0 3.0
Profit for the period	29.7	2.3	32.0



### Key exchange rates

	H1 2	2016	FY 2	2015	H1 2	2015
GBP to:	Closing rate	Average rate	Closing rate	Average rate	Closing rate	Average rate
USD	1.33	1.43	1.47	1.53	1.57	1.52
EUR	1.20	1.28	1.36	1.38	1.41	1.37

Key exchange rate sensitivities on H1 results		
Increase in H1 revenue/Group EBITA if:	Revenue £m	Group EBITA £m
GBP weakens by 10c against the US dollar in isolation	+14.0	+1.9
GBP weakens by 10c against the Euro in isolation	+9.0	+1.5



	H1 2016 £m	H1 2015 £m
Basic earnings from continuing operations	29.0	32.4
Amortisation	3.3	3.6
Specific adjusting items	(2.3)	0.0
Underlying earnings	30.0	36.0
Weighted average number of shares in the period	284.8m	285.1m
Underlying earnings per share from continuing operations	10.5p	12.6p



### Divisional performance FY 2015

	Revenue (£m) FY 2015	EBITA (£m) FY 2015	EBITA Margin % FY 2015
Thermal Ceramics	372.4	55.2	14.8%
Molten Metal Systems	39.7	5.3	13.4%
Thermal Products	412.1	60.5	14.7%
Electrical Carbon	145.6	19.3	13.3%
Seals and Bearings	88.6	9.9	11.2%
Technical Ceramics	237.8	26.1	11.0%
Carbon and Technical Ceramics	472.0	55.3	11.7%
Composites and Defence Systems	27.7	(1.0)	-3.6%
Corporate costs		(5.2)	
Group	911.8	109.6	12.0%





### **2016 Interim Presentation**

### 27<sup>th</sup> July 2016

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