

A GLOBAL LEADER IN METAL FLOW ENGINEERING

2016 Half Year Results

29 July 2016
François Wanecq
Chief Executive

VESUVIUS PLC

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Agenda



- 2016 Half Year Group results – François Wanecq
- Financial Review – Guy Young
- Strategy and Outlook – François Wanecq

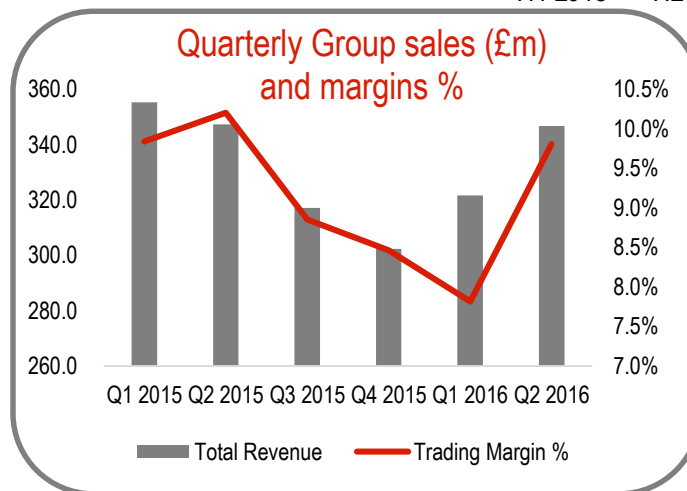
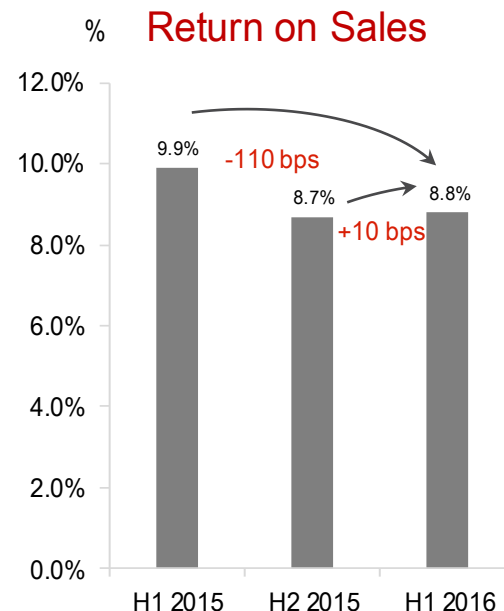
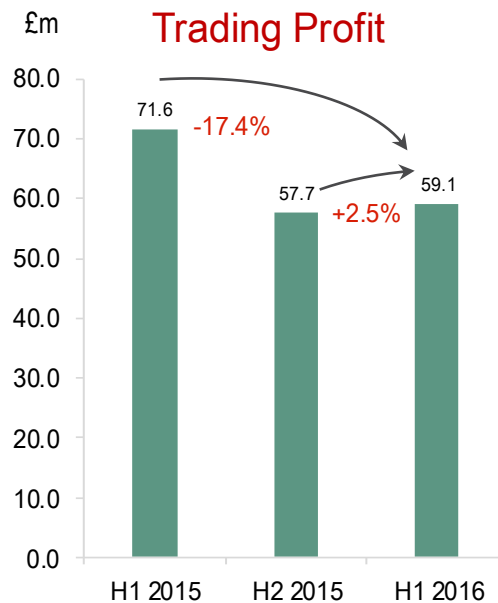
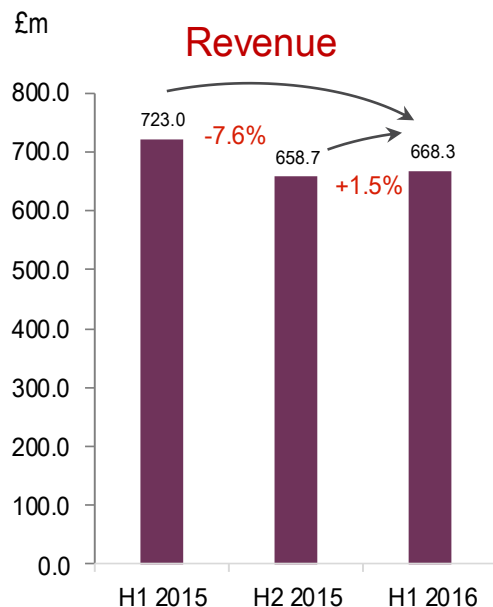


Summary

- Revenue, profit and return on sales in line with expectations
- Improvement in revenue and profit compared to H2 2015
- Continued outperformance in India, a key strategic growth area
- Restructuring programme delivered £7.1m cost savings in H1 2016
 - Total annual programme benefits increased to £25m by the end of 2017 at a cost of £35m
- Strong cash performance, with cash conversion of 111%
- Strong balance sheet, with long-term bank facilities in place to 2020
- Maintained the interim dividend at 5.15p per share



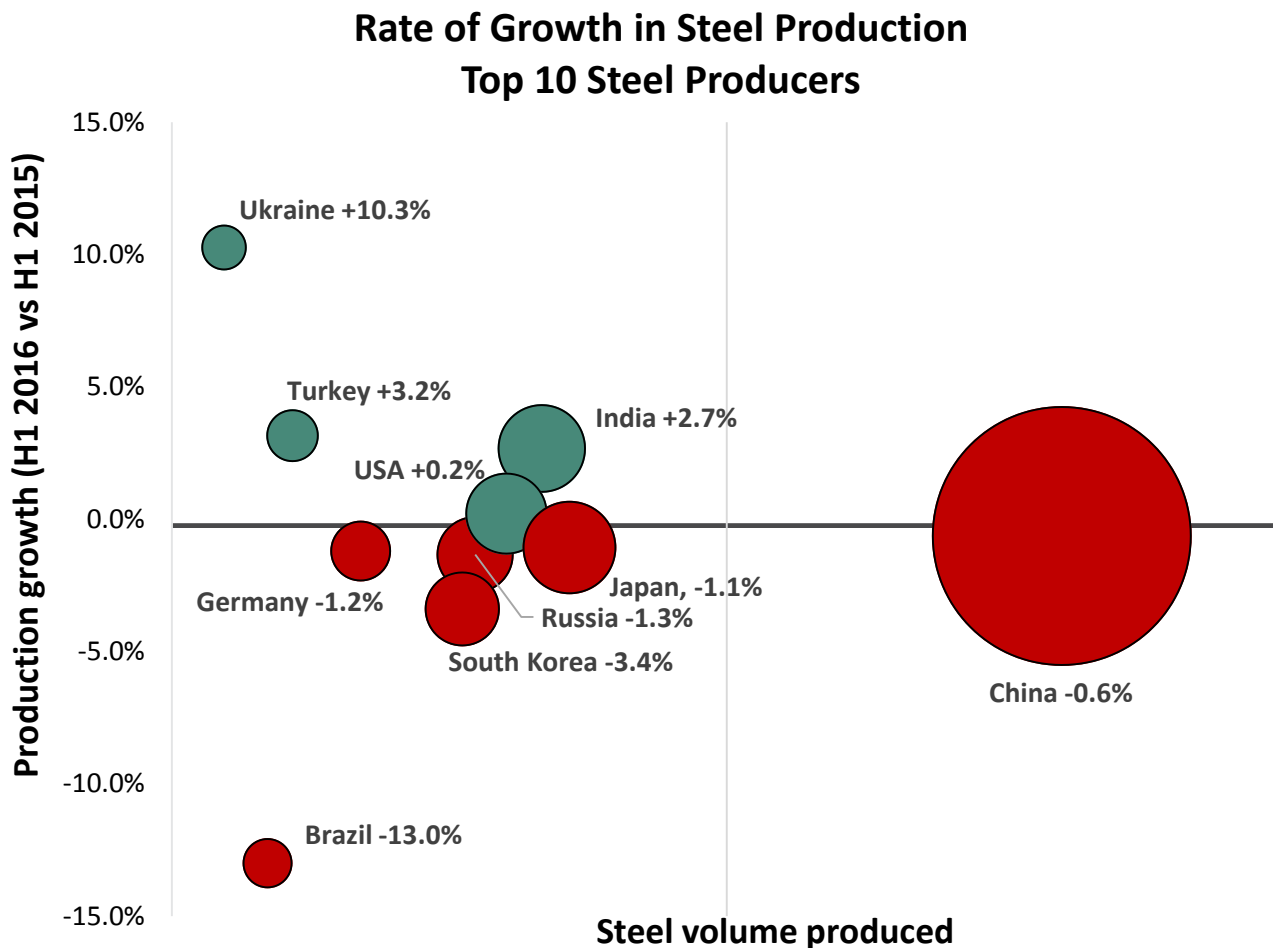
H1 2016 Underlying⁽¹⁾ trading performance



(1) Underlying basis is at constant currency and excludes separately reported items and the impact of acquisitions

The world steel markets declined year-on-year....

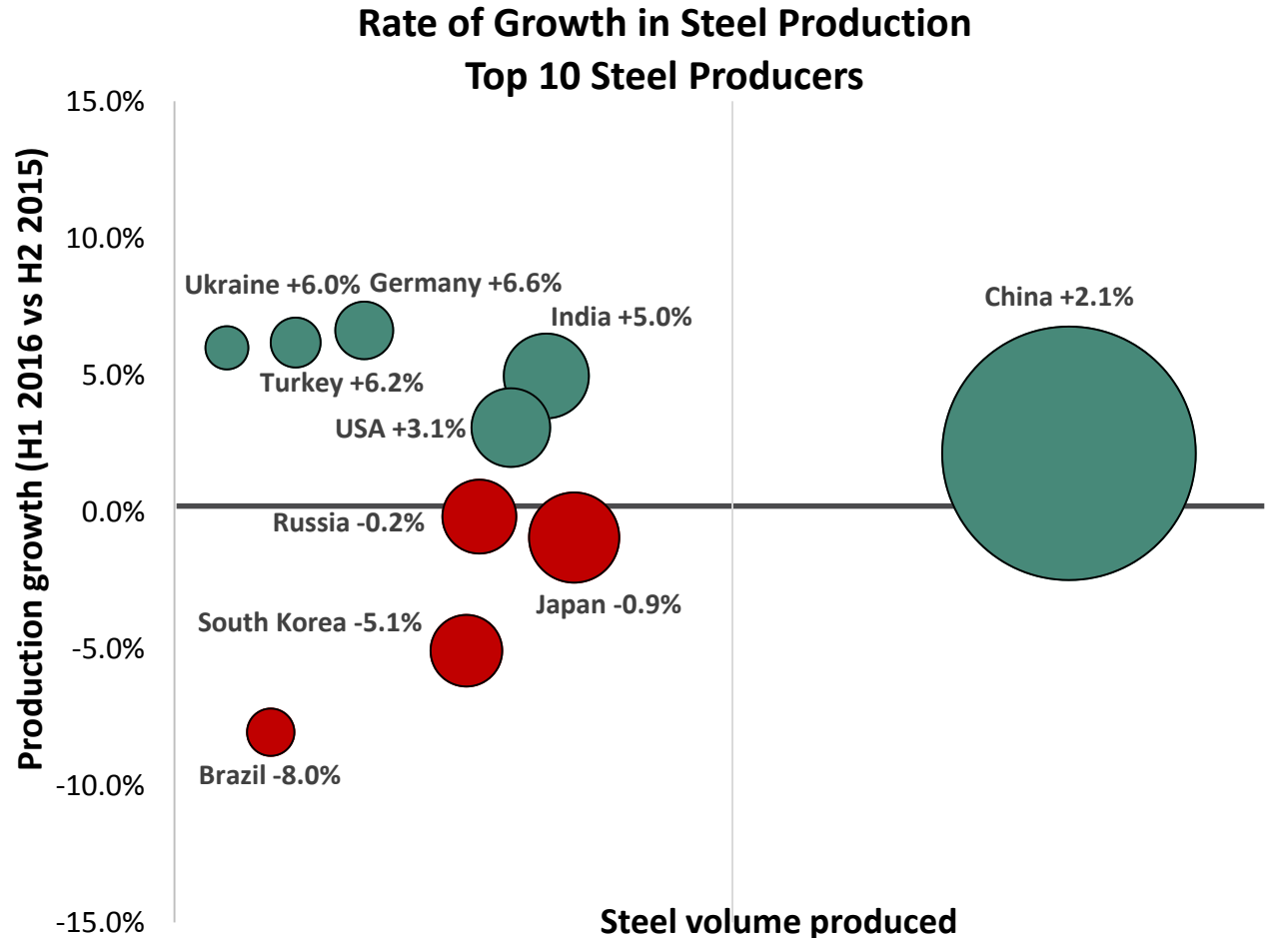
- World steel production down 1.6%
 - China (50.4% of global production) down 0.6%
 - Rest of world down 2.6%
 - Brazil down 13.0%
- 44 out of 65 WSA countries reported a drop
 - 6 of the top 10 producers reported drops
 - The top 10 producers represent 85% of global production
- India 3rd largest producer in the world behind China and Japan, keeps growing, confirming our strategy at CMD



(1) Size of bubble refers to relative amount of steel produced

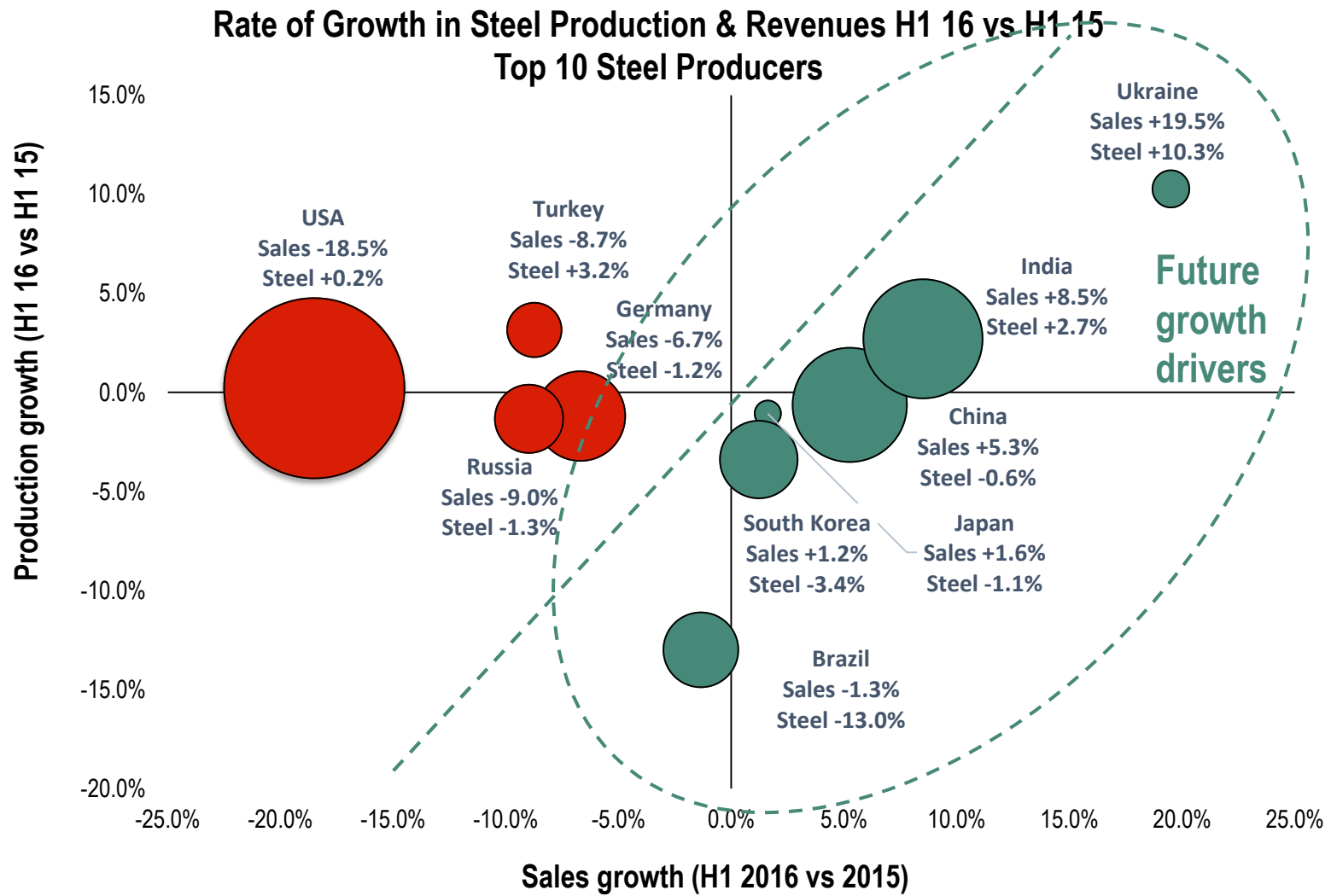
...however progressed vs H2 2015 signalling they may have bottomed

- World steel production up 2.0%
 - China (50.4% of global production) up 2.1%
 - Rest of world up 1.9%
 - Brazil still down 8.0%
- 36 out of 65 WSA countries reported an increase
 - 6 of top 10 producers reported an increase
 - The top 10 producers represent 85% of global production
- India keeps growing



(1) Size of bubble refers to relative amount of steel produced

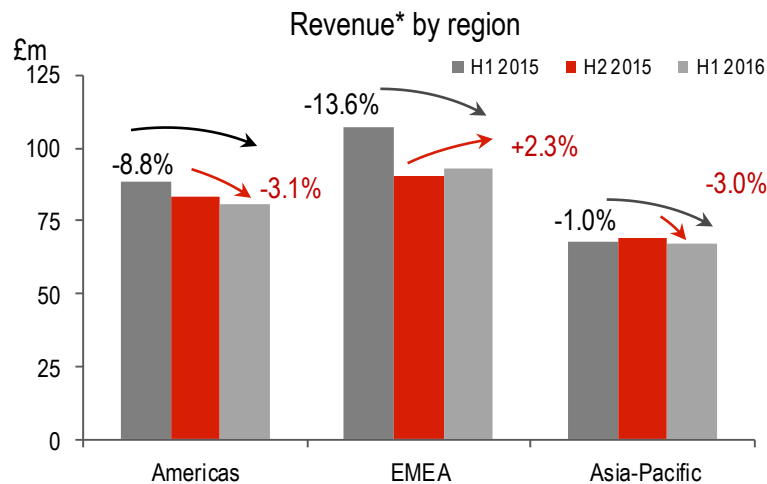
Revenue performance exceeded the market in key emerging markets year-on-year...



- (1) Size of bubble refers to relative size of Steel Division H1 Revenue in each country
(2) India includes Kazakhstan

Steel division revenue

Steel Flow Control



Americas:

- Reduction in the USA due to the closure of plants where we had high penetration
- Progression in Brazil and Mexico despite the reduction of crude steel production

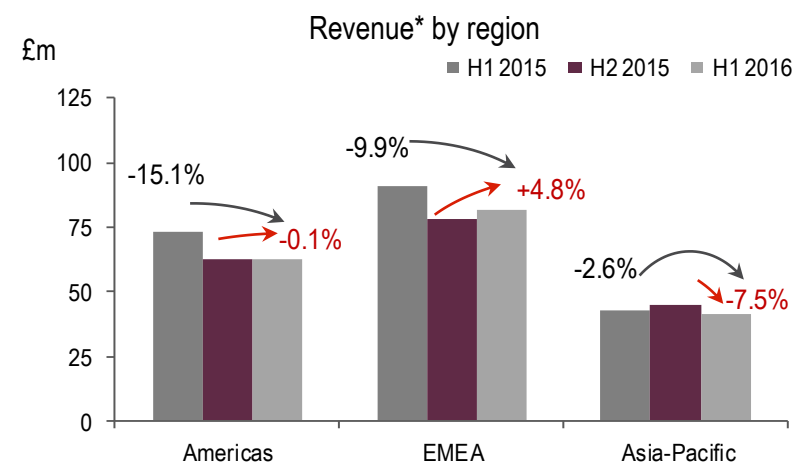
EMEA:

- Steel production down by 6.8% in EU 28
- Customer closures where we have high penetration
- Revenue up 2.3% vs H2 2015

Asia-Pacific:

- Sales in China supported by continuing shift from long to flat steel
- Lower sales in South Korea (-3.4%), Taiwan (-7.4%) and SE Asia
- Strong sales in India (+10.5%), outperforming underlying steel production

Advanced Refractories



Americas:

- Lower activity in North America, driven by voluntary exit from some low margin segments
- Lower brick sales in the US due to trading tariffs imposed
- Stabilization vs H2 2015

EMEA:

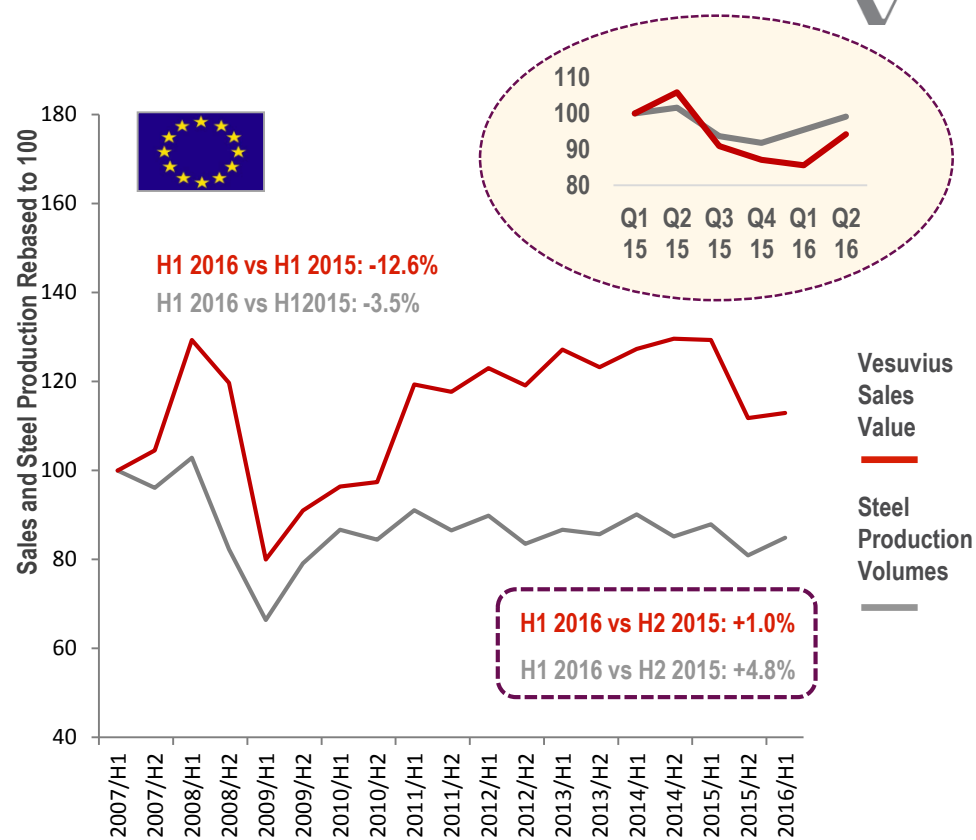
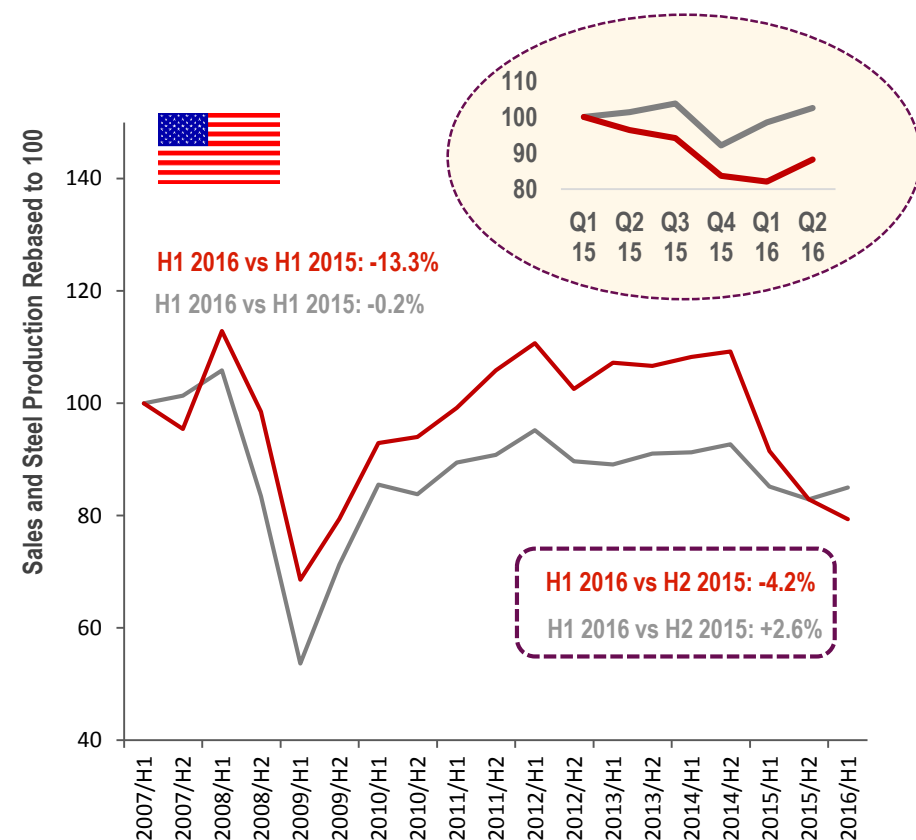
- Lower revenues due to decline in steel production in the region
- Revenue up 4.8% vs H2 2015

Asia-Pacific:

- Slowdown in IP market and ongoing pressure from Chinese imports
- Strong sales in India with 16.1% growth vs H1 2015
- Revenue down 7.5% vs H2 2015 due to low steel markets in SE Asia

*On an underlying basis: at constant currency and excluding the impact of acquisitions and disposals

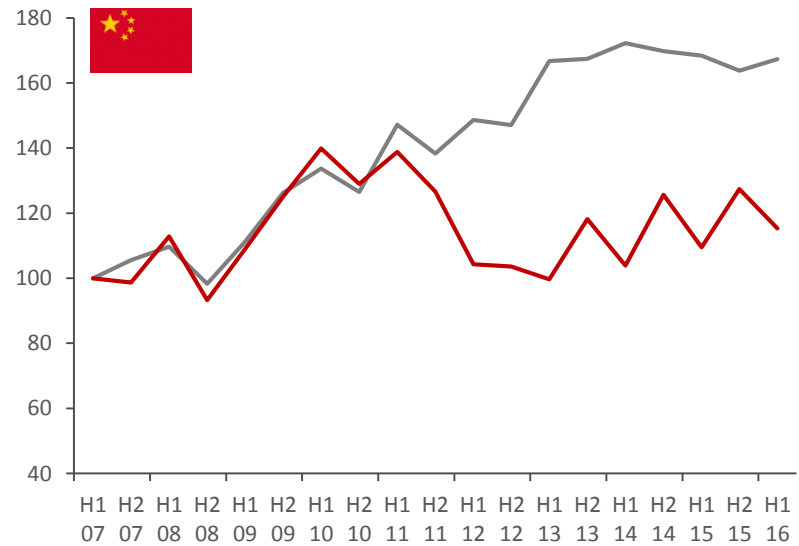
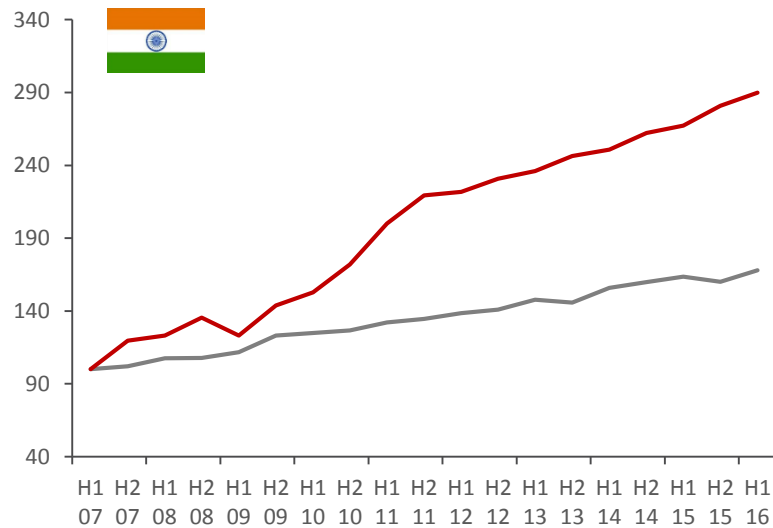
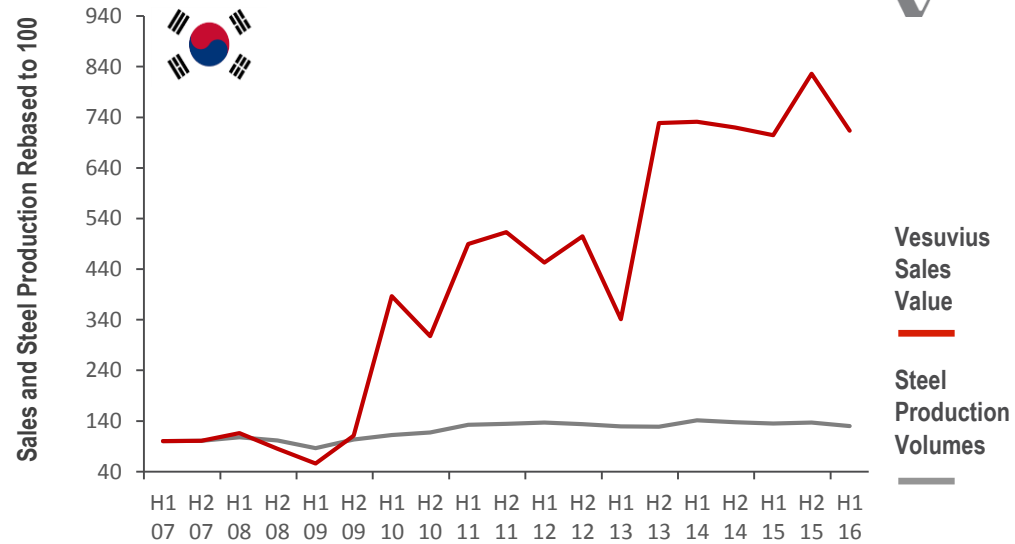
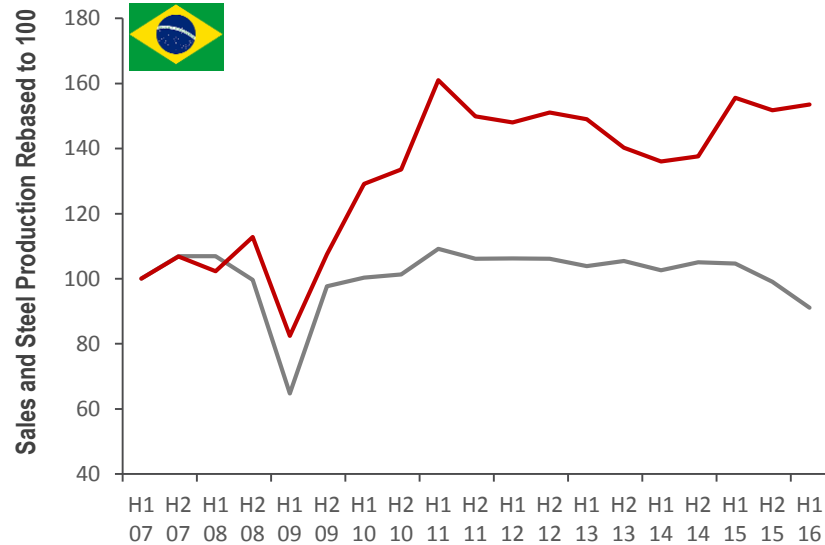
Mature steel markets: Vesuvius sales vs steel production



- Our sales in NAFTA and EMEA declined more than underlying market due to:
 - Reduction in inventories
 - Retrenchment onto lower qualities when demand is low
 - Slowdown in high-end market and pipe market
 - However trend reversed in Q2 2016

Source: WSA for steel production volumes, Vesuvius internal data for Vesuvius sales at constant currency. Note 2007 figures are rebased to 100.

Emerging steel markets

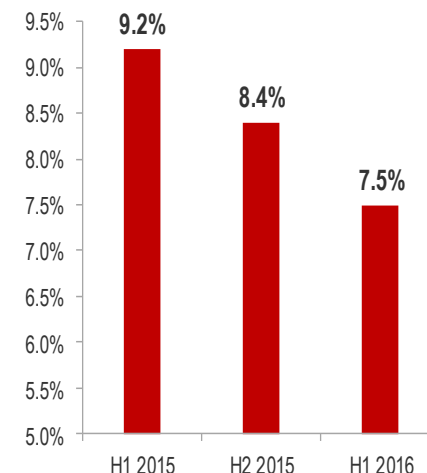


Source: WSA for steel production volumes, Vesuvius internal data for Vesuvius sales at constant currency.

Steel division margins

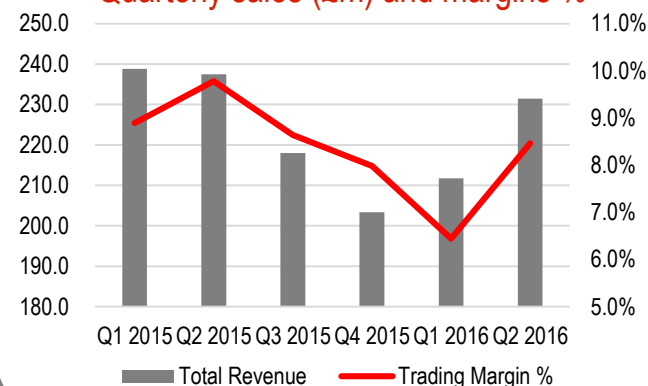
£m	H1 2016	H1 2015	Change	Underlying change	H2 2015	Change	Underlying change
Total Revenue	443.1	476.3	-7.0%	-9.6%	421.3	5.2%	-0.7%
Total Trading Profit	33.2	44.5	-25.3%	-24.8%	35.0	-5.2%	-10.9%
Trading Margin %	7.5%	9.3%	-180ps	-160bps	8.3%	-80bps	-90bps

Underlying margin



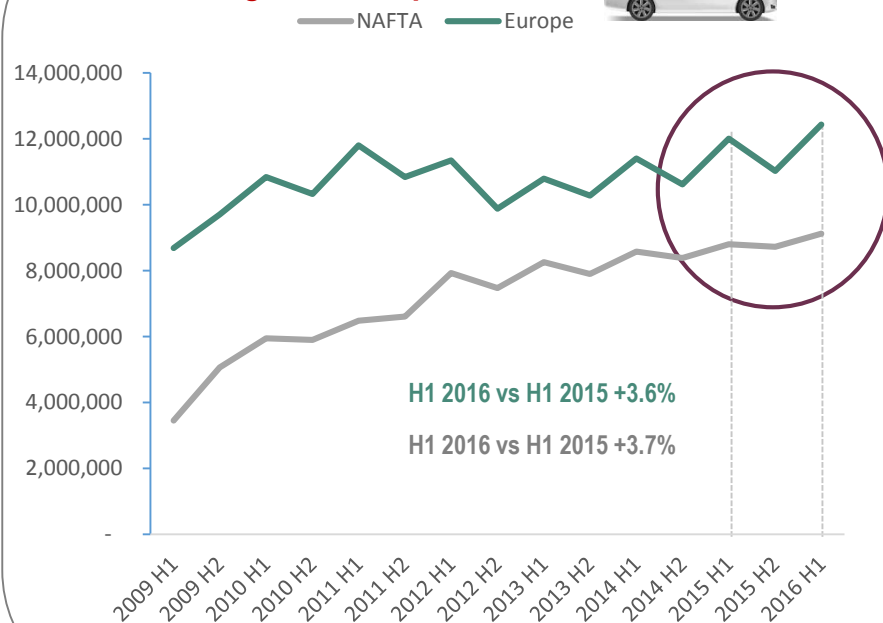
- Underlying trading profit down 24.8% reflecting:
 - Lower activity in key regions of NAFTA and EMEA, together accounting for 75% of revenue
 - Margins lowered by our materials purchased in US Dollar and inventory reduction action and a high level of bad debt provision

Quarterly sales (£m) and margins %



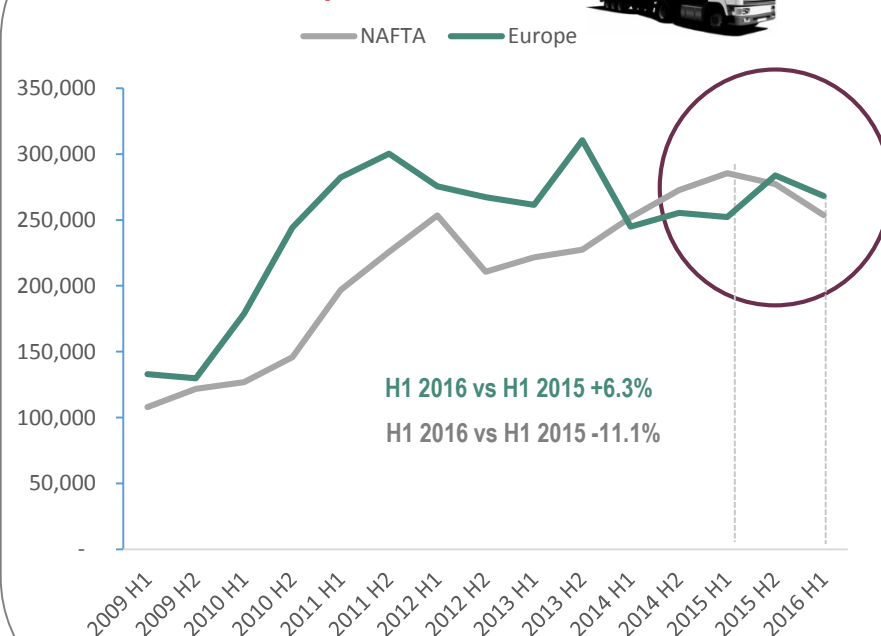
Foundry market

Light vehicle production



Source : LMC Automotive

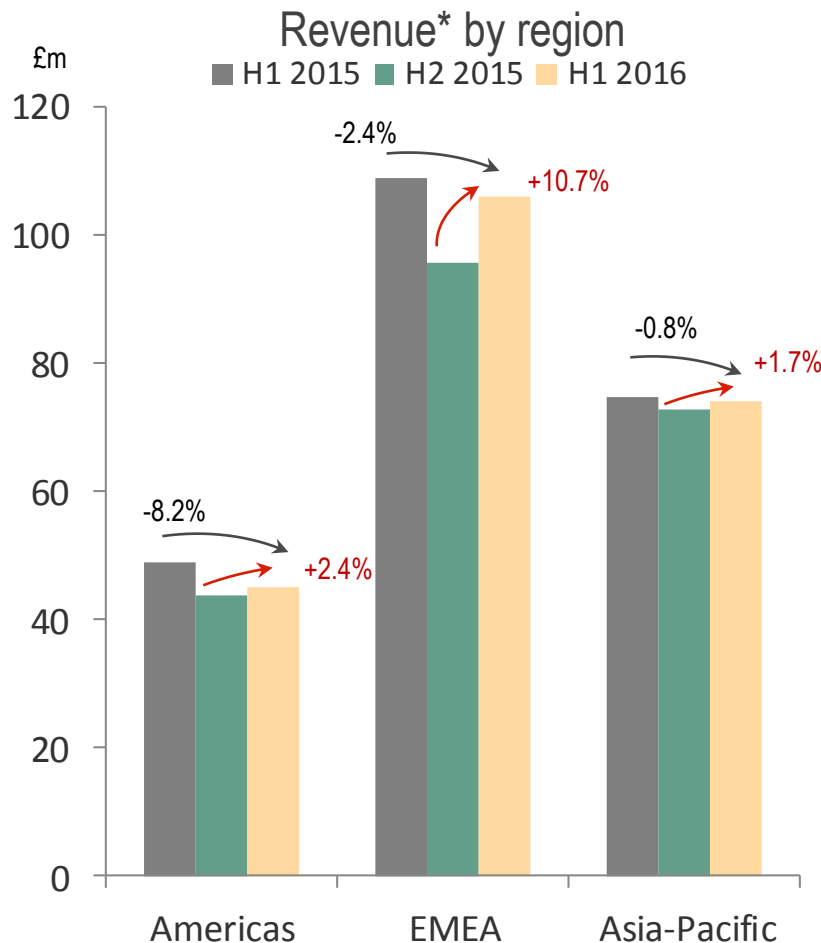
Truck production



Source : LMC Automotive

- Truck and Light Vehicle markets represent approximately 40% of Foundry product line sales
- Growth in light vehicle output counteracted by low demand in mining, construction and agriculture
- Steel foundries in US moving to China

Foundry revenue recovery vs H2 2015 but still lower than H1 2015



Americas:

- Weak demand in heavy truck, agriculture, construction and mining foundries, partially offset by strong demand in light vehicle production
- Difficult market in South America due to political instability and the economic contraction in Brazil
- Revenue up 2.4% vs H2 2015

EMEA:

- Increases in light vehicle and heavy truck production in the region were offset by reductions in mining, construction, railroad and wind mill castings
- Western Europe impacted by reduced activity levels, except light vehicles, partially offset by good growth in Central Europe
- Revenue up 10.7% vs H2 2015

Asia-Pacific:

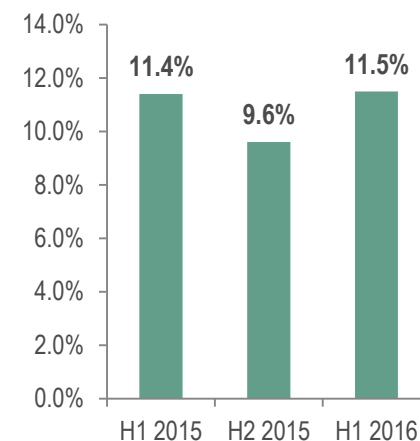
- Revenue in China fell due to reduced mining activity
- Solid performance seen in India, up 14% vs H1 2015
- Revenue up 1.7% vs H2 2015

*On an underlying basis: at constant currency and excluding the impact of acquisitions

Foundry division margins

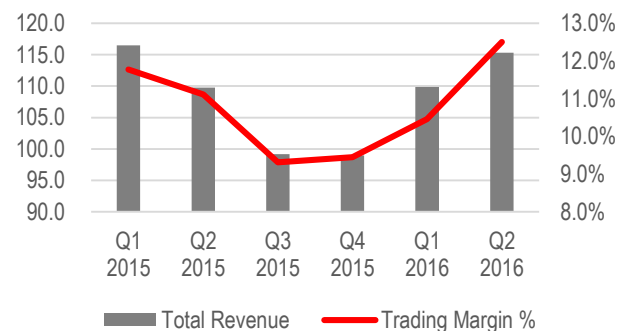
£m	H1 2016	H1 2015	Change	Underlying change	H2 2015	Change	Underlying change
Total Revenue	225.2	226.3	-0.5%	-3.1%	198.1	13.7%	5.9%
Total Trading Profit	25.9	25.9	0.0%	-2.6%	18.6	39.5%	27.0%
Trading Margin %	11.5%	11.5%	0bps	+10bps	9.4%	+210bps	+190bps

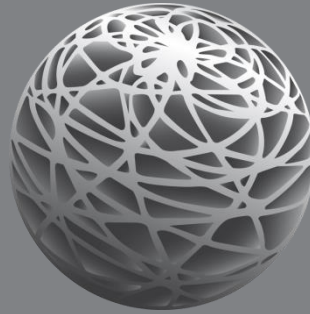
Underlying margin



- Despite the global foundry market remaining mixed:
 - Underlying margin improvement of 190bps vs H2 2015 recovering the good progress already recorded in H1 2015

Quarterly sales (£m) and margins %





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Financial Review

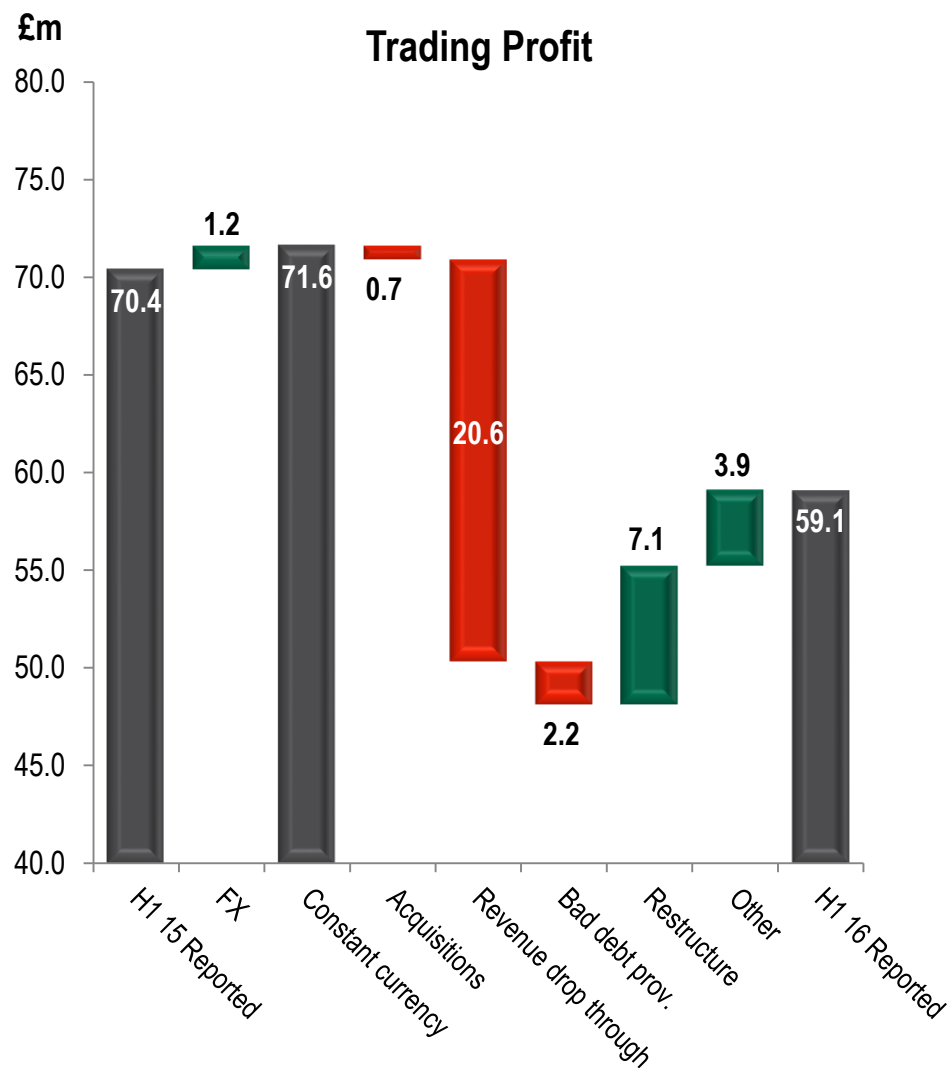
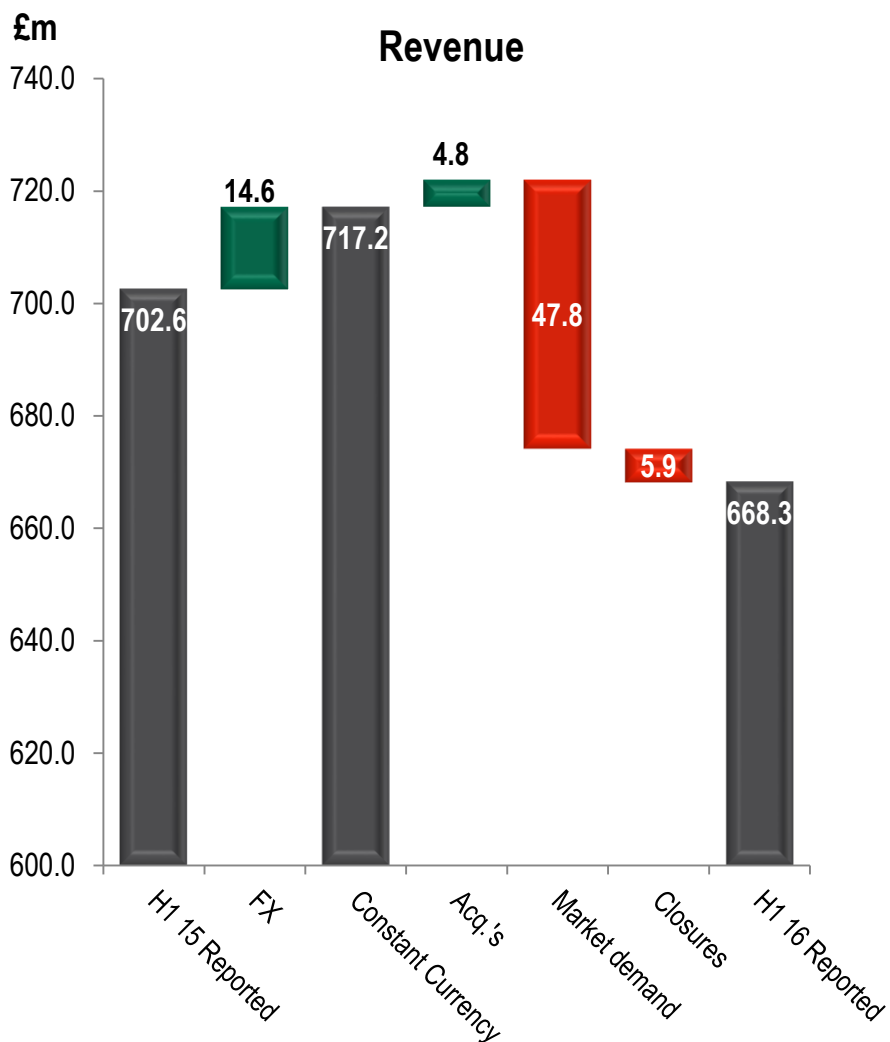
Guy Young
Chief Financial Officer

VESUVIUS PLC

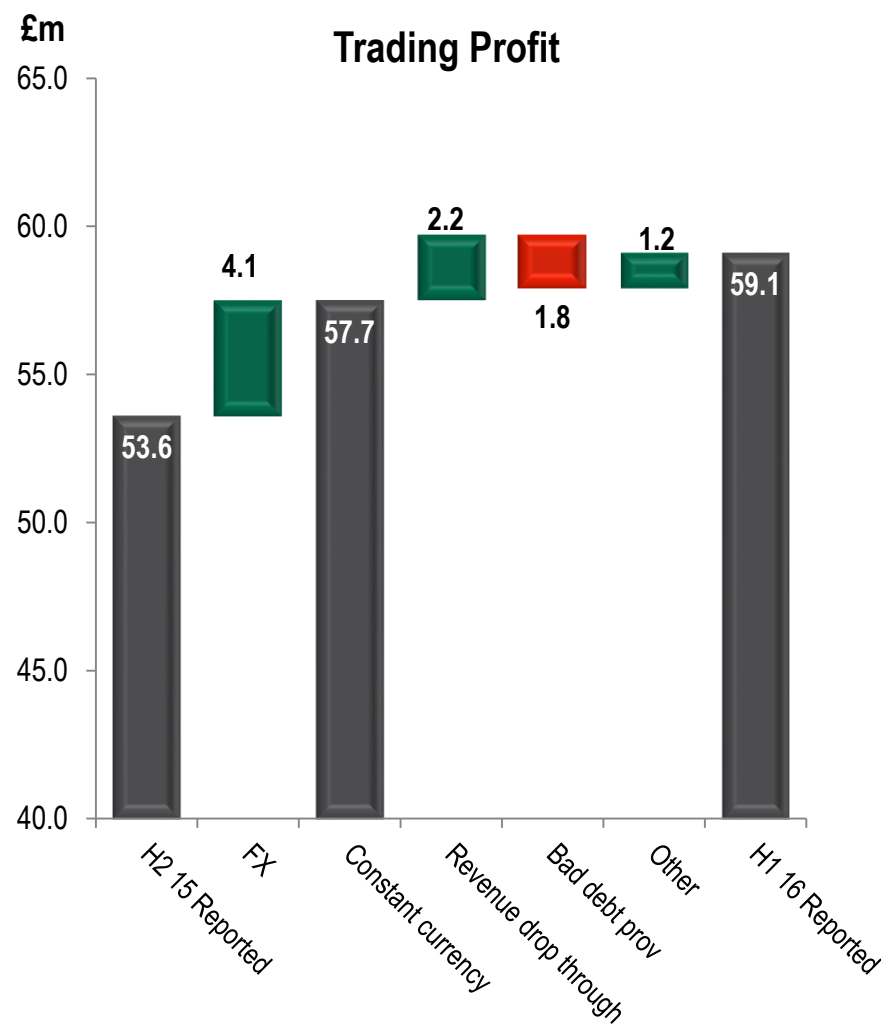
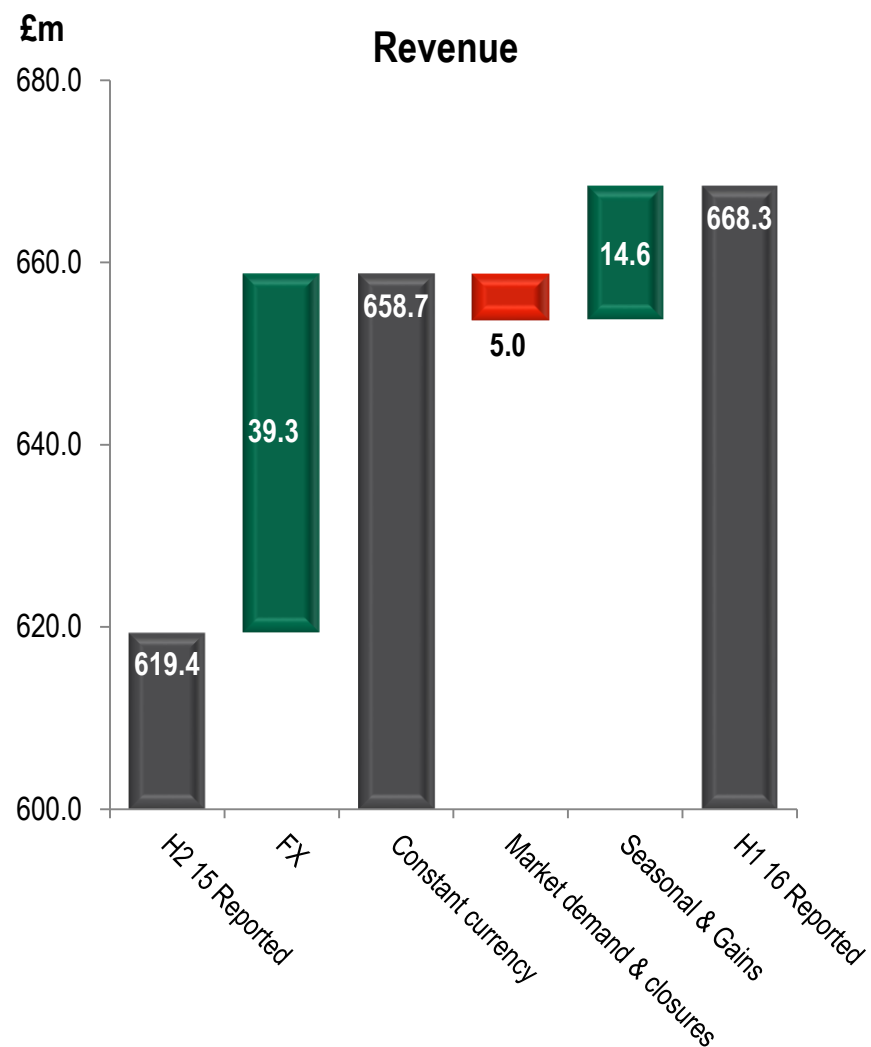
Summarised income statement

	H1 2016	H1 2015	Change (%)		H2 2015	Change (%)	
	(£m)	(£m)	Reported	Underlying	(£m)	Reported	Underlying
Revenue	668.3	702.6	-4.9%	-7.5%	619.4	+7.9%	+1.5%
Trading Profit	59.1	70.4	-16.0%	-16.5%	53.6	+10.3%	+2.5%
Return on Sales	8.8%	10.0%	-120bps	-100bps	8.7%	+10bps	+10bps
Net Finance Costs	(7.9)	(8.0)			(7.4)		
Share of JV	(0.4)	(0.5)			0.5		
Profit Before Tax	50.8	61.9	-17.9%		46.7	+8.8%	
Effective Tax Rate	25.5%	25.5%			25.5%		
Tax	(13.1)	(15.9)			(11.8)		
Non Controlling Interest	(3.3)	(2.7)			(2.5)		
Headline Earnings	34.4	43.3	-20.6%	-21.1%	32.4	+6.3%	-1.1%
Headline EPS (p)	12.8	16.0	-20.0%	-21.1%	12.0	+6.5%	-1.0%

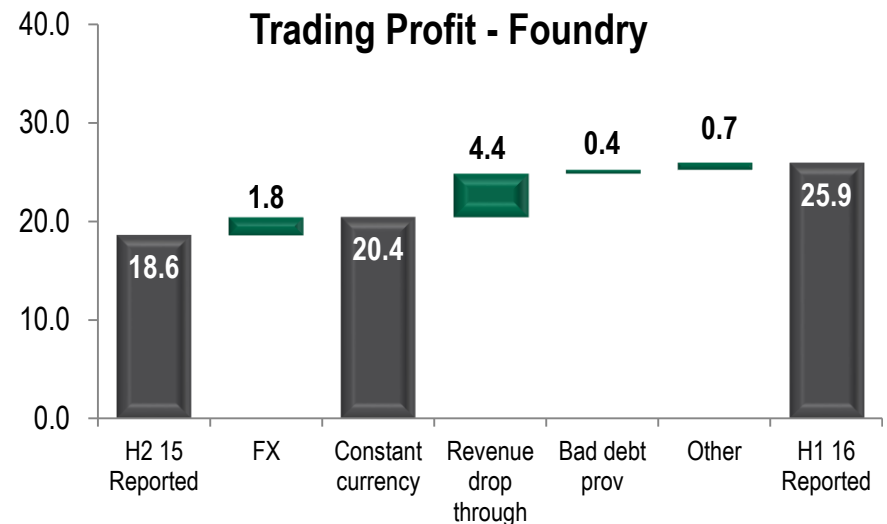
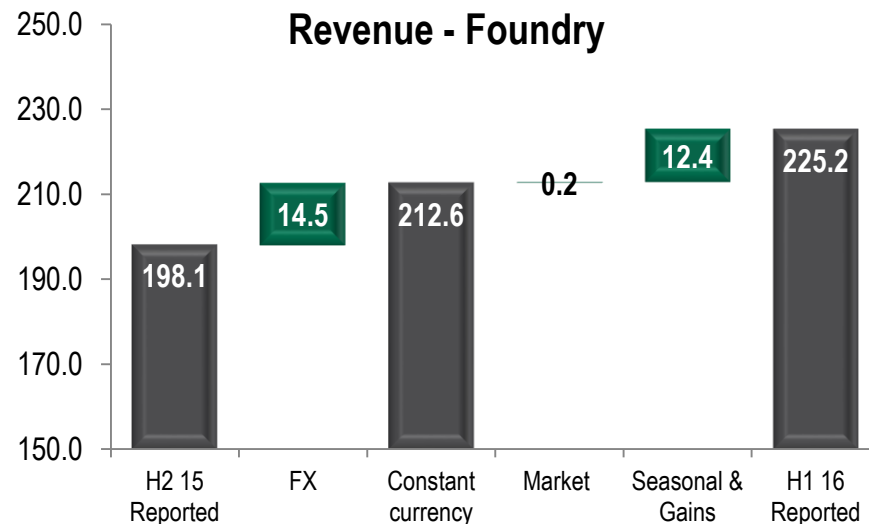
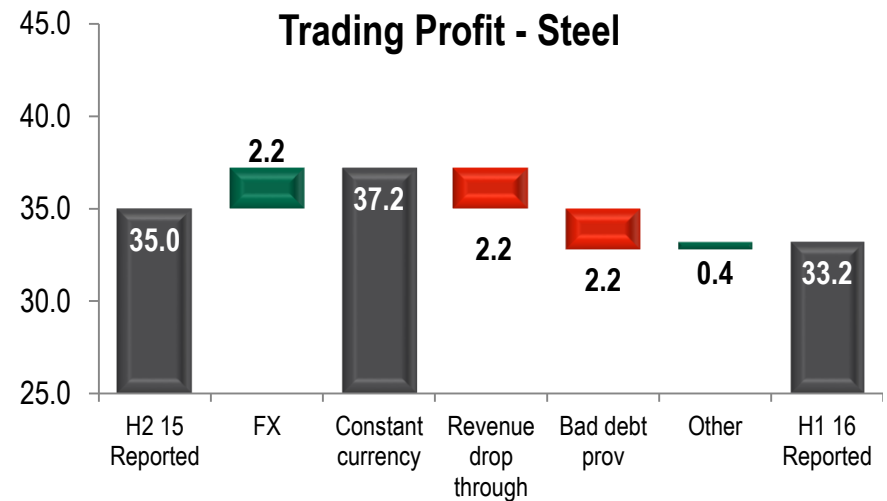
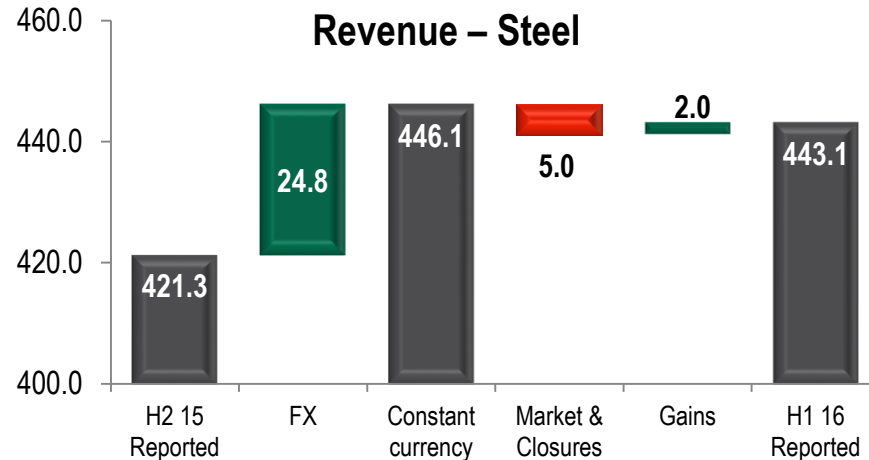
H1 to H1 shows revenue impact with partial cost mitigation



H2 to H1 shows the latest trend in market dynamics

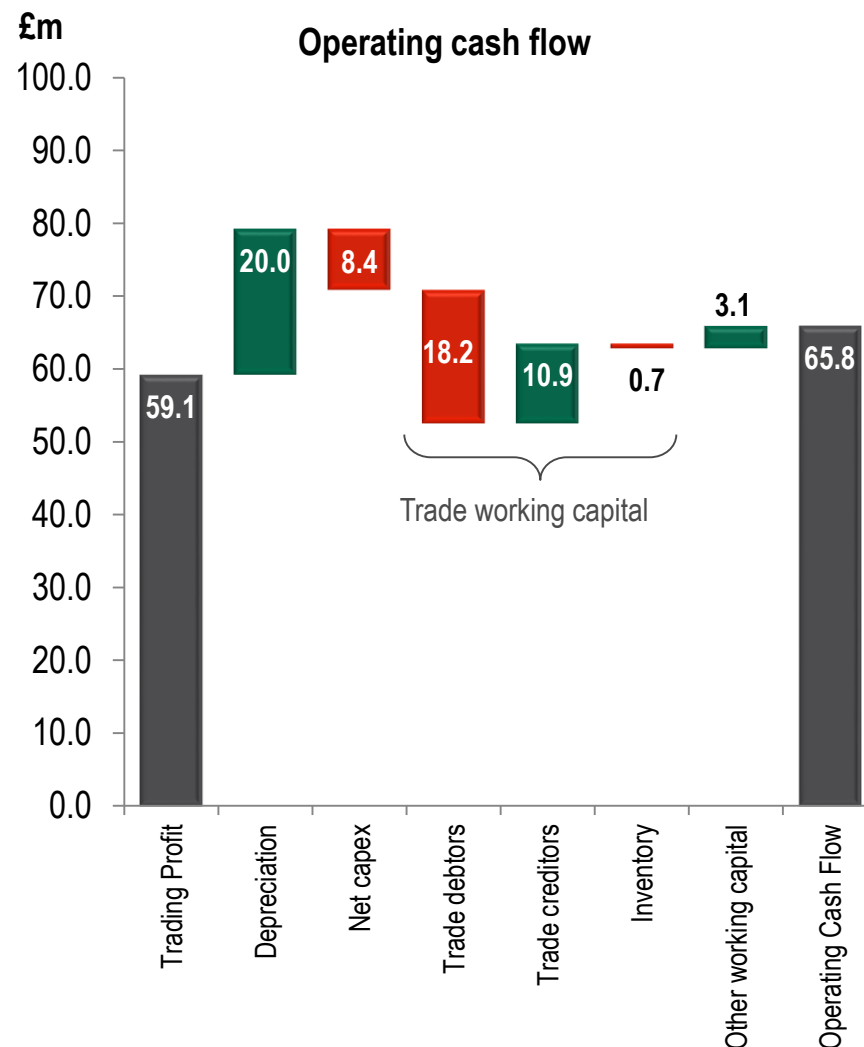


Steel revenue decline slowing; Foundry benefiting from some growth



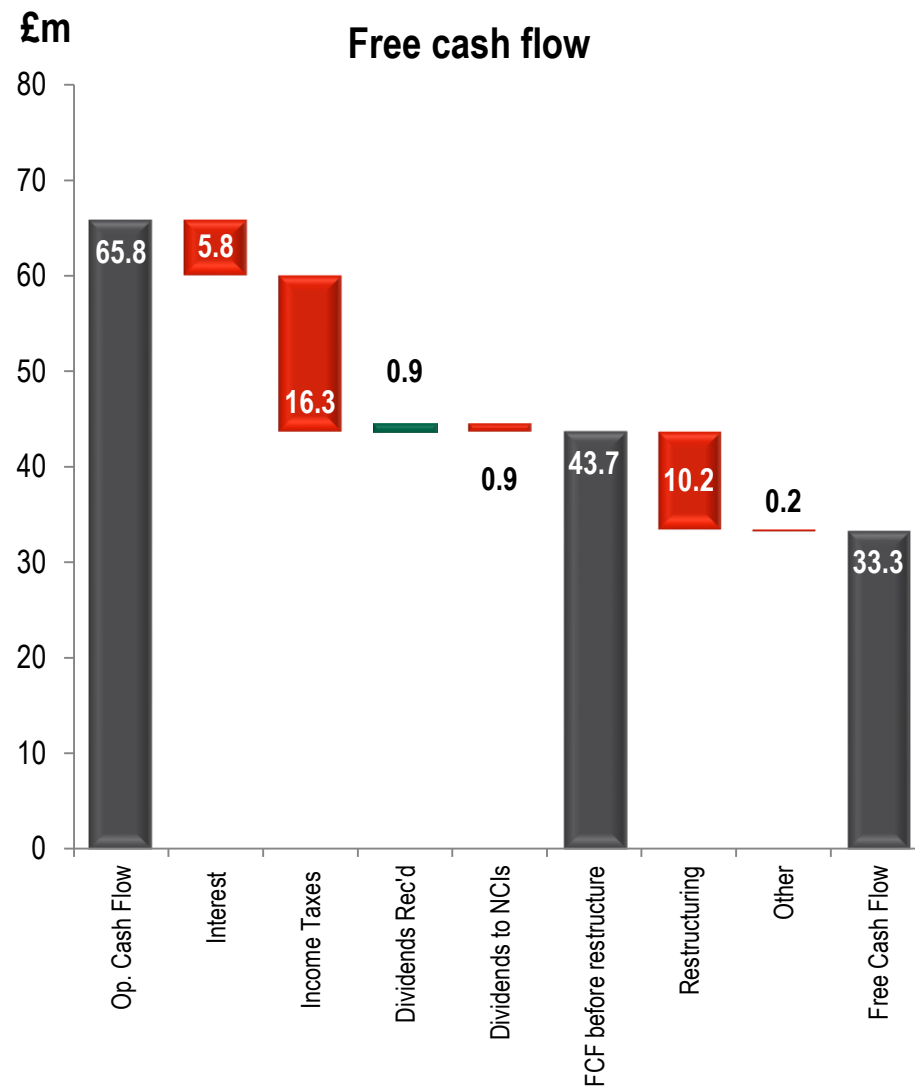
The cash conversion rate at 111% is up on last year

- Year to date cash conversion of 111% is better than prior year 84%
- Working capital requirements lower
 - Trade working capital outflow is £8.0m driven primarily by increased trade debtors (Europe, China and India)
 - Partially offset by other working capital £3.1m inflow
- Capex lower than depreciation, as expected.
- Timing of some capex cash outflow has been later than expected but will be caught up in H2



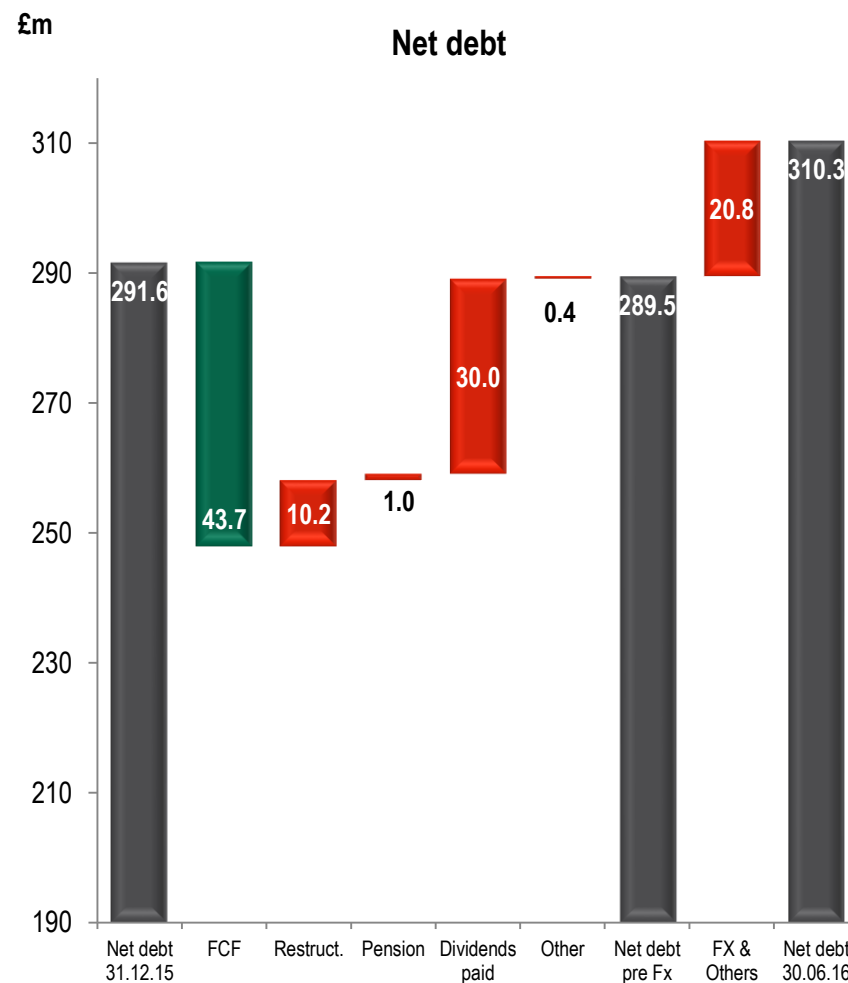
Free cash flow before restructuring £43.7m is 66% of OCF

- Continued good performance in FCF generation, at 66% of OCF before restructuring
- Upward pressure on tax charges, as previously flagged, with changes in geographic sources of profit away from assessed loss shields
- Restructuring cash outflow at £10.2m, slightly ahead of expectations



Net debt impacted adversely by the strengthening USD

- Net debt would have been at £289.5m without net FX impact of £20.8m (including inflow from USD swaps), ahead of prior year (£296.0m)
- The FX impact on net debt was primarily due to USD and EUR strengthening by about 10% and 12% against the GBP respectively since end Dec 2015

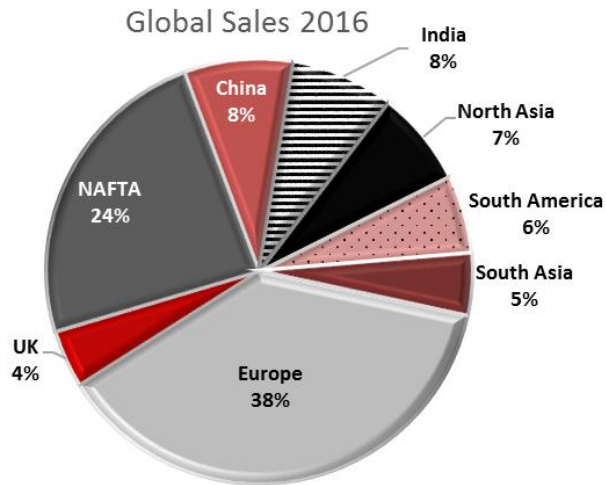


At June 2016 FX rates

Tailwinds on profit with depreciating GBP

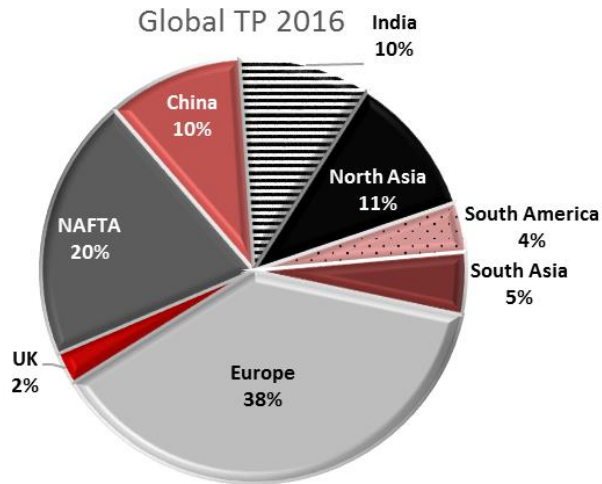
Currencies (Impact of FX translation on GBP reporting currency)	2016 Jun YTD Average Rates	2015 FY Average Rates	2016 Average Rates v 2015 Average Rates	Impact on Sales ytd (£m)	Impact on TP ytd (£m)
USD	1.44	1.53	6.1%	10.6	0.7
EUR	1.29	1.38	6.6%	12.1	0.6
INR	96.41	98.00	1.6%	0.9	0.2
RMB	9.38	9.60	2.3%	1.2	0.2
JPY	160.50	185.07	13.3%	2.4	0.5
BRL	5.32	5.09	-4.6%	-1.3	0.0
ZAR	22.12	19.48	-13.6%	-2.3	-0.2
TOTAL				23.6	2.0

Geographic diversification counters currency risk



Balance sheet risk

- Europe and NAFTA account for ~60% of Group profits
- Group debt split across GBP, USD and Euro to match
- Pension fund de-risking strategy to continue



P&L risk

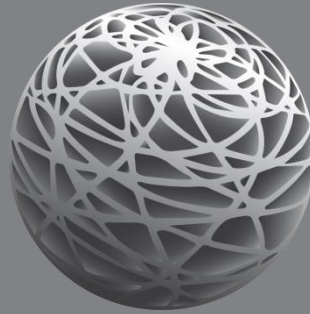
- Low GBP exposure as UK forecast to approx 4% of Group sales

Finance objectives and short term focus



- Ongoing cost reduction
 - Operational leverage
- Working capital management
 - Risk managed reductions
- Cash conversion >100%
 - Capex spend control
- Reduce net debt
- Shareholder returns





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Strategy and Outlook

François Wanecq
Chief Executive

VESUVIUS PLC

Delivering on the strategy

- Maintain technology leadership

Creation of a new R&D centre for Advanced Refractories in India;
Launching new products: Framed filters, Ladle tube changer

- Increase penetration of value creating solutions

Successful start of the SST line at Hyundai;
Growing sales of MTS in Aluminum foundries

- Capture growth in developing markets

Growing ahead of underlying steel market in China India and Brazil in H1 2016;
Confirming our India growth strategy

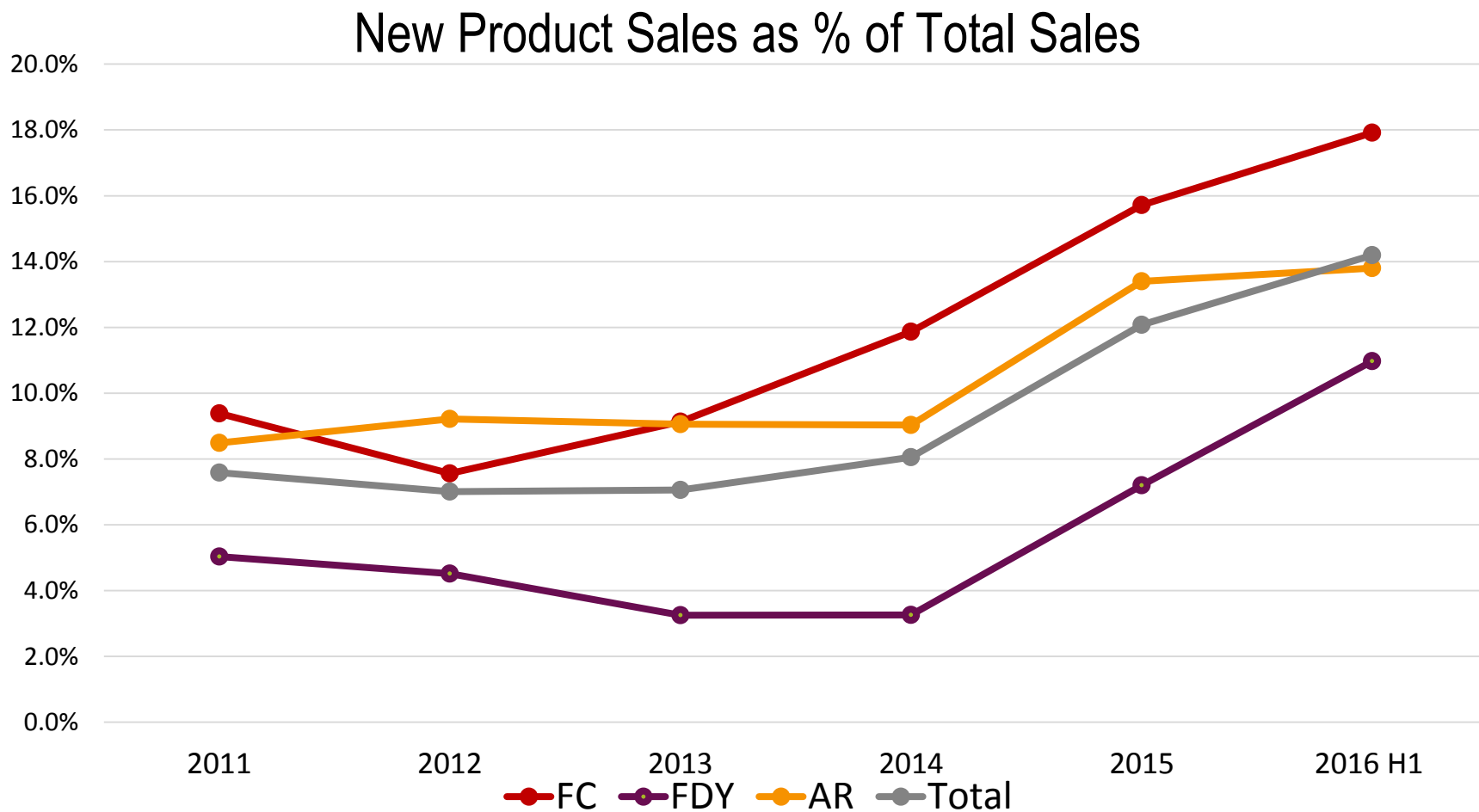
- Improve cost leadership

Foundry margin improvement;
Enhanced restructuring programme;
£7.1m additional savings in H1 2016

- Build technical services offering

Integration of Sidermes, acquired in 2015;
Conception of an integrated platform to give interpretation of data and instruction to process management

R&D progression



Technical Services: Deliveries and potential

- Acquisitions bring us greater technological inroads and market intimacy in data capture
 - Temperature and gas content with ECIL Met Tec and Sidermes
 - Laser technology with Process Metrix
 - Sidermes integration is underway
 - Increased penetration of EcilMetTec in USA and Mexico
 - Successful inroads of XLEV and SERT in China and South Korea

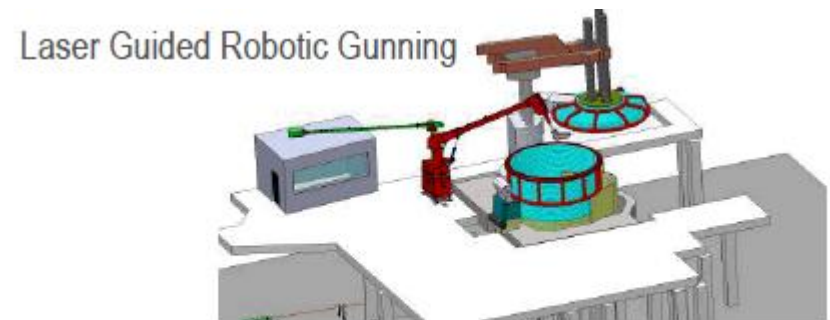


Temperature, Steel Sample, Oxygen & Slag Sample



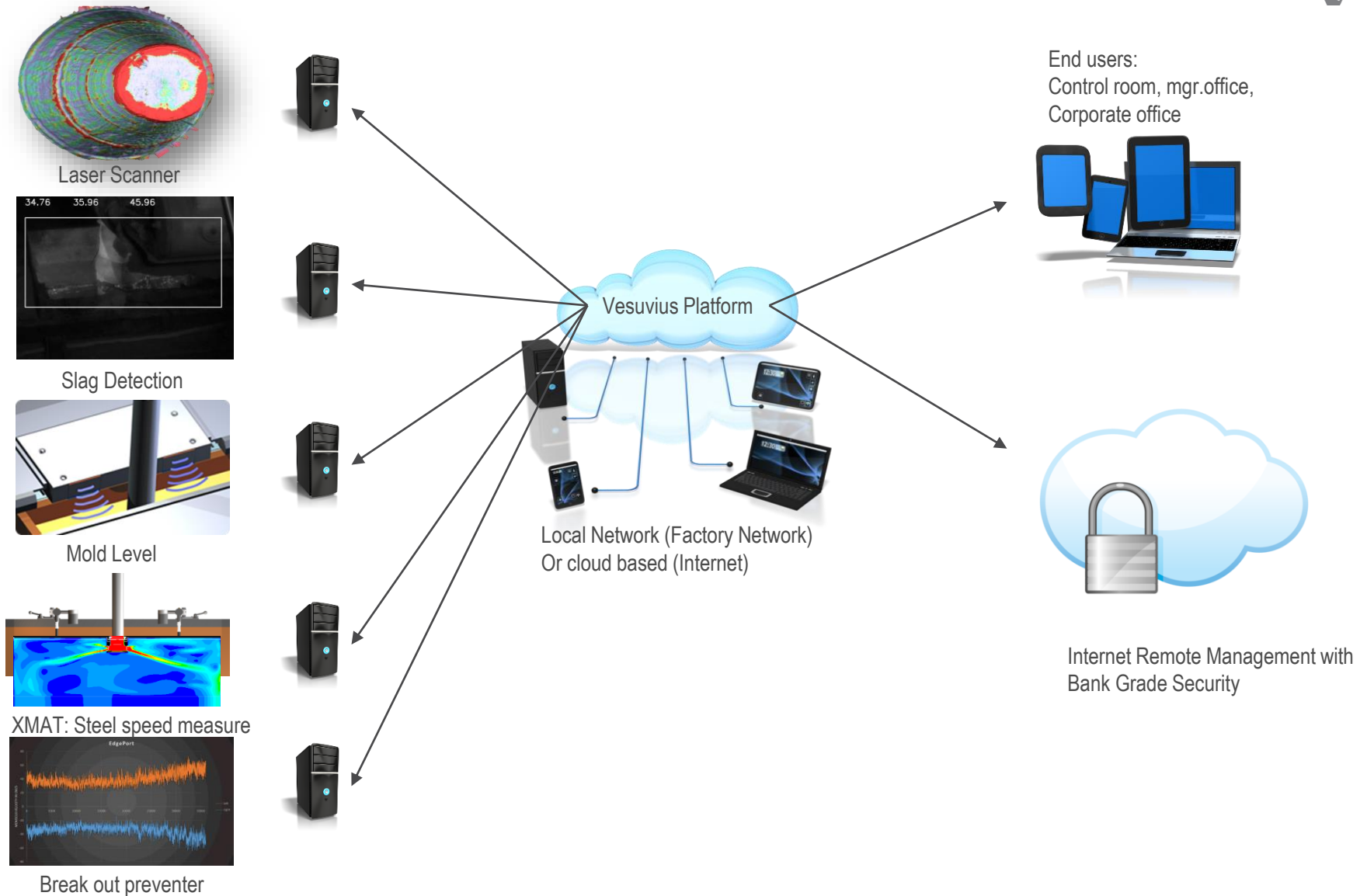
Technical Services: Deliveries and potential

- Promoting new solutions in data capture
 - Roll-out Accuoptix
 - Roll-out X Mat now available on all continents
 - Radar T2 launched commercially
- Exploring synergies across our businesses
 - Smart stopper
 - Flux feeders
 - Laser guided robotic gunning
- Continue to pursue further acquisitions



Installation Technologies to Minimize Cost and Downtime

Objective: One platform for unlimited solutions



Restructuring remains our central focus

- Steel
 - Flow Control Europe efficiency and manufacturing optimisation
 - Announced closures of Ostrawa plant and Lugano office
 - Discussions started about proposed restructuring of our Ostend plant
 - South American steel optimisation
- Foundry
 - Additional NAFTA plant optimisation
- Group wide
 - Raw materials efficiencies
 - Standardisation of business processes
 - Continue reduction in central and admin functions
- Ongoing progress with an incremental £7.1m cost savings delivered in H1 2016, on top of £8.8m delivered in 2015
- Total annual programme benefits increased to £25m by end of 2017 at a cost of £35m



H1 2016 Trading summary



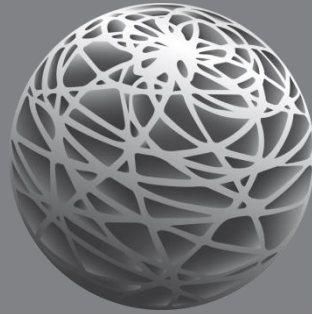
- Revenue, profit and return on sales in line with expectations
- Global steel and foundry markets showing signs of stabilisation; albeit mixed and at weak levels
- Improvement in revenue and margins compared to H2 2015
- Restructuring programme delivered £7.1m cost savings in H1 2016 vs 2015 cost base
- Total annual restructuring programme benefits increased to £25m by the end of 2017 at a total cost of £35m
- Improved debtor provision coverage of £3.7m
- Strong cash performance, with cash conversion of 111%
- Maintained interim dividend of 5.15 pence per share to be paid on 23 September 2016



Outlook

- Underlying trading environment to remain similar to the first half of 2016
 - Growth in steel production not expected before 2017
- Steel and foundry end markets showing signs of stabilisation, although expect to remain at relatively weak levels for the remainder of the year
- Continued focus on medium-term strategy:
 - Building Technical Services business
 - Continued growth in India, China and Brazil as outlined at Capital Markets Day
- Restructuring programme to gather pace
 - Annualised benefits of £25 million delivered by end of 2017
- Maintain focus on cash, balance sheet strength and returns to shareholders

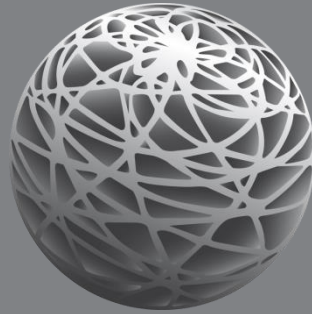




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Q&A

VESUVIUS PLC



A GLOBAL LEADER IN METAL FLOW ENGINEERING

Appendix

VESUVIUS PLC

5 year history at constant currency⁽¹⁾

	FY 2012	FY 2013	FY 2014	FY 2015	2015 H1	2015 H2	2016 H1
Revenue	1,449.5	1,423.6	1,466.3	1,376.0	717.2	658.7	668.3
Steel	969.3	972.5	1006.0	930.9	484.8	446.1	443.2
Foundry	480.3	451.1	460.4	445.1	232.5	212.6	225.2
Trading Profit	117.2	133.0	148.9	129.3	71.6	57.7	59.1
Steel	78.5	87.6	102.9	82.3	45.0	37.3	33.2
Foundry	38.6	45.4	46.0	47.0	26.6	20.4	25.9
Margins	8.1%	9.3%	10.2%	9.4%	10.0%	8.8%	8.8%
Steel	8.1%	9.0%	10.2%	8.8%	9.3%	8.4%	7.5%
Foundry	8.0%	10.1%	10.0%	10.6%	11.4%	9.6%	11.5%

(1) All numbers shown at June 2016 half year average exchange rates



Currency Ready Reckoner

Currencies	Change	Approximate change in annual profits
US Dollar	1 cent	£0.2 million
Euro	1 cent	£0.1 million
Indian Rupee	1 rupee	£0.2 million
Chinese Renminbi	0.1 RMB	£0.2 million
Japanese Yen	1 yen	£0.1 million
Brazilian Real	0.01 BRL	
South African Rand	1 cent	

- Rule of thumb for impact of a movement in currency against sterling (1 unit change)
 - Amounts shown are movements for each currency
 - Works both for strengthening and weakening of currencies



Market leading positions across many of our products

Molten metal in steel industry



A world leader in flow control systems (slide gates)

A world leader in isostatically pressed refractories

A world leader in flow control pre-cast solutions

A world leader in mould & tundish fluxes

Steel Flow Control Competitors



Molten metal in foundries



A world leader in filters

A world leader in feeding systems

A world leader in coatings













Foundry Technologies Competitors



Hamilton



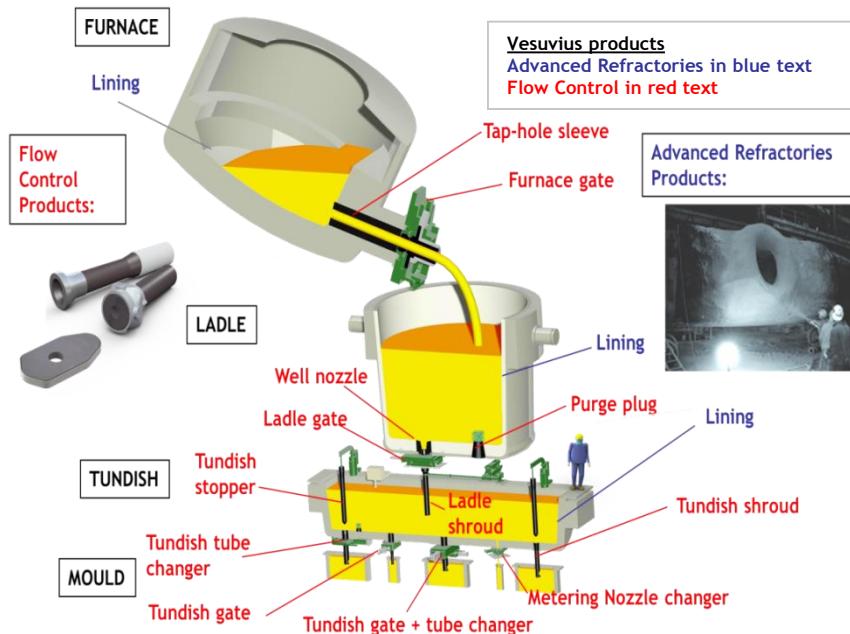
Vesuvius is focused on the Steel and Foundry markets

	Steel			Foundry
	Steel Flow Control	Technical Services	Advanced Refractories	Foundry Technologies
Revenue (% of group)	£492m (37%)	26 (2%)	£379m (29%)	£424m (32%)
Overview	Provides products, systems and services to regulate and protect the flow of steel in the continuous casting process	Provides products, systems and services to collect and interpret data in the molten metal flow process	Provides installation expertise and materials that withstand extreme temperatures and offer corrosion resistance at our customers' facilities	Improves casting quality and foundry process efficiency through the supply of products and applications engineering to the global foundry industry
Products	Nozzles  Tube Changers 	Probes  Lasers 	Lining  Precasts 	Filters  Feeding Systems 
End Markets	Steel (100%)	Steel (80%) Foundry (20%)	Iron & Steel (75%) Cement, HPI (25%)	Vehicles (40%) Glass (5%) Other (55%)
Employees	4,204	616	2,345	2,880
		Sold under the Vesuvius brand 		Sold under the Foseco brand 

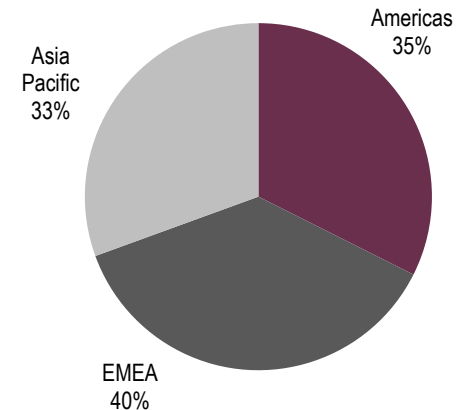
Main products and markets – Steel business segment

Steel business segment overview

- World leader in the supply of consumable **Steel Flow Control** products used in the enclosed continuous casting process and a leading supplier of **Advanced Refractories** used as high temperature linings



Steel business segment revenue by operating location



Source Vesuvius breakdown of 2016 Reported Revenues

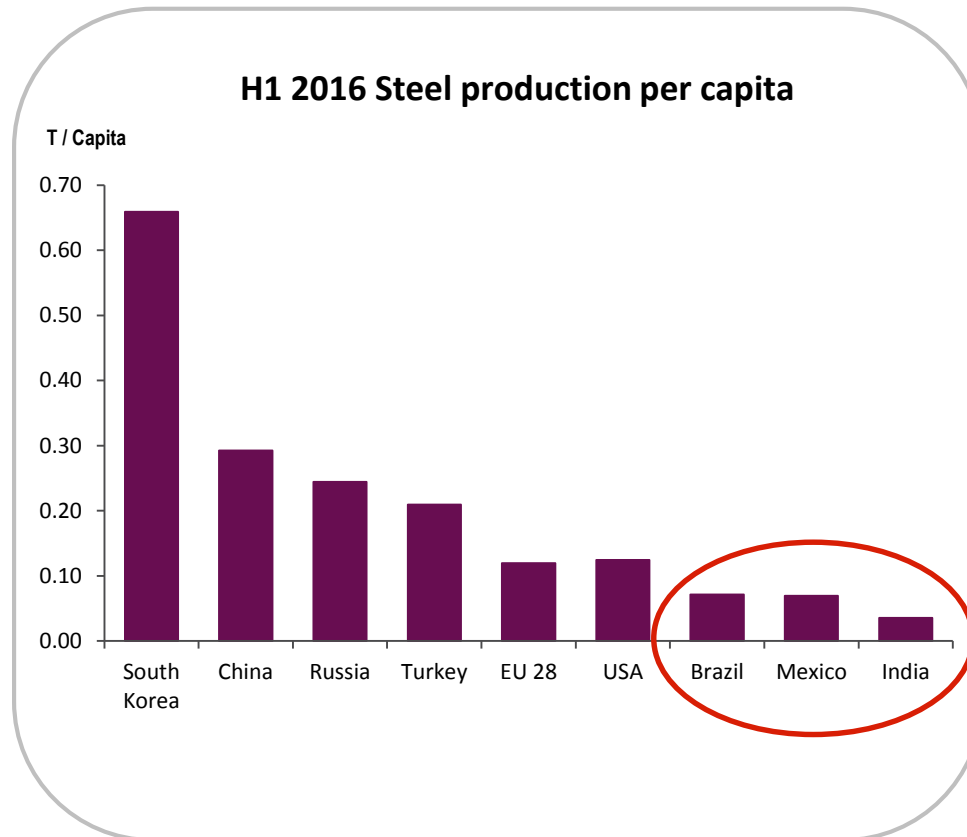
Well balanced presence in all major areas

- Vesuvius is the only truly global player in Flow Control
- Asia Pacific major volume growth potential
- Europe and NAFTA as laboratories for innovation



A global leader for steel flow control consumable ceramics

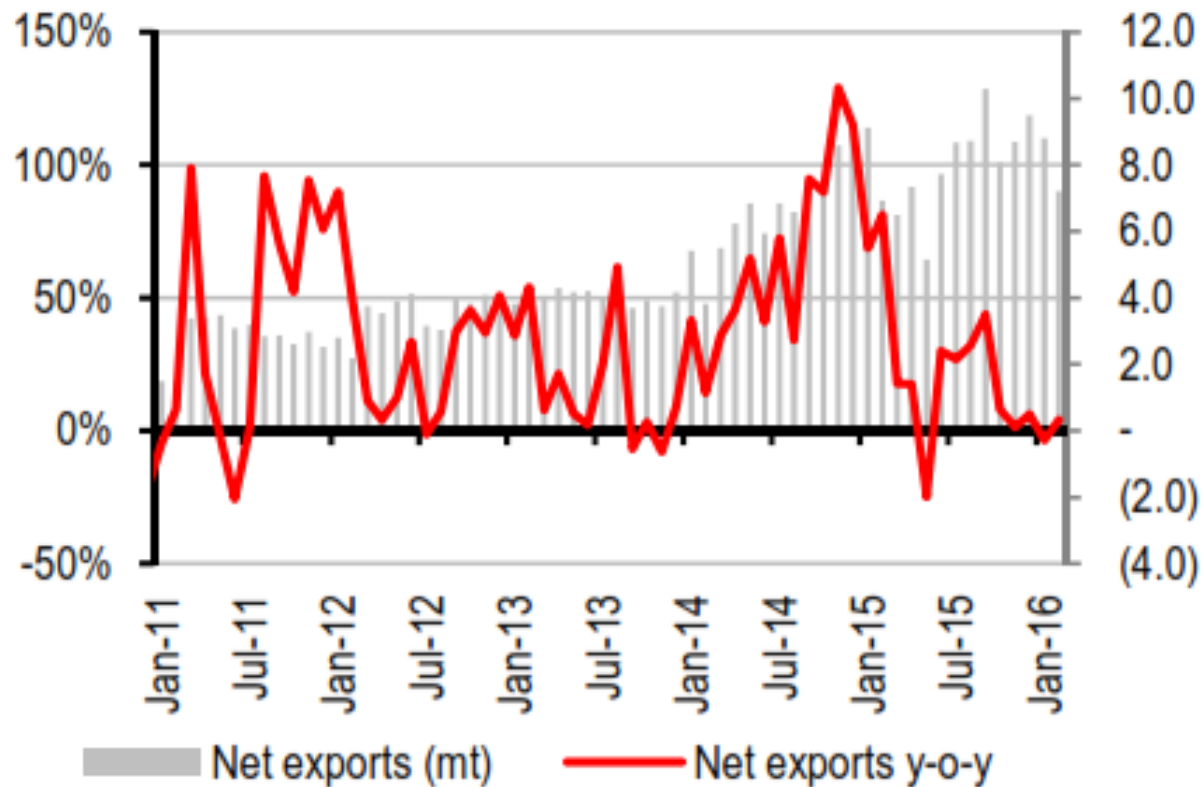
Potential for growth



Source: WSA for steel and World Bank for population

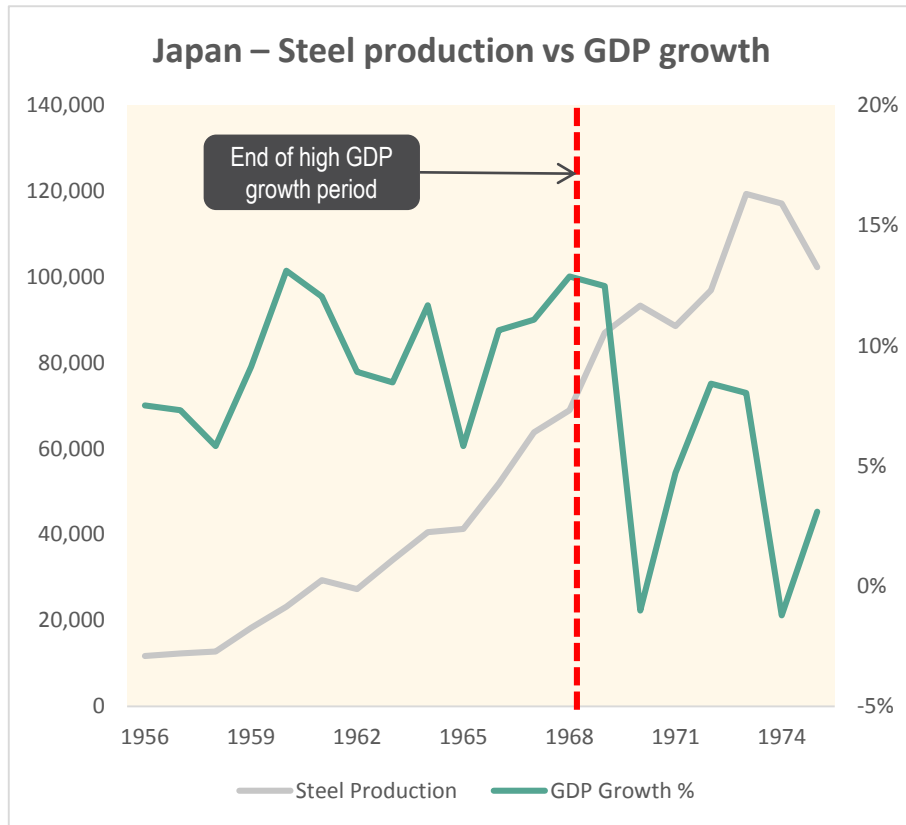
- Three heavily populated countries constitute considerable potential for growth
- All have low steel production tonnes per capita vs peers, indicating expected growth in infrastructure and construction development
 - India
 - Brazil
 - Mexico

Steel exports from China are now falling as barriers to trade increase



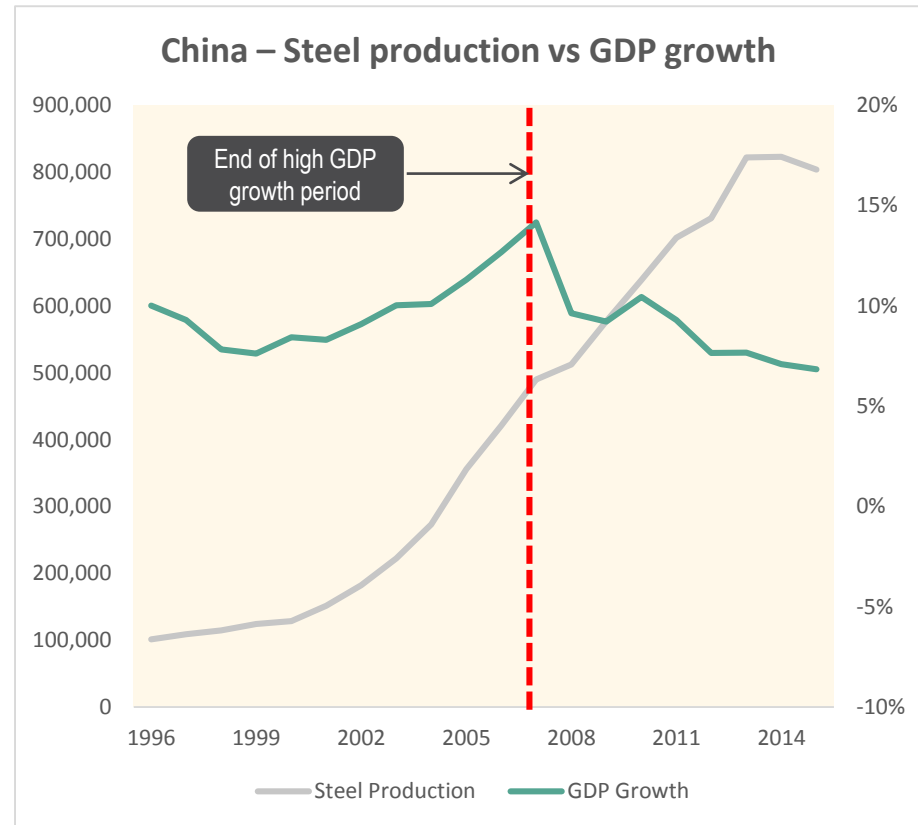
Source: CEIC, HSBC

China Steel Production: Has the limit been reached? Parallel with Japan



Steel production per capita in Japan 831kg

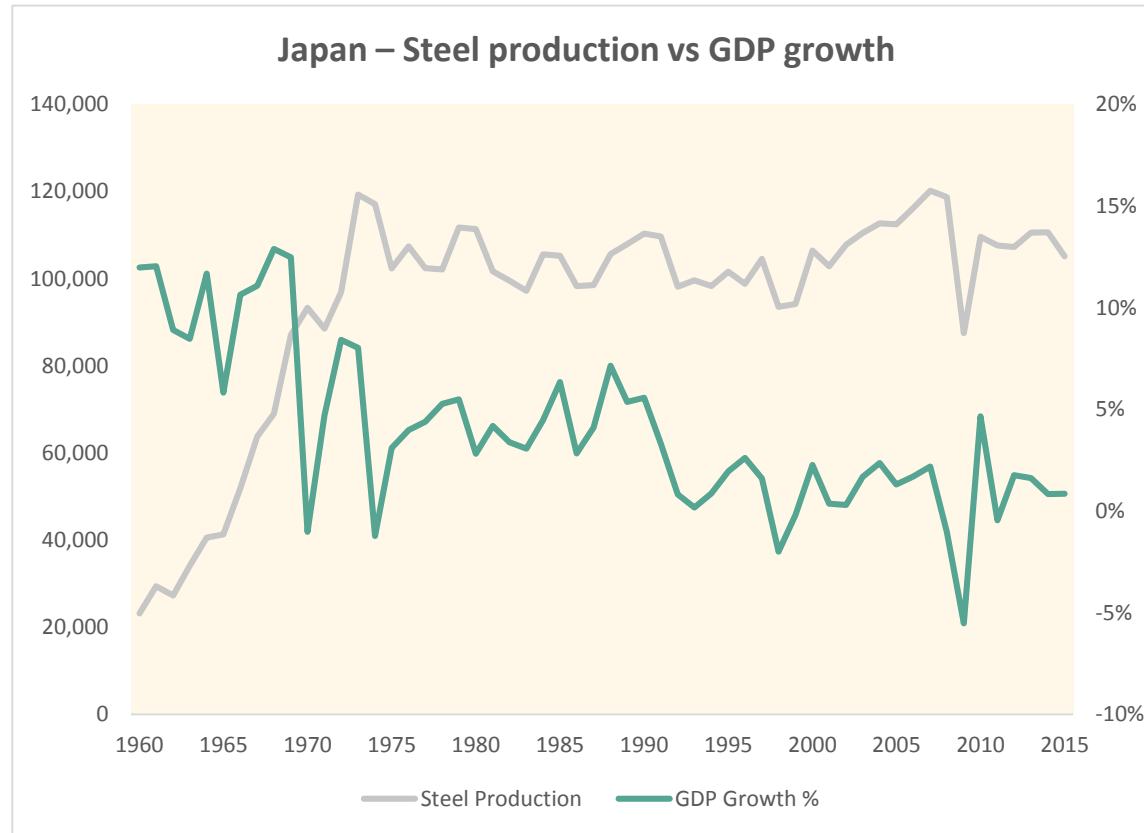
From 1956 to 1974 (18 years) steel production was multiplied 10x



Steel production per capita in China 585kg

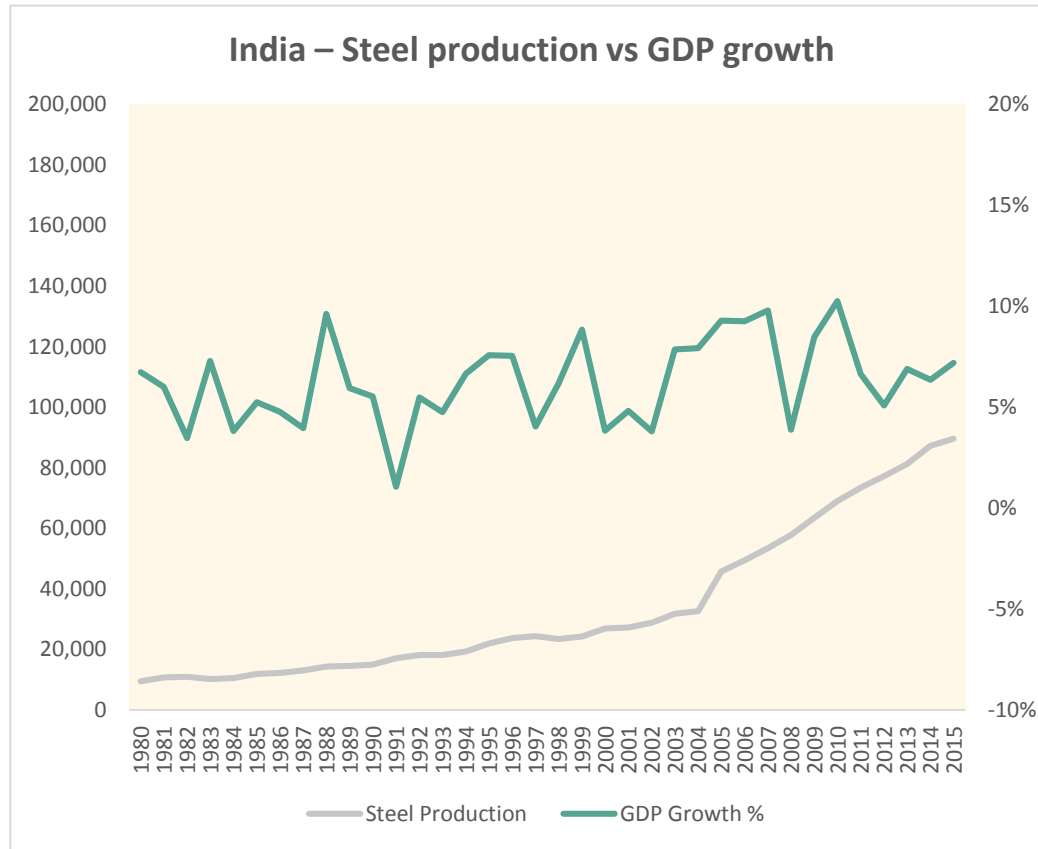
From 1996 to 2014 (18 years) steel production was multiplied 8x

What is the steel profile of a maturing economy: The case of Japan



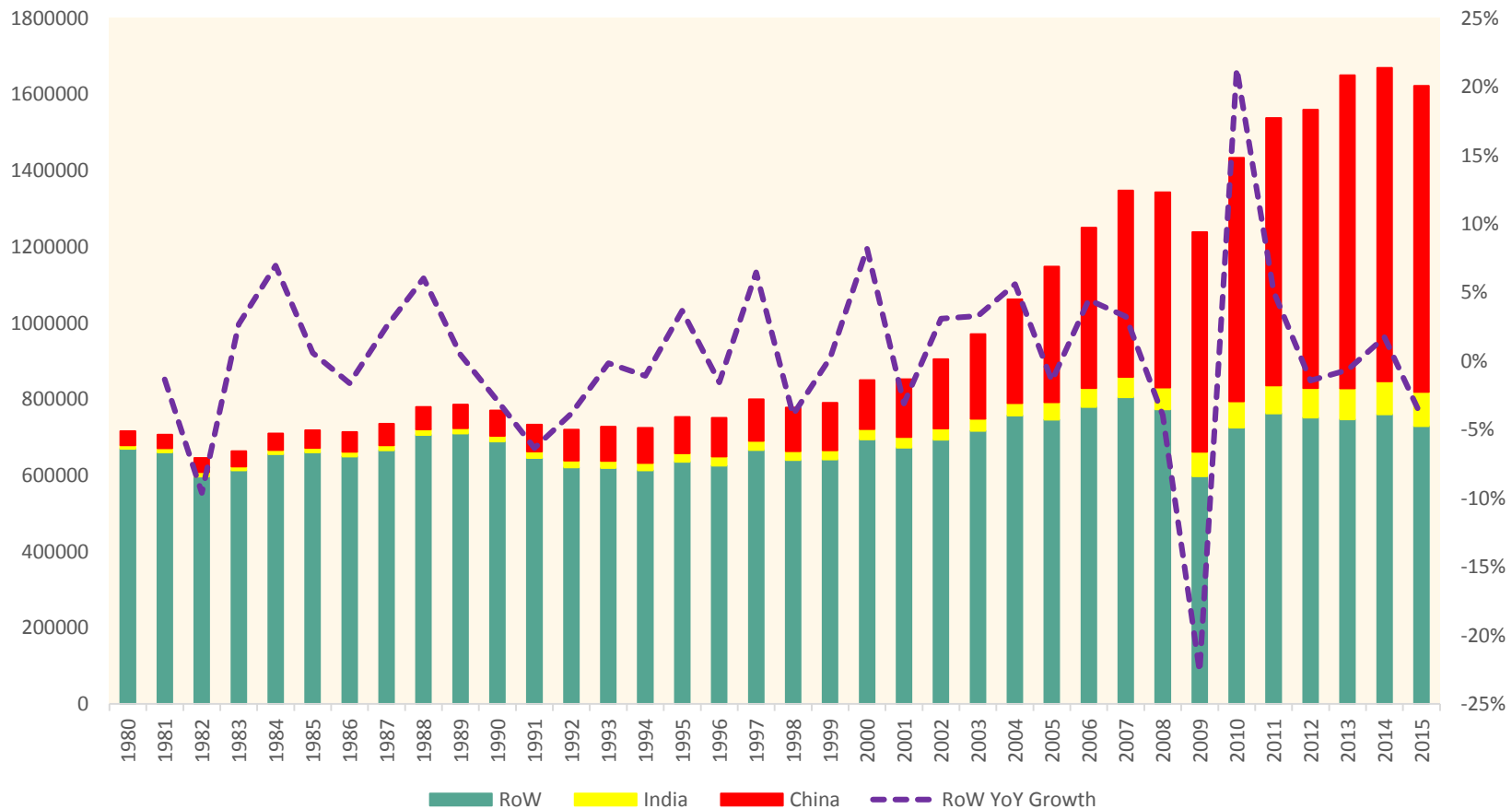
- Steel production per capita in Japan 831kg
- After the peak in 1973 steel production declined a little and recovered to about 88% of peak over 40 years

The Indian steel production high growth sequence should start soon



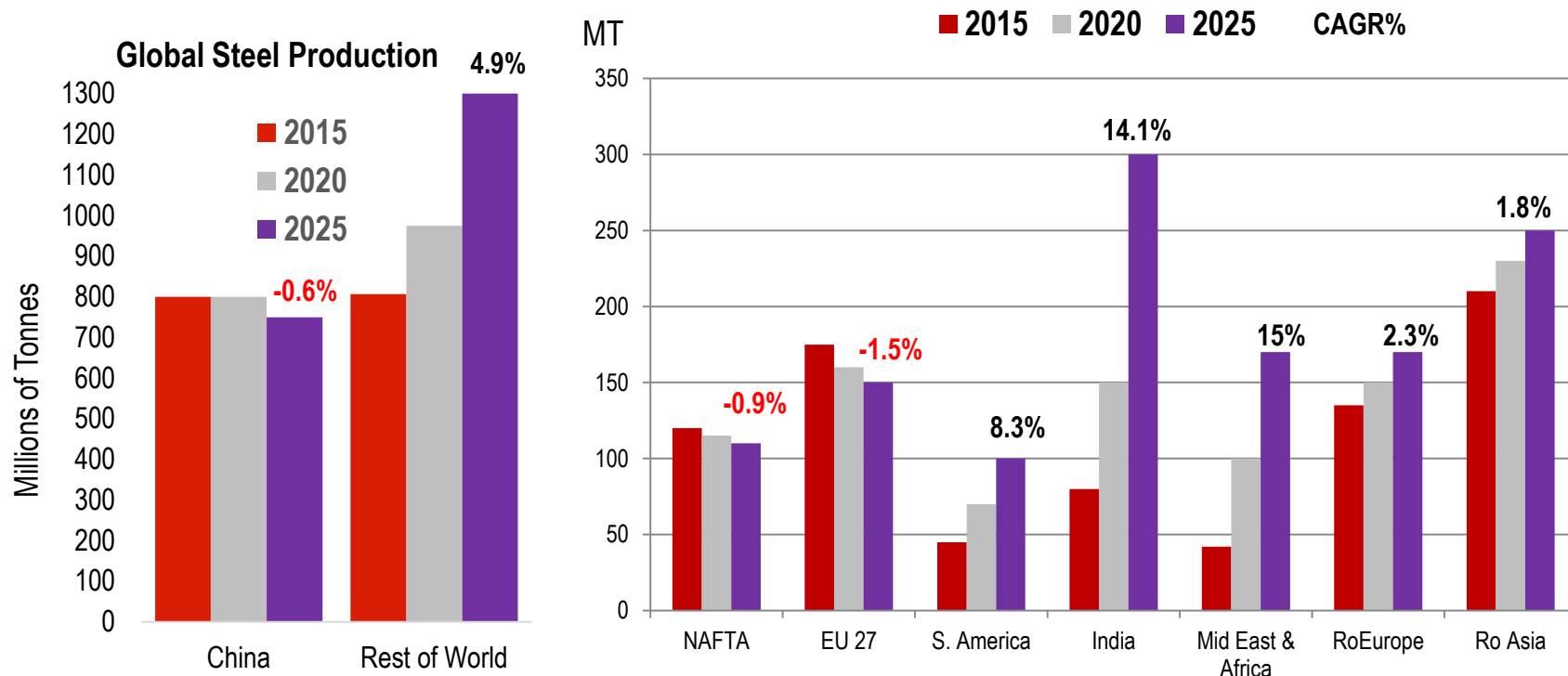
- Steel production per capita in India 70kg (vs 585kg in China)
- The long term steel growth episode should start in the coming three years and last longer than in Japan and China
- Official objective is 300 million tonnes in 2025

World Steel Production: Where is India in the growth cycle?



- By directly comparing Chinese and Indian tonnages, India currently could be seen as being in the same situation as China in 1994; and still progress to 124mT in 2020 and 273mT in 2025

Steel market growth scenario



- Nafta and Europe should decrease slowly as their economic growth model requires less steel
- China stabilises and start declining at the end of the period
- India enters in a major steel growth pattern
- South America, Middle East and at the end of the period Africa enjoy sustained growth

Global forecasted production (MT)

2016

1600

2020

1775

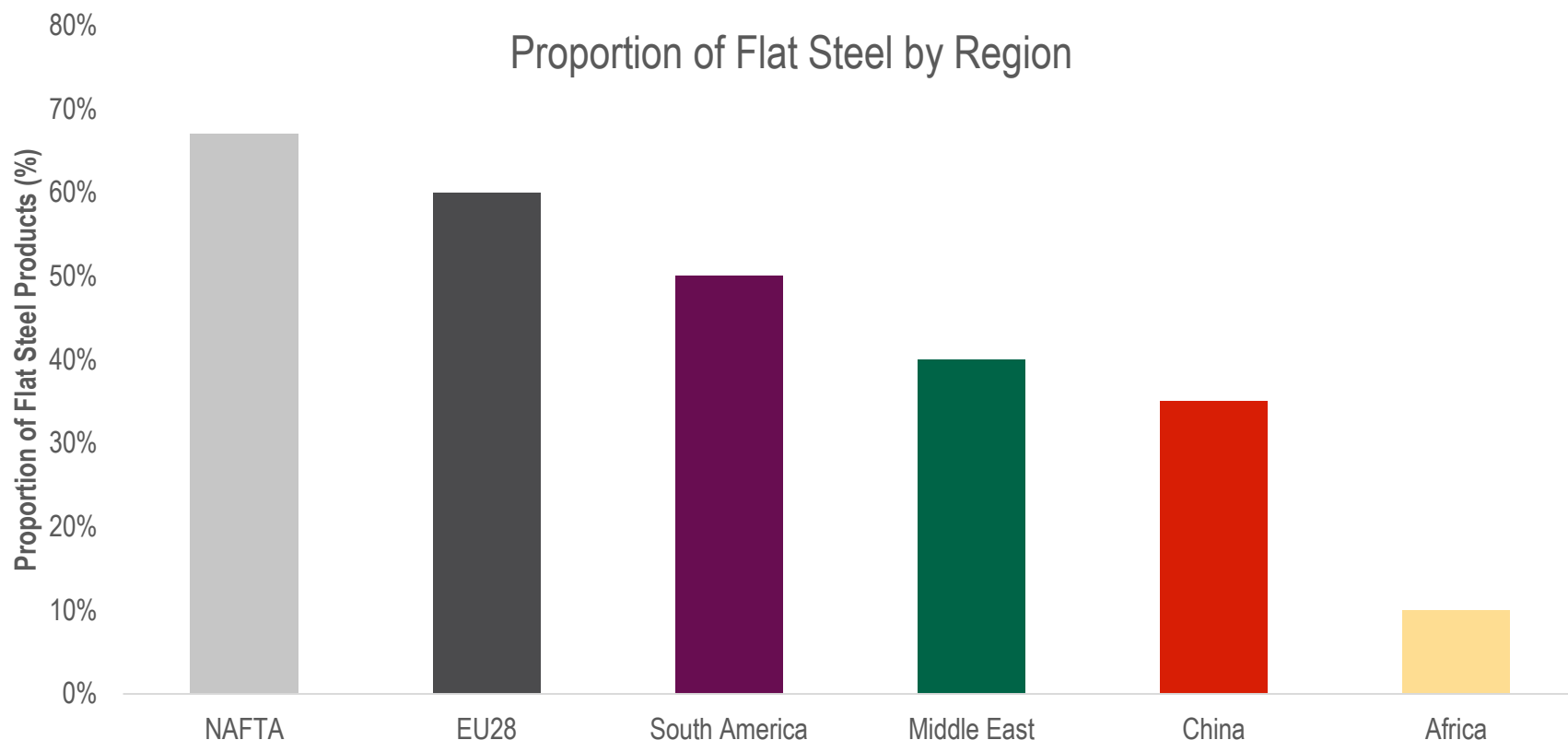
2025

2050

Growth opportunities – Steel

Vesuvius serves mainly the flat products market which will grow at a higher pace than global steel as developing markets evolve towards consumption driven economies

Typical consumption of Flow Control products in flat steel is £1.5/ T of steel vs £0.5/ T of steel in long



Source Based on data from WSA & SBB, with Vesuvius assumptions used for China

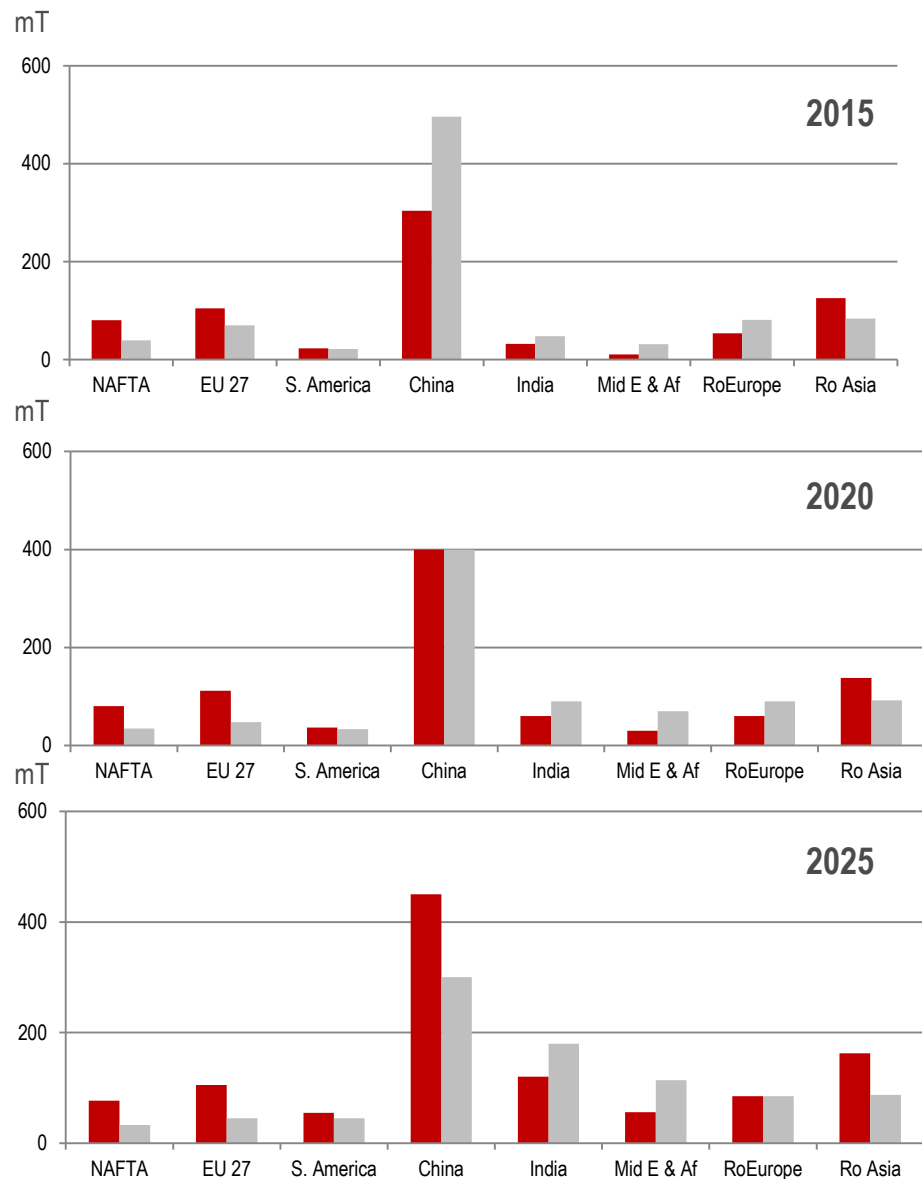
China's move towards flat steel is confirmed

	2016	2015
Total CISA	144	147
Long	59	62
Flat	80	79
Long	41%	42%
Flat	56%	54%

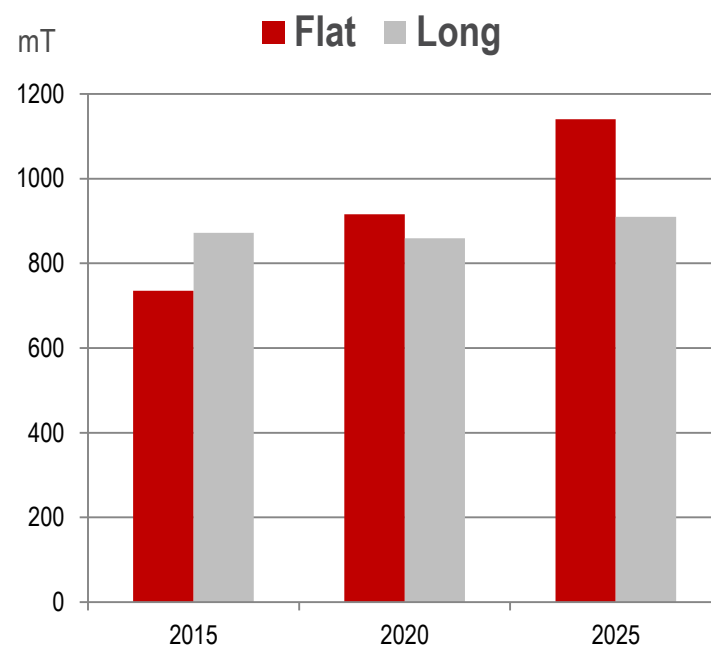
- Proportion of flat steel produced increased by 150bps YoY for Chinese Steel Association members (representing ~60% most advanced of total Chinese steel production)
- However CISA is the customer segment we address, already producing 56% of flat steel
- Growth potential of segment (due to the conversion of the Chinese economy) less than previously expected



Conversion to flat steel is a growth opportunity

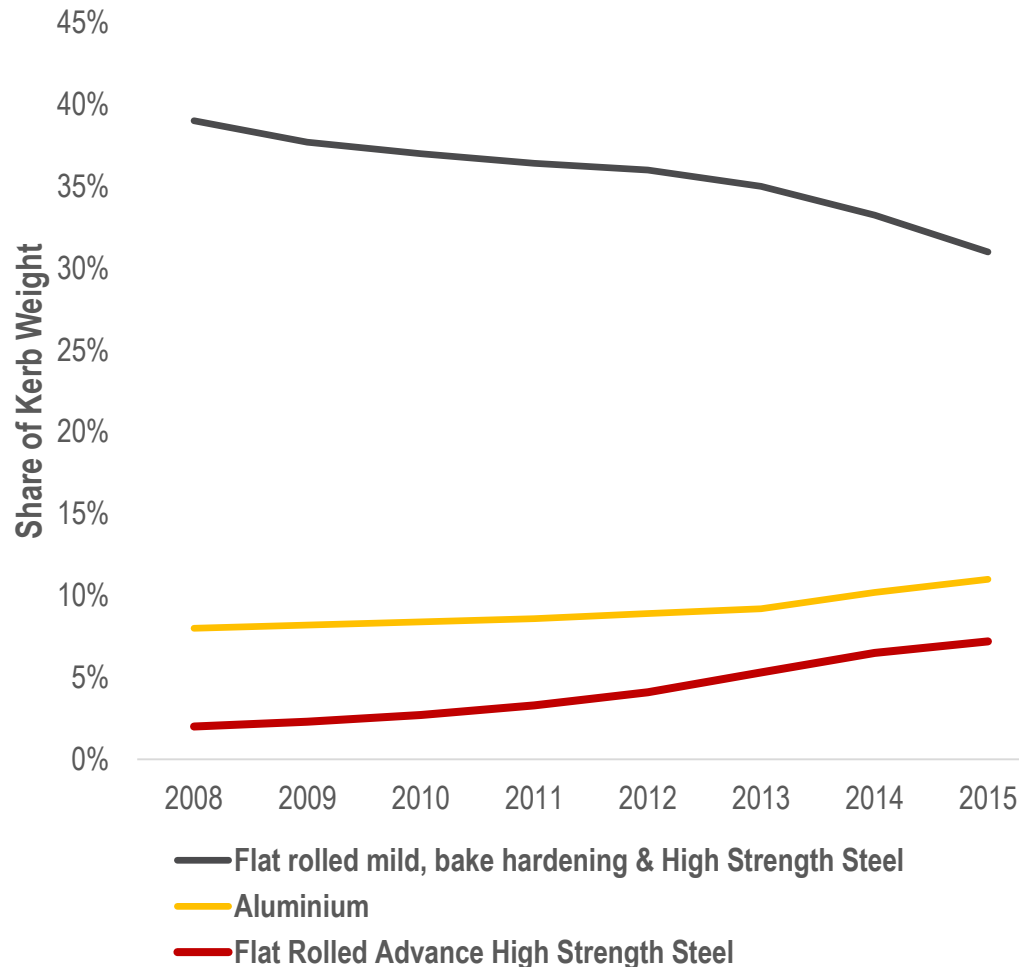


- Progression of flat steel vs long steel could generate growth in our accessible market of 30% in 2020 and 55% in 2025
- In the same period global steel production is expected to grow by only 10% and 28% respectively



Steel vs Aluminium: Growth of high-strength steel continues along the previous trend

Material share as percent of vehicle kerb weight



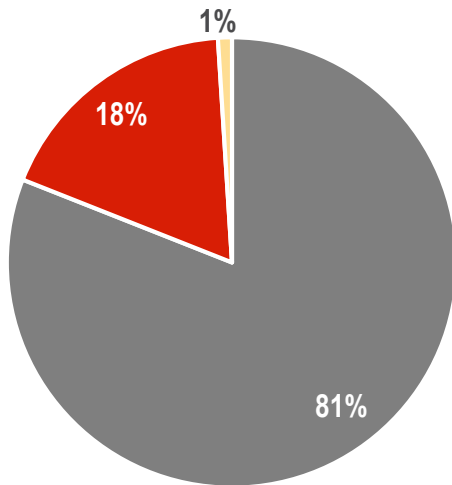
In vehicle production, conventional steel is replaced by high-resistance steels as well as by Aluminium

- High resistance steels require more sophisticated technologies to be produced (high Ni or Mn content) and tighter control on the process
- Today the most advanced steel makers suffer very low productivity on such qualities

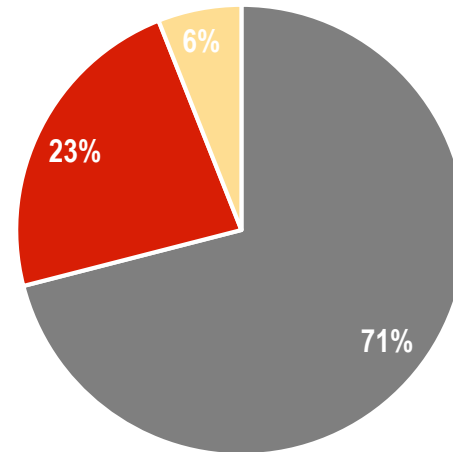
Source: WSA for steel production volumes, Vesuvius internal data for Vesuvius sales at constant currency.

Steel vs Aluminum: Long term forecast give the major share to high strength steels for light vehicles

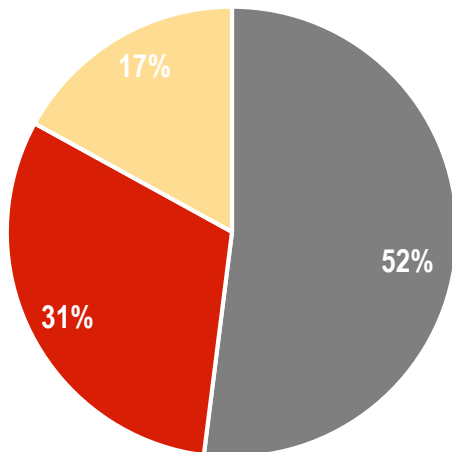
2012



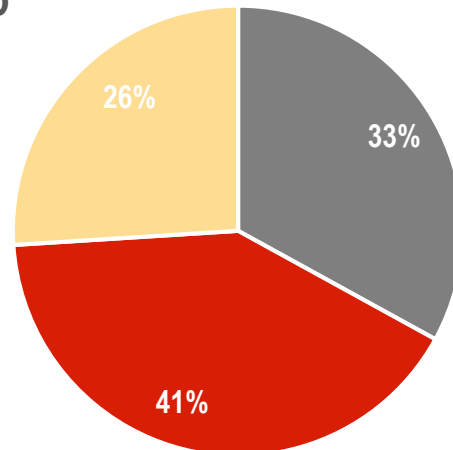
2015



2020



2025



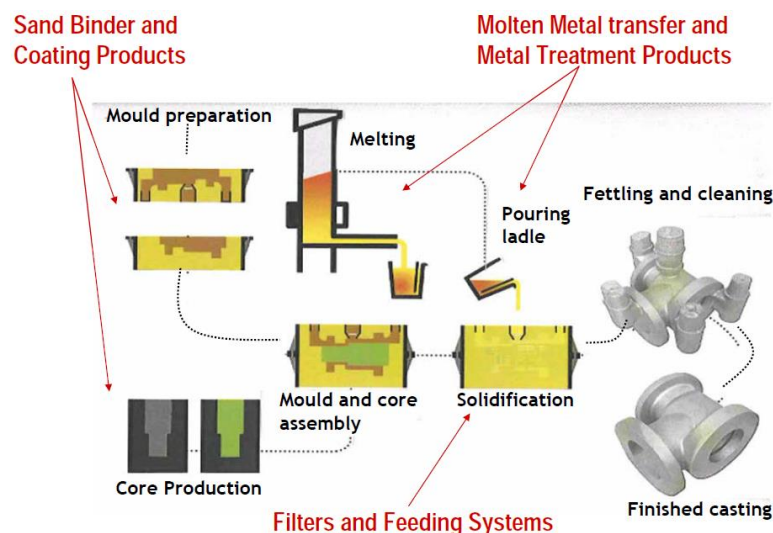
■ Mild and HSLA
■ AHSS/UHSS
■ Aluminium

Source: Ducker Worldwide

Main products and markets – Foundry business segment

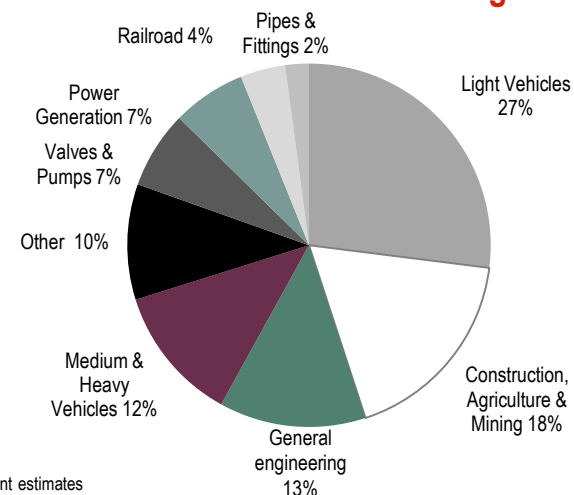
Foundry casting process

- World leader in the supply of consumable products and technical services used in the production of metal castings which themselves have a wide variety of uses in engineered products



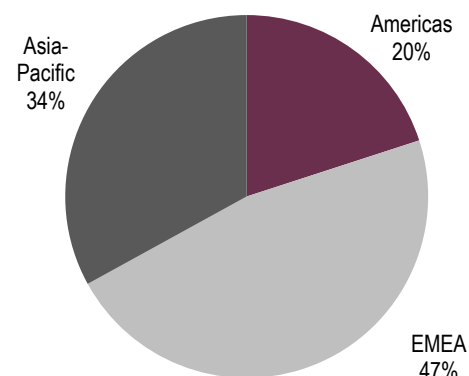
Note Red text denotes Vesuvius products

Ultimate end markets for castings



Source Management estimates

Foundry business segment revenue by operating location



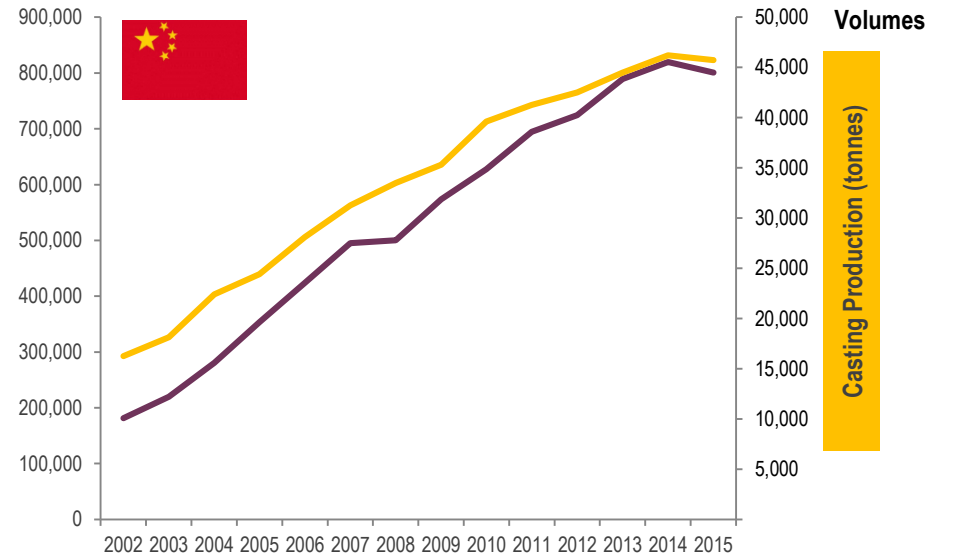
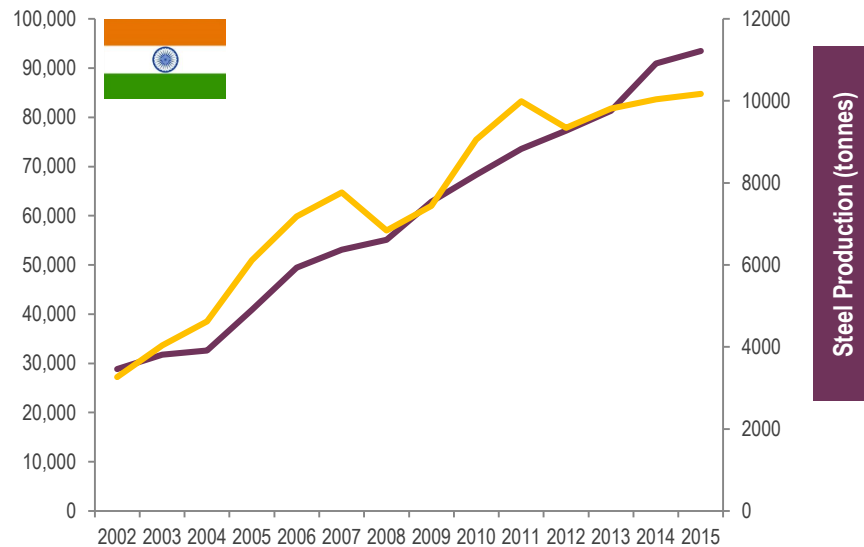
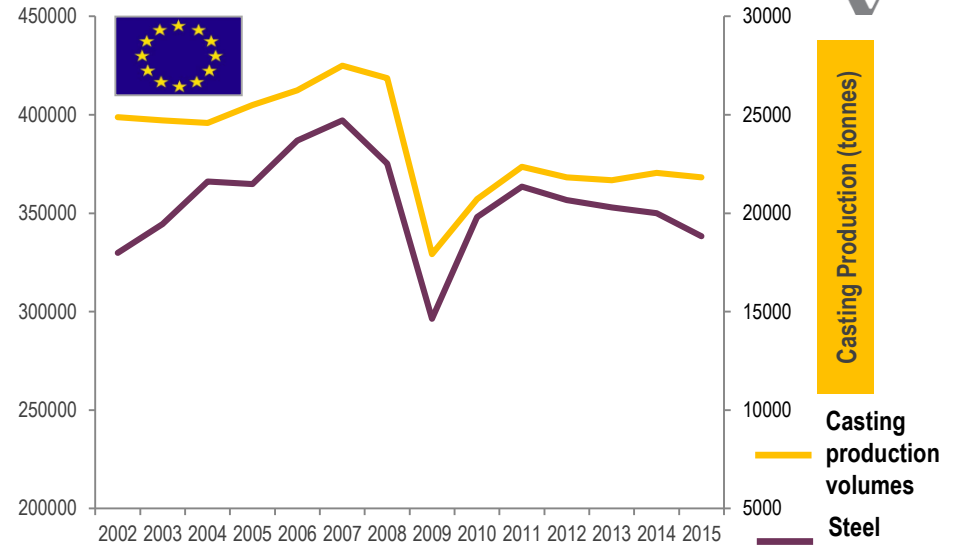
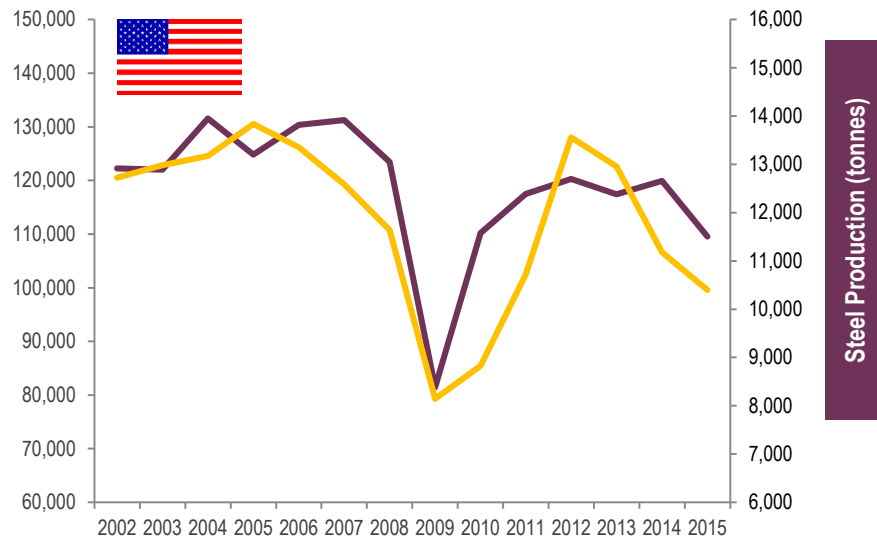
Source Vesuvius breakdown of 2016 Reported Revenues



A global leader in consumables for mould & methoding

Steel and Foundry casting production tonnages move in parallel

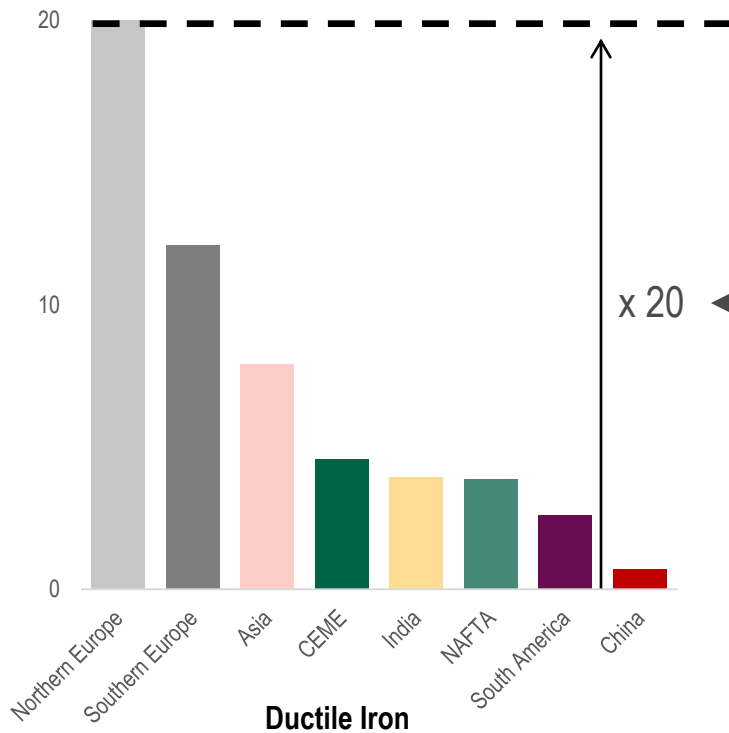
Growth perspectives should be similar: Foundry should benefit from China and India



Source WSA for steel production volumes; Modern Casting and Vesuvius estimates for casting tonnes.

Long term growth in Foundry will come from innovation and marketing

Foundry sales £/T of total market casting (2014)



Significant upside potential through continuing market penetration as emerging markets move towards higher quality foundry castings



Mining capital expenditure has fallen significantly since 2012



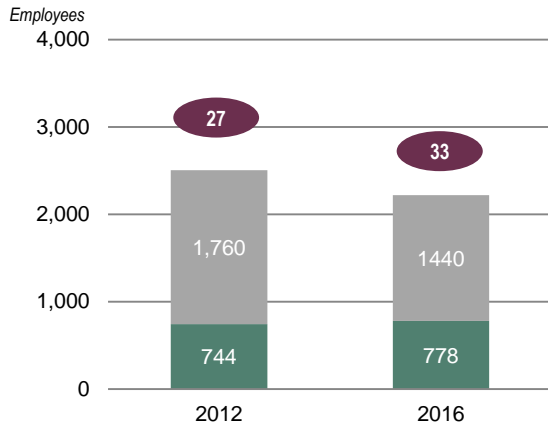
Source: Bloomberg, JPMC Research



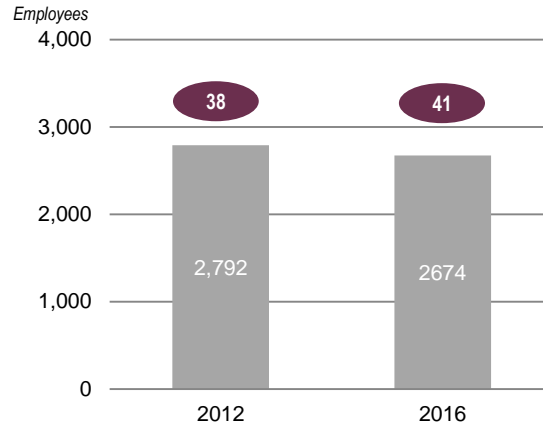
Shift of headcounts to emerging countries continued



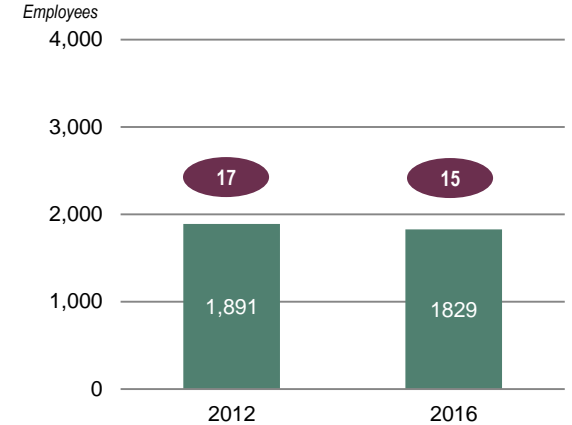
NAFTA facilities and headcount



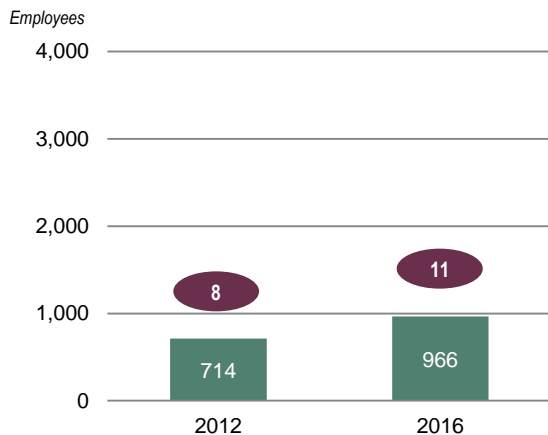
EU 15 facilities and headcount



Other EMEA facilities and headcount

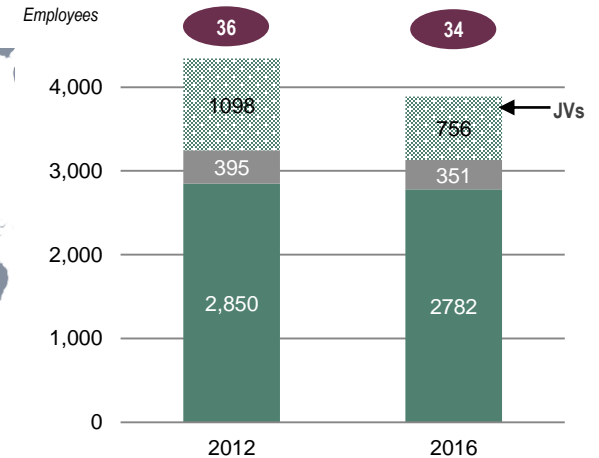


South America facilities and headcount



● Facilities ■ Developed markets ■ Developing markets

Asia Pacific facilities and headcount



Source: Cognos, June 2016

Note: 2016 includes Sidermes, Ecil MET TEC and Process Metrix, not included in 2012 plants