

North America & Europe Investment Casting Market Review

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Introduction

- This presentation reviews the investment casting markets of North America and Europe
- These 2 regions represent a major portion of the world investment casting industry
- The review of these markets gives a summary for 2013 and estimates likely results for 2014



Acknowledgements

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ICI (Investment Casting Institute - United States)

CAEF (Casting Association of European Foundries)

EICF (European Investment Casters' Federation)

cmf (Cast Metals Federation - UK)

The information given is based on official figures together with best estimates where statistics are not available. No legal responsibility is accepted for information, advice given or opinions expressed

North America & Europe

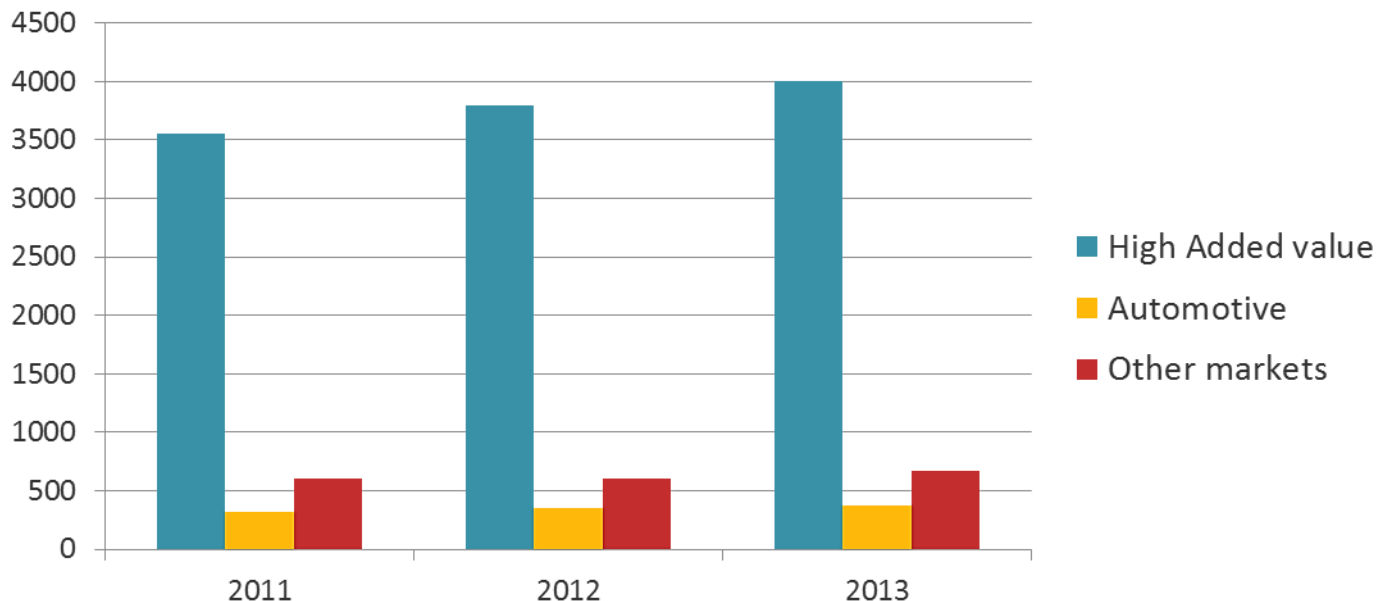
- North America and Europe together represent 63% of the total world investment casting sales value
- This is due to the high level of production of castings for the High Added Value sector
- Together North America and Europe account for 85% of world sales to the High Added Value sector
- The increase in aerospace casting production is having a significant beneficial effect on investment casting worldwide



North American Market

North America

- Total North American sales in 2013 US\$5.04 Billion
 - Increased 6% over 2012
 - Represents 41% of global investment casting sales
 - Growth has been seen in all sectors



North America

Aerospace

- US airlines profitable
- US Airways – American Airlines merger
- Record orders & deliveries
- Backlog exceeds 8 years production
- Single aisle aircraft experiencing strongest growth
- New casting applications driven by efficiency requirements
- Regional jet sales increased by 4%



North America

Industrial Gas Turbine

- Orders still flat, impacted by slow economic recovery
- Installed capacity maintaining demand for spare parts
- Long term stability with gradual growth in the short term

Automotive

- 2013 saw the best auto sales year since 2007
- Sales & production continue at a high level
- Smaller vehicles with direct injection/turbocharger
- Tighter fuel standards driving new casting designs
- More castings required for passenger cars & commercial trucks



North America

Medical

- 5% annual growth
- More joint replacements required
- Increased casting applications in diagnostic equipment
- Medical product demand will increase

Commercial

- Resurgence of casting requirements for all uses continues
- Oil & gas sector sales higher with further growth potential



North American Investment Casting Estimated Sales 2014 (US\$B)

Aerospace \$ 3.30 Billion

IGT \$ 0.97 Billion

Automotive \$ 0.39 Billion

General Industry \$ 0.69 Billion

TOTAL \$ 5.35 Billion

6% increase on 2013



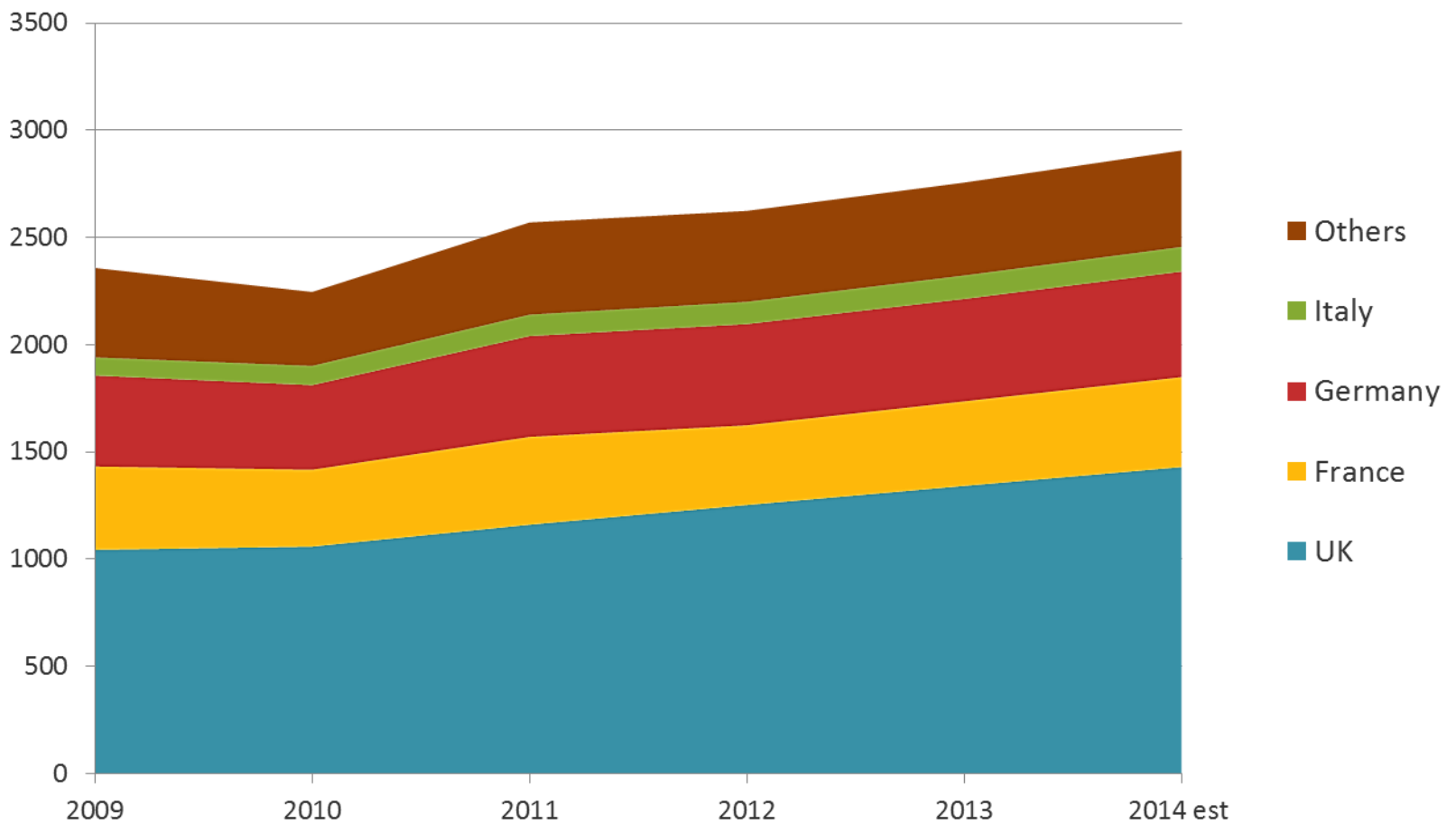
European Market

European Investment Casting Market

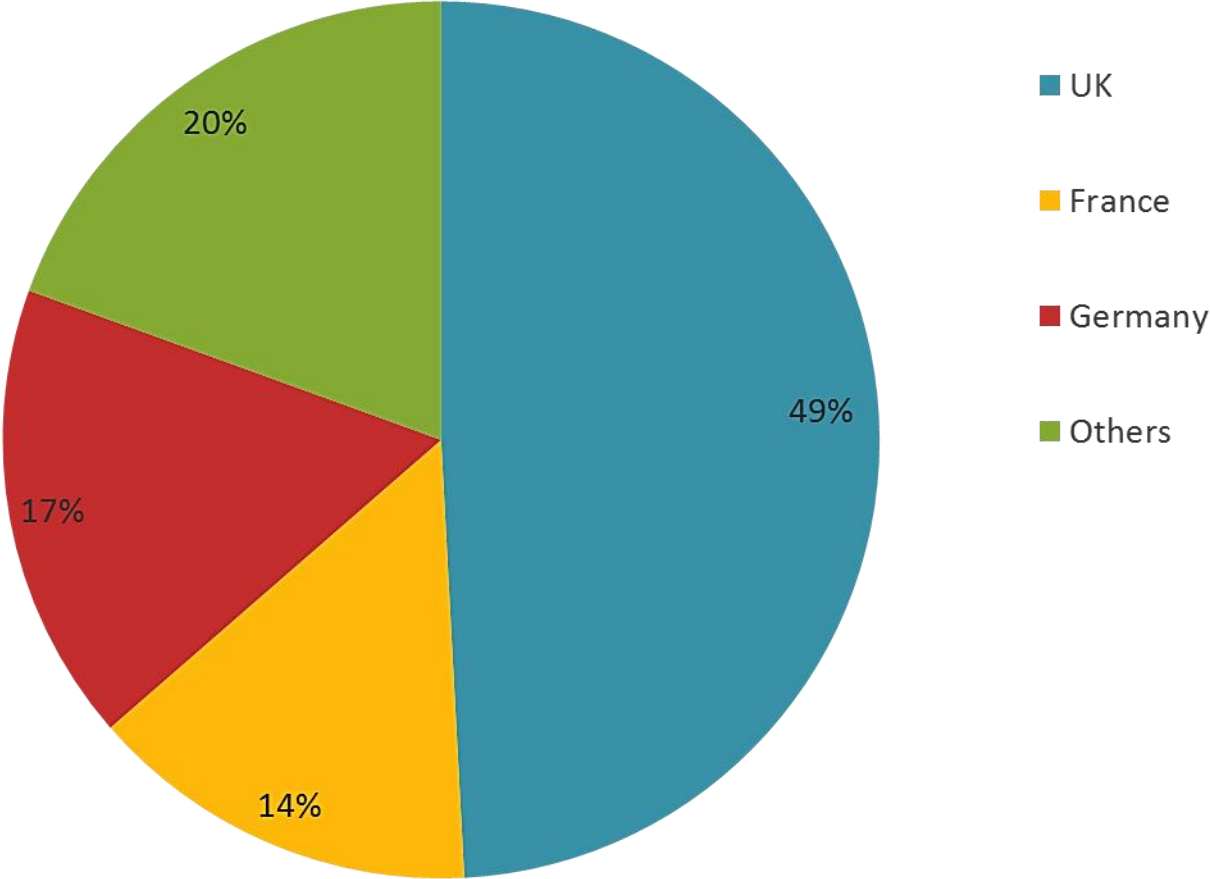
- European sales totalled US\$2.75B in 2013
- An increase of 5% compared to 2012
- Some variation in country performances
- UK, France & Italy increase of 6 - 7%
- Germany and other countries increase of 1 - 2%



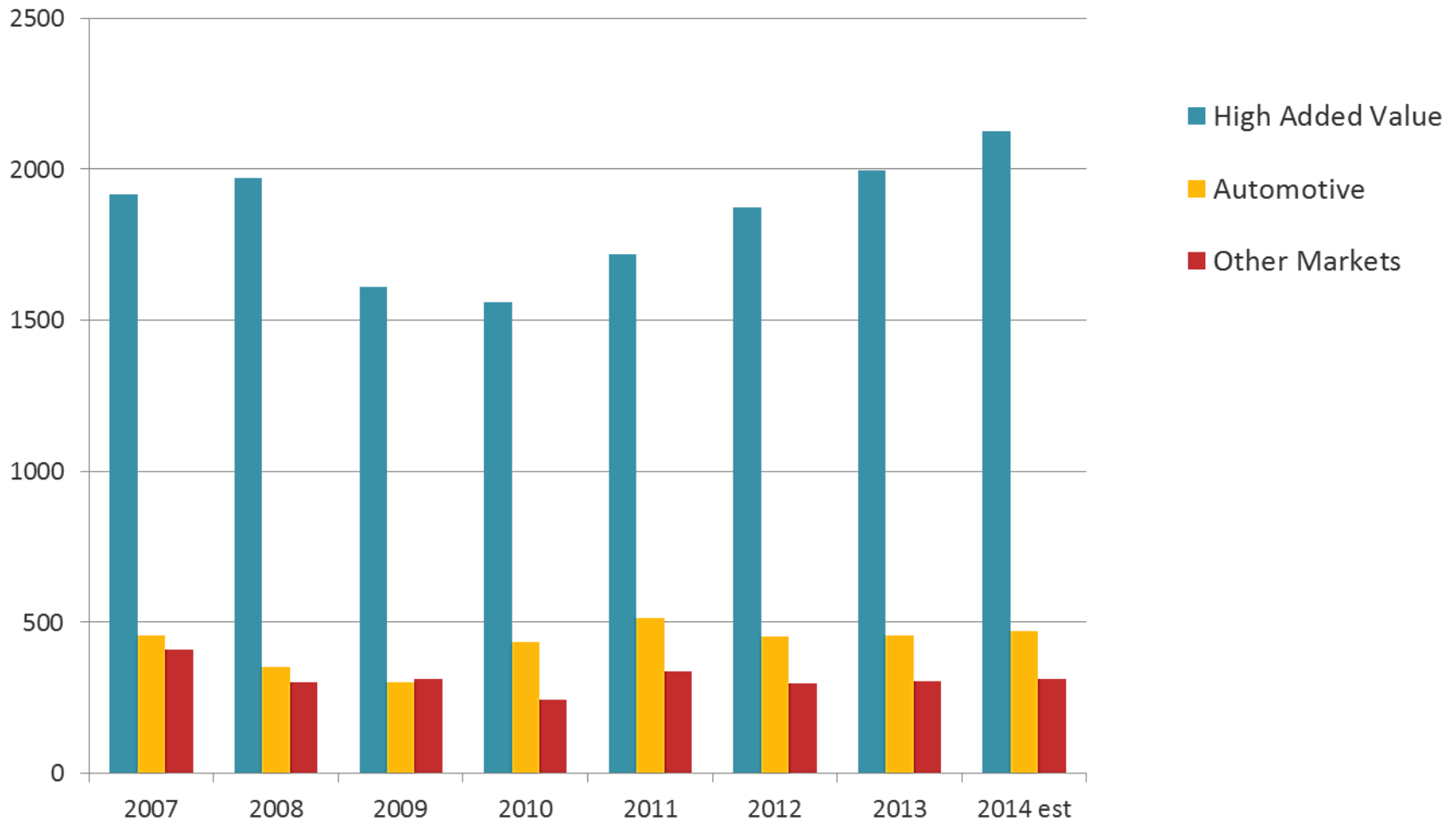
European Investment Casting Sales (US\$M)



European Market by Country 2013



European Investment Casting Sector Trends (US\$M)



European Investment Casting Sector & Regional Trends

- Countries with a high level of casting production for aerospace increased by approximately 7% in 2013
- Automotive and commercial casting showed slower growth
- European automotive regional trends varied
- UK +11% France -5% Germany -1% Others -2%
- Commercial castings +3% across all countries



European Investment Casting Prospects 2014

- Aerospace to continue high level of growth
 - Further growth of 7% forecast
- Automotive sales showing signs of improvement
 - Overall growth of 3% forecast
- Commercial casting sales expected to increase
 - Growth of 3% forecast



Thank You

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