

European Investment Casting Market Review

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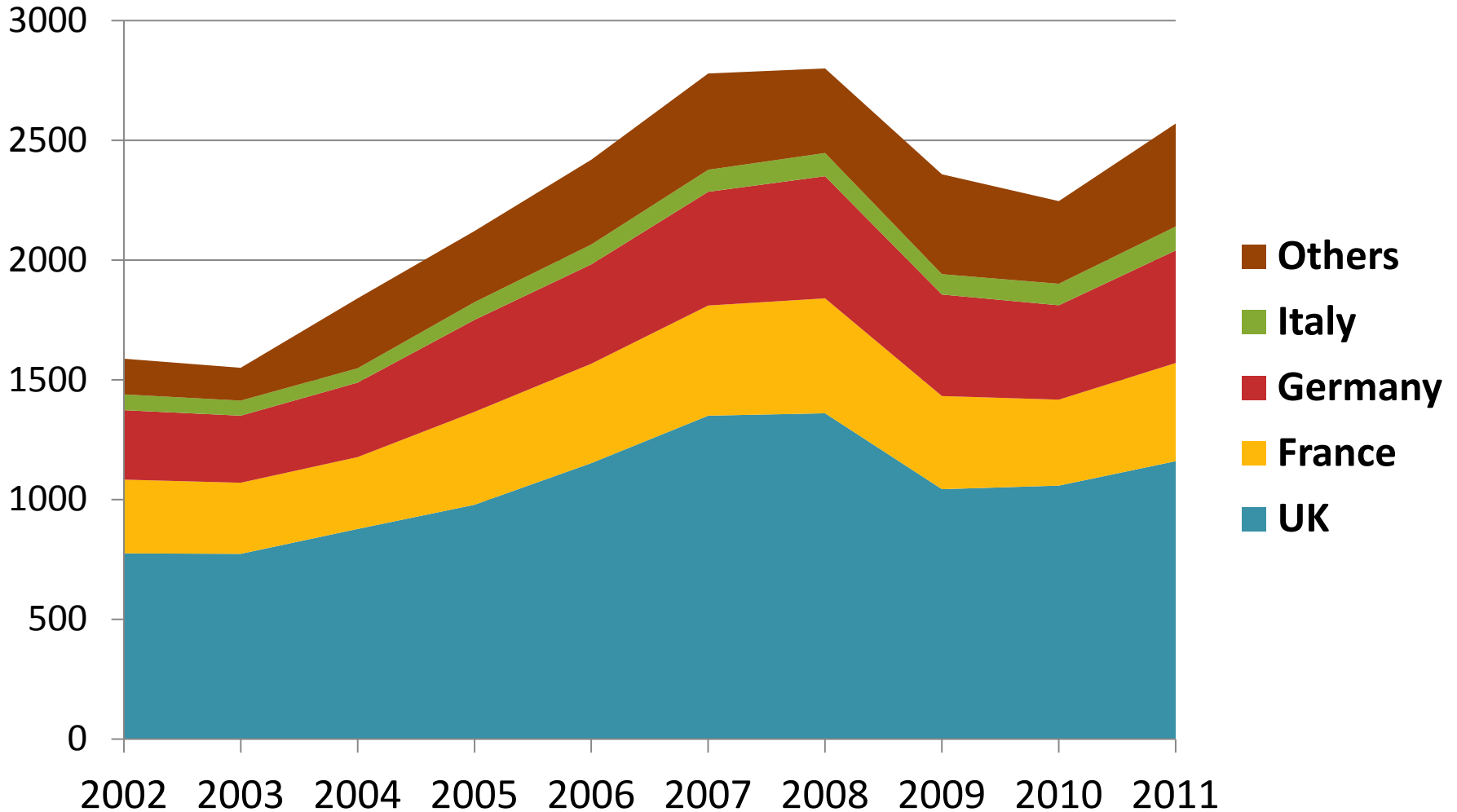
Kyoto, Japan
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European Investment Casting

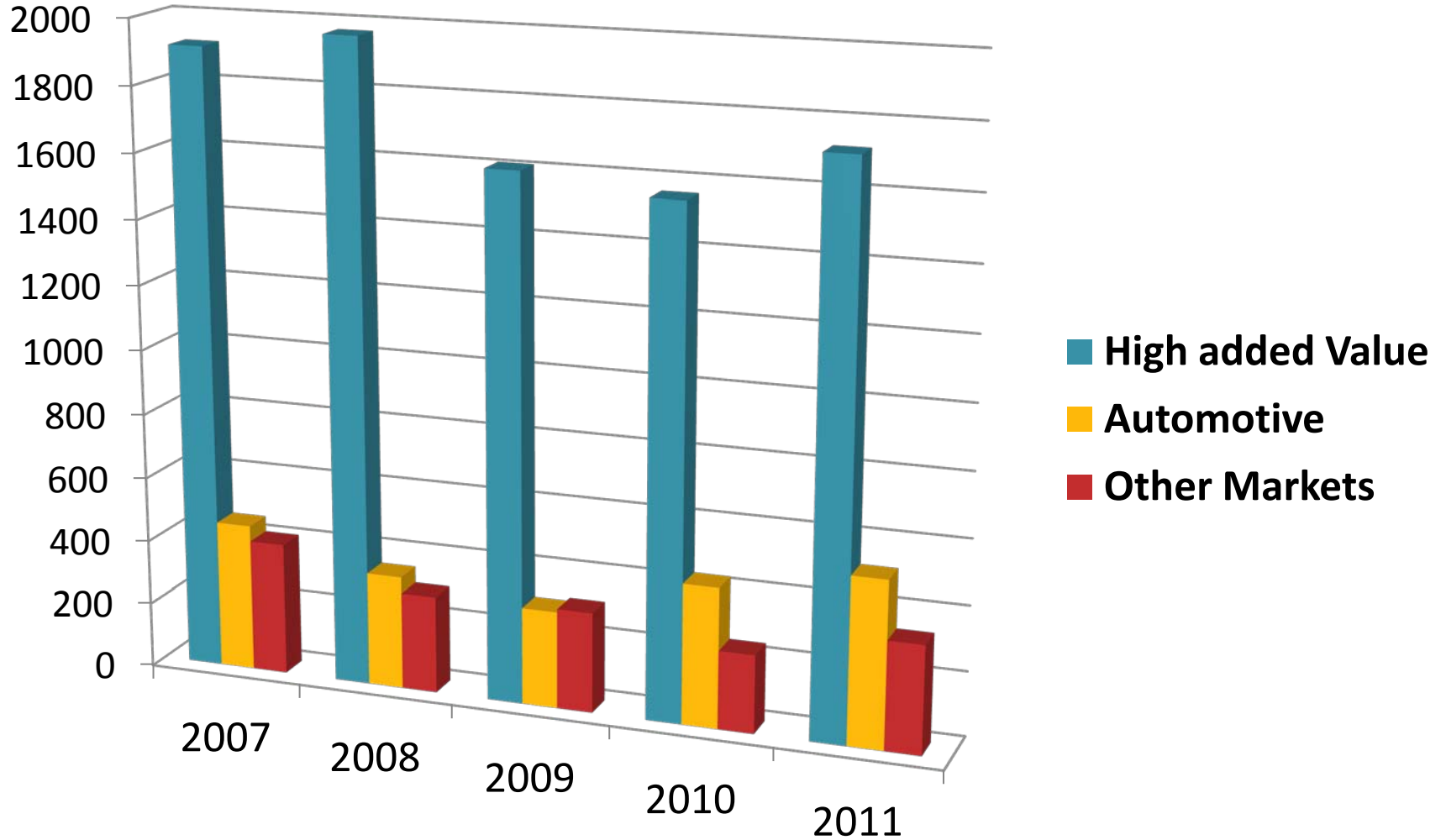
- Forecast European sales in 2011 US\$2570M
- This is an increase of 14% on 2010
- However European sales are still well below the 2008 peak
 - High added value recovering steadily
 - Automotive achieved highest ever sales
 - Commercial castings slowly improving
- Low sales for industrial gas turbines a major problem
- Germany increased sales by 20%
 - High demand due to automotive exports
 - Commercial castings also performed well

European Sales 2002 – 2011

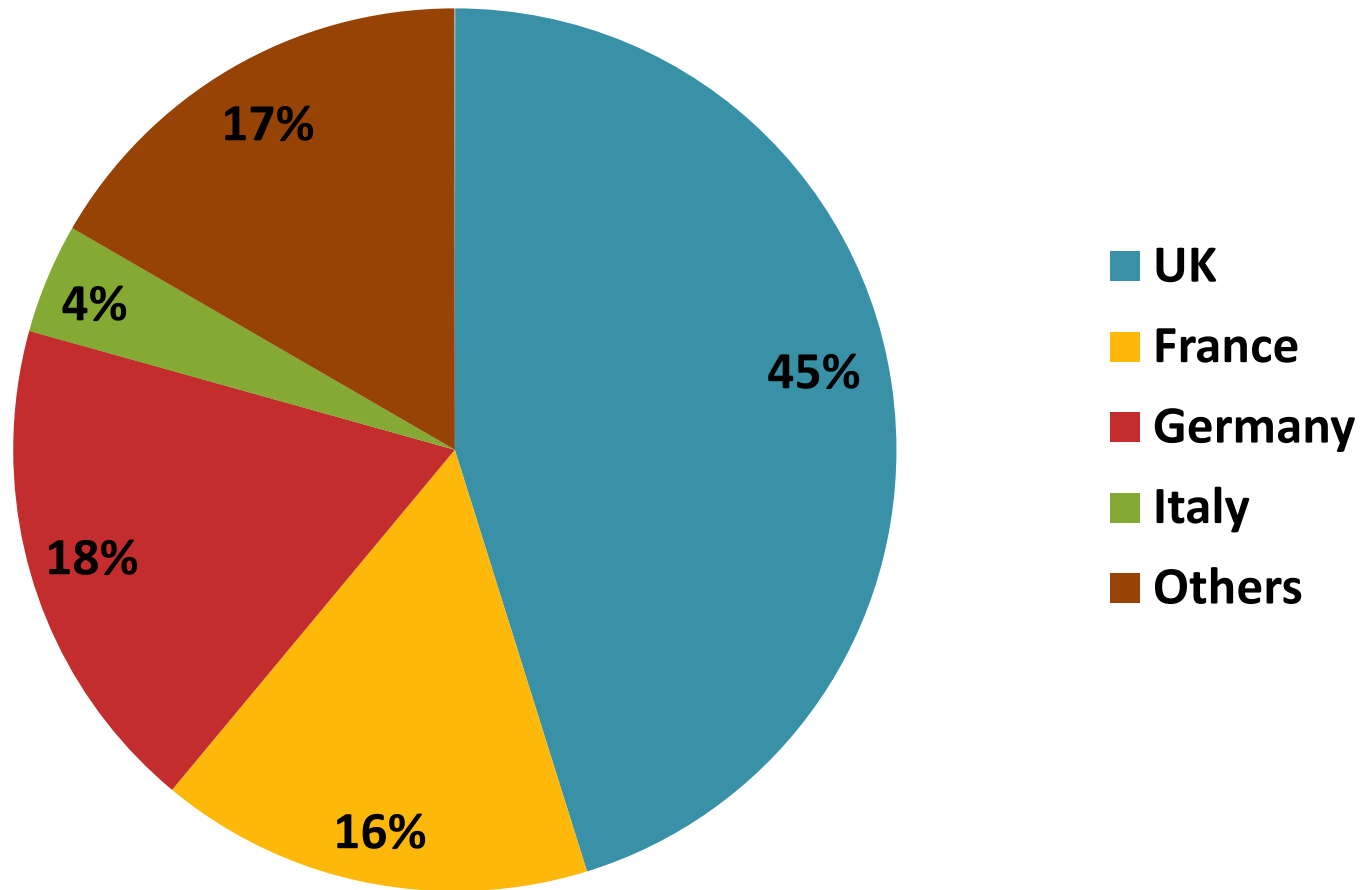
US\$M



European Sector Sales 2011, US\$M



Sales by Country 2011



Sector Trends 2011

Aerospace

- Airbus extremely busy following large orders at 2010 Paris airshow
 - will remain so for next 8 years based on current order book
- Very strong aircraft sales are not translating into casting orders
- Indicative of a movement of new orders to Asia
- Chinese and Indian governments insistent on an increased percentage of manufacturing being carried out in their own countries
- Rolls Royce Trent XWB engine, the most efficient in the World
 - 1100 already sold
- European casting manufacture will increase but at a lower level than would previously have been expected
- Forecast for 2012 is further growth of circa 7%

Industrial Gas Turbines

- Many projects planned before 2008 were shelved
- Sales are now picking up and are expected to grow in 2012

Sector Trends 2011

Automotive

- Sales of castings to the automotive industry are leading growth in Europe, +18% compared to 2010
- European luxury cars selling extremely well with high level of exports
- Volume production models selling at reduced levels
- This situation appears set to continue through 2012

Medical

- Continues to struggle and expected to continue to do so in 2012
- European suppliers apparently losing sales to developing markets

Commercial

- A very encouraging improvement of 30% in 2011
 - 2010 sales though were very low and still well below sales of 2007
- Individual markets in Europe vary
- Foundries continue to seek new opportunities especially by converting customers to the use of castings from fabrications

Summary - Europe

- Consensus is that growth of 7% is likely in Europe in 2012
- Aerospace will increase based on strong order books
- Industrial gas turbine slow improvement through 2012
- Automotive casting sales will continue to develop
- Commercial castings steady increase anticipated
- The percentage of new casting orders being placed in Asia and developing regions will continue
 - this will reduce growth in the aerospace and medical sectors
 - but opens the door for technology deals for European foundries
- The European investment casting industry will continue to grow sales based on the technological strength of the region