

INVESTMENT CASTING MARKET REVIEW 2007 Europe & North America

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Objective

- This presentation will review the investment casting markets of Europe and North America
 - These 2 major areas represent a major proportion of the overall World Investment Casting industry
 - Market conditions remain positive and good growth has resulted

Acknowledgements

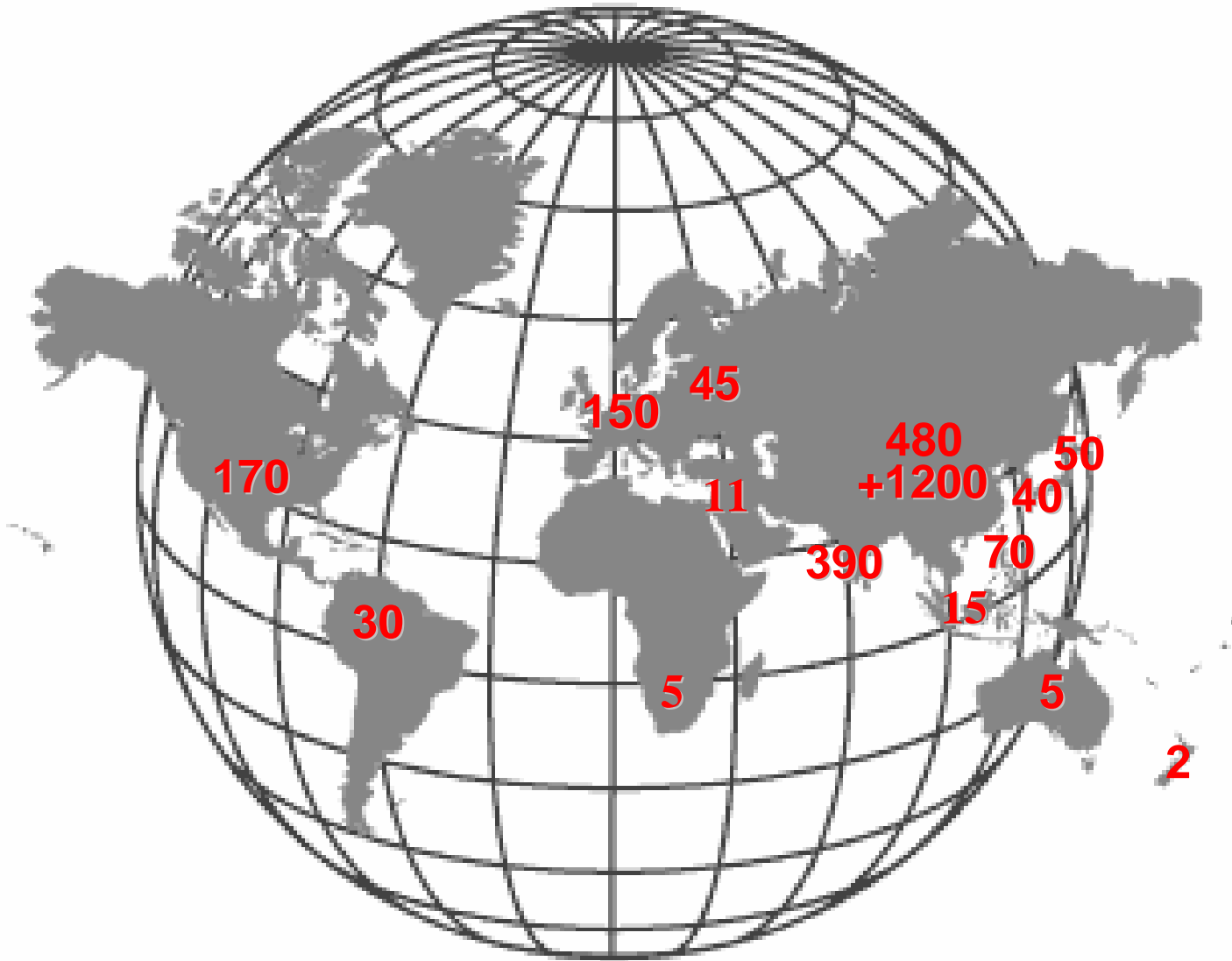
The data used for this presentation has been provided by the following organisations, whose help and contribution is gratefully appreciated :

CAEF (Casting Association of European Foundries)

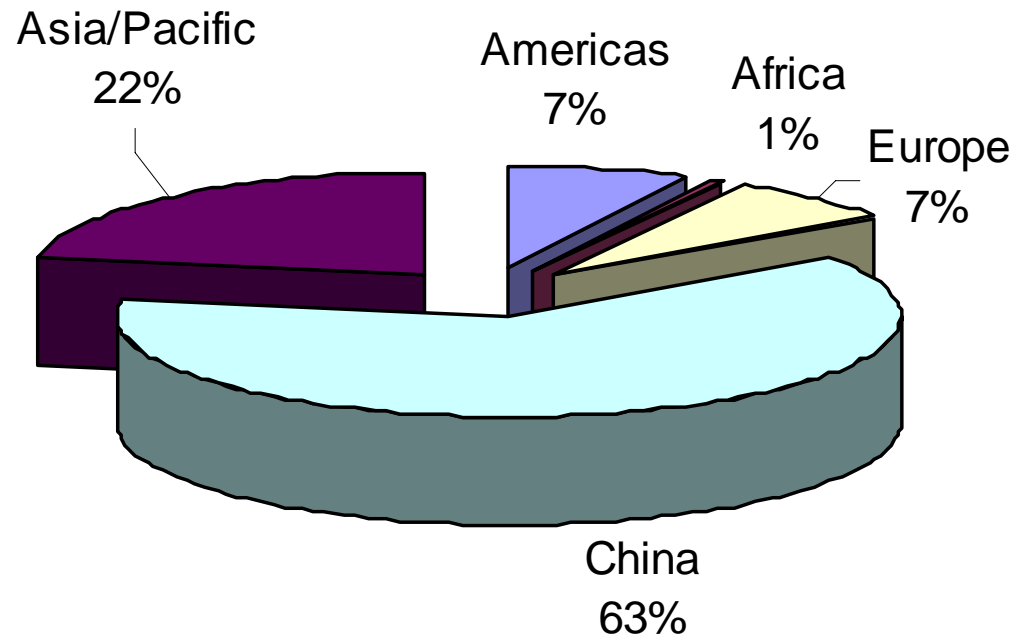
EICF (European Investment Casting Federation)

ICI (Investment Casting Institute - United States)

Location of Investment Casting Foundries

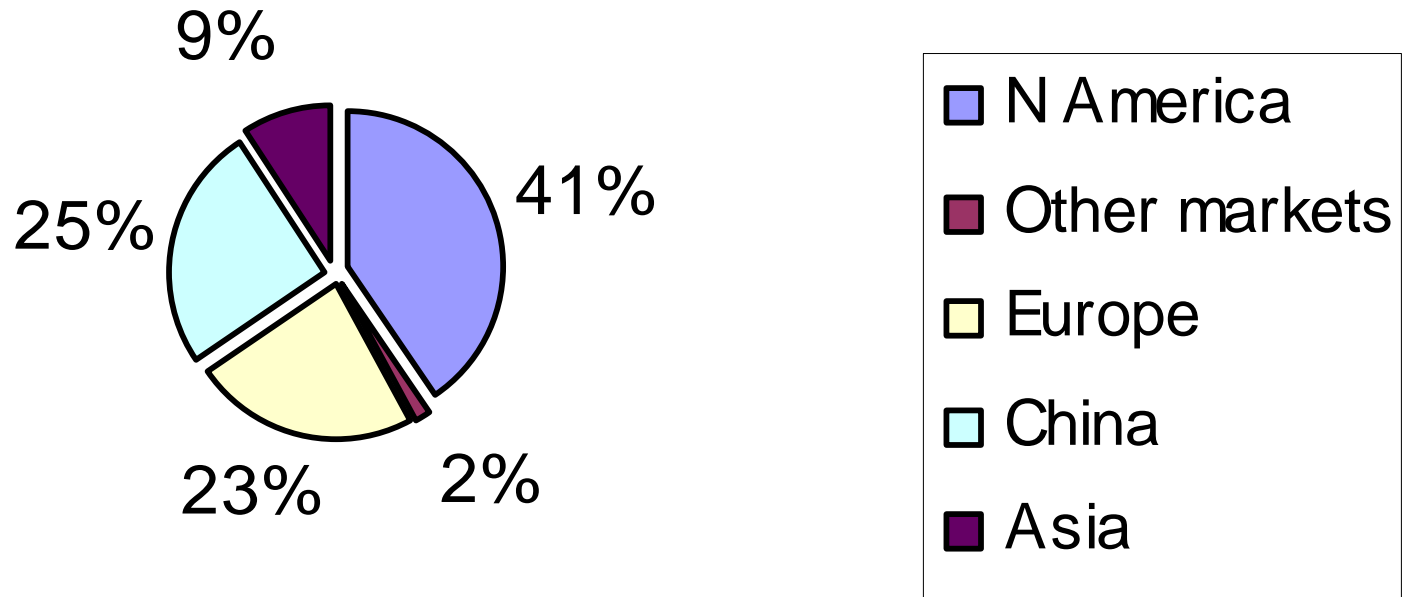


Distribution of Investment Casting Foundries



World Sales by Region, 2006

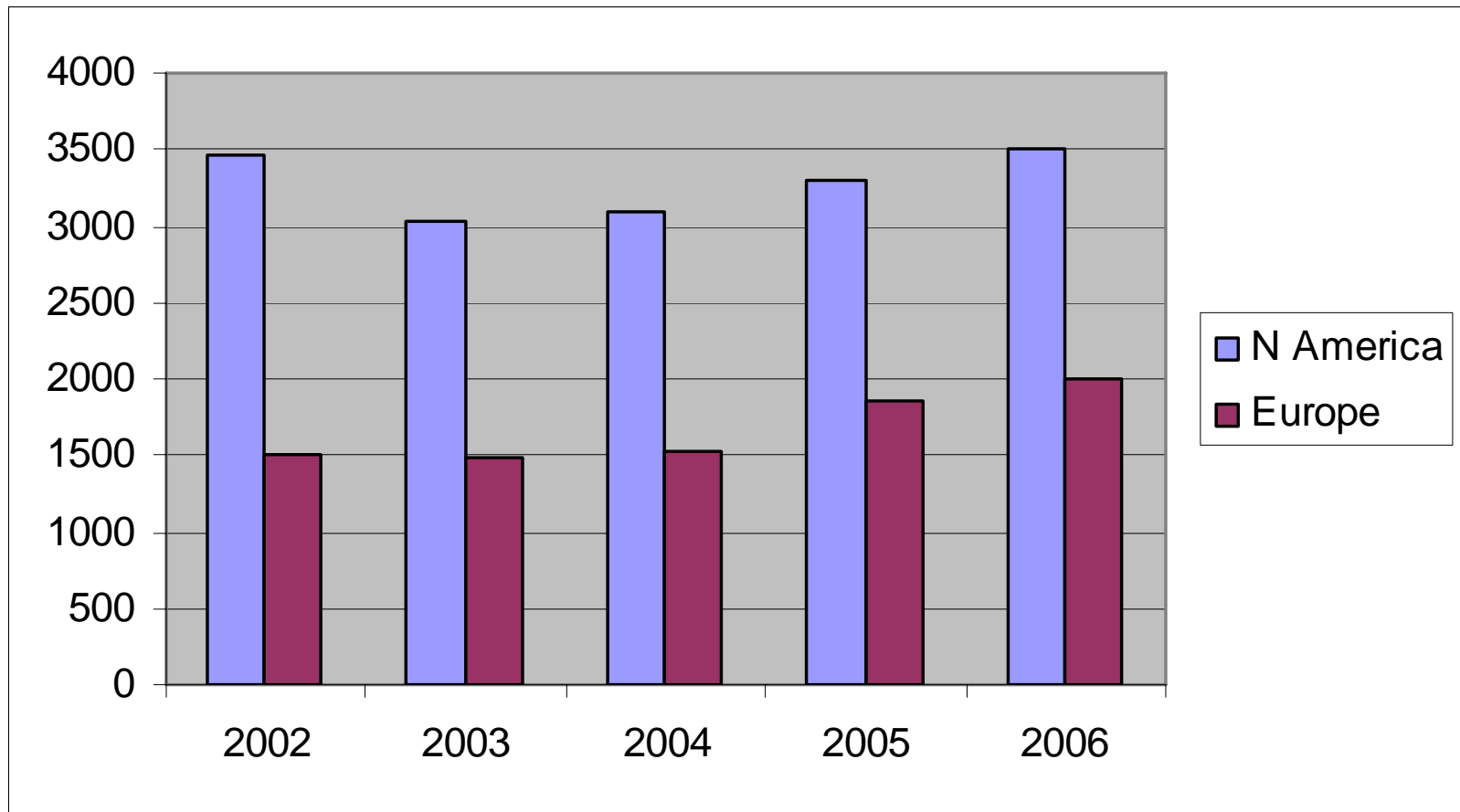
World Investment Casting Sales 2006 US\$8,600M (US\$8.6B)



Global Investment Casting Sales – 2006

- 2006 total World sales US\$8,600M (US\$8.6B)
 - + 11% v 2005
- N America remains the largest single producer
 - but other markets increasing their percentage share
- Europe demonstrating good sales growth
 - led by strong ‘high added value’ performance
- Chinese market share now overtaken European
- Total Asian sales now 34% World total

N America & Europe Comparison US\$M



Market Segmentation

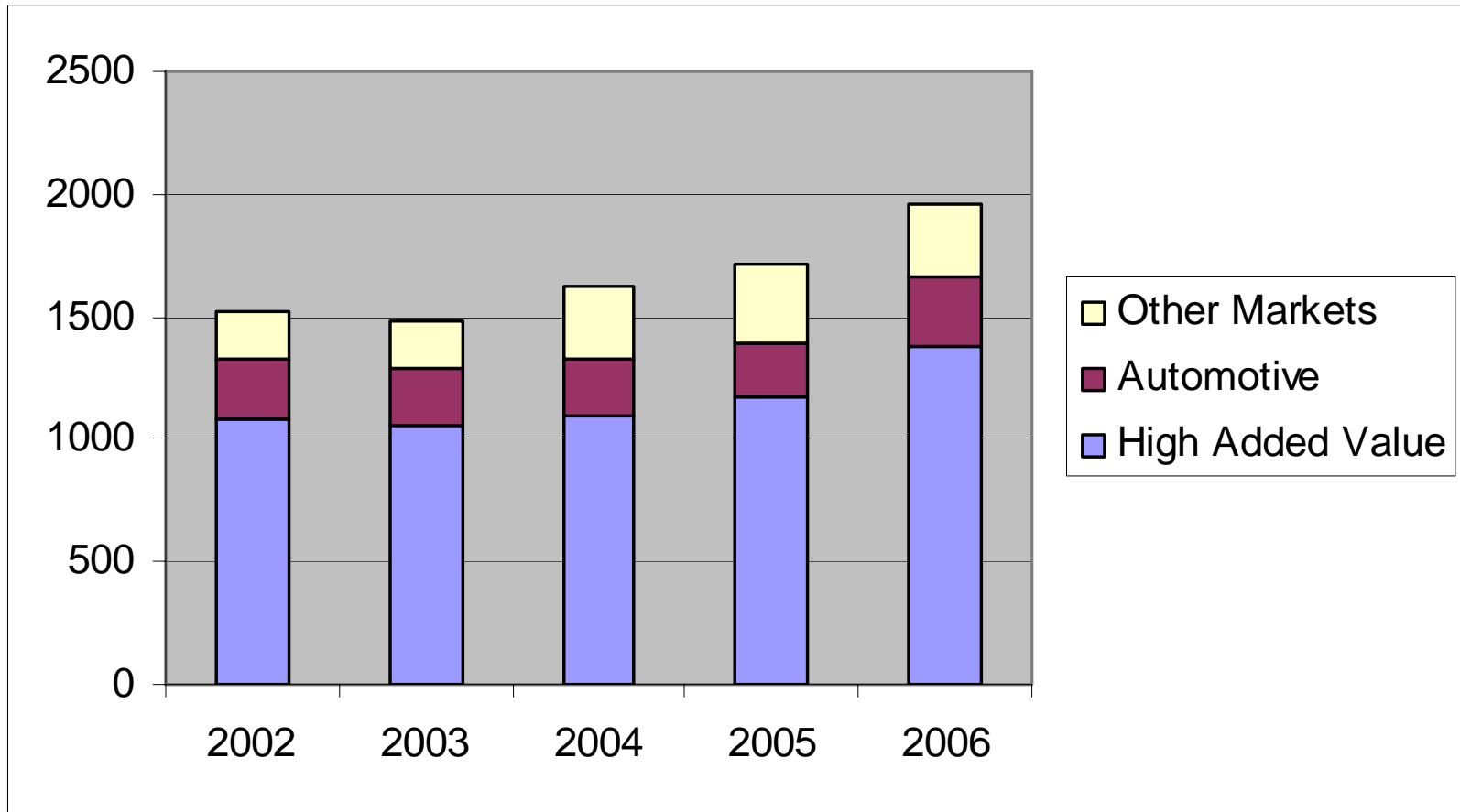
Over recent years the various organisations have come to accept the following categories as the best method of analysing the World industry, using the US\$ as the means of providing a standard comparative measure :

High Added Value

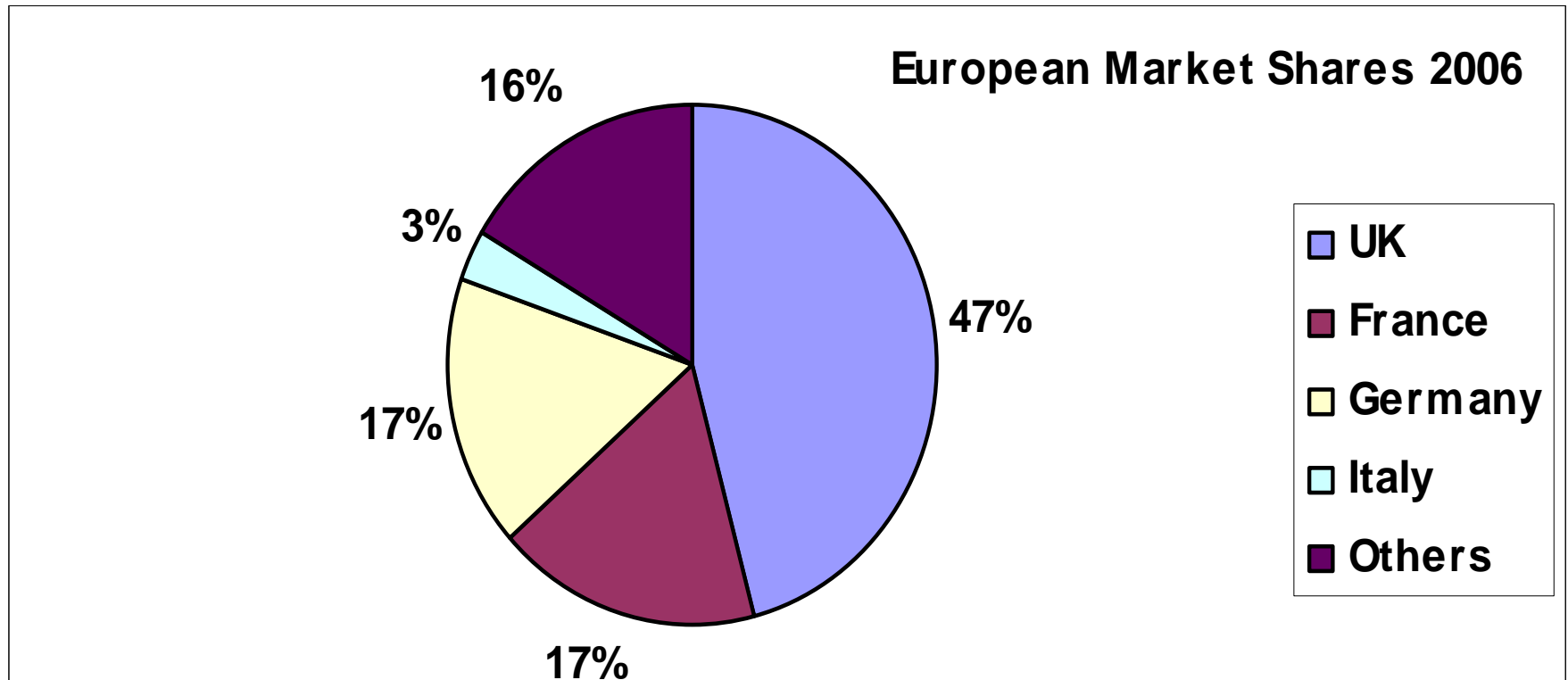
Automotive

Other Markets

Europe - Sales by Market Sector US\$M



Breakdown of European Investment Casting Market



Market Trends - Europe

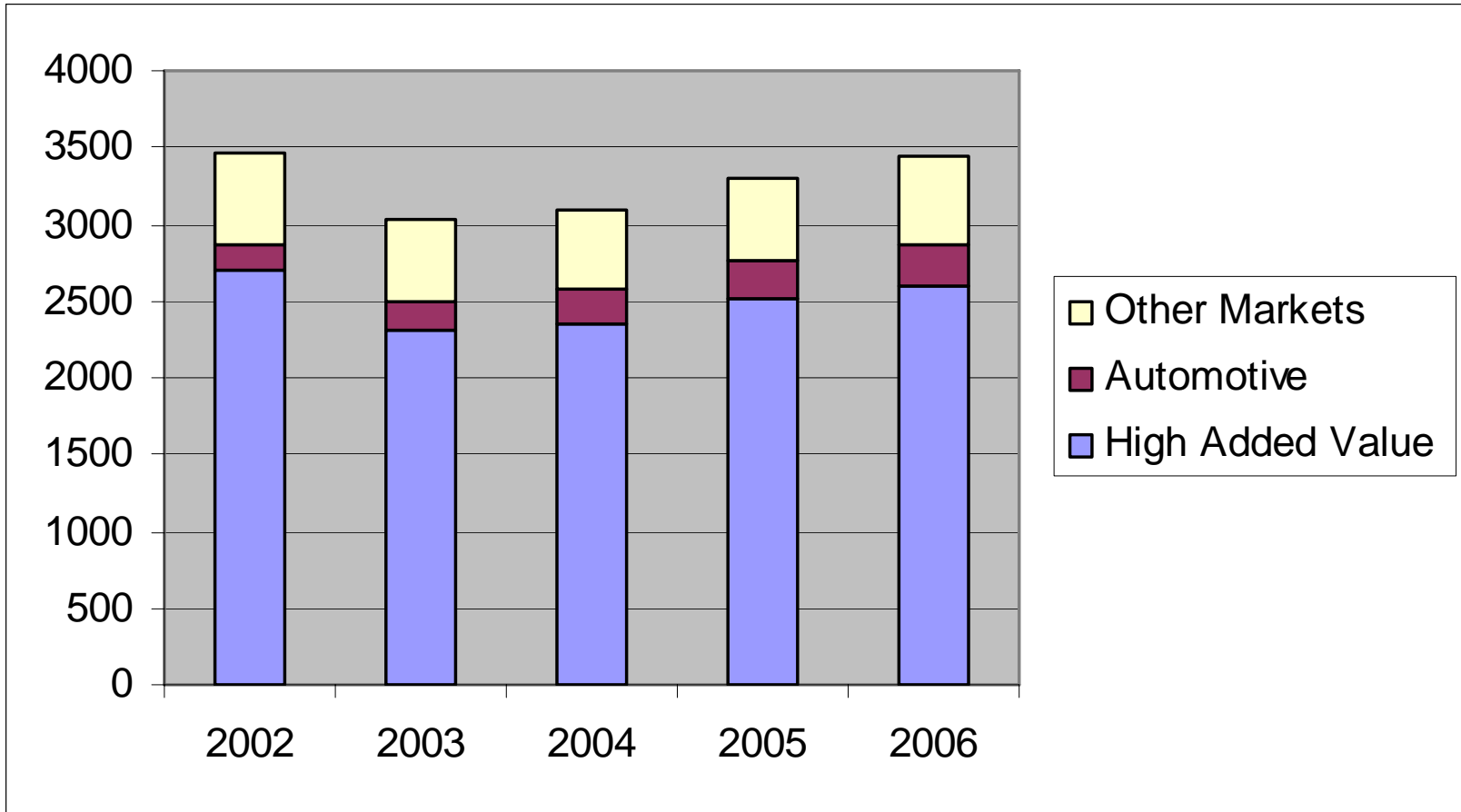
AEROSPACE

- European aerospace remains very strong
 - demand is from both commercial and military sectors
 - aluminium castings benefiting as a result
- Rolls-Royce (UK) and Snecma (France)
 - orders exceeding deliveries
 - strong replacement orders predicted
 - both have JVs in China
- Airbus sales are good but delays to A380 have had some negative impact

Market Trends - Europe

- POWER GENERATION – market performing very strongly
- MEDICAL – market conditions steady and predicted to grow
- AUTOMOTIVE – market remains very competitive, turbocharger wheel production at record levels
- GENERAL COMMENTS :
 - Customers demands for lower prices still continue
 - Increased costs being passed on to customers
 - Drift of commercial castings to lower production cost areas

N America - Sales by Market Sector US\$M



Market Trends – N America

AEROSPACE

- Commercial sector 'robust'
- Military – huge spare part demand
- Growing Backlog of Orders
- 2006-2009 aircraft builds average 1,000+ / year
- Asian demand driving market
- US Airlines returning to profitability

INDUSTRIAL GAS TURBINES

- Power generation industry growing again !
- Very high spare parts demand

Market Trends – N America

AUTOMOTIVE

- Mixed industry performance
- Downturn in large engine vehicles
- Turbocharger demand continues
 - driven by emission standards & fuel efficiency requirement
- Titanium casting applications increasing
- New investment casting potential in commercial trucks, cars

MEDICAL - Implants still growing, but at slower rate

GENERAL COMMENTS

- Growth in commercial sector e.g. Oil Pumping, Distribution and Refining Applications, Food Processing, Marine Hardware and Industrial Valves
- Drift of some commercial castings to lower production cost areas continues

Europe and N America Summary

- Aerospace continues to grow with prospects for 2007 good
- Automotive markets will remain competitive with strong downward pressure on prices
 - turbowheel strong growth to continue
- Less complex castings will continue to be sourced from lower cost regions
- The investment casting industry has performed well in both Europe and N America
 - in order to sustain growth new added value applications will be necessary
 - indications are that this is beginning