

# INVESTMENT CASTING MARKET REVIEW 2005 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
  - Significant changes in the shape of the industry are taking place

# Acknowledgements

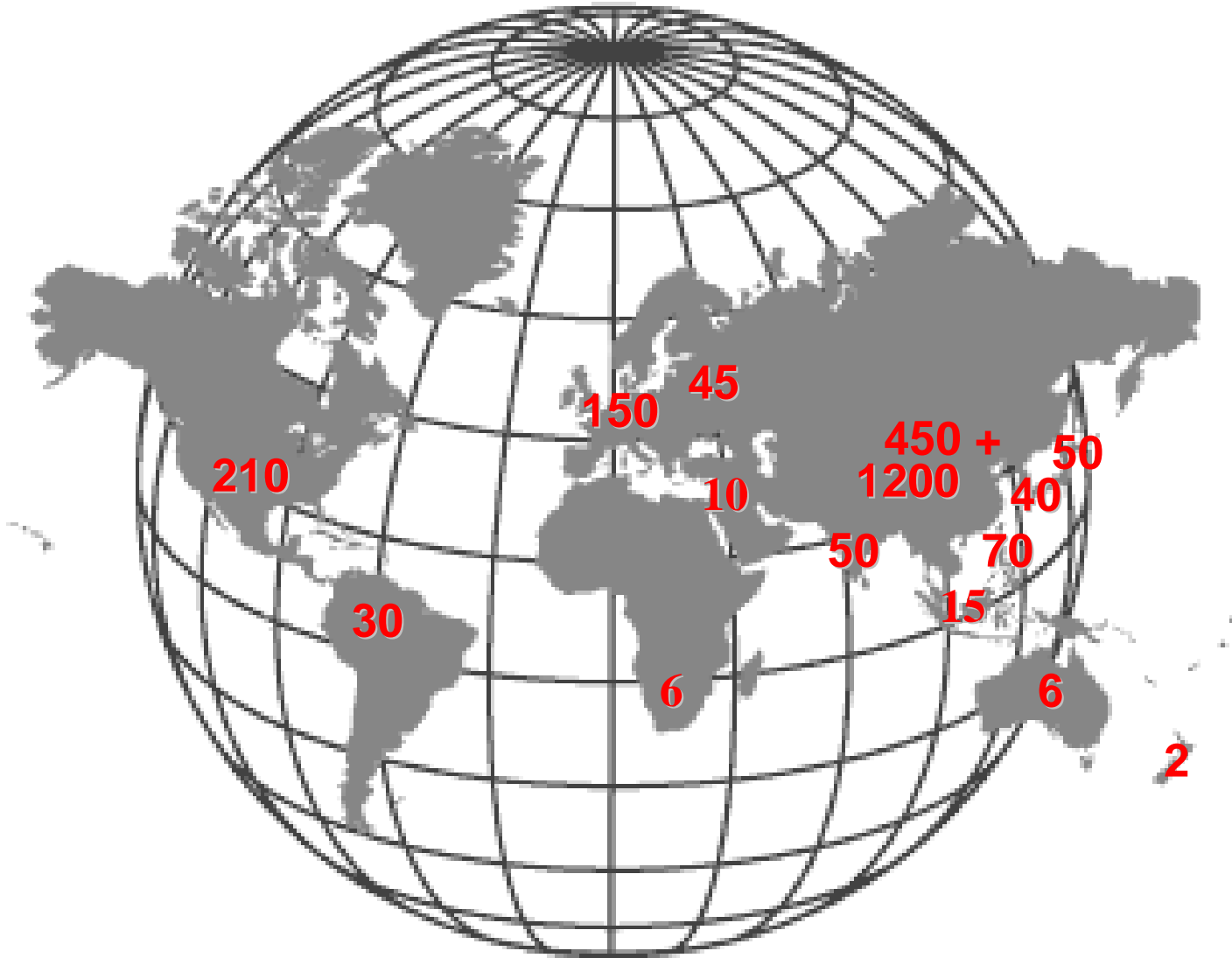
The data used for this presentation has been provided by the following organisations, whose help and contribution is gratefully appreciated :

CAEF (Casting Association of European Foundries)

EICF (European Investment Casting Federation)

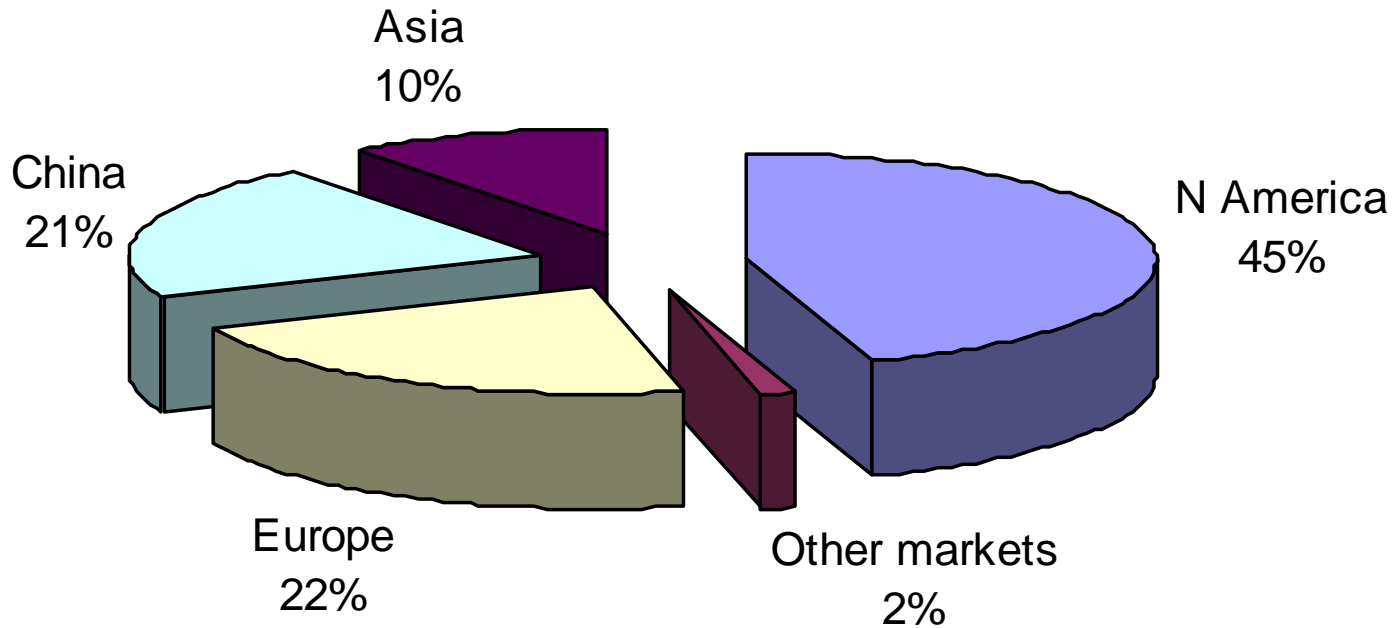
ICI (Investment Casting Institute - United States)

# Distribution of Investment Casting Foundries



# World Sales by Region, 2004

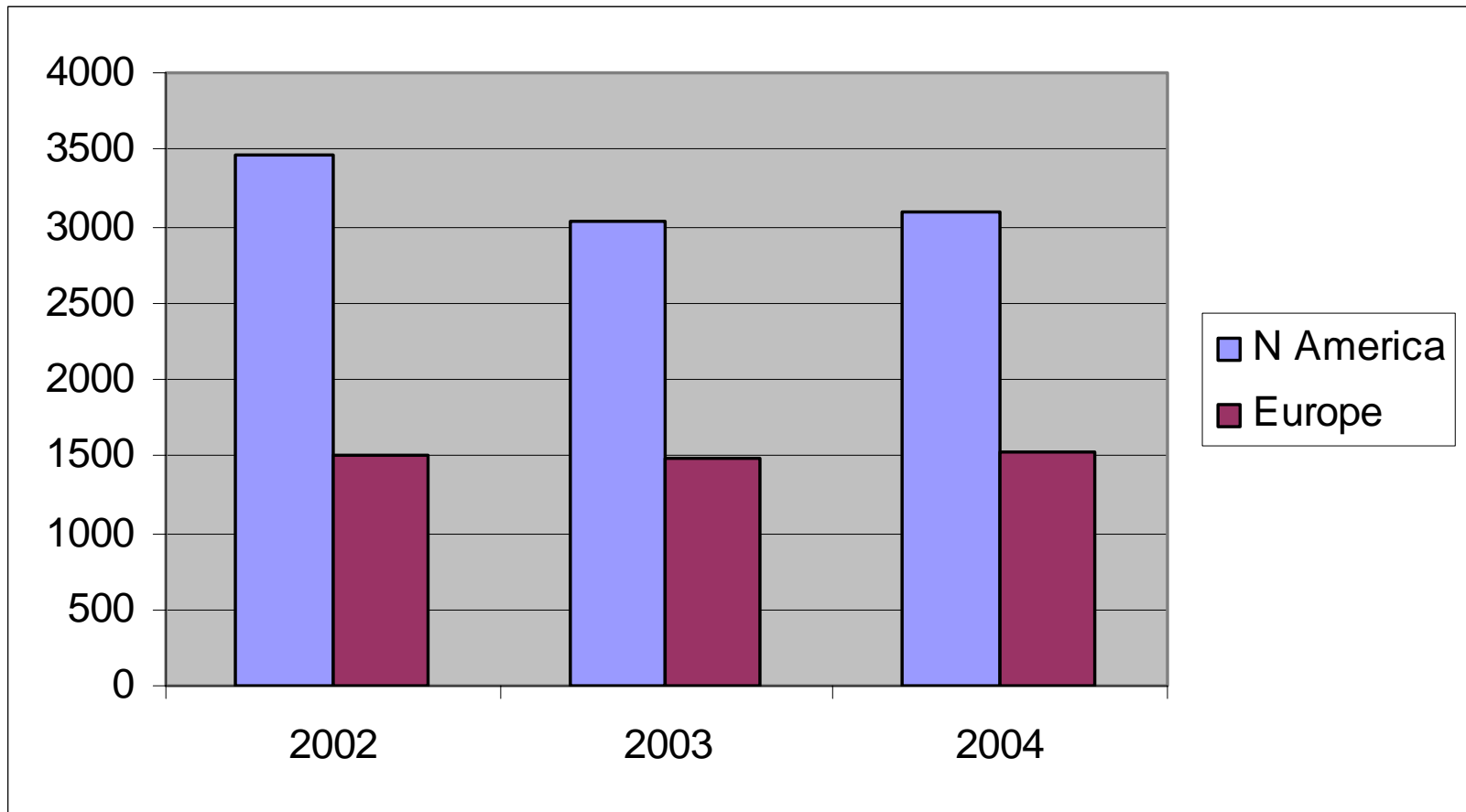
Total US\$6.3B



# Global Sales – 2004 Changes

- Total sales value US\$6360M (US\$6.3B)
  - + 4.6% v 2003
- N America dropped below 50% of World total for the first time
  - slow recovery underway
- Europe recovered well and moved ahead of 2002 sales value
  - led by strong aerospace performance
- China set to overtake Europe in sales value in 2005

# N America & Europe Comparison US\$M



# Market Segmentation

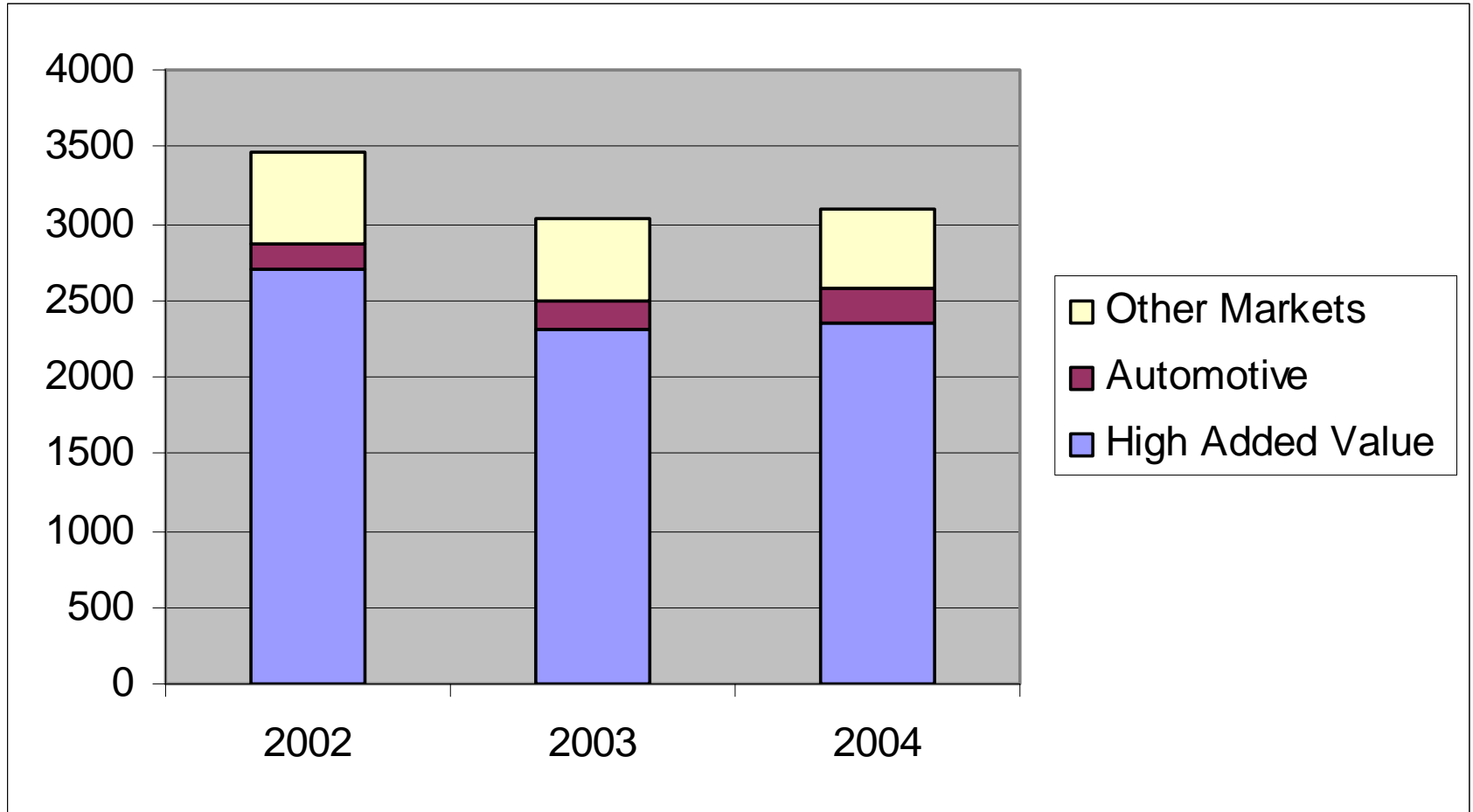
Over recent years the various organisations have come to accept the following categories as the best method of analysing the world industry, using the US\$ as the means of providing a standard comparative measure :

High Added Value

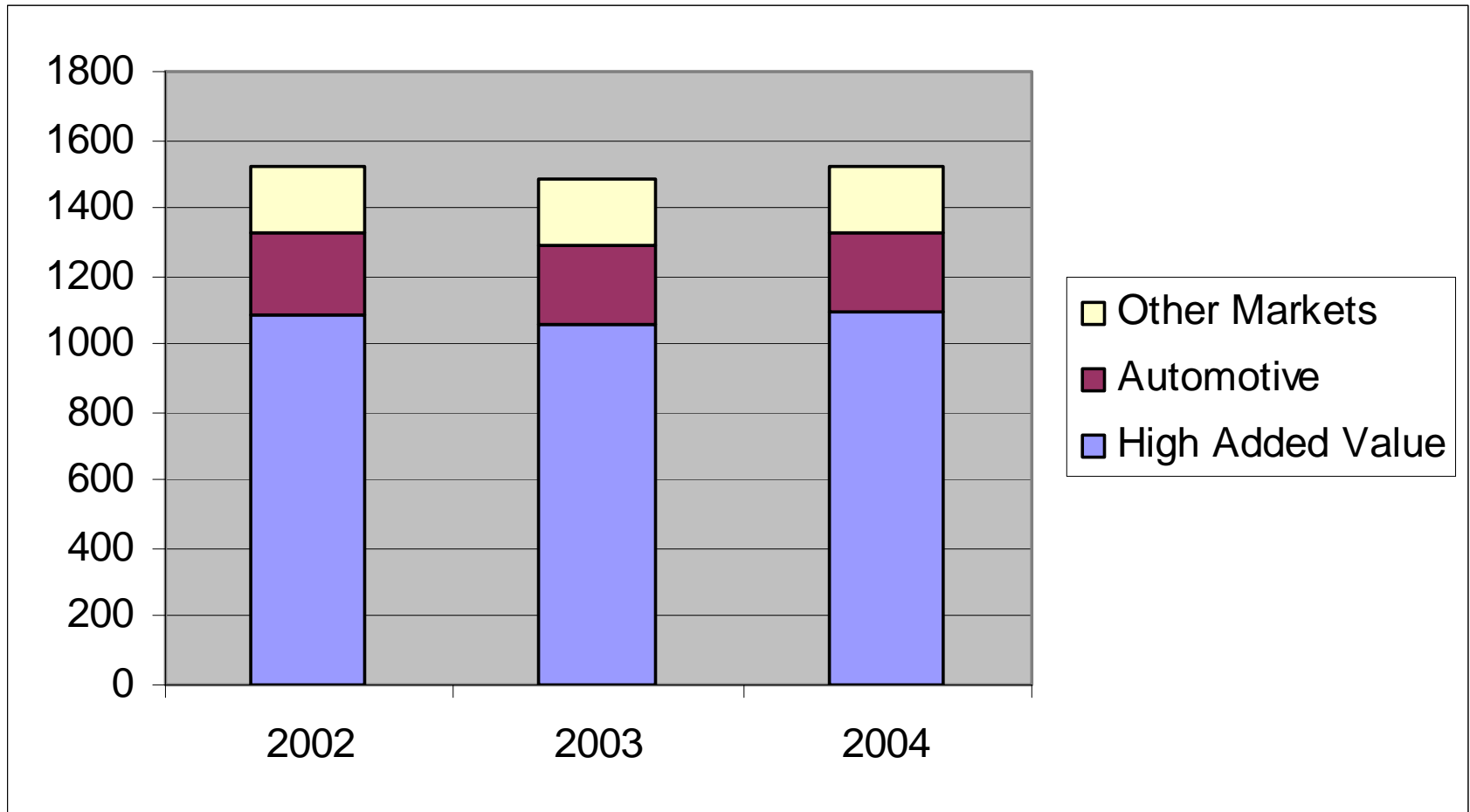
Automotive

Other Markets

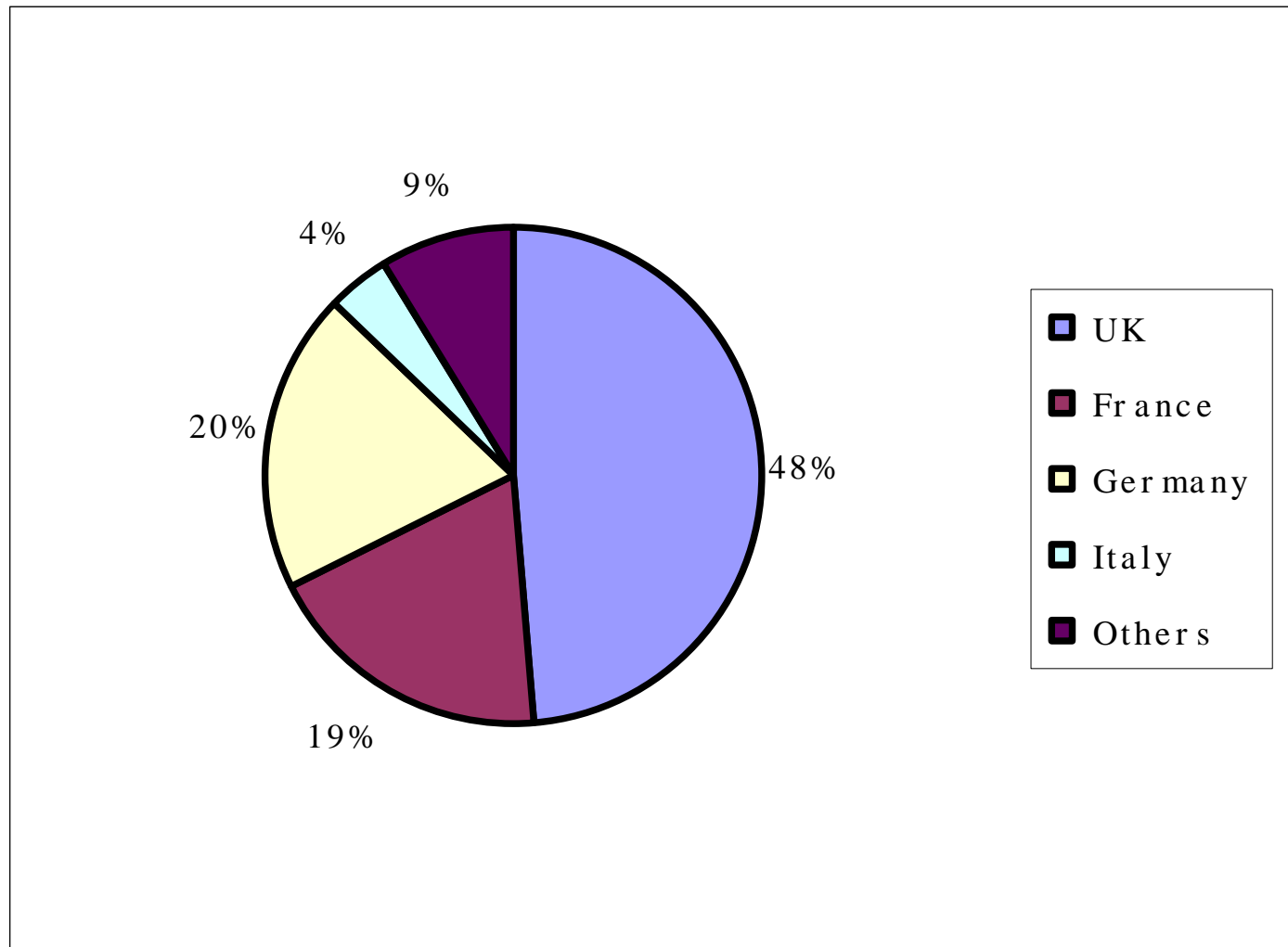
# N America - Sales by Market Sector US\$M



# Europe - Sales by Market Sector US\$M



# Breakdown of European Investment Casting Market



# Market Trends - Europe

## AEROSPACE

- European aerospace currently very strong
- Eurofighter and Airbus boosting demand for castings
- RR state its engine numbers to increase by 40% in next 5 years to 15,500
  - orders exceeding deliveries
  - strong replacement orders predicted
- RR won \$800m contract to supply engines to Air China
- and Airbus .....

# Airbus Takes Off !

- Airbus has outsold Boeing in four of the past five years
- Order book now US\$227B
- 123 new orders in 1<sup>st</sup> quarter 2005 (66% Market share)
- Airbus deliveries expected to rise to 350 aircraft in 2005
- Possibly 400 in 2006, scheduled 473 in 2007



- Likely to remain ahead of Boeing until late in the decade
- A380 maiden flight
- A350 planned launch 3<sup>rd</sup> qtr 2005

# Market Trends - Europe

- POWER GENERATION – market picked up and steady
- MEDICAL – strong market conditions continue and predicted to grow
- AUTOMOTIVE – market remains very competitive, turbocharger wheel production at record levels
- GENERAL COMMENTS :
  - Customers demands for lower prices still continue
  - However increasing costs of steel and energy are forcing price increases through
    - demand for oil will increase maintaining high price
  - Globalisation of sourcing lower value parts continues

# Market Trends – N America

## AEROSPACE

- Increase in traffic predicted
- Worldwide fleet of aircraft will reach 35,300 in 2024
  - double present size
- Boeing raised forecast sales to \$2.1B by 2025
- Airline losses continue causing doubts as to viability of several large airlines
- Low cost airlines re-shaping the industry

# Market Trends – N America

## Industrial Gas Turbines

- 2<sup>nd</sup> largest sector
- Strong spares sales
- New build growth predicted

## Automotive

- Growing market for new casting applications
  - driven by new emission standards and fuel efficiency
- Significant turbocharger activity
- Increasing demand for Titanium

## General Industry

- High volume applications susceptible to offshore sourcing

# Summary

- Aerospace has recovered and is demonstrating strong growth in 2005, will continue through 2006
- 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
  - some customer reaction due to supply problems
- The investment casting industry should continue it's search for new markets and develop new value added applications to sustain growth.