

# Review of World Investment Casting Markets

Ronald Williams  
Richard Hirst  
The Blayson Group Ltd

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# Introduction

- Knowledge of our markets and the performance of investment casting as an industry is essential
- The review of global markets gives an understanding of the changes and trends
- Assists the industry in forming a view of how investment casting will fare in the future
- In order to create a complete overview of the global industry, all areas of the World involved in investment casting have been included
- In Dallas we added India, today best estimates for South America and the Russian Federation have been included

# Acknowledgements

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

ICI (Investment Casting Institute - United States)

CAEF (Casting Association of European Foundries)

CFA (China Foundry Association)

JFS (Japan Foundry Society)

EICF (European Investment Casters' Federation)

cmf (Cast Metals Federation, UK)

Individual contributors

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

# Agenda

## World Market Overview – Ronald Williams

- Japan – Yoshihiro Kakuta
- China – Zhigang Lu
- Korea – Han Doo Ok
- Taiwan – Sunpo Hsu
- India – Deepan Dave
- North America – John J Marcin
- Europe – Richard Hirst

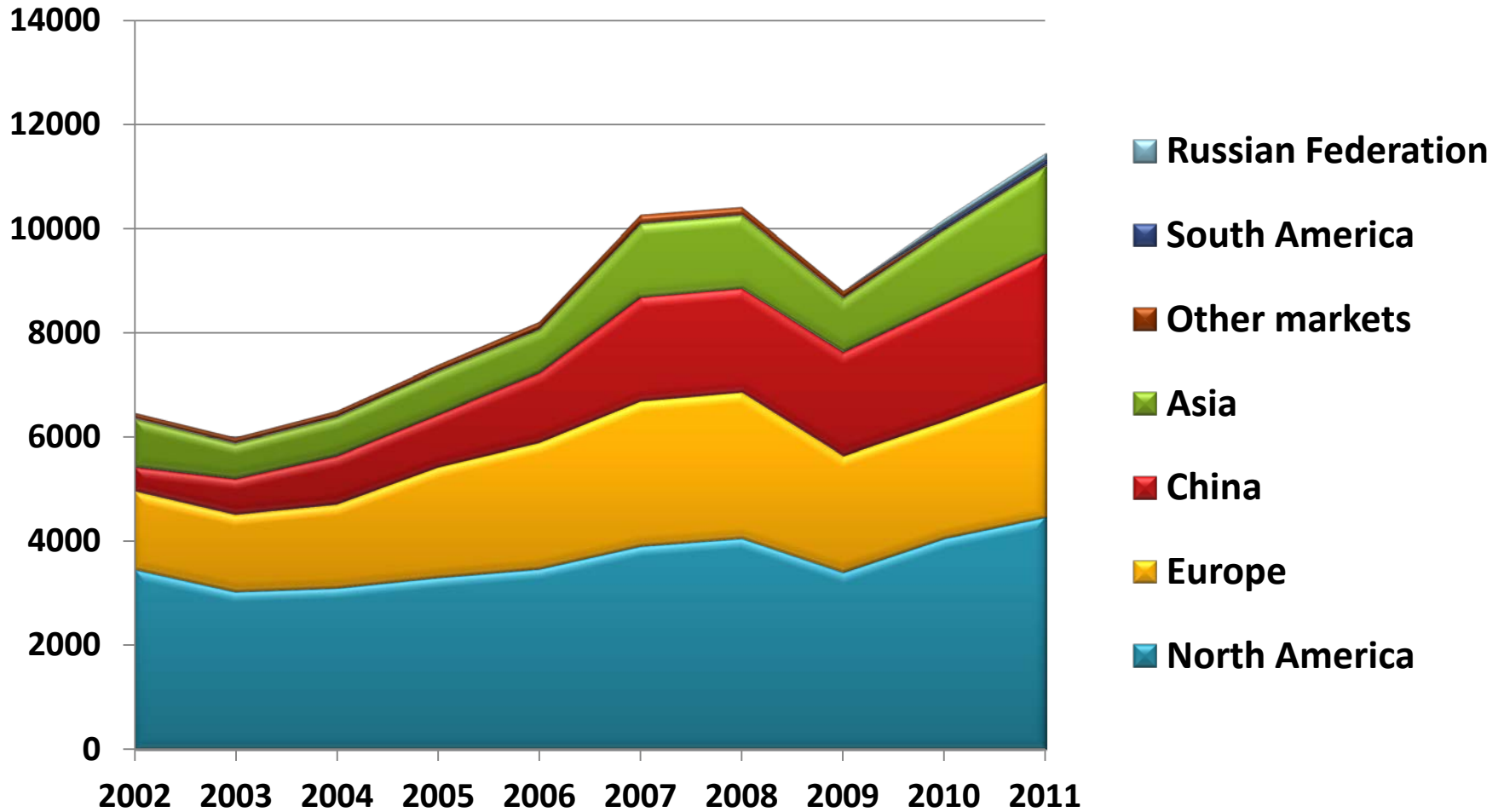
## Summary, Questions & Discussion

# Global Investment Casting Sales 2011

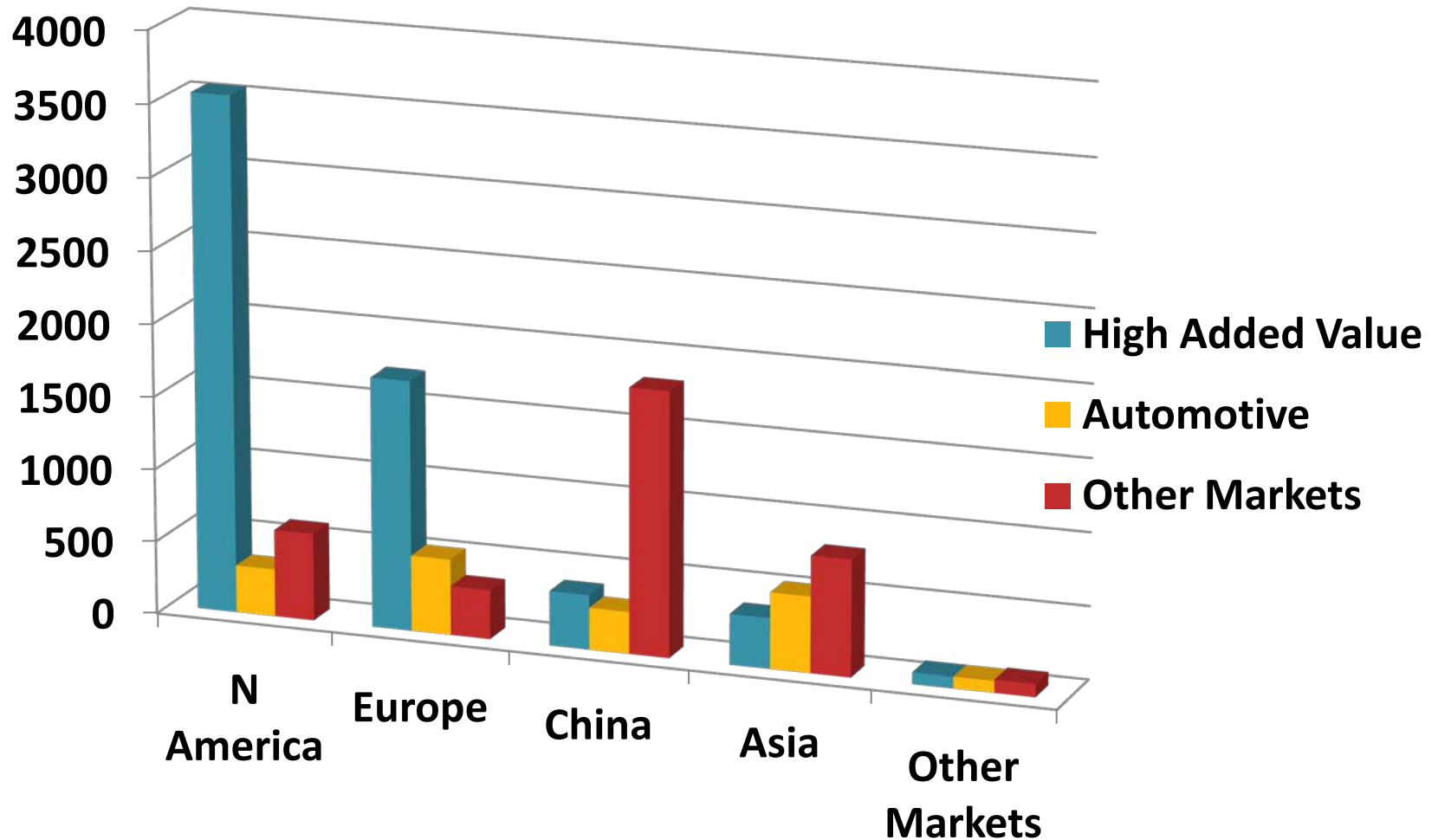
- Forecast total World sales in 2011 is US\$11.4B
  - an increase of 13% on 2010
- Some of the increase can be attributed to exchange rates, some to the continued high cost of metals but the biggest factor is growth of investment casting itself
- With GDP growth of many countries at very low levels this is a remarkable result and the industry should be congratulated
- Some significant trends are noticeable in particular the continued growth of sales in Asia

# World Sales by Region 2002 – 2011

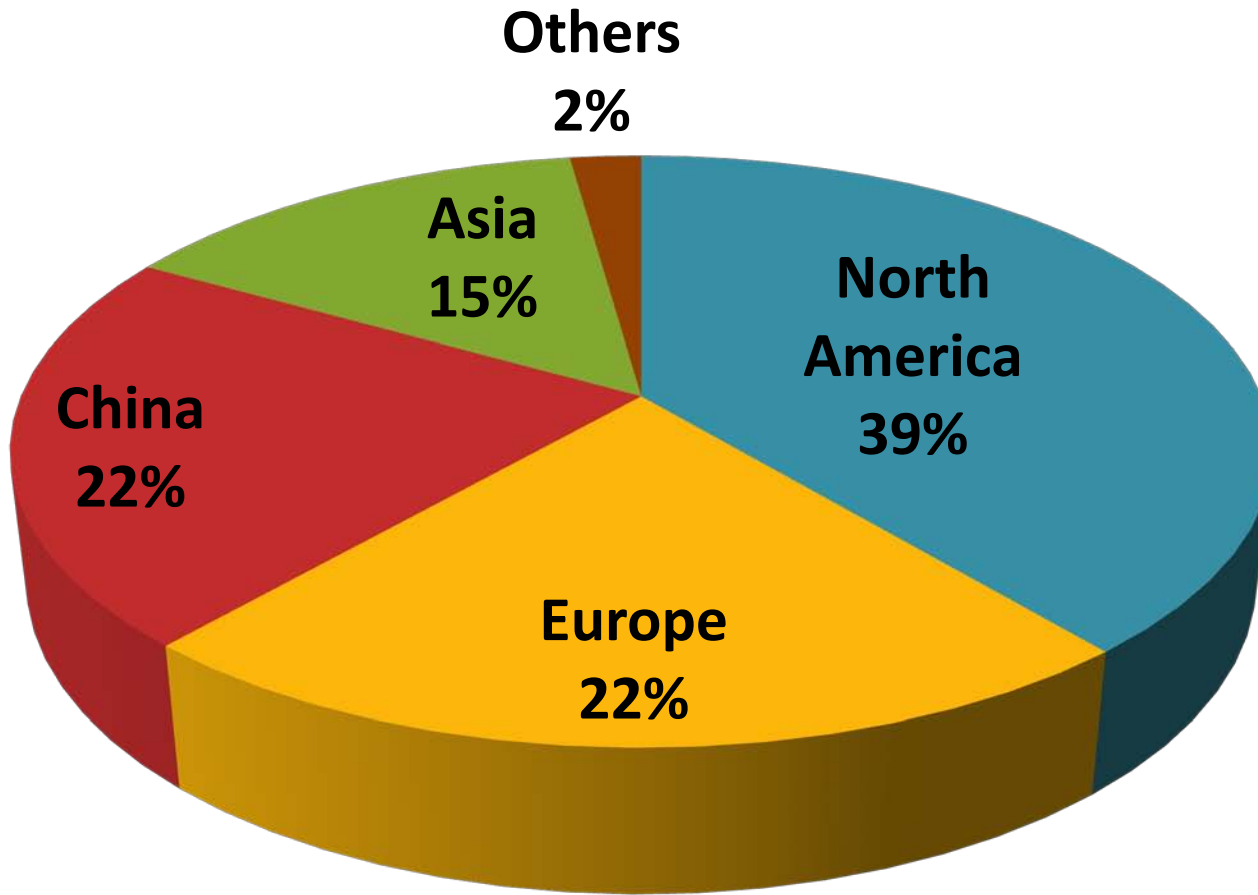
## US\$M



# Sector Sales by Region 2011, US\$M



# Sales by Region 2011





# Aerospace 2011

- Aerospace sector performance is very strong with full order books for several years to come
  - Fuel efficient engines a major driver of sales
- Boeing delivered 477 aircraft and booked 805 new orders
- Airbus delivered 534 aircraft and booked 1419 new orders
- Production levels in the West continue to improve
- New work increasingly being cast in China/Asia
  - China annual growth is now approaching 20%
  - India strong growth due to domestic demand and investment

# IGT and Automotive 2011

## **Industrial Gas Turbines**

- Have not yet recovered from effects of 2008 economic problems
- Sales beginning to improve slowly

## **Automotive**

- Sales of investment castings continue to grow in this important sector
  - Particularly in Europe and Asia
- Turbocharger wheels are increasingly used
- The range of other parts cast is increasing
- Fuel efficient engines are driving growth

# Other Sectors 2011

## Medical

- With global population growing and ageing more prostheses are required
- It appears that the increased production is being cast in developing regions
  - Western producers sales remain steady

## Commercial

- Sales are increasing but at a lower rate
- Investment in new capacity being made in Asia

# Summary

- Many regions predict growth of circa 7% in investment casting sales in 2012
  - Compares to the IMF/World bank prediction of 3.3% growth in the global economy in 2012
- Certainly aerospace will set the trend with another strong performance based on full order books
- Industrial gas turbine sector slow improvement
- Automotive casting sales will continue to develop
- Commercial castings slow improvement
- Investment by Asian investment casting companies to continue and to gain sales
- Investment casting worldwide predicts another good performance in 2012 and is set for a strong future