

A Review of World Investment Casting Market Trend Data

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Agenda

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- World Investment Casting Sales by Region 2001 – 2016
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Introduction

- Over the past 25 years various Papers have been presented at Conferences around the World reviewing market data for the investment casting industry
- The Presentations are available through the various World associations and the data used for this current Presentation is a synopsis of the information in these past Presentations
- The data has been provided by associations such as the Investment Casting Institute (ICI), European Investment Casters' Federation (EICF), Japan Foundry Society (JFS), China Foundry Association (CFA), Cast Metals Federation (CMF), together with individual contributors



Introduction

- The information given is based on official figures, together with best estimates, where statistics are not available.
- Blayson has been involved in the presentation of market data and the various Papers presented are available via www.blayson.com
- Using historical data available from the past Presentations, this current Paper endeavours to examine how World investment casting markets have developed over recent decades and also attempts to examine any data trends within the industry
- Firstly the methodology is explained and then we study the size of the World investment casting market and sales by region for the period 1982 to 2001 followed by the period 2001 to 2016
- A review is made of World investment casting sales by sector and finally the latest available World investment casting sales data is presented



Methodology

- The first major Presentation on investment casting markets was a Paper by Gould and Baker of the then English China Clay Company, presented at the 6th World Investment Casting Conference in Washington DC 1984
- Although much of the data was estimated figures, this Paper set the approach to the subject for subsequent studies
- At the 22nd EICF Conference in Paris 1992 a Paper on World Investment Casting Markets was presented showing information for the years from 1982 to 1991
- The original Paper by Gould and Baker estimated output in terms of annual sales for the main production areas, US, UK and Europe combined and Japan
- The 1992 Paper did the same, but included a World total by giving an estimate for “others”, i.e. countries for which limited data was available at the time



Methodology

- In Presentations from 1994 onwards, the three major geographical regions were re-designated as North America, Europe and Asia and efforts were made to include data from more countries
- Whilst these efforts made the survey much more comprehensive, there remained one major gap in the coverage
- There was no quantitative information about the Chinese investment casting industry and it was only at the 10th World Conference in Monte Carlo 2000 that reliable information from China was obtained
- With more reliable information now available and the introduction of meaningful data from China, a Paper was presented at the 25th EICF Conference in Berlin 2002 which set the standard for future World sales reviews and Presentations



Methodology

- In subsequent conferences from 2002 onwards the format of recording data into four main regions, North America, Europe, China and Asia became the norm together with estimates for other markets
- It became easier to understand the World market and the contributions from individual regions
- World investment casting data has continued to be presented in this way up until the current time
- The 11th, 12th, 13th and 14th World Conferences of 2004 in Edinburgh, 2008 in Dallas, 2012 in Kyoto and 2016 in Paris all used this method of data presentation



World Investment Casting Sales by Region 1982 - 2001

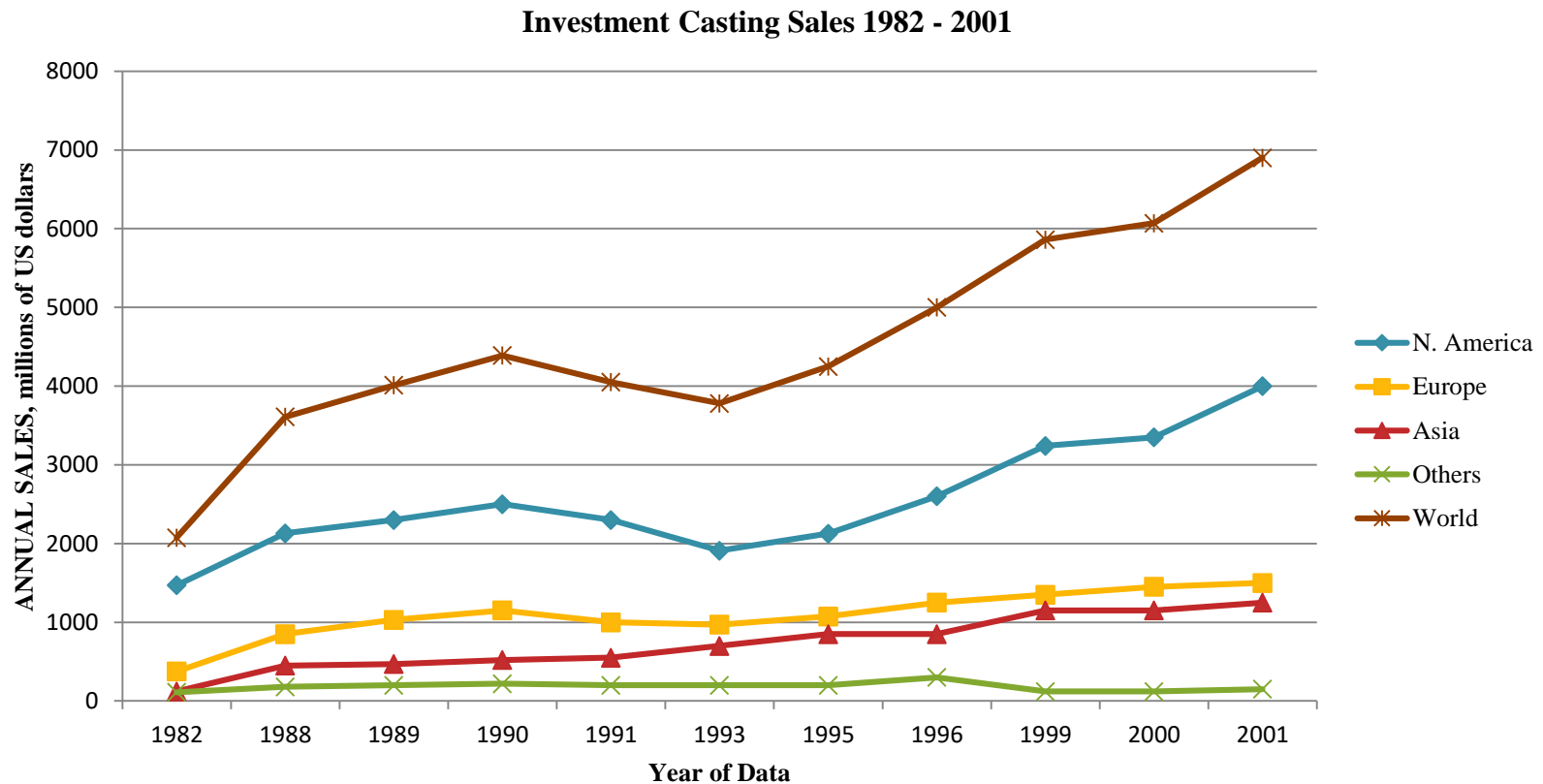
- This data was presented at the 25th EICF Conference in Berlin 2002
- Although some of the earlier data was estimated, the annual sales of the investment casting industry over this period, showed an approximate growth from US\$2.08 Billion to US\$6.90 Billion

ANNUAL SALES FOR INVESTMENT CASTING INDUSTRY, millions of US dollars					
YEAR	N. America	Europe	Asia	Others	Total
1982	1470	375	120	110	2075
1988	2130	850	450	180	3610
1989	2300	1030	470	200	4010
1990	2500	1150	520	220	4390
1991	2300	1000	550	200	4050
1993	1910	970	700	200	3780
1995	2125	1075	850	200	4250
1996	2600	1250	850	300	5000
1999	3240	1350	1150	120	5860
2000	3350	1450	1150	120	6070
2001	4000	1500	1250	150	6900



World Investment Casting Sales by Region 1982 - 2001

- The following figure represents this graphically



World Investment Casting Sales by Region 1982 - 2001

- The following data presented at the 25th EICF Conference in Berlin 2002 shows the percentage share of the World investment casting market by geographical area or region
- Again the review period is 1982 to 2001

PERCENTAGE SHARE OF INVESTMENT CASTING MARKET BY GEOGRAPHICAL AREA			
YEAR	N. America	Europe	Asia
1982	71	18	6
1988	59	23	12
1990	57	26	12
1993	51	25	18
1996	52	26	17
1999	52	23	17
2000	55	24	19
2001	58	22	18



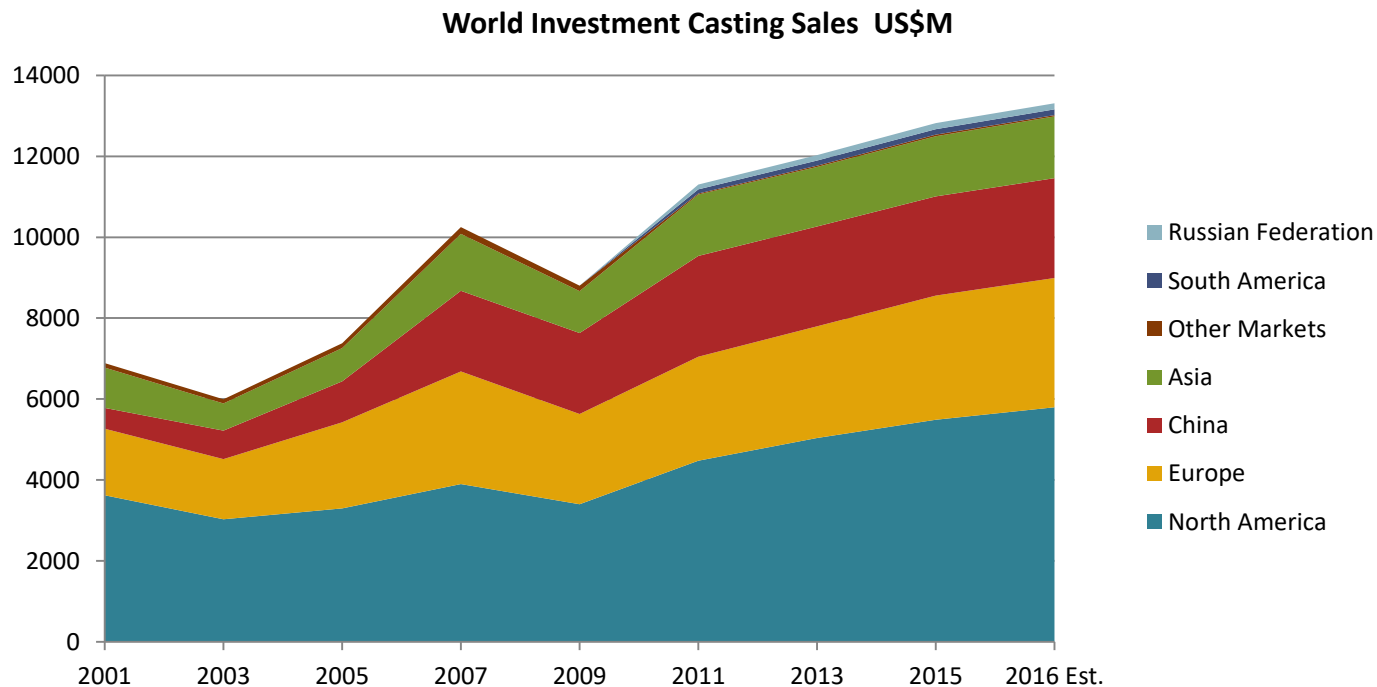
World Investment Casting Sales by Region 2001 – 2016

- The changing designation of the major investment casting production areas to North America, Europe and Asia, was logical and beneficial
- With the growth of investment casting in China from 2000 and with market data for this region reliably available, the designation of the major production areas was further divided to show China sales data as a separate category to the remainder of Asia
- From this point, World sales were designated into the following regions North America, Europe, China, Asia and Others
- This formed the basis for all subsequent market Presentations
- Using the above methodology various market Papers were subsequently presented



World Investment Casting Sales by Region 2001 – 2016

- This sales data is summarised in the following graph showing the distribution of market share for the various regions from 2001 to 2016

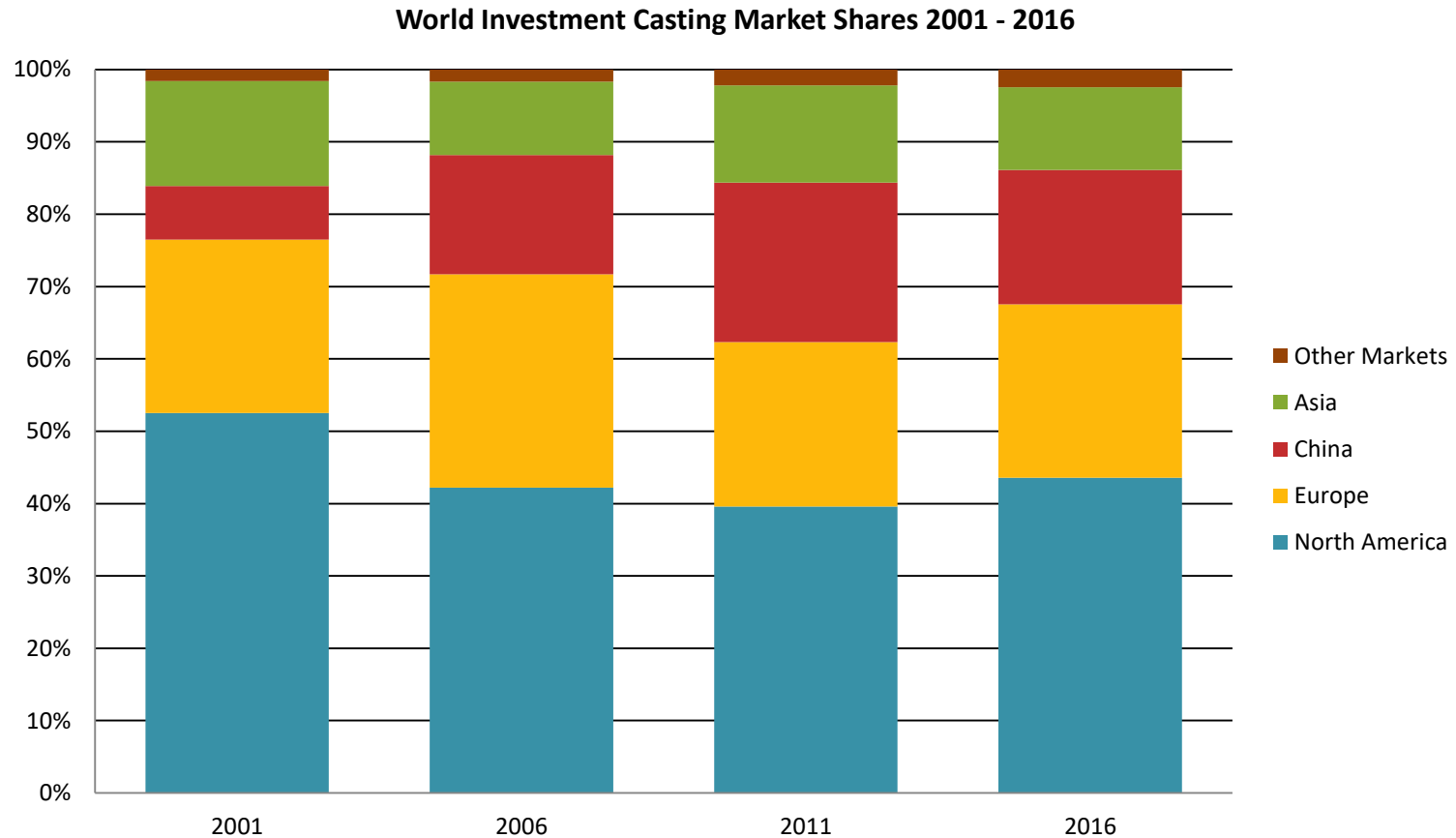


World Investment Casting Sales by Region 2001 – 2016

- The North American share has consistently contributed 40% or more of the total World market share
- Europe has contributed a relatively constant 20 to 30% of market share
- China has demonstrated a growth through this period from around 7% to 19% of market share
- With the emergence of the BRIC economies, 2010 saw the introduction of investment casting sales data from the additional regions of Russia and South America to present a truly global picture
- With the increasing reliability of World investment casting sales data available since 2001 we are able to demonstrate the market share by region as a percentage of total World investment casting sales



World Investment Casting Sales by Region 2001 – 2016

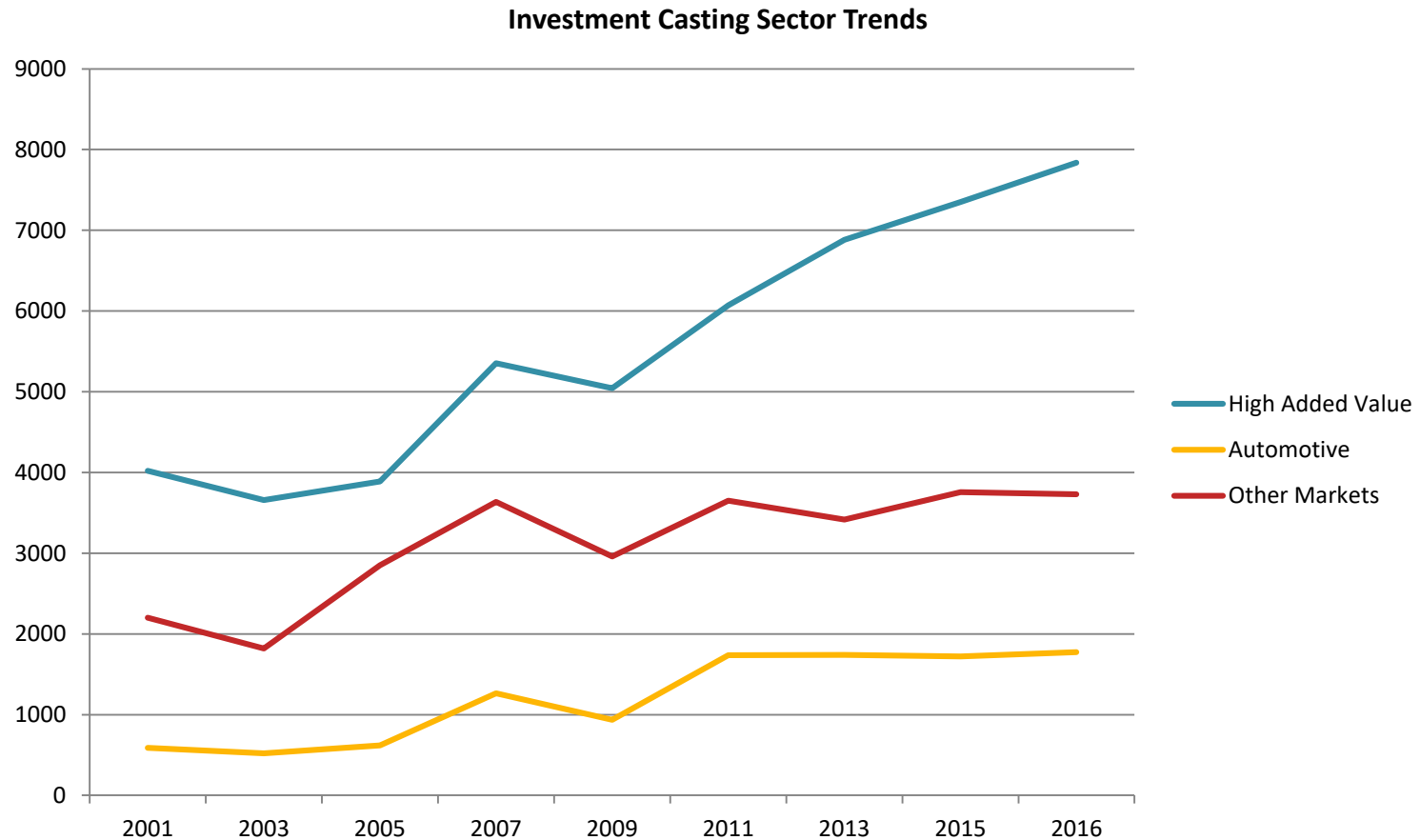


World Investment Casting Sales by Sector

- To facilitate additional market analysis, World investment casting sales since 2001, have been divided and reported in the three main casting sectors of High Added Value, Automotive and Other Markets
- World investment casting market Papers from 2001 have used this format for presenting sales data. The following figures present the World investment casting sales by sector
- First the World investment casting sector trends from 2001 to 2016 are presented, all sectors have shown growth over this period but the high growth rate of the High Added Value sector should be noted
- Second the World investment casting sales for the year 2003 by sector and region are shown in comparison to the figures for 2016

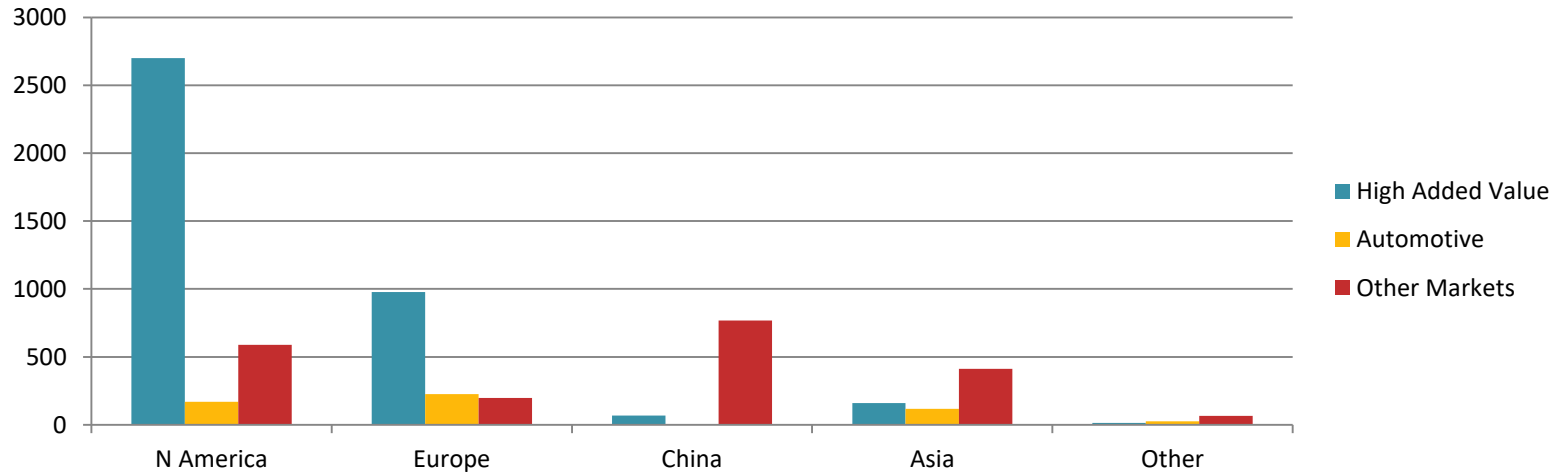


World Investment Casting Sales by Sector

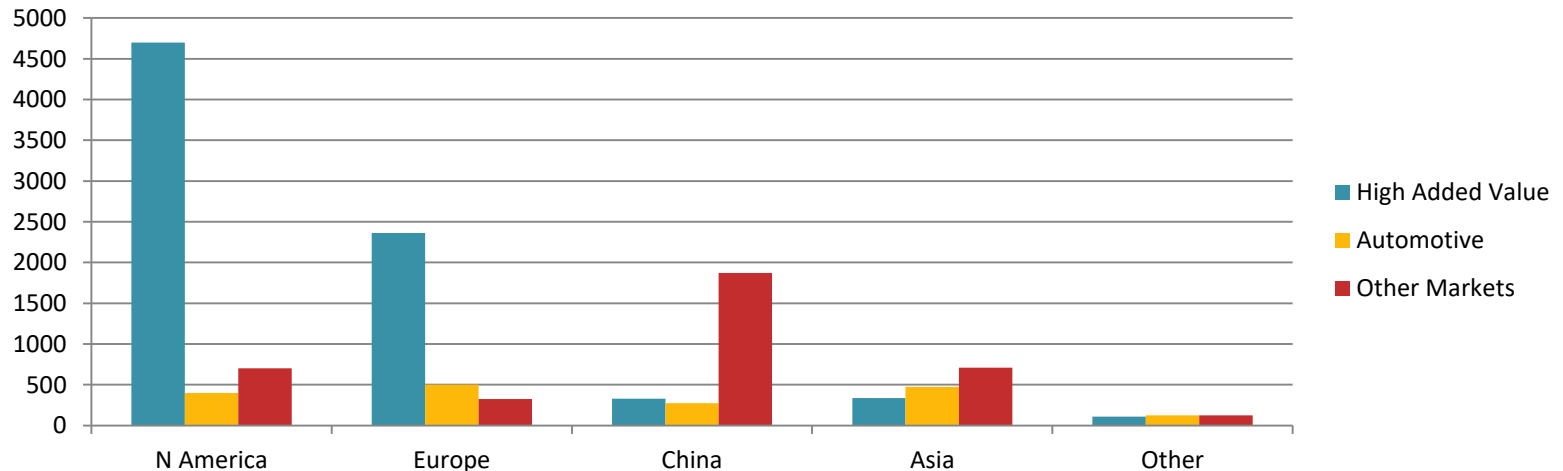


World Investment Casting Sales by Sector

2003 Investment Casting Sales by Sector US\$M



2016 Investment Casting Sales by Sector US\$M

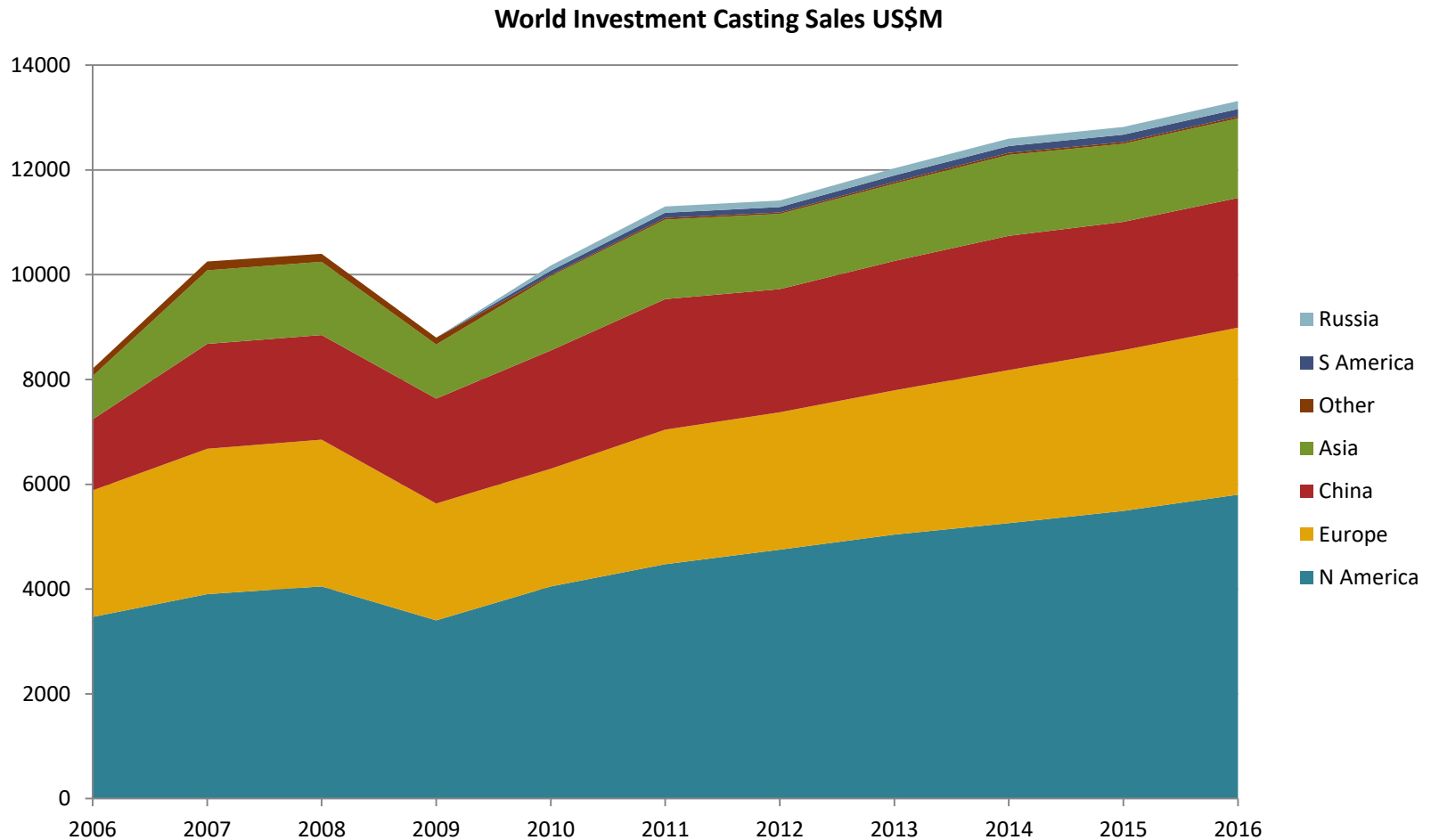


Latest World Investment Casting Sales Data

- The latest World investment casting sales data reported in the January 2017 issue of INCAST showing the up to date position for World investment casting sales is now presented
- Sales for the World investment casting industry for 2016 are estimated to have reached a level of US\$13.45 Billion
- Data for 2016 World investment casting sales by geographical region is also presented with the 4 main regions contributing the following percentage share
- North America 43%, Europe 24%, China 18%, Asia 12% and Others 3%
- Finally the 2016 World investment casting sales by sector is presented
- As to be expected the High Added Value sector dominates at 59% with Other Markets at 28% and Automotive at 13%

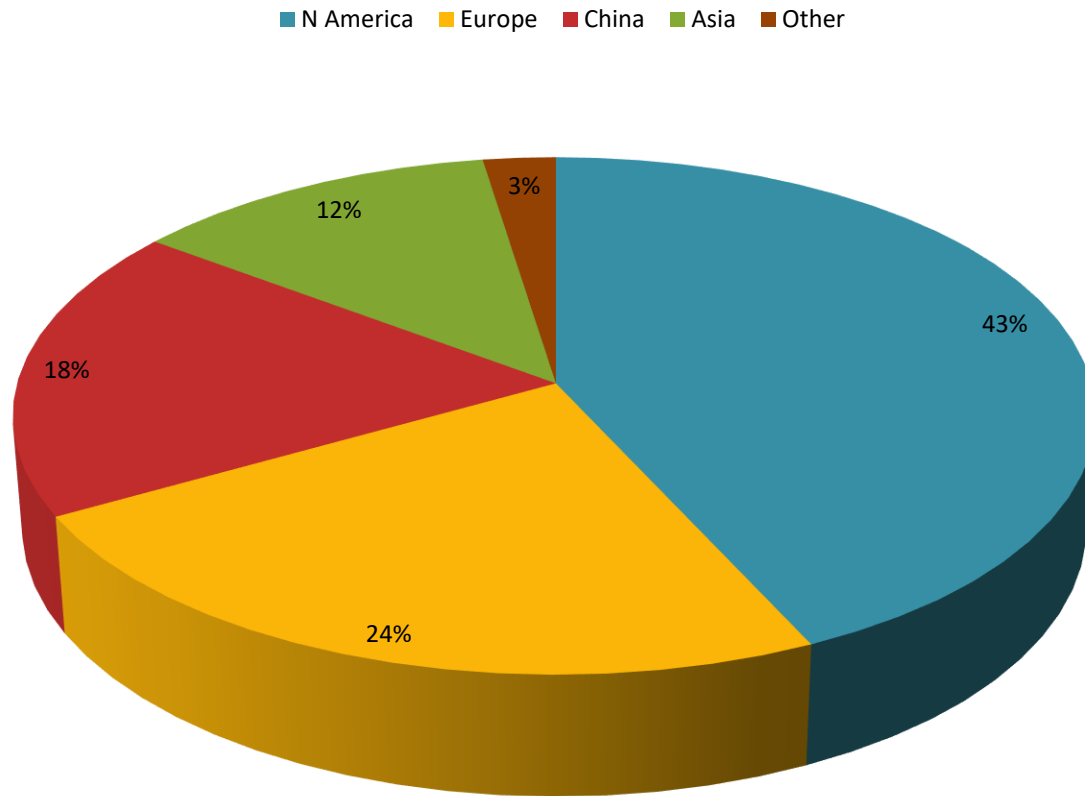


Latest World Investment Casting Sales Data



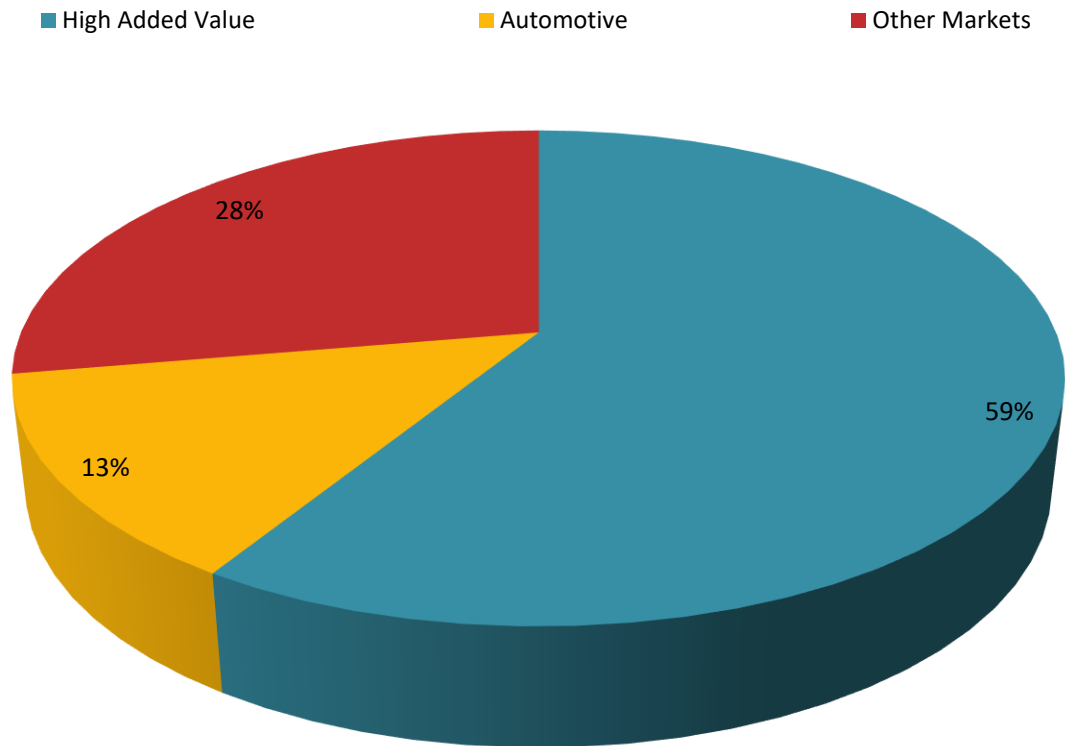
Latest World Investment Casting Sales Data

Sales by Region 2016



Latest World Investment Casting Sales Data

Investment Casting Sectors 2016



Summary

- There have been numerous World investment casting market Presentations over the past decades providing sales data for the industry and the individual regions and sectors
- This data has been well received at the various industry meetings and conferences and has given the industry a valuable guide to its performance
- The data shows that the industry has seen steady growth in sales with the exception of the periods during the brief financial downturns of 2001 to 2003 and 2008 to 2009
- As this Paper has demonstrated the industry saw total World investment casting sales grow from US\$2.08 Billion to US\$6.90 Billion from 1982 to 2001 and from 2001 to 2016 further growth to a level of US\$13.45 Billion



Summary

- The reliability of market data within the World investment casting industry has considerably improved since the early days of market Presentations
- A knowledge and understanding of such data is important to everyone associated with the investment casting industry and hopefully the sharing of World market data will continue to benefit us all
- World market data will continue to be collated with the next major update presented at the 2020 World Investment Casting Conference in Anaheim CA



This paper is available from
www.investmentcastingwax.com

Thank You

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