



Indian Stainless Steel Development Association AGM & Forward Looking Session 11th Sept. 2008, New Delhi



Presented by

N. C. Mathur

President - Indian Stainless Steel Development Association



Stainless Steel | Global Production

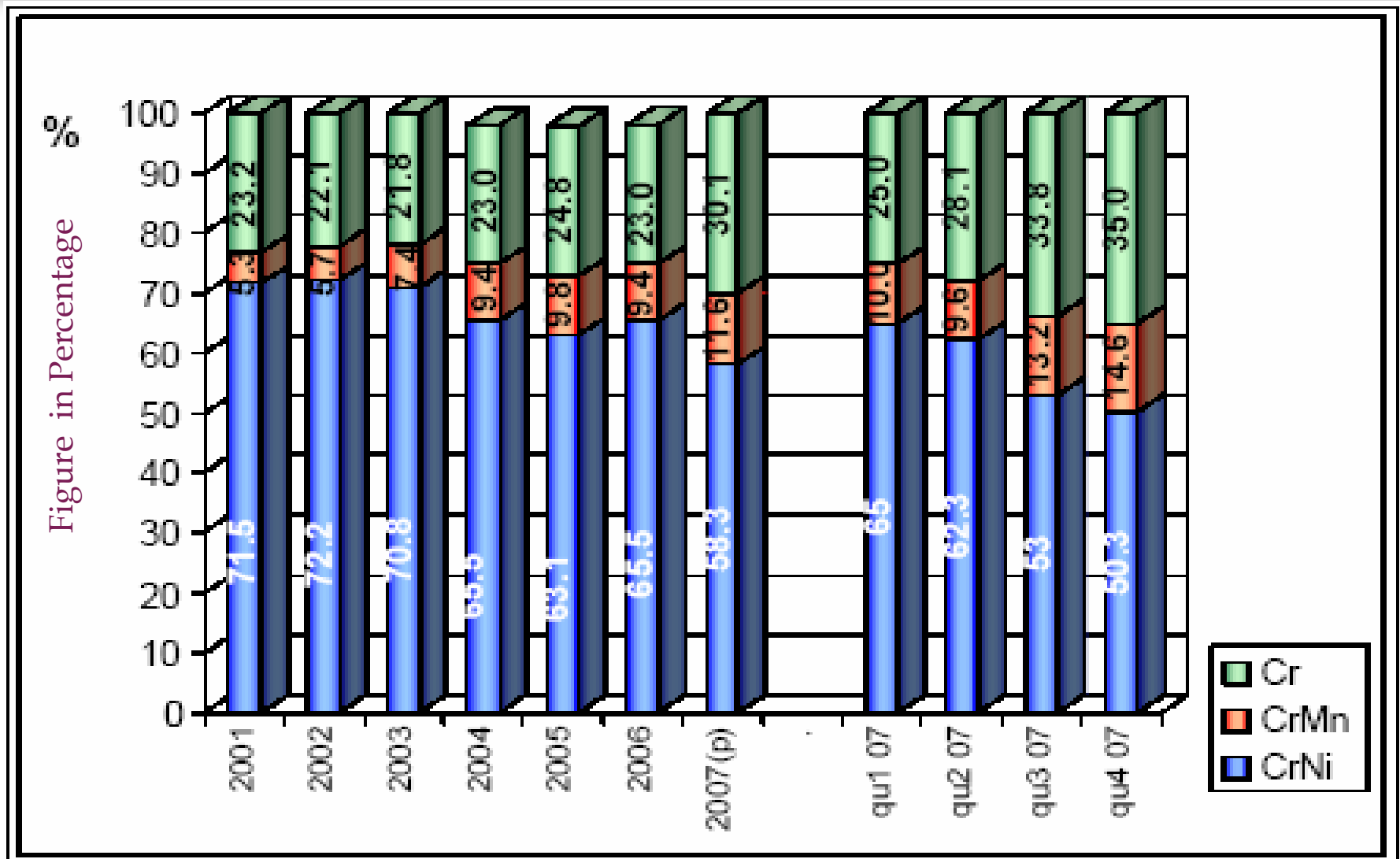
Source: ISSF

Country	2003	2004	2005	2006	2007
Region					
Austria	35	45	45	46	52
Belgium	888	1,045	1,032	1,522	1,521
Finland	1,074	1,189	1,124	1,306	975
France	1,026	870	654	501	308
Germany	1,597	1,731	1,636	1,724	1,505
Italy	1,447	1,558	1,594	1,832	1,558
Spain	1,172	1,103	1,127	1,255	1,105
Sweden	718	676	639	684	645
United Kingdom	440	481	407	375	351
E U 15	8,397	8,698	8,259	9,245	8,018
USA	2,223	2,401	2,238	2,460	2,171
Brazil	493	497	450	491	433
Japan	4,113	4,197	3,983	4,073	3,712
Korea	1,987	2,337	2,292	2,278	1,942
Taiwan, China	1,505	1,601	1,514	1,724	1,515
China	1,780	2,362	3,160	5,299	7,206
India	1,260	1,401	1,549	1,700	1,655
Others (1)	1,083	1,071	875	1,090	1,015
WORLD	22,841	24,565	24,319	28,359	27,666

(1) Czech Republic, Slovenia, Poland, Russia, Ukraine, Canada, Cuba, South Africa

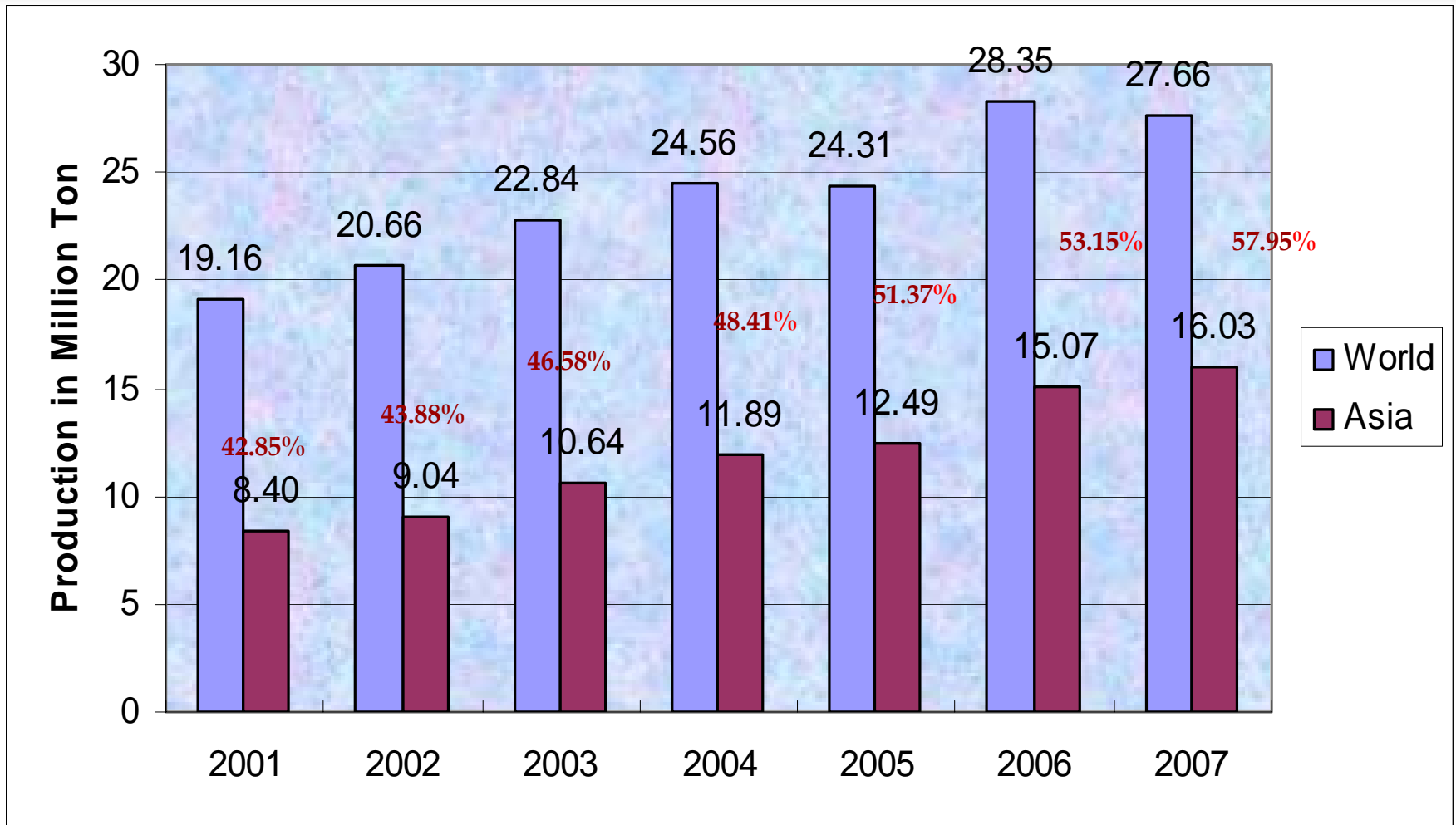


Global Stainless Steel Production (In Categories)





Steel Production World vs. Asia



YoY Asian Growth in % of World Production

Source : ISSF

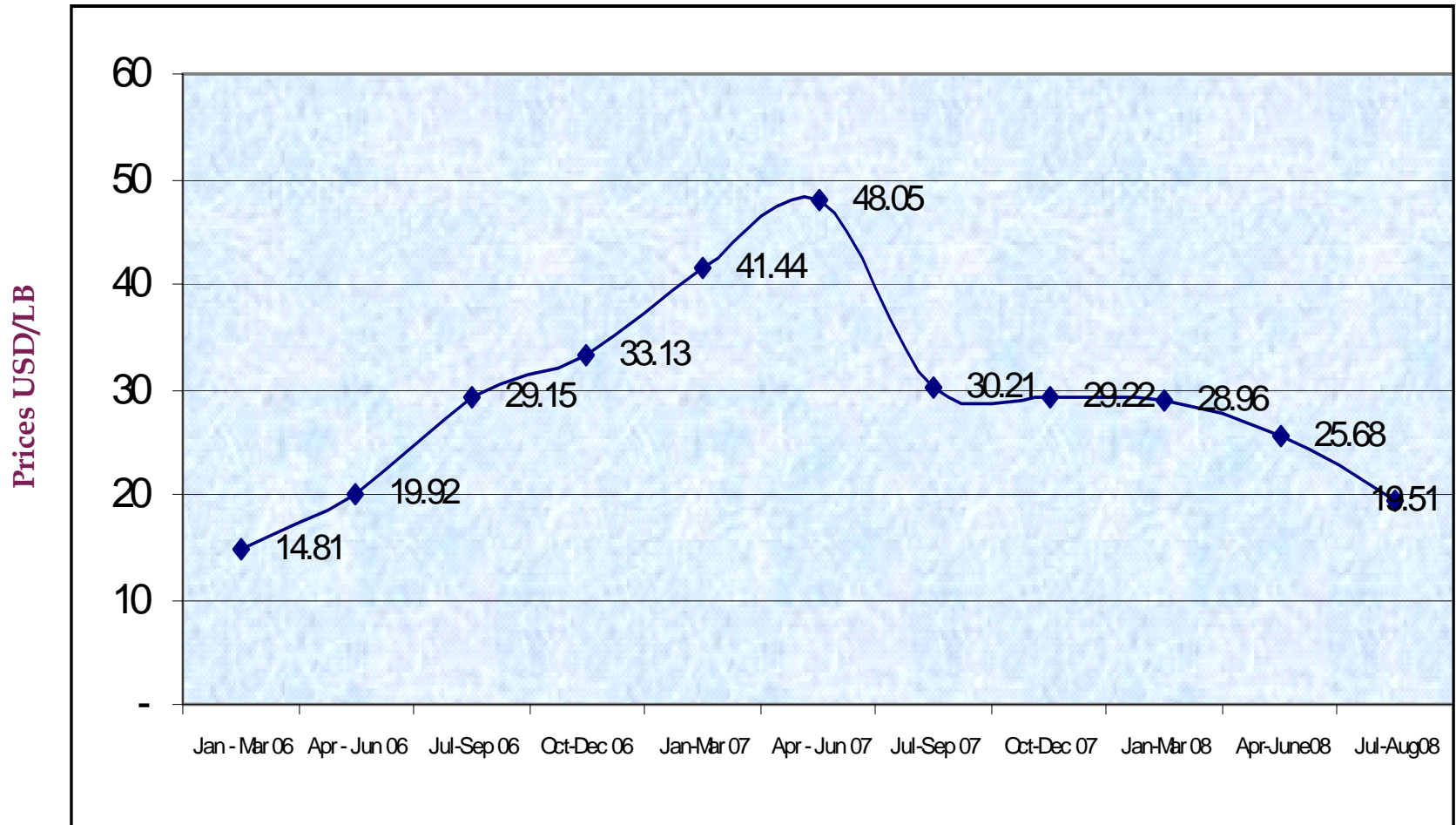


Price Trend

Nickel | Chromium | Manganese



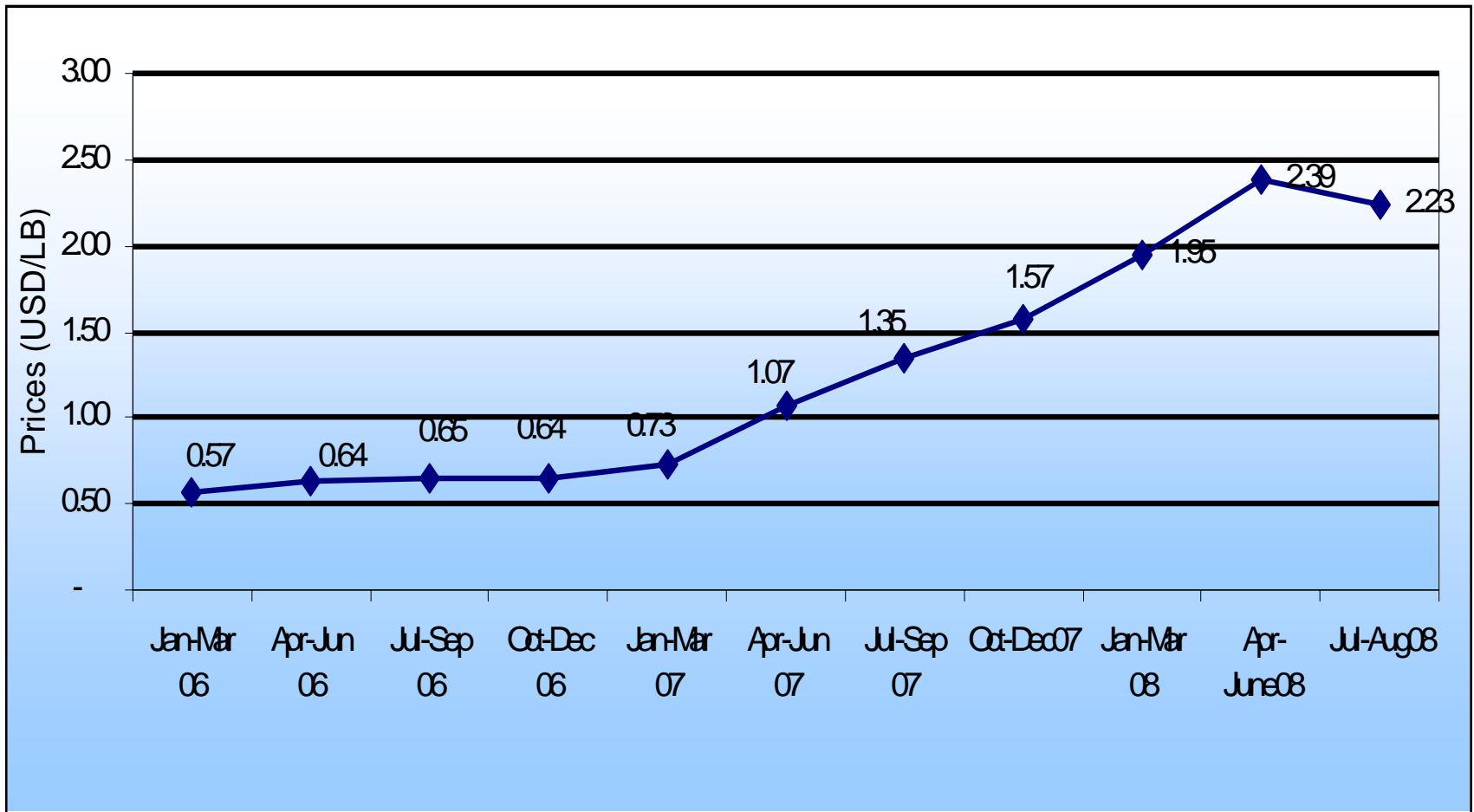
Nickel LME Prices Quarterly Average



Source : www.metalprices.com



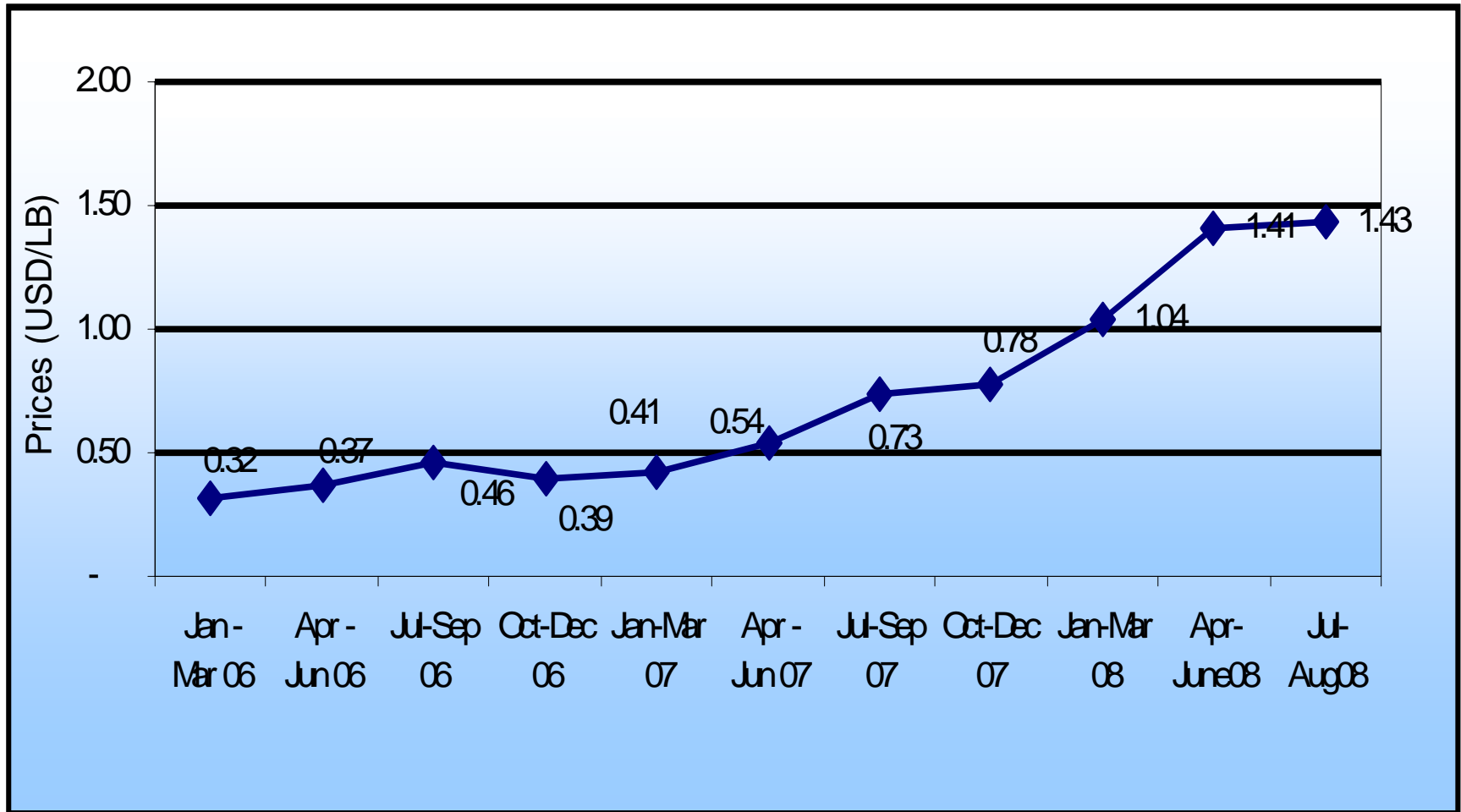
High Carbon Ferro-Chrome Prices Quarterly Average



Source : www.metalprices.com



High Carbon Ferro-Manganese Prices Quarterly Average





Stainless Steel Per Capita Consumption in Kg.

COUNTRY	KG /C APITA
United States	7.80
Canada	9.10
Brazil	2.00
Mexico	1.50
Italy	30.00
Germany	21.00
Spain	12.50
France	8.30
United Kingdom	4.70
South Africa	3.70
Japan	16.90
Taiwan	44.90
South Korea	24.60
Thailand	4.30
China	4.80
India	1.20
Average - all of the above	5.40
Excluding China & India	9.40

Source: Vale INCO, World Stainless Steel Statistics



Indian Stainless Steel Industry An Overview



Indian Stainless Steel Outlook

- India with apparent consumption of 1.4 mt placed 5th in terms of global stainless steel consumption
- Indian per capita consumption of stainless steel of 1.2 kg, while **China (6kg in 2007)** & developed countries in range of 15-20 kg
- Potential for high growth -
 - higher expected growth in GDP & Industrial production
 - existing low per capita consumption
 - Availability of key natural resources like manganese and chrome ore
 - low manpower cost

Indian stainless steel demand expected to grow by 10 - 12% annually



Potential for Growth of Stainless Steel Application in India

- ❖ Railways Automotive & Transport Sector
- ❖ Airports – Private Sector Participation
- ❖ Municipal / Urban Local Bodies (ULBs)
- ❖ Commonwealth Games 2010 in New Delhi
- ❖ Shopping Malls
- ❖ New Hospitals
- ❖ Hotels
- ❖ Housing



*Extract from Railway Budget Presented in India on 26th Feb. 2008

- Provision of stainless steel coaches in Mail/Express trains
Plan to produce 4,000 Passenger Coaches each requiring 11 tons Stainless Steel
- New Design Wagons of High Capacity
Plan to produce 20,000 Wagons each requiring 7 - 8 tons Stainless Steel





Stainless Steel - Railway Passenger Coaches



EMU Coaches

Rajdhani Express



Stainless Steel coaches

Stainless Steel *City Transport Delhi Metro*



Delhi Metro Rail Corporation
-A Success Story

Similar projects are undertaken in other major cities like Mumbai & Bangalore.



All Stainless Steel Coaches



Stainless Steel *City Transport Delhi Metro*



Escalators & Handrails

Delhi Metro Station



Dividers



Bench



Information Board



Dustbin



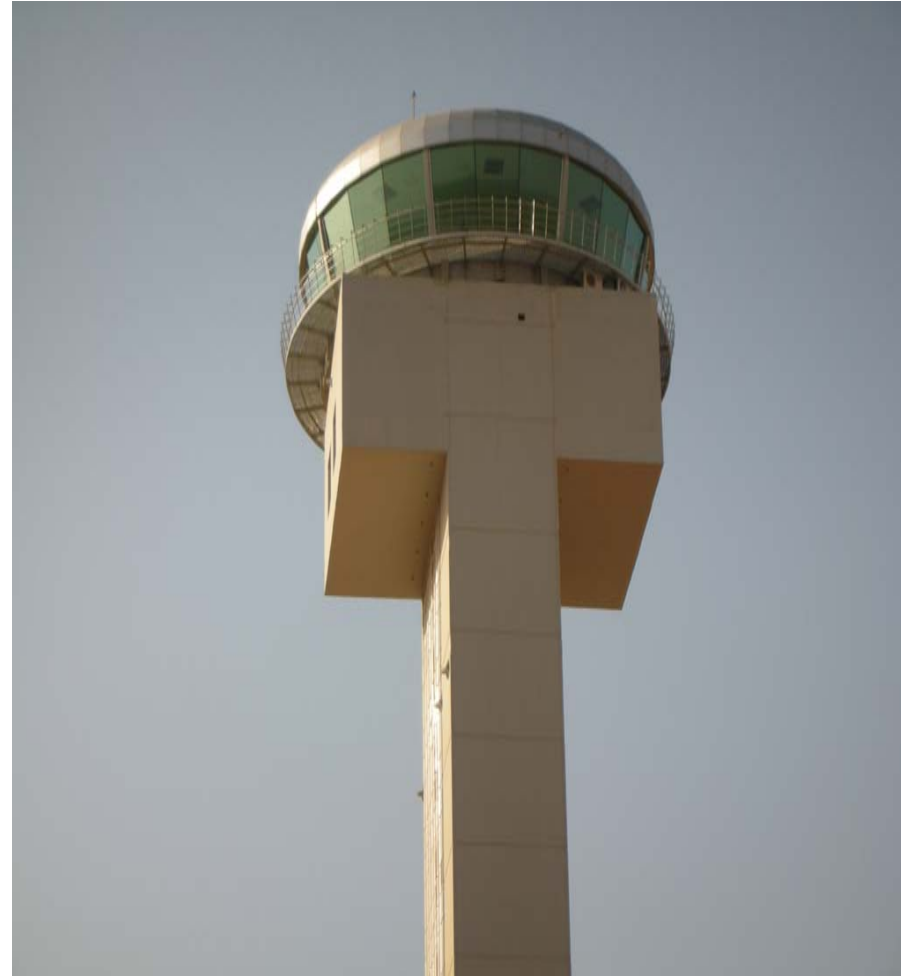
Stainless Steel *ABC* – Airport Infrastructure



New International Airport Hyderabad



Stainless Steel ABC – Airport Infrastructure



New International Airport Bangalore



Stainless Steel ABC - Street Furniture



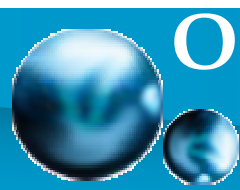
BOT Project of Jindal Stainless



Stainless Steel *Bus Shelter – High Capacity Bus Corridor*



Fabricated by Jindal Stainless Arc Division



Opportunities for Stainless Steel hosting Commonwealth Games in 2010





Stainless Steel in Stadium Architecture



Telstra, Sydney, Australia



Dragon Stadium, Portugal





Stainless Steel in Stadium Architecture

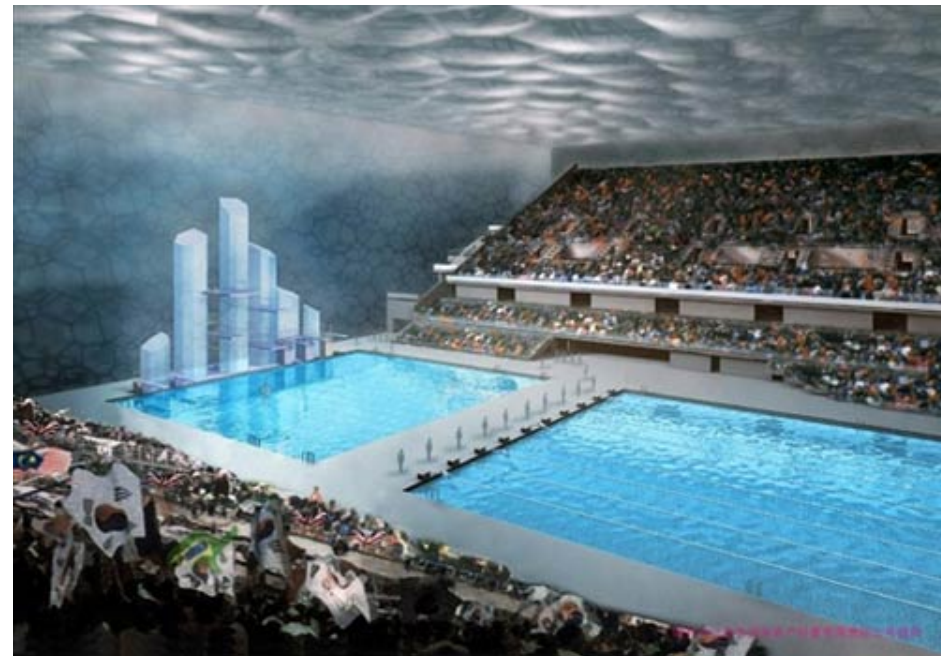




Stainless Steel in Stadium Architecture



National Stadium



National Aquatics Center



**Re-Development of AIIMS Garden
Sponsored by
Jindal Stainless Ltd.**

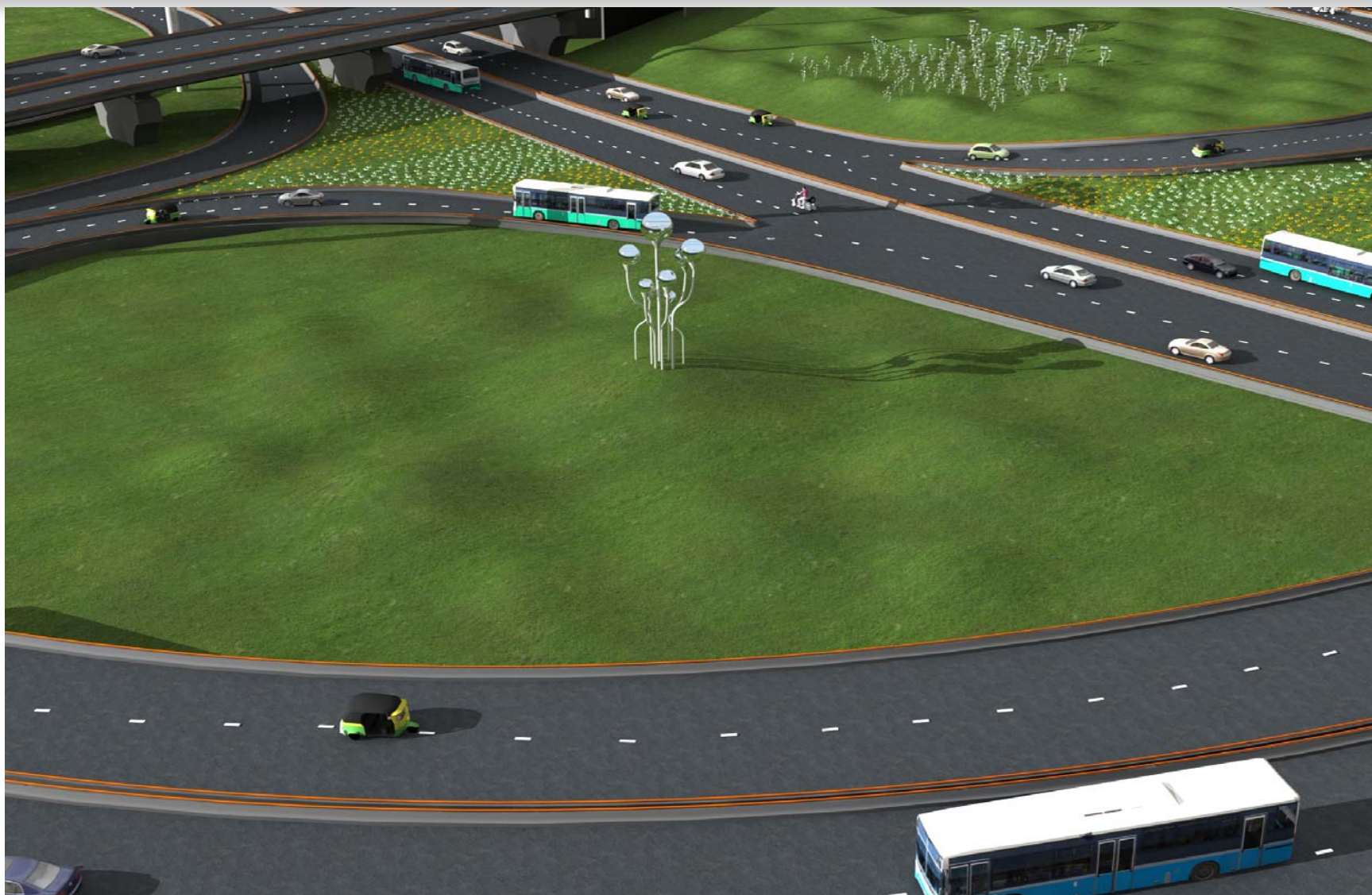


Re-Development of AIIMS Garden





Re-Development of AIIMS Garden





Re-Development of AIIMS Garden





Re-Development of AIIMS Garden





Re-Development of AIIMS Crossing

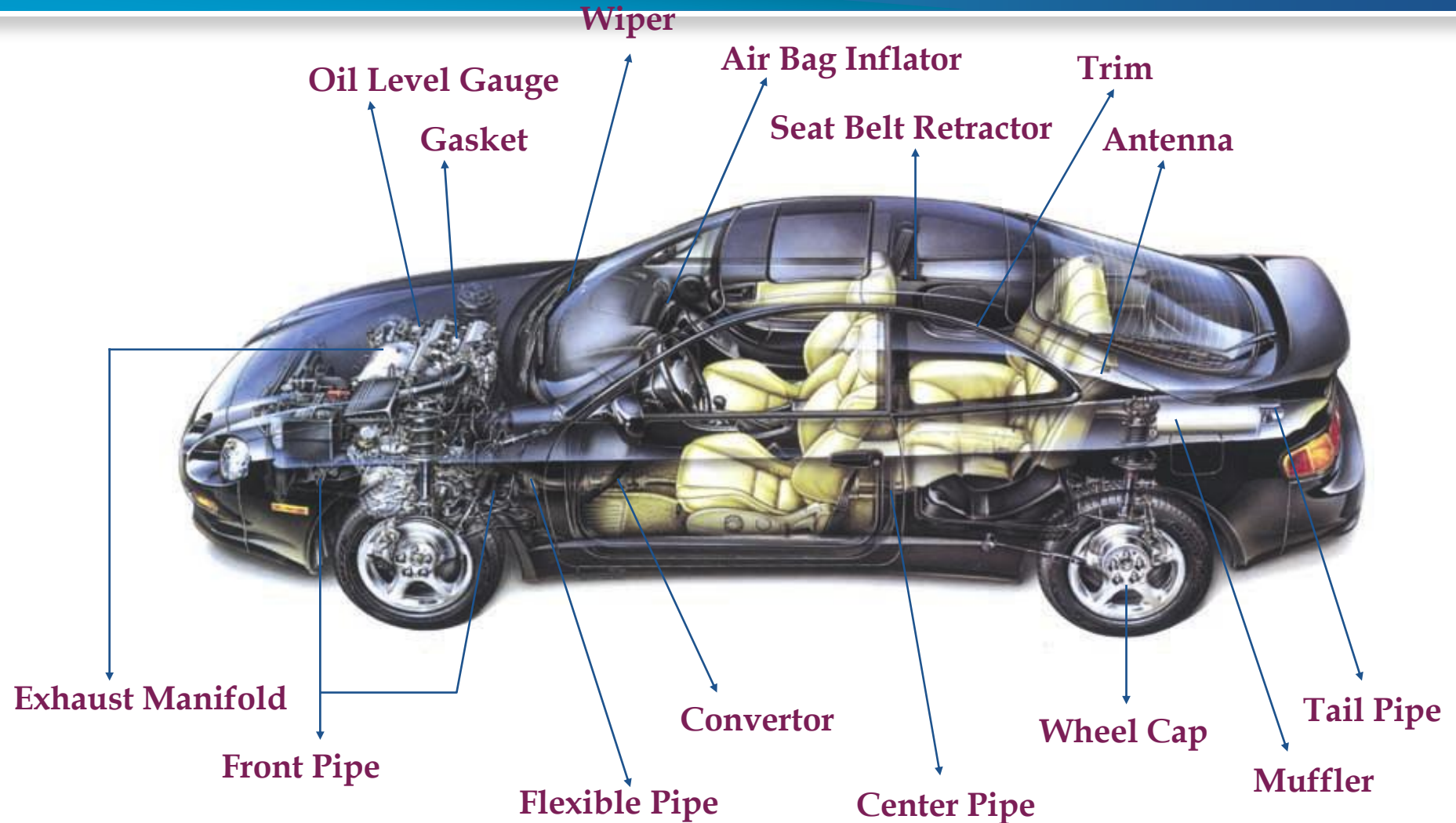




Stainless Steel uses in Automotive Sector



Stainless Steel in Passenger Car





Stainless Steel in Two / Four Wheeler Segment



A motor cycle exhaust



A car exhaust



Stainless Steel in Asia

Asian Region in 2007

**Production : 16 million ton
58% of Global Production**

(Production of China & India is 33%)

**Future Action for
Stainless Steel is in Asia**

*Trend will continue, led by China & India with 40% of
World's population*



**Indian Stainless Steel Development Association
AGM & Forward Looking Session
11th Sept. 2008, New Delhi**

A blue-tinted photograph of a business meeting. In the foreground, a hand is pointing at a document. In the background, several people are seated around a table, engaged in discussion.

THANK YOU

**Presented by
N. C. Mathur**

President – Indian Stainless Steel Development Association