INDIAN FOUNDRY INDUSTRY

Vikas Garg

President, The Institute of Indian Foundrymen (IIF)
&
Managing Director, Forace Polymers
About IIF

- Apex Industry body established in 1950
- Active member of WFO
- Accredited Business Member Organization by National Accreditation Board of Education & Training under Quality Council of India.
- Over 4000 members – Leading foundries, Equipment Manufacturers, Material Suppliers, Technology & Service Providers, Academicians & students
Four Regional Offices, Three Centres of Excellence & 27 Chapters across India,

Centers of Excellences -

- Centre of Education & Training, Kolkata
- Foundry Informatics Centre, Delhi
- National Centre of Technical Services, Pune
IIF’s Major Activities

- Training, Education & Certification
- Seminars/ Conferences/ Exhibitions for Dissemination of knowledge.
- Publication of Technical Material /CDs / DVD.
- Dissemination of Information on Latest Trends/ Technologies Global Best Practices/ Participation in International Events
- Business Development.
- Business Development
- Promotion of Various Govt. Schemes for Benefit of Foundry Sector
- Policy Advocacy
- Maintenance & Updating of Analytical Database
- Awards For Promotion of Excellence in Various Operational Areas of Foundries
Infrastructure at IIF

- Large Modern Library at Kolkata

- Offices at Kolkata, Delhi, Pune, Chennai, Coimbatore owned & Maintained by IIF

- Secretariat with Supporting Infrastructure

- Centres of Excellences
Indian Foundry Industry at a Glance

- 3rd LARGEST GLOBALLY
- Approx Units: 4600
- Production: 10 Million MT PA
- Employment: 2 Mn Direct & Indirect
- Major Foundry Clusters: 19
- Productivity Per unit: 2100 TPA
- Avg Productivity/ Man/ PA: 20
- Max Productivity / Man/ PA: 90
Indian Foundry Industry Contd..

- **Exports:** USD 2.5 Bn. Additionally USD 2.5 Bn Finished components. Potential to Grow to USD 12-15 Bn in next 7-10 years.

- **Outlook:** Needs to Grow 3 folds producing 30 Mn Tons/PA in next 10 years to support “Make in India”

- **Investments Needed:** USD 6-8 Bn in 10 years
Government focusing on “Make in India”, Ease of doing business, infrastructure & easing FDI norms to promote investments in manufacturing & new initiatives & co operations in skill development.

Forecasts of growth by leading institutions :-

India to become fastest growing economy as per forecasts of IMF & World Bank & likely to outpace China

<table>
<thead>
<tr>
<th>Year</th>
<th>% Annual Growth</th>
</tr>
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<tbody>
<tr>
<td>2014</td>
<td>7.2</td>
</tr>
<tr>
<td>2015</td>
<td>7.5</td>
</tr>
<tr>
<td>2016</td>
<td>7.9</td>
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Types of Castings Produced
Types of Castings Produced
Types of Castings Produced
## Production of Castings Mn Tons

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<tr>
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<tbody>
<tr>
<td>Grey C.I.</td>
<td>3.18</td>
<td>4.116</td>
<td>4.87</td>
<td>5.332</td>
<td>4.532</td>
<td>5.05</td>
<td>6.18</td>
<td>6.798</td>
<td>6.254</td>
<td>6.7</td>
</tr>
<tr>
<td>SG Iron</td>
<td>0.442</td>
<td>0.618</td>
<td>0.762</td>
<td>0.802</td>
<td>0.785</td>
<td>0.8</td>
<td>0.984</td>
<td>1.09</td>
<td>0.981</td>
<td>1.000</td>
</tr>
<tr>
<td>Malleable</td>
<td>0.04</td>
<td>0</td>
<td>0.0623</td>
<td>0.0651</td>
<td>0.0605</td>
<td>0.0602</td>
<td>0.0692</td>
<td>0.066</td>
<td>0.0604</td>
<td>0.060</td>
</tr>
<tr>
<td>Steel</td>
<td>0.581</td>
<td>0.805</td>
<td>0.914</td>
<td>0.964</td>
<td>0.916</td>
<td>0.88</td>
<td>1.07</td>
<td>1.14</td>
<td>1.158</td>
<td>1.100</td>
</tr>
<tr>
<td>non ferrous</td>
<td>0.38</td>
<td>0.516</td>
<td>0.571</td>
<td>0.608</td>
<td>0.547</td>
<td>0.653</td>
<td>0.75</td>
<td>0.9</td>
<td>0.891</td>
<td>0.95</td>
</tr>
</tbody>
</table>
Export of Major Castings from India / Import of castings in USD Million

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Total Import</th>
<th>Import from (China)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>1395.14</td>
<td>743.28</td>
<td>121.59</td>
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<tr>
<td>2011-12</td>
<td>2054.42</td>
<td>996.58</td>
<td>201.02</td>
</tr>
<tr>
<td>2012-13</td>
<td>2174.34</td>
<td>873.63</td>
<td>179.32</td>
</tr>
<tr>
<td>2013-14</td>
<td>2128.19</td>
<td>826.69</td>
<td>135.55</td>
</tr>
</tbody>
</table>
Auto Sector – Major Consumer

Trends in Auto Sector

- Passenger Vehicles
- Commercial Vehicles
- Three Wheelers
- Two Wheelers
- Grand Total

Years:
- 2008-09
- 2009-10
- 2010-11
- 2011-12
- 2012-13
- 2013-14
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</thead>
<tbody>
<tr>
<td>Passenger Vehicles</td>
<td>23,57,411</td>
<td>29,82,772</td>
<td>31,46,069</td>
<td>32,31,058</td>
<td>30,87,973</td>
<td>32,20,172</td>
</tr>
<tr>
<td>Commercial Vehicles</td>
<td>5,67,556</td>
<td>7,60,735</td>
<td>9,29,136</td>
<td>8,32,649</td>
<td>6,99,035</td>
<td>6,97,083</td>
</tr>
<tr>
<td>Three Wheelers</td>
<td>6,19,194</td>
<td>7,99,553</td>
<td>8,79,289</td>
<td>8,39,748</td>
<td>8,30,108</td>
<td>9,49,021</td>
</tr>
<tr>
<td>Two Wheelers</td>
<td>1,05,12,903</td>
<td>1,33,49,349</td>
<td>1,54,27,532</td>
<td>1,57,44,156</td>
<td>1,68,83,049</td>
<td>1,84,99,970</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>1,40,57,064</strong></td>
<td><strong>1,78,92,409</strong></td>
<td><strong>2,03,82,026</strong></td>
<td><strong>2,06,47,611</strong></td>
<td><strong>2,15,00,165</strong></td>
<td><strong>2,33,66,246</strong></td>
</tr>
</tbody>
</table>
Forecast
Commercial Vehicles (000)
Forecast - Construction Vehicles (000)

- 2009-10: 40
- 2010-11: 48
- 2011-12: 54
- 2015-16: 100
- 2020-21: 180

Vertical axis: Number of construction vehicles
Horizontal axis: Years (2009-10 to 2020-21)
Major Foundry Clusters

Following major foundry Clusters are formed under IIUS

(Industrial Infrastructure upgradation scheme of Ministry of Commerce & Industry for clusters)

- Belgaum
- Coimbatore
- Kolhapur
- Howrah
Common Facilities in clusters

- Foundry Simulation softwares
- Promote Green & Clean Environment
- Improvement in Basic infrastructure
- Common interactive portal for members
- ERP software package for members
- Common Training facilities
- Common Testing labs
- Vendor/supplier development programme
- Collective procurement where possible
Common Facilities in clusters

- Modern Convention Hall
- Optical Emission Spectrometer
- 3 D CMM Machine
- Sand Reclamation
- 3 D Modelling & ERP /CAD CAM solutions
- Modern Tool room
- Rapid Product Development
Benefits

- Access to common Modern Design, Production & Testing facilities
- Improved productivity
- Improved skills
- Better infrastructure
- Collective bargaining for procurement & other services
- Greener environment
- Improved profitability & overall improved competitiveness
New Initiatives

- Lean Manufacturing Programme undertaken with National Productivity Council
- UNIDO-GEF Programme for Energy Efficiency
- UNIDO ICAMT Project for improved productivity in cluster
- UNIDO- (United Nations Industrial Development Organization)
- GEF-Global Environment Facility
- ICAMT-International Centre for the Advancement of Manufacturing Technology
IIF Initiatives

IIF is promoting the energy conservation in foundries by conducting awareness programmes /detailed energy audits supported under UNDP/GEF SGP

Signed MoU with Central Board of Secondary Education for introducing foundry Technology in schools as an optional vocational subject

- UNDP-United Nation Development Programme
- GEF-Global Env Facility
- SGP-Small Grants Programme
Future Plans


- To Promote recycling of foundry sand in clusters & to take up with Govt. to support this to protect environment & conservation of natural resources.

- To promote collaborative approach in clusters for improved competitiveness.
India Foundries are increasingly focusing on:

- Lean Manufacturing for improved productivity
- Value addition & cost competitiveness
- Energy efficiency & conservation of natural resources
- Recycling & Waste Reduction
- Indian foundries are capable of producing value added engineered castings (From a few grams to over 100 Tons/piece) for various applications conforming to international standards at internationally competitive prices.
The business sentiment has considerably improved in the last 3 months.

The new Govt. has a strong mandate for economic development.

Increased focus of Govt. on investments by allowing higher FDI limits & incentives for investments in plant & machinery for manufacturing for limited period.

Increased focus on manufacturing, skilling.

Fast tracking of projects & removal of procedural bottlenecks & emphasis on e governance.

Promoting “Make in India” by facilitating ease of doing business.
THANK YOU