



# INDIAN FOUNDRY INDUSTRY

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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**



# IIF Contd....

**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

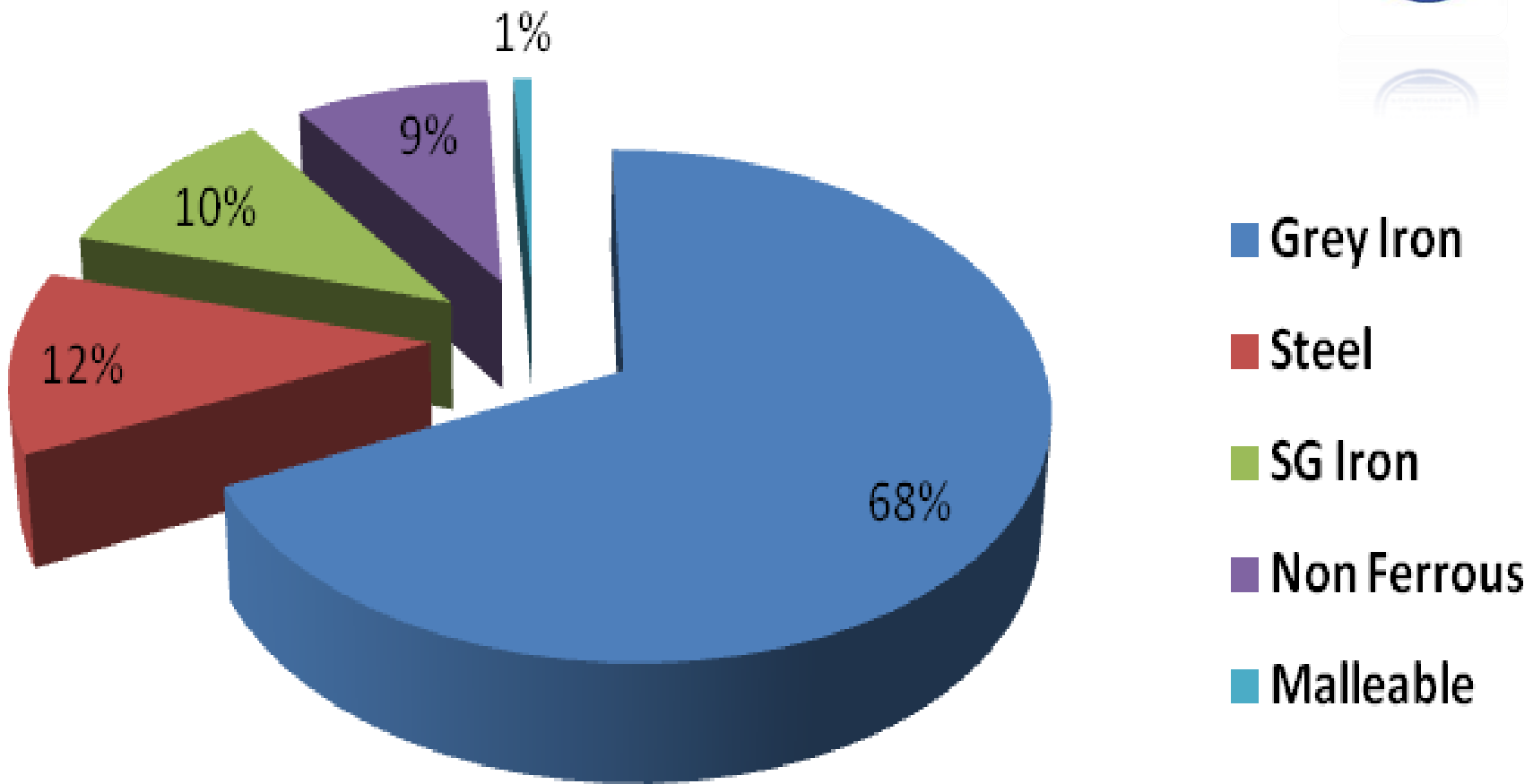
- ▶ Large Modern Library at Kolkata
- ▶ Offices at Kolkata , Delhi ,Pune , Chennai, Coimbatore owned & Maintained by IIF
- ▶ Secretariat with Supporting Infrastructure
- ▶ Centres of Excellences

# Indian Foundry Industry at a Glance



- 3<sup>rd</sup> 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

# Product Mix of cast Metal-India





# 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**





# Business Environment & Economy

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

	2014	2015	2016
% Annual Growth	7.2	7.5	7.9

# Types of Castings Produced



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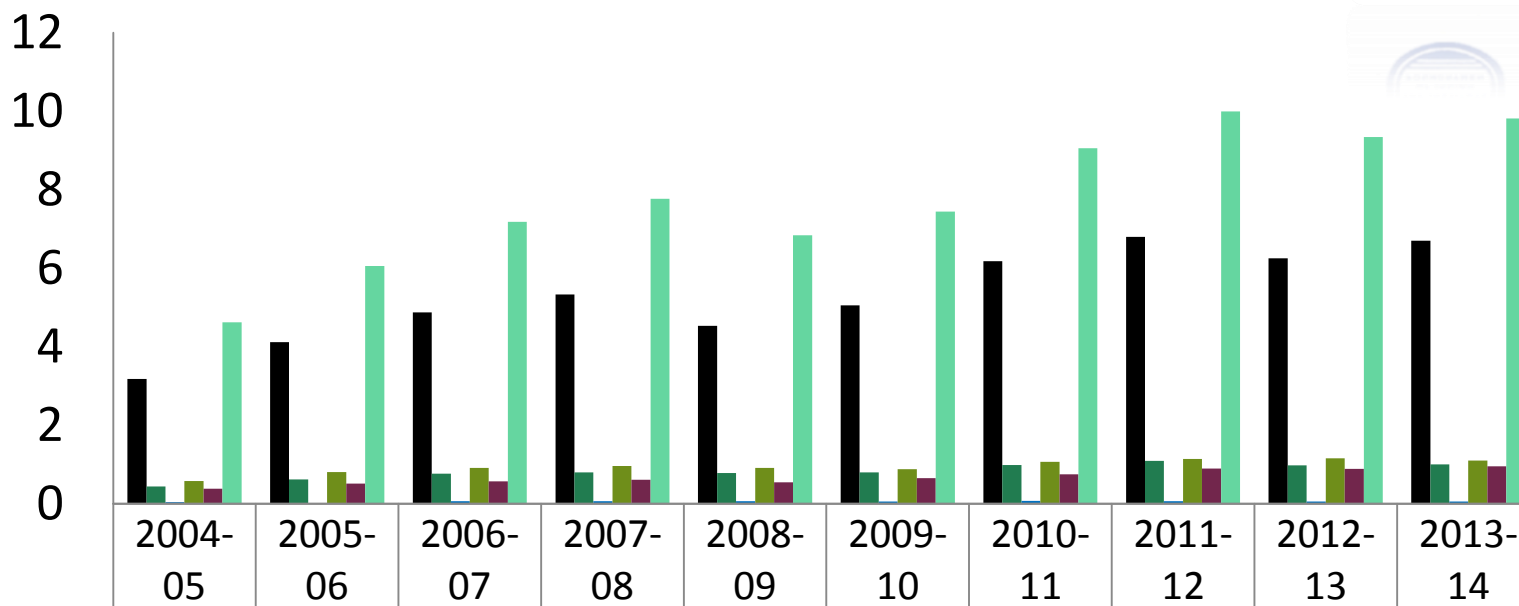


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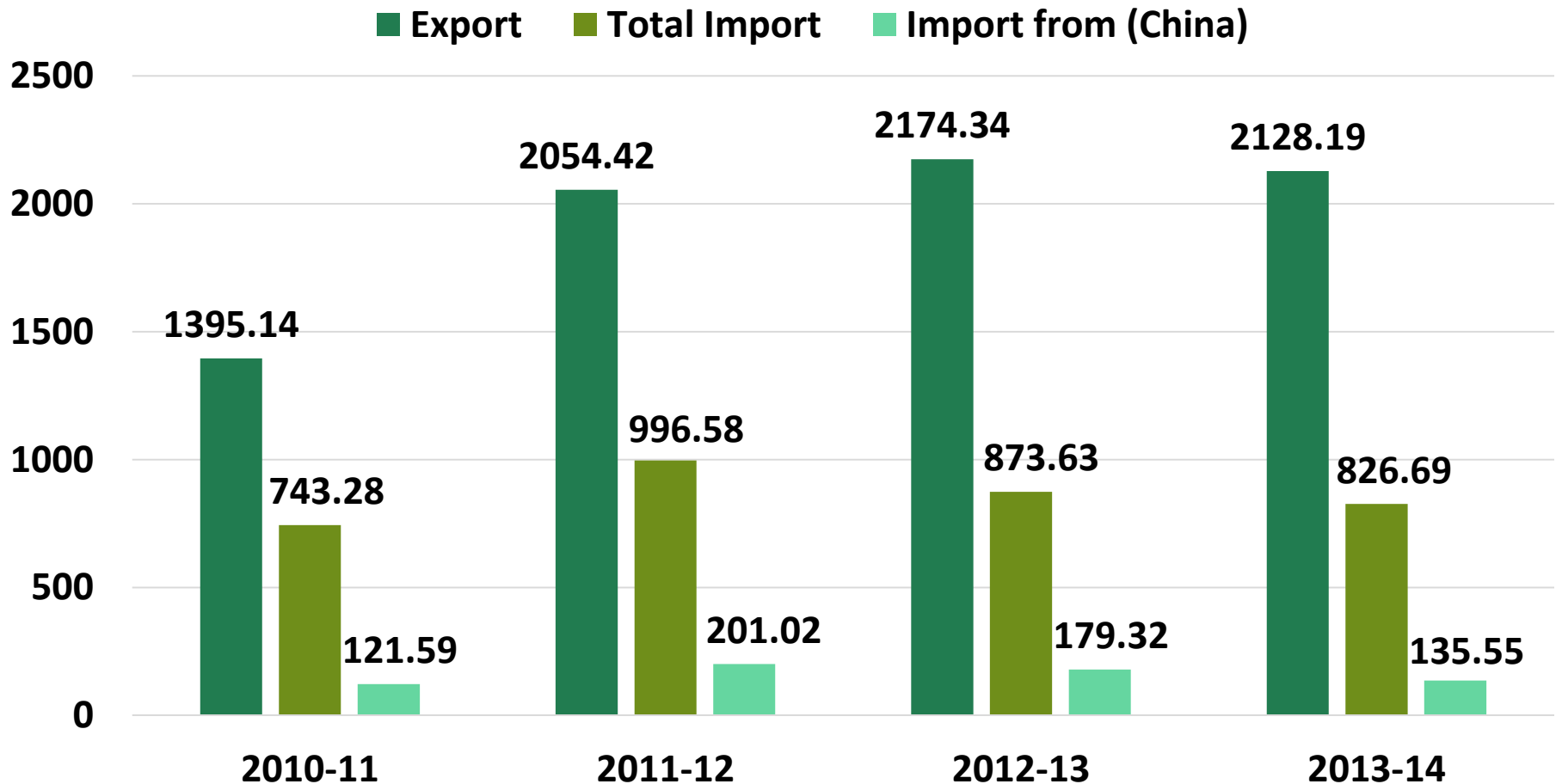
# Production of Castings Mn Tons



■ Grey C.I.	3.18	4.116	4.87	5.332	4.532	5.05	6.18	6.798	6.254	6.7
■ SG Iron	0.442	0.618	0.762	0.802	0.785	0.8	0.984	1.09	0.981	1.000
■ Malleable	0.04	0	0.0623	0.0651	0.0605	0.0602	0.0692	0.066	0.0604	0.060
■ Steel	0.581	0.805	0.914	0.964	0.916	0.88	1.07	1.14	1.158	1.100
■ non ferrous	0.38	0.516	0.571	0.608	0.547	0.653	0.75	0.9	0.891	0.95
■ TOTAL	4.623	6.055	7.1793	7.7711	6.8405	7.4432	9.0532	9.994	9.3444	9.810



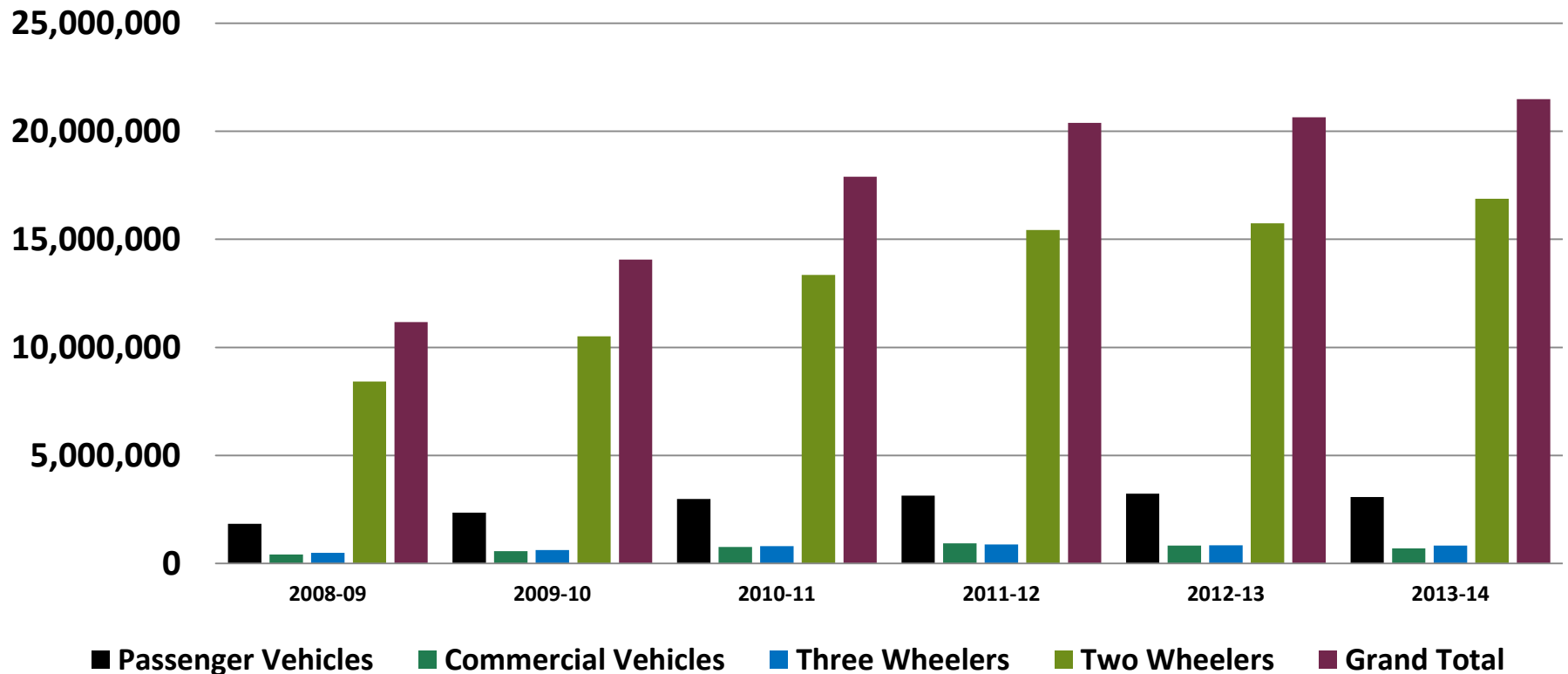
# Export of Major Castings from India / Import of castings in USD Million





# Auto Sector – Major Consumer

## Trends in Auto Sector



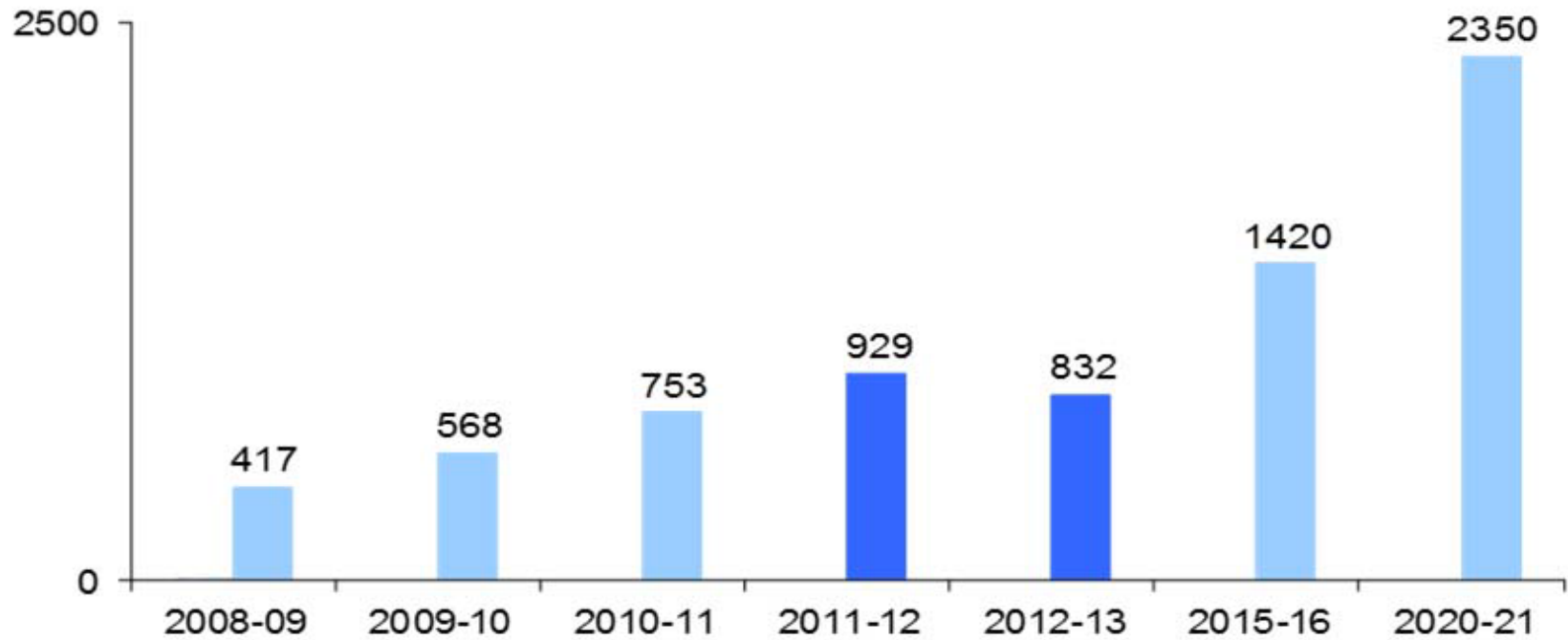


Category	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Passenger Vehicles	23,57,411	29,82,772	31,46,069	32,31,058	30,87,973	32,20,172
Commercial Vehicles	5,67,556	7,60,735	9,29,136	8,32,649	6,99,035	6,97,083
Three Wheelers	6,19,194	7,99,553	8,79,289	8,39,748	8,30,108	9,49,021
Two Wheelers	1,05,12,903	1,33,49,349	1,54,27,532	1,57,44,156	1,68,83,049	1,84,99,970
<b>Grand Total</b>	<b>1,40,57,064</b>	<b>1,78,92,409</b>	<b>2,03,82,026</b>	<b>2,06,47,611</b>	<b>2,15,00,165</b>	<b>2,33,66,246</b>



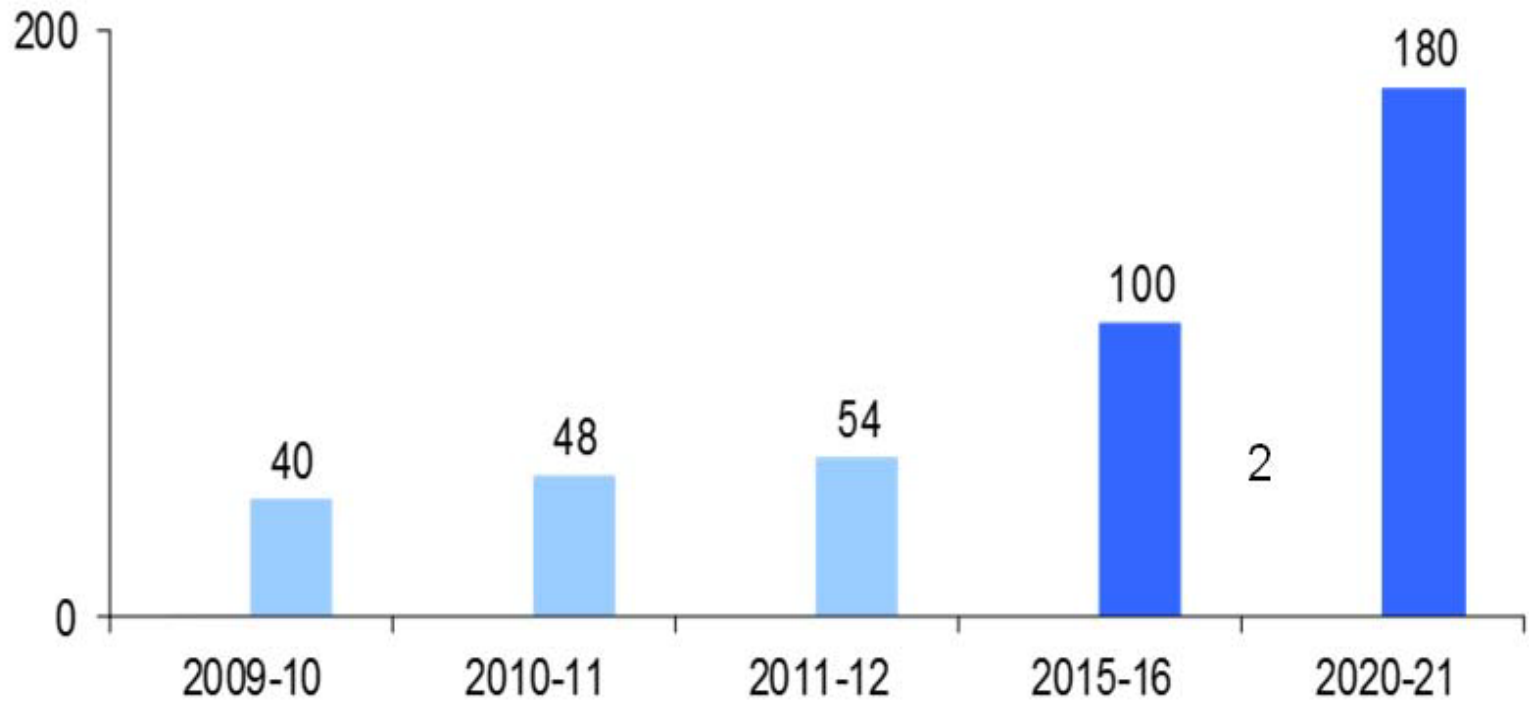


# Forecast Commercial Vehicles (000)



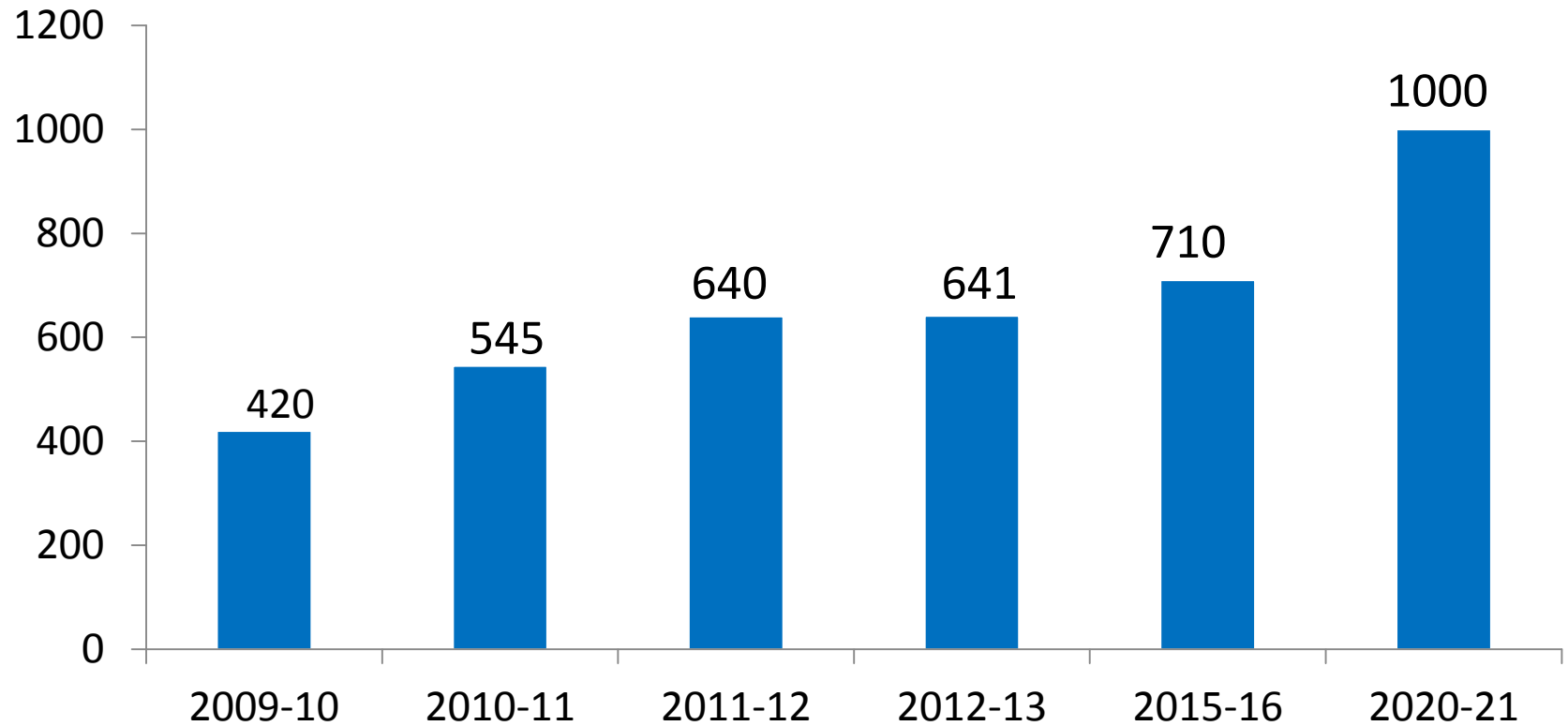


# Forecast- Construction Vehicles (000)





# Forecast- Tractors (000)





# 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 Health & Safety in foundries. Initiated dialogue with National Safety Council.
- ❑ 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.



# Conclusion

## **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.



# Conclusion Contd....

- 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