



INDIAN AUTO INDUSTRY : Opportunity, Challenges & Entry Strategy



AGENDA

- A About Greenfuel
- B Indian Economy : Trends
- C Auto Sector in India
- D Entry Strategy Options



A

About Greenfuel

COMPANY PROFILE - KEY FACTS




- 8 out of 10 CNG cars in India use products supplied by GREENFUEL.
- 8 out of 10 CNG busses in India using products supplied by GREENFUEL.
- An ISO/TS 16949:2009 & ISO 14001 certified company.
- A NSIC-CRISIL certified company.
- More than 2,00,000 vehicles running on Indian Roads use components supplied by GREENFUEL.
- Factory in Manesar and local representative in LUCKNOW, PUNE, & MUMBAI.
- Started Operation in 2006 & total employee strength today is 55.
- Turnover of approx. \$ 9 MILLION.
- Tier 1 supplier to major OEM's in India.
- First company in India to introduce NGV1 filling valves in OEM's.
- First company in India to educate and sell automatic cylinder valves in India.
- First company in India to do complete system for Low Floor CNG bus.
- First and only company in India supplying sub-assembled and pressure tested CNG components.
- The only company doing alternate fuel systems that supplies to bus/truck, Light Commercial Vehicle and passenger cars in India.

EXECUTIVE SUMMARY




Mr. Akshay Kashyap, Managing Director (GREENFUEL), is a Bachelor of Science in Mechanical Engg. from Florida Institute of Technology, USA and graduated "With Honors" in the year 2001. He worked for 3 years with Swagelok (USA), a 1.1 billion Dollar Group headquartered in Cleveland, Ohio. In India, from 2004-2006 he worked for Delhi Fluid systems (P) Ltd. selling Swagelok components in India as BDM. Later in 2006 October he started his own Entrepreneurial venture, Greenfuel Energy Solutions Pvt. Ltd. with his own capital of Rs 40 Lakh (4 million) & now the company succeeded in making a turnover of Rs 52 crore (Rs 520 million) last year. He is also a promoter of Greenfuel which is primarily involved in providing components for vehicles that run on alternate fuels like Natural Gas to all major automotive customers in India. Awarded as "The largest and most innovative Company for CNG vehicle components" by the Ministry of Road and Transport.




CUSTOMER REFERENCES


AUTOMOTIVE




CNG CYLINDER MANUFACTURER



STATION OWNER & STATION EQUIPEMENT MANUFACTURER

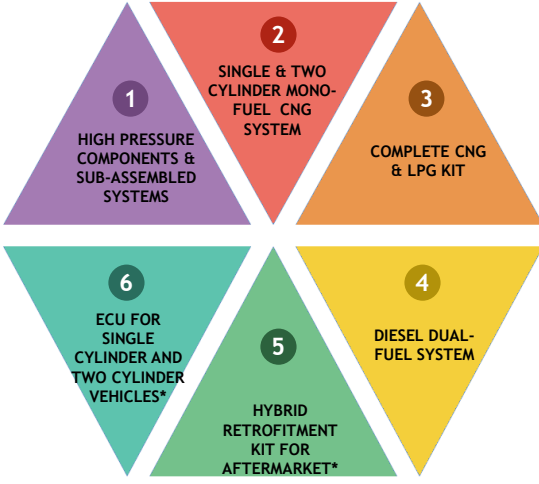


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GREENFUEL PRODUCT RANGE

“Your Partner For All Alternate Propulsion Technologies”



- 1

Receptacle, HP Gauge HP Tubes & Fittings, Cylinder Valve, Fuel Injectors, Check Valve, Solenoid Valve, Pressure Transducers, HP Regulator, ECU

Passenger cars, Buses, Trucks & LCV's
- 2

Injector Reducer with ECU & all accessories and Development of Complete EMS till Mass Emission.

3 Wheelers & LCV's
- 3

Bi-fuel CNG & LPG Sequential Kit including all accessories - "SICURO"

Passenger cars & '0' km fitment
- 4

Complete System with ECU & all parts and Development of Complete EMS till Mass Emission.

Trucks, Buses & Stationary Gensets
- 5

HYBRID retro fitment kit for aftermarket

All 3 wheelers running in India
- 6

ECU for single cylinder and two cylinder vehicles

Conversion from cerebrated to EFI systems for such vehicles.

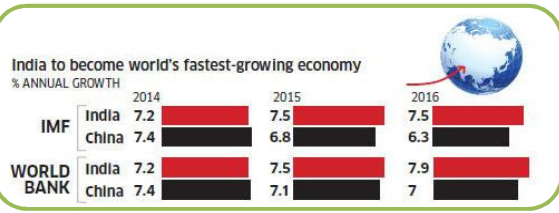
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Indian Economy : Trends

India: A Vibrant Economy

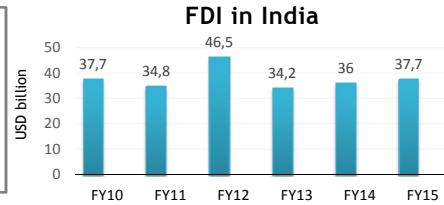
- Largest Democracy - 1.2 billion people, Growing Middle Class.
- 3rd largest GDP (PPP) and 7th largest GDP (Nominal, USD 2.3 trillion).
- 2nd Largest Investor base in the World.
- Robust Legal and Banking Infrastructure.
- Demographics Advantage - Youth driven economy.
- Suburbanization & Rural to Urban Migration - 140 million by 2020; 700 million by 2050.
- 2nd largest pool of Certified Professionals and highest number of Qualified Engineers in the world.
- One of the fastest growing economies
 - India's average GDP growth rate: 7.4% over past 5 years.
 - Expected to outpace China in the next decade.





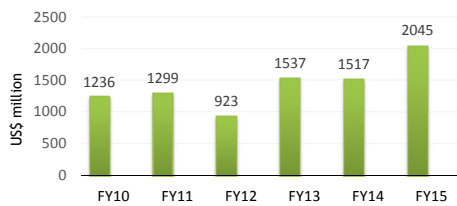
FDI inflows - India second most attractive destination in the world

- According to UNCTAD's "World Investment Prospects Survey 2010-2012", India is the second most attractive destination for FDI (after China) in the world.
- India targets to achieve annual FDI worth USD 100 billion by 2017. It plans to double the inflows by 2017.



Source: RBI Bulletin

FDI inflow in the auto industry



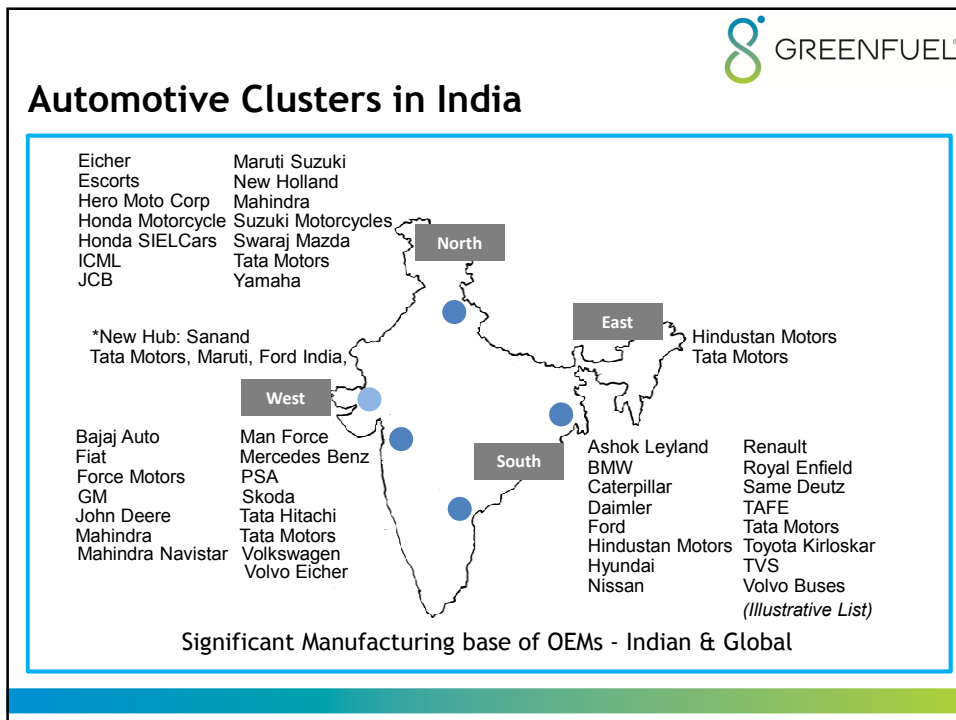
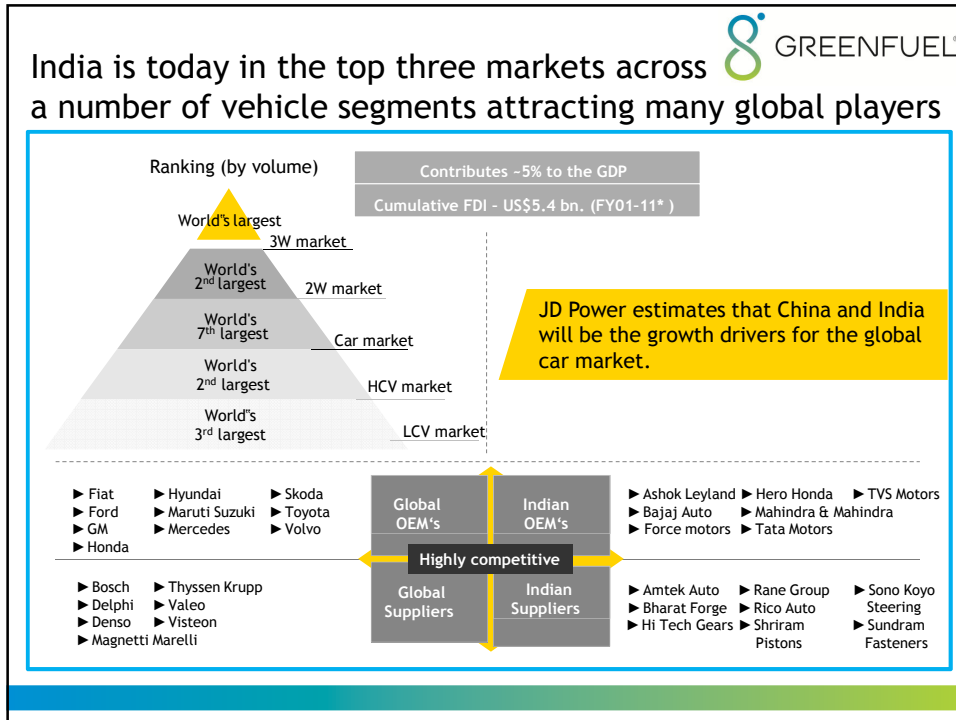
*Exchange Rate Used: INR 1 = US\$ 0.0162 as on January, 2015

- Indian automotive industry has attracted a cumulative FDI of USD 6.0 billion during April' 10 - Jan' 15.
- Accounts for 5% of total FDI inflows in the country



C

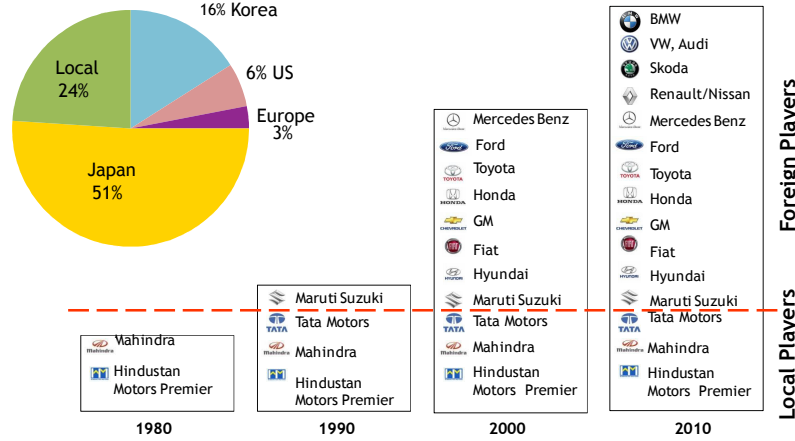
Automotive Sector In India



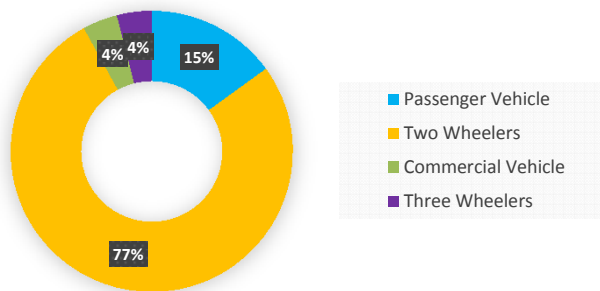
All major global OEs have established facilities in India to tap the rapidly growing market



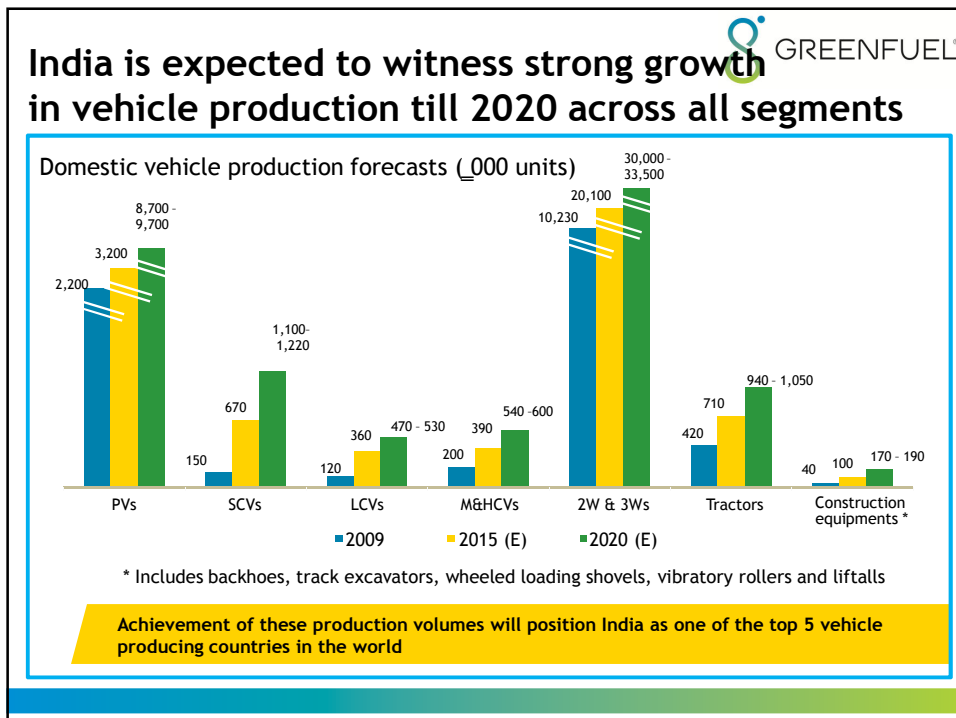
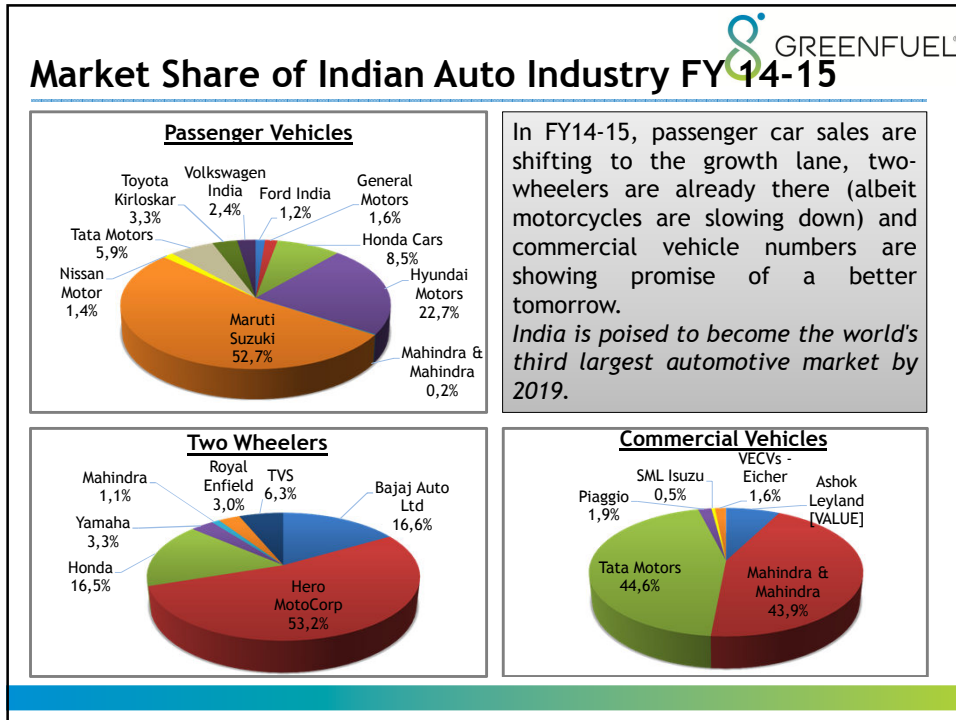
Passenger vehicle market share by OE parent country (2009-10)

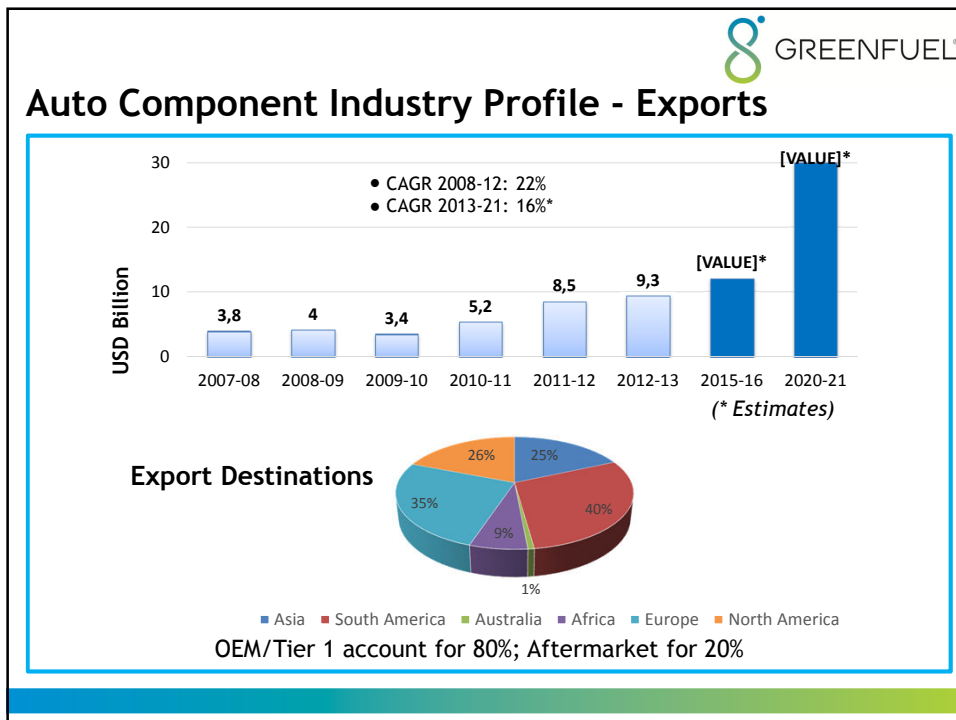
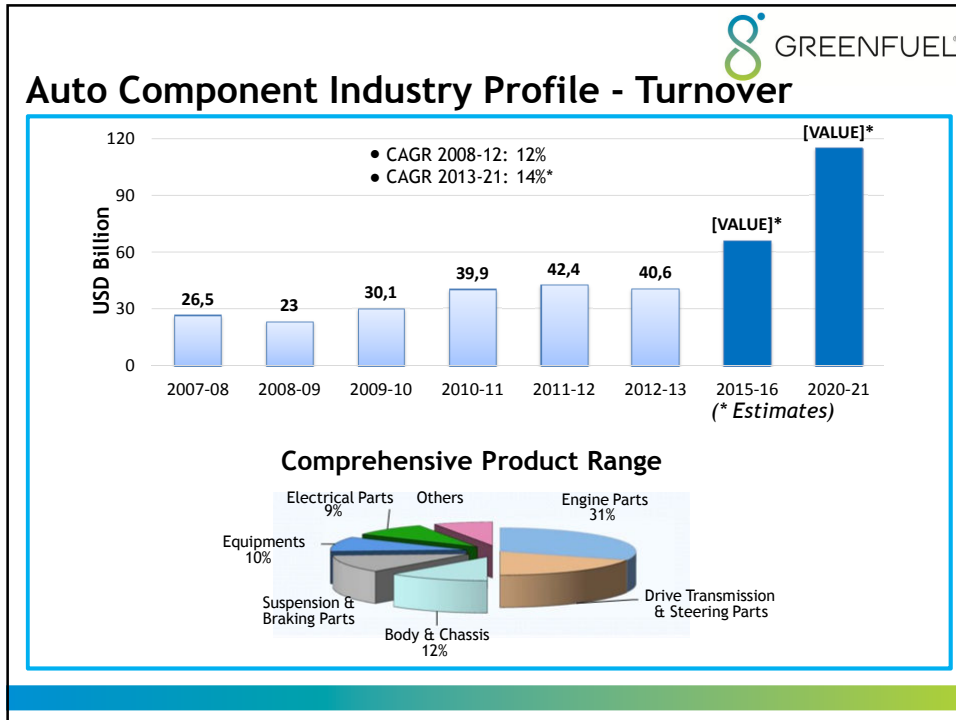


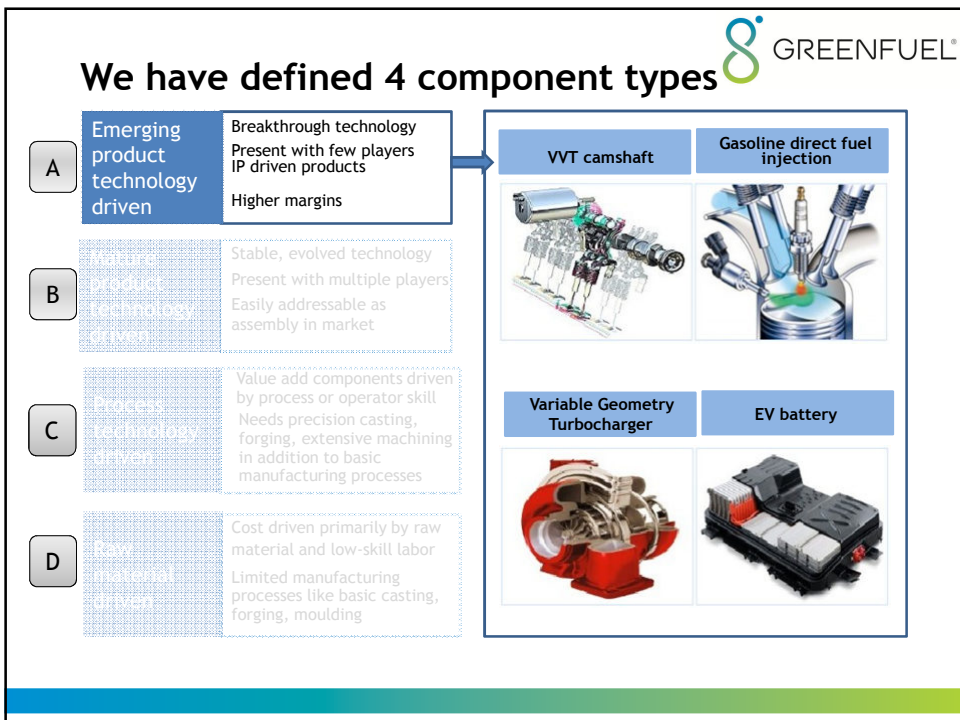
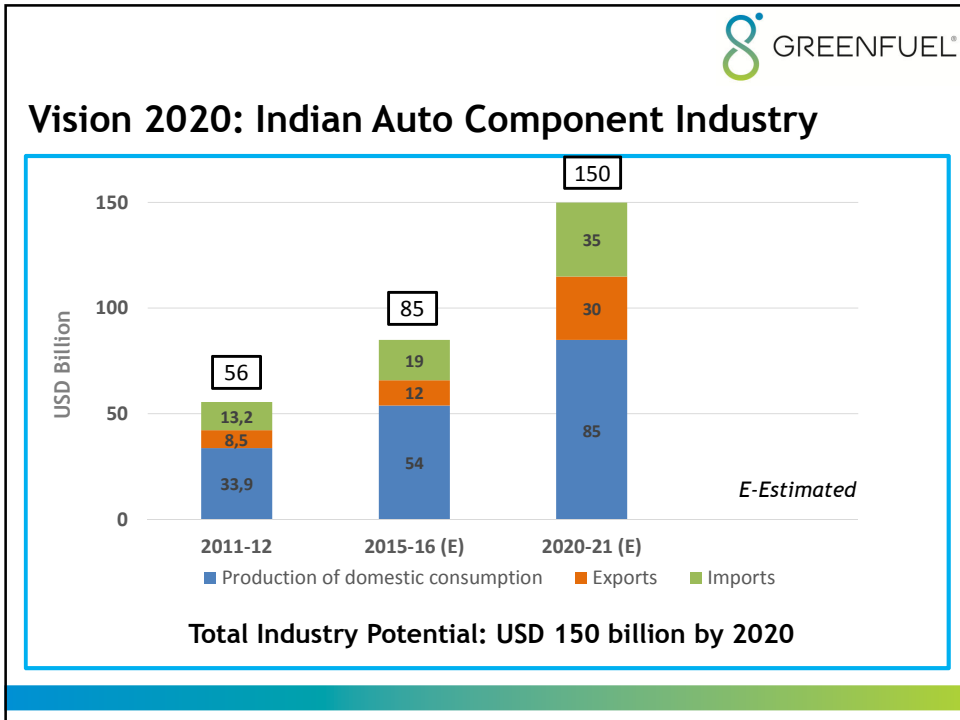
Market share of Indian Auto Industry FY14-15




Passenger vehicles are ranked as the second most important motor vehicle segment in terms of sales, while two-wheelers continue to be the *India's best selling motor vehicle category*.
















 **GREENFUEL®**

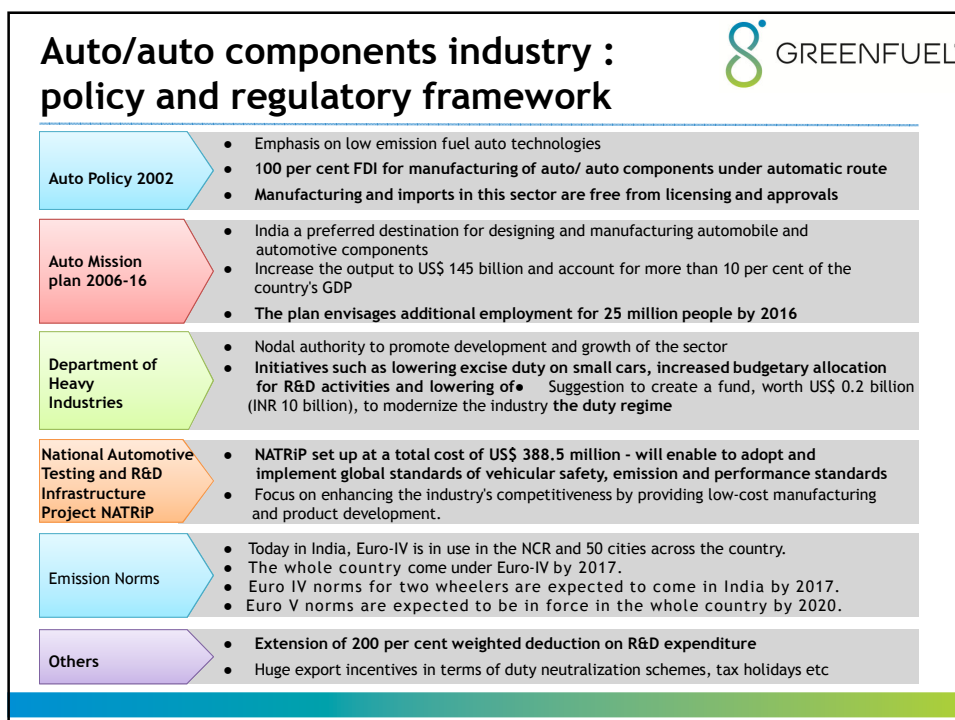
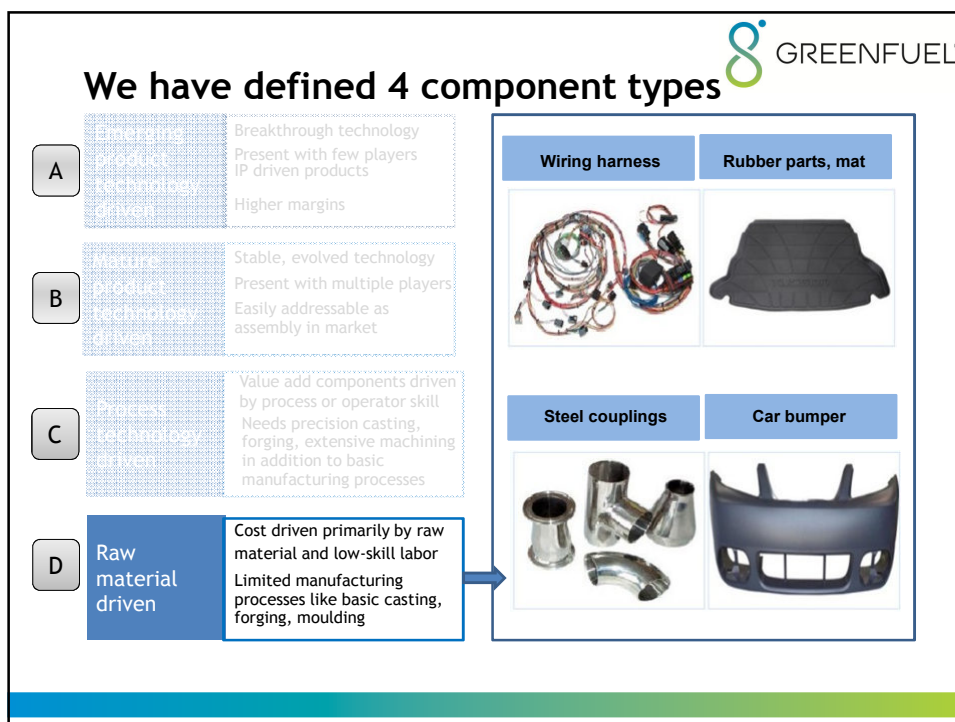
We have defined 4 component types

A	Breakthrough technology Present with few players IP driven products Higher margins	→	Gearbox	Suspension system
B	Mature product technology driven			
C	Value add components driven by process or operator skill Needs precision casting, forging, extensive machining in addition to basic manufacturing processes		Lighting system	Starter motor
D	Cost driven primarily by raw material and low-skill labor Limited manufacturing processes like basic casting, forging, moulding			

 **GREENFUEL®**

We have defined 4 component types


A	Breakthrough technology Present with few players IP driven products Higher margins	→	Crankshaft	Piston/Piston ring
B	Stable, evolved technology Present with multiple players Easily addressable as assembly in market			
C	Process technology driven		Engine block	Brake drum
D	Value add components driven by process or operator skill Needs precision casting, forging, extensive machining in addition to basic manufacturing processes			





Major International Auto Component Companies with India Manufacturing footprint

- Aisin Seiki Co.
- BorgWarner
- Continental
- Delphi
- Denso Corporation
- Eaton
- FAG
- Faurecia
- GKN
- Honda Foundry Co. Ltd.
- Honeywell
- Knorr Bremse
- Koyo
- Magna
- Magneti Marelli
- Mando Corporation
- Meritor
- Mitsuba Corporation
- NHK Spring
- Robert Bosch
- Showa Corporation
- Sumitomo Wiring Systems
- Toyoda Gosei
- USHIN
- Valeo
- Visteon
- Yazaki
- ZF



D

Entry Strategy Options




Entry strategy options: Greenfield, JV & M&A

ROUTE	PROS	CONS
Greenfield	<ul style="list-style-type: none"> Control Leverage low cost production to cater to global market 	<ul style="list-style-type: none"> Time required for land acquisition / utilities tie-ups Need to handle Government relations / administrative issues Operational risks
Joint Venture	<ul style="list-style-type: none"> Indian promoters prefer not to cede control upfront Financial Risk sharing Ability of Indian partner to manage local environment Existing supply chain 	<ul style="list-style-type: none"> Greenfield challenges remain Technology and brand transfer issues Sharing Control
M & A	<ul style="list-style-type: none"> Time efficient : Speed required in capturing growth / market share Established operations: Supply chain & distribution network, brand, market share Value arbitrage 	<ul style="list-style-type: none"> Difficult to negotiate transfer of control "Skeletons in the closet" Post-integration difficulties Valuation issues




Buyer & Market Profile A supplier's perspective



Top Requirements of Auto OEM Buyers

WHAT THEY SAY ?	WHAT THEY MEAN ?
<p>High quality & Low cost</p>	<ol style="list-style-type: none"> 1 Give us a lower cost than our existing supplier. 2 Buyer will never share his existing quality issue with a new potential vendor.
<p>Your product is very good and we may need it</p>	<ol style="list-style-type: none"> 1 There is a need for the product however there could be someone else with better relations pitching for the product. 2 Intense lobbying and person to person contacts and relation building is needed. 3 Do your own study of our existing product and tell us your USP's.
<p>We require local manufacturing</p>	<ol style="list-style-type: none"> 1 We need lower cost product. 2 We want to have control if something goes wrong. 3 Hedging against fluctuating currency.



Important Aspects to make a SALE

- 1

In India, selling is highly personal based on contacts and relationships - It is whom you know.
- 2

Never assume that by convincing top management, you have made a sale - We are highly democratic and the middle to lower level are the ones who will make a final assessment on your product.
- 3

Selling is a prolonged affair - Have patience. First Mover advantage is huge in India.
- 4

Do not expect structured processes or commitments of volumes as these are most probably off the mark.



Unique situations in the Indian Market

“ Don't expect that a product created for European & Western market will work in Indian conditions.”



RAT BITE TEST



ROAD CONDITIONS




LIFE OF VEHICLE

- In Western World : ELV defined life
- In India - no defined life



CUSTOMER VIEWS

- Overloading of vehicle
- Spurious spares
- Contaminated fuel



Where do the opportunities lie ?

We require local manufacturing

- 1 You already have the product What already exists in Europe for last 4-5 years is now needed in India.
- 2 All OEMs in India requires local manufacturing.
- 3 First mover has huge advantage in India - **MOVE FAST**

Make in India for India

- 1 Use your strong R&D to make **"Fit for Purpose"**
- 2 Leverage low cost and skilled labour force to manufacture in India and export to other low cost countries.
- 3 Do your own study of our existing product and tell us your USP's.

Specific areas of immediate interest

- 1 **SAFETY** - ABS for 2 Wheeler, Air Bags, PSGs for seat belts,
- 2 **ELECTRONICS** - largest area of growth : sensors, body control molecules etc.
- 3 **FUEL ECONOMY** - Hybrids - FAME & NEMMP, Light weight solutions.
- 4 **COMFORT & CONVENIENCE** - Connected cars, Telematics.

 GREENFUEL®

Indian Component Industry Development Capability



During the development process, Tata Motors asked suppliers to think out of the box and innovate products and process design.

This approach has resulted in 37 patents being filed to cover innovations in the car and has given Indian Engineers a canvas to showcase their skills and capabilities.



“Hyundai i20, Made in India with European Design feel”

Hyundai exported 286K cars last year with a focus on Europe

 GREENFUEL®



Greenfuel Energy Solutions Pvt. Ltd
 Plot No. 62, Sector 4
 IMT Manesar, Gurgaon 122 050
 T: (91) (0) 124 4999800 | F: (91) (0) 124 4999822
 Email: info@greenfuelenergy.in | url: www.greenfuelenergy.in

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