

# SIAM

Society of Indian Automobile Manufacturers

*Building the Nation, Responsibly*



**ANNUAL REPORT  
2022-23**





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# PRESIDENT'S MESSAGE

The Indian Automotive Industry has always been a key contributor to India's economy. Presently, it contributes to approximately 6.5% of India's overall GDP; 40% of its manufacturing GDP and supports over 30 million direct and indirect jobs in the country. Automotive Industry's overall turnover was about USD 151 Bn (₹12.46 Lakh Crore) in 2022-23 and exported about USD 35.7 Bn worth of vehicles and components during this period.

In 2022-23, we saw robust demand in Passenger Vehicle (PV) and Commercial Vehicle (CV) sectors. Three-Wheelers (3W) have also posted a good growth. Growth in the Two-Wheeler (2W) Industry has been much lower. We expect the industry to grow buoyed by the overall growth trajectory of the Indian economy in the coming years.



- Domestic PV Sales have touched record high of 38.9 lakh units during 2022-23 with a growth of 26.7% compared to 2021-22, surpassing the previous peak of 33.8 lakh units in 2018-19.
- Domestic Sales of CV touched 9.62 lakhs units in 2022-23, with a growth of 34.3% compared to 2021-22, which is the second highest domestic sales ever, behind 10.07 lakhs units sold in 2018-19.
- 158.6 lakh units of 2W were sold in the domestic market during 2022-23, posting a growth of 16.9% over 2021-22. However, it is still below the 2014-15 levels.
- Domestic sales of 3W during 2022-23 was 4.89 lakhs units, a growth of 87% over 2021-22. However, it is still below the 2010-11 levels.
- Indian Automobile Industry also exported 47 lakh units of vehicles during 2022-23, with Passenger Vehicle exports growing by 14.7% over 2021-22. However, all the other three segments, CV, 2W and 3W witnessed a de-growth on Exports by (-)14.8%, (-)17.8% and (-) 26.9%, respectively.

## Sustainable Mobility and De-carbonisation

The clear roadmap laid down by the Government to ultimately reach the target of 'Net Zero' by 2070, as outlined in '*Panchamrit*', announced by the Hon'ble Prime Minister during COP 26 held in Glasgow in 2021, is the guiding factor for the Industry. '*Panchamrit*' also has short-term and mid-term goals for the country which includes, among others, reduction in Carbon intensity. The growth of the Indian Auto industry should be in sync with the vision of 'Green Growth' of the Government of India. Subsequently, Clean Energy solutions in the Transportation sector would play an important role in achieving these goals, as our new vehicles continue to become increasingly decarbonized in production and usage.

In order to align with these targets of Government, Auto Industry adopted BS VI Phase 2 Emission Norms from April 2023, just 3 years after transiting to the stringent BS VI Emission norms in the year 2020. Industry has graduated to the next stage of Fuel Efficiency norms for Passenger Vehicles from the year 2022 and are meeting the new Fuel Efficiency Regulations for Commercial vehicles from April 2023 onwards. I am pleased to note the pace at which Industry has embraced electrification with significant deployment in 2W, 3W, Car and Bus segments. These developments and other Government initiatives have resulted in development and introduction of new products in the market ranging from Electric Vehicles, Hybrid Vehicles, CNG / LNG Vehicles and vehicles capable of operating on Petrol blended with up to 20% of Ethanol, wherever such a fuel is available in the country.

Going forward, Industry would need to continue to build on a strong foundation of Sustainability, Environmental Consciousness and Safety. Alternative fuels can play a pivotal role to power vehicles, reducing the reliance on petroleum imports, lowering greenhouse gas emissions and provide economic and health benefits for multiple Indian stakeholders. Additionally, building an ecosystem that supports multiple low carbon powertrains, ensures safety for the users and enables efficient usage of resources allowing automotive industry to become truly sustainable. Hence, a range of initiatives have been introduced by the Indian Automobile Industry under the aegis of the Society of Indian Automobile Manufacturers (SIAM).

The first is Bio Initiative. SIAM has launched a campaign called **जैविक पहल (Bio Initiative)**, which promotes biofuels produced from renewable biological materials. One such activity which has been very successful has been the **"Sukh Da Saha"** initiative on educating farmers about alternatives to burning crop waste, which can lead to pollution. By promoting the conversion of waste into biofuel or manure, SIAM aims to create awareness on possibility of increased farm income and other benefits related to it.

The second initiative relates to the focus on proliferation of electricity as an alternate fuel i.e. **विद्युतीकरण (Electrification)** that aims to power vehicles with electric batteries, fuel cells and hybrid or plug-in hybrid technologies.

The third initiative is linked to encouraging increased adoption of gas-based fuels through a campaign of **गैस गतिशीलता (Gas Based Mobility)**, which retains the focus on CNG/LNG-based mobility, especially for PV, 3W and CV.

Fourth initiative is the focus on driving Indian mobility using **'Green Hydrogen'** as an alternate fuel through an initiative called **हरित हाइड्रोजन (Hydrogen Mobility)** in alignment with the recently announced Green Hydrogen Mission of Government of India.

The fifth initiative is **चक्रीयता (Circularity)** - an initiative focusing on Recycling and the Circular Economy. This will minimise waste and ensure that resources are used efficiently and sustainably. The

Indian Automobile Industry has already begun on the journey to support recycling of end-of-life vehicles and material circularity across different types of powertrains to foster Environmental Sustainability.

The sixth and final initiative is associated with Road Safety, through a campaign on **सुरक्षित सफर (Safe Journey)**. Safety is the prime pillar in this initiative as India accounts for the highest number of road fatalities worldwide at 11%, despite having only 1% of the world's vehicles. Apart from organizing a Surakshit Safar Pavilion in Greater Noida during Auto Expo 2023, SIAM undertook a major initiative by signing a **MoU on a comprehensive Road Safety Education Curriculum with Kendriya Vidyalaya Sangathan** under the aegis of Ministry of Road Transport & Highways and Ministry of Education. Under this initiative, Road Safety learnings will be imparted to students of Kendriya Vidyalayas across the country through customized modules for different age groups and classes.

In order to showcase the developments undertaken by the Auto Industry on Sustainability, SIAM organised **Sustainable Mobility Pavilion** at the **India Energy Week 2023** held in Bangalore from 6<sup>th</sup> - 8<sup>th</sup> February 2023 and also coinciding with the **Clean Energy Ministerial** at Goa from 19<sup>th</sup> - 22<sup>nd</sup> July 2023. Multiple member OEMs showcased their vehicles covering Electrified, Hydrogen, CNG and Biofuel Powertrains at these events. In addition, SIAM had also supported the In order to showcase the developments undertaken by the Auto Industry on Sustainability, SIAM organised Sustainable Mobility Pavilion at India Energy Week 2023 held in Bangalore from 6<sup>th</sup> - 8<sup>th</sup> February 2023 and also coinciding with the **Clean Energy Ministerial** at Goa from 19<sup>th</sup> - 22<sup>nd</sup> July 2023. Multiple member OEMs showcased their vehicles covering Electrified, Hydrogen, CNG and Biofuel Powertrains at these events. In addition, SIAM had also supported the **"Green Mobility Rally"**, organized by HPCL and flagged off by Hon'ble Prime Minister, Shri Narendra Modi, coinciding with the India Energy Week 2023 at Bangalore.

### Localisation Initiatives

Auto Industry continued to focus on increasing its localisation content and several new projects were commissioned in the entire value chain of the Auto Industry with a focus on 'Make in India'. For the 11 key items imported for manufacturing of vehicles in India, the Automotive Industry had set a target for itself to reduce the import content by 3-5% in 2 years and by 16-20% in 5 years, from the base year of 2019-20.

A detailed exercise was undertaken this year to ascertain the performance of the Industry, in terms of increasing its share of localisation content in partnership with ACMA. The exercise revealed that despite several disruptions the Auto Industry faced in the years 2020 and 2021, ranging from COVID to Semi-conductor shortage to Freight cost increase, significant progress has been made to reduce the import contents. For the 11 key items, a net equivalent increase in localisation of 5.8% was achieved by the industry in the past 2 years, resulting in a net equivalent import reduction of about ₹7,018 Crores. Reduction in imports was noted in Engine Components, Electricals, Electronics, Tyres, Tools and Dies, Fasteners, Rubbers and Iron & Steel. The overall share of imports in the automotive industry was about 25.56% in 2019-20, which has reduced to 21.69% in 2021-22, a reduction of



3.86%, in the overall share of imports in auto sector in two years. While the growth in industry turnover between these two years has been 27.9%, the growth in imports was only 8.7%, clearly indicating that efforts by the industry of Making in India and Making in India for the World are yielding results.

### **Auto Expo - The Motor Show 2023**

After a period of 3 years, SIAM successfully organised Auto Expo from 13<sup>th</sup> to 18<sup>th</sup> January 2023 at Greater Noida, Delhi NCR. 114 Exhibitors participated in the show, which included display of vehicles by 50 vehicle manufacturers. The show was organised over a total area of 58,000 sq. mt and witnessed a footfall of 6,36,743 visitors, which is the highest ever visitor turnout at the Auto Expo, after the venue was shifted in the year 2014, to India Expo Mart, Greater Noida.

During the show, Auto Industry demonstrated its commitment to adhering to the Government's overall 'Green Growth' agenda. What clearly stood out at the Auto Expo - Motor Show 2023 was an excellent showcase of vehicles using different power-train technologies ranging from Gaseous Fuels like CNG / LNG, to Bio-Fuels like Ethanol or Flex Fuel Vehicles, to Electric Vehicles including Battery Electric & Hybrid, to even Hydrogen ICE and Fuel Cell vehicles. The message from the industry is clear - we are aligned and ready to work towards national and global priorities for sustainable transportation.

### **Key Highlights of 2022-23**

During the year, under the aegis of SIAM, we have continued efforts to further strengthen and deepen Industry's engagement with the Government at the highest level. There are several critical policy areas wherein Government has accepted / accommodated SIAM's request on behalf of the industry, these go a long way to support seamless adoption of new standards. Some of these are outlined below:

- On Board Diagnostics II (OBD II) for 2W & 3W which was earlier notified for implementation in a single phase from 1<sup>st</sup> April 2023, would now be implemented in 2 phases, from 1<sup>st</sup> April 2023 (OBD II-A) and 1<sup>st</sup> April 2025 (OBD II-B). The final notification was issued in November 2022 which proved to be a major relief for the 2W and 3W Industry.
- Based on Industry request, SIAM was able to get additional time for implementing some important regulations impacting the Auto Industry:
  - The Wheel Rim Quality Control Orders (QCO), which was to be implemented from 22<sup>nd</sup> June 2023, was deferred by six months, to 22<sup>nd</sup> December 2023.
  - The deadline for meeting the mandatory Safety parameters of Battery Pack, Battery Management System and Cells of Electric Vehicles for seeking incentives under Production Linked Incentive (PLI) Scheme for Auto and Auto Component, Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME II) Scheme and PLI Scheme for Advanced

Chemistry Cells (ACC) was extended to 1<sup>st</sup> October 2023, as against the earlier notified date of 1<sup>st</sup> April 2023.

- Department of Consumer Affairs has deferred the implementation of revised legal metrology Packaged Commodity Amendment Rules to 1<sup>st</sup> October 2023, as against the earlier notified date of 30<sup>th</sup> September 2022. This would provide additional time to manufacturers to ensure that 'Date of Manufacturing' is mentioned in the packaged spare parts sold in the aftermarket.
- Implementation of REESS (Rechargeable Energy Storage System) for 15 items of 'M' & 'N' Category EVs has been deferred from 1<sup>st</sup> October 2022 to 1<sup>st</sup> December 2022 (10 items) and 31<sup>st</sup> March 2023 (5 Items). Further, for 17 items of 'L' category EVs, implementation has been deferred from 1<sup>st</sup> October 2022 to 1<sup>st</sup> December 2022 (8 items) and 31<sup>st</sup> March 2023 (9 Items).
- Extension of implementation timeline for new designs of Tyres to be fitted on Motor Vehicles for compliance to Rolling Resistance /Wet grip requirements from the earlier notified date of 1<sup>st</sup> April 2023 for existing design of tyres and 1<sup>st</sup> October 2022 for new designs of Tyres to one single date of 1<sup>st</sup> January 2024. Similarly, for compliance to Tyre Noise requirement of Rolling Sound which was to be earlier implemented from 1<sup>st</sup> June 2023 for existing design of tyres and 1<sup>st</sup> October 2022 for new designs of Tyres, to one single date of 1<sup>st</sup> October 2024.
- Deadline for mandatory installation of Fire Alarm & Protection System (FAPS) in all Type III and School Buses for Passenger compartment was extended to 1<sup>st</sup> October 2023, from earlier notified date of 26<sup>th</sup> January 2023 and would be applicable for both OEMs and Body Builders.
- 10,000 vehicles per OEM, per financial year, and 5,000 Safety Glasses per OEM per financial year were exempted for repairs or after sales service of vehicles, from the QCO on Safety Glass.
- Fuel Efficiency Norms for Heavy, Medium and Light Duty norms have been finalised based on 'Constant speed fuel consumption test' for all M and N category vehicles excluding tippers, with gross vehicle weight more than 3.5 tonnes from 1<sup>st</sup> April 2023.
- Exclusion of prices of Cells, Semiconductors, Rare-Earth metals etc. for minimum 50% Domestic Value Addition (DVA) calculation in the PLI scheme.
- GST Council, on request from SIAM, clarified that higher Compensation Cess of 22% would only be applicable to only those Utility vehicles which meets all the criteria viz. which have Engine size >1500 cc, ground clearance >170 mm and length >4000 mm.
- Revised Guidelines for Environmentally Sound Facilities for Handling and Scrapage of End-of-Life Vehicles was released incorporating many of SIAM's recommendations.
- Revised Gas Pricing guidelines were issued on Industry request, which has subsequently resulted in softening of CNG prices in India.

- Based on the submissions of SIAM, Chandigarh Administration has substantially reduced the targets for quota of EVs from 70% to 25% for e2-Wheelers. This has enabled registration of Two-Wheeler ICE vehicles to continue for some more time this year, in Chandigarh.
- Testing protocols for the newly launched Bharat New Car Assessment Program (BNCAP) has been finalised based on SIAM's recommendations. This would be a "Voluntary" programme effective 1<sup>st</sup> October 2023.

### **International Engagements**

SIAM continued its active participation in both International Motor Vehicle Manufacturers Association (OICA) and International Motorcycle Manufacturers Association (IMMA). SIAM also actively participated at meetings of UN WP. 29 and its various GR groups and worked on Harmonisation of Vehicle regulations. Annual SIAM - JAMA meeting was organized for discussing wide range of issues covering safety and emissions regulations pertaining to various vehicle segments, in India and Japan.

SIAM successfully signed MoU with US Grains Council for sustaining the discourse about ethanol adoption in India and creation of avenues for information transfer.

SIAM has been engaged very closely with various International Organisation viz, Ceylon Motor Traders Association (CMTA), Sri Lanka, Bangladesh Automobiles Assemblers and Manufacturers Association (BAAMA) and Nepal Automobile Dealers Association (NADA). SIAM continued to work closely with the German Automotive Industry Association, VDA and participated in Indo-German Joint Working Group discussions with Ministry of Heavy Industry and German Government. During the year SIAM also interacted with Society for Motor Manufacturers & Traders, UK, (SMMT); African Association of Automotive Manufacturers (AAAM), Association of Motorcycle Industry of Indonesia (AISI), European Automobile Manufacturers' Association (ACEA), among others.

### **Society for Automotive Fitness & Environment (SAFE)**

SIAM - SAFE has been carrying out various public policy activities in the field of road safety and the environment on the principles of 4Es viz., Engineering, Education, Enforcement & Emergency Care.

The SAFE Annual Convention and Mobility Expo which was held on 29-30<sup>th</sup> September 2022 at Bhubaneshwar. Hon'ble Chief Minister Shri Naveen Patnaik inaugurated the event, wherein the 5Es - the fifth being 'Environment' were discussed under various thematic sessions. The event was well received and adequate focus on demand and enforcement was brought in with coverage from social media and print media on the contribution made by Auto industry towards road safety. During the year 2022-23, SIAM-SAFE also supported Delhi Traffic Police in the area of educating school & college students on roads safety and organized demonstrations in Surakshit Safar Pavilion to spread awareness about road safety.



## Conclusion

As we conclude this year, I would like to extend my sincere appreciation and gratitude to Senior Government officials, Policy Makers, Friends in the Media, SIAM members including Past Presidents, members of the Executive Committee and colleagues in the SIAM Secretariat, who stand behind this dynamic industry and truly help us live up to our stated aim of Building the Nation, Responsibly.

Jai Hind and with warm regards,

Vinod Aggarwal  
President



**Mr Vinod Aggarwal**

President, SIAM and  
Managing Director & CEO,  
Volvo Eicher Commercial  
Vehicles Limited



**Mr Shailesh Chandra**

Vice President, SIAM and  
Managing Director,  
Tata Motors Passenger Vehicles Ltd.  
& Tata Passenger Electric Mobility Ltd.



**Mr Satyakam Arya**

Treasurer, SIAM and  
CEO & Managing Director,  
Daimler India Commercial Vehicles  
Pvt. Ltd.



1<sup>st</sup> International Symposium for Thriving Eco-Energy in Mobility (Istem) during Auto Expo – The Motor Show 2023



MoU Signing Ceremony between SIAM and Kendriya Vidyalaya Sangathan (KVS)



Inaugural Ceremony of Auto Expo – The Motor Show 2023

# SIAM

The Society of Indian Automobile Manufacturers (SIAM) is an apex national body representing all major vehicle and vehicular engine manufacturers (45 companies) in India. It is a society with charitable objectives registered under the Societies Registration Act, 1860. Its objectives include enhancing the contribution of automobile industry to the growth and development of Indian economy, assisting the automobile industry to meet its social obligations and encouraging the efficiency of industry in general and automobile industry particularly in India. SIAM focuses on activities related to improvement of environment and ensuring safety and protection of automobile vehicle users and public at large. Recognising these objectives, SIAM has been granted registration under the Income Tax Act, 1961 as an institution with charitable purpose.

To meet these objectives, SIAM works closely with stakeholders in the formulation of the economic and commercial policies, regulations and standards relating to automobiles. It provides economic and statistical information as well as technical and public policy services to the stakeholders on behalf of Indian Automobile Industry. It publishes Monthly Industry Statistics, Monthly Commodity Price Monitor and other periodic reports. SIAM organises seminars and workshops on the subjects of topical relevance and interest to the industry. It also carries out various public policy activities, particularly in the field of Road Safety and Environment.

SIAM works closely with various Government departments, both at Central and State level and with international bodies like International Organisation of Motor Vehicle Manufacturers (OICA), International Motorcycle Manufacturers Association (IMMA) and coordinate with other counterpart international associations.

SIAM, jointly with ACMA and CII organises Auto Expo, a widely awaited biennial auto exhibition showcasing the trends in the Auto Industry. SIAM also organises regional, as well as segment specific shows across the country.

SIAM aims to promote trade, competitiveness, expansion of market, safety, environment compliance and growth with responsibility.

# Performance of The Automobile Industry in 2022-23

## Production

The industry produced a total of 2,59,31,867 vehicles including Passenger Vehicles, Commercial Vehicles, Three Wheelers, Two Wheelers, and Quadricycles in April 2022 to March 2023, as against 2,30,40,066 units in April 2021 to March 2022.

## Domestic Sales

Total Passenger Vehicle Sales increased from 30,69,523 to 38,90,114 units. Sales of Passenger Cars also increased from 14,67,039 to 17,47,376, Utility Vehicles from 14,89,219 to 20,03,718 and Vans 1,13,265 to 1,39,020 units, in FY-2022-23, compared to the previous year.

The overall Commercial Vehicles sales increased from 7,16,566 to 9,62,468 units. Sales of Medium and Heavy Commercial Vehicles increased from 2,40,577 to 3,59,003 units and Light Commercial Vehicles increased from 4,75,989 to 6,03,465 units, in FY-2022-23, compared to the previous year.

Sales of Three Wheelers increased from 2,61,385 to 4,88,768 units, in FY-2022-23, compared to the previous year.

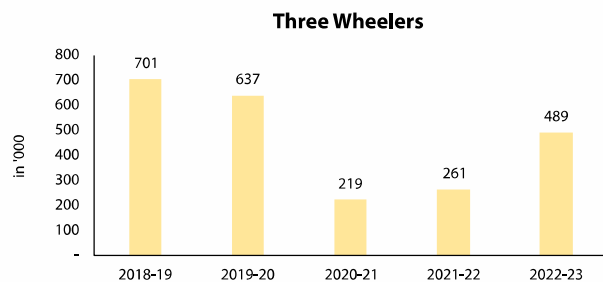
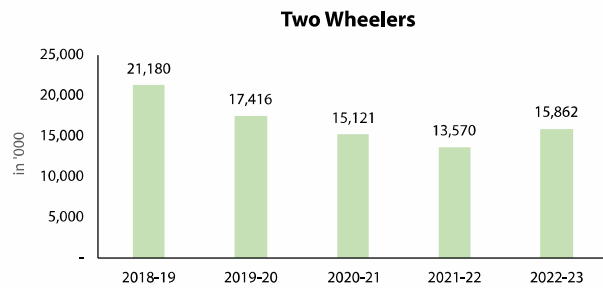
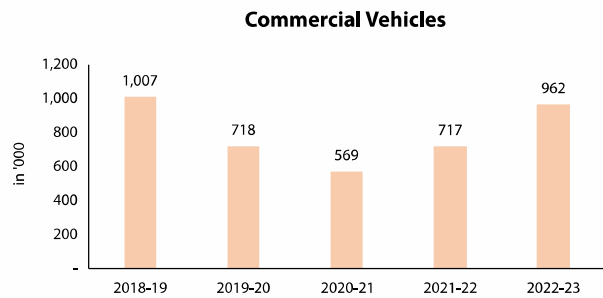
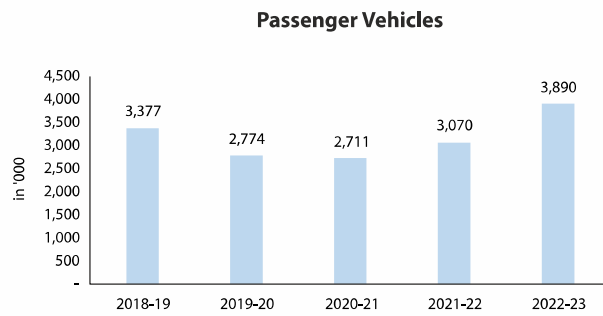
Two Wheelers sales increased from 1,35,70,008 to 1,58,62,087 units, in FY-2022-23, compared to the previous year.

## Exports

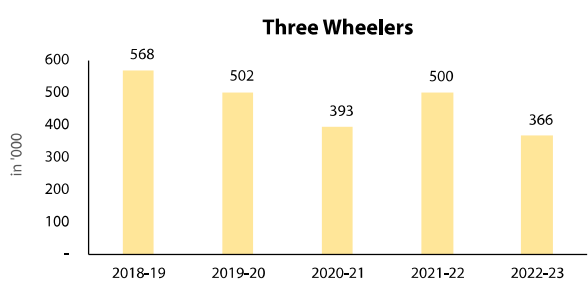
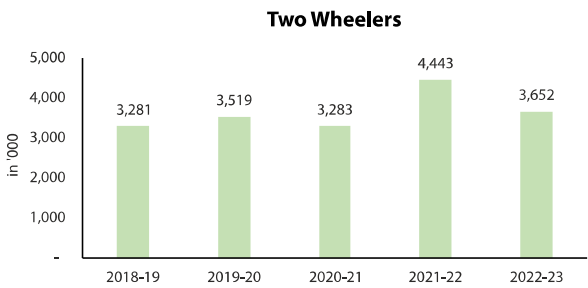
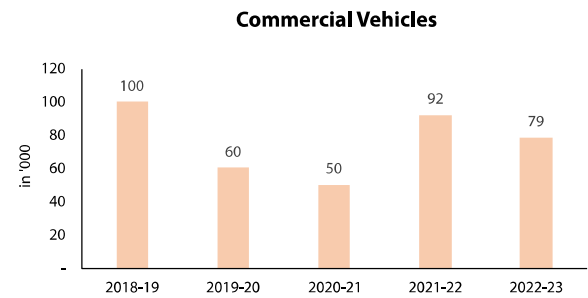
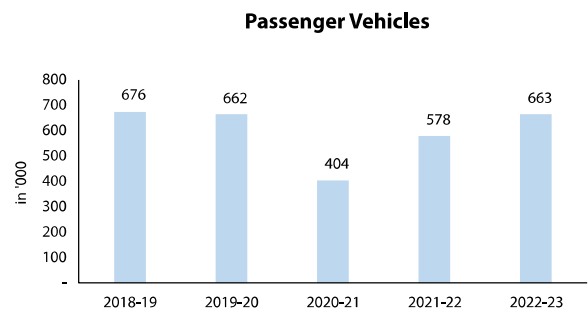
In April 2022 to March 2023, Passenger Vehicle Exports increased from 5,77,875 to 6,62,891 units while Commercial Vehicle Exports decreased from 92,297 to 78,645, Three-Wheeler Exports decreased from 4,99,730 to 3,65,549 and Two Wheelers Exports decreased from 44,43,131 to 36,52,122 units over the same period last year.



## Domestic Sales Trends



## Exports Trends



Automobile Production Trends					
(Number of Vehicles)					
Category	2018-19	2019-20	2020-21	2021-22	2022-23
Passenger Cars	2,711,160	2,156,868	1,772,972	1,844,985	2,184,844
Utility Vehicles	1,099,780	1,136,209	1,182,144	1,691,081	2,253,272
Vans	217,531	131,487	107,164	114,632	140,523
<b>Total Passenger Vehicles</b>	<b>4,028,471</b>	<b>3,424,564</b>	<b>3,062,280</b>	<b>3,650,698</b>	<b>4,578,639</b>
M&HCVs	444,356	232,414	181,242	272,167	379,259
LCVs	668,049	524,311	443,697	533,360	656,367
<b>Total Commercial Vehicles</b>	<b>1,112,405</b>	<b>756,725</b>	<b>624,939</b>	<b>805,527</b>	<b>1,035,626</b>
<b>Three Wheelers</b>	<b>1,268,833</b>	<b>1,132,982</b>	<b>614,613</b>	<b>758,669</b>	<b>855,696</b>
Scooters	7,095,164	6,027,198	4,559,222	4,457,790	5,601,501
Motorcycles	16,499,424	14,356,051	13,154,501	12,890,149	13,421,208
Mopeds	905,189	649,678	636,218	473,172	436,300
<b>Total Two Wheelers</b>	<b>24,499,777</b>	<b>21,032,927</b>	<b>18,349,941</b>	<b>17,821,111</b>	<b>19,459,009</b>
<b>Quadricycle</b>	<b>5,388</b>	<b>6,095</b>	<b>3,836</b>	<b>4,061</b>	<b>2,897</b>
<b>Grand Total</b>	<b>30,914,874</b>	<b>26,353,293</b>	<b>22,655,609</b>	<b>23,040,066</b>	<b>25,931,867</b>

Automobile Domestic Sales Trends					
(Number of Vehicles)					
Category	2018-19	2019-20	2020-21	2021-22	2022-23
Passenger Cars	2,218,489	1,695,436	1,541,866	1,467,039	1,747,376
Utility Vehicles	941,474	945,959	1,060,750	1,489,219	2,003,718
Vans	217,426	132,124	108,841	113,265	139,020
<b>Total Passenger Vehicles</b>	<b>3,377,389</b>	<b>2,773,519</b>	<b>2,711,457</b>	<b>3,069,523</b>	<b>3,890,114</b>
M&HCVs	390,732	224,428	160,688	240,577	359,003
LCVs	616,579	493,165	407,871	475,989	603,465
<b>Total Commercial Vehicles</b>	<b>1,007,311</b>	<b>717,593</b>	<b>568,559</b>	<b>716,566</b>	<b>962,468</b>
<b>Three Wheelers</b>	<b>701,005</b>	<b>637,065</b>	<b>219,446</b>	<b>261,385</b>	<b>488,768</b>
Scooters	6,701,430	5,565,958	4,482,305	4,112,672	5,190,018
Motorcycles	13,598,190	11,213,662	10,021,231	8,984,186	10,230,502
Mopeds	880,227	636,812	617,247	473,150	441,567
<b>Total Two Wheelers</b>	<b>21,179,847</b>	<b>17,416,432</b>	<b>15,120,783</b>	<b>13,570,008</b>	<b>15,862,087</b>
<b>Quadricycle</b>	<b>627</b>	<b>942</b>	<b>(12)</b>	<b>124</b>	<b>725</b>
<b>Grand Total</b>	<b>26,266,179</b>	<b>21,545,551</b>	<b>18,620,233</b>	<b>17,617,606</b>	<b>21,204,162</b>

Automobile Exports Trends					
(Number of Vehicles)					
Category	2018-19	2019-20	2020-21	2021-22	2022-23
Passenger Cars	513,912	475,801	264,907	374,986	413,787
Utility Vehicles	158,251	183,468	137,842	201,036	247,493
Vans	4,029	2,849	1,648	1,853	1,611
<b>Total Passenger Vehicles</b>	<b>676,192</b>	<b>662,118</b>	<b>404,397</b>	<b>577,875</b>	<b>662,891</b>
M&HCVs	48,676	22,333	17,548	32,181	22,067
LCVs	51,257	38,046	32,786	60,116	56,578
<b>Total Commercial Vehicles</b>	<b>99,933</b>	<b>60,379</b>	<b>50,334</b>	<b>92,297</b>	<b>78,645</b>
<b>Three Wheelers</b>	<b>567,683</b>	<b>501,651</b>	<b>393,001</b>	<b>499,730</b>	<b>365,549</b>
Scooters	398,316	369,998	232,020	350,443	416,935
Motorcycles	2,865,851	3,135,548	3,042,453	4,082,442	3,230,981
Mopeds	16,674	13,859	8,313	10,246	4,206
<b>Total Two Wheelers</b>	<b>3,280,841</b>	<b>3,519,405</b>	<b>3,282,786</b>	<b>4,443,131</b>	<b>3,652,122</b>
<b>Quadricycle</b>	<b>4,400</b>	<b>5,185</b>	<b>3,529</b>	<b>4,326</b>	<b>2,280</b>
<b>Grand Total</b>	<b>4,629,049</b>	<b>4,748,738</b>	<b>4,134,047</b>	<b>5,617,359</b>	<b>4,761,487</b>

## Global Auto Industry Performance in 2022

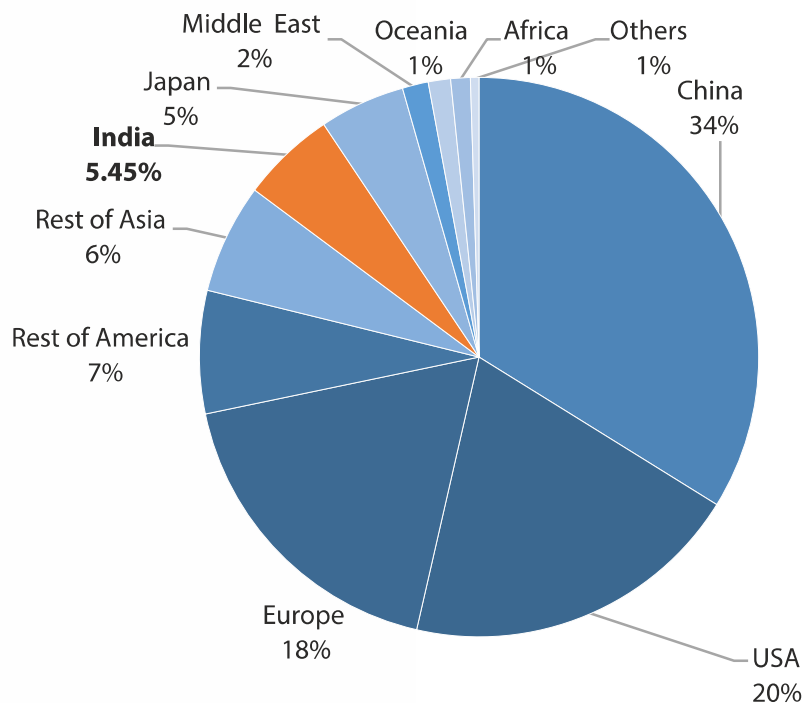
The Auto Industry is one of the most critical drivers of world economic growth, supporting a vast supply chain and generating massive employment.

**Sales Performance of Global Passenger Vehicles:** Overall Passenger Vehicles sales globally in 2022 is estimated to be about **69.9 Mn units**. Passenger Vehicles sales in China was about **23.6 Mn units** with a global share of

about 34%, followed by USA with **13.7 Mn units** with a global share of about **20%** in 2022.

In terms of share in Global Passenger Vehicles sales, **53%** of sales are from the Asian / Oceania / Middle East Countries, followed by North America and Europe. In 2022, India was the **3<sup>rd</sup> largest** Passenger Vehicles market with sales of **3.8 Mn units** with a global share of **5.4%** behind China and USA, surpassing Japan.

Passenger Vehicles Sales- Region wise

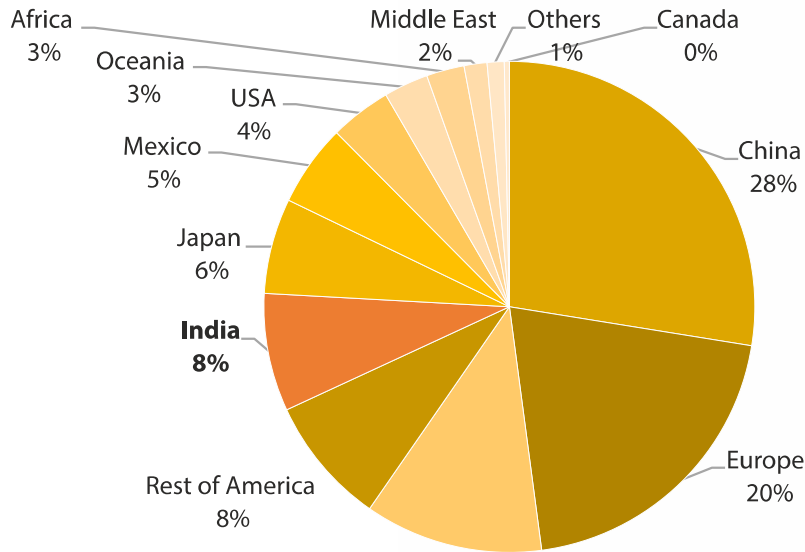


Source: SIAM Analysis of OICA and Wards Auto Data

**Sales Performance of Global Commercial Vehicles:** Overall Commercial Vehicles sales globally in 2022 is estimated to be about **12 Mn units**. Commercial Vehicles sales in China was

about **3.3 Mn units** with a global share of about **27.5%**, followed by India with **0.9 Mn units** with a global share of about **7.8%** in 2022.

### Commercial Vehicles Sales- Region Wise

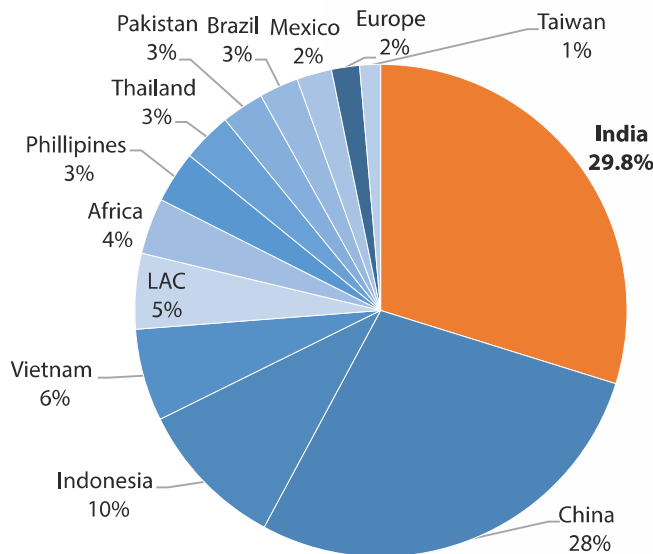


Source: SIAM Analysis of OICA and Wards Auto Data

**Two Wheelers:** Since Two Wheelers are convenient and affordable mode of transport, this segment is majorly used by the masses in developing economies for personal mobility. Overall, Two Wheelers sales globally in 2022 are estimated to be about **55 Mn** units.

India is one of the largest Two Wheelers market in the world with sales of about 16 Mn units and a global share of about 30%, followed by China with 15.25 Mn units with a global share of about 28% in 2022. The other two large markets for Two Wheelers are Indonesia and Taiwan with a global share of 10% and 6% respectively.

### Two Wheelers Sales- Region Wise



Source: SIAM Analysis of DNA Consultant Report, ACEM Statistical Data and Other Sources

## Building the Nation, Responsibly

The Indian Automobile industry is central to the country's economy, affordable mobility solution, employment generation and for attaining global stature.

The industry is contributing around 6.5% of the country's GDP, employing over 4 million people directly and approximately 27 million people indirectly, through the backward and forward linkages.

India is amongst the top-2 Two-Wheeler manufacturers, 4<sup>th</sup> largest Passenger Vehicle manufacturer, 6<sup>th</sup> largest Light Commercial Vehicle and largest Three-Wheeler manufacturer in the world.

We have accomplished this through the initiatives that the industry has undertaken over the years, especially the last 15 years in:

- democratising mobility through public and private transport
- fostering "Brand India" worldwide
- ensuring energy security
- cohabiting with other industries
- adopting global standards in emissions, safety and manufacturing
- building sustainable communities
- facilitating continuous skill upgradation
- increasing consumer consciousness
- encouraging social green, sustainable development and environment conservation
- promoting Automotive Engineering prowess globally

The industry is the driver of growth for our country, from being one of the biggest employment generating sectors in India, to being one of the largest R&D and manufacturing hubs in the world. The Indian Auto Industry moves a billion people daily, for livelihood and recreation alike, and every single movement from one point to another, ends up adding to the economic activity and income generation. Over the years, the success story of India has been written through this sector's determination and dream to provide mobility to our masses and goods, and therefore, bridging the gap between urban and rural landscape. We have come a long way in our journey from making mobility an aspirational thought, to an affordable reality.

It was through such united and empathetic efforts, the industry stood in solidarity for **Building the Nation, Responsibly.**

# SIAM Annual Activities & Milestones

## August 2022

- 57<sup>th</sup> Emission and Conservation Group Meeting
- Penalty and Carbon trading meeting with members
- MNRE meeting on Regulations and Standards on Green Hydrogen as transport fuel
- Meeting on Fire Protection system on Cvs
- 2W Group discussion on OBD II Implementation
- "SIAM 1<sup>st</sup> MASTER CLASS Expert talk by Mr Brian West on "US experience on usage of Higher Blends of Ethanol in Transportation""
- Industry 4.0 workshop with IMT Ghaziabad
- National Logistics Policy meeting with PWC for MMLP framework
- Inter-Ministerial Committee Meeting on Pneumatic Tyre
- Monthly Economic Monitors
- Automotive Logistics Conclave 2022
- Taxation Group Meeting at Lonavla2
- Monthly Industry Data Release
- **Retrofitment regulation for use of CNG / LPG Kit for 'In-use BS-VI vehicles' for vehicle categories L, M & N with GVW < 3.5 tonnes, has been made more stringent in line with SIAM recommendations, which includes defining parameters for In-Service Conformity, IUPR (In-use Performance Ratio) and Emission tests.**

## September 2022

- Expert talk by Dr Plinio Nastari on Ethanol
- 6<sup>th</sup> Meeting of MNRE Subgroup III: Hydrogen Fuelled Mobility Applications
- CRC and POPRC briefing by BRS conventions
- AISC Alternate fuel panel meeting for AIS 195 for Hydrogen
- SIAM 2W Group Meeting for Finalisation of SIAM 2W CAFÉ Position
- SIAM 2W Group Meetings to discuss and finalise position on AIS-156n
- 62<sup>nd</sup> SIAM Annual Convention & 24<sup>th</sup> SIAM Annual General Meeting
- Future CAFÉ target setting subgroup meeting
- SAFE Annual Convention 2023 at Odisha
- SIAM Workshop on Automobile Technology, Regulations, and Policy Support at Odisha
- Monthly Economic Monitor
- Capacity Building Session on International Trade and Exports
- Monthly Industry Data Release
- **HDFE & LMDFE norms have been finalised based on 'Constant speed fuel consumption test' for all M and N category vehicles excluding tipper, with gross vehicle weight more than 3.5 tonnes from 1<sup>st</sup> April 2023, in line with SIAM recommendations**
- Implementation of REESS (Rechargeable Energy Storage System):.
- AIS 38 (For 'M' & 'N' category EVs) Revision 2 Amendment 3 to be implemented in two phases i.e., from 1<sup>st</sup> December 2022 for 10 items and 31<sup>st</sup> March 2023 for 5 Items, instead of 1<sup>st</sup> October 2022 as mandated earlier. This is in line with some of the SIAM recommendations.
- AIS 156 (For 'L' category EVs) Amendment 3 to be implemented in two phases i.e., from 1<sup>st</sup> December 2022 for 8 items and 31<sup>st</sup> March 2023 for 9 items, instead of 1<sup>st</sup> October 2022 as mandated earlier. This is in line with some of the SIAM recommendations.

## October 2022

- SIAM ENC Group Meeting of Aerodynamic Panel under Bharat Vecto
- ENC Group Meeting on Discussion on CAFE Penalty Proposal on Energy Conservation Amendment Bill
- UNICA Meeting on COE MOU
- Synthetic fuel development meeting with HPCL
- Discussion on 2W CAFE Regulation with ICAT
- M15 & E20 joint project with ARAI and IOC Brainstorming session
- International Conference on 'Biofuels: A Pathway Towards Sustainable Future'
- 6<sup>th</sup> SIAM JAMA Meeting on Emissions
- Meeting with ARAI on M 15 project
- Meeting on the MMLP study under the National Logistics Policy
- Monthly Economic Monitor
- Quarterly Press Conference on Industry data

## November 2022

- SIAM ENC Auxiliary and Transmission Panel Meeting under Bharat Vecto
- SIAM Recycling Group Meeting on Amend 2 on AIS 129 with ARAI/AISC
- SIAM CV CEO Council Meeting
- Recycling Group Meeting to discuss implementation of BWMR2022 with CPCB
- SIAM 2W Group Meeting on E20 Initial Report Discussion
- Technology Demonstration "Ethanol Adoption-Flex Fuel Vehicles in India"
- SIAM-IPSF- IOCL meeting on Stubvorus Digester
- CII ASCON meeting on Sustainability
- Sukh da Saah 2022 TV Campaign
- Sukh da Saah 2022 Radio Campaign
- UNICA meeting on COE MOU
- Brainstorming on possible project in India focusing on POPs in Vehicles
- MoEF&CC meeting on circularity in special category waste, through EPR regime
- Meeting with officials of CEEW on EOL for Refrigerants
- Monthly Economic Monitor
- Delegation Visit to Bangladesh
- Meeting with Finance Minister on Pre-Budget Recommendations from Auto Industry
- Monthly Industry Data Release
- **OBD II for Two Wheelers & Three Wheelers was earlier notified for implementation in a single phase from 1<sup>st</sup> April 2023.**

## December 2022

- SIAM JAMA Fuel Sub-group Meeting
- MoEF&CC meeting on "Circularity in Special Category Waste" through Extended Producer Responsibility (EPR) based market mechanism with Secretary Ms. Leena Tandon
- SIAM 2W Group Meeting on Nagpur HC 2 Wheelers - Helmets Case SIAM Position and further action finalisation
- Technology Demonstration "Ethanol Adoption-Flex Fuel Vehicles in India"
- 'सुरक्षित सफर' ( Safe Journey) : SAFE Mobility Program, New Delhi
- Meeting with Secretary, Consumer Affairs on Legal Metrology Rules
- Monthly Economic Monitor
- Economic Research Group Meeting
- Exports Group Meeting
- Monthly Industry Data Release
- **FFV 2-Wheelers Tech Demo organised and inaugurated by Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport and Highways**

## January 2023

- Auto Expo - The Motor Show 2023
- National Road Safety Week 2023
- Meeting with Ministry of Steel for Constitution of a Committee to decide Reserve Price (RP) of all types of ELVs
- PCD divisional council meeting
- MoPNG meeting on E20
- Technical Committee for Development of Fuel Efficiency norms for Passenger Cars and monitoring the implementation of CAFE phase-II norms
- Development of Heavy Duty Fuel Economy norms for subsequent phases at BEE
- SIAM International Conference on " Sustainable Circularity: Recycling in Indian Mobility Context"
- 2<sup>nd</sup> Global Electrification Mobility Summit (GEMS)
- 17<sup>th</sup> Styling & Design Conclave
- International Symposium for Thriving Eco-Energy in Mobility (ISTEM)
- PCD 3:1 Panel 4 meeting
- 'सुरक्षित सफर' ( Safe Journey) : Road Safety Pavillion at Auto Expo 2023
- Monthly Economic Monitor
- Looking Ahead Conclave 2023
- Auto Trade Dialogue 2023
- Monthly Industry Data Release
- **Highlighted Industry contribution to the economy**

## February 2023

- SIAM Recycling and Service Group Meeting with UP Transport Department on proposal to create RVSF Facility in Uttar Pradesh
- Meeting on EPR for waste oil with MoEF&CC
- SIAM ENC Group Discussion on SIAM submission on AIS 175 Draft D1

- Meeting with UNEP to discuss Phasing out of POPs in Vehicles: Potential project in India
- SIAM 2W Group Meeting with Director, ARAI on Development of CAFÉ Norms for 2W
- Brainstorming session on way forward for Development of CAFE norms for 2W
- Gas Based Mobility Group Meeting
- 3W Group Meeting to discuss on AIS 137 (Part -2) amendment-3 : Water Injection System
- 13<sup>th</sup> SIAM 3W Group Meeting
- 'सुरक्षित सफ़र' ( Safe Journey) : Road Safety Initiative with Delhi School Students Validictory Program, New Delhi
- UNEP Closed Door Discussion on Moving the Global Agenda on Cooling-Refrigerants
- Monthly Economic Monitor
- ERG Closed Group Meeting with Mr Bhargava
- Release of Union Budget 2023 - Submission of Post Budget Memorandum to MoF
- Monthly Industry Data Release

## March 2023

- IMMA - Interactive Session on Regional Market Developments
- IMMA Steering Committee Meeting
- IMMA Technical Committee Meeting
- IMMA Road Safety Working Group meeting
- 12<sup>th</sup> SIAM-JAMA 2W Meeting
- Electric Mobility Group Meeting
- 58<sup>th</sup> SIAM Emission and Conservation Group Meeting
- Meeting on EPR for Non-Ferrous Metals (Al, Cu, Pb, Zn) by Ministry of Mines
- SIAM host IMMA Annual General Meeting at New Delhi
- Logistics Group Meeting
- Monthly Economic Monitor
- Sourcing Group Meeting
- SIAM visit to VDA Technical Congress
- Monthly Industry Data Release
- JAMA Technical and IMMA - Annual Meetings organised by SIAM in India
- The MoEF&CC (CPCB) released the revised Guidelines for Environmentally Sound Facilities for Handling and Scrappage of End-of-Life Vehicles. This is in line with the recommendations from SIAM.
- Ministry of Commerce and Industry has exempted 10,000 vehicles per OEM per financial year and 5000 safety glasses per OEM per financial year for repairs or after sales service of vehicles, from the QCO on Safety Glasses

## April 2023

- ENC Group Meeting to define SIAM proposals on CAFE related Action Points: 4W
- ENC Group meeting with ARAI/ICAT to Discuss RDE ISC Proposal by SIAM for AIS-175 WLTP inclusion
- Meeting of Sustainable Mobility Group
- PCD 3:1 meeting of BIS
- PCD 3:5 meeting of BIS
- CMVR & Safety Regulation Group Meeting
- Roundtable Discussion On Market Needs to Transition to Low GWP Refrigerants to Implement Kigali Amendment in India
- 3W Technical Group discussion on AIS 137 (Part -2) amendment-3 : Water Injection System - Revised Submission
- 'सुरक्षित सफ़र' ( Safe Journey) : Meeting With Odisha Transport Department
- Monthly Economic Monitor
- Completion of Localisation Assessment Study
- Exports Group Meeting
- Quarterly Press Conference on Industry data
- Ministry of Petroleum & Natural Gas has issued new Gas Pricing guidelines which led to softening of prices in India for CNG. This is in line with the recommendations from SIAM.
- Testing parameter for Electric Vehicles incentivised under PLI and FAME II schemes of the Ministry of Heavy Industries (MHI) extended to 1<sup>st</sup> October 2023, as against the earlier notified date of 1<sup>st</sup> April 2023
- Ministry of Road Transport & Highways issued the Final Notification G.S.R 337 (E) mandating installation of Fire Alarm & Protection System (FAPS) in all Type III and School Buses for Passenger compartment from 1<sup>st</sup> October 2023 as against the earlier notified date of 26<sup>th</sup> January 2023. This applies for both OEMs and Body Builders. These are in line with the recommendations from SIAM.
- Highest ever PVs sales in FY-22-23

## May 2023

- Implementation Committee meeting under Battery Waste Management

- Rules, 2022 with CPCB
- Rosmerta RVSF Facility Visit
- 13<sup>th</sup> SIAM Recycling and Material Group Meeting
- Roundtable Discussion on Low GWP Refrigerants to Implement Kigali Amendment in India:24.5.2023
- SIAM 2W Group Meeting on Wheel RIM QCO Exemption Proposal Finalisation
- 52<sup>nd</sup> 2-Wheeler Group Meeting
- 61<sup>st</sup> CMVR-TSC Meeting
- 65<sup>th</sup> SCOE Meeting
- Electric Mobility Group Meeting
- Meeting withh CPCB officials & SIAM members on EPR in BWMR & other waste
- 'सुरक्षित सफ़र' ( Safe Journey): Observance of UN Global Road Safety Week 2023
- 'सुरक्षित सफ़र' ( Safe Journey): Meeting With UP Transport Department
- Meeting with Secretary, Consumer Affairs on Legal Metrology Rules
- Monthly Economic Monitor
- Meeting with Railway Board
- Taxation Group Meeting
- Monthly Industry Data Release
- Testing Agencies asked by MoRTH to start the testing of 3W for which it was put on halt from a long time due to pending revision in AIS-137 (Part-2)

## June 2023

- Meeting with UP Transport Dept. on HSRP
- SIAM CAFE Norms Meeting for 2W at ARAI
- 2W Group Meeting on forming consensus on GSR-352
- SIAM-JAMA ABS & CBS discussion
- BIS Training Workshop on Standardization
- CMVR & Safety Regulations Group Meeting at Pune
- International Harmonization Group Meeting at Pune
- Aftermarket Parts Group Meeting at Pune
- SIAM Conference on Imperatives of Sustainable Mobility :Towards Vision India@2047
- SIAM Connected Vehicles Group Meeting at Pune
- Meeting with Secretary, Consumer Affairs on Legal Metrology Rules
- Monthly Economic Monitor
- Vehicle Classification Group Meeting
- Monthly Industry Data Release

## July 2023

- SIAM ENC group Meeting with ARAI/ICAT on the RDE-ISC Proposal for AIS - 175 WLTP inclusion|| 6<sup>th</sup> July 2023
- SIAM ENC group meeting on CAFÉ 1 to CAFÉ 2 discussions
- EPR framework for End-of-Life Vehicles held on 21<sup>st</sup> July, 2023 with MoEF&CC
- G20 / CEM Vehicle/ Technology Shocase at Goa
- 70<sup>th</sup> AISC Meeting at Pune
- City Gas Conference cum Exhibition 2023
- PCD 25 sectional committee of BIS
- PCD3 Panel 1 meeting of BIS
- Meeting with Secretary, Consumer Affairs on Legal Metrology Rules
- Monthly Economic Monitor
- Meeting with RDSO, Lucknow
- Meeting with Govt. officials highlighting localisation achievements
- SIAM Automotive Logistics Conclave
- Quarterly Press Conference on Industry data


## August 2023

- 10<sup>th</sup> SIAM Service and Maintenance Group Meeting
- EPR on ELVs Technical Committee meeting at MoEF&CC
- ENC Group Meeting to Discuss Draft Manuscript proposal for WLTP cycle Implementation (AIS 175)
- SIAM ENC group meeting on CAFÉ 1 to CAFÉ 2 discussions
- SIAM ENC group meeting on CAFÉ 3 to CAFÉ 4 discussions
- M/o Mines Stakeholders' meeting regarding "EPR for Non-ferrous Metal products (Al, Cu & Zn)
- MNRE meeting on Hydrogen as a transport fuel
- MoU Signing Ceremony between SIAM & KVS for Road Safety Education & Awareness Initiatives
- Road Safety and Environment initiative with School Students at Buxar, Bihar
- SIAM Recycling Conference on Extended Producer Responsibility
- SIAM Conference on Fuelling the Future towards Sustainability: Observing World Biofuels Day

# SIAM 62<sup>nd</sup> ANNUAL CONVENTION 2022

Society of Indian Automobile Manufacturers (SIAM), the apex automobile industry body, organized its 62<sup>nd</sup> Annual Convention on 15<sup>th</sup> September 2022 at New Delhi. On 62<sup>nd</sup> SIAM Annual Convention Hon'ble Prime Minister of India, Shri Narendra Modi in his message highlighted the significance of the mobility

sector and its role in the progress of humanity. The goals of accomplishing self-sufficiency in the automobile sector during 'Amrit Kaal' by availing the benefits of his government's initiatives like the PLI scheme to boost manufacturing were emphasized.



सत्यमेव जयते

प्रधान मंत्री  
Prime Minister

**MESSAGE**

It is a pleasure to learn that Society of Indian Automobile Manufacturers (SIAM) has organised the 62<sup>nd</sup> annual convention at New Delhi. Heartiest greetings and congratulations to everyone associated with the annual convention.

Mobility holds the key to progress of humanity. It is driving every sphere of life in a way that was never imagined before. The quality and ease of mobility is a primary factor in ensuring growth.

The automobile sector has contributed to the all-round development and growth of the economy through new avenues for employment generation. I congratulate the Indian auto industry on becoming the fourth largest in terms of vehicle manufacturing, as well as laud its achievement of record exports. These accomplishments that came despite the pandemic have played a key role in India's economic resurgence.

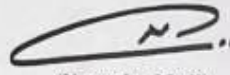
Our government has adopted an enabling approach towards creating a global manufacturing hub by encouraging manufacturers to "Make in India".

Amrit Kaal is an opportunity to achieve self-sufficiency in every sector and the automobile sector is no exception. Be it PLI schemes that boost manufacturing, or the encouragement for Electric Vehicles (EV) and hybrid vehicles, or ethanol-blended petrol, we have taken many initiatives to further empower the automobile industry.

It is a need of the hour that the automobile industry's innovation for greener alternatives attains a new momentum, to ensure the protection and conservation of environment, as well as help in making India self-reliant.

I am sure that various stakeholders gathered at the convention that include industry experts, manufacturers and policy makers, will hold vibrant deliberations to develop a futuristic blueprint for the automobile sector. May the collective wisdom and experience open up new pathways of progress.

Best wishes for all success of the 62<sup>nd</sup> annual convention of SIAM.



(Narendra Modi)

New Delhi  
भाद्रपद 22, शक संवत् 1944  
13<sup>th</sup> September, 2022



In the first plenary session, themed "Indian Auto Sector's Journey in the "Amrit Kaal": Vision @2047", Guest of Honour, Mr. Anurag Jain, (the then) Secretary, Department for Promotion of Industry & Internal Trade, Government of India (DPIIT) and (now) Secretary, MoRTH mentioned that India is expected to grow from 3 to 32 trillion-dollar economy by 2047. He reiterated that the auto industry is extremely crucial for India's economy and manufacturing sector. He mentioned that the vision is to create a strong ecosystem where the industry can thrive, which would necessitate adequate investment in R&D, skilled manpower, technological advancements, and focus on knowledge and emphasis on sustainability.

Mr. Kenichi Ayukawa, (the then) President, SIAM, and Executive Vice Chairman, Maruti Suzuki said that the Automotive Industry is facing deep structural slowdown compared to times even before COVID and the aftermath of COVID pandemic and conflict in Ukraine Industry put severe strain on supply chain. He mentioned the path of Auto Industry that aimed to align with Government of India's vision in 'Amrit Kaal@2047'.

The second special plenary session on "Indian Auto Industry for India's Economic Growth", Guest of Honour, Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways, Government of India said "For making India a 5 trillion dollar economy and to achieve the Government's vision of Aatmanirbhar Bharat, the automobile industry will play a critical role. Within the next 5 years, we are looking at making the auto industry touch a market size of 15 lakh crore. We strongly urge the industry to be quality, innovation and safety centric. With a thrust on innovation in renewable sources of fuel like ethanol based Flex Engine and green hydrogen, vehicular pollution can be reduced substantially."

Mr. Vinod Aggarwal, (now) President, SIAM and Managing Director & CEO, VE Commercial Vehicles Ltd., Mr. Sunjay Kapur, President, ACMA and Chairman, Sona Comstar, Dr. Bornali Bhandari, Senior Fellow, National Council of Applied Economic Research (NCAER) and Mr. Girish Wagh, Chairman, SIAM Commercial Vehicle CEOs Council and Executive Director (CVBU), Tata Motors Ltd also presented their views in the session and emphasized upon the economic benefits of the sunrise industry of our nation. The esteemed speakers mentioned that the growth of Indian auto sector will hugely depend on the adoption of the various sustainable powertrains available in the market.

The third plenary session titled "Decarbonising Indian Auto Sector" witnessed the participation Mr. Sharad Verma, Managing Director and Senior Partner, Boston Consulting Group, Mr KN Radhakrishnan, Chairman, SIAM Two Wheeler CEOs Council and Director & CEO, TVS Motor Company Ltd, Mr Diego Graffi, Chairman, SIAM Three-Wheeler CEOs Council and Managing Director & CEO, Piaggio Vehicle Pvt. Ltd, major auto makers and other dignitaries.

Speaking at the event, Dr. J. R. Bhatt, Advisor/Scientist, Ministry of Environment, Forest and Climate Change, Government of India, said that climate change is one of the most important environmental challenges in current times. He also mentioned that India's vision for transport must be based on low carbon emissions and affordability.

Mr. Andre Aranha Correa Do Lago, Brazilian Ambassador to India, said, "Brazil and India are the two largest sugarcane producers and have the potential to produce enormous amounts of ethanol." He also lauded India's achievements in the field and said that Brazil will work with India on Flex-fuel technology, sustainable aviation fuels, 2<sup>nd</sup> generation ethanol, hybrid flex fuel vehicles, fuel cells, etc.

Talking about climate change and the need for sustainable mobility, Mr. Sharad Verma, Managing Director and Senior Partner, Boston Consulting Group, said that India needs to solve three key considerations, which are carbon footprint reduction, economic affordability of vehicles, and self-sufficiency of the industry while ensuring continued competitive advantage.

In the special plenary session 4 titled "Building the Nation, Responsibly", Guest of Honour, Mr. Arun Goel, (then) Secretary, Ministry of Heavy Industries, Government of India, commented that the industry needs to encash the disruption of modern technologies and innovative approaches like EVs, biofuels, and others advanced alternate powertrains. He emphasised that the FAME-II scheme of the government helped in catapulting EV adoption. He also said that the Government and the industry need to make dedicated efforts to help India achieve the target of net-zero by 2070, while making sure that the country develops as an auto-manufacturing hub for the world.

Remarking at the diverse idea exchange at the event, Ms. Sumita Dawra, Additional Secretary, Department for Promotion of Industry & Internal Trade, Ministry of Commerce and Industry, Government of India, emphasized that our nation is making great strides in every segment including automobile sector. She said that with the importance of manufacturing as the backbone of the economy, the policymakers and stakeholders are constantly working to improve our ease of doing business by removing or integrating the approval and compliance requirements. She pointed out the benefit given by PLI scheme by the government that has provided necessary support to the automobile sectors to grow swiftly.

Applauding the SIAM management and the working team for arranging the event, Mr. Kenichi Ayukawa, (the then) President, SIAM and Executive Vice Chairman, Maruti Suzuki India Ltd. concluded the event, thanking all the stakeholders.



Mr Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways, at the annual convention



Mr Arun Goel, Secretary (the then), Ministry of Heavy Industries, addressing the audience



Mr Anurag Jain, Secretary (the then), Department for Promotion of Industry and Internal Trade at the SIAM Annual Convention 2022

## Auto Expo – The Motor Show 2023

The 16<sup>th</sup> edition of Auto Expo – The Motor Show was held from 11<sup>th</sup> to 18<sup>th</sup> January 2023 at India Expo Mart, Greater Noida, which was inaugurated by Mr Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways as the Chief Guest and Dr Mahendra Nath Pandey, Hon'ble Union Minister of Heavy Industries as the Guest of Honour.

In addition, Mr Hardeep Singh Puri, Hon'ble Union Minister of Petroleum & Natural Gas and Housing and Urban Affairs inaugurated the Ethanol Pavilion and the Ethanol Conference on 13<sup>th</sup> January 2023 at India Expo Mart, Greater Noida.

The Motor Show saw excellent media participation with around 2000 media

registered; it had visitor footfall of 6.36 lakh, which is the highest ever footfall since SIAM started organising the show at Greater Noida from 2014 onwards. There was also a tremendous appreciation of products and technologies, which were showcased at the Expo especially by visiting Ministers and Government officials.

Several senior Government officials also attended the event including Mr Kamran Rizvi, Secretary, Ministry of Heavy Industries; Dr Hanif Qureshi, Joint Secretary, Ministry of Heavy Industries; Mr Mahmood Ahmed, Additional Secretary, Ministry of Road Transport & Highways; Mr Alok Kumar Secretary, Ministry of Power; and Mr Abhay Bakre, Director General, Bureau of Energy Efficiency, etc.







# Indian Auto Sector's Journey in the "Amrit Kaal"

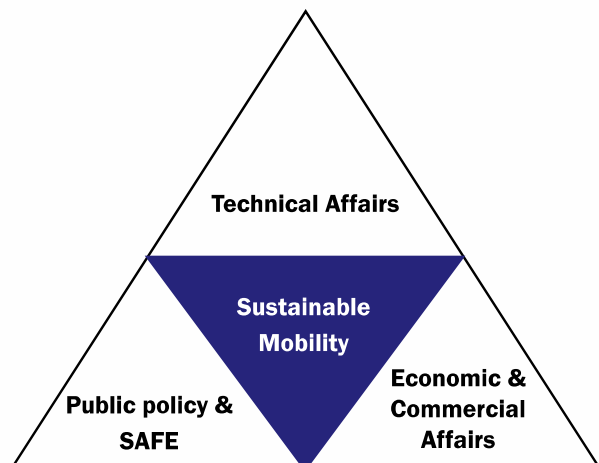
Addressing the country from the ramparts of Red Fort in New Delhi, marking 75 years of the nation's independence, the Hon'ble Prime Minister gave a clarion call that we all must work towards turning India into a developed nation by 2047. He outlined India's achievements and challenges while rolling out this 25-year goal that has to be realized by the 100th year of the country's independence, with the framework of policies in place to make India self-reliant with a developed and sustainable economy. In this regard, the Hon'ble Prime Minister exhorted countrymen to focus on the five pledges - a resolve of developed India; removing any trace of the colonial mind-set; taking pride in our legacy; our strength of unity; and fulfilling the duties of citizens with honesty so that India can attain the status of Developed Nation @ 2047. The automobile sector is envisioned in 2047 as sustainable in terms of environment (no-or low pollution), social (no adverse impact on health), and economy (affordable).

## Sustainable Mobility:

Sustainable mobility is any mode of transportation that is 'green' and has a low impact on the environment, is affordable, safe, and inclusive. Sustainable mobility is also about balancing the current and future needs of people including coming generations. Examples of sustainable transportation include no or low emission vehicles, hybrid vehicles, carpooling, car sharing, and shared vehicles, and safe transportation. Safety is the key pillar in the sustainable mobility drive, as India accounts for the highest number of road fatalities worldwide at 11%, despite having only 1% of the world's vehicles.

Sustainable mobility is not an end in itself but rather a means, allowing people to access what they need: jobs, markets and goods, social interaction, education, and a full range of other services contributing to healthy and fulfilled lives. Without access to sustainable mobility, it will be much harder-if not impossible- to end poverty and achieve the Sustainable Development Goals 2030.

Over the years, SIAM has been working on the vision of sustainable Mobility. SIAM, to carry out sustainable mobility, actively works under the three main verticals:



The Three verticals of sustainable mobility define the pathways adopted in the manufacturing of vehicles in the country. Under each of the verticals, SIAM operates various groups and councils whose main objective is to follow the narrative of growth, safety and decarbonization of the Indian automotive sector.

## The paradigm of Sustainable Mobility

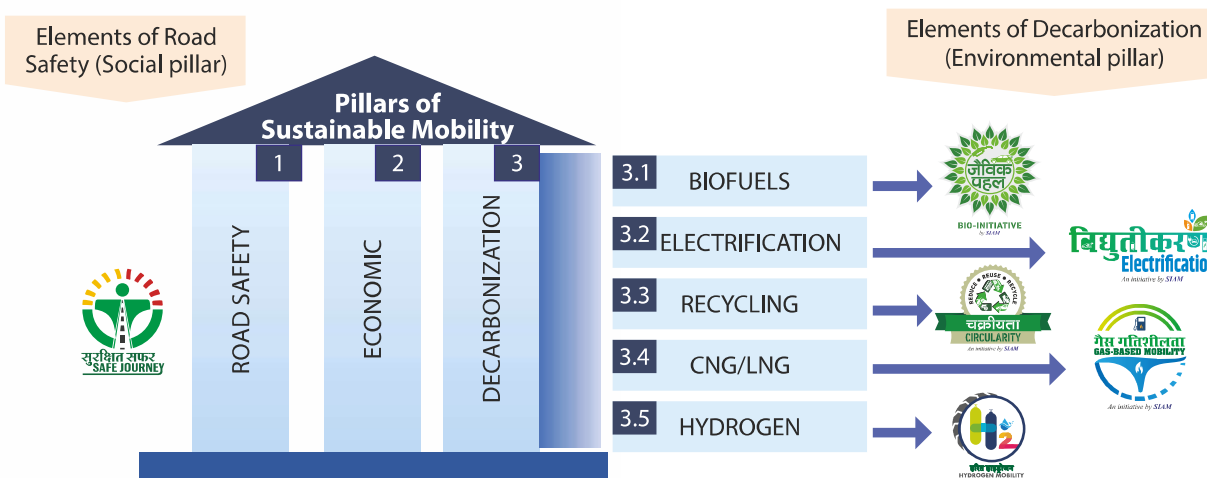
Continuing with the focus towards safer, affordable, environmentally benign and inclusive mobility, SIAM identified three strong pillars of Sustainable mobility:

- Road Safety

- Decarbonization
- Economic Sustainability

SIAM in the year 2022-23 identified the key elements related to the pertinent issues of decarbonization. The picture below captures the entire essence of the pillars of sustainable mobility:

### SIAM's Pillars of Sustainable Mobility



SIAM through various technical groups / councils provides inputs to the government on various technical issues governing the overall aspect of sustainable mobility. Issues related to current and future fuel choices, promotion of gas mobility, fuel efficiency regulations, manufacturing innovations, clean technological & innovations, recyclability, material efficiency, etc. are some of the core issues which support the government policies and initiatives in this area. As climate resilience takes center stage, decarbonisation of the transport sector has become a key focus area for the Government. The groups and councils' roles is to make informed decisions and propose the best available solutions to the Government commensurate with their policy options.

The following are the initiatives that the industry has undertaken over the years, especially in the areas outlined below:

- democratizing mobility through public and private transport
- fostering "Brand India" worldwide
- ensuring energy security
- cohabiting with other industries
- adopting global standards in emissions, safety, and manufacturing
- fostering sustainable cities and communities










- facilitating continuous skill upgradation
- increasing consumer consciousness
- promoting Automotive Engineering prowess of global standards,
- encouraging green, affordable, and safe mobility for sustainable development goals 2030,

**SIAM's Approaches toward Policy Advocacy for Sustainable Mobility:SIAM's 10 concoctions for Sustainable Mobility**

One of the key mandates of SIAM is to interact with relevant ministries, departments and R&D institutions to devise and promote innovative

policy for sustainable mobility in the country through various instruments/pillars of advocacy. Starting with World Environment Day 2022, SIAM embarked on a knowledge-building series that covered various technical, regulatory standards, and environmental topics, including technological innovations. These topics synchronize with the vision of the Hon'ble Prime Minister and a series of steps taken by the government over the years to boost automotive growth and make India Self-reliant through the Aatmanirbhar Bharat Mission. This is also in line with the government's constant endeavour to transform the sectors of the economy, including the automobile sector, into being more affordable, accessible, efficient, and sustainable.

**SIAM's 10 concoctions for Sustainable Mobility**

 <b>Talk Show/ Green Tea with SIAM</b>	 <b>Master Class &amp; Knowledge Series</b>	 <b>Social media posts &amp; ads</b>	 <b>Stakeholder engagement</b>
 <b>Conferences/ Seminars</b>	 <b>Observing important days</b>	 <b>Technology Demonstration</b>	 <b>Road shows &amp; Exhibitions</b>
	 <b>Articles, Publications &amp; Research</b>	 <b>Facility visits</b>	

The aforesaid policy approaches for facilitating sustainable mobility and integrating the sustainable imperatives in the automobile industry are highly critical. To achieve this stated objective, the stakeholders' involvement and their participation are ensured across the value chain.

**SIAM's plan for the coming year to further enhance focus on Sustainable Mobility:**

The Indian government, under the leadership of Hon'ble Prime Minister, Shri Narendra Modi, has taken a target to achieve Net Zero by 2070 and reduce carbon intensity of the economy by 45%



by 2030. In line with the target, government is pushing towards alternate low emission drivetrains including electrification, ethanol blending, gas based mobility and hydrogen mobility. With changing paradigms in the Automotive industry, greater focus on improving Road Safety, and minimizing environmental & climate impact, SIAM has been focusing on promoting key drivers of Sustainable Mobility in India.

SIAM has identified the 3 pillars of Sustainable Mobility namely, Road Safety, Decarbonization & Economic Sustainability. SIAM has established itself in the area of Road Safety, and Decarbonization. Through focused initiatives carried out during the last one year, SIAM has

established a strong foundation for sustainable mobility. SIAM in coming year will be focusing on sustaining the momentum built across the work areas of Ethanol, Electrification, Circularity, and Road Safety. SIAM plans to focus on the broad-basing of the identified key areas based on the strong foundation set in the previous year, i.e. Road Safety, Ethanol, Electrification, Gas-based Mobility, Green Hydrogen and Vehicular Circularity to ensure the smooth transition into sustainable mobility. By bringing together key stakeholders across these areas, SIAM intends to ensure answers to most pressing challenges of the sustainable mobility transition, thus ensuring the least disruptive path for the transition in the automobile industry.





**ECONOMIC  
&  
COMMERCIAL  
AFFAIRS**



## Exports Group

SIAM Exports Group members have been working on expanding the footprint of Indian Automobiles in different parts of the globe. The Group also focuses on addressing Non-Tariff Barriers affecting the automotive industry in specific regions and highlighting the same to the Government of India for resolving the same at the Government - Government interactions. The Exports Group highlighted market access issues being faced in ASEAN region including Indonesia, Philippines, and Vietnam, and Latin American and Caribbean (LAC) Region to ensure smoother trade of automobiles from India.

In view of the above, a delegation was mounted to Bangladesh in November 2022 to have a stronger relationship with the Bangladesh Automotive industry and Government Departments in Bangladesh. Interactions were also held with the Indian Embassy in Saudi Arabia to gauge the business opportunities in the automobile sector. SIAM Exports group also had Interactions with Auto Association of Nepal (NADA) on recent policy developments. Exports group is also in dialogue with Ceylon Motor Traders Association, Sri Lanka (CMTA) to support them in framing suitable Automotive technical regulations of Sri Lanka.

SIAM Exports Group has identified key markets viz. Brazil, Indonesia and South Africa to deepen the exports of Indian manufactured vehicles in these markets. In order to achieve the same, in-depth market analysis was conducted for the selected export destinations, to understand the market opportunities. The Automotive sector has been one of key sectors selected by DGFT to enhance the exports and the group has had several interactions with the Government to

highlight the exports growth and challenges faced by auto industry.

SIAM actively participated in the outreach programme commissioned by the Ministry of Commerce to promote "Brand India" in the Latin American region. SIAM was a supporting partner in the India-LAC Conclave organized by CII. In this regard, SIAM also organized a webinar along with ACMA and EEPC and presented a brief overview of the Indian Automobile Industry's presence in Latin American region. During the automotive sessions in the Conclave, different ways in which India and LAC countries can drive trade in automotive sector were explored.

SIAM Exports Group proactively planned a strategic delegation visit to Indonesia in August 2023, aimed at understanding the auto policy environment of Indonesia and strengthening partnerships with the counterparts. The SIAM delegation also visited the Indonesia Auto Show and Indian manufacturers explored opportunities to develop partners for serving the Indonesian Market.

Representation by the Group resulted in enhancement of RoDTEP Rates for Small Passenger Vehicles and Small Goods vehicles being imported by Indian Vehicle Manufacturers from January 2023 in discussion with DGFT and Ministry of Finance. The Group is also discussing the possibility of securing RoDTEP benefits for exports in INR being undertaken to Nepal, Bhutan and Myanmar.

A Capacity-Building Session was also organized by SIAM along with VDA (German Automotive Association) for enhancing proficiency of members on International Trade and Exports.

Annual Report Card (2022-23)			
Deliverable(s)	Measures	Owner	Stakeholder
Fostering conducive trade environment and ensuring the sustained growth of the Indian automotive sector in Global markets.	Addressing Non-Tariff Barriers in ASEAN Region	SIAM Exports Group	Indian Government, Members
	Mitigating Non-Tariff Barriers in Latin America and Caribbean (LAC) Region		
	Preparation of Tariff matrix to analyse and compare tariff differentials with respect to various competing auto manufacturing countries, aiding in strategic decision-making.		
Strategies to Increase Automobile Exports	Delegation to Indonesia for insights on policies and possible partnerships.	SIAM Exports Group	Members
	Identified 3 key export markets and devised strategies for expansion, emphasizing prudent decision-making.		Members
EXIM Policy	Market analysis for select export destinations, namely Algeria, Brazil, Indonesia, and South Africa, enhancing understanding of potential opportunities.		SIAM Exports Group
	Enhancement of RODTEP Rates Small passenger Cars and Commercial Vehicles.	Government, Members	
	Capacity-building session on international trade and exports.	IIFT, VDA, Members	



India-LAC Conclave by Ministry of Commerce & Industry



SIAM Capacity Building Session on International Trade & Exports



SIAM Export Group Meeting



Export Group meeting with Mr. Anil Aggarwal, Additional DGFT on RoDTEP



Hon'ble Minister of Industries sharing Bangladesh Auto Policy with SIAM



SIAM Delegation with Chairman, Bangladesh Road Transport Authority (BRTA)



Meeting with Ms Malvika Priyadarshini, First Secretary (Economic & Commerce, Embassy of India, Republic of Indonesia)



Meeting with Ms Anita Iskandar, Director of International Affair, Directorate General of Customs & Excise, Ministry of Finance, Republic of Indonesia.



Meeting with Mr Joko Kusnanto, Head of Vehicle Type Approval Certification, Ministry of Transportation, Republic of Indonesia



Meeting with Prof. Ir. Tutuka Ariadji, Director General of Oil and Gas, Ministry of Energy and Mineral Resources, Republic of Indonesia



Meeting with Association of Indonesian Motorcycle Industry (AIMI) and Association of Indonesian Electric Motorcycle Manufacturers (AISMOLI)

## International Relations & Trade Policy Group

The International Relations and Trade Policy Group (IRTP) looks at the Policy Advocacy on International Trade Agreements and Trade Policy. The Group also focuses on fostering dialogues and partnerships with Global Auto Associations and Counterpart Associations, facilitating knowledge exchange and cooperation.

Since, the Government of India has been actively looking at new economies to liberalise trade and enter into Free Trade Agreements, the Auto sector has remained one of the key sectors while negotiating with various countries. SIAM has been reviewing various developments with regards to these new trade negotiations being undertaken by Government of India.

The IRTP group also actively participated in stakeholder consultations with Government of India in reviewing the already signed trade agreements of India-Japan, India-Korea, and India-Australia trade agreements.

SIAM also organised Auto Trade Dialogue during Auto Expo 2023 to discuss various policies that are being pursued by different

economies across the world. The dialogue witnessed participation from counterparts from African Association of Automotive Manufacturers, (AAAM) - Africa, Bangladesh Automobiles Assemblers & Manufacturers Association (BAAMA)- Bangladesh, German Automotive Association (VDA) - Germany, Automobile Association of Nepal (NADA), Ceylon Motor Traders Association (CMTA) - Sri Lanka, and the Society of Motor Manufacturers and Traders (SMMT) - UK. Ministry of Commerce & Industry and Ministry of Heavy Industries also participated in the deliberations.

A SIAM delegation visited Berlin, Germany, at the invitation of the German Automotive Association (VDA) and witnessed the cutting-edge automotive technologies and trends that are being evolved in Europe in the VDA Technical Congress.

During the year SIAM participated in the Indo-German Automotive Working Group and in the 1<sup>st</sup> India-Japan Working Group on Automotive under the Co-Chairmanship of Ministry of Heavy Industries.

### Annual Report Card (2022-23)

Deliverable(s)	Measures	Owner	Stakeholder
Fostering dialogues with Global Auto Associations.	Auto Trade Dialogue at Auto Expo 2023	SIAM International Relations & Trade Policy Group	Counterpart Associations
	Fostering dialogues with Global Auto Associations		
Policy Advocay on International Trade Agreements and Trade Policy	Group monitored the developments of Trade agreements		Members, Government





10<sup>th</sup> Auto Trade Dialogue, Delhi-NCR



10<sup>th</sup> Auto Trade Dialogue, Delhi-NCR



SIAM Delegation at VDA Technical Congress, Berlin, Germany

## Skilling Group

In the ever-evolving landscape of the Automotive Industry, there is an ongoing transformation across various facets such as manufacturing, marketing, and supply chain operations. Consequently, there arises a crucial demand to enhance the skill sets of those driving these areas in the Auto Sector. This year, SIAM Skilling Group was formed to look at areas where there is a need for upskilling in the Auto Sector and collectively work towards providing that skilled workforce for the Industry.

The primary mission of the Skilling Group revolves around establishing a robust framework geared towards cultivating a readily employable workforce for both dealerships and OEMs. Furthermore, the group is poised to explore avenues for boosting youth employability through collaborative Industry-Dealership-Institute Partnerships.

In pursuit of equipping students with industry-ready capabilities, the group along with

Automotive Skill Development Council (ASDC) has undertaken a comprehensive skill gap analysis across multiple ITI institutes nationwide, focusing on Service Technicians and Service Advisors. During the survey it was revealed that there are limited capabilities in the students if these institutes especially on Computer Diagnostics, Error Code Reading & Troubleshooting Skills, Working With High Voltage Technology, Ability to Read & Operate through Manual and Understanding of Basic Electronics. Since Electrification in the Auto Sector would continue to grow manifold, there is a need to ensure that there are enough skill sets available across the dealerships in the country to service this requirement. SIAM is in the process of suggesting upgrading the Course Curriculum of ITI and also preparing a suitable Course material which will then be used to impart training in some of the colleges which gets adopted by the OEMs.

Annual Report Card (2022-23)			
Deliverable	Measures	Owner	Stakeholder
Workforce upskilling	Group prepared a framework for developing ready to employ workforce for dealerships	SIAM Skilling Group	Vehicle manufacturers/ Dealerships
	Listing core critical job functions		Vehicle manufacturers/ Dealerships
	Conducting a Skill-Gap analysis at ITI and Polytechnique colleges		Vehicle manufacturers/ Dealerships/ Institutes
	Developing Skill-Gap bridging curriculum		Vehicle manufacturers/ Dealerships/ Institutes

# Taxation Group

SIAM Taxation Policy, Procedural & Direct Tax Group reviews and analyses the changes taking place in the Taxation Policy related not only to the auto industry in the indirect tax space but also the policies affecting the overall manufacturing sector. The Group also advocates on issues related to Direct taxation.

The Group proactively works on submitting recommendations for the Union Budget to Ministry of Finance. The recommendations of SIAM covered areas of Indirect & Direct taxation, GST and Customs rates.

The major recommendations given for the Union Budget Memorandum 2023-24 are as below:

## 1. Indirect Taxes - Electric Vehicles

- a. Inverted Duty Structure for Electric Vehicles and reduction of GST on Critical EV parts.
- b. Reduction in GST rate on EV Charging Service from 18% to 5%
- c. Extending GST exemption to sub-contractors of main contractor providing service by way of giving on hire an electrically operated bus to a State Transport Undertaking/Local Authority

## 2. Indirect Taxes - GST

- a. Procedural changes in view of applicability of Service Tax on Salaries of Expatriates
- b. Input Tax Credit (ITC) on passenger motor vehicles up to 13 seating capacity and Two-Wheelers used for Research &

Development activities by manufacturers of motor vehicles.

- c. Clarification on the definition of SUVs for applicability of GST (Compensation Cess) including ground clearance.
- d. Removal of Compensation Cess on 350 cc+ Two Wheelers.

## 3. Indirect Taxes - Customs

- a. Hardships caused due to multi State notices / summons issued by DRI.
- b. Allowance of depreciation for imported Capital Goods under Manufacturing and Other Operations in Warehouse Regulations, 2019 (MOOWR)
- c. Time limit for payment of Customs Duty under MOOWR scheme after removal of finished goods
- d. Custom Duty Waive off for import of cars used only for testing purposes.
- e. Extension of reduced Basic Customs duty on Lithium-ion cells and batteries.

The Group discusses in details specific operational and interpretation issues related to payment or taxes, Input Tax Credits, responding to queries and summons from different departments of State and Central Government to eventually ensure Ease of Doing Business.

The Group also commenced meeting Transport Departments of State Governments, beginning with the State of Telangana, for discussing on the possibility of ensuring uniform applicability of State Road Tax across the country, by applying it on the value excluding GST.

### Annual Report Card (2022-23)

Deliverable(s)	Measures	Owner	Stakeholder
To review and analyse policy changes in the country's taxation structure and gauge its impact on automobile industry	Analysis of Union Budget and providing Industry recommendations.	SIAM Taxation Policy, Procedural & Direct Tax Group	Government, Members
	Work on both pre-budget and post-budget recommendations		Government, Members
Policy Advocacy on various burning issues affecting the automobile industry	Focuses on taxation procedures at Central and State levels, addressing key issues.	SIAM Taxation Policy, Procedural & Direct Tax Group	Government, Members
	Clarifications on critical matters reacted to applicability of Taxes.		Government, Members



SIAM Taxation Group Meeting, New Delhi



SIAM Taxation Group meeting with Ministry of Finance on SUV & 2W GST



Meeting for Union Budget Recommendations with Department of Revenue

## Human Capital Group

The Group's diverse focus encompasses critical domains such as Human Resources (HR), Industrial Relations (IR), Labor dynamics, Benchmarking, Rewards, and Performance evaluation.

A significant factor of group engagement involves collaboration with the Automotive Skills Development Council (ASDC). Group interactions with ASDC are multifaceted, encompassing oversight of their initiatives, strategic policy guidance, and selective support for specific undertakings. SIAM Human Capital Group members also represent SIAM within the Governing Council of ASDC.

SIAM undertakes annual Rewards and Performance Study, initiated in 2008, wherein SIAM consistently assessed the rewards landscape within SIAM Members. In this current year, SIAM partnered with Deloitte India for the Annual Performance and Rewards Study. The study's purpose is two-fold: to gauge the rewards competitiveness of our Members and

to furnish them with analytically supported insights for informed increment and rewards decisions. The survey transcends mere compensation metrics; it offers invaluable insights into industry performance projections, performance management methodologies, productivity analyses, and more. Impressively, this year's survey drew participation from over 20 members, indicating its growing relevance and value. Benchmarking exercises were also undertaken centered around diverse HR policies are tailored to meet members' specific needs, empower them to appraise their company policies against industry standards.

An initiative was taken in the SIAM HCG this year wherein a consortium of members has been formed for participation in Bill & Melinda Gates (BMG) Foundation's project for increasing participation of women in the Automotive Sector. BMG Foundation has commenced is working on this project with participation of some manufacturers along with SIAM.

Annual Report Card (2022-23)			
Deliverable	Measures	Owner	Stakeholder
To work on HR and IR Related issues	<p>1. Annual Performance and Rewards Study was conducted by Deloitte India, facilitated by SIAM. The following modules were included in the study:</p> <ul style="list-style-type: none"> <li>• Compensation - Level Report</li> <li>• Compensation - Level Function Report</li> <li>• Benefits Benchmarking Report</li> <li>• Pan India Executive Remuneration Report</li> <li>• Executive Compensation Report</li> </ul>	SIAM Human Capital Group	<p><b>Membership</b> <b>Bill &amp; Melinda Gates (BMG) Foundation</b></p>

	<ul style="list-style-type: none"> <li>• Productivity Analysis Report</li> <li>• Performance Management Benchmarking</li> <li>• R&amp;D Study</li> <li>• Sales &amp; Service Study</li> <li>• Workforce &amp; Increment Trends</li> <li>• Campus Hiring Trends Report</li> </ul>		
	<p>2. A survey was conducted on practices followed in the industry for benchmarking on leave policy, business travel, long service, self-education and insurance benefits.</p>		
	<p>3. A survey was conducted on practices followed in the industry for benchmarking on domestic travel, international travel, relocation, deputation and park car benefits.</p>		
	<p>4. A consortium project for increasing participation of women in the Automotive Sector.</p>		

## Logistics Group

In pursuit of enhanced operational efficiencies in the domain of vehicle transportation, SIAM Logistics Group remains steadfast in its commitment to mitigate challenges faced by the automobile OEMs. Group efforts focussed towards identifying solutions that not only improve the hurdles but also reduce the outbound logistics costs.

SIAM Logistics Group in its efforts to reduce carbon footprints and emissions along with reducing logistics cost has been in continuous interactions with the Railways. A notable increase in the share of railways in passenger vehicle transportation has also been witnessed over the past several years.

Deliberations involving the creation of railway hubs dedicated to vehicle transportation, facilitating streamlined loading and unloading processes, augmenting the infrastructure in the existing identified stations has also been undertaken with the railways.

Furthermore, the group is working closely with Research Designs & Standards Organisation (RDSO), Lucknow of Ministry of Railways in exploring innovative avenues by way of

modifications in the railway wagon designs which would enable transportation of two-wheelers and SUVs in double-deck configurations. RDSO is also finalising designs to transport finished trucks and buses via railways.

The SIAM Logistics Group also organised the 9th edition of the SIAM automotive logistics conclave on 20<sup>th</sup> July, 2023 where in key stakeholders from Ministry of Road Transport, DPIIT, NHLML, logistics service providers and vehicle manufactures deliberated on specific interventions required to improve logistics through rail and road.

The SIAM Logistics Group is committed to continual collaboration with stakeholders for sustainable, secure, and economically viable vehicle transportation. The Group's dedication to optimizing logistics processes remains unwavering as we collectively endeavour to propel the automotive industry forward in a dynamically evolving landscape and keep pace with the growing requirement of the auto industry for shipment of finished vehicles across the country.

### Annual Report Card (2022-23)

Deliverable	Measures	Owner	Stakeholder
Enhancing Outbound Logistics Efficiency in the Automotive Sector	SIAM engaged with the Railway Board for addressing issues related to availability of railways for automobile shipment and associated freight charges.	SIAM Logistics Group	Membership and Government
	SIAM interacted with RDSO to devise dual-deck wagon designs which would be capable of carrying both utility vehicles and two-wheelers interchangeably in the same wagon.		Membership and Government
	SIAM successfully organized Logistics Conclave, with related stakeholders including policy makers for collaborative exchange of insights and ideas.		Membership and Government



SIAM Logistics Group Meeting, Lucknow



Demo to RDSO for inputs on new railway wagon designs in Double-Deck





9<sup>th</sup> edition of the SIAM Automotive Logistics Conclave, New Delhi

## Aatmanirbhar Bharat – Sourcing Group

With an aim to complement the Aatmanirbhar Bharat initiative of the Government, the Indian Automotive industry made serious efforts to ensure localisation in the country. SIAM Aatmanirbhar Bharat Sourcing Group actively engaged with various Government departments and highlighted industry's commitment to enhance localisation.

SIAM along with ACMA had undertaken a detailed exercise in 2020-21 to ascertain the import content in the Automotive Industry and had set a target for itself to reduce the import content by 3-5% from the levels of 2019-20 in next 2 years and by 16-20% by next 5 years for some key 11 items used for manufacturing of vehicles. A detailed exercise was undertaken this year to ascertain the performance of the Industry, in terms of increasing its share of localisation content in partnership with ACMA. The exercise revealed that despite several disruptions the Auto Industry faced in the years 2020 and 2021, ranging from COVID to Semiconductor shortage to Freight cost increase, significant progress has been made to reduce the import contents. For the 11 key items, a net equivalent localisation of 5.8% was achieved by the industry in the past 2 years, resulting in a net equivalent import reduction of about ₹7,018 Crores. Reduction in imports was noted in Engine Components, Electricals, Electronics, Tyres, Tools and Dies, Fasteners, Rubbers and Iron & Steel. The overall share of imports in the automotive industry was about 25.56% in 2019-20, which has reduced to 21.69% in 2021-22, a reduction of 3.86%, in the overall share of imports in auto sector in two years. While the growth in industry turnover between these two years has been 27.9%, the growth in imports was only 8.7%, clearly indicating that efforts by the industry for localisation are yielding results.

The group remained actively engaged with other industry stakeholders like ATMA (Automotive Tyre Manufacturers Association), for inclusion of Tyre Sizes in the Exemption List of Pneumatic Tyre Quality Control Orders (QCOs). Several meetings under the Inter-Ministerial Committee (IMC) on Tyres and Tubes, chaired by Additional DGFT were also held to suitably add specific tyre sizes that are not manufactured domestically in the exemption list. The Group is also monitoring a matter which is listed in the Hon'ble High Court of Delhi on the issue of exemption being provided to Auto OEMs for manufacturing new vehicles, from the purview of the Tyre QCO.

SIAM Sourcing Group had several interactions with the Ministry of Consumer Affairs on Legal Metrology (Packaged Commodities) Rules, regarding declaration of month and year of manufacture on the packaged goods. The final notification with the amended rules will be issued in due course.

Reviews and suggestions for various Steel Standards were also given through the Metallurgical Department committees (MTD-4 and MTD-16) of BIS (Bureau of Indian Standards).

The Group has undertaken a detailed exercise on the recently notified QCOs for Nuts, Bolts and Fasteners, which will come in force from 21st January 2024. In discussion with BIS, it was analysed that sizes and types mentioned in IS 1364 in the QCO would be the only standard getting applicable to the Auto Sector. A suitable representation will be made to DPIIT and BIS by SIAM in this regard.

This group will continue to make efforts in ensuring localisation and smooth functioning of the automotive value-chain.

## Annual Report Card (2022-23)

Deliverable	Measures	Owner	Stakeholder
To Mitigate Challenges in Automotive Supply-Chain	Conducted "Localization Assessment for the Indian Automotive Sector", jointly with ACMA	SIAM Aatmanirbhar Bharat - Sourcing Group	Membership and Government
	Engaged with Government departments to highlight the Localisation progress made so far in Auto sector		Membership and Government
	Interacted with ATMA, DPIIT and DGFT on updating the Exemption List of Pneumatic Tyre QCO		Membership, ATMA and Government
	Participated in BIS meetings and submitted inputs related to Steel Standards		Membership and Government
	Made representations to Department of Consumer Affairs on Amended Legal Metrology (Packaged Commodities) Rules		Membership and Government
	Made representations to DPIIT on Nuts, Bolts and Fasteners QCOs		Membership and Government



SIAM Interactions with Ms. Mukta Shekar, Joint Secretary, Ministry of Heavy Industries on Localisation



SIAM Aatmanirbhar Bharat/Sourcing Group Meeting at Skoda Auto Volkswagen India, Pune



SIAM Interactions with Secretary, Ministry of Consumer Affairs on Legal Metrology



SIAM Interactions with Mr. Anant Swarup, Joint Secretary, Ministry of Commerce & Industry on Localisation



Localisation Assessment Report – Phase 2

## Economic Research Group

SIAM Economic Research Group (ERG) focusses on deriving insights on factors affecting the Indian Automobile Industry and understanding its impact on the economy.

The Group extended the scope of the study to assess the contribution of Indian Automobile Sector in employment generation. The National Council of Applied Economic Research (NCAER) was requested to estimate jobs generated in the economy due by vehicle production in a year and by the existing vehicle parc. The Group also deliberated on the study commenced last year by NCAER, to analyze the impact of taxation on the Indian automobile market and the comparing the Taxes applicable in India for purchasing a new vehicle compared to the taxes being applied in other countries.

During Auto Expo 2023, ERG highlighted the significant contributions of the Indian Automotive Industry to the Indian economy including industry turnover, GST contribution and employment. The Global ranking of

industry across segments in terms of production was also highlighted.

The 17<sup>th</sup> edition of SIAM Looking Ahead Conclave was organized in January 2023. The theme of the conclave was "Drivers for Sustaining Growth in the Auto Sector". The conclave provided diverse perspectives on emerging trends in the Automobile sector, challenges faced by the industry, and the way forward to sustain growth in the sector. The Conclave also provided projections of different vehicle segments - Passenger Vehicles, Commercial Vehicles, Three Wheelers, and Two Wheelers - in the Indian market for the year ahead - 2023-24, along with insights on typical fuel wise trends.

SIAM also commenced issuing a monthly Economic Monitor providing information on various Economic parameters directly / indirectly impacting the Auto Industry. Economic Research Group members continued to engage actively to deliberate and share insights on the market trends in the Auto Sector.

### Annual Report Card (2022-23)

Deliverable	Measures	Owner	Stakeholder
Industry Forecast	Organised 17 <sup>th</sup> Looking Ahead Conclave, with an objective to identify drivers to ensure sustained growth in the future.	SIAM Economic Research Group	Membership, Research Organisations
Contribution to the economy	Highlighted the contribution of the Indian Auto Industry during Auto Expo 2023		Membership, Government, Various Stakeholders
Research Study	Extended the scope of Employment Generation study		Membership



Deliberations at 17<sup>th</sup> SIAM Looking Ahead Conclave, New Delhi

## Vehicle Classification, Sales Reporting & Analysis Group

SIAM Vehicle Classification Sales Reporting & Analysis Group has been closely engaged in enhancing the robustness of the SIAM Data being released on Monthly / Quarterly basis to various stakeholders. Timely and accurate reporting of data by members to SIAM, has enabled SIAM to release multiple and insightful reports during year.

Analysis of the data and the performance of the Automobile Industry was also presented to the media during the Quarterly Data release and also shared with various Ministries of Government of India. Discussions are presently underway to look at integrating reporting of various new Fuel / Powertrain type in SIAM Statistical Reports.

This group also deliberated and made representation to the Canteen Stores Department (CSD) of Ministry of Defence

regarding the proposed requirement of mandatory submission of Indemnity Bond by the Auto OEMs for facilitating sales of vehicles to the Defence Personal through its dealerships.

SIAM was also actively involved with National Informatics Centre (NIC) for modifications that were being undertaken on the Vahan portal to align the categorisation of the vehicles on the Vahan Portals with the definitions given in Motor Vehicle Act, while ensuring that the registration of the vehicles is not disrupted in the process.

SIAM Vehicle Classification Group would continue to deliberate and work towards ensuring the data collected and released to various stakeholders correctly reflect the trends of every segment of the Automobile Industry and which enables the Policy makers take suitable decisions for the Automobile Sector.

Annual Report Card (2022-23)			
Deliverable(s)	Measures	Owner	Stakeholder
Accurately reporting of SIAM Monthly and Quarterly Data	<ul style="list-style-type: none"> <li>Finalisation of Reporting Categories</li> <li>Collection of Data from Members</li> <li>Release of Data to Various Stakeholders</li> </ul>	SIAM Vehicle Classification, Sales Reporting & Analysis Group	Media, Government, Membership, Society



Media briefing on Quarterly Motor Vehicle Data

## CSR Group

SIAM members are engaged in CSR activities from the inception and much before the Government's mandate of CSR spend. Member OEMs are creating sustainable improvement in the lives of millions of countrymen by the way of "Giving Back" to the people in and around their plants and other parts of the country.

The SIAM Group, was created to make a platform where members can interact among themselves, share best practices and also to consolidate the data of the good work done by members in the CSR field. CSR group

disseminates the information to the policy makers and media for creating an environment of good will.

SIAM members also actively participate in sharing best practices of their respective CSR activities amongst each other, to enhance the output in future.

SIAM CSR Group also recognise the NGOs engaged with SIAM members in different activities done by them on behalf of SIAM members in SIAM CSR Award ceremony held during the CSR Conclave.

Annual Report Card (2022-23)			
Deliverable(s)	Measures	Owner	Stakeholder
SIAM Knowledge Sharing Sessions	1. Best practices shared by members on New Approach to CSR and Learnings	SIAM CSR Group	Membership, Government, Society, Media
SIAM CSR Awards	2. 5 <sup>th</sup> SIAM CSR Awards for NGOs working with Member companies (scheduled coinciding CSR Conclave)		Membership, Society



SIAM CSR Group Meeting, New Delhi





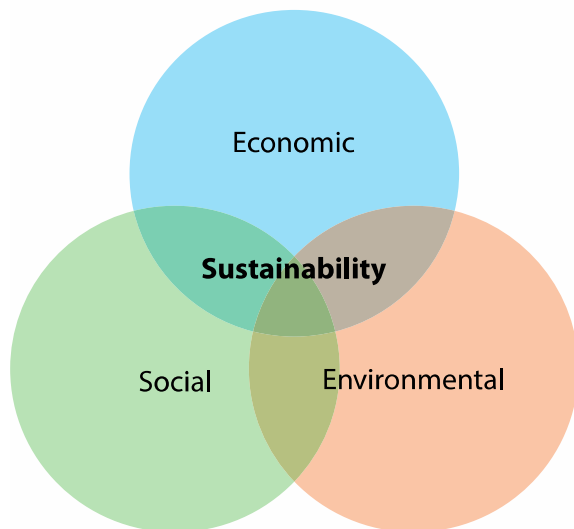
# **TECHNICAL AFFAIRS**



# Sustainable Mobility - A Road to Future

## SIAM Vision for Sustainable Mobility: "Ahead of the Curve"

Sustainable Mobility is a concept that aims to provide safe, efficient, and environmentally friendly transportation for people and goods. It is closely related to the three verticals of sustainability: social, environmental, and economic. Sustainable Mobility is a complex and multidimensional challenge that requires a holistic and integrated approach. It involves balancing the needs and interests of different stakeholders, such as governments, businesses, civil society, and individuals. It also requires coordination and collaboration across different sectors, such as energy, environment, health, education, and urban planning. By pursuing sustainable mobility, we can achieve multiple benefits for our planet and our people.



Further, the landscape of sustainable mobility encompasses manufacturing, value & supply chains supplemented with CSR initiatives. At

the same time, it enables the industry to successfully achieve obligations, envisaged under the national policy, legislative framework, and relevant international agreements, including commitments made at COP15 & CoP-26 in Paris and Glasgow viz. **Panchamrit** along with sustainable development goals-2030.

India is home to one-sixth of all humanity. It critically holds the key to the success of the 2030 Agenda. India's commitment to the SDGs is reflected in its convergence with the national development agenda as reflected in the motto of Sabka Saath Sabka Vikaas (Collective Efforts for Inclusive Growth). Based on the evidence from the SDG India Index, which measures progress at the subnational level, the country has developed a robust SDG localization model centered on adoption, implementation and monitoring at the State and district levels.

The following narrative further encapsulates India's progress across the SDGs.:

- Sashakt Bharat - Sabal Bharat (Empowered and Resilient India)
- Swachh Bharat - Swasth Bharat (Clean and Healthy India)
- Samagra Bharat - Saksham Bharat (Inclusive and Entrepreneurial India)
- Satat Bharat - Sanatan Bharat (Sustainable India)
- Sampanna Bharat- Samriddh Bharat (Prosperous and Vibrant India):

Sashakt Bharat - Sabal Bharat (Empowered and Resilient India): India has successfully lifted more than 271 million people out of multidimensional poverty through economic growth and empowerment. Enhanced access to nutrition, child health, education, sanitation, drinking water, electricity and housing, has led to reduced inequalities especially among people in vulnerable situations.

Swachh Bharat - Swasth Bharat (Clean and Healthy India): Through a nationwide initiative triggered by the Clean India Campaign and the National Nutrition Mission, India achieved high level of rural sanitation and sharp reduction in stunting and child & maternal mortality rates. Universal health coverage has been institutionalized through Ayushman Bharat, the world's largest health protection scheme which provides an annual cover of USD 7,000 to 100 million families, covering nearly 500 million individuals.

Samagra Bharat - Saksham Bharat (Inclusive and Entrepreneurial India): Social inclusion is pursued through universalizing access to nutrition, health, education, social protection, and developing capabilities for entrepreneurship and employment. Financial inclusion through Jan Dhan-Aadhaar-Mobile (JAM) trinity - near universal access to bank accounts aided by the Jan Dhan Yojana (National Financial Inclusion Scheme); Aadhaar card (National unique identity number) for over 90% of the population; and expansive access to mobile phones, has propelled new avenues of credit, insurance, and Direct Benefit Transfers (DBT) to the poor, including to over 200 million women, thereby accelerating their economic empowerment.

Satata Bharat – Sanatan Bharat (Sustainable India): India's climate action strategies call for

clean and efficient energy systems, disaster resilient infrastructure, and planned eco-restoration. Acting on its nationally-determined contributions, India has electrified almost all its villages reduced 38 million tonnes of CO2 emissions annually through energy efficient appliances, provided clean cooking fuel to 80 million poor households, and set a target to install 450GW of renewable energy and restore 26 million hectares of degraded land by 2030. Globally, India stands third in renewable power, fourth in wind power, and fifth in solar power. India launched the Coalition for Disaster Resilient Infrastructure and the International Solar Alliance to leverage global partnerships for climate action and disaster resilience.

Sampanna Bharat- Samridh Bharat (Prosperous and Vibrant India): India is one of the fastest growing emerging market economies with a young population and burgeoning innovation and business ecosystems. With a GDP of USD 3.30 trillion in FY 23, India strives to become a USD 5 trillion economy by 2025, and pursue an inclusive and sustainable growth trajectory by stimulating manufacturing, building infrastructure, spurring investments, fostering technological innovation, and boosting entrepreneurship.

In the spirit of South-South Cooperation, for realizing the 2030 Agenda, India supports developing countries through the USD 150 million India-UN Development Partnership Fund. In this spirit of regional and global partnerships, and the country's commitment to 'leave no one behind', India steps into the Decade of Action, drawing confidence from its experience in addressing challenges. Government of India will continue to work collaboratively with all domestic and global stakeholders to accelerate efforts for a sustainable planet for future generations.

The country is massively dependent on oil imports, with a USD 158 billion oil import bill in FY23 (equivalent to 4% of the country's GDP). Pollution in many Indian cities has reached at alarming levels. All these factors combined, make a strong case for the Government of India for moving towards low carbon economy with a focus on green mobility to control pollution and save the environment. The initiative has prompted introduction of policy and incentive schemes by MHI for fast adoption of Electric Vehicles (EV) in India. As per Vahan portal, EV sales in FY22-23 were 11.8 lakh units, which are 2.5 times of EV sold during FY 2021-22. In FY22-23 ~7.2 lakh Electric Two-Wheelers were registered, ~4 lakh e-3W were registered, ~47,479 Passenger Cars and ~2973 Commercial Vehicles were registered, which is about 6% of FY 22-23 total internal combustion engine vehicle sales. At the same time, government is also focusing on increasing use of ethanol, with

the target of 10% blending achieved ahead of schedule in May 2022 and the country now moving towards 20% ethanol blending. Similarly, the CNG infrastructure in the country has grown massively over the last few years. The pricing mechanism of natural gas has also been revised to ensure affordable gas for the mobility segment, thus driving greater adoption of CNG vehicle.

#### **Decarbonization of the automobile sector:**

Major decarbonization pathways for transportation include switching to lower-carbon fuels, improving vehicle efficiency, and improving system-wide efficiency, including through the use of autonomous vehicles and vehicle sharing. What does the term “low carbon” mean? Low carbon simply means fewer emissions of carbon dioxide (CO<sub>2</sub>) or CO<sub>2</sub> equivalent GHG emissions. Carbon dioxide is a key greenhouse gas that drives global climate change.



Sustainable mobility and net zero concepts are two related ideas that aim to reduce the environmental impact of transportation. Sustainable mobility is a concept that aims to provide safe, efficient, and environmentally friendly transportation for people and goods. It is closely related to the three verticals of sustainability: social, environmental, and economic. The net-zero concept is a goal to balance the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. It is also known as carbon neutrality or climate neutrality. The Indian automobile industry is undergoing transformation to attain the net zero, as India has committed during COP26 at Glasgow.

## Pathways to Net Zero Emissions in India- a Framework:

### Key strategies:

Overall, achieving the decarbonizing targets requires adopting pathways for the decarbonization of the automotive sector. However, the decarbonization of the automobile industry will take time. That is why

India stated at CoP 26 at Glasgow the 2070 target for decarbonization of Indian economy with certain caveats. It will require continued investment and growth that matches the curtailment of carbonized activities. A low-carbon transportation sector in the future will help India reach the decarbonisation targets; it's just a matter of investment, technology, and right implementation.



The 2030 Agenda for Sustainable Development is a global plan of action that seeks to end poverty, protect the planet, and ensure peace and prosperity for all. It consists of 17 Sustainable Development Goals (SDGs) and 169 targets that cover various aspects of human well-being and environmental protection<sup>2</sup>.

Sustainable mobility is essential for achieving many of the SDGs, as it can contribute to reducing inequalities, improving health, enhancing education, promoting economic growth, combating climate change, and building resilient and inclusive societies. By pursuing sustainable mobility, we can create multiple benefits for our planet and our people.

### Sustainable Mobility & SDGs:

The agenda 2030 states that “sustainable transport systems, along with universal access to affordable, reliable, sustainable and modern energy services, quality and resilient infrastructure, and other policies that increase productive capacities, would build strong economic foundations for all countries” The SDGs include five targets that are directly related to the transport sector and seven other targets that are indirectly related to the transport sector.

### Way Ahead:

At the COP26 climate summit in Glasgow in November 2021, India committed to achieving net-zero emissions by 2070. This was one of the five major commitments or panchamrit to mitigate climate change. The rest are as follows:

- India will bring its non-fossil energy capacity to 500 GW by 2030,
- India will bring its economy's carbon intensity down to 45 percent by 2030,
- India will fulfill 50 percent of its energy requirement through renewable energy by 2030,
- India will reduce 1 billion tonnes of carbon emissions from the total projected emissions by 2030



The Auto Industry globally represented by OICA, in response to the COP26 Joint Declaration (or Glasgow Agreement) on 12 November 2021, announced their

Sustainable mobility and ESG are two concepts that are closely related and mutually reinforcing. ESG stands for environmental, social, and governance, and measures the sustainability and ethical impact of an organization or an investment. Sustainable Mobility is a concept that aims to provide safe, efficient, and environmentally friendly transportation for people and goods. Sustainable mobility and ESG are not only important for achieving the 2030 Agenda for Sustainable Development but also for creating value and opportunities in the mobility market. By pursuing sustainable mobility and ESG, we can create multiple benefits for our planet and our people. India's Business Responsibility and Sustainability Report (BRSR)—a framework for environmental, social, and governance (ESG) reporting—comes into effect in 2023.

commitment to realizing the goal of carbon neutrality by 2050. It further stated that no single government policy or industry commitment will achieve this ambitious goal and all government will work collaboratively – at all levels of government and across all economic sectors - to identify the suite of approaches necessary to establish sustainable

pathways to carbon neutrality across sectors and the unique realities of individual nations around the world.

The auto industry recognizes the importance of decarbonizing road transport as a way to help achieve this broader goal by 2050. According to the International Energy Agency, transport as a whole contributed in 2020 to 37% of the global CO2 emissions from end-use sectors, while road transport (cars, trucks and buses) accounted for 76% of the total transport sector. As a result, 28% of the global CO2 emission can, according to the IEA, be attributed to the road transport sector. To that end, the industry is planning to invest \$515 billion globally by 2030 to help facilitate the transition to an electrified future (including battery, plug-in hybrid, and fuel cell electric vehicles), while simultaneously continuing to innovate on the broad array of powertrain technologies necessary to meet the broad and diverse needs of a global market.

In India to achieve resilient and inclusive sustainable mobility, it is necessary to continuously plan for a **carbon neutrality** model of growth, rather than focusing on physical infrastructure for vehicle mobility alone. The need is to build integrate transport planning with all the tools and measures for inclusive sustainable mobility.

## Sustainable Mobility Group

The Chairman of the **Sustainable Mobility Group** in a meeting held on 6<sup>th</sup> April 2023 stated that the responsibility of this Group is to guide the industry with suitable technology adoption with the right investments to mainstream sustainability. The automotive industry needs to lead the transition in the energy domain and spearhead mitigating global climate change. He underlined the various initiatives of sustainability under the Sustainable Mobility Pillars, Decarbonization & Road Safety: '*Jaivik Pahal*', '*Vidyutikaran*', '*Gas Gatisheelta*', '*Harit Hydrogen*', '*Chakriyata*,' and '*Surakshit Safar*' and urged the members to be part of the ongoing initiatives of sustainable mobility. He also encouraged providing space and priority for new ideas and innovations in the automobile industry. The Co-Chair of the Group stated that the momentum of sustainable mobility was further built up in the Auto Expo 2023 through the flagship events organized to showcase various sustainability imperatives. He stated that due to the commendable efforts of SIAM, sustainability is now getting more prominent in the mindshare of OEMs and other stakeholders in value chains, especially in the discourse of net zero emissions, material circularity, and decarbonization.

The chairman highlighted the following key verticals of sustainability under the Sustainability pillar Decarbonization:

1. **जैविक पहल (Bio Initiative):** SIAM launched a Bio Initiative campaign called जैविक पहल (Bio Initiative), which promotes biofuels produced from renewable biological materials. It also focuses on the decarbonization through promotion of Ethanol blending fuel in the automotive industry. By promoting the conversion of waste into biofuel or manure, SIAM aims to create awareness about increased farm income and other benefits related to it.
2. **विद्युतीकरण (Electrification):** SIAM has undertaken an initiative to focus on the proliferation of electricity as an alternate fuel called विद्युतीकरण (Electrification) which aims to power vehicles with electric batteries, fuel cells, and hybrid or plug-in hybrid technologies.
3. **गैस गतिशीलता (Gas Based Mobility):** An initiative undertaken by SIAM to encourage an increase in the adoption of gas-based fuels through a campaign of गैस गतिशीलता (Gas Based Mobility), which retains the focus on CNG/LNG-based mobility, especially for PV, 3W, and CV.
4. **हरित हाइड्रोजन (Hydrogen Mobility):** SIAM has taken a Green Hydrogen initiative called हरित हाइड्रोजन (Hydrogen Mobility) in alignment with the recently announced Green Hydrogen Mission of the Government of India. This initiative focuses on driving Indian mobility using Green Hydrogen as an alternate fuel.
5. **चक्रीयता (Circularity):** An initiative focusing on Recycling and the Circular Economy by employing Extended Producer Responsibility called चक्रीयता (Circularity) is undertaken by SIAM. The promotion of a Circular Economy will minimize waste and ensure that resources are used efficiently and sustainably.

The chairman also highlighted the Road Safety pillar of Sustainable Mobility:

6. **सुरक्षित सफर (Safe Journey):** SIAM has undertaken an initiative to develop Sustainable Mobility in the country and Road Safety is a key pillar as India accounts for the highest no of road accidents in the world. सुरक्षित सफर (Safe Journey) - Safe Journey focuses on initiatives to highlight the importance of Education, Engineering, Enforcement & Emergency Care to ensure a more holistic approach to solving the challenge of Road Safety.

The highlights of the key activities implemented during the last year are summarized in the following paras:

### **Progress & milestones achieved under Sukh Da Saah (SDS) & Microbial projects:**

The activities under the SDS 1.0 and SDS 2.0 projects culminated with outstanding results and the updated status of SDS activities are outlined hereunder:

#### **Sukh Da Saah Project SDS 1.0:**

The SDS 1.0 project at Jasso Majra started in 2018 and was completed in 2020-21 with remarkable accomplishments with >92% in 2020-21. The monitoring work at ground level in 2021-22 showed that there was >81% reduction in stubble burning when the implementation activities ceased in the previous year. The aforesaid results were disseminated during the 2022-23 to all stakeholders. The quantitative environmental and climate benefits accrued under the project are provided below:

<b>Environmental and Climate Benefits of the project</b>			
<b>Avoided Air pollutants (in tons)</b>		<b>Avoided GHGs (in tons)</b>	
Particulate Matter 2.5	304.4	Carbon Dioxide	64.6
Volatile Organic Compounds	370.6	Methane	508.2
Ammonia	217.0	Black Carbon	33.9
Oxides of Nitrogen	103.2		
Sulfur Dioxide SO2	15.4		

#### **Sukh Da Saah Project SDS 2.0 (2020-21):**

The SDS project 2.0 implemented in 7 additional villages adjacent to Jasso Majra. The project was completed in 2022-23 with consistent and remarkable results achieving >85% reduction in stubble burning. The environmental and climate benefits of the project are being assessed and will be reflected

in the cumulative report of SDS 1.0 and SDS 2.0 and same published for dissemination to the stakeholders. The outcome of the project was disseminated to all stakeholders in 2023.

#### **Microbial Project 2.0 (2020-21), and Microbial Project 3.0 (2021-22):**

The completion of the microbial projects and publication of reports capturing the bio-



degradation actions of Re-life microbial consortia agricultural land in various districts of Punjab have been expedited by SIAM. The report of Microbial Project 2.0 was unveiled by *Mr. Ashwini Kumar Choubey, Hon'ble Minister, MoEF&CC, on the occasion of WED 2022* while report of Microbial Project 3.0 was unveiled by *Mr. Pankaj Jain, Secretary, MoP&NG* on World Biofuel Day 2022. These reports have also been circulated to stakeholders for dissemination of the exceptional outcome of these projects.

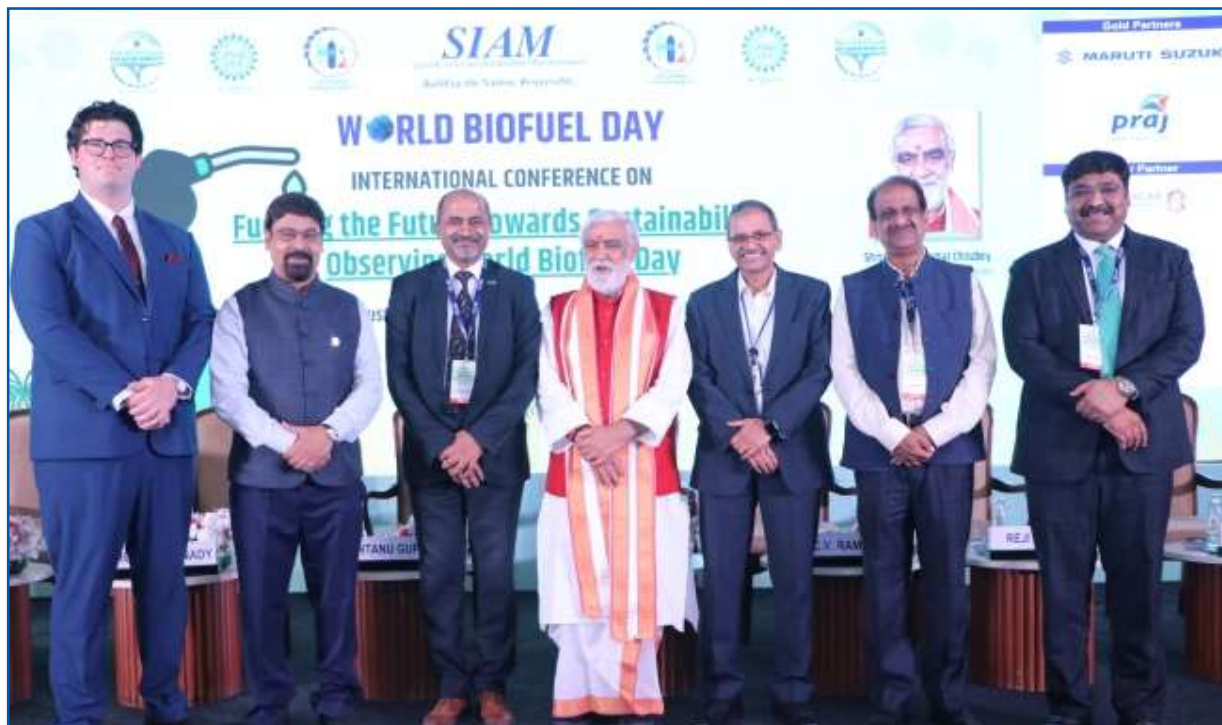
#### **Microbial Project 4.0 (2022-23):**

The project employing Stub-Vorous- a new microbial digester implemented in collaboration with IOCL and IPS Foundation in Punjab. The results of the projects were outstanding which will be disseminated to stakeholders.

#### **Multi-media campaign-2022-23 in PTC Punjabi and PTC News:**

SIAM has persistently showcased the SDS project outcomes through the multimedia campaign amongst farmers and the masses since 2018. The multimedia campaign of 2022-23 through TV was launched this year with 324 video spots, which were broadcasted from 31st October to 14th November 2022. The project's total cost was Rs. 12.08 lakh, which was contributed directly by SIAM members. In addition, 35 audio spots were also aired on Radio City & Big FM from 11 November- 17th November 2022, costing Rs. 2.5 lac. SIAM's SM Group supported the continuation of the multimedia campaign, which is critical for disseminating the best practices of SDS amongst farmers.

#### **Organization of Thematic Events related to Sustainable Mobility: World Biofuel Day 2023**



Shri Ashwini Kumar Choubey, Hon'ble Union Minister of State for Environment, Forest and Climate Change at World Biofuel Day Event

With the objective of promoting eco-friendly and sustainable mobility, the Society of Indian Automobile Manufacturers (SIAM) celebrated the World Biofuel Day on 9<sup>th</sup> August 2023 by hosting an international conference focused on "Fuelling the Future towards Sustainability: Observing World Biofuels Day 2023". The conference aimed to share knowledge and experiences about making the automotive industry more sustainable through the use of biofuels. It witnessed deliberations around various aspects of biofuel, including biofuel

production, use, biofuel policies in India and global initiatives, along with innovative technologies. *Shri Ashwini Kumar Choubey*, the Hon'ble Minister of State, Ministry of Environment, Forests, and Climate Change, Govt. of India, graced the conference as Chief Guest and addressed the gathering. The conference provided a platform for industry experts and stakeholders to discuss and explore ways to drive sustainable practices in the automotive sector through the adoption of biofuels.

### Seminar on Extended Producer Responsibility (EPR) Regime



Seminar on Achieving Circularity in the Automotive Industry through EPR Regime

Aligned with the vision of the Government of India's aim to promote sustainable mobility and foster a circular economy, SIAM under the umbrella of 'Chakriyata' (Circularity) initiative organized a seminar on 'Achieving Circularity in the Automotive Industry through Extended Producer Responsibility (EPR)' on 2<sup>nd</sup> August 2023. The seminar emphasised how effective EPR implementation can contribute to Aatmanirbhar Bharat, Circular Economy, Decarbonisation, LiFE (Lifestyle for Environment) and achieve targets of UN

Sustainable Development Goals 2030. The event of graced by Chief Guest Dr Hanif Qureshi, Joint Secretary, Ministry of Heavy Industries, who inaugurated the seminar. The seminar witnessed active participation of several coveted speakers including senior government officials, industry leaders, and automobile experts, discussing the ways to enhance their commitment to sustainable practices, reduce environmental impact and support the nation's vision for self-reliance and circularity in the automotive sector.

## Launch of "Road Safety Education & Awareness Programme" for School Children



Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways at the MoU Signing Ceremony between SIAM & KVS

In Collaboration with Kendriya Vidyalaya Sangathan (KVS), SIAM launched a Nationwide Educational Initiative "Road Safety Education & Awareness Programme" exclusively designed for school students across the country, reinforcing its ongoing "SIAM Surakshit Safar (Safe Journey)" initiative. This program aims to instil responsible road behaviour and promote road safety consciousness among young minds. *Shri Nitin Gadkari, Union Minister of Road Transport and Highways* graced the launch ceremony of this comprehensive awareness initiative as chief guest. Additionally, esteemed dignitaries like *Ms. Prachi Pandey, Joint Secretary- Ministry of Education, Ms. Nidhi Pandey, IIS, Commissioner, Kendriya Vidyalaya*

*Sangathan, Mr. Sanjay Kumar, Secretary, Ministry of Education, and Mr. Vinod Agarwal, President-SIAM and MD and CEO - VECV* supported the launch. Celebrated film actor *Raj Kumar Rao* was also present on the occasion and extended his support to the cause.

On this occasion, SIAM also signed a Memorandum of Understanding (MoU) with Kendriya Vidyalaya Sangathan (KVS). Under the aegis of the Ministry of Education and Ministry of Road Transport & Highways, this strategic collaboration sets the foundation for a massive educational drive aiming to reach over 14 lakh students in 1250 Kendriya Vidyalaya schools across India.



MoU being exchanged between SIAM & KVS officials

## World Environment Day 2023



Shri Ashwini Kumar Choubey, Hon'ble Union Minister of State for Environment, Forest and Climate Change, Government of India at the World Environment Day Celebration



Members at the India Energy Week, Bengaluru

Aligned with the vision of sustainable mobility, SIAM celebrated World Environment Day (WED) 2023 by organizing an International Conference on 'Imperatives of Sustainable Mobility: Towards Vision India@2047' at New Delhi. The conference was graced by the distinguished presence of Chief Guest, *Shri Ashwini Kumar Choubey, Hon'ble Union Minister of State for Environment, Forest and Climate Change, Government of India*, alongside eminent speakers from the government, and industry leaders hailing from both India and various corners of the globe. Their invaluable contributions, laden with profound insights and rich experiences, augmented the conference, laying the groundwork for a sustainable future in the realm of mobility

### India Energy Week

The Government of India celebrated the India Energy Week (IEW) at Bengaluru from 6<sup>th</sup> to 8<sup>th</sup> February 2023. India Energy Week (IEW) 2023 was being held under the patronage of the Ministry of Petroleum & Natural Gas (MoPNG), Government of India. India Energy Week has seen participation from the highest level of the

Indian government, including all the Public Sector Undertakings (PSUs), and was supported by the Federation of Indian Petroleum Industry (FIPI). SIAM, coordinated a "Sustainable Mobility Pavilion" at the India Energy Week 2023 showcasing the readiness of Automobile Manufacturers for transiting towards Sustainable Mobility by adopting different technology options ranging from Ethanol (E-20) to Flex-Fuel vehicles to Electric and Hybrid, amongst both Four wheelers and Two wheelers. SIAM's Sustainable Mobility Pavilion at IEW 2023 showcased 12 products of Ethanol, Flex fuel, and Electrified vehicles including Hybrid and Battery Electric Vehicles, demonstrating the E20 compatibility and Electric/hybrid readiness.

SIAM organized the Rally during the event encompassing over 57 vehicles contributed through SIAM's Member OEMS which was flagged off by the Hon'ble Prime Minister on 6<sup>th</sup> Feb, 2023 in the presence of leading energy-producing and consuming countries and over 30,000 delegates. The Rally had E-20, E-85, CNG, Electric, Electric Hybrid, and hydrogen Vehicles showcased by SIAM.

## Technology Demonstration on Flex Fuel Vehicles in India



Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways at the Flex Fuel Vehicle Tech Demonstration, New Delhi

In line with the Government's thrust towards ethanol adoption in India, the Society of Indian Automobile Manufacturers (SIAM) organized a Technology Demonstration on "Ethanol Adoption - Flex Fuel Vehicles in India", on 12<sup>th</sup> December 2022. The event demonstrated the readiness of automobile manufacturers for ethanol adoption through multiple segments of FFVs slated to be launched, particularly in the 4-wheelers and 2-wheeler segments. The tech demonstration was graced by Hon'ble Minister Shri Nitin Jairam Gadkari, Union Minister of Road Transport & Highways, Government of India, who inaugurated the demonstration session where the vehicle features and technological developments were showcased to emphasize the use of FFVs and future possibilities. The program witnessed participation from automotive industry experts, government officials, Oil Industry, and other stakeholder associations.

### International Conference on Biofuels

Society of Indian Automobile Manufacturers (SIAM) conducted an International Conference on 'Biofuels – A Pathway towards Sustainable Future', on 19<sup>th</sup> October 2022, in alignment with the Government of India's vision to promote the usage of biofuels for transportation. The program witnessed participation from automotive industry experts, government officials, academia, and other stakeholder associations including the ambassador and experts from Brazil. In this conference on Biofuels, delegates shared knowledge best practices, experiences and disseminate learnings on biofuels, especially ethanol. In addition, issues related to emissions, GHGs, and decarbonization in the automotive sector were also discussed. The conference provided a glimpse of policies, and regulatory and legislative frameworks for biofuels and their usage to foster sustainable mobility.

## KEY Events Mainstreaming Sustainability at Auto Expo 2023

SIAM utilized Auto Expo-the Motor Show 2023

to foster a new brand image of motor vehicles aligned with sustainability and safety. In this regard, SIAM organized the following multiple events and thematic pavilions:

### 2<sup>nd</sup> Global Electrification Mobility Summit (GEMS)



CXOs Panel Discussion at the 2<sup>nd</sup> edition of GEMS

Aligned with the government's vision of net zero by 2070, and SIAM's Vidyutikaran initiative, SIAM organized the 2<sup>nd</sup> edition of Global Electrification Mobility Summit (GEMS) themed "Vidyutikaran – Mapping India's Pathway to Electrification" on 12<sup>th</sup> January 2023 at the Auto Expo Motor Show 2023. Witnessing participation from many foreign and Indian delegates, the summit hosted six countries as 'Guest Countries' – USA, Korea, Sweden, Israel, United Kingdom and the European Union. The

event saw various stakeholders participating, including national and international banks and NBFCs, international guest speakers, secretaries and transport commissioners of various states, and EV ecosystem stakeholders including battery manufacturers. The summit had five-panel discussion sessions, and SIAM also unveiled the vision behind the theme 'Vidyutikaran' strategy for electrification and showcased its full commitment to developing electric mobility in India.

## 1<sup>st</sup> International Symposium for Thriving Eco-Energy in Mobility (ISTEM)



Hon'ble Minister Shri Hardeep Singh Puri, Union Minister of Petroleum & Natural Gas, at the ISTEM event

On 13<sup>th</sup> January, 2023, aligned with the Government's thrust towards ethanol adoption in India, the SIAM organised an International Symposium for Thriving Eco-Energy in Mobility (ISTEM), at the India Expo Mart, during the Auto Expo 2023. The conference focused on promoting ethanol as a sustainable fuel and covered topics for stakeholder's discussion for bringing clarity on this fuel transition. The conference witnessed participation from national & international stakeholders of ethanol economy including ethanol producers, technology providers and leading global OEMs. *Hon'ble Minister Shri Hardeep Singh Puri, Union Minister of Petroleum & Natural Gas, Government of India* inaugurated the conference. Further, SIAM and the US Grains Council signed a Memorandum of Understanding (MoU) toward the promotion of higher ethanol blends in the Indian gasoline mix and its impact on the automobile industry. The MoU was signed by *Mr. Vinod Aggarwal, President, SIAM and Mr. Josh Miller, Chairman, USGC* in the presence of *Hon'ble Minister Shri Hardeep Singh Puri, Union Minister of Petroleum & Natural Gas, Government of India* and *Ms. Gloria Berben, Acting Deputy Chief of Mission, USEmbassy*.

### 3<sup>rd</sup> International Conference on Sustainable Circularity

SIAM in its quest for Decarbonization of transportation, GHG reduction, local pollution mitigation, and employment generation is emphasizing on the sustainable circularity. Further, SIAM with its motto "Building the Nation Responsibly" is committed to promote Reduce, Reuse, and Recycle pillars in line with the Central Pollution Control Board (CPCB) (Guidelines for Environmentally Sound Management of End-of-Life Vehicles, 2016), Ministry of Environment, Forest and Climate Change (MoEF&CC) (Draft Policy : National Resource Efficiency Policy), Ministry of Steel (Steel Scrap Recycling Policy, 2019), and Ministry of Road, Transport and Highways (The Vehicle Scrap Policy, 2021) as envisioned by Hon'ble Prime Minister for Atmanirbhar Bharat.

Aligned with the its *Chakriyata (Circularity)* Initiative, SIAM in association with European Union: Resource Efficiency Initiative (EU-REI), organized the International Conference on Sustainable Circularity (ICSC) themed

“Recycling in Indian Mobility Context”. The conference witnessed participants discussing the way forward for achieving affordable sustainability aligned with policy changes and future of RVSFs & ELV recycling in the Indian

context. The Conference was aimed at bringing together Industry Stakeholders and Government representatives at the highest level to create a pathway to Circular Economy in India.



International Conference on sustainable Circularity

### Surakshit Safar Pavilion during Auto Expo 2023



Surakshit Safar Pavilion at Auto Expo 2023



Shri Nitin Gadkari, Union Minister of Road Transport and Highways of India, inaugurating Surakshit Safar at Auto Expo 2023

SIAM taking further the सुरक्षित सफर (Safe Journey) initiative, organized Surakshit Safar Pavilion on the sidelines of national road safety week (11<sup>th</sup> to 17<sup>th</sup> January 2023) in association

with Rosemerta from 12<sup>th</sup> January to 18<sup>th</sup> January 2023 during the Auto Expo – The Motor Show at Greater Noida. The Surakshit Safar pavilion was inaugurated by *Shri Nitin Gadkari*,



Union Minister of Road Transport and Highways of India, Government of India and many other eminent members from the automobile industry visited the pavilion. The benefits of road safety were highlighted to the visitors at Road Safety pavilion through multiple attractions like simulators, competitions, performances and photo booths. Multiple road safety stakeholders like Delhi Traffic Police, Centre of Excellence for Road Safety from IIT Madras, Indian Head Injury Foundation, Dr. Shroff Eye Centre & Eicher Foundation, IVC Logistics – CMVR Compliant Logistics also

highlighted exceptional work executed by them.

Apart from panels displaying various facets of road safety like importance of helmets, importance of wearing seat belts, and Good Samaritan law – First Responder is also on display. The pavilion has also concentrated on Asli Naqli (Be Genuine Buy Genuine), bringing to light the spurious parts business that is a massive illegal industry amounting to INR 25,000 crores.

### Ethanol Pavilion during the Auto Expo 2023



Ethanol Pavilion at the Auto Expo - The Motor Show 2023

SIAM taking further the Jaivik Pehal Initiative, organized the Ethanol Pavilion on the side line of the Auto Expo – The Motor show. Ethanol Pavilion gave its visitors a glimpse to all the changes, technologies and benefits that ethanol adoption brings to the society in general. In collaboration with multiple Indian stakeholders like OMCs, OEMs and international bodies in the field of ethanol namely UNICA and USGC, SIAM engaged the 600,000+ visitors of the flagship motorshow of the nation. Hon'ble Minister Shri Hardeep Singh Puri, Union Minister of Petroleum & Natural Gas,

Government of India also inaugurated the Ethanol Pavilion, where the vehicle features and technological developments were showcased to emphasize the use of FFVs and their future possibilities.



Meeting of Auto Industry with Oil Marketing Companies

All aforesaid events received tremendous responses & overwhelming participation of stakeholders with unprecedented visitors. Both national and international experts and stakeholders participated in the international conferences/seminar.

India and Brazil signed a Memorandum of Understanding in the field of Bioenergy in January 2020 and inter-alia, agreed to work together to promote and foster low carbon economy. In continuation to the same, SIAM and UNICA also signed an MoU on 21<sup>st</sup> April, 2022 to work in the area of sustainable fuels. SIAM's initiatives on sustainable mobility was recognised by the Brazil Government in awarding **"The Order of Rio Branco"** award to

SIAM for distinguished contribution to the Indo-Brazil Cooperation in the field of Bio-Energy. The award was given by His excellency Mr Andre Aranha Correa Do Lago, Ambassador of Brazil to India in a ceremony on 19<sup>th</sup> January, 2023.



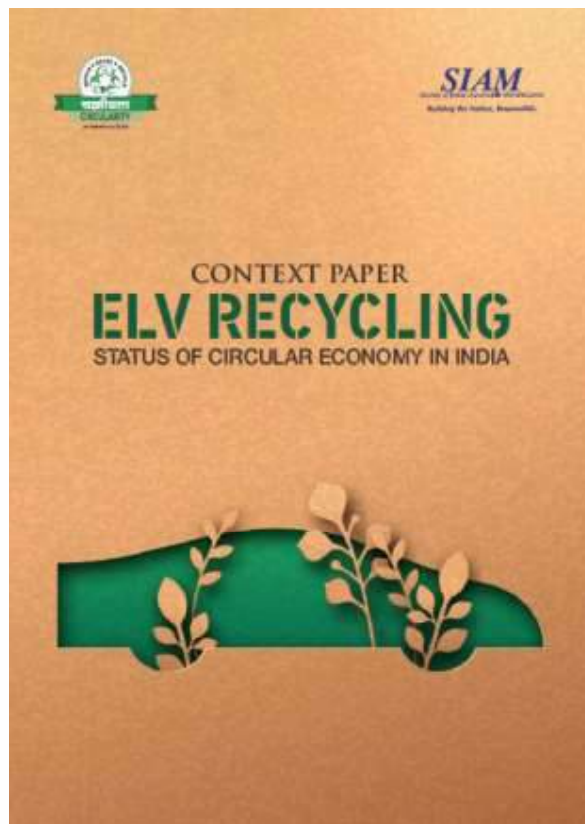
Mr P K Banerjee, ED, SIAM receiving the award from Mr Andre Aranha Correa Do Lago, Ambassador of Brazil to India

### Context Papers on key themes of Sustainability

SIAM, under sustainable mobility, has also prepared the following context papers:

- (i) Context Paper on 'Ethanol Adoption: Multiple Benefits Perspective'
- (ii) Context Paper on 'ELV Recycling – Status of Circular Economy in India'

The salient features of these context papers and the purpose behind the preparation of context papers were provided in these context papers. The Context Paper on 'Ethanol Adoption: Multiple Benefits Perspective' was released by Hon'ble Minister Mr. Hardeep Singh Puri at the International Conference (ISTEM) held on 13<sup>th</sup> January 2023. The context paper on 'Sustainable Circularity: Recycling in Indian Mobility Context' was unveiled by the Chief Guest, Mr. Arun Kumar Mishra, Chairman, NHRC, at the international conference on 16<sup>th</sup> January 2023 at Auto Expo 2023. The Chairman and members of Sustainable Mobility Group appreciated the aforementioned papers.



## Update on Global Cooperation for Attaining National and International goals of Sustainable Mobility

The Group deliberated on International Cooperation and understanding the prerequisites for strengthening the technological base and attaining national & international goals of Sustainable Mobility. SIAM is pursuing the following proposals:

- (i) Strengthen the technical cooperation with international entities, as outlined below:
  - (a) Brazil (UNICA),
  - (b) USA (US Grain Council),
  - (c) EU/GIZ
  - (d) UNEP, and
- (ii) Further, SIAM is exploring the possibility of collaboration with Japan, South Korea & others economies of prominence with emerging/futuristic technology

## Update on Diesel- white paper & AUS 32

- (i) White Paper on Diesel: The Diesel WP formulated by the Sub-group under the guidance of SM Group was completed and circulated to the Group members for consultations. Post-consultations, the WP has been finalized for publication for dissemination to the stakeholders including Government.
- (ii) Fuel and AUS 32 Quality monitoring & reporting: SIAM is pursuing the matter related to the QCO for AUS 32 Quality monitoring in SCOE meetings for expeditious disposal, including reduction in existing GST (18%) to 5% to minimize the

price gap through the MoRTH. However, there has yet to be any progress in the matter. Therefore, SIAM has proposed that Quality Control of India (QCI) can also be approached to ensure the quality of DEF and other fuels in vogue. QCI can play a catalytic role in ensuring fuel quality, including DEF.

## SIAM advocacy documents for Sustainable Mobility

The following advocacy documents for sustainable mobility have been prepared by the SIAM Secretariat:

- (i) Declaration on hazardous material use in the automotive sector,
- (ii) Declaration on Cleaner Mobility 2020 & Beyond,
- (iii) SIAM Comprehensive Roadmap for sustainable mobility.

These documents are required for circulating these documents to all members of the Group for their comments/suggestions to facilitate the finalization of these documents for dissemination to all OEMs and other stakeholders.

## SIAM's initiatives of Decarbonization (Javik Pahal)

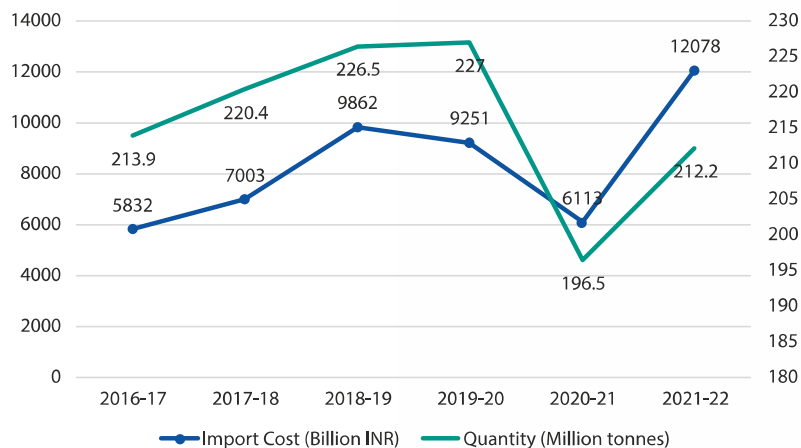


India is an automotive behemoth with approximate 29.5 crores vehicles running on roads. With an estimated 2 crore vehicles added every year and expanding middle class in this growing economy, the vehicle parc is bound to increase exponentially. Additionally, the automobile sector is the biggest contributor to the manufacturing GDP of India and aims to give employment to large number of people. India has embarked upon the development of

sustainable practices in automotive sector, which ensure continuous improvement in production, usage, reuse and disposal practices related to vehicles.

India's crude oil import bill surged 76% to \$90.3 billion in the first half of 2022-23 even as the total import quantity increased by 15% to 116.6 million tonnes because of geopolitical scenario.

**India Petroleum Imports Through the Years**



The current ethanol blending levels have saved approx. INR 41,000 crores worth of fuel imports for the nation. Mixing 20% ethanol in petrol will potentially reduce Indian fuel imports by INR 30,000 Crores per annum.

India started blending ethanol in petrol on a pilot basis in 2001 with a view to give a boost to the agriculture sector and to reduce environmental pollution. As a part of the pilot projects launched by the Government of India, 5% ethanol blended petrol was supplied to retail outlets. R&D studies were simultaneously conducted apart from the field trials. The success of these field trials paved a way for Ethanol Blending Petrol (EBP) in India.

In January 2003, Government of India launched

an Ethanol Blending Petrol (EBP) Programme in 9 States & 4 UTs for sale of 5% Ethanol Blended Petrol. Based on the promising experiences Ministry of Petroleum & Natural Gas (MoPNG) extended this programme to 20 States and 4 UTs effectively from 20<sup>th</sup> September 2006. Public Sector Oil Marketing Companies (OMCs) were asked to sell 5% ethanol blended petrol subject to commercial viability as per Bureau of Indian Standards (BIS) specifications in the notified states and UTs.

Even though the programme started early it faced the multiple challenges leading to adoption and growth, and the programme showed the mixed results with average blending ranging from 0.1% to 1.5% till 2013-14.

Challenges faced by the Ethanol Blending Programme in India are:

- Non-inclusion of conversion of grains to Ethanol, which resulted in restriction of grain-based distilleries to participate in the EBP Programme. Only Molasses based distilleries were part of the EBP Programme
- High Taxation on Ethanol. 18% tax rate was applicable
- Procurement Challenges due to poor infrastructure and multiple tenders' applications on a given Ethanol Supply Year (ESY)
- Dissatisfactory 'take home' price and irregular pricing for ethanol suppliers
- Limited availability of Feedstock (raw material)
- Constraints on the part of State Government Policies

These challenges made progress slow and reduction in investments in the sector. However, the underlying potential of the Programme was never disputed and the interventions from the Indian Government since 2014 has made drastic improvement and by May 2022, India achieved 10% blending & targeting 20% by 2025-26.

To make strides along with the government, SIAM initiated the concept of "JAIVIK PAHEL". Considering the supply of Ethanol Blended Fuel with minimum RON95, E20 material compliant and E10 engine tuned vehicles have been rolled out all across the country from April 2023. These vehicles can tolerate 10% to 20% of ethanol blended gasoline and also give optimal performance with E10 fuel.

Vehicles with E20 tuned engines can be rolled out all across the country from April 2025. These vehicles would run on E20 only and will provide high performance. Since, India is planning to

migrate towards E20 petrol fuel from 2025-26, all vehicles sold in India will need to be E20 Compliant. Varying degrees of engineering intervention would be required in the fuel, electrical, and exhaust systems, and most importantly the engine. Some components like piston, cylinder block, cylinder head, injectors, fuel rail will have to undergo change. SIAM has been committed to introduce at least one two wheeler complying to E 85 by Oct, 2024 and 4W by 2025-26.

### Vidyutikaran



Electric vehicles are becoming increasingly important in mobility due to their environmental sustainability and cost-effectiveness. Electric vehicles have nearly zero emissions, which helps reduce air pollution, decrease greenhouse gas emissions, and improve public health. Additionally, electric vehicles provide an economical alternative to traditional vehicles with lower maintenance costs, and access to government incentives and tax credits. As electric vehicles become more widely available, they will play an increasingly significant role in providing a more sustainable and cost-effective form of transportation.

Electric vehicles have seen a tremendous growth in their adoption across the world over the past decade driven by increasing climate

concerns and push for sustainable mobility from customers as well as regulators. Spurred by a renewed sense of urgency, regulators in Europe and the US have set far more demanding goals for curbing greenhouse gas emissions from cars and light vehicles. Automakers have also raised their game and introduced electric vehicle (EV) options in every part of their product portfolios. Together, these forces are turbocharging the global market for EVs.

Government support for EVs includes tax incentives, grants, subsidies, and R&D funding. Tax incentives such as credits, deductions, and exemptions also reduce the cost of purchasing an EV for customers. Grants and subsidies provide funding for purchasing and also ensure sustainance through development of charging infrastructure. Labs and institutes can use R&D funding to improve EV technology and reduce manufacturing costs.

Electric vehicles' adoption depends majorly on the cost of products, variety of offerings to meet needs for different customer segments and infrastructure support in form of widespread charging infrastructure. Development of local manufacturing capabilities for batteries and other components is crucial to ensure affordability of EV products as well as to ensure local employment generations. The EV ecosystem is evolving rapidly with new technological disruptions taking place across the value chain. Thus for development of the Indian EV ecosystem, collaboration between different players to develop new technologies and business models is critical.

SIAM has deep interface with the Government & expert committees and is already playing a leading role in the development of the electrification ecosystem by

Engaging the government to avoid sudden policy changes which could impact the growth of the xEV ecosystem;

Ensuring and advocating support/incentives to enable electrification across different vehicle segments to achieve government targets for EV penetration;

Contributing to make a strong regulatory mechanism so that the product in the market confirms to the strong standards and applications.

Starting Auto-Expo-2023, where the narrative of Electric mobility was established by SIAM, The Indian government has been proactive in taking steps to promote electric vehicle adoption in the country. Demand side incentives such as FAME scheme have been pivotal in driving initial adoption by ensuring price parity with ICE vehicles. Similarly, the government has also focused on development of manufacturing and charging ecosystem in the country through various incentives for setting up charging infrastructure and flagship Production Linked Incentive.

The majority of Indian States have established their electrification policies that support state-level goals, following the central government's lead. With a differing emphasis on EV adoption, charging infrastructure, industrial promotion, recycling, and EV finance, most states have an electrification policy framework. Penetration targets for different vehicle segments have also been taken at State level in addition to the central government targets, thus providing additional impetus for electrification. The enegagement of SIAM commenced with the efforts of the SIAM in this space.

## Chakriyata



Aiming to create a pathway to a Circular Economy-by launching Chakriyata in India. In this regard, SIAM is engaged with all stakeholders on ELV (End-of-Life Vehicle) recycling and a circular economy is to reduce waste, conserve natural resources, and promote sustainable production and consumption. By recycling and reusing materials from end-of-life vehicles, such as metals, plastics, and glass, valuable resources are conserved and the environmental impact of waste is minimized. The circular economy approach aims to create a closed-loop economy where used resources are put again in the economic cycle for use as long as possible, reducing the need for virgin materials and mitigating the negative impacts of waste on the environment. As part of policy advocacy, SIAM organized several events during the this period including the visit to the Rosmerta RVSF facility.

India has adopted the 17 Sustainable Development Goals for 2030 developed by UN Department of Economic and Social Affairs. SIAM aims to promote SDGs related to automotive sector by bolstering dissemination and implementation of safe vehicles, sustainable and affordable mobility. Moreover, GoI also initiated the "Guidelines for the Environmentally Sound Management of ELVs in

India", which was further revised in 2019 to "Guidelines for Environmentally Sound Facilities for Handling, Processing and Recycling of End-of- Life Vehicles (ELV)" as the legislative framework towards environment protection. SIAM has planned to focus on fleet modernization to ensure induction of safe vehicle technologies. These will allow lower emissions from the mobility sector and thus decarbonisation of the vehicle parc. Newer technologies will also stimulate adoption of vehicles safer for Indian roads and cleaner for air quality. Awareness about sustainable recycling practices will allow the automotive players to be ready for newer technologies and make the industry eco-efficient from the get-go. This will also enable eco-design and green manufacturing practices in the mobility. SIAM aims to bring societal benefits through safe recycling practices. Reduction in imports due to advanced circular economy will save energy and emissions owing to lower mining. By practicing safe recycling processes, SIAM aims to reduce the Sustainability has been on the agenda for automotive organizations for some time now, but it has achieved a new urgency and importance today. Corporates today are reaffirming their focus on sustainability strategy at the corporate level into three key areas: climate action, circular economy, and ethical and responsible business. OEMs today are ensuring sustainability in their operations and working with their entire supply chain network to make entire value chain sustainable.

Indian government's major focus is to regulate and recycle discarded material and old vehicles, which are harmful to the ecology and environment. The process of utilizing discarded material and ELVs will assure feedstock supply for the vehicle recycling ecosystem that will be built in the years to come. By collaboration with

unorganized sector, the new recycling practices will be promulgated to all the players and produce multiple avenues of economic benefit to the nation.

India has embarked upon the development of sustainable practices in automotive sector, which ensure continuous improvement in production, usage, reuse and disposal practices related to vehicles. With the increase in the growth of automotive sector, management of ELVs is critical and requires attention. The environmentally sound management of ELV is of vital importance for environment conservation, circular economy and sustainable development.

Further, a highly efficient recycling processes will reduce the raw material requirement for the automotive sector of India. Ample amount of the cost arising on the sourcing side will be reduced because of material sourced from recycling practices in the new ecosystem. On a country level, this will help in forex reserve conservation and reduce dependency on external players. This will also steer the country towards its goals of 'Aatmanirbhar Bharat'.

### Gas Gatishilta



Government of India has laid down the vision for a Gas Based Economy by increasing the

share of natural gas from 6 % to 15 % by 2030 in India's energy mix. Climate change and global warming have become top global issues, with the transport sector being the major contributor using fossil fuels. Natural gas is the cleanest option for the transport sector as a fossil fuel. Therefore, clean, affordable and renewable energy becomes a major pathway for the transport sector to reduce GHG emissions and achieve sustainability. SIAM's focus on sustainable mobility is facilitating higher adoption of natural gas vehicles (CNG and LNG) in India and decarbonizing the transport sector.

CNG provides a relatively cleaner energy for vehicles. The use of natural gas in the transport sector has contributed to a great extent in containing the pollution due to vehicular exhaust emissions. CNG is a low carbon fuel that emits less pollutants. Apart from this, natural gas as CNG has been able to replace high priced hydrocarbon commodity like petrol and diesel. It is economical than other conventional fuels. It has no evaporation leaks and spills of fuel, both during refuelling and feeding of car.

In the early 1990s, GAIL launched pilot projects in Delhi and Mumbai leading to start of commercial operations of City Gas projects. Later, CGD projects in these cities were rolled out through Joint Venture Companies (JVCs) viz. Indraprastha Gas Limited (IGL) and Mahanagar Gas Limited (MGL). The impact of these ventures was remarkable from the beginning and has transformed the lives of the people of these two cities. Based on the success of MGL and IGL, many more companies entered the CGD sector.

To have a conducive regulatory environment for CGD network development, Ministry of Petroleum & Natural Gas (MoPNG) established the Petroleum and Natural Gas Regulatory



Board (PNGRB) in 2007, under the PNGRB Act 2006. On 31<sup>st</sup> March 2006, PNGRB Act was notified. A specified GA (that includes districts) for developing CGD network is identified by PNGRB in accordance with the provisions of the PNGRB (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

PNGRB started competitive bidding process to authorize various GAs across the country. The implementation of CGD network in various cities has been taken up in a phased manner through CGD bidding rounds. Till now, PNGRB has conducted 11 CGD bidding rounds, wherein 295 GAs, which are spread across more than 630 districts and 28 States/UTs and cover around 98% of the population and around 88% of the Geographical area of the country, have been authorised to various CGD entities for developing CGD projects.

11<sup>th</sup> A CGD Bidding Round for development of new CGD networks in 67 Geographical Areas (GAs), covers more than 230 districts. Accordingly, the expected gas demand for CGD sector is likely to go up on account of addition of CGD networks in new areas, price advantage of CNG and increased use of PNG in domestic, industrial and commercial sectors. Environmental concerns will further augment gas demand, especially in automotive and industrial segments. Therefore, it can be rightly said that the CGD market is expected to grow by leaps and bounds in coming years.

Currently, CNG stations has crossed 5300 stations and which is a significant step in the direction of gas mobility. The target is to set 17,700 CNG stations are being planned till 2030 by the government and focus shall be on rural and urban areas. MoPNG plans 10000 stations in the 10 years starting 2020, which is a positive

signal, giving boost to Gas mobility in transport sector and taking its share to 15% of all fuels used in the transport sector.

### **Benefits of CNG:**

#### ***Environmental***

- No impurities, Sulphur or Lead
- Very low levels of polluting gaseous emissions without smell and dust
- Very low level of GHG emissions
- Molecular structure compactness prevents the reactive processes which lead to the formation of Ozone (O<sub>3</sub>) in the Troposphere.

#### ***Safety***

- Lighter than air - in case of leak no dangerous puddles
- Unlikely to ignite because of (a) High ignition temperature (b) Narrow range of ignition
- Lowest injury and death rate per vehicle mile
- CNG cylinders structurally most sound and have passed every severe test

#### ***Economical***

- Cheaper than conventional fuel.
- Payback period is short (around 3 - 4 years) for CNG cylinder

#### ***Technical***

- High antiknock power allows greater performance compared to that of petrol-based vehicle.
- Does not require refining plant or additive adding.

- No evaporation leaks and spills of fuel, both during refuelling and feeding of the car.
- Combustion produces very low quantity of carbon deposits.

### Harit Hydrogen



SIAM views hydrogen economy as an important and potent paradigm for energy security and opportunity for domestic technology and manufacturing competency. Many member companies of SIAM, especially in the CV segment like, Ashok Leyland, Tata Motors, M&M are quite active in the fuel cell system and vehicle development. Hydrogen-fuelled vehicles have been developed focussing both on hydrogen as fuel for internal combustion engines and fuel cell electric vehicles. Developmental work has also been carried out for indigenization of fuel cell stacks. All such projects are under progress and field trials.

The Ministry of New & Renewable Energy, Government of India has spearheaded several projects in the area of hydrogen economy for multiple years now which has resulted into enough acceptance and awareness amongst members that Hydrogen can become the energy source in near future for multiple sectors including the road transportation. It is expected

that there would be natural progression towards fuel cells electric vehicles as zero tail-pipe emission vehicles apart from battery operated electric vehicles. The Ministry of Heavy Industries & Public Enterprises through its flagship Scheme FAME India has promoted electric mobility in the country. SIAM opined that at the right time fuel cell electric vehicles would get adequately covered under the Scheme. The Ministry of Road Transport & Highways has also been proactive to provide a clear regulatory atmosphere to enable R&D and pilot projects be implemented while ensuring public safety at large.

Today, Hydrogen-based applications are mostly limited to Pilot/Demonstration phase in India. That is largely because of being a very nascent market with the absence of fuel infrastructure; high price of hydrogen as a fuel; high capital cost of fuel cell and minimal knowledge on durability/reliability. Given these, the commercialization of fuel cell vehicles as business as usual would be sometime away. Therefore, it is expected that more R&D and demonstration funds be channelized to make Hydrogen marketplace commercially acceptable. However, India must clearly identify its “right to win” and not reinvent and reinvest into basic technology development.

The central government has approved National Green Hydrogen Mission with an outlay of Rs.19,744 crore. This includes Rs.17,490 crore for the SIGHT (Strategic Interventions for Green Hydrogen Transition) Programme and Rs.1,466 crore for pilot projects, Rs.400 crore for R&D, and Rs.388 crore towards other Mission components. MNRE shall be the owner of the scheme and will formulate the scheme guidelines for implementation of the respective components.

The Mission will result in the following likely outcomes by 2030:

- Development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum with an associated renewable energy capacity addition of about 125 GW in the country
- Over Rs. Eight lakh crore in total investments.
- Creation of over Six lakh jobs.
- Cumulative reduction in fossil fuel imports over Rs. One lakh crore
- Abatement of nearly 50 MMT of annual greenhouse gas emissions

The Mission will facilitate demand creation, production, utilization and export of Green

Hydrogen. Under the Strategic Interventions for Green Hydrogen Transition Programme (SIGHT), two distinct financial incentive mechanisms – targeting domestic manufacturing of electrolyzers and production of Green Hydrogen – will be provided under the Mission. The Mission will also support pilot projects in emerging end-use sectors and production pathways. Regions capable of supporting large scale production and/or utilization of Hydrogen will be identified and developed as Green Hydrogen Hubs.

The objective of the mission is to make India a Global Hub for production, utilization and export of Green Hydrogen and its derivatives. It will also help in India becoming energy independent and in Decarbonisation of major sectors of the economy.

Sub-Group	Application	Members
I	Hydrogen Production & Use	<b>Convenor: CII</b> Proposed Members: IOCL, BIS, GAIL, NTPC, FAI, CII representatives
II	Storage & Transportation of Hydrogen	<b>Convenor: FICCI</b> Proposed Members: DPIIT, PESO, BIS, GAIL, IOCL, FICCI representatives
III	Hydrogen-fuelled Mobility Applications	<b>Convenor: SIAM</b> Proposed Members: DPIIT, PESO, MoRTH, ARAI, BIS, NTPC, Automobile Industries

Under the convenorship of SIAM, Subgroup III meeting on Hydrogen fuelled Mobility Applications had happened. Over a dozen meetings have taken place amongst SIAM members with the following scope of Work:

- Fuel Cell Vehicles including components, sub-components: Framework for system

design/testing, vehicle safety, performance, terminology, hydrogen sensors and fuel system.

- Fuel Cell: Design considerations on thermal management, performance, and recyclability.

- IC Engine vehicles fuelled by pure Hydrogen and Hydrogen-blended fuels
- Refuelling Infrastructure, process, and equipment
- Hydrogen/Hydrogen derivative fuelled marine propulsion systems
- Hydrogen/Hydrogen derivative locomotive for rail transportation.
- Hydrogen/Hydrogen derivative gensets application.
- Hydrogen/Hydrogen derivative construction equipment vehicles application.
- Testing infrastructure readiness.
- Fuel quality and specifications
- Emission norms

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
Sukh Da Sah (SDS) Project 1.0	<ul style="list-style-type: none"> <li>• The SDS 1.0 project at Jasso Majra started in 2018 and was completed in 2020-21 with remarkable accomplishments with &gt;92% in 2020-21</li> <li>• The monitoring work at ground level in 2021-22 showed that there was &gt;81% reduction in stubble burning when the implementation activities ceased in the previous year</li> <li>• The aforesaid results were disseminated during the 2022-23 to all stakeholders</li> </ul>	SIAM Sustainable Mobility Group	Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.
Sukh Da Sah (SDS) Project 2.0	<ul style="list-style-type: none"> <li>• The SDS project 2.0 implemented in 7 additional villages adjacent to Jasso Majra</li> <li>• The project was completed in 2022-23 with consistent and remarkable results achieving &gt;85% reduction in stubble burning</li> </ul>	SIAM Sustainable Mobility Group	Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.

<p>Implementation of Microbial Project 2.0 &amp; 3.0</p>	<ul style="list-style-type: none"> <li>• The completion of the microbial projects and publication of reports capturing the degradation actions of Re-life microbial consortia agricultural land in various districts of Punjab have been expedited by SIAM</li> <li>• The project implemented by SIAM in collaboration of Punjab PCB and Agriculture department along with CII, IPS Foundation, Farmers etc,</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>Implementation of Microbial Project 4.0</p>	<ul style="list-style-type: none"> <li>• The project employing Stub-Vorous- a new microbial digester implemented in collaboration with IOCL and IPS Foundation in Punjab</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>Multi-Media Publicity Campaign</p>	<ul style="list-style-type: none"> <li>• The multimedia campaign was first launched in 2018-19 through the most popular channels of Punjab viz. PTC Punjabi &amp; PTC News was continued this year 2022-23 too</li> <li>• The multimedia campaign of 2022-23 through TV was launched this year with 324 video spots</li> <li>• The project's total cost was Rs. 12.08 lakh, which was contributed directly by SIAM members.</li> <li>• In addition, 35 audio spots were also aired on Radio City &amp; Big FM</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>World Biofuel Day 2023</p>	<ul style="list-style-type: none"> <li>• Organized an international conference focused on "Fuelling the Future towards Sustainability: Observing World Biofuels Day 2023"</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>

	<ul style="list-style-type: none"> <li>• Conference witnessed deliberations around various aspects of biofuel, including biofuel production, use, biofuel policies in India and global initiatives, along with innovative technologies</li> <li>• <i>Shri Ashwini Kumar Choubey</i>, the Hon'ble Minister of State, Ministry of Environment, Forests, and Climate Change, Govt. of India, graced the conference as Chief Guest and addressed the gathering</li> </ul>		
Seminar on EPR Regime	<ul style="list-style-type: none"> <li>• SIAM under the umbrella of 'Chakriyata' (Circularity) initiative organized a seminar on 'Achieving Circularity in the Automotive Industry through Extended Producer Responsibility (EPR)' on 2<sup>nd</sup> August 2023</li> <li>• The event of graced by Chief Guest Dr Hanif Qureshi, Joint Secretary, Ministry of Heavy Industries, who inaugurated the seminar</li> <li>• The seminar witnessed active participation of several coveted speakers including senior government officials, industry leaders, and automobile experts, discussing the ways to enhance their commitment to sustainable practices, reduce environmental impact and support the nation's vision for self-reliance and circularity in the automotive sector.</li> </ul>	SIAM Sustainable Mobility Group	Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.

<p>Road Safety MoU signing with KVS</p>	<ul style="list-style-type: none"> <li>• In Collaboration with Kendriya Vidyalaya Sangathan (KVS), SIAM launched a Nationwide Educational Initiative "Road Safety Education &amp; Awareness Programme" exclusively designed for school students across the country,</li> <li>• <i>Shri Nitin Gadkari, Union Minister of Road Transport and Highways</i> graced the launch ceremony of this comprehensive awareness initiative as chief guest</li> <li>• SIAM also signed a Memorandum of Understanding (MoU) with Kendriya Vidyalaya Sangathan (KVS). Under the aegis of the Ministry of Education and Ministry of Road Transport &amp; Highways, this strategic collaboration sets the foundation for a massive educational drive aiming to reach over 14 lakh students in 1250 Kendriya Vidyalaya schools across India.</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>World Environment Day 2023</p>	<ul style="list-style-type: none"> <li>• SIAM celebrated World Environment Day (WED) 2023 by organizing an International Conference on 'Imperatives of Sustainable Mobility: Towards Vision India@2047'</li> <li>• The conference was graced by the distinguished presence of Chief Guest, <i>Shri Ashwini Kumar Choubey, Hon'ble Union Minister of State for Environment, Forest and Climate Change, Government of India</i></li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>

<p>India Energy Week 2023</p>	<ul style="list-style-type: none"> <li>• The government of India celebrated the India Energy Week (IEW) at Bengaluru from 6<sup>th</sup> to 8<sup>th</sup> February 2023.</li> <li>• India Energy Week has seen participation from the highest level of the Indian government, including all the Public Sector Undertakings (PSUs), and was supported by the Federation of Indian Petroleum Industry (FIPI).</li> <li>• SIAM, coordinated a “Sustainable Mobility Pavilion” at the India Energy Week 2023 showcasing the readiness of Automobile Manufacturers for transiting towards Sustainable Mobility by adopting different technology options ranging from Ethanol (E-20) to Flex-Fuel vehicles to Electric and Hybrid, amongst both Four wheelers and Two wheelers.</li> <li>• SIAM's Sustainable Mobility Pavilion at IEW 2023 showcased 12 products of Ethanol, Flex fuel, and Electrified vehicles including Hybrid and Battery Electric Vehicles, demonstrating the E20 compatibility</li> <li>• SIAM organized the Rally during the event encompassing over 57 vehicles contributed through SIAM's Member OEMS which was flagged off by the <i>Hon'ble Prime Minister</i> on 6<sup>th</sup> Feb, 2023 and Electric/hybrid readiness.</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc. Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
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<p>Technology Demonstration on Flex Fuel Vehicles in India</p>	<ul style="list-style-type: none"> <li>• SIAM organized a technology demonstration on “Ethanol Adoption - Flex Fuel Vehicles in India”, on 12<sup>th</sup> December 2022</li> <li>• The tech demonstration was graced by <i>Hon'ble Minister Shri Nitin Jairam Gadkari, Union Minister of Road Transport &amp; Highways, Government of India</i>, who inaugurated the demonstration session where the vehicle features and technological developments were showcased to emphasize the use of FFVs and future possibilities.</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>International Conference on Biofuels</p>	<ul style="list-style-type: none"> <li>• SIAM conducted an International Conference on 'Biofuels – A Pathway towards Sustainable Future', on 19<sup>th</sup> October 2022</li> <li>• The program witnessed participation from automotive industry experts, government officials, academia, and other stakeholder associations including the ambassador and experts from Brazil.</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>
<p>Key Events Mainstreaming Sustainability at Auto Expo 2023</p>	<ul style="list-style-type: none"> <li>• SIAM organized 2<sup>nd</sup> edition of Global Electrification Mobility Summit (GEMS) on 12<sup>th</sup> January, 2023</li> <li>• 2<sup>nd</sup> GEMS themed “Vidyutikaran – Mapping India's Pathway to Electrification”</li> <li>• SIAM organized 1<sup>st</sup> International Symposium for Thriving Eco-Energy in Mobility (ISTEM) on 13<sup>th</sup> January, 2023</li> </ul>	<p>SIAM Sustainable Mobility Group</p>	<p>Government, State Government Farmers, Industry, Agricultural Institutes, Universities etc.</p>

	<ul style="list-style-type: none"> <li>• SIAM organized 3<sup>rd</sup> International Conference on Sustainable Circularity (ICSC)</li> <li>• SIAM in association with European Union: Resource Efficiency Initiative (EU-REI), organized the International Conference on Sustainable Circularity (ICSC) themed “Recycling in Indian Mobility Context”.</li> </ul>		
	<ul style="list-style-type: none"> <li>• Surakshit Safar Pavilion during Auto Expo 2023</li> <li>• SIAM taking further the सुरक्षित सफर (Safe Journey) initiative, organized Surakshit Safar Pavilion on the sidelines of national road safety week (11<sup>th</sup> to 17<sup>th</sup> January 2023) in association with Rosmerta from 12<sup>th</sup> January to 18<sup>th</sup> January 2023</li> </ul>		
	<ul style="list-style-type: none"> <li>• SIAM taking further the Jaivik Pehal Initiative, organized the Ethanol Pavilion</li> <li>• SIAM engaged the 600,000+ visitors of the flagship motorshow of the nation.</li> </ul>		

# Electric Mobility Group

The growing global concern for sustainable mobility, the imperative of pollution-free transportation, and the ongoing international dialogues on clean mobility have provided substantial reasons to focus on the EV market. EV sales surged to an all-time high of more than 1 million units in 2022, marking a massive increase from 2021.

A strategic blend of fiscal and non-fiscal incentives has been meticulously designed to facilitate a seamless transition to EVs. A shift in governmental focus toward this is evident as they proactively address facets of electric mobility. Recognizing the reliance on rare earth materials for battery production, the Ministry of Mines has embarked on an endeavor to ensure resource availability, nurture a conducive manufacturing ecosystem, and orchestrate efficient trade flows for essential components.

In alignment with these endeavors, the Electric Mobility Group of SIAM has steadfastly worked towards translating the vision of the Indian Government into tangible outcomes. Throughout the fiscal year, the EMG group has committed to advancing sustainable mobility and pioneering clean EV solutions which has resulted in significant milestones and achievements:

## **2<sup>nd</sup> Global Electrification Mobility Summit (GEMS):**

SIAM orchestrated the highly successful 2<sup>nd</sup> Global Electrification Mobility Summit (GEMS). Themed "Vidyutikaran – Mapping India's Pathway to Electrification," this summit was a highlight of the Auto Expo 2023. The event convened industry leaders, policymakers, and

thought leaders to deliberate on strategies for accelerating India's journey toward electrification.

## **Extension of Ministry of Heavy Industries Guidelines**

A notable accomplishment includes the extension of the deadline for the Ministry of Heavy Industries guidelines on the Human Safety of Electric Vehicles (Evs). This extension, from 1<sup>st</sup> April 2023 to 1<sup>st</sup> October 2023, reflects our collaborative efforts in ensuring that the highest safety standards are seamlessly integrated into the emerging EV landscape.

## **EV Skill Gap Study Report**

Our dedication to capacity-building is evident through the completion of the EV Skill Gap study report. This comprehensive study, about to be presented to the Ministry of Education, serves as an important step in addressing skill disparities within the EV industry, thus fortifying the industry's human resource foundation.

## **G20 and Clean Energy Ministerial Showcase**

In a notable display of prowess and innovation, EMG has curated a dynamic Vehicle/Technology showcase in Goa from the 19<sup>th</sup> to the 22<sup>nd</sup> July 2023. This showcase ran parallel to the prestigious G20 and Clean Energy Ministerial events, garnering global attention and encouraging international collaboration towards cleaner energy solutions.

## **SIAM - US Commercial Service collaboration on Standards for Safe – Secure – Sustainable Indian EV Ecosystem**

SIAM actively engaged in a conference co-organized by the US Commercial Service & UL Standards & Engagement from 22<sup>nd</sup> -23<sup>rd</sup> August'23 in partnership with fortifying the safety framework for electric vehicles (EVs) in India. A notable highlight was SIAM's participation in a panel discussion alongside the Hon'ble Minister of Road, Transport & Highways Shri Nitin J Gadkari. Discussions centered around strategies to establish a comprehensive safety ecosystem for EVs, encompassing manufacturing standards, infrastructure development, and public awareness.

**Formalized Electric Vehicles Social Media Framework**

EMG proudly unveiled the formalized electric

vehicles social media framework, a strategic initiative that aims to amplify the promotion of EVs in the fiscal year 2023-24. This framework stands as a testament to our commitment to leverage digital platforms for raising awareness and advocacy on the merits of electric mobility.

In summation, the current trajectory signifies a robust and determined journey toward encouraging sustainable mobility within the nation. The collective commitment of industry stakeholders, governmental bodies, and regulatory frameworks highlights the resilience of this transformative journey. SIAM remains steadfast in its resolve to catalyze India's transition to an electrified, environmentally conscious future.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
To Ensure Smooth Transition to Electric Mobility	2 <sup>nd</sup> Global Electric Mobility Summit (GEMS) successfully organized at Auto Expo 2023	SIAM Electric Mobility Group	Membership / Government / Society / Media
	Submission to MHI for extending the timeline from 1 <sup>st</sup> April 2023 to 1 <sup>st</sup> Oct 2023 for Guidelines on Human Safety of EV's.		
	G20 & Clean Energy Ministerial Vehicles/Technology showcase at Goa		
	SIAM - US Commercial Service collaboration on Standards for Safe, Secure & Sustainable Indian EV Ecosystem		
	EV Skill Gap Study report prepared for Submission to Ministry of Education. - Ongoing		
	Vidyutikaran Social Media framework developed for 2023-24 - ongoing		



SIAM organizing the 2<sup>nd</sup> Global Electrification Mobility Summit (GEMS), themed “Vidyutikaran – Mapping India’s Pathway to Electrification”



Hon'ble Chief Minister of Goa, Shri Pramod Sawant visiting SIAM Carbon Net Zero Zone at G20/CEM Technology Showcase at Goa and signing the pledge for being on path of sustainable mobility



Hon'ble Minister for Science & Technology, Dr Jitendra Singh visiting SIAM Carbon Net Zero Zone at G20/CEM Technology Showcase at Goa



Hon'ble Minister for Science & Technology, Dr Jitendra Singh signing the pledge for being on path of sustainable mobility



SIAM Sharing the panel with Hon'ble Minister for Road, Transport and Highways Shri Nitin Gadkari on Building Robust Safety Ecosystems for EV's in India organized by US Commercial Services & UL Standards & Engagement

## Recycling & Materials Group

Amidst the backdrop of India's highly regulated automobile industry, which adheres to rigorous emissions, safety standards, and noise-level regulations, the Government has introduced a Vehicle Scrapage Policy. This policy includes a draft notification for the Registered Vehicle Scrapping Facility (RVSF) and Draft Amendment 1 to AIS 129 standards. These amendments are strategically designed to facilitate the environmentally sound handling and management of End-of-Life Vehicles (ELVs), ensuring their proper disposal and recycling.

In this endeavor, SIAM's Recycling and Material Group plays a central role. The group engages in the oversight of diverse initiatives across various government ministries that pertain to vehicle recycling and scrapping. This oversight includes an extensive analysis of global best practices and insights from vehicle recycling worldwide. SIAM's active participation extends to deliberations with the Central Pollution Control Board (CPCB) and the Ministry of Environment, Forest and Climate Change (MoEF&CC) to ensure the proper implementation of the Battery Waste Management Rules (BWMR) 2022. The group is committed to providing valuable feedback to the government on critical topics such as Tyre

Extended Producer Responsibility (EPR), the ELV on EPR Zero draft, and EPR on Used oil, reflecting its dedication to actively influencing regulations in favor of sustainability. SIAM's commitment extends further as it shares insights from the automotive industry on various chemicals, including persistent organic pollutants (POPs), and actively advocates for these inputs in international conventions.

SIAM's Recycling and Material Group has taken proactive steps under the Decarbonization Plan. Notable achievements include the organization of a conference on "Sustainable Circularity: Recycling in the Indian Mobility Context" held during Auto Expo – The Motor Show in January 2023. SIAM has also conducted seminars on Extended Producer Responsibility (EPR) in various automotive domains, providing a comprehensive understanding of the evolving legislative landscape related to EPR. SIAM has also launched a context paper titled "ELV Recycling Status of Circular Economy in India," contributing significantly to the discourse on circular economy practices. To gain practical insights, the group conducted visits to the Rosmerta Authorized Vehicle Scrapping Centre, aligning with AIS 129 standards.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
Represent SIAM in forums responsible for vehicle recycling regulations and provide inputs for effective implementation	Engaged in the oversight of diverse initiatives across various government ministries related to vehicle recycling and scrapping, including a comprehensive analysis of global best practices and insights from vehicle recycling worldwide.		Membership / Government / Society / Media

	<p>SIAM deliberations with CPCB and MoEF&amp;CC for proper implementation of BWMR 2022</p> <p>SIAM's examination and feedback to the government on Tyre EPR, ELV on EPR Zero draft, and EPR on Used oil.</p> <p>Furnish the government with insights from the automobile industry concerning various chemicals, including persistent organic pollutants (POPs), and assist in effectively advocating these inputs in international conventions.</p>		
SIAM initiatives	<p>Organized Conference on Sustainable Circularity (Chakriyata): Recycling in Indian Mobility Context" on 16<sup>th</sup> January 2023 at Auto Expo – The Motor Show</p> <p>Organized Seminar of EPR in various automotive domains to understand the changing dynamic landscape in legislation related to Extended producer responsibility</p> <p>Launched a Context Paper titled-"ELV RECYCLING STATUS OF CIRCULAR ECONOMY IN INDIA"</p> <p>Visit to the Rosmerta Authorized Vehicle Scrapping Centre as per AIS 129</p>	SIAM Recycling Group	Membership / Government / Society / Media



SIAM Members Visit to Rosmerta Vehicle Recycling Facility, Gurugram

## Gas Based Mobility Group

To achieve the target of net zero carbon emissions by 2070, one of the Government of India's key focus is the rapid expansion of the Gas based economy. The vision is to increase the share of natural gas from 6.7% to 15% by 2030. Given the high global energy demand and associated emissions of the transport sector, the imperative is to decarbonize the sector. With zero Particulate Matter (PM) emissions, around 20-25% of CO<sub>2</sub> reduction per vehicle, oil import reduction, and the highest scalability potential, the Compressed Natural Gas (CNG) and Compressed Biogas (CBG) powered vehicles are much suited, sustainable, and clean mobility options for decarbonization in India's context. In line, SIAM's Gas-Based Mobility Group has been relentlessly working on गैस गतिशीलता through active collaboration with the Government, Gas companies, component makers, vehicle OEMs to ramp up the natural gas ecosystem in India.

The year 2022-23 has been a year of challenges (Significant increase in prices owing to Russia Ukraine crisis). Gas Mobility Group made continuous efforts and ended the year with huge positives for Gas Mobility.

### Initiatives of the GBM group

- i. Launch of गैस गतिशीलता program by President SIAM - Dedicated agenda to promote Gas based Mobility.
- ii. First-ever exhibition in Ministry of Petroleum and Natural Gas (MoPNG) premises with Hon'ble Minister & Secretary MoPNG
- iii. Technology demonstration at G20 event, India Energy Week, Bangalore - Many Natural gas vehicles were part of the clean technology demonstration. Hon'ble Prime Minister of India inaugurated the event.
- iv. Technology demonstration at G20 event, Goa - Display of CNG / CBG vehicles
- v. Panel discussion on World Environment Day - गैस गतिशीलता discussions involving Secretary MoPNG, Senior Leaders from OEMs & Gas Companies.

### Positive developments in the gas-based mobility ecosystem

- **Policy support on Natural gas pricing:** New policy on pricing of Domestic Natural Gas: The Ministry of Petroleum and Natural Gas revised the formula for determining the price of domestic natural gas linking it to the Indian crude basket price with a condition of floor price and ceiling price. As a result, CNG retail prices reduced by up to Rs 8 per kg across India. The industry attained long-term clarity and stability in future gas prices.
- **Reduction in VAT on CNG and Road tax on CNG vehicles by State Governments:** Big states such as Maharashtra, Karnataka, Gujarat, etc. reduced VAT on CNG. West Bengal exempted road tax on CNG vehicles
- **Natural gas allocation:** CNG, and PNG continue to be the highest priority for domestic gas allocation.
- **CNG stations:** 5 times increase since 2017. And the momentum continues. 1200+ CNG



stations added in FY 2022-23. No. of CNG stations is 5,665 as of 1st April 2023. Around 12,000+ CNG stations are expected to be added in the next 7 years

- **OEMs increasing focus on Natural Gas vehicles:** Huge investments have been made across the entire value chain (R&D, CBG, Model development, Components, etc).

More fuel-efficient, technologically advanced CNG vehicles have been launched with even more in pipeline

- **Aggressive localization on CNG/LNG components:** Natural Gas vehicle sales by OEMs crossed more than 7 lac units in a year; an increase of 55% over that of last year and a 184% increase over the last 2 years.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
To encourage the adoption of gas-based vehicles	Launch of गैस गतिशीलता program to promote gas-based mobility	SIAM Gas Based Mobility group	Membership / Government / Society / Media
	Discussions with senior-level officials from MoPNG, OEMs & Gas Companies		
	Natural Gas Vehicle technology demonstration		

## Manufacturing, Industry 4.0 and Ease of Doing Business - Manufacturing Group

In the year 2020, SIAM's Executive Council constituted one specific group related to Manufacturing activity, viz, Manufacturing, **Industry 4.0, and Ease of Doing Business (EODB)-manufacturing**. This technical council was constituted with a focus on Sustainable Manufacturing, Industry 4.0 use cases, and Ease of Doing Business. The purpose was to understand the contribution to the manufacturing GDP from automobile manufacturing.

SIAM has been having regular interactions and consultation with the automotive industry related to Manufacturing activity, with a focus on:

- Sustainable Manufacturing
- Industry 4.0 Use Cases
- Ease of Doing Business

While innovation in digital manufacturing is happening at a fast pace, SIAM and ACMA jointly conducted the study for 'Digital Transformation Roadmap for India's Automotive Industry, by A.T. Kearney in 2019 and focused on developing a transformational roadmap to adopt digital technologies in the automotive industry across the value chain, products' Life cycle and the industry ecosystem. The report identifies 11 technologies relevant to the automotive industry in terms of their applications and the scale of impact on the automotive value chain and products. The eleven identified technologies were Internet of Things (IoT), Blockchain, Radio frequency identification (RFID) and sensors, Applications

Apps and Application Programming Interface (APIs), Digital payments, Advanced analytics: big data and real-time data processing, Artificial intelligence (AI), machine learning (ML), and deep learning (DL), Robotic process automation (RPA), Augmented reality (AR), virtual reality (VR), and wearables, Advanced robotics & Additive manufacturing 3D printing.

As the name of technology suggests, these are making inroads in the automotive ecosystem by way of ingress into the vehicle as well as in the manufacturing process itself. Since Manufacturing is one of the most important pillars to look at for sustainable manufacturing and mobility and therefore, the proposed vertical on Industry 4.0 focuses on enhancing technologically enabled manufacturing capabilities by adopting digital technologies.

While deliberating the issue on issues of industry 4.0, it was identified that the automotive industry is heading towards adopting the revolutionary technologies in the following context:

- Sustainability is the core issue of manufacturing and there is a need to identify the difference in the procedures & approaches between MNC and Indian Companies.
- Build carbon-neutral mobility, a key to sustainability adoption, and ensure industry participation.
- Identify the need for new technology chains such as blockchain and its benefits that would accrue to OEMs.

- Identify common issues related to manufacturing and digitization and learn from each other.
- Ensure integration with various missions of the Government viz. localization and Atmanirbhar Bharat

To work closely with the institutions providing support to Industry towards Industry 4.0 and make it sustainable.

### Manufacturing and Industry 4.0

The Study by SIAM on Industry 4.0 suggested that some exceptional work has been done by the Indian auto industry towards Industry 4.0 but the challenge on the Network readiness index (NRI) in the industry remains as the industry is at 91st position globally which needs to be addressed. Some of the challenges were:

Need to map the digital roadmap for the industry and a capability framework must be evolved to identify the baseline and readiness of the Indian automotive industry, which is important for the transition to industry 4.0.

The involvement of the top management to guide this process is critical.

The inclusion of current business practices with automation must be looked at from the perspective of safety and economic development of societal imperatives. Automation is not Industry 4.0 and must identify the areas of priority such as human safety, efficiency improvement, low cost, demand-driven and defect-free manufacturing, etc. from an industry perspective. Higher cost of implementation (such as semiconductor components), the infrastructure also needs to be enhanced.

The level of knowledge of the automotive industry on Industry 4.0 needs upgradation and integration.

To overcome some of these challenges, SIAM conducted another program in August 2022 partnered with IMT Ghaziabad as well as C4I4 Labs, and organized another Workshop on **“INDUSTRY 4.0: Driving Towards Digital Transformation across Organizations”** under the aegis of SAMARTH Udyog Bharat 4.0. **SAMARTH Udyog Bharat 4.0** which is an Industry 4.0 initiative of the Ministry of Heavy Industries, Government of India works closely with the Indian automotive industry on Industry 4.0. Some of the learning of the program were:

The “Samarth” scheme focuses on fueling the emergence of smart factories. Connected and intelligent digital technologies are transforming manufacturing shop floors into sustainable smart factories enhancing productivity, profitability, compliance, and customer delight. Industry 4.0 has significant relevance in the entire automotive value chain. Smart factories will be the main driver of competition for 2025.”

Aligned with the Government of India's vision of Industry 4.0 for manufacturing competitiveness, and Industry 4.0 in Cognitive terms as the fourth industrial revolution, comprises the cyber-physical transformation of manufacturing. Some of the programs such as “LAKSHYA” running in the automotive industry's readiness and global benchmarking on digital innovation, focus on human capital. However, the readiness of Industry 4.0 has challenges in the form of leadership, people, and technology. Smart manufacturing requires synchronizing activities for capability building, capability enablement, and empowering people. Focus

on human capital in the organization to realize the dreams of Industry 4.0.

Industry 4.0 will enable businesses to lead the change rather than just responding to it. The industry is focusing on reskilling or up-skilling its workforce to prepare for the impact of

increased artificial intelligence on job security. Perspective changes are happening across organizations, in tandem with the changing industry dynamics and a clear understanding of the objective, goal, and clarity on the role of this subject needs to be clearly understood.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
<p>To guide the industry with the implementation and convergence of technologies envisaged in Industry 4.0</p> <p>To transform manufacturing and all its related industrial operations from design to logistics to end-of-product-lifecycle into more efficient and innovative customer-responsive manufacturing.</p> <p>Use the industry 4.0 tools to enhance interoperability across the supply chain share data seamlessly and enhance productivity, safety, and environmental compatibility.</p> <p>To engage with policymakers for incentivizing digitalized manufacturing and ease of doing business with interventions.</p>	Become familiar with the concept and business principles of Industry 4.0.	<p>SIAM Manufacturing, Industry 4.0, and Ease of Doing Business - Manufacturing Group</p>	<p>Membership</p>
	Understand the impact of Industry 4.0 emerging technologies on products, processes, people, and organizations as a whole.		
	Understanding the various challenges and barriers in implementing Industry 4.0 technologies		
	Application of Industry 4.0 technologies in various sectors like manufacturing and service sectors		
	Become aware of other organizations/ industries that made significant transformational changes using Industry 4.0		
	Develop an ability to conceive and propose a framework for achieving sustainability across organizations.		

## Emissions and Conservation Group

The Emissions and Conservation (ENC) Group within SIAM has been an influential force propelling the automotive industry toward sustainable development during the FY2022-23. The group's commitment to meeting the objectives of SIAM members and aligning with the interests of OEMs has positioned them at the forefront of several important initiatives, all with sustainability as the guiding principle.

The ENC Group has made substantial progress in addressing Fuel Transition Issues. Their proactive discussions with Membership and Government stakeholders have spanned a wide spectrum of measures, from the complex task of amending standards to accommodating the benefits of biogenic CO<sub>2</sub> reduction for E10/E20 fuel to meticulously crafting notifications for the mandated E20 Ethanol blend. In Light-Duty Vehicles (LDVs), the ENC Group has been actively involved in discussions regarding the implementation timeline for the Worldwide Harmonized Light Vehicles Test Procedure (WLTP). They have also engaged in ongoing discussions about emissions, particularly the mandate for Non-Methane Hydrocarbon (NMHC) limits for Natural Gas Vehicles. The ENC Group's influence extends into the Heavy-Duty Vehicles (HDVs) segment also, where they have contributed significantly to discussions regarding the elimination of CH<sub>4</sub> limits for Natural Gas vehicles. OEMs commitment to improving fuel efficiency of the vehicle in this segment got amplified through notification of fuel consumption norms for heavy /light duty vehicles effective 1<sup>st</sup> April 2023. EnC's role in providing updates on the development of the Bharat VECTO Tool further exemplifies their proactive approach in meeting industry objectives.

ENC Group has demonstrated its commitment to India's carbon neutrality goals through the adoption of low-carbon fuels. They have taken steps to understand and implement the Perform, Achieve, and Trade (PAT) Scheme, an important initiative that complements the sustainability goals of the industry. They have also continued to focus on Extended Producer Responsibility (EPR) for Used Oil, a Diesel white paper, and the adoption of higher blends of ethanol beyond E20. Moreover, the ENC Group's endeavors extend beyond the confines of SIAM. In January 2023, they facilitated a significant milestone by overseeing the signing of a Tripartite Agreement between SIAM, UNICA, and Vardhan Tech to create a center of excellence for disseminating information on ethanol usage in automobiles. The vast knowledge present in Brazil shall be brought to Indian customers through this CoE. This proactive approach in promoting Ethanol fuel transition for India's energy security needs, exemplified by the MOU signed with the US Grains Council (USGC), further reinforces the group's dedication to SIAM's vision

Collaboration remains a recurring theme for the ENC Group, with a productive SIAM-JAMA meeting providing a platform for both agencies to explore emerging technologies in the automotive field. Additionally, the ENC Group has taken steps to ensure consensus building within all OEMs. Their meetings, held three times, serve as platforms for discussing pending and current issues. Likewise, multiple Fuel Group meetings have played a major role in aligning strategies and initiatives with the EnC group.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
Fuel Transition Issues	Standards : Deliberations in Progress for Amendment in AIS-137 to accommodate Biogenic CO2 reduction benefit for E10/E20 fuel	SIAM Emissions and Conservation Group	Membership / Government
	Biofuel / Ethanol Regulation perspective: Discussion and consensus building on E20 Sticker design, placement, incentives, and related discussion		
	E20 2025 Commitment: Notification work to mandate E20 Ethanol blend as a Mono Fuel is a work in progress		
	E20 2025 Commitment : Notification to amend E20 Commercial Fuel (IS 17021) with E20 Reference Fuel (IS 17943) for E20 Vehicle Homologation		
	Update on the recent fuel specifications & revisions : Discussion for Revision of IS 2796 with fuel specification of min. RON95 E10 & pursuing deletion of lower RON specification from the table with MoPNG		
	Study / Project Update : Discussion on the study on the Impact of E20 fuel on E10 Compatible vehicles under progress		
LDV (Light-Duty Vehicles)	WLTP Implementation : WLTP implementation timeline to be discussed in next SCOE meeting as per agreement in 68th AISC meeting	SIAM Emissions and Conservation Group	Membership / Government
	CAFÉ Related: Discussion underway on the method to define "Carryover of Carbon credits from Phase 1 to Phase 2"		
	BEE Discussion topics: Discussion and liaison with BEE for the Industry proposal on "Inclusion of transport sector in Carbon Market mechanism"		
	Emission : Discussion on the notification to mandate only NMHC Limits for Natural Gas Vehicles		
	CAFÉ Related : Deliberations underway for discussions on CAFÉ III & CAFÉ IV		

HDV (Heavy-Duty Vehicles)	Regulation : Discussion on the notification to eliminate CH4 limits for Natural Gas vehicles	Membership / Government
	Bharat VECTO Tool: Discussions with BEE to collaborate on defining new normal for LDV/HDV alike EU VECTO.	
	Notification release of HDV norms from 1 <sup>st</sup> Apr 2023 for Fuel efficiency measurement with inclusion of all OEMs	
Carbon Neutral Trends	Work on understanding and implementation of PAT Scheme - Inclusion of Automobile Assembly unit (energy consumption of > 3,000 MTOE per year) vide Ministry of Power notification S.O. 2523(E) dated 06th June 2023	Membership / Government
	Work in progress on Draft Notification G.S.R 338 on EPR for Used Oil and its Way forward	
	Prepared a White paper on Diesel to sensitise Govt. stakeholders on efficient use of diesel.	
	Discussions underway for implementation of fuel Quality Monitoring & DEF Monitoring amidst notification of QCO for DEF.	



Members at Emissions & Conservation Group Meeting, New Delhi



SIAM JAMA Fuel Group Meeting

## Aftermarket Parts Group

As we are aware that the Industry is plagued by the menace of counterfeit/sub-standard parts being sold in the aftermarket, SIAM Aftermarket Parts Group addresses this concern by actively working towards spreading awareness on the use of genuine parts. The four main pillars through which this group aims to work effectively are Consumer Awareness, Quality Standards, Enforcement, and Common Digital Platform. This group continued to remain engaged with major stakeholders namely the Government and Suppliers throughout last year and initiated discussions on various topics pertinent to the Automobile sector.

Deliberations focus on creating awareness and usage of genuine auto components/parts in the country with an intent to curb emissions and reduce accidents/fatalities under the SIAM initiatives of Road Safety and Decarbonization.

Considering the nation's emerging emphasis on Quality, Atmanirbharta, and Digitalization—the Growing counterfeit market of auto components/parts is one of the major concerns for the industry, the SIAM Aftermarket Parts Group would continue to pursue with the Government to bring in suitable laws and regulations, for stricter enforcement. With this

intent, the Group aims to take up the key topics in the coming year namely the “Be Genuine, Buy Genuine” campaign to further the awareness amongst customers for usage of genuine parts, promoting “Vocal for Local and Curb Counterfeit for Safer Mobility”. Quality Control Order for AdBlue - With the availability of different qualities of AdBlue (Diesel Exhaust Fluid) in the market that may affect the performance of vehicles, there is a need to have a Quality Control Order (QCO) for Adblue to ensure the quality is not compromised. SIAM will continue the advocacy with various line ministries and other government departments for pushing the QCO. Extended Producer Responsibility (EPR): The Ministry of Environment, Forest & Climate Change (MoEFCC) has issued the final notification for implementing Extended Producer Responsibility on Tyres, Plastic, and Battery. The draft for Used Oil has been issued and discussions are underway for End-of-Life Vehicles (ELVs). SIAM with the unflinching support of its members will continue to engage with MoEFCC and CPCB to ensure smoother implementation of the EPR rules while making sure the interest of various stakeholders is duly taken care.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
To promote the use of genuine parts	Continuous engagements on Lead OEM aftermarket business expansion	SIAM Aftermarket Parts group	Membership / Government
	Augmentation by positioning of genuine parts during and after the end of the product life cycle at the best price within reach of every individual customer		
	Supporting the 'Made in India' campaign within the horizon of government policies.		





Members at Aftermarket Parts Group Meeting, Pune

## CMVR & Safety Regulations Group

In our endeavor to further promote Safer and Sustainable Mobility in the country and align with the latest regulations globally, CMVR & Safety Regulations Group of SIAM continued its engagement with the Government and various stakeholders on discussions related to upcoming safety regulations, new standard formulation, and upcoming technology/initiatives concerning Automobile sector, in the last one year.

Focused interactions were held with the Test Agencies, BIS, and MoRTH, etc. through CMVR TSC, AISC meetings, etc. The outcome of these meetings resulted in the Government mandating several regulations in the last year, a few of which are mentioned below:

1. Fire Alarm Protection System (FAPS)
2. Bharat New Cars Assessment Programme (BNCAP)
3. ACCabin for N2 and N3 Vehicles
4. Wheel Rim QCO
5. Pass by Noise
6. On Board CNG Cylinder
7. ESC for School Buses
8. Feracrylum 1% Gel
9. ADAS (AEB, ELKS, ACSF, ALKS, DDAW)
10. Event Data Recorder and Cyber Security Regulations.
11. Enhanced Crash Regulation and ISOFX Regulations

During interactions with the Ministry of Road Transport & Highways in CMVR TSC meetings, several new standards were accepted for adoption and the implementation dates were finalized, while for the other standards, it is yet to be finalized.

Discussions were initiated on upcoming technologies/initiatives like ADAS, the Advantages of "5G" for automotive applications, Common receptacles for Electric Vehicle Charging, Caravan Trailers pulled by vehicles, and Onboard Weighing in Commercial Vehicles. The Group plans to continue discussions on these topics in the coming year too.

SIAM was closely involved in discussions with various Government departments related to Quality Control Orders on Wheel Rims and Safety Glass and submitted the industry position. The result of our efforts led to the following:

1. **Safety Glass QCO:** The Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, exempted 10,000 vehicles per OEM per financial year and 5,000 safety glasses per OEM per financial year for repairs or after-sales service of vehicles, from the QCO.
2. **Wheel Rims QCO:** The implementation date of the QCO was extended till 22nd December from the earlier original date of 22nd June 2023

Under the leadership of the Chairman and Co-Chairman and guidance from all members, the Group will maintain the momentum to march forward and take strides in promoting an efficient vehicular ecosystem in the country.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
Formulation of standards and regulations for promoting safer and technologically advanced vehicles	Organised interactions with several stakeholders like Test Agencies, BIS, Government, etc.	SIAM CMVR, Safety and Regulations Group	Government, Membership and Society
	Participated in AISC, CMVR TSC Meetings and several other meetings		



61<sup>st</sup> CMVR TSC meeting with Ministry of Road Transport & Highways, New Delhi



Launch of Bharat New Car Assessment Programme (BNCAP), New Delhi



CMVR Group Meeting, Pune



Safety Technology Demonstration, Pune

## International Harmonization Group

SIAM along with its members represented the country in several international Automobile forums like WP.29, OICA TC, IMMA, and UN ECE to promote the Indian automotive industry's position in harmonizing regulations.

Group members participated in discussions on several topics related to Emission, Safety, Autonomous Vehicles, Decarbonization, Trade, etc.

The broad objective of the Group is to promote technical regulatory harmonization based on

the position finalized by SIAM members.

SIAM hosted IMMA Two-Wheeler Technical Meetings in March 2023 in New Delhi where representatives from several countries participated and deliberated on topics related to two-wheeler, decarbonization, road safety, etc.

During the last year, discussions were also held with Government departments on topics related to Indian – UK and India – EU FTAs and submitted the SIAM position.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
Promote technical regulations and harmonize them based on India position	Participated in international forums like OICA, IMMA, UN ECE to deliberate on upcoming regulations and shared India's position.	SIAM International Harmonization Group	Government, Membership and Society
	Analysed upcoming regulations and their potential impact on Indian Auto sector.		



SIAM International Harmonization Group Meeting, Pune

## Two Wheeler Group

Despite challenging conditions over the years, the two-wheeler segment in India has maintained a strong presence in the market, largely due to its diverse range of product offerings. This year, a positive shift in sales trends has come to light which shows strong recoveries as compared to previous years, particularly highlighting the Electric 2W category of two-wheelers in addition to the dominant Economy Category. This shift can be attributed to increased consumer awareness and confidence in EV technology along with redefined purchasing power, coupled with advancements in technology and the implementation of global safety regulations within the industry. Electric two-wheeler sales have seen a sharp rise of more than 150% this year as compared to FY 2021-22.

Today, Indian two-wheelers not only comply with the latest international EU regulations but also surpass them in terms of safety standards, making them the most environmentally friendly and secure vehicles globally. SIAM two-wheeler group successfully organized JAMA (Japan Automobile Manufacturers Association) two-wheeler group meetings and IMMA (International Motorcycle Manufacturers Association) Steering committee, technical committee, and road safety working group meetings along with IMMA General Assembly where they showcased the alignment of Indian two-wheelers with the global norms and technologies. The level of international harmonization the Indian two-wheeler Industry has been able to commit over the years was praised by all the global stakeholders.

The two-wheeler industry has successfully persuaded the Ministry of Road Transport and Highways (MoRTH) to adopt OBD 2 technology in two phases, aligning with EU guidelines, all while ensuring no adverse environmental impact. The result of the continuous combined efforts of the group showed long-awaited release of OBD 2 Final notification in complete alignment with SIAM submissions. Furthermore, the industry has actively participated in significant initiatives such as the ARAI-IOCL (R&D)-SIAM Joint Study on E20 Fuel compatibility for a very large volume of existing on-road vehicles and facilitated the establishment of a roadmap for the launch of FFV (flex fuel vehicles). The two-wheeler Industry has already demonstrated a working prototype of FFV in Dec 2022 to H'ble Transport Minister Shri Nitin Gadkari and have plans to launch one FFV model per OEM by the end of 2024 depending upon E85 fuel availability.

As the largest two-wheeler manufacturer globally, the Indian industry has been trading forward with the utmost care and caution, reflecting both customer preferences and the imperative of environmental and safety considerations. In alignment with this, the industry successfully transitioned its complete fleet of vehicles to E20 Fuel Material Compatible Vehicles effective 1<sup>st</sup> Apr 23. Indian two-wheelers are now not only equipped with advanced features like USB charging, voice-assist, and Bluetooth navigation, but they also offer exceptional fuel efficiency with the least emissions with the more stringent BS-VI norms.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
To ensure the growth of 2W industry in India in a sustainable manner and navigate the industry through regulation formulation.	Based on the representations made by the SIAM Two-Wheeler Group in line with EU direction, MoRTH issued the long-awaited Final notification on the Implementation of OBD 2 in two phases in which phase I implementation will take place from 1 <sup>st</sup> April 2023 and phase II implementation from 1 <sup>st</sup> April 2025.	SIAM Two Wheeler Group	Membership / Society
	The group worked to develop a holistic approach for fulfilling engineering requirements to make all Indian two-wheelers E20 Fuel material compatible effective 1st Apr 2023 to align with Govt of India's plan to roll out E20 Pan India by 1 <sup>st</sup> Apr 2025 which has been advanced by 5yrs from 2030.		
	SIAM successfully organized JAMA two-wheeler Technical Group Meeting and IMMA Meetings in March 2023 and showcased the International harmonization of Indian two-wheeler industry with global norms and technologies.		
	AIS 156 Amd 3 Automotive Industry Standards relating to safety requirements for battery electric vehicles have been implemented successfully as per the representations made by SIAM		



SIAM Two-Wheeler Group at the IMMA Spring Congress, New Delhi



SIAM Two-Wheeler Group at the IMMA Spring Congress, New Delhi



SIAM-JAMA Two-Wheeler Technical Meeting, New Delhi



SIAM Two-Wheeler Group Meeting, New Delhi



## Three Wheeler Group

This year has witnessed a remarkable resurgence in the Indian three-wheeler (3W) industry, signifying a stark contrast to the previous two years. The Society of Indian Automobile Manufacturers (SIAM) has been consistently dedicated to elevating the industry, a commitment that is reflected in this year's sales figures, which have nearly doubled compared to the previous year. Notable advancements have been made in various aspects, including safety protocols, emission standards, adoption of alternative fuels, and the promotion of e-mobility which has also resulted in a significant increase in the sales of electric 3-wheeled vehicles.

To enhance passenger and vehicular safety, preliminary safety measures have been introduced to Indian 3Ws. Emphasizing the electric category of three-wheelers, SIAM has actively facilitated the passage of aggregation models. Additionally, three-wheelers fall under the Priority Sector Lending (PSL) classification of Micro, Small, and Medium Enterprises (MSME), making customer access to loans more streamlined and convenient for sector financing. As a steadfast cornerstone of the industry, SIAM has extended its reach across states, diligently monitoring and expeditiously addressing concerns arising in any region, whether it pertains to sector-related exemptions, tax benefits, or registration fee subsidies.

An eagerly awaited and substantial development—OBD 2 notification—was finally released on November 9<sup>th</sup>, 2022. SIAM had fervently advocated for this notification in alignment with the industry's long-standing demand. The comprehensive notification aligns seamlessly with SIAM's submissions, marking a commendable achievement for the organization. The 3W-Wheeler group, dedicated to industry advancement, has engaged in ongoing discussions regarding the post-2025 stage emission norms, test cycles, test procedures, and OBDII regulations, in light of the OBD 2II notification. Furthermore, the 3W Industry has been actively involved in emissions reduction initiatives, leading to the creation of domestically engineered emissions reduction technology involving water injection. This noteworthy accomplishment led to SIAM's proposal to amend Amd 3 of AIS-137 (Part 2), an amendment that received a go go-ahead during the 61st CMVR-TSC meeting.

In essence, the Indian 3W industry's resurgence due to SIAM's unwavering commitment and collaborative endeavours will continue at this pace. The pursuit of safety, innovation, and environmentally conscious solutions stands as a testament to the industry's resilience and adaptability keeping sustainability as the utmost priority.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
To ensure the growth of the 3W industry in India in a sustainable manner and navigate the industry through regulation formulation.	OBD 2 Final Notification released by MoRTH on 9 <sup>th</sup> November 2022	SIAM Three Wheeler Group	Membership / Society / Government
	Discussions for the way forward for SIAM proposal for 3W Next stage emission norms, test cycles, test procedures, OBD 2, etc		
	Amendment 4 to AIS 137 (Part 2) – involving Water Injection System procedures to be published soon		
	Amendment to AIS 129 was published		



Brazilian Delegation at SIAM Pavilion in Goa witnessing Indian Electric 3W Technology

## Connected Vehicles Group

In recent times, intelligent mobility solutions for sustainable transportation have garnered the attention of the automobile sector. While SIAM's members in India possess the requisite technological prowess to furnish mobility solutions, India's journey involves the development of requisite policies, infrastructure, and the assimilation of insights from developed nations. SIAM's Connected Vehicle Group stands as a forum that serves as a conduit for member discourse on megatrends, the Internet of Things (IoT), shared mobility, and autonomous vehicles. These transformative technologies are poised to usher in successful innovations and facilitate the swift integration of novel mobility solutions. In pursuit of encouraging cutting-edge advancements in the realm of mobility, SIAM has undertaken several key initiatives.

### **Engagement with DoT for identification of Critical Services in the M2M Sector**

SIAM has actively collaborated with the Department of Telecommunications (DoT) to illuminate the significance of critical services within the M2M sector. SIAM's submission emphasizes the vital role of these services in enhancing operational efficiency, safety, and overall ecosystem functionality. Through rigorous discussions and informed insights, SIAM aims to lay the groundwork for a robust framework that will drive the M2M sector's growth and resilience.

### **Guiding Delicensing Frequency Band for Automotive Use through MoRTH**

SIAM's advocacy extends to MoRTH, where we have presented strategic recommendations to the Department of Telecommunications (DoT) regarding the delicensing of frequency bands earmarked for automotive applications.

### **Connected Vehicles & Technology Showcase for SIAM Members**

In June 2023, SIAM orchestrated a remarkable event at Hyatt Pune—an exposition of Connected Vehicles and technology. This showcase featured the participation of seven leading technology suppliers, uniting them under the same banner to demonstrate their groundbreaking contributions to the mobility sector. This event served as a dynamic platform for SIAM members to engage with the latest advancements in connected vehicle technologies.

### **Pioneering 5G Advancements with ARAI**

SIAM submitted its nominations to the Automotive Research Association of India (ARAI) for evaluating the advantages of "5G" in automotive applications. SIAM's collaboration aims to conduct a pioneering pilot study that evaluates the advantages of integrating 5G technology within automotive applications. By probing the potential of 5G, SIAM aims to harness its transformative capabilities to enhance vehicle communication, safety, and efficiency. SIAM remains committed to remaining at the forefront of technological progress.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
Policy Advocacy for formulation of guidelines/policies and ease implementation hurdles in Automotive Regulations	Submission to DoT on identification of Critical Services within M2M Sector.	SIAM Connected Vehicles Group	Membership / Government
	Submission to MoRTH for recommendation to DoT on Delicensing of Frequency Band for Automotive Use - Ongoing		
	Submission of nominations to ARAI for pilot study on evaluating advantages of "5G" in automotive applications		
	Connected vehicles and Technology Showcase for members		



Members during SIAM Connected Vehicle Group meeting and Technology/Vehicles Demonstration, Pune



SIAM Connected Vehicle Group meeting and Technology Presentation & Vehicles Demonstration, Pune

## Frontier Technology and Innovations Group

India's automobile sector is rapidly enhancing the quality of its products and services, driven by scientific and technological innovations, thereby reinforcing its global presence. SIAM's FTIG group is completely committed to propelling these advancements. FTIG group's primary mission is to encourage industry-focused innovations and expand the skills and knowledge base in the realms of vehicle design, engine technology, sensors, batteries, alternative fuels, powertrain systems, and more. FTIB collaborates closely with research and development institutions across the nation aiming to cultivate a thriving ecosystem of innovation.

The National Green Hydrogen Mission received official approval from the Union Cabinet on January 4<sup>th</sup>, 2022. This visionary mission is designed to aid the government in meeting its climate objectives and to establish India as a global nucleus for Green Hydrogen production and export. Under the aegis of the Ministry of New and Renewable Energy (MNRE), a Joint Working Group was formed which was chaired by the Secretary, MNRE. The Joint Working Group methodically established three thematic sub-groups to address diverse aspects of

standards and regulatory frameworks within the mission's scope. SIAM led the esteemed Subgroup III along with members of FTIG, focusing on Hydrogen-fuelled Mobility Applications. FTIG formulated six dedicated panels: Technology & Interface, Commercial Vehicles, Passenger Cars, 2W / 3W, Marine & Gensets, and Locomotive & CEV. Adhering to the stipulated objectives and timelines outlined by MNRE, FTIG played a major role in developing recommendations for regulations, codes, and standards that paved the way for a seamless transition to hydrogen-powered mobility. On March 16<sup>th</sup>, 2023, the culmination of FTIG's dedicated efforts was realized as sub-group-III presented its final recommendations to MNRE which was well received and appreciated.

FTIG continues to actively engage with prominent stakeholders, including the Indian Construction Equipment Manufacturers Association (ICEMA), Indian Diesel Engine Manufacturers Association (IDEMA), Indian Register of Shipping (IRS), Indian Oil Manufacturing Companies, and the Railway Board.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
Encourage industry-focused innovations and expand the skills and knowledge base in the realms of vehicle design, engine technology, sensors, batteries, alternative fuels, powertrain systems – especially in Hydrogen	Develop recommendations for standards and regulations for Hydrogen based mobility including - Technology & Interface, Commercial Vehicles, Passenger Cars, 2W / 3W, Marine & Gensets, and Locomotive & CEV	SIAM Frontier Technology and Innovations Group	Membership / Government

## Service, Inspection, Maintenance & Certification Group

The Ministry of Road Transport and Highways instituted regulations mandating the recall of faulty vehicles by automobile manufacturers, effective April 1<sup>st</sup>, 2021, to enhance consumer safety and mitigate road accidents. SIAM's Service & IMC Group spearheaded these efforts, collaborating closely with MoRTH, ICAT, and NIC to shape the Vehicle Recall Portal. During its development, a specialized team within MoRTH established a dedicated customer complaint portal and provided comprehensive FAQs to aid vehicle owners in comprehending the circumstances surrounding vehicle recalls.

As an integral component of the statutory framework outlined in the Consumer Protection Act, 2019, a committee was established to confer statutory recognition upon the "Right to Repair." Led by the Ministry of Consumer Affairs and featuring SIAM as a significant stakeholder, the committee collaboratively endeavors to formulate a national code that harmonizes with the best interests of all stakeholders. Concurrently, the Service Group proactively engaged with the Ministry of Consumer Affairs to comprehend the newly launched "Right to Repair" initiative, embodied by the portal "<https://righttorepairindia.gov.in/>" introduced in 2022. At present, OEMs are actively scrutinizing the potential implications of this initiative for the Indian Automotive Industry. The "Right to Repair" framework carries the potential to yield mutual benefits for both producers and consumers.

Responding to an observed upswing in vehicle fire incidents spanning diverse categories and fuel types, the government proactively initiated measures. ICAT has been entrusted with the task of constructing a comprehensive online portal on the MoRTH website, designed to centralize data related to vehicle fire incidents. This initiative aims to address the existing dearth of comprehensive data and studies in this realm.

SIAM's Service and IMC Group remains deeply committed to addressing after-sales service concerns and disseminating best practices, including topics such as dry washing, creating a framework for ensuring the secure servicing of electric vehicles in light of evolving technology and the increased surface area for potential IT attacks and outlining the changes in fire protection measures for electric vehicles or battery runoffs. The group additionally promotes awareness about fire hazards associated with non-approved fitments in vehicles and champions compliance of service workshops with environmental norms. Leveraging opportunities such as World Environment Day, the group effectively employs its expansive dealer networks across the nation to promote sustainability and nurture environmental awareness.

The SIAM Group also recently convened a meeting boasting significant participation from member OEMs. Within this meeting, thorough discussions encompassed all the aforementioned points, culminating in a collective resolution to elevate the frequency of meetings.

## Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
To combat issues related to maintenance procedures and on-ground hurdles faced by OEMs post The sale of vehicles	Actively contributing in the development of the Vehicle Recall Portal under the aegis of MoRTH Service & Inspection, Maintenance & Certification Group Society, Government and Membership	SIAM Service, Inspection, Maintenance & Certification Group	Society / Government / Membership
	As a proactive step, SIAM engaged in dialogue with its members to educate their customers on safe vehicle usage and maintenance practices.		
	Discussion and Deliberation on the provision for the 'Right to Repair' ongoing while the government has launched the Right to repair portal		
	Discussion on upcoming service and Security guidelines for Electric vehicles and Autonomous vehicles which have a high surface area of digital attack		
	Actively monitors various guidelines issued for Service Centres to carry out operations in an environmentally friendly manner		



Service, Inspection, Maintenance & Certification Group Meeting, New Delhi

## Styling & Design Group

The SIAM Group has been actively working towards capacity and capability building in the area of Automotive Styling and design in the country. The objective of the Group is to bridge the gap between Industry and Academia through information exchange amongst various stakeholders like Students, Academicians, Professionals from the Indian Design community, and their Global counterparts.

The Group remained engaged with Academia throughout the year and organized several activities for the benefit of design students.

It was 17<sup>th</sup> edition of the Styling & Design Conclave and 15<sup>th</sup> edition of the Automotive Design Challenge (ADC) organized on 12<sup>th</sup> January 2023 at Jaypee Green Resort, Greater Noida, Delhi NCR. A few eminent speakers who shared their perspectives in the conclave were Mr Tarun Garg, Chief Operating Officer, Hyundai Motor India; Dr Arun Jaura, Chief Technical Officer, Hero MotoCorp Ltd.; Mr S Sivakumar, Head of Design, Royal Enfield; Mr Carlo Bonzanigo, Founder and Managing Partner, ANYMA Design; Mr. Ajay Jain, Global Head - Design Strategy, Tata Motors; Mr Meerak Subba, Head - Design, Tork Motors, etc. The theme of the conclave was – “Designing Aspirations for A Sustainable Tomorrow”. The conclave witnessed participation from more than 150 delegates.

The audience consisted of designing practitioners from Auto OEMs, Component Suppliers, Design Students, management executives from the automotive fraternity and other stakeholders.

The conclave culminated with the announcement of the top three winners from shortlisted students of ADC 2022. The theme of the ADC 2022 was – “Personal Mobility Vehicle with Sustainability at its Core 2030”.

The conclave showcased the select top-10 presentations of the Automotive Design Challenge (ADC) 2022 from design students, depicting new ideas on the theme of the ADC. SIAM initiated the challenge to provide a platform for aspiring Automobile Designers to exhibit their talent and capitalize on the opportunities for the future. The top three winners of the ADC 2022 were announced during the conclave.

The top three winners of the ADC 2022 were - Saikhom Krishnakanta from the National Institute of Design (First Prize winner), Ushneesh Saha from Ajeenkya DY Patil University (First Runner-Up), and Yash Upadhyay from Strate School of Design (Second Runner-Up).

The Group plans to stay committed to various stakeholders of the Design community and take the Automotive Design vocation to the next level.



Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
To promote Automotive Styling & Design domain in the country	Organised 17 <sup>th</sup> edition of Styling & Design Conclave in consultation with group members	SIAM Styling & Design Group	Membership and Society
	Organised 15 <sup>th</sup> edition of Automotive Design Competition (ADC) for design students. Top-3 students were awarded.		



(L-R) Mr Arun Jaura, CTO, Hero MotoCorp; Mr Sathiyaseelan G, Co-Chairman, SIAM Styling & Design Group; and Mr Tarun Garg, COO, Hyundai Motor India at the conclave



Winners of 15<sup>th</sup> SIAM Automotive Design Challenge (ADC)

## Two-Wheeler CEOs Council

The domestic sales for the Two-Wheelers in India stood at 15.86 million units in 2022-23, which was a growth of about 17% over 2021-22. The Two-Wheeler segment is yet to see a good pickup in demand. In the four months from April 2023 to July 2023, the Two-Wheeler segment posted sales of 5.42 million units posting a small growth of 6.2%. The marked demand of Two-Wheeler segment continues to be impacted on account of high prices of the vehicles due to high input cost, new mandatory regulations and the 5-year Long-term 3rd Party insurance premium being levied on the new vehicles.

On the request of SIAM Ministry of Road Transport and Highways notified that On Board Diagnostics II (OBD II) for 2W which was earlier notified for implementation in a single phase from 1<sup>st</sup> April 2023, would now be implemented in 2 phases, from 1st April 2023 (OBD II-A) and 1st April 2025 (OBD II-B).

The Council also made representation to Chandigarh Administration which resulted in substantial reduction in the targets for quota of EVs from 70% to 25% for Electric 2-Wheelers. This has enabled registration of ICE vehicles of these categories to continue for some more time this year, in Chandigarh.

Two-Wheeler Industry also demonstrated Working Protos of Flex-Fuel Two Wheelers to Hon'ble Minister Shri Nitin Gadkari and also during the Auto Expo 2023. Representation were also made to Government of India for reducing the GST for Flex Fuel Vehicles and also sought amendments on the SOP document for Auto PLI specifically for two wheelers.

SIAM also made a representation to Rajasthan Transport Department on the recently amended notification for alignment of the Road Tax on Two-Wheelers upto 125 cc and not limit the applicability of lower Road Tax to upto 100 cc Two-Wheelers.



Members at SIAM Two-Wheeler CEOs Council Meeting

## Three-Wheeler CEOs Council

India's three-wheeler market is forecasted to grow at double-digit CAGR as the need for last-mile connectivity is rising. Three-wheelers provide an inexpensive & eco-friendly alternative to taxis with better fuel economy. The three-wheeler industry segment is linked closely with some of the most crucial (mass) sections of economic activities in India. Although India is the world's foremost producer, consumer, and exporter of three-wheelers, the segment has witnessed a major de-growth during pandemic times.

Despite the challenges faced by the Industry, the volumes of 3W have gone up over the last year due to the significant efforts of the industry. Last year 4,89,000 three-wheelers were sold in the country which is an 87% increase in sales compared to the previous year's sales of 2,61,000. Passenger 3W sales recorded a massive growth of 111% while Goods 3W grew by 31%. Electric 3W are also growing rapidly and constituted 13.3% of all 3W sold.

SIAM's 3W CEOs council has met several times in the year and is working towards benefit of the 3W industry by defining a clear roadmap of engagement and decisions to move forward. In the past year, the group had detailed discussions with the Ministry of Heavy Industries (MHI) regarding FAME subsidy outlay on concerns that the budget for e-2W was increased from Rs 2,500 Cr to ~Rs 3,500 Cr by

reallocating the budget from e-3W under the premise that e-3W registrations were lower than expected. SIAM will continue discussions with the govt. to provide assurances that e-3W budget revisions will not be done henceforth.

In the engagement with MHI and Two Wheeler Group, several recommendations were formulated regarding PLI and DVA calculations. The 3W CEOs Council deliberated that the following recommendations are applicable to 3W as well:

- DVA as per draft SOP of 26th Feb
- No cap on cell costs, consider at actuals.
- Extend semiconductor and rare earth magnets exemption in BOM for OEMs
- Allow sales of eligible AAT products from 1st April 2022 for incentives under PLI

SIAM's proposal regarding Amendment 3 to AIS 137 was received in good alignment with ARAI, iCAT, & SCOE and has been put in pipeline for necessary amendment. Through the concerted efforts of stakeholders in the 3W CEOs Council group, financing of 3W has improved post-COVID. Even though 3W financing is not yet covered under Priority Sector Lending (PSL) of RBI, financing is still being done by NBFC and PSU banks. Customers are financing and benefitting through Mudra Scheme of Govt as well.

### Annual Report Card (2022-23)

Deliverable	Measure	Owner	Stakeholder
To review the industry performance and create actions for demand creation	Discussions and deliberations with the Government to address industry concerns	SIAM 3W CEOs Council	Membership / Government



Members at SIAM Three-Wheeler CEOs Council Meeting

## Passenger Vehicle CEOs Council

The domestic sales for the Passenger Vehicles in India stood at 3.89 million units in 2022-23, resulting in a significant growth of 26.7% over 2021-22. In the First Quarter of 2022-23, 9.96 Lakh units of vehicles were sold which is the highest sales ever in a Quarter. Such high growth has been propelled by an increase in off-take of Utility Vehicles, whose share in overall Passenger Vehicles sales have almost touch 55% in Q1 of 2022-23. However, sales of entry level Passenger Cars continued to witness feeble demand and the volumes have dropped by about 66% in Q1 of 2022-23 from the 2018-19 levels.

A sub-Group of Low Volume High Value Vehicle manufacturers was formed under the SIAM Passenger Vehicle CEOs Council which deliberated on specific issues impacting this segment.

Passenger Vehicle manufacturers would also undertake necessary test to certify their vehicle models on the recently launched Bharat New Car Assessment Program (BNCAP).



Members at SIAM Passenger Vehicle CEOs Council Meeting

## Commercial Vehicle CEOs Council

The CV market has seen a growth of ~32% in FY2022-23 w.r.t. FY2021-22. Owing to factors like replacement of aging vehicles, pick-up in mining, infrastructure activities, construction activities, and improvement in the overall macroeconomic environment, CV sales have been on a growth trajectory across all three segments of Medium and Heavy Commercial Vehicles (M&HCV), Light Commercial Vehicles (LCV), and Buses.

CV segment in India has put its focus on low-carbon technologies across the segments. Natural gas (LNG) has come up as an avenue to provide valuable efficiency gains with fewer emissions. A few OEMs have also come out with hydrogen-based solutions in the form of H2 ICE trucks, which are essentially zero carbon emission based. A few of these technologies were displayed by the leading OEMs of the commercial vehicle segment in Auto Expo 2023 and unveiled in India Energy Week 2023 by the Honorable Prime Minister of India. The bus segment was focused especially on EV technology and grew by 62% to ~1900 units in FY2022-23 from FY2021-22. With the government's focus on achieving 40% penetration in buses, multiple OEMs have developed products and driven sales across the nation. The growing CV segment contributes significantly to the growth of the nation, and as the fastest-growing major nation in the world, India is a very attractive market for the CV segment even in the future.

To further forecast the demand measures, the council constituted a study **“City and Fuel Specific Roadmap under Infrastructure Spending”** for streamlining and strengthening the growth of the CV segment. The study is intended to discuss multiple power train

technologies pushed by the Ministry of Petroleum and Natural Gas with appropriate scenario development. The study focussed on all the possible scenarios of fuel supply and infrastructure development. However, three specific recommendations were given:

- Focus on increasing EV penetration in the 3W and SCV segments through infrastructure and segment-specific ZEV incentives
- Ensure deployment of CNG as a transitional fuel till FY30 post which, efforts should shift towards increasing adoption of EVs in the LCV segment
- Clear need to deploy adequate Natural Gas infrastructure which can increase the adoption of LNG vehicles in the MHCV segment between FY25 and FY35.

Also, the council suggested having larger interventions in the road logistic sector. Council approved the study for **'Identification of interventions under National Logistics Policy & MMLP development framework to improve road logistics efficiency'**. The recently announced National Logistics Policy 2022 aims to enhance Logistics efficiency and hence achieve a reduction in logistics cost in line with their stated objective of reducing logistics cost from 14% of GDP to 8-10% of GDP.

With India's target to become a USD 5 trillion economy in the next 2-3 years, focusing on logistics performance across all modes is the key to economic growth and competitiveness. While the road sector currently handles a dominant share of the total freight in India, it faces numerous bottlenecks and inefficiencies. To enhance the efficiency of road transportation while mitigating the potential

environmental impact, effective initiatives/interventions must be undertaken. At SIAM, we have made specific recommendations in this regard:

- Infrastructure requirements related to Expressways, MMLPs, Allied Infrastructure, etc. that will enable more efficient movement and utilization of the vehicle fleets deployed
- Development and application of Telematics
- Scrappage Policy to promote the replacement of older vehicles with a newer, more efficient fleet
- Introduction of Road Trains and Truck Platooning
- Adoption of Alternate Fuel Vehicles
- MMLPs with a completely new ecosystem (charging network, etc.) to suit future generations of vehicles, such as Electric and Hydrogen etc.
- Development of a Transport Freight Index
- Initiatives for not just Driver Skilling and Training, but also building support systems in and around the MMPLs such as resting places, medical clinics, hygienic food stalls, recharging stations for Electric, CNG and H2

etc, to help the 10 lakh driver community in the country.

With the rollout of the Fuel efficiency norms under the Energy Conservation Act, of 2001 announced, the first set of the norms have been effected from April 2023, with the exclusion of tippers, The norm is in line with the request of the council. Further, the CV council constituted a specific group for the development of Bharat VECTO tool to define the next stage of FE regulations which shall require engagement of the CV industry with the test agencies in the future.

The CV CEO council tried to bridge the impasse on ease of doing business and enhance safety with the creation of a level playing field by the OEMs and the private bus bodybuilders. On raising the concerns by the CV regarding the Implementation of Bus Passenger Compartment Fire safety requirements, MORTH has provided some relief in the form of deferment by eight months through recently issued Draft Notification G.S.R 49(E) dated 24<sup>th</sup> January'2023. The process is under consideration by MoRTH.

The council has met several times in the year and has been working towards promoting the interest of CV segment by defining a clear roadmap of engagement and decisions to move forward.

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
To review the Industry performance and create actions for Demand creation.	Completed the study :“ City and fuel specific roadmap under infrastructure spending”. The report has been developed with various scenarios of alternate fuels availability and powertrain development.Suggested to engage with Ministry of Petroleum and Natural Gas	SIAM Commercial Vehicles CEOs Council	Membership / Government

	To engage with the Ministry of Commerce for intervention required in the National logistic policy and Multi-Modal logistic park for increasing penetration of the commercial vehicle segment. The study progress is complete.		
Measures taken to create a level playing field between OEM/Non-OEMs for compliance for buses.	The deferment has taken place by 8 months through GSR of MoRTH.		
FE regulations for Heavy and Light duty vehicles.	Continuous engagement with BEE and with the exclusion of tippers, the FE norms for HDV ( based on constant speed fuel consumption) have been made effective from April,2023 onwards..		
	Created a framework for developing of Bharat VECTO tool for future Fuel efficiency compliance. The Financial support for development of the tool has been requested from BEE.		



Members at SIAM Commercial Vehicle CEOs Council Meeting



## Trade Fair Council

### **IAA Commercial Vehicle Expo at Hannover, Germany**

21<sup>st</sup> September 2022; Hannover, Germany

The IAA Commercial Vehicle Expo was held at Hannover, Germany where President-SIAM made a detailed presentation on the Indian Commercial Vehicle industry scenario at the IAA India Day event on 21st September 2022.

Dr N Sarvanan, President & CTO, Ashok Leyland, Dr Rajendra Petkar, Head (Power System Engineering), Tata Motors and Mr R S Sachdeva, COO, VE Commercial Vehicles also visited the Expo. One clear take away from the Expo was increased focus and emphasis on Hydrogen ICE and Hydrogen Fuel Cell Technologies.



## Initiatives of SIAM – SAFE

The automotive market in India is among the largest and fastest-growing in the world. Although it only has 1% of the world's vehicles, it is unfortunate that it has the highest rate of road fatalities in the world, at 11%. Indian roads claim the lives of about 1.5 lakh people annually, which equates to an average of 47 accidents and 18 fatalities each hour, or 1130 accidents and 422 deaths daily. These total up to a loss of 3% of our GDP. These alarming statistics emphasize the urgent need for improving road safety in the country. Over the years, road safety stakeholders including the government and SIAM have implemented several initiatives to improve the road safety scenario in the country. SIAM has always been at the forefront of spreading education about road safety. To ensure a more structured approach and to channel the initiatives in the area of Road Safety, SIAM developed the "Surakshit Safar" strategy in September 2022, which focused on initiatives to highlight the importance of the 5 E's i.e. Engineering, Enforcement, Education, and Environment & Emergency care.

SAFE is a SIAM initiative and it has emerged as a pioneering force dedicated to ensuring road safety and promoting environmental sustainability within the Indian automotive industry. Established as a non-profit entity, SAFE's mission encompasses creating awareness, advocating policy changes, and fostering collaborations to enhance road safety and reduce the environmental impact of vehicular activities. SAFE's accomplishments are multifaceted and far-reaching. Over the past year, multiple initiatives were taken to enhance road safety in the country, some of the key initiatives include:

**Workshop on Automobile Technology, Regulations, and Policy Support - Bhubaneswar, Odisha (29<sup>th</sup> September 2022):** Organized a workshop focused on upcoming technologies, regulations, and policies to enhance safe mobility and promote a cleaner ecosystem.

**23<sup>rd</sup> SAFE Annual Convention and Mobility Exposition - Bhubaneswar, Odisha (30<sup>th</sup> September 2022):** Hosted an event highlighting road safety initiatives and sustainable mobility practices, with distinguished guests including the Chief Minister of Odisha and industry leaders.

**Sukh da Saah Multi-Media Campaign 2022:** Extended the successful stubble-burning reduction project to additional villages, accompanied by multimedia campaigns to raise awareness about sustainable farming practices.

**SAFE Mobility Project (22<sup>nd</sup> & 23<sup>rd</sup> December 2022):** Organized an Inter School Road Safety Competition in New Delhi involving over 1,000 students from 30 schools, promoting road safety awareness among the younger generation.

**National Road Safety Week (11<sup>th</sup> - 17<sup>th</sup> January 2023):** Organized activities across dealerships, manufacturing plants, and service stations of member automakers to promote road safety awareness through the "4 E's" approach.

**Pavilion at Auto Expo (11<sup>th</sup> - 18<sup>th</sup> January 2023):** Set up a pavilion featuring workshops,

driving simulators, exhibitions, and emergency care equipment to educate attendees about road safety standards on the side-lines of the Auto Expo 2023, which saw footfall of more than 6 lakh people.

**Road Safety awareness initiatives with school students:** Conducted comprehensive road safety awareness programs for school students, including lectures, workshops, competitions, and collaboration with Delhi Traffic Police. Noteworthy schools received recognition during the event for their dedication to road safety: Road Safety Rolling Trophy, Runner Up Trophy & Appreciation Certificate

**Valedictory event for the Road Safety Club of New Delhi (February 17<sup>th</sup>, 2023):** Held a valedictory event to recognize schools' contributions to road safety initiatives, emphasizing responsible road behavior.

**UN Global Road Safety Week 2023:** Engaged in a range of activities to enhance awareness about important road safety practices, involving customers, employees, and the public.

**World Environment Day 2023:** Hosted an international conference titled "Imperatives of Sustainable Mobility," discussing various aspects of sustainable mobility and automotive sector contributions.

**Road Safety Education & Awareness Program:** Following the mandate provided by the SIAM Executive Committee, SIAM has started several initiatives for road safety education, with the goal of instilling responsible road behaviour among school students. To expand the reach of such initiatives, a Memorandum of Understanding (MoU) was

formalized with the Kendriya Vidyalaya Sangathan. This strategic partnership shall lay the groundwork for a large-scale educational campaign that aims to reach over 1.4 million students across 1,250 Kendriya Vidyalaya schools nationwide. The MoU signing event was graced by the Hon'ble Minister Shri Nitin Gadkari who reiterated the government's commitment for improving road safety through measures like improved infrastructure, awareness programs, and strict rule enforcement. He elevated the initiative as a visionary step towards a safer and better future. Ms. Nidhi Pandey, Commissioner of Kendriya Vidyalaya Sangathan proclaimed that road safety is integral to KVs' curriculum, and schools have admirably imparted these vital lessons to students. Ms. Prachi Pandey, Joint Secretary (Institutions & Trainings), Ministry of Education, Government of India, also attended the event and reemphasized the importance of education and students in improving the road safety scenario in the country.

SAFE actively collaborates with auto OEMS, government agencies, NGOs, and other stakeholders to develop a comprehensive strategy for road safety and environmental protection

**Promoting responsible road behaviour:** SAFE recognizes that education and awareness are pivotal in promoting road safety and environmental sustainability. The organization conducts workshops, educational programs, and awareness campaigns to sensitize individuals about responsible road behavior and eco-friendly practices. Through its MoU with Kendriya Vidyalaya Sangathan, SAFE is reaching out to school students to instil these values from an early age. Under the "SIAM सुरक्षित सफर " initiative, SIAM has developed

comprehensive road safety study materials tailored for different age groups and class levels. These materials, a cornerstone of the "4E's of Road Safety," equip students with essential knowledge and skills for responsible road behavior.

**Promoting vehicle fitness:** SAFE actively promotes the concept of regular vehicle maintenance and fitness. By advocating routine checks and proper maintenance practices, the organization aims to minimize accidents caused by vehicle malfunction or technical faults. Regular vehicle fitness assessments contribute to safer road conditions for all as well as reduce tailpipe emissions.

**Advocating for policies that prioritize safety:** SAFE actively engages with policymakers and governmental bodies to influence policies that enhance road safety and reduce environmental impact. By providing expert insights and collaborating on policy changes, SAFE aims to shape a regulatory environment that prioritizes safety and sustainability. SIAM invites officials from the Ministries and provides a platform for industry stakeholders to interact with them directly thereby ensuring transparency in policy roadmaps.

SAFE's activities are done in alignment with India's commitments to the UN Sustainable Development Goals (SDGs)

**SDG 3 – Good Health and Well-being:** By advocating road safety measures and promoting responsible driving behavior, SAFE contributes to reducing road fatalities and injuries, thereby enhancing the health and well-being of citizens.

**SDG 7 – Affordable and Clean Energy:** SAFE's support for cleaner technologies such as

electric vehicles, ethanol blending, gas based mobility etc. aligns with SDG 7's goal of ensuring access to affordable, reliable, sustainable, and modern energy for all.

**SDG 9 – Industry, Innovation, and Infrastructure:** SAFE's collaborative efforts with the automotive industry to adopt innovative technologies and safer infrastructure contribute to achieving sustainable industrialization and fostering innovation.

**SDG 11 – Sustainable Cities and Communities:** Through road safety campaigns, SAFE contributes to creating safer urban environments, aligning with SDG's aim of making cities inclusive, safe, resilient, and sustainable.

**SDG 12 – Responsible consumption and production:** SAFE promotes responsible and efficient use of resources, reduction of waste, and minimization of the environmental impact of consumption and production activities.

**SDG 13 – Climate Action:** SAFE's advocacy for electric vehicles and alternative fuels addresses SDG 13's call to take urgent action to combat climate change and its impacts. Also through the Sukh Da Saah program, SAFE has been working towards combating the menace of parali burning and resultant air pollution.

**SDG 17 – Partnerships for the Goals:** SAFE's collaborative approach exemplifies the spirit of SDG 17, as it engages with diverse stakeholders to achieve common goals in road safety and environmental sustainability.

The journey to becoming a developed nation requires concerted efforts in addressing challenges and embracing sustainable practices. SAFE stands as a beacon of hope and a

driving force in this endeavour. Through its initiatives, collaborations, and innovative programs, SAFE actively contributes to minimizing road fatalities, promoting responsible road behavior, and fostering environmental consciousness. By aligning its

efforts with India's commitments to the Sustainable Development Goals, SAFE exemplifies the spirit of collective action and emphasizes the potential for a safer, cleaner, and more prosperous future for the nation

Annual Report Card (2022-23)			
Deliverable	Measure	Owner	Stakeholder
Safety on road and fatality Reduction (Policy intervention, awareness, training and education, & accident data analysis)	Workshop on Automobile Technology, Regulations, and Policy Support	SAFE	Society / Government / Membership / Media
	23 <sup>rd</sup> SAFE Annual Convention and Mobility Exposition		
	Sukh da Saah Multi-Media Campaign (TV & Radio) 2022		
	SAFE Mobility Project		
	National Road Safety Week 2023		
	Pavilion at Auto Expo 2023		
	Road Safety awareness initiatives with school students		
	Valedictory event for the Road Safety Club of New Delhi		
	UN Global Road Safety Week 2023 activity		
	World Environment Day 2023 international conference		
Road Safety Education & Awareness Program			



Felicitation of Road Safety Contributors at SAFE Annual Convention 2022 by the Hon'ble Chief Minister of Odisha, Shri Naveen Patnaik



Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport & Highways at the inaugural ceremony of Surakshit Safar Pavilion at Auto Expo – The Motor Show 2023





**Mr. Vinod Aggarwal**  
President, Society of Indian Automobile Manufacturers (SIAM)



**Mr. Shallesh Chandra**  
Vice President, Society of Indian Automobile Manufacturers (SIAM)





# SIAM COUNCIL & GROUPS 2022-23

## A. COUNCIL ON INTERNATIONAL BUSINESS



**Chairman: Mr Un Soo Kim**  
Managing Director & CEO,  
Hyundai Motor India Ltd

### 1. INTERNATIONAL RELATIONS & TRADE POLICY GROUP



**Chairman: Mr Rahul Bharti**  
Executive Director,  
Corporate Planning & Govt. Affairs,  
Maruti Suzuki India Ltd



**Co-Chairman: Mr Sachin Arolkar**  
Head, International Operations,  
Mahindra & Mahindra Ltd

### 2. EXPORTS GROUP



**Chairman: Mr Rakesh Sharma**  
Executive Director,  
Bajaj Auto Ltd



**Co-Chairman: Mr Anurag Mehrotra**  
Vice President, Commercial Vehicle-  
International Business  
Tata Motors Ltd

## B. COUNCIL ON MARKET



**Chairman: Mr Veejay Ram Nakra**  
President - Automotive Division,  
Mahindra & Mahindra Ltd

### 1. VEHICLE CLASSIFICATION, SALES REPORTING & ANALYSIS GROUP



**Chairman: Mr R Ramakrishnan**  
Senior Vice President-  
Customer Care, CVBU,  
Tata Motors Ltd



**Co-Chairman: Mr. Narender Kukreti**  
Head - External Affairs & Public Affairs  
Toyota Kirloskar Motor Pvt Ltd

### 2. LOGISTICS GROUP



**Chairman: Mr Rakesh Sen**  
Vice President – Sales Planning,  
Outbound Logistics & Commercial  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr Tapan Ghosh**  
Vice President - Sales,  
Hyundai Motor India Ltd

### 3. CSR & COMMUNITY SERVICES GROUP



**Chairman:**  
**Ms Debdatta Mulchandani**  
Head-CSR,  
Hyundai Motor India Ltd

### 4. SERVICE, INSPECTION, MAINTENANCE AND CERTIFICATION GROUP



**Chairman:**  
**Mr Shrinivas P Chakravarty**  
Head of APS,  
Group Clearing & Technical Service,  
Skoda Auto Volkswagen India Pvt. Ltd

### 5. GAS BASED MOBILITY GROUP (CNG & LNG)



**Chairman: Mr Ashish Chutani**  
Head – Government & Policy Affairs,  
Maruti Suzuki India Ltd



**Co-Chairman: Mr D Balakrishnan**  
General Manager,  
Product Development,  
Ashok Leyland Ltd



**Co-Chairman: Mr P Gowrishankar**  
General Manager- Engineering Quality,  
Domestic Regulations,  
Tata Motors Ltd

## B. COUNCIL ON TRADE FAIRS



**Chairman: Mr Gurpratap Boparai**  
CEO - Automotive Businesses Europe,  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr B Srinivas**  
Executive Vice President,  
Purchase & Supply Chain,  
Product Strategy,  
VE Commercial Vehicles Ltd

## D. COUNCIL ON ECONOMIC AFFAIRS



**Chairman: Mr. Gopal Mahadevan**  
Wholtime Director & CFO,  
Ashok Leyland Ltd

### 1. AATMNIRBHAR BHARAT GROUP/SOURCING



**Chairman: Mr. Sunil Kakkar**  
Senior Executive Director –  
Supply Chain,  
Maruti Suzuki India Ltd



**Co-Chairman: Mr. Veeraraghavan R**  
Senior Vice President -  
Strategic Sourcing,  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr. Sachin Kulkarni**  
Executive Director – Corporate  
Procurement & Member of the Board,  
Skoda Auto Volkswagen India Pvt Ltd



**Co-Chairman: Mr. Badrish Sinha**  
Vice President-Purchasing,  
VE Commercial Vehicles Ltd

## 2. ECONOMIC RESEARCH GROUP



**Chairman: Mr Vikram Gulati**  
Country Head & EVP – Corporate  
Affairs & Governance,  
Toyota Kirloskar Motor Pvt Ltd

## 3. TAXATION POLICY GROUP



**Chairman: Mr. Rajesh Shukla**  
Head – Indirect Taxation,  
Tata Motors Ltd

## 4. TAXATION PROCEDURAL GROUP



**Chairman: Mr D D Goyal**  
Executive Advisor (Finance),  
Maruti Suzuki India Ltd



**Co-Chairman: Mr Rajeev Goyal**  
Chief Financial Officer –  
Auto & Farm Sector,  
Mahindra & Mahindra Ltd

## 5. DIRECT TAX



**Co-Chairman: Mr. Sanjeev Agarwal**  
Head –Taxation & Customs,  
BMW India Pvt. Ltd

## 6. FINANCE, LEASING & INSURANCE GROUP



**Chairman: Mr G. Parthasarathy**  
Head- Finance,  
TVS Motor Company Ltd



**Co-Chairman:**  
**Mr. Surendra Srivastava**  
Chief Executive Officer,  
Maruti Insurance Broking Pvt Ltd,  
Maruti Suzuki India Ltd

## 7. HUMAN CAPITAL GROUP



**Chairman: Mr. R Anandkrishnan**  
President (HR & IT),  
TVS Motor Company Ltd



**Co-Chairman: Mr Charles J S Walter**  
Group Head-HR,  
Hyundai Motor India Ltd

## 8. SKILLING GROUP



**Chairman: Mr. Piyush Arora**  
Managing Director & CEO,  
Skoda Auto Volkswagen India Pvt Ltd



**Co-Chairman: Mr. Hardeep S Brar**  
Vice President – Sales & Marketing,  
Kia India Pvt Ltd

## 9. AFTER MARKET PARTS



**Chairman: Mr Yash Pal Sachar**  
Vice President (Corporate Affairs),  
Ashok Leyland Ltd



**Co-Chairman: Mr R Ramesh**  
Executive Vice President –  
Customer Service, Retail Excellence &  
Network Development,  
VE Commercial Vehicles Ltd

## E. TECHNICAL COUNCIL



**Chairman: Dr N Saravanan**  
President & Chief Technology Officer,  
Ashok Leyland Ltd



**Co-Chairman: Dr Tapan Sahoo**  
Executive Director (Engineering),  
Maruti Suzuki India Ltd

## 1. E-MOBILITY GROUP



**Chairman: Mr Sushant Naik**  
Global Head,  
Government & Public Affairs,  
Tata Motors Ltd



**Co-Chairman: Ms Suman Mishra**  
MD & CEO,  
Mahindra Last Mile Mobility Ltd



**Co-Chairman: Mr Akash Passey**  
President - Bus Division & e-Mobility,  
VE Commercial Vehicles Ltd



**Co-Chairman: Mr Manu Saxena**  
Sr. Vice President - Future Mobility,  
TVS Motor Company

## 2. RECYCLING AND MATERIAL GROUP



**Chairman: Mr Shrikant Deshmukh**  
General Manager, Certification and  
Tech Regulations,  
Mercedes-Benz India Pvt Ltd



**Co-Chairman: Mr M S Anandkumar**  
Sr. General Manager (R&D),  
TVS Motor Company Ltd

### 3. SUSTAINABLE MOBILITY GROUP



**Chairman: Mr Ashwath Ram**  
Managing Director,  
Cummins India Ltd



**Co-Chairman: Dr Rajendra M Petkar**  
President and CTO,  
Tata Motors Ltd

### 4. CONNECTED VEHICLES GROUP



**Chairman: Dr Venkat Srinivas**  
Sr. VP- Product Development,  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr Sameer Jindal**  
Director,  
MG Motor India Pvt Ltd

### 5. STYLING & DESIGN GROUP



**Co-Chairman: Mr. G Sathiyaseelan**  
Vice President –  
Styling & Product Development,  
Ashok Leyland Ltd

### 6. FRONTIER TECHNOLOGY & INNOVATIONS GROUP



**Chairman: Mr Pradeep K Thimmaiyan**  
Vice President (PE),  
Daimler India Commercial Vehicles Ltd



**Co - Chairman: Mr Milind Pagare**  
Vice President (R&D),  
Bajaj Auto Ltd

### 7. MANUFACTURING, INDUSTRY 4.0 AND EODB-MFG



**Chairman: Mr Satyakam Arya**  
CEO & MD,  
Daimler India Commercial Vehicles Ltd



**Co - Chairman: Mr Mahesh Kaikini**  
Chief of Quality,  
Hero MotoCorp Ltd

## F. NATIONAL & INTERNATIONAL REGULATIONS COUNCIL



**Chairman: Mr R S Sachdeva**  
Chief Operating Officer,  
VE Commercial Vehicles Ltd

## 1. EMISSIONS & CONSERVATION GROUP



**Chairman: Mr C V Raman**  
CTO (Engineering),  
Maruti Suzuki India Ltd



**Co-Chairman: Mr Sachin Agrawal**  
Sr. Vice President,  
VE Commercial Vehicles Ltd



**Co-Chairman: Mr S Sakthivelan**  
Head - Program Management,  
Homologation CoE, Mahindra Vehicle  
Development Center,  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr Makarand Kulkarni**  
Sr. General Manager -  
Small / Light Duty Diesel – CV,  
Tata Motors Ltd

## 2. CMVR & SAFETY REGULATIONS GROUP



**Chairman: Mr R Velusamy**  
President-  
Automotive Technology and PD,  
Mahindra & Mahindra Ltd



**Co-Chairman: Mr Alok Jaitley**  
Executive Vice President (Engineering),  
Maruti Suzuki India Ltd

## 3. TWO WHEELERS GROUP



**Chairman: Mr Harjeet Singh**  
Executive Advisor (Tech),  
Hero MotoCorp Ltd



**Co-Chairman: Mr Suraj Agarwal**  
Operating Officer – Cost Innovation,  
Honda Motorcycle and Scooter India Ltd

## 4. THREE WHEELERS GROUP



**Chairman: Mr V Pattabiraman**  
Associate Vice President,  
TVS Motor Company Ltd



**Co-Chairman: Mr Arvind Kumbhar**  
Senior Manager (R&D),  
Bajaj Auto Ltd

## 5. INTERNATIONAL HARMONIZATION GROUP



**Chairman: Mr Anil Kumar C**  
Sr. General Manager- Body & Trim Cars,  
Tata Motors Ltd

## G. ENGAGEMENT & COMMUNICATION



**Chairman: Mr Rahul Bharti**  
Executive Director,  
Corporate Planning & Govt. Affairs,  
Maruti Suzuki India Ltd



**Co-Chairman:  
Mr Bhagwan K Bindiganavile**  
Executive Vice President –  
Strategic Planning,  
Brand and Communication,  
VE Commercial Vehicles Ltd



**Co-Chairman: Mr Sushant Naik**  
Global Head,  
Government & Public Affairs,  
Tata Motors Ltd

## H. COMMERCIAL VEHICLES CEOs COUNCIL



**Chairman: Mr Girish Wagh**  
Executive Director – CVBU,  
Tata Motors Ltd

## I. THREE WHEELERS CEOs COUNCIL



**Chairman: Mr Diego Graffi**  
Chairman & Managing Director,  
Piaggio Vehicles Pvt. Ltd

## J. TWO WHEELERS CEOs COUNCIL



**Chairman: Mr K N Radhakrishnan**  
Director & CEO,  
TVS Motor Company Ltd

## L. SAFE – SOCIETY FOR AUTOMOTIVE FITNESS & ENVIRONMENT



**President: Mr D Balakrishnan**  
General Manager, Product Development,  
Ashok Leyland Ltd



**Vice President: Mr Sushant Naik**  
Global Head, Government & Public Affairs,  
Tata Motors Ltd

## SIAM EXECUTIVE COMMITTEE 2022-23

COMPANY	MEMBER	ALTERNATE MEMBER
Ashok Leyland Ltd	Dr N Saravanan	Mr S Ganesh Mani
Bajaj Auto Ltd	Mr Rakesh Sharma	Mr Eric Vas
BMW India Pvt Ltd	Mr Vikram Pawah	Mr Vinod Pandey
Cummins India Ltd	Mr Ashwath Ram (Co-opted)	Ms Anjali A Pandey
Daimler India Commercial Vehicles Pvt Ltd	Mr. Satyakam Arya	Mr Pradeep K Thimmaiyan
Fiat India Automobiles Pvt Ltd	Mr Rajesh Khatri	Mr Devendra Bharambe
Force Motors Ltd	Mr Prasan Firodia	Mr Pankaj Gupta
Hero MotoCorp Ltd	Dr Pawan Munjal	Mr Vikram Kasbekar
Honda Cars India Ltd	Mr Takuya Tsumura	Mr Praveen Paranjape
Honda Motorcycle & Scooter India Pvt Ltd	Mr Tsutsumu Otani	Mr Vinay Dhingra
Hyundai Motor India Ltd	Mr Unsoo Kim	Mr Puneet Anand
India Yamaha Motor Pvt Ltd	Mr Eishin Chihana (Co-Opted)	Mr Ravinder Singh
Kia India Pvt Ltd	Mr Tae-Jin Park (Co-Opted)	Mr Hardeep Brar
Mahindra & Mahindra Ltd	Mr Veejay Ram Nakra	Ms Abanti Sankaranarayanan
Maruti Suzuki India Ltd	Mr Hisashi Takeuchi	Mr Rahul Bharti
Mercedes-Benz India Pvt Ltd	Mr Santosh Iyer	Mr Shekhar Bhide
MG Motor India Pvt Ltd	Mr Rajeev Chaba	
Piaggio Vehicles Pvt Ltd	Mr Diego Graffi	Mr Saju E S Nair
Simpson & Co. Ltd	Mr P S Rajamani	
SKODA AUTO Volkswagen India Pvt Ltd	Mr Piyush Arora	
Tata Motors Ltd	Mr Shailesh Chandra	Mr Sushant Naik
Toyota Kirloskar Motor Pvt Ltd	Mr Masakazu Yoshimura	Mr Vikram Gulati
TVS Motor Company Ltd	Mr K N Radhakrishnan	Mr M S Anandkumar
Volvo Eicher Commercial Vehicles Ltd	Mr Vinod Aggarwal	Mr Bhagwan K Bindiganavile

As on 29<sup>th</sup> August 2023



## PAST PRESIDENTS

YEAR	NAME	COMPANY
1960	Mr Lalchand Hirachand*	Premier Automobiles Ltd
1961	Sir L P Misra*	Hindustan Motors Ltd
1962 & 1963	Mr A E L Collins*	Ashok Leyland Ltd
1964	Mr Keshub Mahindra*	Mahindra & Mahindra Ltd
1965 & 1966	Dr M A Chidambaram*	Automobile Products of India Ltd
1967 & 1968	Mr KV Srinivasan*	Standard Motor Products India Ltd
1969	Mr A H Tobaccowala*	TELCO Ltd
1970 & 1971	Mr A Sivasailam*	Simpson & Co. Ltd
1972 & 1973	Mr N K Firodia*	Bajaj Tempo Ltd
1974 & 1975	Mr J E Taulicar*	TELCO Ltd
1976 & 1977	Mr Rahul Bajaj*	Bajaj Auto Ltd
1978 & 1979	Mr P N Venkatesan*	Premier Automobiles Ltd
1980 & 1981	Mr C V Karthik Narayanan*	Standard Motor Product India Ltd
1982 & 1983	Mr R J Shahaney*	Ashok Leyland Ltd
1984 & 1985	Dr V Krishnamurthy*	Maruti Udyog Ltd
1986 & 1987	Mr S L Bhatler*	Hindustan Motors Ltd
1988/89 & 1989/90	Mr B De Souza*	Mahindra & Mahindra Ltd
1990/91 & 1991/92	Dr Abhay Firodia	Bajaj Tempo Ltd
1992-1993	Mr Subodh Bhargava	Eicher Motors Ltd
1993/94 & 1994/95	Mr Vinod L Doshi*	Premier Automobiles Ltd
1995/96 & 1996/97	Dr Brijmohan Lall*	Hero MotoCorp Ltd
1997/98 & 1998/99	Mr V M Raval*	TELCO Ltd
1999/00 & 2000/01	Mr Venu Srinivasan	TVS Motor Company Ltd

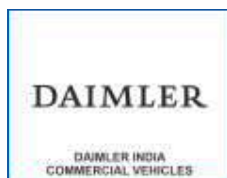
## PAST PRESIDENTS

YEAR	NAME	COMPANY
2001/02 & 2002/03	Mr R Seshasayee	Ashok Leyland Ltd
2003/04 & 2004/05	Mr Jagdish Khattar*	Maruti Udyog Ltd
2005/06 & 2006/07	Mr Madhur Bajaj	Bajaj Auto Ltd
2007/08 & 2008/09	Mr Ravi Kant	Tata Motors Limited
2009/10 & 2010/11	Dr Pawan Goenka	Mahindra & Mahindra Ltd
2011/12 & 2012/13	Mr S Sandilya	Royal Enfield (Unit Eicher Motors)
2013/14 & 2014/15	Mr Vikram Kirloskar*	Toyota Kirloskar Motors Ltd
2015/16 & 2016/17	Mr Vinod K Dasari	Ashok Leyland Ltd
2017/18	Dr Abhay Firodia	Force Motors Ltd
2018 /19 & 2019/20	Mr Rajan Wadhwa	Mahindra & Mahindra Ltd
2020/21 & 2021/22	Mr Kenichi Ayukawa	Maruti Suzuki India Ltd
2022/23	Mr Vinod Aggarwal	Volvo Eicher Commercial Vehicles Ltd

*\* Since deceased*

*Note: The names of the Companies are as they were known then.*

# SIAM MEMBERS



# SIAM MEMBERS



# SIAM SECRETARIAT



Mr Akshat Verma

Mr Amit Kumar

Mr Arindom Ghatak

Mr Arnab Chakraborti

Mr Atanu Ganguli

Mr B K Dutta

Ms Bhawna Mendiratta

Mr Bisham Prasad Rai

Mr Debasish Majumder

Ms Debi Sen Gupta

Mr Dinesh Patnaik

Mr Jitendra Rai

Ms Kanishka Chana

Mr Kartike Karwal

Mr Lokesh Mittal

Ms Manju Dhamija

Mr Manoj Das Mohapatra

Mr Mayank Bhatia

Ms Meenakshi Kukreja

Mr Prashant K Banerjee

Mr Philip Skaria

Ms Pooja Nagpal

Ms Ragmani Sharma

Mr Rajesh Menon

Mr Raju Kamat

Dr Rashid Hasan

Ms Ruby Ganguly

Dr Sandeep Garg

Mr Sundeep Sundli

Ms Supriya Sinha

Mr Tribhuban Rai

Mr V K Pandey

*In alphabetical order*

## LINKAGE WITH OTHER INSTITUTIONS IN INDIA

All India Motor Transport Congress (AIMTC)  
Alloy Steel Producers Association  
Aluminium Association of India  
Association of State Road Transport Undertakings (ASRTU)  
Automotive Component Manufacturers Association of India (ACMA)  
Automotive Skills Development Council (ASDC)  
Automotive Tyre Manufacturers Association (ATMA)  
Bureau of Indian Standards (BIS)  
Central Institute of Road Transport (CIRT)  
Central Pollution Control Board (CPCB)  
Central Road Research Institute (CRRRI)  
Confederation of Indian Industry (CII)  
Delhi Transport Corporation (DTC)  
Delhi Metro Rail Corporation (DMRC)  
Energy Transition Advisory Committee (ETAC)  
Federation of Automobile Dealers Association (FADA)  
Indian Auto LPG Coalition  
Indian Diesel Engine Manufacturers Association  
Indian Institute of Foreign Trade (IIFT)  
Indian Institute of Petroleum (IIP)  
Indian Institute of Technology (IIT)  
Indian Machine Tool Manufacturers Association (IMTMA)  
Indian Rubber Institute  
Insurance Regulatory and Development Authority of India (IRDAI)  
Institute of Road Traffic Education (IRTE)

Indian Sugar Mills Association (ISMA)  
International Centre for Automotive Technology (ICAT)  
Kendriya Vidyalaya Sangathan (KVS)  
National Automotive Testing and R&D Infrastructure Project (NATRiP)  
National Council of Applied Economic Research, (NCAER)  
National Institute of Design (NID)  
National Skill Development Corporation (NSDC)  
Material Recycling Association of India (MRAI)  
Petroleum Planning & Analysis Cell (PPAC)  
Research & Information Systems for Non-aligned and Other Developing Countries (RIS)  
Society for Automotive Fitness & Environment (SAFE)  
The Automotive Research Association of India (ARAI)  
The Energy and Resources Institute (TERI)  
Tractor Manufacturers Association (TMA)  
Vehicle Research & Development Establishment (VRDE)

*In alphabetical order*

## OVERSEAS LINKAGE

African Association of Automotive Manufacturers (AAAM)  
Asia Pacific Economic Cooperation Automotive Dialogue (APEC AD)  
Associação Nacional dos Fabricantes de Veículos Automotores (ANFAVEA)  
AusTrade Commission, Australia  
Auto Alliance, USA  
Automotive Research & Testing Centre, Taiwan  
Association of Indonesian Electric Motorcycle Manufacturers (AISMOLI)  
Bangladesh Automobiles Assemblers and Manufacturers Association  
Bangladesh Motorcycle Assemblers and Manufacturers Association  
Ceylon Motor Traders' Association (CMTA), Sri Lanka  
China Association of Automobile Manufacturers (CAAM), P R China  
Comité des Constructeurs Français d'Automobiles (CCFA), France  
European Automobile Manufacturers Association (ACEA), Europe  
European Association of Motorcycle Manufacturers (ACEM).  
Federal Chamber of Automotive Industry (FCAI), Australia  
Federation of Asia Motorcycle Industries (FAMI), Singapore  
Gulf Cooperation Council (GCC)  
Indonesian Automotive Industry Association (GAIKINDO), Indonesia  
Indonesian Motorcycle Industry Association (AISI), Indonesia  
International Motorcycle Manufacturers Association (IMMA)  
International Organization of Motor Vehicle Manufacturers (OICA)  
Japan Automobile Manufacturer Association (JAMA), Japan  
Japan Automobile Standards Internationalisation Centre, Japan  
Korean Automobile Manufacturers Association (KAMA), South Korea  
Motorcycle and Scooter Assemblers and Distributors Association of Malaysia



National Association of Automobile Manufacturers of South Africa (NAAMSA)

National Highway Traffic & Safety Authority, USA

Nepal Auto Dealers Association, Nepal

Singapore Motorcycle Trade Association, Singapore

Taiwan Transportation Vehicle Manufacturers Association, Taiwan

Thailand Automotive Institution, Thailand

The Society of Motor Manufacturers and Traders (SMMT), UK

The Thai Automotive Industry Association (TAIA), Thailand

The United Nations Economic Commission for Europe (UNECE)

UK Trade & Investment (UKTI)

US Grains Council (USGC)

The Brazilian Sugarcane Industry Association (UNICA)

Verband der Automobilindustrie e.v. (VDA), Germany

Vietnam Register, Vietnam

*In alphabetical order*





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Society of Indian Automobile Manufacturers

**Building the Nation, Responsibly.**


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