



2024

**I**NTERNATIONAL  
**M**ATERIAL  
**R**ECYCLING  
**C**ONFERENCE

METAL | E-WASTE | BATTERY | ELVs | TYRE | PAPER | PLASTIC

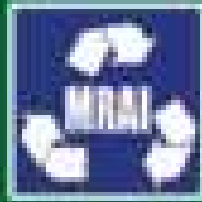
📅 (23) 24 & 25 JANUARY 2024 📍 BISWA BANGLA MELA PRANGAN, KOLKATA

**POST CONFERENCE REPORT**  
KOLKATA 2024



বঙ্গ হ্যালো  
সদর সভা  
মহালা  
লম্বা  
সদর সভা





## MATERIAL RECYCLING ASSOCIATION OF INDIA

Voice of the Indian Recycling Industry

### About us

- Represents recycling industry in its entirety
- Membership of over 1400 stakeholders
- Collective strength of over 20,000 MSMEs
- Employs 25 lakh directly & indirectly
- Liaising network with Govt. of India and other regulatory authorities to facilitate industry growth
- Close association with national and international associations like ISRI, BIR, BMR, CMRA, EuRIC, BMRA, etc.
- Regularly conducts awareness programmes and conferences

### Our vision

- To represent the Recycling Industry to Government and to address and resolve issues
- To promote all types of Recycling within India
- To obtain official Industry status for the Recycling Industry in India
- To promote and spread awareness regarding Recycling in India
- To promote Recycling as curriculum in educational institutions
- To set up Circular Economy Parks in the country
- To help promote R & D and technological upgradation of domestic Recycling Industries
- To establish dedicated Government Department to look after Circular Economy initiatives
- To promote minimum recycling content in finish products

# 'Recycling key for the development trajectory of India'



“

As I write this I am overwhelmed by pride and gratitude. Pride, because what was started 11 years back with only 400 delegates and four booths, has now stand transformed into a massive event of 200 exhibition stalls with over 2200 delegates from about 44 countries from the world over in attendance. Gratitude, because of the enormous support and cooperation from all stakeholders that MRAI and myself could muster over the years. At MRAI, we are deeply committed to the progress and development of the recycling industry and would work shoulder to shoulder with the government in actualising its great vision of becoming Atmanirbar and a country with a 5 trillion economy in the near future. In fact, given the situation that we are in a linear, exploitative and unsustainable lifestyle, recycling is the only saviour of the human race.

**Sanjay Mehta**  
President, MRAI

”

# 'Synergizing the entire ecosystem'

“

The 11th IMRC organized by MRAI in Kolkata registers a new watershed in the decade old history of our association. The gathering of global recycling industry in large numbers underlines the growing importance of India as an emerging recycling hub. The fact that the majority of exhibitors are from the technology segment also makes it obvious. The Indian industry stands at the threshold of its transformation from an informal to a formal one. I am indebted to you all, from the ministries and government, global recyclers, association partners, delegates, speakers, exhibitors and our diamond sponsors for helping us put up such a mammoth event – which will go a long way in synergizing the entire ecosystem. Thank you all.

**Amar Singh**  
Secretary General, MRAI

”





**SHRI JYOTIRADITYA SCINDIA**  
Union Minister of Civil Aviation and Steel

I am glad to address all of you at the 11th International Material Recycling Conference (IMRC) organized by the Material Recycling Association of India (MRAI). It is commendable that the MRAI has been consistent in its efforts to provide a platform for exchange of ideas and experiences since the very beginning".

"The Honourable Prime Minister Shri Narendra Modi had emphasized in his address on August 15, 2021 about the urgent need for a circular economic vision. He said that we must make it a mandatory as part of our lives due to the fast depletion of natural resources and to meet the needs of a modern economy".

"Our steel industry is an integral part of the circular economy. As per our Ministry's 'Vision 2047' document, in the next 25 years, the percentage of scrap will be 50 percent along with the balance 50 percent as iron ore, with iron ore which will increase to 25 percent of scrap in the next five years. The Steel Ministry is committed to net zero target by the year 2070. Our steel scrap recycling policy enhances the availability of domestically generated scrap to reduce the consumption of coal in steelmaking. There is a positive trend to increase steel production through scrap and this is likely to increase. Manufacturing steel through scrap and other waste products is certainly less polluting and is a step towards our Green Steel initiative".

**SHRI PRALHAD JOSHI**  
Union Minister of Parliamentary Affairs,  
Coal and Mines



**M**aterial recycling is not a choice, but a necessity. India recycles around 25 percent of its total metal consumption and who are working to significantly end this by investing in modern recycling facilities and collection channels".

"The government has generated Rs 11,000 crores in revenue from electronic waste disposal in the last three years, showcasing the economic potential of the recycling sector. Through innovation and collaboration, we strive for a circular economy, aiming to become a global leader in sustainable metal recycling. Recycling significantly reduces greenhouse gas emissions, creates jobs, and strengthens domestic supply chains. Let us turn scrap into a valuable resource, paving the way for a greener, more prosperous future."

"We want to make India the hub of the circular economy. Recycling metals such as iron, steel and aluminium will reduce the burden on these materials through mining. This not only enhances the efficient usage of our mineral resource but also saves water and other materials used for mining while minimizing the environmental impact associated with it. Recycling also stops scrap from going to the landfills, thereby reducing waste. Needless to say, recycling is cheaper than mining. So yes, recycling is the way forward for the New India we are building. We should make the best use of the available resources, minimizing waste and saving energy".





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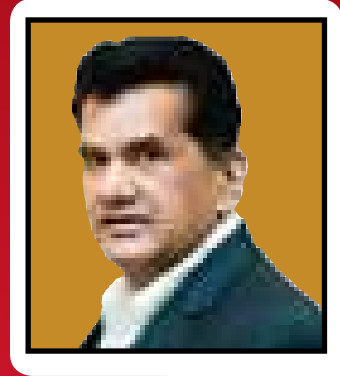
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# CIRCULAR ECONOMY ZONE

MRAI's desire to promote and propagate the philosophy and practice of circular economy found its vibrant expression at the specially designed pavilion. Besides conference delegates, students from schools, IIMs and IITs thronged to witness the maiden Circular Economy pavilion. Various examples of circular economy in action were in display including projects from IITs which attracted the most attention.



**MR. AMITABH KANT**  
G 20 Sherpa, Government of India



India cannot grow at high rates without recycling. India cannot progress without recycling. India cannot advance and create jobs without recycling. India cannot become the third biggest economy in the world without recycling. All this is important because the circular economy encourages us to transition from linear to multi-life cycle, circular value chain and as I have said, Our past models have all been based on waste. There is an opportunity to provide jobs for millions of Indians. India cannot grow without jobs and recycling will give you a job. I think you should keep telling every single ministry that if their aim is to create jobs, recycling will provide jobs.

Our future models must be based on treating waste always as an input, as a raw material. This to my mind is the biggest opportunity for India. Our biggest opportunity does not, to my mind, lie in just producing mobiles. It does not lie in producing vehicles. It does not lie in food processing. The biggest business opportunity for India is in recycling. The biggest opportunity for India is in circular economy. It's a trillion dollar business and each one of you must aim to drive and become the champions of recycling and help us in government to collaborate and partner with you to make India the world leader in recycling and circular economy.



## EMINENT SPEAKERS

- **JYOTIRADITYA SCINDIA,**  
Hon'ble Minister,  
Ministry of Civil Aviation & Steel
- **SANJAY KUMAR,**  
Director General, DMEO, NITI AAYOG
- **SURENDRA BORAD PATAWARI,**  
Chairman, Gemini Corporation NV
- **SUSIE BURAGE OBE,**  
President, BIR
- **SANJAY MEHTA,**  
President, MRAI
- **DHAWAL SHAH,**  
Vice President, MRAI
- **ZAIN NATHANI,**  
VP, MRAI
- **AMAR SINGH,**  
Secretary General, MRAI



## INAUGURAL SESSION

## TAKEAWAYS

- 2 EUROPE, AUSTRALIA AND CANADA CAME UP WITH SUBSIDIES TO MATCH AMERICAN SUBSIDIES
- 2 INDIA TOO MUST COME UP WITH SIMILAR SUBSIDIES FOR INDIAN RECYCLING INDUSTRIES IN ORDER TO CREATE EMPLOYMENT
- 2 INDIAN BANKS WHICH INVESTED IN ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FUNDS RECEIVED A RETURN OF 14% ON THEIR INVESTMENTS
- 2 UNLESS THE INDIAN GOVERNMENT REMOVES IMPORT DUTIES ON SCRAP FIRST, IT WOULD BE IMPOSSIBLE TO ASK EU COUNTRIES TO ALLOW SCRAP EXPORT TO INDIA

**M**RAI Secretary General Amar Singh kicked off the inaugural session of the 11th Indian Material Recycling Conference (IMRC) by delivering the welcome speech. He thanked dignitaries including NITI Aayog's Development Monitoring and Evaluation Office (DMEO) Director General Sanjay Kumar, ISRI Chair Mr Henesey, BIR President Ms Burage, BMR President Mr Mustafa, MRAI President Mr Mehta, Senior Vice President Mr Shah, and Vice President Mr Nathani.

Mr Singh recalled how MRAI's conference had grown from merely 400 delegates and four stalls 11 years ago, to 200 stalls and 2200 participants in 2024.

Speaking at the inaugural function, President Mr Mehta said that the recycling sector is now

being considered one of the main pillars of the economy. He spoke about protectionist mechanisms like Carbon Border Adjustment Mechanism (CBAM) adopted by European Union (EU) countries to safeguard their raw material security and how the EU plans to ban the export of scrap from January 2026 or maybe by the end of that year. He also urged the Indian government to remove import duties on metal scrap. He emphasized that unless the Indian government removed import duties on scrap first, it would be impossible to ask EU countries to allow export of scrap to India.

Union Minister for Civil Aviation and Steel Jyotiraditya Scindia addressed the conference through a video message. Scindia said that the steel industry is well suited for







Mr Shah spoke about the future opportunity to recycle solar photovoltaic (PV) panel waste and the need to set up the infrastructure to do so. Mr Shah spoke about how top Indian banks which invested in environmental, social and governance (ESG) funds had received a return of 14% on their investments.

Mr Patawari of Gemini Corp spoke about the innovative financial innovations in the United States to encourage recycling and sustainable ventures. He mentioned an American law called The President's Inflation Reduction Act (IRA) of 2022 which makes it possible for companies to sell their future credits to receive immediate funds. He spoke about direct tax credits being given to US companies ignoring WTO rules.

In his address as Guest of Honour at the inaugural function, Mr Kumar said: "We are on the path to become five trillion economy and if the same rate of progress continues we will achieve even much bigger heights. For me circular economy is the pathway for responsible growth. Why I'm saying responsible growth because still we have to bring millions out of the vicious net of poverty," said.

remanufacturing, reusing, and recycling.

He said that the steel ministry is looking at increasing the usage of scrap in the steel sector from the current 15% to 50% in the next 25 years. He stated that recognizing the economic significance of the domestic scrap market, with over 10,000 participants contributing to GST collections, the government is committed to create a conducive environment for the growth of the industry.

He expressed confidence that the discussions during IMRC would be instrumental in charting the path towards a carbon-neutral future.

BIR President Ms Burrage who spoke on the occasion stated that governments have a crucial role to play in creating a supportive legislative framework which

incentivizes sustainable practices and penalizes environmental abuse. She said that recyclers have a seat at the table where legislators create and implement policies like Extended Producers' Responsibility (EPR).



## EMINENT SPEAKERS

- **DR. VIRENDRA KUMAR GUPTA**, Senior Vice President, and R&D Head (Polymer), Reliance Industries Limited
- **PROF BRAJESH KUMAR DUBEY**, IIT Kharagpur
- **DR. ULHAS PARLIKAR**, Director, MRAI
- **DR. VIJAI SINGHAL**, Chief Engineer-RSPCB (Retired)
- **SHRI SUDHIR KUMAR**, Former Adviser, NITI AAYOG
- **PRABHJYOT SODHI**, Moderator

## TAKEAWAYS

- PLASTIC RECYCLING OUGHT TO BE AN INDEPENDENT BUSINESS IN ORDER TO ATTRACT INVESTORS
- THERE IS A LACK OF BIG PLAYERS IN THE PLASTICS RECYCLING BUSINESS
- CHEMICAL SOLVENT BASED RECYCLING IS THE LATEST TECHNOLOGY TO RECYCLE PLASTICS
- THERE IS A NEED TO DEVELOPE MOLECULES TO ENSURE 100% CIRCULARITY IN PLASTICS

# Session on reimagining the way plastics are produced, consumed and disposed



MRC 2024 got to a great start on day one of the conference with a panel discussion on 'Reimagining The Way We Produce, Consume And Dispose Of Plastics', moderated by Prabhjyot Sodhi.

Dr Gupta spoke about how plastic recycling must be an independent business and must attract investors. He said that more than 1000 million tonne of plastic will be needed by 2050. He pointed out that presently, there is a lack of big players in the plastic recycling business.

Technology for sorting plastics has emerged, he said, adding that many companies including Reliance use pyrolysis oil to make new plastics. Chemical solvent based recycling is the latest plastic recycling technology, he said.

Parlikar stated that it is not easy to sort and segregate plastic, adding that there is a limit to mechanical recycling. Hence there is a need to develop molecules to ensure 100 per cent circularity. He spoke how most

of the recycling activity happens in the informal sector. However, the informal sector is simply too small to spend on capacity expenditure. He mentioned that segregating plastics is a big challenge and that technologies to segregate plastics exist but they are not affordable at this juncture.

Professor Pandey of IIT Kharagpur stated that industry and academia as well as regulators have to come together. He said that the challenge of how to recycle mixed plastic must be studied by academic institutions. However, not much is happening in the waste disposal or waste management, he said, adding that technology has to be made economically viable. It is here that industry and academia have to come together, he said. It is very easy to say there must be a circular economy, but without circular engineering, it is impossible to have a circular economy, he said.



# Session on waste tyre recycling: transforming challenges into solutions

The session started by highlighting the significance of mobility sector as a catalyst in accelerating India to 5-trillion USD economy by FY28 and the level of tyre disposal every year and the proactive measures undertaken by Indian stakeholders to prevent their contribution to landfills.

Followed by keynote address by Anand Kumar on the introduction of EPR for tyres in July 2022 and the readiness of portal to facilitate faceless interactions among producers, recyclers, retreaders, regulatory and policy makers. He proposed the audience to deliberate on the level of recycling required, standards and technologies required, whether producers of different materials are on level playing field, sources of funding to move from mechanical to advanced cryogenic

technologies.

Given the target of credits for FY23 and FY24, he expressed his concern on low recycler registration status at 308 (in total) as against a total of 713 pyrolysis plants in the country with compliances. He further emphasised the efforts of CPCB in conducting sessions across country to support and urged ATMA and MRAI to hand hold recyclers in onboarding process for the success of policy.

Challenges faced by producers and recyclers were also discussed during the engaging session. The importance of pyrolysis in driving circularity as an energy resource and ongoing R&D to upgrade char to rCB and use of TPO as feedstock in BASF and IOCL is highlighted.

Reliance on imports and regulatory risks associated with the same as a barrier for new entrants were also discussed.

## EMINENT SPEAKERS

- **VED PRAKASH MISHRA**,  
Director (HSM), MoEF&CC
- **ANAND KUMAR**,  
Director & DH of WM-III, CPCB
- **ANURUP ARORA**,  
Senior Vice President,  
Business Development & CPG,  
Tinna Rubber & Infrastructure Ltd.
- **RAHUL GOYAL**,  
Director, All India Rubber &  
Tyre Recyclers Association (AIRTRA)
- **DR. SAIKAT DAS GUPTA**,  
Member, Automotive Tyre  
Manufacturers' Association (ATMA)
- **DHAVAL DAMANI**,  
COO, Fornax Technologies Pvt. Ltd.
- **HARSH GANDHI**  
Joint MD, GRP Limited

## TAKEAWAYS

- POLICYMAKERS & REGULATORS NEED TO BALANCE BETWEEN ENVIRONMENT PROTECTION BY WAY OF 'POLLUTER PAYS' PRINCIPLE
- BRAND OWNERS WILL BE ON FOCUS FOR SAFETY OF THEIR CUSTOMERS
- THERE IS NEED TO COLLABORATE WITH RECYCLERS FOR EFFECTIVE SOLUTIONS TO ATTAIN CIRCULARITY,
- TYRE RECYCLERS WILL NEED TO FOCUS ON CLEAN RESPONSIBLE RECYCLING
- EQUIPMENT PROVIDERS WILL HAVE TO LOOK FOR BRIDGING THE GAP BETWEEN BRAND OWNERS NEED FOR A STANDARDIZED PRODUCT, INVESTMENTS IN WORLD CLASS TECHNOLOGIES TO REDUCE DEPENDANCE ON IMPORTS



## EMINENT SPEAKERS

- **VED PRAKASH MISHRA,**  
Director (HSM), MoEF&CC
- **ANAND KUMAR,**  
Director & DH of WM-III, CPCB
- **ALN RAO,**  
Director, MRAI
- **RAJ SAHU,**  
Chairman, Environment Committee,  
MAIT
- **JAGDISH PRASAD,**  
Vice President, MTC Group
- **KUSH GIRAMKAR,**  
President- Operations,  
Procurement & Projects, GRP Limited
- **BINEESHA P**  
Advisor, MRAI

# Session on extended producers' responsibility in recycling industry



## TAKEAWAYS

- MRAI SHOULD ENGAGE WITH THE INFORMAL SECTOR AND SUPPORT THEIR MAINSTREAMING BY ENCOURAGING THEM TO BECOME MRAI MEMBERS
- MRAI WILL ORGANISE DISCUSSION FORUMS WITH PRODUCERS AND RECYCLERS TO BRIDGE THE GAPS AND BUILD TRUST BY MUTUALLY AGREEING ON QUALITY PARAMETERS FOR THE MATERIAL
- MRAI TO FACILITATE STAKEHOLDER ENGAGEMENT TO ENABLE IMPLEMENTATION OF CIRCULAR ECONOMY WHICH WILL IN TURN HELP SMOOTH OPERATION OF EPR POLICY

**T**his session saw the congregation of recyclers from all the verticals and truly proved to be a 'unifying topic'. With accomplished panellists, representing the government (Ministry of Environment and Forests & Climate Control), producers association (MAIT) and recyclers (battery, plastics, end-of-life vehicles, tyres and electronic waste), it was one of the most interactive of sessions.

Ved Prakash Mishra, who chaired the session spoke about the philosophy and purpose of the EPR legislation by emphasising the 'polluter pays' principle. The EPR policy is made to boost the recycling sector. One of the main challenges in implementing this policy is trust issues between producers and recyclers. There are several credits lying with recyclers, especially

in tyres and e-waste. However, producers are unwilling to purchase them due to quality issues. Hence, this needs to be discussed and solved.

Raj Sahu said that if every individual responds to the Prime Minister's clarion call and adopts 'Mission Life' principles, then, EPR can be synchronised well in the society.

MTC Group's Prasad threw light on how the ELV recycling sector's major challenge is the utilisation of recycled material by the automobile industry. MRAI Advisor ALN Rao mentioned that the policy as it is today is forward looking and very well formulated. He mentioned that it is important that the key stakeholders work on a collaborative model to operationalise EPR. Only then, resources being used back in the closing loop model would help the country, he said. ■



# Session on plastic and its recycling – a leap into the future

The session on plastic and its recycling – A leap into future saw speakers from different sectors connected with plastics sharing their expertise. While Mr Francis from Trivandrum represented Urban local bodies, Mr Bagaria from US shared the Industry perspective, Dr Ghosh presented the academia, Mr Dwivedi representing regulatory body of BIS, Mr Bandhopadhya represented financial institutes, while Mr Bhutada talked about Carbon Credits. The session was eminently moderated by global consultant and MRAI director Ulhas Parlikar.

The floor felt that plastic credit is a very effective mechanism for promoting viability in implementing sustainable management of plastics.

Some of the important points made by the panel members include:

(a) Different options that are utilised for the management of plastics such as upcycling, recycling, downgrading, waste to energy & waste to dump need to be defined from sustainable

- considerations.
- (b) There are many business opportunities in plastic upcycling and recycling that need to be promoted and hand held for growth and proliferation.
  - (c) The Government must notify standards for recycled plastics and also facilitate capacity building.
  - (d) Various standards have been defined for plastics and are being revised.
  - (e) Major funds are being considered for Bottle to Bottle, Bottle to Packaging & Bottle to Fabrics and also towards chemical recycles.
  - (f) World Bank is looking at promoting circular economy in the field of plastics and funds projects through other funds.
  - (g) Plastic waste management needs to be pursued by building viable business model and the business model build by GIZ to implement remediation of dump yard at Prayagraj in UP needs to be promoted across the country. ■

## EMINENT SPEAKERS

- **DR. BINU FRANCIS**,  
Secretary, Trivandrum Municipal Corporation
- **SUNIL BAGARIA**,  
Chairman, GDB International Inc.
- **DR. ANUP K. GHOSH**,  
Professor and Head, IIT Delhi
- **SHIVAM DWIVEDI**,  
Member Secretary, PCD12, BIS
- **AJEYA BANDYOPADHYAY**,  
Senior Climate Change Specialist (South Asia Lead), IFC Vivek J M, Technical Expert, GIZ GmbH
- **KESHAV BHOOTDA**,  
Founder & MD, Climeto Sustainable Services Pvt. Ltd.
- **ULHAS PARLIKAR**,  
Director, MRAI & Global Consultant – Waste Management

## TAKEAWAYS

- ② SOURCE SEGREGATION FACILITATES EFFICIENCY IN RECYCLING
- ② DECENTRALISED WASTE MANAGEMENT IS EFFICIENT, COST EFFECTIVE AND PROVIDES OPPORTUNITY FOR IMPLEMENTING INNOVATIVE INITIATIVES.
- ② FOR THE RECYCLING BUSINESS TO FLOURISH, THE MARKET HAS TO BE MADE SUSTAINABLE, SCALABLE AND PROFITABLE.
- ② APPROPRIATE POLICIES NEED TO BE ENACTED SUCH AS EPR, MINIMUM RECYCLED CONTENT IN PRODUCTS.
- ② CERTIFICATION OF THE RECYCLED PLASTICS IS MUST



## EMINENT SPEAKERS

- **DR. SANDIP CHATTERJEE,**  
Scientist G, MEITY
- **ANAND KUMAR,**  
Director & DH. WM-III Div., CPCB
- **B.K. SONI,**  
Chairman and MD, Eco Recycling Ltd.
- **DR. ASHOK KUMAR,**  
Director, MRAI
- **RAMAN SHARMA,**  
MD, Exigo Recycling Pvt. Ltd.
- **ALN RAO,**  
Exigo Recycling Pvt. Ltd.

# Session on recycling of e-waste and battery: development and policy initiatives



**T**he early morning session on recycling of e-waste and battery: development and policy initiatives, for the first time brought recyclers, manufacturers (brands), policy makers and users on to the podium to discuss and debate issues that are pertinent to the industry at a time when it is seeming lot many legislative interventions.

Some of the salient points of discussion by the panellists included E-waste rules 2022 - Current rules and regulations, definition of recycler. The gathering of august participants get to understand that the audit of an e-waste recycler will be of machineries, financials and processes. And the new infrastructure allows transactions of E-waste certificates via CPCB portal.

One of the interesting topics that got discussed is the opportunities

and challenges of EPR, which as got amended recently.

The importance of critical materials for India growth story also got into discussion that it was felt that securing critical materials from urban mining for Atma Nirbhar Bharat is an imperative.

The gathering also discussed skill development programmes and technologies that are available for e-waste recyclers from MeitY and other GOI institutions.

The session on battery, the BWMR rules 2022, the current rules and regulations were put to deliberate to the great interest of the gathering. The audience were made preview to the status quo of both lead acid and Li-ion battery recyclers in India and their need for investments, technologies to scale up their infrastructure.

## TAKEAWAYS

- NEED TO SECURE CRITICAL MATERIALS FROM URBAN MINING FOR ATMA NIRBHAR BHARAT
- PROMOTE USE OF SECONDARY RAW MATERIALS IN NEW PRODUCT MANUFACTURING
- PROMOTE REFURBISHING AS PER NEW RULES
- FOCUS ON RARE EARTH AND CRITICAL METALS FROM EWASTE
- NEED FOR ADEQUATE SAMPLING LABS WITH IN-DIAN PRICING MODEL
- STANDARDS AND CERTIFICATIONS FOR ALL STAKE-HOLDERS



# Session on challenges and opportunities in battery waste

The discussion at this session was about end-of-life batteries which are generated in the millions by consumers. There are two major issues in the supply side and one issue on the sales side.

Various issues related to the supply side were discussed including collection and segregation of portable batteries and how supply invoices are usually not available.

Speakers suggested that awareness must be created among consumers to segregate end of life batteries at the household level itself.

In order to get an invoice, Goods & Services Tax (GST) could be charged through a reverse charge mechanism (RCM) under Section 9(3) of GST, it was suggested.

Another proposal was that the tax rate should be lower since tax is already paid on new goods or tax on scrap must be kept at a lower rate

which could be a maximum of 12%.

While issues related to the sales side were discussed, observations were made that recyclers do not manufacture finished consumer products, but make only intermediary raw materials in the form of ingots, billets, sheets, granules etc.

Therefore, making recyclers pay higher rates of GST would only ensure that they face the hardship of higher capital blockage.

Hence, it was suggested that the government ought to make recyclers pay a GST rate of 12% at the most, since they make only intermediary raw materials.

Putting in place an RCM mechanism would help recyclers get purchase invoices and a 12% tax on intermediary goods would help reduce fake invoices, it was argued during the course of discussions at this session on challenges and opportunities in battery waste. ■

## EMINENT SPEAKERS

- **V. P. YADAV**,  
Sc. F & DH of WM-I Div., CPCB
- **PRATYUSH SINHA**,  
VP Special Projects, Lohum
- **BHUWAN PUROHIT**,  
Executive Director – Corporate Strategy & Planning,  
Rubamin Pvt. Ltd.
- **PRIYANKA MISHRA**,  
General Manager, Umicore N. V.
- **PIYUSH DHAWAN**,  
President - Commercial & Strategy,  
Pondy Oxides and Chemicals Limited
- **NAVEEN SHARMA**  
Moderator

## TAKEAWAYS

- PUTTING IN PLACE AN RCM MECHANISM WOULD HELP RECYCLERS GET PURCHASE INVOICES AND A 12% TAX ON INTERMEDIARY GOODS WOULD HELP REDUCE FAKE INVOICES
- IN ORDER TO GET AN INVOICE, GOODS & SERVICES TAX (GST) COULD BE CHARGED THROUGH A REVERSE CHARGE MECHANISM (RCM) UNDER SECTION 9(3) OF GST
- AWARENESS MUST BE CREATED AMONG CONSUMERS TO SEGREGATE END OF LIFE BATTERIES AT THE HOUSEHOLD LEVEL ITSELF



# Session on Vision 2030: secondary steel sector prospects and challenges



## TAKEAWAYS

- NECESSITY TO ESTABLISH RECOGNIZED AGENCIES TO AUTHORIZE AND RATE GREEN STEEL IN INDIA
- HYDROGEN IMPORTANT FOR GREEN STEEL PRODUCTION
- FINANCIAL INCENTIVES NEEDED TO SUPPORT HYDROGEN PLANTS
- NECESSITY TO ESTABLISH WORLD CLASS END OF LIFE VEHICLE SCRAPPING CENTERS

**V**ardhman Special Steels Ltd's Vice-Chairman & Managing Director Sachit Jain spoke about the urgent need to reduce the carbon footprint in the secondary steel industry in India. He emphasized the importance of defining "green steel" as having a lower carbon footprint and advocated for the establishment of recognized agencies to authorize and rate green steel in India.

Jain highlighted the importance of green hydrogen, especially for blast furnaces and recycled steel production. He advocated for a policy framework and financial incentives to support the setup of hydrogen plants. He called for compulsory vehicle scrapping and the establishment of world-class scrapping centers. He spoke of the

need to double the share of scrap-based steel in total production over the next decade and recommended financial incentives for retiring old steel plants, as well as mandating 20% recycled steel usage in automobiles.

He advocated for a circular economy in the auto sector, where steel products are recycled and reused in a continuous loop. He discussed challenges like traceability of scrap and the need for regular, confirmed availability of scrap. Jain suggested export incentives, carbon credit systems, and government procurement preferences for green steel. He encouraged research and development incentives, potentially with a premium for green steel, similar to practices in Europe. He emphasized the importance of collaborative efforts, policy changes,





and financial incentives to promote green practices in the secondary steel industry, particularly in the context of the automobile sector in India.

Big Mint's Sumit Agrawal discussed the evolution of scrap recycling over the past 40 years, estimating that around 20 to 25 million tonnes would come from old scrap, which would be 5 million tonnes of foundry scrap and 10 million tonnes of new prompt scrap.

The discussion revolved around the increasing demand for steel in India, driven by construction, infrastructure, general engineering, and the shift of capital goods industries from China to India. The steel demand had grown by 7% in the last 6 years and was expected to continue at a similar rate.

His presentation highlighted a bullish approach, anticipating an 8% growth. Steel capacity expansion plans were outlined, projecting an increase from 140 million to 240 million tons by 2030. While blast furnaces were currently dominant in India, a shift towards electric arc furnaces was expected by 2030.

Punit Paliwal of CRU highlighted the expected growth in steel

production, with a focus on basic oxygen furnace-based steel makers leading the way. He noted the distinction in end-use markets between primary and secondary steel makers, and emphasized the dominance of secondary steel makers in the long products market and primary steel makers in the flat products market.

Lee Allen, Strategic Markets Editor, Scrap, Fastmarkets MB expressed his gratitude for the opportunity to speak at IMRC 2024, Kolkata. His presentation focused on key changes in the steel industry and highlighted that India is the leading steel-producing nation with a 12.1% YoY increase. He noted a significant rise in India's ferrous scrap imports but pointed out challenges in bulk volumes to Asia.

His presentation addressed the complexities of the current market, including a reversal in the premium of Turkish shredded scrap over Indian shredded scrap, impacting trade dynamics. He emphasized the challenges posed by Red Sea freight issues, leading to greater regionalization in ferrous scrap trade.

## EMINENT SPEAKERS

- **ZAIN NATHANI**,  
Vice President, MRAI
- **SACHIT JAIN**,  
Vice-Chairman & MD, Vardhman Special Steels Ltd.
- **SUMIT AGARWAL**,  
Partner, Bigmint Technology Pvt Ltd
- **PUNEET PALIWAL**,  
Senior Analyst, CRU
- **SANJOY GHOSH**,  
Senior Manager, BSRM Steels, Bangladesh
- **CHRISTOPH SCHMIDT**,  
CEO, TSR Poland Sp Z.O.O
- **SABYASACHI MISHRA**,  
Business Head, JSW International Tradecorp Pte Ltd
- **KEYUR SHAH**,  
CEO, Mono Steel India Ltd.
- **NITIN GUPTA**,  
Director, R L Steels & Energy Limited
- **LEE ALLEN**,  
Strategic Markets Editor, Scrap, Fast Markets



## TAKEAWAYS

- 🔗 NECESSITY TO DOUBLE THE SHARE OF SCRAP BASED STEEL PRODUCTION
- 🔗 TRACEABILITY OF SCRAP IS AN ISSUE
- 🔗 NEED TO IMPLEMENT THE GUIDELINES
- 🔗 CONFIRMED AVAILABILITY OF SCRAP IS A NECESSITY
- 🔗 RESEARCH AND DEVELOPMENT INITIATIVES FOR GREEN STEEL NEEDED
- 🔗 FINANCIAL INCENTIVES NEEDED TO RETIRE OLD STEEL PLANTS



## EMINENT SPEAKERS

- **P K BANERJEE,**  
Executive Director, SIAM
- **SUMIT JHUNJHUNWALA,**  
Assistant Vice President, ICRA
- **PAUL COYTE,**  
NF Division President, BIR
- **MOHAN AGRAWAL,**  
MD & Chairman, CMR Green Technologies Ltd.
- **VINAY SHARMA,**  
Head of Operations- India, GDB International Inc
- **ASHISH BANSAL,**  
Managing Director, Pandy Oxides & Chemicals Ltd
- **NAVNEET CHADHA,**  
Managing Director, V K Metcast Pvt Ltd
- **BRIAN TAYLOR,**  
Senior Editor, Recycling Today

# Session on non-ferrous metals demand & outlook



**A**fter opening remarks by MRAI Secretary General, Mr. Banerjee of SIAM took the podium to give an overview of the demand and supply situation in the automotive sector. It was followed by an in-depth update on the demand & supply outlook of non-ferrous metals by ICRA's Jhunjhunwala.

The session continued to its next agenda: a panel discussion on whether India is the next China for Metals. Industry experts from BIR, CMR Green Technologies, GDB International, Pandy Oxides & Chemicals and V K Metcast engaged in an open debate on the various aspects of the emerging situation where South Asia is getting much prominence in metal trade and commerce.

In the panel discussion that ensued Mr Taylor said: "Aluminum clearly is a high volume metal that we're all interested. How are India's recycled aluminum producers fairing in the face of policies which are sometimes seem to be unfriendly toward their business model?"

CMR's Agarwal said that from the policy perspective in India we

have a situation where the primary producers are not in sync. They have their own agenda which they are trying to force through change in policy favorable to them and unfavorable to the scrap recycling (industry). But I think with MRAI we are able to very forcefully defend it and the policies which are finally coming out are favourable policies for recycling. The government of India fully recognizes the fact that circularity is the way to go. They are very well aware and are supporting. Finally I don't really fear that we will have adverse policy changes. We would have only favorable policy changes as far as scrap and recycling is concerned. That's something which keeps me comfortable. At the moment it is tough.

According to GDB's Sharma, Indian non-ferrous is having a good 9% growth which is a very nice growth. Domestically the demand is keep on increasing and now it is something like we will be one of the majors in the world and if Government supports, it will help the market to grow more because Indian demand is growing at a massive rate. ■

## TAKEAWAYS

- ② INDIAN NON-FERROUS IS GROWING AT A MASSIVE RATE
- ② THE GOVERNMENT OF INDIA FULLY RECOGNIZES THE FACT THAT CIRCULARITY IS THE WAY TO GO AND IS WALKING THE TALK
- ② THERE NEEDS TO BE A PROCESS TO REORGANIZE THE COLLECTION PROCESS AND THE RIGHT CHANNELS TO GET IT TO THE RE-CYCLERS
- ② ONCE THERE'S A DEDICATED MINISTRY OR SOMETHING THEN THERE WOULD CONTINUATION OF PROCESS AND RECYCLING IS GOING TAKE INDIA TO ANOTHER LEVEL



# Session on the business of end of life vehicle recycling

The session on ‘The Business Of ELV Recycling’ began with a presentation by Ministry of Road Transport and Highways (MoRTH) Director Paresch Goyal on the current scenario of End-of-Life Vehicles (ELVs) in India and Registered Vehicle Scrapping Facilities (RVSFs) operating based on the existing framework. He highlighted the policy implementation by different states and guidelines going forward. He agreed to help all RVSFs operating under MoRTH’s guidelines.

Harsh Dalne spoke of the benefits of ELVs for sustainable development and reduction in carbon footprint. He elaborated about benefits available to ELV owners in case they want to encash their Certificates of Destruction (CoDs) or use them to buy new vehicles. He made the audience aware of the proposed Extended Producers’ Responsibility (EPR) obligations. How ELV credit is generated and contributes revenue to RVSFs was a significant point of his presentation.

P K Banerjee spoke about ELV recycling and how it would reduce carbon footprint and increase the

growth of automobile companies.

Moderator of the session Pramod Shinde a few key concerns on behalf of RVSFs, which was followed by Yash Mehta and Kartikay Garg highlighting challenges being faced by RVSFs which tend to deter their growth.

Together, they raised key points which include:

1. Compliance cost paid by formal players is high compared to informal players
2. Uncertainty of ELV feed stock adds to operational stress
3. ELV and CoD benefits are a state subject causing confusion across different RTOs
4. Reverse logistics is extremely high for this type of low cost product
5. Restriction on sale of several components restricts revenue generation for organised players
6. Setting up RVSFs in Tier-1 cities would be practically impossible without government support due to extremely high cost of land
7. Unorganised players continue to dismantle ELVs at unauthorised locations ignoring government guidelines.

## EMINENT SPEAKERS

- **PARESH GOEL**,  
Director, MoRTH
- **P K BANERJEE**,  
Executive Director, MRAI
- **HARSHAL DALNE**,  
AGM, Mercure Metals and Alloys Private Limited
- **YASH MEHTA**,  
Director, MTC Group
- **SOURABH AGARWAL**,  
Director, Ganganagar Vaahan Udyog Pvt. Ltd.
- **ANUP JAGNANIA**,  
General Manager, MJunction
- **DAVID NOLAN**,  
Executive Director, Auto Recyclers Association of Australia
- **KARTIKAY GARG**,  
President, RVSF Association of UP
- **COMMODORE (RETD) SAMADDAR**,  
Adviser, MRAI
- **AMAR SINGH**,  
Secretary General, MRAI
- **PRAMOD SHINDE**,  
Head, Communication, MRAI

## TAKEAWAYS

- 🔔 AUCTIONS HAPPEN AT ABNORMAL RATES AND RVSFs WHICH HAVE VALID LICENSES ARE NOT ABLE TO SOURCE ELVS THROUGH SUCH AUCTIONS
- 🔔 SETTING UP RVSFs IN TIER-1 CITIES WOULD BE PRACTICALLY IMPOSSIBLE WITHOUT GOVERNMENT SUPPORT DUE TO EXTREMELY HIGH COST OF LAND
- 🔔 COMPLIANCE COST PAID BY FORMAL PLAYERS IS HIGH COMPARED TO INFORMAL PLAYERS



## EMINENT SPEAKERS

- **PRALHAD JOSHI,**  
Hon'ble Minister of Parliamentary Affairs,  
Coal and Mines
- **AMITABH KANT,**  
G20 Sherpa
- **ZAIN NATHANI,**  
VP, MRAI
- **SANJAY MEHTA,**  
President, MRAI
- **NAVEEN SHARMA,**  
Director, MRAI
- **ANIRUDH JHUNJHUNWALA,**  
Director, MRAI

## TAKEAWAYS

- IMPRESS UPON THE GOVERNMENT TO HAVE A DEDICATED MINISTRY FOR RECYCLING.
- RATIONALISE DUTY FOR NON-FERROUS SCRAP IMPORTS AS GIVEN TO FERROUS SCRAP.
- GIVE BOOST TO THE FREE TRADE AND ALLOW US FREE IMPORT OR ELSE THE INDUSTRY WOULD NOT SURVIVE
- INTRODUCE USE OF RECYCLED CONTENT IN PRODUCTS WHILE MANUFACTURING TO PROMOTE CIRCULAR ECONOMY AND SUSTAINABILITY
- MAKE IT MANDATORY TO BUY RECYCLED PRODUCTS IN GOVERNMENT TENDERS



## PLENARY SESSION

International Material Recycling Conference 2024 of MRAI got off to a great start with two of the top thought leaders of Recycling decorating the podium along with some of the luminaries of Indian Recycling industry.

Sharing his thoughts a video message, Minister Joshi said that recycling is not a choice anymore but a necessity. "Recycling is important because it is sustainable and plays an important role in conserving the resources and minimising the energy consumption in metal processing. This translates to economic security, environment sustainability and a healthier planet for the future generation. In this regard India is definitely in a lead in its quest for a Circular Economy towards

achieving the net zero target by 2070 as predicted by the prime minister."

"We want to make India the hub of Circular Economy and therefore want to put all the innovation in material recycling sector... The steps we take in embracing recycling is straight towards secure resource future. Cleaner environment and driving the circular economy.

He also mentioned about JNRDDC and its activities towards promoting recycling, including setting up of Metal Recycling Authority, its draft policy on Zero waste policy on Aluminium Recycling and downstream industries

He concluded by saying "A closer collaboration between the industry and academia not just for skill professionals but for knowledge





past models have all been based on waste and our future models must be based on treating waste always as an input material. This to my mind is the biggest opportunity for India. Our biggest opportunity does not, to my mind, does not lie in just producing mobiles. It does not lie in producing vehicles. It does not lie in food processing. The biggest business opportunity for India is in Recycling; the biggest opportunity for India is in circular economy. Its a trillion dollar business and each one of you must aim to drive and become the ambassador and champion of recycling and help us in government to collaborate and partner with you to make India the world leader. The number one leader in recycling and of circular economy,” the trendsetter concluded his motivational speech.

Mr Jhunjhunwala concluded the session by thanking the dignitaries on the stage and of it. ■

based growth which are essential for becoming the Circular Economy.”

Mr Patawari of Gemini Corporation, in his speech, brought out recent developments across the world to bear upon the importance of measures towards recycling and circular economy. He asked, “How about all the members appealing Modi ji to appoint our honourable Amitabh (Kant) ji is the scrap and resource minister. I personally guarantee and make commitment that more than one billion dollar I would bring from abroad when he is put on that place,” he said.

In summary, he exhorted fellow recyclers: “Do anything, everything to get similar subsidies from the Indian government like what

American and European industry has been getting,” he said while seeking help “to win this great green economic war. To help us become the green pioneers of the green economy in the world,” he added.

In his much-anticipated address to the gathering Mr Kant did not disappoint anyone. He said: “India cannot grow at high rates without recycling. India cannot progress without recycling. India cannot advance and create jobs without recycling. India cannot become the 3rd biggest economy in the world without recycling. And all this is important because the circular economy encourage us to transition from linear to multi life cycle, circular value chain. Our



## EMINENT SPEAKERS

- **HITESH AGARWAL**,  
Head Raw Materials,  
Jindal Stainless Limited
- **TOBIAS KAEMMER**,  
CEO, Oryx Stainless Group
- **GOPAL GUPTA**,  
MD, Laxcon Steels Ltd
- **TOBIAS KAEMMER**,  
CEO, Oryx Stainless Group
- **RITESH MAHESHWARI**,  
Director, MRAI

# Session on stainless steel industry in India: overview & trends in 2024



**T**he session on global stainless steel & alloys steel market overview and trends in 2024 and beyond saw an eclectic gathering of eminent personalities comprising Mr Davidson,

Mr Charif, Mr Kramer and Mr Gudi under the able moderation of Mr Maheshwari.

India is the second largest carbon steel producer and is also the second after China in producing stainless steel.

For the last nine months, data indicate, the overall world stainless steel production has risen by around 2-3% to reach about 42,000,000 tonnes per annum.

It is expected that overall growth is going to be in the line of 3% to 4%. India's installed capacity for stainless steel production is close to 7,000,000 tonnes and is expected to be around 4,500,000 tonnes to 5,000,000 tonnes.

While production in China, India and rest of the Asia are reliant on nickel, pig iron, which is a virgin material, is produced mostly using Stainless Steel Scrap in most of Europe and the US.

Traditionally, India imports close to 1,000,000 tonnes of stainless steel scrap a year. The per capita consumption of SS of 3.5 kg is expected to increase to 5 kg per person by 2030.

It is not about the recycling process as much as it is about the collection because the quality of raw material defines the usage. So the key achievement of the industry is really to collect the product which is ready to melt and used further.

The session noted that the next decade would see increase in capacity utilization by Indian manufacturers from the current 60% to 85%. It also predicted a rise of scrap nationalism and introduction of substantial capital in the sector. ■

## TAKEAWAYS

- ② RECYCLING WILL ASSIST US IN ACHIEVING CIRCULARITY
- ② NEED FOR INCENTIVES TO ENCOURAGE RECYCLED PRODUCTS AND ALTERNATIVES IN THE USE
- ② AN INCREASE IN SS DEMAND IS EXPECTED THANKS
- ② IT WILL BE DIFFICULT TO GET THE SCRAP IN NEXT 3-5 YEARS.
- ② THERE WOULD ALSO BE SUBSTANTIAL INCREASE IN GREEN STEEL MANUFACTURING
- ② THERE WOULD BE INCREASED USAGE OF RENEWABLE ENERGY AND GREEN RESOURCES



# Session on cross border regulations, policy advocacy & BIS in non-ferrous metals

Internationally, burning issues like Cross Border Regulations, Policy Advocacy & BIS in Non-Ferrous Metals were hotly discussed at this session moderated by Mr Shah of MRAI. The topics helped to bring out insightful observations from Smt Naik, Mr Rana, Mr Brunet, Mr Henesey and ISRI President Ms Wiener.

The panel discussion that ensued brought light to another important area: Policy Interventions for Raw Material Security. Besides Mr Shah, Mr Brunet, Mr Henesey and Ms Wiener, it also saw active participation from Mr Sett of HSBC India.

During the last one month, the blockages in the Red Sea have come in, immediately impacting incoming shipments from regions like Europe as well as Turkey coming into India and perhaps Asia. The session looked at other implications like impact on export shipments to the European countries.

Given the geopolitical situations there is no viable solution in

hand with no ceasefire likely to happen soon. In short, in addition to challenges like climate change, carbon, here is another challenge that we are going to face.

As a result, there would be increasing concentration in Southeast Asia and the Middle East rather than Europe. Even other giant steel manufacturers have reduced their exports to Europe or Russia. The focus is to remain within the country with lower carbon footprints.

The panel discussion that followed debated policy interventions for raw material security.

“The earlier perception of recycling sector was only as unorganized, dominated by Kabadiwalas who are sorting at the backyard polluting the environment. Today it is completely different with the industry talking about saving, conserving energy, reducing carbon footprint and being sustainable and using recovered material in critical applications of use,” said Ms Naik in her intervention.

## EMINENT SPEAKERS

- **SMT. FARIDA M. NAIK**,  
Joint Secretary, Ministry of Mines
- **VISHAL KUMAR RANA**,  
Assistant Director/ Scientist B,  
MTD-8, BIS
- **ARNAUD BRUNET**,  
Director General, BIR
- **BRIAN HENESEY**,  
Chair, ISRI
- **ROBIN WIENER**,  
President, ISRI
- **DHAWAL SHAH**,  
Sr. VP, MRAI

## TAKEAWAYS

- 🔍 SCRAP REMAINS INTERNATIONAL COMMODITY - TREND TOWARDS REGIONALITY SUPPORTED BY BUSINESS PARTNERSHIPS.
- 🔍 ON THE SWISS CANAL ISSUE, THE WORLD IS LOOKING AT OTHER RELATIVELY SAFER MARKETS
- 🔍 A WELL-ORGANIZED LOGISTICALLY OPTIMIZED AND REGULATED INDUSTRY IS THE KEY FACILITATOR ENSURING QUALITY AND VOLUME FLOWS



## EMINENT SPEAKERS

- **DARREN REES**  
Head of Metals Sales, MENA Marex
- **TONY FERRARA**  
LME Sales & Trading, StoneX
- **DAVID LOW**  
Managing Director, DBS Bank Ltd.
- **VIRAL SHAH**  
Managing Editor,  
Low Carbon & Base Metals - EMEA
- **YANG LIU**  
SVP Sales, LME

# Session by LME on base metal volatility & risk management



## TAKEAWAYS

- ② THERE IS INCREASING DEMAND FOR HEDGING IN THE INDIAN MARKET OVER THE LAST FEW YEARS
- ② GEO-POLITICAL TENSIONS AND ISSUES, GREEN TRANSITION / SUSTAINABILITY AND RULES & REGULATIONS WILL MAKE MAJOR IMPACTS ON DOING BUSINESS WITH OTHER COUNTRIES.
- ② LME GIVES ACCESS FOR MANAGING PRICE RISK VOLATILITY. HEDGING HELPS TO MINIMIZE OR ELIMINATE THE RISK
- ② THERE IS STEADY MARKET FOR LEAD IN INDIA

The session was comprised of two sessions: First, outlook on metals, including demand, supply, growth and challenges pertaining to the Indian markets. Secondly, Risk Management. It looked at how to mitigate risk and potential profits.

For 2024, copper is expected to be the strongest potential base metal. On the sustainability side, it will have huge demand. Tin will also be strong as on demand.

Demand for Aluminum, copper and other metals will change drastically due to infrastructure development and push for sustainability and use of EV vehicles.

Infrastructure and other developments are key drivers for demand for aluminum and copper.

In future there will be shortage of lithium, then the technology changes are important factors.

Copper exploration has been low in recent years. There will be need to look for supply from other source. In this respect, concentration of resources in countries is also a concern.

There is discussion in the open market for free and fair trading and import & export of metals.

In India, to meet the demand of Aluminum consumption stopping of its export is a good way to go.

There will be import of scrap as it is cheap, and its uses less electricity and helps in decarbonisation.

As India is increasing its import of lead scrap from abroad due to increase in demand domestically and therefore there is steady market for lead.

Geo-political tensions and issues, green transition /sustainability and rules & regulations will make major impacts on doing business with other countries. ■





# Tech Talk - Innovation & technology in recycling

The importance of technology and innovation in the recycling business came to sharp focus during the programme, which was moderated by Mr Shinde.

Three leading players talked about their respective technologies to highlight the roles they play and how to maximise the results.

While Dr Gupta presented technological advancements in the recycling industry, Mr Law talked about the technology used in Wendt Shredding and Mr Jindal presented how steel plants can manage scrap processing to enhance the productivity.

As for an introduction, Mr Shinde highlighted the overview of the recycling industry which may grow exponentially to reach USD 20 billion by 2030 from about USD 4 billion at present, driven by rising investments to develop better solutions to address the felt needs of the industry.

It is a widely accepted fact the recycling plays a pivotal role in

the transition towards a more sustainable and circularity. In such a scenario, technology also puts its might to conserve resources, reduce energy consumption.

Looking at the importance of recycling and its significant contribution toward mother earth, we need to have more innovation technology which can recycle mass materials so that it will be used multiple times as presented by Mr Shinde.

Hence, role of innovative Technology in the recycling business would be the exciting solution that could be use for recycling to deal with complex materials.

These innovations and progressive technologies offer a lot of excitement and security for recycling, especially with the rising concerns around how waste is affecting our environment.

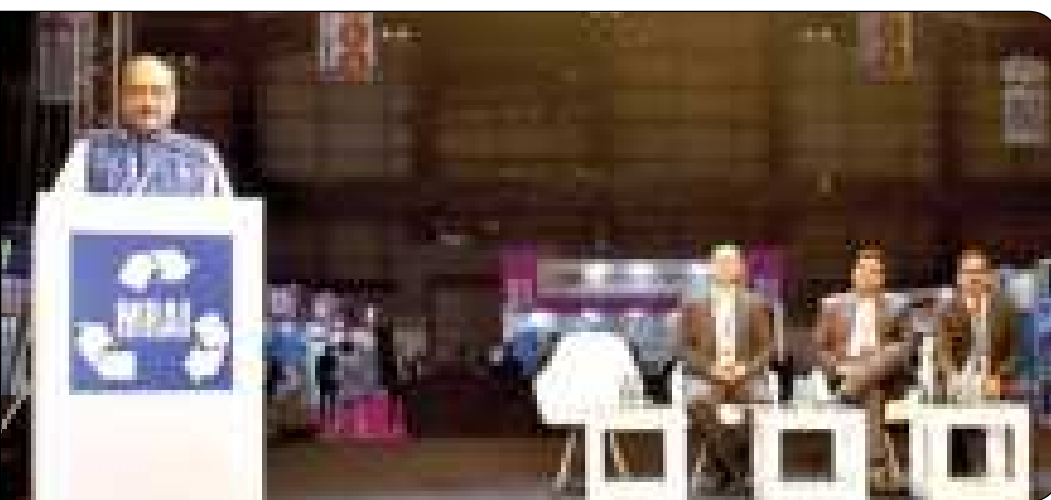
With the pressure that the government is facing to reach the various targets that are set, it is likely that we will see more investments in the development of technology, Mr Shinde hoped.

## EMINENT SPEAKERS

- **DR. SUDHIR GUPTA,**  
Advance Hydraul Tech Pvt Ltd
- **DENNIS LAW,**  
Wendt Proman Metal Recycling Pvt. Ltd
- **VARUN JINDAL,**  
Dev Technofab Pvt Ltd
- **PRAMOD SHINDE,**  
Head- Communication, MRAI

## TAKEAWAYS

- RECYCLING INDUSTRY TO REACH USD 20 BILLION BY 2030 FROM ABOUT USD 4 BILLION AT PRESENT, DRIVEN BY RISING INVESTMENTS
- RECYCLING PLAYS A PIVOTAL ROLE IN THE TRANSITION TOWARDS A MORE SUSTAINABLE AND CIRCULARITY.
- TECH-NOLOGY ALSO PUTS ITS MIGHT TO CONSERVE RESOURCES, REDUCE ENERGY CONSUMPTION
- MORE INNOVATIVE TECHNOLOGY IS REQUIRED TO USE RECYCLING TO THE MAXIMUM ADVANTAGE
- INDIA LIKELY TO SEE MORE INVESTMENTS IN THE DEVELOPMENT OF TECHNOLOGY



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# Global Recycler of the year



**MTC Group**, which is in its 50th year of business as a leading recycler of the country, was bestowed the Global Recycler of Year Award for the year. For the winning team comprising of 5500 professionals, who handle 2.2 million metric tonnes of scrap a year, the recognition came as a surprise.

Life time  
achievement  
award



Two leading personalities of Indian Recycling Industry have been awarded the **LIFETIME ACHIEVEMENT AWARDS** by MRAI at IMRC 2024.

Former director of MRAI (2011 to 2018). **Rohit Shah** (Right) is a man of many facets to his personality. The ex-president of the Bombay Metal Exchange, Mr Shah is known for his acumen in Customs and regulatory affairs.

**Sudhir Aggarwal**, (left) also a former a director of MRAI (2012 to 2018), is decorating two positions currently: He is the Chairman of Ambassadors Committee at BIR and is also the Chairman of the IICA.

Both have assisted MRAI in broadening its scope and provided unwavering support in all aspects.



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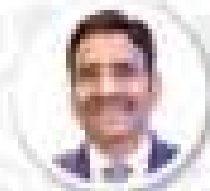
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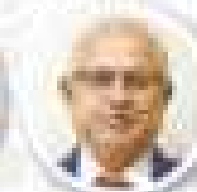
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