



# INDIA SOLUTIONS REPORT

1<sup>st</sup> Edition

SDG Innovation Accelerator for Young Professionals



# SUSTAINABLE GALS DEVELOPMENT





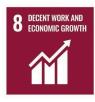
































#### Supervision:

Ratnesh

Executive Director, UN GCNI

#### Program Advisor:

Deep Chandra Papnoi Deputy Director, UN GCNI

#### Program Lead:

Neeta Aggarwal Programme Officer, UN GCNI

#### Design

Nancy D'Cruz

Assistant Manager, UN GCNI

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# From the Executive Director's Desk



It is with great pride and enthusiasm that I present the SDG Innovation Solution Compendium for the year 2024. This edition is a testament to the remarkable commitment, ingenuity, and perseverance of the talented professionals who participated in the SDG Innovation Accelerator. As this marks the first time Network India has implemented the program locally, we are delighted to have had the second-largest cohort among the 19 participating countries—a reflection of India's growing leadership in the global sustainability arena.

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growing leadership in the
global sustainability arena.

Over the past nine months, 25 teams from 17 distinguished companies have contributed to this journey of innovation, working diligently to devise solutions that address some of the most pressing challenges aligned with the Sustainable Development Goals (SDGs). This compendium is more than just a compilation of innovative ideas—it represents the passion, dedication, and collective intelligence of a cohort that has worked tirelessly to address complex global challenges. I congratulate each and every one of the participants for their outstanding efforts. In an era where innovation is no longer just desirable but essential, these solutions symbolize hope, resilience, and forward-thinking. In the Indian context, innovation has always been shaped by a unique interplay of resourcefulness and empathy. It is this distinctive ability to adapt and innovate that sets India apart in the global sustainability landscape.

Sustainable business innovations are critical for shaping India's future in an era of increasing environmental challenges. As climate risks intensify and natural resources deplete, businesses are compelled to rethink traditional models and adopt practices that ensure long-term resilience. This shift is driven by evolving government policies, India's international climate commitments, and heightened consumer demand for sustainable products and services. From renewable energy and waste management to green manufacturing and circular economy solutions, these innovations reflect the growing alignment between sustainability and economic progress. Moreover, corporate social responsibility (CSR) and responsible investments are further accelerating this transformation.

I would like to extend my sincere thanks to the Goa Institute of Management for partnering with us in facilitating the Innovation Camps. My gratitude goes in particular to Dr. Ajit Parulekar for his leadership and to Dr. Sreerupa Sengupta and Dr. Prakash Singh for their exceptional facilitation throughout the program. Their insights and support were invaluable in guiding participants to refine their ideas and turn them into actionable, high-impact solutions.

I must also take a moment to acknowledge the tireless efforts of Ms. Neeta Aggarwal, our Program Lead, whose seamless execution of this initiative has been pivotal to its success. Her dedication, coupled with the strategic guidance of our Deputy Director, Mr. Deep Chandra Papnoi, whose work in raising awareness and engaging companies ensured that every phase of the program was carried out with excellence. I would also like to extend my sincere appreciation to Ms. Bruna Elias, Program Head at the Global Compact Office, for her continuous support in managing the program, handholding Network India at every step.

As we look ahead, I am inspired by the promise these solutions hold—not just as responses to today's challenges, but as blueprints for a more sustainable and equitable future. I encourage all of you to continue pushing boundaries, driving innovation, and fostering collaboration. The work done here will leave a lasting impact, and I have no doubt that this cohort will continue to lead with purpose and vision.

Ratnesh
Executive Director
UN Global Compact Network India

# About the SDG Innovation Accelerator Programme

The UN Global Compact SDG Innovation Accelerator engages young professionals from companies participating in the UN Global Compact around the world to learn how to use the Sustainable Development Goals (SDGs) as a catalyst for the development of new products and services. Building on the UN Global Compact's work on Breakthrough Innovation for the SDGs, the accelerator connects mid-level and junior managers – aged 35 and younger – across diverse business units to generate bold yet viable solutions that can have a positive impact on the company and the SDGs.

Each team of young Innovators will, over the course of 9 months, work on a challenge specific to their company with the goal of designing more sustainable business models, initiatives and products that will advance the company's sustainability efforts while driving innovation and delivering tangible solutions with potential market value. The programme takes participants through a design thinking approach to innovation by focusing on the SDGs. Participants run through each phase of the programme, provided with resources, tools and methodologies that will guide them through the process of identifying a challenge, designing and testing solutions and validating these solutions for business value as well as SDG impact. The programme contributes to corporate behavior change by exposing participants to various business models and digital transformation tools that can be adopted by their companies

GLOBAL
1000+ PARTICIPANTS
250+ COMPANIES
17 COUNTRY NETWORKS

INDIA
74 INNOVATORS
24 CHAMPIONS
13 MENTORS
16 COMPANIES

#### **OBJECTIVE**

The goal of the programme is to encourage SDG Innovation through bottom-up approaches with the aim of developing breakthrough solutions that have both social and market value, while also developing a new generation of sustainable business leaders who take initiative within their organizations to drive sustainability within their companies. The programme also aims to target corporate behavior change by changing the way employees view the SDGs in relation to their business.

While the tangible outcome of the programme is designed to be a new idea, product, service or business model that is rooted in the SDGs while also having real market value for the company, the long term objective for the programme is to stimulate breakthrough shifts in the way companies think. By focusing on young professionals from diverse business units, the programme aims to mainstream SDG Innovation, leveraging the programme participants – and future business leaders and decision makers – to become advocates and working practitioners of SDG Innovation and spread this practice across their companies at all levels.

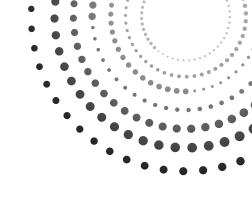






# The Facilitators

Dr Prakash Singh is a versatile economist with a PhD in Economics from the University of Delhi, India. He is a recipient of the well-known and prestigious Sir Ratan Tata Postdoctoral fellowship at the Institute of Economic Growth, India. He works as an Assistant Professor of Economics at Goa Institute of Management and a Visiting Research Fellow at Kingston University, UK. He specialises in Development and sub-themes, including Skill Development, Regional Growth, Innovation, ICT, Financial Inclusion and Entrepreneurship/Livelihood, Access to Finance, Firm Heterogeneity at the firm level, and International Trade and Electricity Sector. His research works are guided by policy relevance. He received an ICSSR Doctoral Fellow at the Institute of Economic Growth (IEG) and the Arunachala Mudaliar Gold Medal for his M.A. in Applied Econometrics from Pondicherry Central University, India. Earlier, he was associated with IIFT, the Centre for Development Economics (CDE) at the Delhi School of Economics (DSE) and the Indian Economic Service (IES) section at IEG. He has undertaken many independent and collaborative research assignments at key academic institutions such as Azim Premji University, IEG, IDE-JETRO, ARTNeT-UNESCAP, World Bank, ICSSR - Japan Society for the Promotion of Science (JSPS) Japan govt, Massey University, New Zealand.







Dr. Sreerupa Sengupta is an Associate Professor at the Healthcare Management Program and the Alumni Chairperson at the Goa Institute of Management. She has over 14 years of professional experience in academia, media and the development sector. Her areas of teaching and research include gender and development, global governance, health, human rights and social policy.

Sreerupa has conducted numerous national and international executive education programs for government (international and national) and the public sector on Monitoring and Evaluation, Gender and Governance, Gender Audit, Public Service Innovations, Employee Health and Wellbeing, CSR and Sustainability Reporting.

She holds a Ph.D. in Women's Studies from Jadavpur University, an M.A. in Sociology from the Delhi School of Economics, and a B.A. in Sociology from Presidency College. She is an alumnus of Tokyo Foundation for Policy Research and the German Institute of Development and Sustainability.

# The Mentors



Ms. Sunila Sahasrabudhe President, auctusESG



Mr. Himanshu Arora Sr. Manager (Sustainable Development), Indian Oil Corporation Limited



Mr. Kumar Chandan Lead ESG, Mahindra Susten



Dr. Ashutosh Karnatak Former CMD, GAIL (India) Limited



Mr. Gangaa C Sharma,
Managing Director and CEO
Board member- Global
Sustainability Standard Board,
Global Reporting Initiative,
CETIZION Verifica



Dr. Radha Sharma Professor & Dean, Research and Industry-Academia Linkages New Delhi Institute of Management



Dr. Sona Vikas Professor and Dean-Management Asian School of Business



Mr. Dinesh Agrawal Former General Manager and Head-Sustainable Development Group NTPC Limited



Dr. Mukul Saxena Professor & Director Alliance University



Mr. Rama Shankar Pandey CEO, Tata Green Batteries



Mr. Punit Gandhi Lead (Projects), Climate Centre for Cities National Institute of Urban Affairs



Mr. Deepak Arora President- Public Affairs Nayara Energy



Mr. Kartikeya Anand OSD to Minister Govt of AP, Ministry of Finance & Skill Training

# **Participating Companies**





































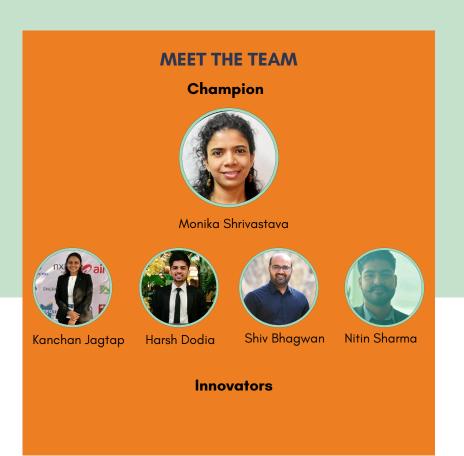
# **JSW CEMENT**

# BIOMASS UTILISATION IN THE INDIAN CEMENT INDUSTRY

# TEAM 2

A part of the \$23 billion Indian conglomerate JSW Group, JSW Cement is India's largest and fastest growing cement company with a focus on low-carbon products and solutions. As the #1 ecofriendly cement company in the world, our product not only goes into building the nation's physical and social infrastructure but also spearheads our ambition to achieve a low-carbon future with our environment-friendly solutions. We have embarked on a sustainable growth path, enhancing our capacities and capabilities, promoting industry collaboration, and penetrating newer markets. Guided by innovative leadership, intelligent product diversification, and relentless innovation, we have emerged as a preferred partner in housing and infrastructure development. By championing environmentally conscious solutions, we strive to inspire our value chain partners and spur a new green ecosystem in the sector.

As a member of GCCA, JSW Cement is committed to the 'GCCA 2050 Cement and Concrete Industry Roadmap for Net Zero Concrete.' We aim to reduce our net CO2 emission intensity by 15% from 262 kg of CO2 per tonne of cementitious material in Fiscal 2021 to 223 kg of CO2 per tonne of cementitious material by Fiscal 2026. The company has also signed the UN Energy Compact which are voluntary commitments of action, with specific targets and timelines to drive the progress on the achievement of SDG7 in line with the goals of the Paris Agreement on Climate Change.



Current trends in energy supply and use are unsustainable — economically, environmentally, and socially. Cement manufacturing is a hard-to-abate industrial sector that accounts for 5-8% of global anthropogenic emissions. Approximately 80-90% of these emissions occur during limestone calcination and fuel combustion processes. Decarbonising these two emissions and energy-intensive processes requires a sustained and regenerative supply of low-carbon resources. India is aiming for netzero carbon emissions by 2070. The Indian cement industry has set voluntary and ambitious emission reduction targets to reduce 45% of its carbon emission intensity by 2050 from 2010 levels, and JSW Cement is committed to meeting these goals with innovation and vigour.

India generates around ~750 million tonnes of biomass, which acts as a potential resource for significant energy recovery. Unlike other renewables such as solar or wind, biomass is uniquely positioned to abate emissions from fuel combustion. However, the sustainable transition towards biomass-based industry involves multifaceted sociotechnical conflicts across cement sectors. A burgeoning challenge is excessive ash generation as a byproduct of utilising biomass. However, co-processing this material in cement plants offers an innovative solution as it provides complete thermal and material recovery without any ash formation. Further, operational challenges in waste collection systems like insufficient and non-operational collection vehicles, lack of sophisticated segregation of waste at source, and roadside dumping, present major obstacles to the smooth functioning of waste management and recycling for industrial purposes.

The environmental impact of greenhouse gas emissions, increased levels of particulate matter and other air pollutants from surrounding industries present an additional challenge to green transition. Such pollutants have also adversely impacted agricultural land diversity and deteriorated soil fertility, further compounding environmental degradation.

# **SOLUTION**

JSW Cement has set an ambitious target to replace 30% of conventional fuels with green alternatives by 2030 as part of its ongoing efforts to reduce CO<sub>2</sub> emissions. To achieve this objective, the company plans to utilize biomass collected from villages near its cement production facility as part of its CSR initiatives. The project aims to establish a demonstrable, self-sustaining, Atma Nirbhar (zero waste, zero cost) solid waste management (SWM) model for wider replication across Odisha. Designed for implementation in 12 villages across four Gram Panchayats (GPs) within the Direct Impacted Zone (DIZ) of the Shiva Cement Plant in Kutra Block, Sundergarh district, Odisha, the initiative integrates sustainability with community engagement.

As a part of JSW Cement, Shiva Cement Limited has identified alternative fuel utilization as a critical pillar of its decarbonization strategy. Identifying potential waste generators and waste streams has become an essential component of its ongoing expansion plans. Recognizing the need for the cement industry to incorporate sustainability into its growth strategies, Shiva Cement has adopted the resource-efficient practice of cement kiln co-processing to lower manufacturing costs and emissions. To support these sustainability targets, the Confederation of Indian Industry (CII)-Godrej Green Business Centre (GBC) conducted an alternative fuel mapping study for Shiva Cement between October 2021 and January 2022. The study aimed to map, shortlist, and facilitate partnerships between potential waste generators and Shiva Cement's facilities to enhance the usage of alternative fuels and raw materials.

With the target of utilizing 30% alternative fuel, this initiative is expected to create a positive impact across multiple stakeholder groups:

Local Communities: The use of biomass will generate economic benefits for nearby communities while reducing CO<sub>2</sub> emissions and improving air quality. By directly engaging local residents, the initiative also aims to enhance job creation and rural development. However, sustainable sourcing practices will be critical to ensuring the long-term availability of biomass.

Government Regulations: Compliance with environmental regulations, adherence to emissions standards, and obtaining necessary permits will be integral to ensuring that biomass usage aligns with national and global sustainability targets.

Investors & Shareholders: Demonstrating a strong commitment to reducing carbon footprints and mitigating environmental risks will strengthen investor and shareholder confidence in the JSW brand. This initiative reinforces JSW Cement's reputation as a pioneer in advanced technology and ESG-driven business practices, enhancing both its market position and financial performance.

Consumers: Growing consumer awareness and demand for sustainable products can encourage cement companies to prioritize biomass use and adopt other environmentally responsible practices.

JSW Cement recognizes that balancing the economic, environmental, regulatory, and social interests of these stakeholders is essential to maximizing the benefits of biomass utilization while minimizing potential challenges. To date, the company has closely monitored agricultural biomass sources in its operational areas, facilitated the formation of women's self-help groups (SHGs) across four Gram Panchayats (12 villages), and conducted multiple community awareness training sessions on atsource waste segregation. These efforts will support the upcoming biomass collection process during the harvesting season.

The increased use of alternative fuels and raw materials will be crucial in reducing both national and global carbon emissions while promoting a circular economy. A higher adoption of alternative fuels will enable the industry to conserve natural resources, lower emissions, and provide effective solutions for managing domestic and industrial waste streams. Through the Shiva Cement Plant, JSW Cement aims to lead the cement industry's transition toward sustainable business practices, driving innovation for a greener future.













# **JSW CEMENT**

# USE OF ALTERNATIVE MATERIALS IN CLINKER PRODUCTION

TEAM 1

JSW Cement is a leading green cement manufacturer in India, founded on the principles of circular economy and the aim to decarbonise production by substituting conventional raw materials with alternative materials derived from other industries' waste. Currently, it is India's fastest growing cement manufacturer in terms of increase in installed grinding capacity and sales volume.

Despite its promising growth, the company has the lowest carbon emissions intensity among peer cement manufacturing companies both, within India and abroad. JSW Cement's sustainable development strategy is built on its 'CO-CREATE' framework, which targets seven strategic pillars identified from their materiality assessment and sector-specific issues. These pillars include: circular economy; climate and energy; research and innovation; ecosystem restoration; anti-corruption and business ethics; transport, supply chain and logistics; and equality, diversity, safety and wellbeing. As part of its green transition, the company aims to reduce emissions by 15% from 262.00 kg of carbon dioxide per tonne of cementitious material in fiscal year 2021 to 223.00 kg by fiscal year 2026. It also aims to switch to a majority of electric vehicles for its transportation needs by 2026. As a member of the Global Cement and Concrete Association (GCCA), JSW Cement is committed to adhering to GCCA's roadmap to attain net zero concrete by 2050.

To underscore their commitment to sustainable development, the company has also signed up to the United Nations Energy Compact and the Global Framework Principles for Decarbonising Heavy Industry.

#### **MEET THE TEAM**

#### Champion

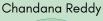


Manish Pujari



Aishwarya Raii

#### **Innovators**







JSW Group is distinctive in India for operating in both steel and cement manufacturing, which are often referred to as "hard-to-abate" sectors due to their difficulty in achieving decarbonisation. By using "slag" – a byproduct of the steel industry – the company targets two major ecological concerns in industrial production: first, it decreases the percentage of limestone in the clinker, which is a major source of carbon dioxide emissions (since limestone, in the form of CaCO3, decomposes into CaO and CO2 during the clinkerisation process at temperatures around 1400°C). Additionally, this practice tackles the challenge of slag disposal, which is a growing concern for the steel industry.

Steel and cement are ecologically intensive industries which not only consume significant raw material for production but also produce substantial harmful by-products.

The company is currently addressing two major challenges related to sustainable cement production:

**Challenge 1 (Steel sector):** For every ton of steel produced, approximately 150-200 kg of steel slag is created. Due to its limited application, slag is usually discarded or utilised for landfilling, raising concerns for pollution. Consequently, waste management has arisen as a significant and well-recognized challenge in the steel sector.

**Challenge 2 (Cement Sector):** The cement sector alone contributes approximately 8% of global CO2 emissions. The second challenge relates to clinker, the raw-material intensive and CO2 intensive primary component of conventional cement. Currently, every ton of clinker requires 1.5 tons of raw material for production, and emits 850 kilograms of carbon dioxide. These raw materials are typically sourced from natural, non-renewable mines. Reducing CO2 emissions and conserving natural raw material resources is therefore a key challenge for the cement industry.

## **SOLUTION**

Traditionally, laterite from natural sources was used exclusively to supply alumina for clinker making. However, JSW Cement uses a circular economy approach to address the pressing need for pursuing sustainable alternatives. One promising solution has been the use of an alternative material called LRF Slag (Ladle Refining Furnace Slag), a steelmaking by-product that is rich in lime (CaO; ~38%) and alumina (Al2O3; ~22%), two components crucial for clinker production. The company also uses BF (blast furnace) slag, a by-product of the iron-ore melting process. Currently, LFR is incorporated into clinker production at a rate of 1.6-2% of the total raw material, partially substituting the conventional laterite sourced from natural reserves. As the lime in LFR slag is already in a pre-calcined state, production does not cause any CO2 emissions, making it an ideal, completely green alternative to limestone cement.

The team at JSW Cement has researched and developed various types of sustainable slags, integrating LFR into the raw meal at a rate of 1.93% and BF slag at a minimal rate of 0.28%. The company has observed a 7-8 kg reduction of CO2 per ton of clinker produced when using LFR slag, and a 1.23 kg reduction when using BF slag. The benefits of green alternatives have proven multifold, with a 10% improvement in cement compressive strength, and 6% increase in clinker yield as pre-calcined LFR slag does not cause any weight loss during production. Additionally, the circular economy strategy directly tackles ecological challenges by converting industry waste into low-cost viable material, opening up new possibilities for utilising an industrial by-product to create a high-demand value-added commodity. Using LRF slag results in a cost reduction of Rs. 50-57 per ton of clinker amounting to Rs.754 million per year. Further, even a 2% replacement of conventional materials has significantly conserved natural resources, though the team predicts that LFR slag has the potential to replace traditional components by up to 4%. Moving forward, the company is continuing research into other sustainable steel slags such as LD Slag (CaO~40%), AOD Slag (CaO~43%), EOF Slag (CaO~41%), and KR Slag (CaO~45%). Exploring the utilisation of these different steel by-products holds promising potential for enhancing sustainability and circularity.

# **BHARTI AIRTEL**

# REDUCING THE QUANTUM OF E-WASTE AND CARBON EMISSIONS RELEASED THROUGHOUT VALUE CHAIN

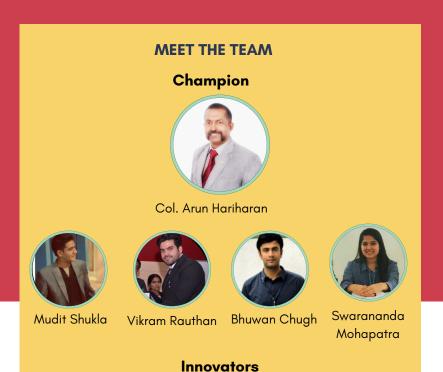
TEAM 1

India's leading telecommunications company, Airtel considers sustainability and corporate responsibility an integral part of its business model. It is the first Indian telecommunications company to join the league of leading international corporations committed to the 1.5°C pathway outlined by the Science-Based Targets initiative (SBTi).

Airtel is committed to creating long-term value for all its stakeholders through sustainable business practices. Their vision is to be a globally renowned, environmentally conscious, socially responsible and governance-led company by implementing leading ESG practices and transparent reporting.

The company has a structured approach to addressing sustainability concerns, identifying four key focus areas with specific goals and targets:

- Greening the network via solarisation of network towers, data centres and MSCs.
- Achieving climate resilience by implementing geographical redundancies, deploying multiple fibre paths for critical sites, and reinforcing tower infrastructure in regions prone to cyclones and flood.
- Managing waste and resource efficiency through the 3R approach of 'Reduce, Reuse and Recycle' to minimise waste.



The consistently high demand for electronic devices and telecommunication services presents a significant challenge for Airtel in both, managing the quantum of e-waste generated, and reducing carbon emissions. Currently, the company recognises the following key challenges:

- Volume of waste: Telecom companies have substantial electronics infrastructure requirements, and these infrastructures need constant upgradation to keep up with rapidly transforming technologies. In this light, the accumulation of large volumes of obsolete hardware is a pressing concern for the industry. Further, consumer devices such as set-top boxes, modems, and routers contribute significantly to e-waste as customers frequently upgrade to newer models.
- **Toxic materials:** Improper disposal of hazardous materials from telecom equipment like lead, mercury, cadmium, and brominated flame retardants can lead to soil and water contamination, posing health risks to humans and wildlife.
- **Recycling and disposal:** Effective recycling of e-waste requires specialised facilities and processes to safely handle and recover valuable materials.
- **Regulatory compliance:** Telecom companies must navigate a complex landscape of regulations regarding e-waste disposal and recycling. Further, ensuring responsible e-waste management across complex global supply chains is challenging.
- Carbon emissions: Managing carbon emissions across operations and supply chains is crucial for reducing environmental impact.

## SOLUTION

Airtel has devised a "Green STB" i.e., a green set-top box to counter the presented challenges in telecom industries. Whereas a traditional set-top box is a device that receives television signals and connects them to an output device, a smart STB, found in modern "smart TVs", acts as a gateway between the broadcast signal and the TV, offering access to satellite, cable, and internet based television services. These smart infrastructures have become a mainstay in modern home entertainment systems, providing enhanced viewing options beyond traditional broadcast television.

The Green STB offers a sustainable alternative to smart TVs by allowing users to convert their regular television sets into "smart" devices through an innovative USB insert. This insert connects to the TV through wi-fi, making cables and antennas obsolete. By eliminating the need to buy new smart devices, the company aims to prolong the life of old generation televisions, and provide a cost-effective way for customers to stay up to date with latest telecom innovations like OTTs while reducing e-waste significantly. Offering repair services to existing customers and refurbished boxes to new customers is also projected to help reduce waste. Crucially, as the Green STB is smaller in size and has lower voltage requirements, the device has a lower energy consumption and subsequent environmental impact.

SDGs targeted with the green STB:







This solution embodies the principles of sustainability, benefiting people, the planet, and profitability. Economically, it provides a cost-effective means for consumers to enjoy smart TV capabilities without the need to replace existing equipment. Environmentally, it reduces resource consumption and electronic waste by extending the lifespan of older television sets and minimizing the need for new smart TVs. Financially, the focus on repair and refurbishment drives cost efficiencies, contributing to long-term profitability while advancing Airtel's commitment to sustainable business practices.

# **BHARTI AIRTEL**

# SUSTAINABLE CELL SITES TEAM 2

Bharti Airtel Limited is a global communications solutions provider with operations in 17 countries across South Asia and Africa. Serving over 550 million customers, the company ranks among the top three mobile operators worldwide. Airtel's network infrastructure spans five continents and over 50 countries through its submarine fiber and cable network. The company offers high-speed 4G/5G broadband, entertainment, and financial services, while also catering to enterprises through secure connectivity, cloud computing, cybersecurity, IoT, and cloud-based communication solutions

# MEET THE TEAM Champion



Shivani M. Datta



Praveen S



G. Sahana

**Innovators** 



Sandeep Sharma



Sandeep Kumar



Vantika Sinha

The telecom sector contributes approximately 2% of global greenhouse gas (GHG) emissions, with 70% of these emissions originating from cell sites. The primary sustainability disruptors affecting the industry include:

Al and Automation: Optimization of operations through advanced technology.

5G Development: Anticipated mobile traffic growth of over 20% per year until 2030.

Circular Economy Initiatives: Sustainable resource utilization.

Regulatory Green Push: Compliance with environmental sustainability policies.

Airtel has committed to reducing its Scope 1 and 2 emissions by 50.2% by 2030 (baseline: FY 2021) while supporting India's goal of achieving net-zero emissions by 2070. The company aims for net-zero emissions by 2050 through energy-efficient initiatives, including the development of green data centers, the adoption of advanced technologies, and increased reliance on renewable energy sources. To mitigate climate risks, Airtel integrates sustainability into its network infrastructure by implementing climate-proofing measures and deploying renewable energy solutions.

## **SOLUTION**

AI/ML-Based RAN Energy Saving Solution:

The majority of energy consumed at telecom sites comes from active radio elements such as radio and baseband units. The AI/ML-based solution aims to conserve power by switching off specific elements of the radio units during low-traffic periods. These elements include:

- MIMO Sleep: Shuts down antenna panels
- Cell Sleep: Turns off power amplifiers
- Deep Sleep: Deactivates high-power electronic components such as DFEs

This solution leverages AI and machine learning to analyze traffic patterns and network KPIs, identifying optimal time windows for energy-saving measures while maintaining user experience. It is vendor-agnostic and works across both 4G and 5G technologies. The solution also dynamically configures thresholds for each cell in the network, maximizing energy conservation and reducing the carbon footprint of telecom towers.



Airtel is continuously working on reducing its reliance on fossil fuels and lowering emissions throughout its network infrastructure. The solution's success can be measured through key sustainability performance indicators:

- Network energy consumption (energy conserved at radio sites)
- Energy consumption per data unit or subscription
- Network grid electricity emissions intensity
- Diesel emissions intensity







# **TATA MOTORS LTD**

# DEVELOPMENT OF SUSTAINABLE NUTRITIOUS FRAMEWORK TEAM 2

Tata Motors Limited (TML), a USD 45 billion enterprise and a prominent member of the USD 150 billion Tata Group, stands as one of India's largest automotive manufacturers and a global leader in sustainable mobility. Founded in 1945, Tata Motors is renowned for its extensive range of vehicles, including cars, utility vehicles, pickups, trucks, and buses, offering integrated, smart, and e-mobility solutions. Guided by the brand promise of 'Connecting Aspirations,' Tata Motors leads the commercial vehicle market in India and ranks among the top three in the passenger vehicle seament.

The company's innovation strategy is deeply rooted in engineering and technology, focusing on the development of sustainable automotive solutions that align with the future of mobility and evolving customer needs. As an industry pioneer, Tata Motors is at the forefront of embedding sustainable practices across its operations and is spearheading India's electric vehicle (EV) transition with cutting-edge, eco-friendly technologies and products aimed at reducing carbon emissions. Committed to shaping the future of mobility, Tata Motors continues to innovate, delivering automotive solutions that meet changing customer expectations while advancing a sustainable global agenda.



Tata Motors has identified a significant opportunity to transform its canteen services into a model of sustainable innovation and corporate responsibility. Recognizing that food—one of the most fundamental biological needs—affects not only health and well-being but also broader socio-economic challenges, the company aims to develop a comprehensive framework to establish a truly sustainable menu and food system within its canteen services.

This framework will need to balance resource availability with financial feasibility, ensuring that sustainable sourcing practices, energy-efficient technologies, and effective waste management are both environmentally responsible and economically viable. Additionally, it must accommodate the diverse cultural preferences of the workforce while prioritizing nutrition and health.

The objective is to create a menu that reflects Tata Motors' commitment to sustainability while enhancing employee well-being. Beyond improving operations, this initiative aspires to set a new benchmark for integrating food sustainability with health, community engagement, and environmental responsibility, offering a blueprint for driving meaningful change.

## **SOLUTION**

Tata Motors will develop an innovative Sustainable Nutrition Framework by integrating ESG KPIs into its cooking and canteen services, alongside nutritional requirements, to transform its canteen operations into a model of sustainable innovation. This framework will be aligned with the company's targeted Sustainable Development Goals (SDGs).

Recognizing that employees are the primary beneficiaries of its canteen services, Tata Motors will conduct a comprehensive employee feedback survey to gather valuable insights into their preferences, satisfaction levels, and health needs. The data collected will play a crucial role in refining the framework, ensuring that it not only adheres to sustainability standards but also enhances employee well-being.

The implementation of this framework will commence with a rigorous baseline assessment of existing practices. This assessment will help identify current gaps and establish ambitious yet achievable phase-wise targets. These targets will drive improvements in sustainable sourcing, resource efficiency, and waste management, focusing on key KPIs such as energy and water efficiency, responsible ingredient sourcing, and waste reduction.

By adopting this approach, Tata Motors aims to create a canteen service that not only upholds the highest standards of sustainability but also fosters a positive, health-conscious workplace. This initiative underscores the company's commitment to continuous innovation, corporate responsibility, and workforce well-being, setting a new benchmark for sustainable operations in the automotive industry.

















# **TATA MOTORS**

# STRENGTHENING HUMAN RIGHTS POLICIES AND PRACTICES TEAM 1

Tata Motors Limited (TML), a USD 45 billion enterprise and a prominent member of the USD 150 billion Tata Group, stands as one of India's largest automotive manufacturers and a global leader in sustainable mobility. Founded in 1945, Tata Motors is renowned for its extensive range of vehicles, including cars, utility vehicles, pickups, trucks, and buses, offering integrated, smart, and e-mobility solutions. Guided by the brand promise of 'Connecting Aspirations,' Tata Motors leads the commercial vehicle market in India and ranks among the top three in the passenger vehicle segment.

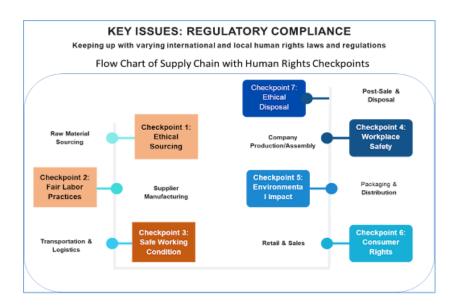
The company's innovation strategy is deeply rooted in engineering and technology, focusing on the development of sustainable automotive solutions that align with the future of mobility and evolving customer needs. As an industry pioneer, Tata Motors is at the forefront of embedding sustainable practices across its operations and is spearheading India's electric vehicle (EV) transition with cutting-edge, eco-friendly technologies and products aimed at reducing carbon emissions.

With a global presence that includes operations in India, the UK, South Korea, Thailand, and Indonesia, Tata Motors markets its vehicles across Africa, the Middle East, Latin America, Southeast Asia, and the SAARC nations. Committed to shaping the future of mobility, Tata Motors continues to innovate, delivering automotive solutions that meet changing customer expectations while advancing a sustainable global agenda.



Tata Motors is committed to driving innovation and excellence while maintaining the highest ethical standards. However, in today's rapidly evolving business landscape, ensuring robust human rights practices across all operations and supply chains poses significant challenges.

The company must address diverse and complex issues, including labour rights, supply chain transparency, and community impacts, while navigating regulatory requirements and stakeholder expectations. Developing a comprehensive framework that not only aligns with international human rights standards but also integrates seamlessly into Tata Motors' existing operations is a critical and complex task.



# **SOLUTION**

To overcome these challenges, Tata Motors seeks to develop and implement a comprehensive human rights framework. This framework must be innovative, practical, and sustainable, ensuring that human rights are upheld throughout the company's operations and supply chains. By addressing these challenges head-on, Tata Motors aims to set a new standard in the automotive industry for ethical practices, contributing to global human rights advancement.

Key components of the framework will include:

- 1. Assessment and Gap Analysis: Evaluate current practices against CHRB benchmarks to identify improvement areas.
- 2. Policy Development: Update human rights policies, focusing on labour rights, non-discrimination, and supply chain management.
- 3. Integration with Operations: Embed human rights considerations into core business processes, ensuring clear roles and responsibilities.
- 4. Stakeholder Engagement: Collaborate with stakeholders, including employees, suppliers, and communities, to address human rights concerns.
- 5. Monitoring and Reporting: Implement KPIs aligned with CHRB metrics and regularly report on progress.
- 6. Training and Capacity Building: Educate employees on human rights issues and build internal capabilities.

This framework will enhance Tata Motors' alignment with CHRB and UN SDGs, improve human rights performance, and boost transparency, positioning the company as a leader in responsible business practices.

# **NTPC**

# INTEGRATING SDG BENCHMARKS AND ENHANCING TRANSPARENCY IN ENERGY SECTOR SUSTAINABILITY PRACTICES

National Thermal Power Corporation is a public sector undertaking and one of India's leading power generation companies since 1975. NTPC's sustainable business practices are an integral part of its vision to power India's growth — with major investments in renewable energy, the company is committed to increasing its market share in energy production while adhering to a crucial framework of social inclusivity, environmentally conscious practices, and equitable growth. Leading India's energy transition, NTPC's long term 'Brighter Plan 2032' includes a significant shift of 50% to renewable energy sources like solar, wind, and hydropower by 2032 to build a decentralised, decarbonised, and digitised future by setting new benchmarks in sustainability along the entire energy value chain.

Further, the company prides itself on its robust ESG strategy, built on a system of clearly defined KPls and targets, and an ambitious net zero roadmap currently in development with Niti Aayog.

# MEET THE TEAM Champion Sitesh Barche





**Innovators** 

It is crucial for energy companies to integrate SDG ambition benchmarks into core business processes and systems to enable effective measurement and management of sustainability performance. For a resource intensive industry like energy, the first challenge is to increase awareness about sustainable development goals and the role of the individual in fostering sustainable ethics and practices within the organisation and without. Secondly, it will be crucial to track the number of initiatives and investments undertaken with regards to different SDGs and make public disclosures about the same.

## **SOLUTION**

The Brighter Plan 2032 provides a broad framework to address challenges in seven identified focus areas: decarbonisation and air emissions control, water & biodiversity conservation, circular economy, health and safety, community development, strong finance & ethics, and sustainable supply chains. The company aims to retire old thermal power plants and install newer plants with more efficient pipelines and lower carbon intensity. It is also currently developing multiple carbon capture and utilisation (CCU) technologies such as green methanol to lead a clean energy transition. By 2032, NTPC aims to install 60 GW of renewables. In their dedication to fostering circular economy principles, the company is committed to ensuring environmentally friendly, socially responsible, and techno-commercially viable handling and disposal of industrial waste. To uphold this responsibility, the company has undertaken multiple initiatives for long term supply agreements with high volume off takers and invited R&D for developing ash utilisation techniques. Further, integrated waste management is being implemented across plants to address this challenge, including projects like biomass collection from farmers to cofire with coal for power generation. NTPC's PRo-Active and Digital Initiatives (PRADIP) project has spearheaded the company's sustainable digital transformation. Recognising that going digital is crucial to India's energy transition, the project adopted the major undertaking of going paperless and creating an "e-office" which streamlines processes and departments by consolidating databases and assignments on one digital platform, the PRADIP mobile app.

Additionally, NTPC diligently follows ESG principles and reinforces its commitment through its robust system of departmental checks and balances. It requires every department across the company to define clear KPIs and targets to meet sustainability goals. Creating a strong database tracking sustainability initiatives will enable the company to analyse business strategy and track progress towards SDGs as well as to formulate, redesign and redefine business policies in line with ESG principles. More than 10,000 employees have currently been trained for familiarisation with SDGs and their incorporation in corporate practice. Subject matter experts have been called on to map more than 1000 initiatives relating to SDGs, and a distinct SDG Mapping System has been put in place to bring green policies to the forefront. Additionally, by inculcating a sustainability mindset within the very operational framework of NTPC, the company hopes to ignite individual vigour towards prioritising sustainable and environmentally conscientious practices.













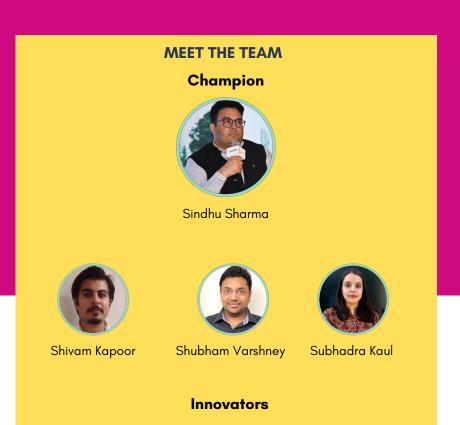


# NXTRA

# **CIRCULARITY IN E-WASTE MANAGEMENT**

Nxtra develops data centres that are shaping India's digital ecosystem while driving sustainable development practices. With over two decades of expertise in the data storage and telecommunications sectors, the company specializes in designing, building, and operating the country's largest network of smart, resilient, and sustainable data centres. As a subsidiary of Bharti Airtel Limited, Nxtra serves a diverse portfolio of clients across more than 120 locations, including enterprises, hyperscalers, governments, SMEs, OTT platforms, and CDN providers.

The company's mission to create future-ready infrastructure is built on two key pillars: intelligence and sustainability. Intelligence, in this context, goes beyond the adoption of cutting-edge and resilient technologies to include a strong focus on understanding the unique needs of its diverse customer base and delivering bespoke, tailored services. Supported by India's telecom pioneer, Airtel, and the prominent Carlyle Group, Nxtra remains committed to meeting the country's evolving business demands through scalable and sustainable data centres powered by green energy and energy-efficient design and operations.



Challenge 1: The complexity of establishing robust traceability systems makes managing electronic waste a significant challenge for data centre operators. A key obstacle the company faces is a lack of accurate classification, weighing, and quantification of e-waste generated across various operations in their facilities. This challenge stems from the diverse range of electronic equipment used in data centres, each with unique life cycle and waste profiles, making it difficult to establish a standardised system for tracking and managing waste. Further, lack of precise data on types and quantities of e-waste produced hampers the company's ability to monitor the flow of waste from its point of origin within the company to its final disposal, undermining its efforts to ensure compliance with established regulatory standards and sustainability goals.

Challenge 2: The second challenge pertains to the diversion of e-waste after it leaves company facilities. Currently, the absence of a clear traceability trail makes it difficult to monitor and manage e-waste once it is transferred to authorised recyclers. This is particularly problematic in India, where the e-waste recycling industry is largely unorganised, and many recyclers lack the necessary infrastructure, including protective gear, to handle hazardous materials safely. This situation not only poses significant health risks to workers but also raises concerns about the environmental impact of improper e-waste disposal.

## **SOLUTION**

To strengthen its commitment to sustainable e-waste management, Nxtra proposes implementing a comprehensive tracking system to monitor e-waste from its origin at data centres to its final disposal. This initiative will ensure complete traceability throughout the entire e-waste lifecycle. By leveraging advanced tracking technologies, the company aims to document each stage of e-waste handling, including initial collection, storage, transportation, recycling, and final disposal.

To further streamline this process, Nxtra plans to introduce a digital locker system that consolidates all relevant documentation in a secure and easily accessible location. This digital locker will be integrated with automated document generation tools, ensuring that all necessary compliance documents are produced accurately and efficiently. By simplifying the documentation process, this initiative will enhance the company's ability to meet regulatory requirements while maintaining well-organized records.

A key component of Nxtra's e-waste management strategy is the waste diversion rate, which measures the proportion of e-waste diverted from landfills through recycling and other sustainable disposal methods. To consistently meet or exceed waste diversion targets, the company will implement automated alerts that notify key personnel when thresholds are approached or surpassed. These alerts will be complemented by digital audits and verification processes to ensure responsible e-waste handling and adherence to industry standards and regulatory requirements.

This approach will enhance Nxtra's ability to manage e-waste sustainably, improve compliance with environmental regulations, and reinforce its commitment to responsible resource management within its data centre operations. By integrating technology into e-waste management practices, Nxtra aims to create a more transparent, efficient, and accountable process that aligns with its broader environmental sustainability goals.



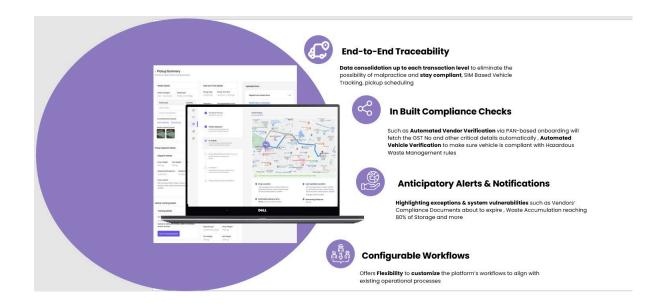










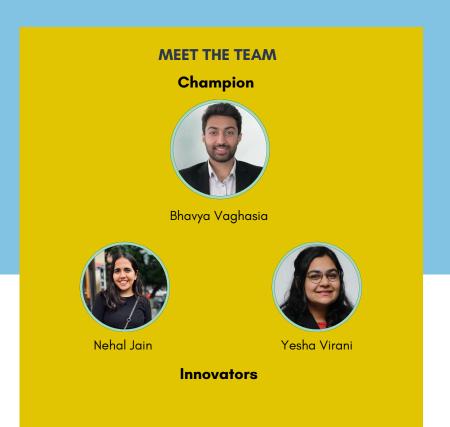


# **VD GLOBAL**

# TO PROMOTE GENDER EQUALITY AND TO REDUCE OUR ENVIRONMENTAL IMPACTS

VD Global (VDG) has over fifty years of experience in the diamond trade, spanning three generations. Renowned in the global luxury sector, VDG specialises in providing loose and certified diamonds and jewelry, with a reputation built on strong relationships with ethical and sustainable mines. The company is driven by technological innovation, strict adherence to industry standards, and a deep commitment to social responsibility. As part of its dedication to education and environmental preservation, VDG has funded the construction of a high school in Jalalpur, Gujarat, and has implemented renewable energy sources like solar panels and windmills to reduce carbon emissions.

VDG's legacy of more than five decades has established its position as a leader in ethical and sustainable diamond practices. Environmental safeguarding is integral to the company's operations. Its 200,000-square-foot factory was designed with sustainability at its core, focusing on reducing emissions and enhancing operational efficiency. VDG's ongoing commitment to minimising its environmental impact reflects its drive for innovation and excellence in the diamond industry.



VD Global (VDG) recognises that gender equality, ethical sourcing and traceability, and climate impact are fundamentally interlinked. The mutual promotion of responsible business practices across all these sectors will be crucial to ensuring that the diamond industry operates at the highest possible sustainability standards.

# **SOLUTION**

Gender Equality: VD Global recognises the importance of empowering women and promoting diversity across all organisational levels. Policies encouraging diversity and inclusion are in place, ensuring women have access to leadership roles and professional development opportunities. Through mentorship programs and partnerships with educational institutions, VDG fosters the growth of women in the diamond industry, which has historically been male-dominated. The company's commitment to gender equality extends to its supply chain, collaborating with ethical mines that protect the rights, and welfare of women workers.

Emission Reduction: VDG is committed to reducing carbon emissions through a multifaceted approach focusing on sustainability within its operations and supply chain. The company's factory exemplifies this dedication, designed to operate with minimal environmental impact. VDG is also in the planning phase to expand the use of renewable energy sources, including solar panels and windmills, which will significantly reduce its carbon footprint. Continuous innovation in operations is aimed at minimising waste and enhancing energy efficiency, aligning with the goals of SDG 13 to combat climate change.

Ethical Sourcing and Traceability: VD Global aims to prioritise responsible consumption and production by ensuring traceability throughout its diamond supply chain. By sourcing diamonds from non-conflict zones and working exclusively with ethical mines, VDG maintains strict ethical standards. We are a pioneer in the traceability of diamonds. Blockchain technology is used to track the origin of diamonds, providing transparency and proof of ethics to clients. This traceability ensures that all diamonds provided by VDG are ethically sourced, bolstering confidence in the company's commitment to responsible production and supporting global sustainability efforts.







# **TVS MOTORS**

# SUSTAINABLE MATERIAL IN AUTOMOTIVE USAGE

TVS Motor Company is a reputed two and three-wheeler manufacturer globally, championing progress in alignment with sustainable mobility with four state-of-the-art manufacturing facilities in Hosur, Mysuru, and Nalagarh in India, and Karawang in Indonesia. Rooted in our 100-year legacy of 'Trust, Value, and Service', we take pride in making internationally reputed products of the highest J.D. Power IQS and APEAL surveys, and we have been ranked No. 1 in the J.D. Power Customer subsidiaries in the personal e-mobility space, Swiss E-Mobility Group (SEMG) and EGO Movement, have a leading position in the e-bike market in Switzerland. With sustainability and environmental cutting edge technologies and superior customer experience across 80 countries in which we

# **MEET THE TEAM** Champion



Thakur Pherwani







#### **Innovators**

TVS Motors is conscious of India's commitment towards Net Zero emissions by 2070. As the transport and industrial sector is the 2nd largest contributor to GHG emissions, we recognise that it is imperative for our company to align our practices with sustainability goals to create resilient and responsible solutions and lead by example. However, the resource intensive nature of the motors industry poses significant challenges in this pursuit.

One of the causes for higher GHG emissions in the automotive sector is the use of 85 to 90% virgin materials. The CO2 emissions during the raw material extraction stage is about 500 to 600 kg CO2e/ Vehicle. (About 6 to 8% of Life cycle emissions). The availability of recycled input material remains a significant challenge, as inconsistent supply and fluctuating quality hinder the efficient implementation of sustainable practices in manufacturing. This variability disrupts production schedules and increases costs, making it difficult for companies to rely on recycled materials as a stable resource.

Further, landfills in India are increasing at an alarming rate due to rapid urbanisation and rising waste generation. This growth poses severe environmental challenges, including land degradation, groundwater contamination, and heightened greenhouse gas emissions, underscoring the urgent need for effective waste management and recycling strategies. The pressing challenge is ensuring that waste is managed through proper channels with established segregation and disposal practices.

## SOLUTION

Meeting Extended Producer Responsibility (EPR) requirements involves ensuring that products are designed for recyclability, managing waste disposal efficiently, and taking responsibility for the entire lifecycle of the product. This approach requires careful planning and coordination to comply with regulations, reduce environmental impact, and promote sustainable practices. TVS aims to create a robust waste management system following the principle of circular economy. This initiative involves shifting from a traditional "take-make-dispose" model to one that emphasises recycling, reusing, and sustainable resource management. Our operations will minimise waste, extend product life cycles, and promote environmental stewardship by creating a closed-loop system where materials are continuously reused.

Plastic waste collected from municipal solid waste at landfills will undergo a comprehensive recycling process. Initially, plastic wastes will be extracted from the landfill and then transported to a specialised recycling facility. Here, the plastics will be shredded into smaller pieces to facilitate further processing. The shredded material will be processed and converted into usable plastic boards, which have equivalent properties to engineered plastics that can be used for automotive applications.

A thorough feasibility study has been conducted to evaluate the raw material's viability, ensuring that it meets the necessary quality and performance standards. Part design feasibility has also been assessed, with detailed analysis ensuring that the recycled plastic boards can be effectively integrated into vehicles. Additionally, manufacturability has been examined to confirm that production processes can handle the recycled material efficiently. Part-level testing activities have been successfully completed, verifying that plastic boards made from the recycled plastic perform as expected. The next phases include vehicle-level testing to assess the performance of these boards within the complete vehicle assembly. Feedback from customers will be gathered to refine and enhance the boards. Finally, plans are in place for mass production, aiming to scale up the use of recycled plastics in vehicle manufacturing and support sustainable practices.





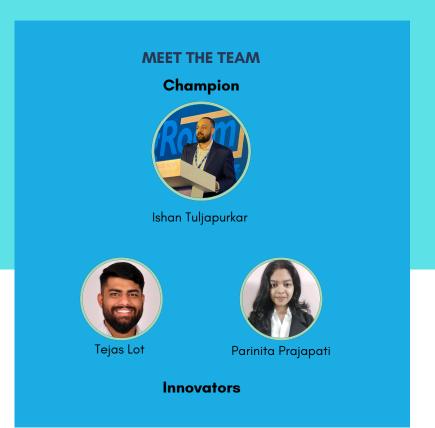




# **LEGASIS PRIVATE LIMITED**

# NAVIGATING THE COMPLEX LEGAL, REGULATORY AND POLICY COMPLIANCE SPACE

Legasis Pvt Ltd is a pioneering legal technology firm in India, established in 2007. Serving over 3,000 large corporate clients across 20 countries, Legasis combines legal expertise with cutting-edge technology to offer comprehensive enterprise solutions. These solutions encompass statutory and regulatory compliance, intellectual property (IPR) services, litigation management, contract management, related party transaction management, and governance, risk, and compliance (GRC) services. Operating in a specialized market with a high ethical standard, Legasis delivers curated solutions that empower large enterprises to enhance their corporate governance and citizenship.



In most organizations, responsibility for regulatory and statutory compliance is spread across multiple functions. Achieving 100% compliance is often hindered by gaps in specific, actionable knowledge within teams, which leads to reliance on centralized compliance teams. This creates inefficiencies in knowledge sharing and hampers the organization's overall compliance program. With thousands of tasks to complete annually, organizations face significant challenges in maintaining full compliance. A key issue is the legal and compliance team's difficulty in bridging the knowledge gap across the entire organization, leaving individual professionals without the tools or information needed to ensure full compliance.

# **SOLUTION**

To address these challenges, Legasis has developed 'LAILA' (Legasis Artificial Intelligence Legal Assistant), a sophisticated Al-based solution. LAILA leverages data from compliance databases, legislation texts, and other sources to provide real-time, seamless interaction between compliance professionals and the legal knowledge they need. Built on the Legatrix NXT platform—an industry standard in compliance management for over 3,000 corporates—LAILA continually updates its knowledge base with approximately 70 daily changes to laws, rules, and notifications. It empowers compliance teams by offering fast, accurate, and localized answers to queries, reducing dependencies on internal teams and enabling a streamlined compliance process.

With data security, privacy, and compliance at its core, LAILA utilizes multiple language models and data sources to provide relevant legal domain knowledge in any language, as well as information on internal policies and organizational compliance. LAILA is a bridge that closes the knowledge gap and enables 'Compliance by Choice', facilitating organizations to meet statutory and regulatory requirements effectively.







# ADANI GREEN ENERGY LIMITED

# WATER SCARCITY FOR OPERATION AND MAINTENANCE ACTIVITY IN SOLAR POWER PLANT

Adani Green Energy Limited (AGEL) stands at the forefront of India's renewable energy sector, spearheading the shift towards clean energy. With an ambitious target to develop 50 GW of renewable energy capacity by 2030, AGEL is instrumental in supporting India's overarching goal of 500 GW by the same year. The company is dedicated to advancing cutting-edge technologies and sustainable practices, embodying its commitment to 'Building a Better Tomorrow' and driving the nation's transition to a greener future.



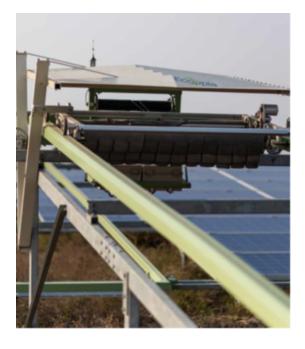
AGEL confronts significant challenges in water resource management, especially in regions where water is limited. The company has undertaken various initiatives to address these challenges, including achieving water-positive status for its plants with over 200 MW capacity and implementing robotic cleaning technologies to reduce water consumption. Nevertheless, AGEL continues to pursue further advancements in water efficiency and sustainability.

## **SOLUTION**

In response to water management challenges, AGEL has introduced several innovative solutions. Notably, the company employs robotic cleaning technologies for solar panels, which dramatically cut down water use—a crucial benefit in water-scarce areas. Additionally, AGEL's commitment to being water-positive for plants above 200 MW contributes positively to local water resources. The company also emphasizes rainwater harvesting and the use of treated wastewater for non-potable purposes, further advancing its water efficiency and sustainability efforts.











# **VEER-O-METALS**

# ENGINEERING A SUSTAINABLE FUTURE: INNOVATING FOR CLEAN ENERGY AND LOW-CARBON MANUFACTURING

Veer-O-Metals Pvt. Ltd., established in 1965, is a pioneering manufacturer specializing in stamped parts, precision sheet metal fabrication, machined components, metal additive printing (3D), and mechanical assemblies. With manufacturing facilities in Bengaluru, Chennai, and the Philippines, the company integrates cutting-edge technology and a strong commitment to sustainability. At the core of Veer-O-Metals' business operations lies a deep-rooted philosophy of innovation and environmental responsibility, ensuring that each step in its manufacturing process aligns with global sustainability goals.





Vaneet Sham Sunder



Nandkumar R Kulkarni



Medha Mariyappa Naik

**Innovators** 

As a company operating in an energy-intensive manufacturing sector, Veer-O-Metals faces a pressing challenge in mitigating its carbon footprint while maintaining operational efficiency. The urgency of addressing climate change has made it imperative for businesses like Veer-O-Metals to transition towards renewable energy and adopt energy-efficient processes. However, such a transformation comes with substantial investment requirements and technical challenges, making the journey towards carbon neutrality a complex but necessary pursuit. The company recognizes that reducing emissions is not just a regulatory necessity but also a moral obligation to contribute to a cleaner, more sustainable future.

## **SOLUTION**

To address the challenges posed by climate change, Veer-O-Metals has taken a proactive approach in integrating renewable energy and optimizing energy efficiency within its operations. One of its most ambitious projects is the establishment of a ground-mounted group captive solar power plant in Gadag, Karnataka. This initiative involves a 3MW solar power purchase agreement aimed at significantly reducing dependency on non-renewable energy sources. The project, set to commence operations in April 2025, is expected to lead to an 80% reduction in Scope 2 emissions and contribute to a 65% decrease in CO<sub>2</sub>e intensity per unit of sales. This strategic shift not only advances the company's sustainability goals but also reduces energy costs in the long term.

In addition to large-scale solar power adoption, Veer-O-Metals has implemented a rooftop solar energy system at its Bengaluru facility. This installation provides a sustainable and localized energy source, currently meeting 35% of the facility's total energy consumption. The transition to solar energy is complemented by several other energy efficiency measures that further reinforce the company's commitment to sustainability. These include the implementation of PNG gas pipelines for cleaner energy use, the installation of Variable Frequency Drive (VFD) devices to optimize energy consumption, and the adoption of battery-operated material handling equipment to reduce fossil fuel dependency.

To enhance operational efficiency, the company has also integrated energy-efficient air compressors, converted indirect heating systems in water dry ovens to direct heating for reduced energy loss, and introduced smart lighting systems with real-time switching to minimize unnecessary power consumption. Collectively, these initiatives represent a significant step towards Veer-O-Metals' vision of achieving a low-carbon manufacturing ecosystem while maintaining the highest standards of productivity and technological excellence.









# **The Champions**

Name of the Champion	Designation	Name of the Organisation
Podisetty Ashok Kumar	Associate Vice President	Neuland Laboratories Limited
Monika Shrivastava	Head - Sustainability	JSW cement
Brinda Alankar	Sr Manager – Corporate Sustainability	Tata Chemicals Ltd
Shivani Maudgal Datta	Vice President ESG	Bharti Airtel Limited
Vivek Kumar	Head - Environment, Rajpura Dariba Complex, HZL	Hindustan Zinc Ltd
Shama Jain	Deputy Head Sustainability	Hindustan Zinc Limited
Sindhu Sharma	Head - ESG	Nxtra Data Limited
ARUN HARIHARAN	Vice President	Bharti Airtel Ltd
Sachin Thakur	DGM, Corporate Sustainability	Tata Motors Limited
Rohit Jain	Deputy General Manager, Corporate Sustainability	Tata Motors Limited
Samdarshi	Deputy General Manager	Tata Motors Limited
Sivaramakrishna Pathanaboyina	Manager-EHS	Hetero Labs Limited
Dulal Chandra Patra	Manager - Technical Services	HPCL-Mittal Energy Limited
Zohar Vankani	Manager-Technical Services	HPCL Mittal Energy Limited
Thakur Pherwani	Chief Sustainability Officer	TVS Motor Company Limited
Bhavya	CEO of Luxury	VD Global Pvt. Ltd.
Sandesh Patil	DH Operational Excellence and Sustainability	Grasim Industries Limited (Chemical Div.) Epoxy
Srinivasu Metlapalli	Vice President	Suven Pharmaceuticals Limited
SITESH BARCHE	SR MANAGER	NTPC LTD
AYUSH RANA	Business Excellence & ESG	Adani Green Energy Ltd.
MADHURI BHATIA	DEPUTY MANAGER - ESG	Adani Green Energy Ltd.
Mr. Vaneet Sham Sunder	Director	Veer-O-Metals
MANISH SHITAL PUJARI	UNIT HEAD, DOLVI	JSW Cement Ltd
Ishan Tuljapurkar	Business Head- Legal Solutions	Legasis Private Limited

# The Innovators

Name	Designation	Name of the Organisation
Nitesh Rajput	EHS-Manager	Neuland Laboratories Limited
Ghanathey Prerna	HR Executive	Neuland Laboratories Limited
Rohiit Konda	Assistant Manager - Legal & Secretarial	Neuland Laboratories Limited
Aishwarya Rai	Team member-Sustainability	JSW Cement Limited
Shiv Bhagwan	Lead- Corporate Social Responsibility	JSW Cement Limited
NITIN SHARMA	MD's Office	JSW Cement Limited
Dr. Priyapratim Patra	Researcher (Deputy Manager), Research and Development	JSW Cement Limited
Harsh Dodia	Senior Manager -HR	JSW Cement Limited
Lokareddy Gari Chandana Reddy	Process engineer	JSW Cement Limited
Kanchan Mahadev Jagtap	Senior Officer Sustainability	JSW Cement Limited
Sandeep Kumar Sharma	Manager	Bharti Airtel Limited
Vikram Rauthan	Deputy Lead - Legal & Compliance	Bharti Airtel Limited
Vantika Sinha	Lead - Total Rewards	Bharti Airtel Limited
Swarananda Mohapatra	Assistant Manager - ESG, Network	Bharti Airtel Limited
Mudit Shukla	Deputy Lead – Legal & Regulatory	Bharti Airtel Limited
Praveen S	Solution Architect - Cloud & Core	Bharti Airtel Limited
Bhuwan Chugh	Senior Manager SCM Risk Management	Bharti Airtel Limited
SANDEEP KUMAR	MANAGER	Bharti Airtel Limited
Rishika Sharma	Associate Manager	Hindustan Zinc Limited
Debapriya Roy	Associate Manager - Sustainability	Hindustan Zinc Limited
Muhammad Saarim Naeem	Associate Manager - Sustainability	Hindustan Zinc Limited
Nehal Patni	Associate Manager - Sustainability	Hindustan Zinc Limited
SHUBHAM VARSHNEY	Supply Chain Manager	Nxtra Data Limited

Name	Designation	Name of the Organisation
Subhadra Kaul	Assistant Manager- ESG	Nxtra Data Limited
Shivam Kapoor	Assistant Manager – Data Center governance	Nxtra Data Limited
Nitin Anil Lagad	Sr Manager Purchase & Supply Chain	TATA Motors Limited
Rudhran Uthandarajan	Senior Manager	TATA Motors Limited
K Swetha Saraswathi	Senior Manager	TATA Motors Limited
Anoop Kumar Godara	Senior Manager	TATA Motors Limited
Veeresh C Sajjanashettar	Senior Manager	TATA Motors Limited
Chetan Sharma	Zonal Logistics Manager	TATA Motors Limited
Deepak Arora	Manager - Product Audit	TATA Motors Limited
Sachin Masalage	Sr. Manager	TATA Motors Limited
Akhilesh Mishra	Senior Manager- Product Audit	TATA Motors Limited
Akshaya Ashok Mhatre	Senior Manager, Programs-HCV	TATA Motors Limited
Navdeep Kaur	Territory Sales Manager	TATA Motors Limited
Ajay Singh	Production Incharge	TATA Motors Limited
Govada Panduranga Ganesh	Sr.Executive-EHS	Hetero Labs Limited
Nadella Ram bhopal	Sr Executive in HSE department	Hetero Labs Limited
Anusha N	Jr.Officer	Hetero Labs Limited
Manasa Thamatapu	EHS Officer	Hetero Labs Limited
Harini Miriyala	EHS Officer	Hetero labs Limited
Bankuru Ganesh	Safety Officer	Hetero Labs Limited
Pancham Garg	DM- MMC (Warehousing)	HPCL-Mittal Energy Limited
Jasmeet Singh Bakshi	Technical Service	HPCL-Mittal Energy Limited
Palli Vera Venkata Satya babji	Deputy manager	HPCL-Mittal Energy Limited
Karandeep Singla	Assistant Manager	HPCL-Mittal Energy Limited
Komalpreet Kaur	Deputy Manager- Maintenance Planning	HPCL-Mittal Energy Limited
Rahul Singla	Deputy Manager – Engineering Services	HPCL-Mittal Energy Limited
Beenu Sondhi	Deputy Manager- Operations	HPCL-Mittal Energy Limited
Sunny Yadav	A.M- Contracts & Procurement	HPCL-Mittal Energy Limited

Name	Designation	Name of the Organisation
Madhu Sudhan KB	Assistant Manager – Environment	TVS Motor Company Limited
Hlmanshu Kumar	Manager – Parts	TVS Motor Company Limited
Arun N	Manager - R&D	TVS Motor Company Limited
Dileep Busigonda	Deputy Manager	Suven Pharmaceuticals Limited
Amey Bhagat	Strategy	Suven Pharmaceuticals Limited
Kapil Porika	Head Strategic Marketing	Suven Pharmaceuticals Limited
Snehali Vaibhav Kumbhar	Senior officer, Regulatory department, R&D	Grasim Industries Limited (Chemical Div.) Epoxy
Riddhi Raj	Officer- OpEx & Sustainability	Grasim Industries Limited (Chemical Div.) Epoxy
Vivek Bisen	Deputy Manager	Grasim Industries Limited (Chemical Div.) Epoxy
VARUN SHRIVASTAVA	SR MANAGER	NTPC Ltd
Abinash Das	Dy Manager	NTPC Ltd
Parinita Prajapati	Associate	Legasis Private Limited
Tejas Pandit Lot	Senior Software Associate	Legasis Private Limited
Virani Yesha Bharatbhai	International Business development Manager	VD Global Pvt. Ltd.
Nehal Jain	Sustainability & Compliance Officer	VD Global Pvt. Ltd.
Pratik Suthar	Associate Manager	Adani Green Energy Limited
Sreeparna Adhikari	Deputy Manager-ESG	Adani Green Energy Limited
Vinutha S R	Assistant Manager	Adani Green Energy Limited
Sumeet Kshatriya	Assistant Manager	Adani Green Energy Limited
Mihir Purabiarao	Deputy Manager - Safety	Adani Green Energy Limited
Ayush Gautam	Deputy Manager	Adani Green Energy Limited
Nandkumar R Kulkarni	CMR - EHS	Veer O Metals Private limited
Medha Mariyappa Naik	Junior Executive- EHS and MR	Veer O Metals Private limited

# **About UN Global Compact Network India**

As the United Nations Global Compact (UNGC) local arm, UN GCNI has been acting as a country level platform in providing a robust platform for Indian businesses, academic institutions and civil society organizations to join hands for strengthening responsible business practices. Our '10 Principles in areas of Human Rights, Labor, Environment and Anti-corruption' provide a common ethical and practical Framework for Corporate Responsibility – and the 17 Sustainable Development Goals (SDGs) adopted in September 2015, by all 195 Member States of the United Nations including India in order to end extreme poverty, gender inequality and injustice, and protect our planet– understood and interpreted by businesses around the world, regardless of size, complexity or location.

UN Global Compact Network India acts as a nodal agency in providing a robust platform for businesses, non businesses, academic institutions, civil society organizations and also the state institutions to join hands for strengthening responsible practices and target the 2030 Global Goals. UN GCNI galvanizes an enabling environment for all the relevant stakeholders to drive the movement of Uniting Businesses for a better world. For more information, visit our website at www.globalcompact.in.



Network India

For more information, visit our website at <a href="https://www.globalcompact.in">www.globalcompact.in</a>

For more details, please contact : gcnindia@globalcompact.in , +91-120-4979615

