



RECEIC Awards on Resource Efficiency & Circular Economy

UltraTech Cement

Category - Circular Business Models- Matured

GRAND JURY PRESENTATION ROUND

10th MARCH 2025

Agenda



**ABOUT THE
INITIATIVE**

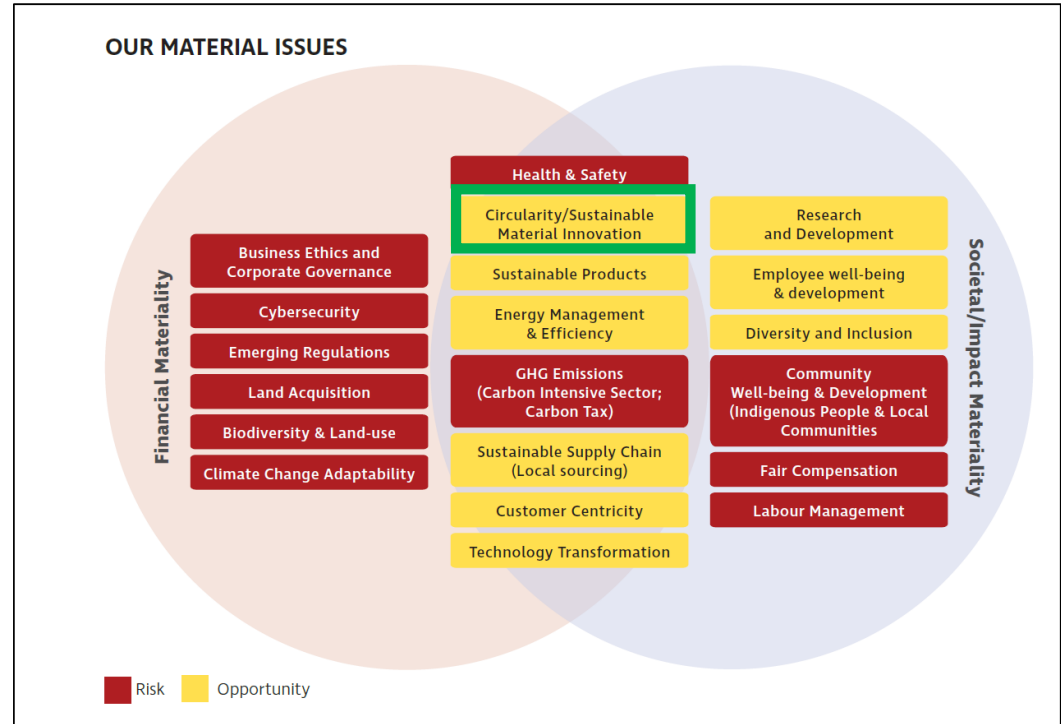
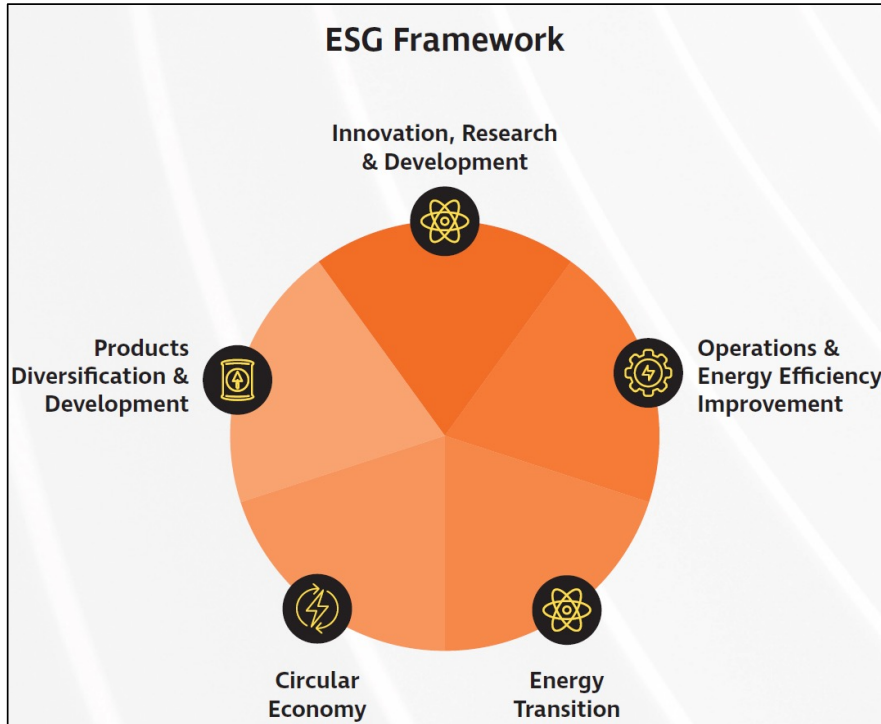


ACCOMPLISHMENTS



**WAY FORWARD
PLAN**

Circularity at the core of UltraTech



1. Circular economy is one of the five pillars of UltraTech's ESG framework
2. Our Double Materiality analysis with all stakeholders, laid down circularity as both financial and socially important topic for UltraTech
3. With these inputs, We are striving continuously to lower our virgin material input and increase the recycled and alternate input materials in our process.

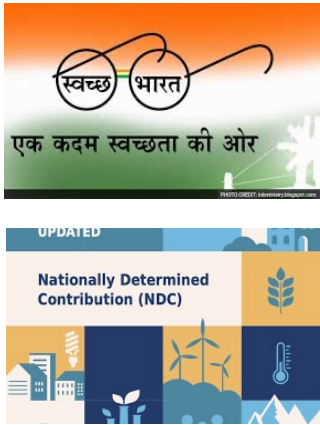
Circularity at the core of UltraTech

Problem Statement:

To reduce Environment Footprint and becoming cost efficient while producing 150+ MTPA and increasing.....



1600 Tones of legacy waste across 100 dumpsite



India's goal of Swachh Bharat and NDC



1. Co-processing of waste
2. Utilization of alternative raw materials in production process
3. Use of recycled Polypropylene in cement bags
4. Use of Generative Artificial Intelligence

FICC Circularity at the core of UltraTech – Disruptive Innovations

Plastic waste management at Maha Kumbh 2025

1. 400 metric tons of plastic waste collected from Maha Kumbh and co-processed as alternative fuel in UltraTech's plant – Dalla Cement works
2. UltraTech deployed sanitation workers and waste plastic collection bins across high-footfall locations in Prayagraj such as Triveni Sangam and Maha Kumbh's designated sectors.
3. Sanitation workers collected plastic litter scattered across Prayagraj.
4. The effort is result of multi-pronged waste collection strategy, the initiative focuses on plastic waste collection, segregation, and processing ensuring safe disposal.
5. An LED activation van travelled across Prayagraj, educating citizens on plastic segregation and encouraging household participation in the campaign.



FICC Circularity at the core of UltraTech – Disruptive Innovations

Substitution of virgin plastic with recycled polymer in cement bags – FY 25

India's first – use of National Waterway 1 for Mineral gypsum transport at scale – FY 25

Introduction of 50% recycled Polypropylene in 78 lakh cement bags



- Reduced stress on naturally occurring raw material resources
- Reduced carbon footprint
- Cost efficiency
- Reduced dependence on fossil fuels

43% reduction in virgin plastic amounting to 238.8 MT



Transportation of mineral Gypsum – substituting natural gypsum

Using National Waterway 1 (Ganga-Bhagirathi-Hooghly river system) for the first time in India

Helps to save natural resource and carbon emission along with cost.



FICC **Circularity at the core of UltraTech – Technological interventions**

Improved operational speed with mobile app-based solutions

Active investments in cloud infrastructure to build smart and connected factories

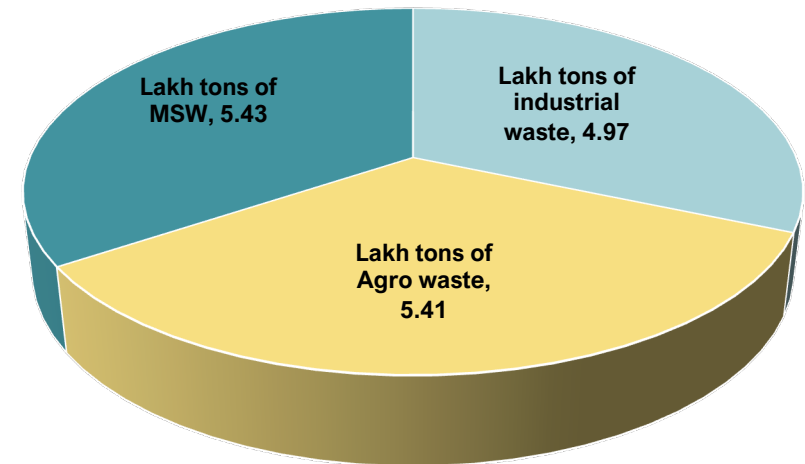
AI solutions to monitor and sustain process stability thus enhancing reliability

Fleet Utilization – RFID sensor-based system for vehicle movement for improved turnaround

Computational Fluid Dynamics (CFD) for optimizing pyro-processing & enhancing AFR

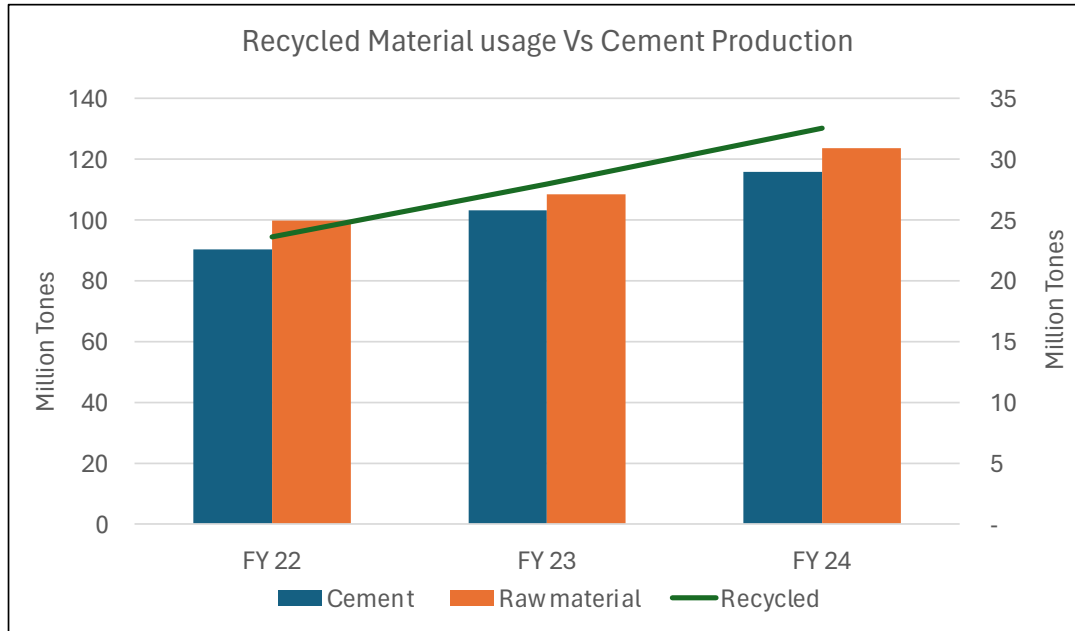
3D Printing has helped reduce Steel as natural resource in construction

Amount of waste co-process in Our kilns and CPP



We have removed **3.4 times more plastic** from the environment by utilizing it as an alternative fuel (excluding third-party EPR claims)

Circularity at the core of UltraTech – Outcomes



In past 3 years, while cement production increased 28% , virgin raw material consumption only increased by 24% and recycled material consumption increased by 38%.

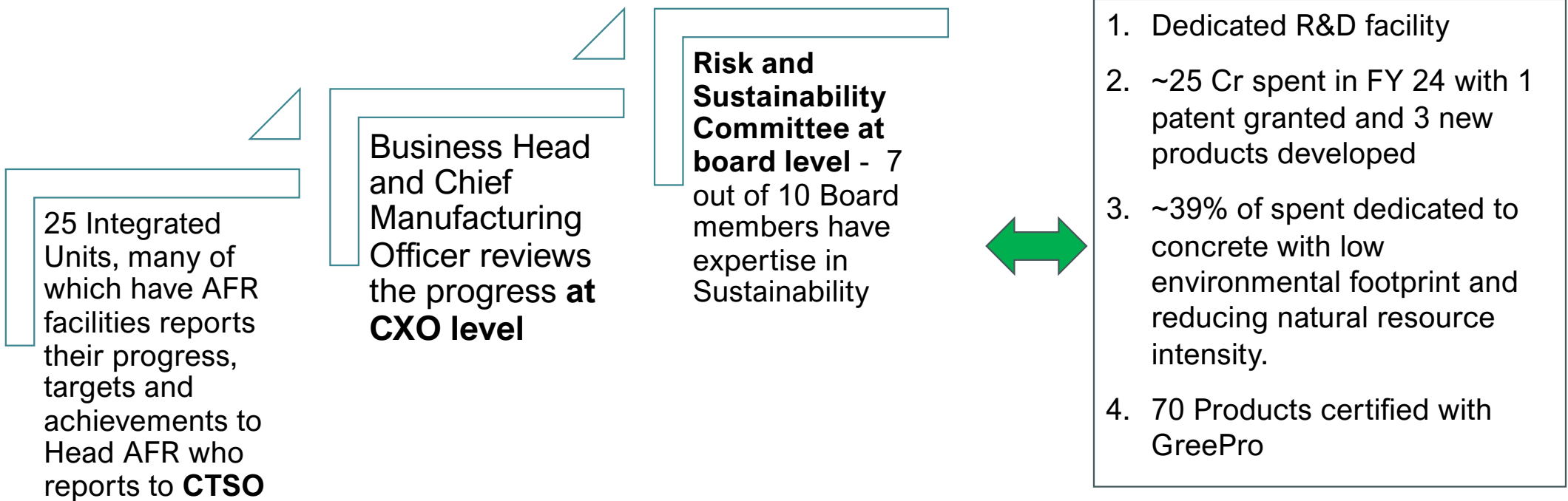
69.2 % blended cement (of total sales of all cement) produced in FY 23 having recycled material thus have lower environment footprint.

As compared to FY 23 (unless mentioned):

1. 36% decrease in fossil fuel consumption in Captive power plant with increase in Biomass feed
2. 1% reduction in specific thermal energy with increase in process efficiency thus saving fossil fuels
3. 10% increase in thermal substitution rate as compared to FY 22.
4. 33% reduction in Fresh water withdrawal due to 10.46 % increase in recycling & reuse of water
5. 22% substitution of Electrical energy with WHRS and Renewable Energy thus saving on fossil fuels
6. 100 electric trucks deployed under Gol 'e-FAST' initiative thus saving on fossil fuels

Zero waste to landfill is practiced

FICC **Circularity at the core of UltraTech – Governance**



UltraTech aims to **achieve 462 Kg CO₂/ ton of cementitious material by FY 32**. This is possible by increasing the cement to clinker ratio which will be further enabled by use of recycled materials and process optimization to absorb the targeted recycled material in cement making



THANK YOU