



*Learn Build and Connect for a Circular Mumbai
with Talks, Workshops and Networking*

EVENT REPORT

THEME: Waste Management

Monday, November 12th, 2018 9:00 am – 6:00 pm



OSCE Days Mumbai - Event Brief

About OSCE Days

The Open Source Circular Economy Days (OSCEdays) is an open group of people that started in 2015 with a global event promoting Open Source as the key driver for a Circular Economy. In the past years, OSCE days as a knowledge transfer platform has managed to gather people from politics, business, science, tech & startup scene and NGOs to share, discuss and develop circularity solutions together.

Objective of OSCE Days Mumbai

- Provide inspiration, new knowledge and showcase new possibilities of a circular economy in the Indian market.
- Train participants on how to flourish in the new global trend of sustainable economic development.
- Create awareness on circular economy, the need of recycling, anti-littering, environmental protection, and reduction of disposables, especially for students and young professionals.
- Showcase “hands-on” and easily adaptable circular economy approaches, e.g. home composting, textile upcycling, furniture upcycling, mindful design, etc.
- Allow companies and start-ups to discover new materials, new ways of operating, business opportunities, and generate competitiveness.

Speaker Profiles



Dr. Shrikar Dole, Founder, CEO, SDG Foundation

He has worked in the area of sustainability for the last 20 years in various capacities both with governments and with the private sector.



Dr. Prasad Modak, Executive President, Environmental Management Centre

He worked in the Ministry of Environment and Forests and Climate Change Asian Institute of Technology has done his MTech in Environmental Science and Engg.



Wilma Rodrigues, Founder and CEO, Saahas Waste Management Pvt Ltd

She worked as a Business Journalist in Mumbai with BusinessWorld magazine and the Times of India, Assistant Editor of the Indo-German Economy, an Indo-German Chamber of Commerce Publication.



Dr Rajesh Manerikar, CEO, Poornam EcoVision Foundation

Impanelled expert for Municipal Solid Waste (MSW) and hazardous waste as per NABET accreditation scheme for EIA consultants.



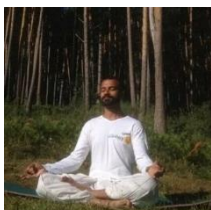
Sumedh Bapat, Independent Consultant and Technical Expert of Waste Management

He has been Technical Director at NobelExchange Environment Solutions Pvt Ltd., Technical Director at Green Elephant Engineering Pvt Ltd, Technical GM at Excellent Renewable Private Limited, Technical VP at Spectrum Renewable Energy Pvt Ltd.



Rahul Nainani, Co-founder and CEO at RaddiConnect

A social entrepreneur with a finance background currently on a mission to overhaul the waste management system in the country by finding a sustainable solution that is not only self-sufficient but also has a positive impact towards the society.



Felly Gomes, Founder, Live Happy NGO

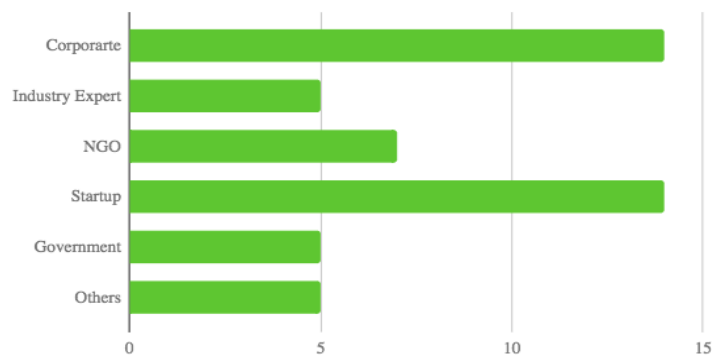
Felly Gomes has been working in the Community development and Waste Management sector in Asgaon village of Goa from past many years. His organization works on awareness of these social issues through various interactive platforms.

Audience diversity

Total Attendees: 50

The event witnessed a diverse audience representing different stakeholders in the economy, including corporates, industry experts, NGOs. Startups, government, students and others.

Audience Representation



Learnings

The first Solid Waste Management campaign was held in 18th century. While the actual concept has been this old, we are thinking of waste management only at the point of disposal. To create a circular economy, we as a community need to go beyond this and think of waste management systems at the point of production.

When we waste management at point of production, we talk about the famous 3R's – Reduce, Reuse and Recycle. While we have been talking about these 3R's since long its implementation is not as rampant as it should be. It could be because we are not able to communicate the larger picture behind waste management. Waste management is directly linked with 'Climate Change' – a term in global talks right now. The recent estimate of waste generated in India is about 53.5 million tons. It produces 16.68 million tons of GHG emissions. The treatment of this waste will reduce the GHG emission by 4.6 million tons. If we are able to take this impact into consideration, our focus on waste management will get streamlined. When we do this, waste management becomes a pathway and integral part of Circular economy.

Repair, refurbish and share the resources

We extract, transport and process the resources we need. In this system, we deplete and degrade our resources and then the problem of availability arises. Many plants in India and other parts of the world are shutting down simply because there is no availability or poor quality of resources. The is uncertainty of climate change for the availability of these resources. This all creates a complex system to deal with the entire lifecycle of the product. The rate at which we are consuming resources, our current systems of recycling and using the concepts like composting are not enough to help us to deal with waste we are generating. There is often hazardous waste that is being produced which households

are not aware of and bringing this waste into composting technologies in real takes us away from circular economy.

Over the period of time, we have transitioned from linear economy of waste to recycling economy. There are around 25 waste recycling plants in city of Pune. So, we do have systems in place and we are moving ahead. Now we have to transition towards circular economy.

When we talk about the 3Rs there is a complete disconnect between the three. The 'reduce' element does not get into place because our product designers do not sit with packaging and logistic units. These Rs were therefore discussed globally and rethought on. The other 3R's that form the circular economy and open opportunity for entrepreneurship and innovations are – Repair, Refurbish and Remanufacture. We need to explicitly manage these other 3Rs to create a complete circular economy.

Our economies can be split into parts – first is of big business where other is more people centric and includes small companies and communities. The real game is in the first one, where recycling and recovering can create a close loop for materials produced. The second part can be mostly associated with repairing, refurbishing and remanufacturing of materials.

Circular Economy is feasible only if we have viable and innovative business models encompassing the entire supply chain.

For startups in waste management sector, the ones looking towards it with social perspective should go for down streaming and the ones with an entity perspective should have upcycling approach.

Companies and entrepreneurs have opportunities in each of these 6Rs to setup explicit units and systems for each of these in entire supply chain of materials.

Examples discussed:

1. Startups
 - Waste Venture India
 - Banyan Nation
 - Swach Cooperative
2. Case Studies (Industries)
 - Zero Liquid Discharge in Textile Industrial Estate, Tirupur
 - Kalundborg Symbiosis
 - Eco-town, Japan
3. Initiatives in next 3Rs - Repair, Refurbish and Remanufacture
 - Repair Café Foundation, Amsterdam
 - Green Dust – reverse logistics company

- Khilonewala – to share toys (operating in 12 cities in India)
- MUD Jeans

Apart from these initiatives there has been constructive work done on giving value to this valuable work by several local, national and global organizations.

- **Global Recycled Standard** - an international, voluntary, full product standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices and chemical restrictions.
- **Recycled Content Certification - For Products and Recycling Programs** by SCS Global Services
- **Extended Producer Responsibility**- Embedded in the E-Waste and Plastic Waste Management Rules
- **Producer Responsibility Organization (PRO)** is the new era of business in India's Circular Economy
- Emphasis on Resource Efficiency – GIZ and EU India Delegation
- Lead from Niti Aayog
- Resource Efficiency Cell at MoEFCC
- FICCI, CII and BCCI Active
- Several capacity building (GIAN) and entrepreneurship courses and mentoring programs expected

While considering the global initiatives, certifications are becoming a major tool. Carbon Market is one of the measures to mobilize financing for emission reductions. A carbon tax establishes a price on emissions whereas a cap-and-trade program issues a set number of emissions “allowances” each year that can be auctioned or traded. Cap and Trade offers certainty regarding emission reductions and flexibility in meeting those targets. One of the key tools to mitigation is adoption of market mechanisms. India had success in Clean Development Mechanism and is suited for future carbon markets. PAT is an existing market mechanism for energy efficiency in selected sectors. The objective is to enhance capacities of stakeholders to use existing and emerging carbon market and climate finance instruments for the implementation of mitigation activities tailored to the national contexts and help in achieving NDCs.

Even though outreach and raising awareness about proper waste management practices is critical, it ultimately comes down to action and how effectively the processes are implemented. When a circular economy approach is being scaled up to a residential and country level, implementing a business model around waste management is requisite, as specifically seen in Saahas' 0 Waste approach. In order to bring a change in India's current situation, a proper understanding and execution of rules are important. Additionally, the solutions should be built around and with respect to the rules.

Overall, a holistic approach to waste management is required where all stakeholders take responsibility for producing waste, people pay for waste disposal services, and the informal and formal sector is better integrated. Many different opportunities lie in the sector of waste management including raising awareness, capacity building, consulting organizations and people on sustainable practices. Working towards a decentralized waste management system through participatory waste management where the community is put into control to manage their own resources. Integrating new processes such as segregating wastes, repairing computers can also be used to empower certain groups by providing them with training and skills.

