



thinkstep

An aerial photograph of a river winding through a dense forest. The river is a light blue-grey color, contrasting with the various shades of green in the trees. The image is framed within a large semi-circle that dominates the center of the slide. The semi-circle is partially overlaid by a white rectangular area containing the main title and subtitle. The background of the slide is white, with a yellow horizontal band at the bottom. The semi-circle's edge is smooth and follows the curve of the river and forest below.

# Industrial Symbiosis for Circular Economy

Digital Platform Launch

thinkstep India, Mumbai, May 24, 2019

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## Event Overview

thinkstep Sustainability Solutions Pvt. Ltd. organised ISCE Digital Platform Launch on 24<sup>th</sup> May 2019 at Radisson Andheri, Mumbai. The launch event was attended by around 40 participants representing Indian Corporate, waste handlers, NEERI, SME and Technology Providers etc...

The ISCE Digital Platform is aimed to create a deeper understanding of industrial symbiosis for circular economy in India and to accelerate responses to market developments in the area of waste utilization in the top most waste hierarchy through innovation.

The launch was followed by a strategic panel discussion wherein the Panel Chair and Members provided key insights, scenarios, needs of the Industry and shared their experiences of waste handling practices and the need of having such a platform. They also emphasized that how this platform will play a very vital role in the field of waste utilization through disruption in the current unorganized way of management. The launch was designed in the form of a game called “The Game of Thrown(s)” based on the recent HBO series was conducted to have a hands-on experience on ISCE digital platform as well as understand its value potentials.

The event comprised of information sharing session, enriched content across panel discussion and open atmosphere for networking opportunities.

# Welcome Note -

## Digital Platform for Industrial symbiosis

*Dr. Rajesh Singh, Managing Director, India and South East Asia, thinkstep India*

Dr. Singh delivered his opening remarks by highlighting project's vision of 'facilitating organizations in creating secondary resources through industrial symbiosis leading to zero waste circular economy'. He elaborated that this dynamic cloud technology-based platform enriched with artificial intelligence can help in efficient mapping of the waste in their businesses. He further highlighted that the project with more than 15 years of experience along with 75000+ successful connections would help in exploring new opportunities, innovation and potential collaboration on secondary resource utilization among Indian industries.

He emphasised on the governance mechanism which is based on three pillars i.e. strategic panels, technology partners and domain experts' network. The experts will provide the guidance, insights and inputs to overcome the barriers in the handling of waste utilizations.

He described that around 500 sites (companies) and 2500 resources (wastes) have been mapped from Indian industries in this platform from the publicly available data. Some initial inputs can be provided with our knowledge and the database, on the platform. Our aim is to map around 5000-8000 industries in next one year. The waste data along with the quantity and locations will provide better visibility for the proper synergies. He also mentioned that the data transactions and communications on the platform would be private and secured.



# Digital Platform for Industrial symbiosis- Needs and Benefits

*Mr. Ulhas Parlikar, Co-founder,  
Industrial Symbiosis for Circular  
Economy, Ex. Director ACC Limited,  
Global Scientist*

Mr. Parlikar commenced by citing the platform as an innovative step which would enhance the secondary resource utilization leading to zero waste. He focused on the benefits of the platform. Anthropogenic action adds the undesirable substances to the environment which needs to be managed properly. So, could this waste be recycled or reused? He discussed more on statutory scenario (Voluntary to Mandatory) which shaped the waste management practices in the industries. Sustainability has become the key focus now so the waste management hierarchy starting from reuse, material recovery, energy recovery until final disposal will play an important role. The viability of the waste management scenario is must, but it should be accessed in other two aspects as well i.e. social and environmental. Various stakeholders networking would be required which can be provided by this platform. Sometimes the waste can simply be exchanged but sometime intervention may be required to overcome various barriers which would also be provided by this platform.

He ended up emphasising on the many benefits like zero waste, revenue from by-products, environmental betterment, new sustainability aligned products, reduced GHG emission, natural capital conservation and better acceptance by the society etc. from the industrial symbiosis.





# Digital Platform for Industrial Symbiosis-

## Business case for Mahindra Group

*Mr. Anirban Ghosh, Chief Sustainability Officer - Mahindra Group*

Mr. Ghosh started with expressing the relevance of circular economy for sustainable business. Minimising expenses on waste management would be the start point for making any business case. Zero waste to landfill may be very lucrative to move further where this platform can play an important role. Sometimes the waste can simply be used without much processing but sometime intervention (specifications, research, intermediary treatment etc.) may be required where this platform would be very helpful. He emphasized that Mahindra group have started working towards zero waste with 11 certified locations today which will increase to 70 in near future. This platform will help to contribute the resource efficiency and reduce the pollution which industries causes advertently or inadvertently.



# Panel: Expectations from Industrial Symbiosis and Potential Outcomes of Digital Platform in India



**Chairperson** - Mr. Arvind Bodhankar, Joint Executive President & Chief Sustainability Officer, Ultratech Cement Limited

**Panellist:**

Mr. K. N. Rao, Director, Energy and Environment, ACC Limited

Dr. Rakesh Sinha, Global Head – Supply chain, Manufacturing & IT at Godrej Consumer Products Limited

Dr. P. K. Panigrahi, DGM, Corporate Sustainability Cell, Mahindra Group

Dr. Sunil Kumar, Senior Scientist, NEERI

Mr. Mukul Agrawal, Head, sustainability and Strategic projects, Grasim Industries Ltd.

Ms. Ashwini Deodeshmukh, Head, Green Initiative Cell, Godrej & Boyce

Mr. Bodhankar commenced by emphasizing the importance and usefulness of the digital platform. He opened the session by asking Mr. Rao, his expectations being a high-volume waste utilizing organization Mr. Rao explained that the usage of natural resources is becoming very costlier as the cement industry is very resource and energy intensive. He also highlighted various initiatives taken

up at ACC on many environmental aspects like avoiding biodiversity negative impact, GHG emission by using many secondary resources from other industries. He also mentioned that if the CPCB, MPCB and different industry associations become partner then it would be very helpful in providing implementable solutions.

Dr. Sinha, on being asked about new rules for Extended producer's responsibility (EPR) and the expectations, said that they do work with municipalities in some cities to collect the plastic waste for compliance for EPR. He further added that ideally the collection and segregation of waste should lie with the municipality and the conversion of waste to energy or useful product should lie with the selective industries. He said that it would be very useful and exciting if this platform can provide information on potential parties who can process the collected and segregated plastic waste into energy or useful products.

Mr. Panigrahi, on being asked about CERO and upcycling of vehicles and expectations from the platform, said that they have been looking for this kind of platform since a long time. He further added that dealing with hazardous waste was much difficult earlier. After lot of focussed efforts, Mahindra's auto 's Igatpuri plant became the first zero waste to landfill plant in India. This platform would be very useful as it provides information on potential buyers, sellers and resources.

On being asked about the zero waste to landfill in textile business, Mr. Agrawal, said that textile is the biggest polluting industry after petroleum. He further added that the textile business has a very long value chain. This platform could be useful as it can bring- in the pre and post consumer's waste for recycling and reuse to close the loop. Best available technology could be easily adopted, to utilize the by-products.

On being asked about the usefulness of the platform for Swachh Bharat Abhiyan Mr. Kumar, said that they have been working in the waste management field for many years. Many of the problems of the industries have been solved by academia as well as researcher institute. This industrial symbiosis is an excellent platform where the industry, academia and research institution can play a vital role in propagating the Swachh Bharat Mission.

On being asked about how this platform can be helpful for the diversified business, Ms. Deodeshmukh, said that they have documentation of the waste produced in their company. She further highlighted some success stories from her company. She elaborated the challenges associated with the processing of waste so this platform could connect us to the intermediaries and also the technical experts who could help.

Mr. Bodhankar concluded the session summarising the key takeaways from the panellists and opening the session to audience.



# Global Experience- Digital Platform for Industrial Symbiosis

*Ms. Lydia Dutton, International Synergies Limited, Birmingham, UK*

Ms. Lydia explained that Synergy 4.0 (Resource Matching App) could lead the world in the innovative ecology solutions for a low carbon and sustainable economy. It enables organizations globally to reduce cost, risk and environmental footprint through resource reuse opportunities. Synergy 4.0 has more than 74000 resources, 28000 sites registered, more than 15 years of experience and have presence in more than 30 counties across six continents. She also presented some successful case studies to describe the efficacy of the tool.



# Game of Thrown(s)

One of the most exciting parts of the digital platform launch was 'Game of Thrown(s)', conducted by Mr. Ritesh Agrawal and Mr. Sagardeep Garg, where all the participants were asked to login through the laptops or tablets. It was a live hands-on experience on the digital platform to connect the Have (Hs) and Want (Ws) amongst Indian Industries and develop synergies.

There were mainly three steps required to complete the connection i.e. site creation, resource creation and then the potential synergy was developed based on many factors (location, availability, feasibility etc.). There were six teams (Plastic, Sludge, Metal, Construction, Agri, and Oil) which were given the user Id and password. Once the site was created and the details were filled, the resource details were also added.

The real time synergies were then created and briefly presented. The live hands-on experience helped in bringing a good familiarity to the participants along with the potential value to their organizations. The waste will no more be a waste now, it will be a resource through the developed synergy.

Betterment of environment, natural resource conservation leading to zero waste circular economy was perfectly demonstrated by the game of thrown.



## Vote of Thanks

*Mr. Ritesh Agrawal, Director,  
Strategic Accounts, India and  
South East Asia, thinkstep India*

The sessions ended with Mr. Agrawal thanking all the participants for sparing their valuable time and actively participating to make the digital platform launch a success. He also thanked all the panellist for sharing their experiences and knowledge with all the participants.

thinkstep digital platform launch - 2019, proved to be a successful event fulfilling its purpose. The entire team of thinkstep expressed gratitude for the active participation of the sustainability leaders.

