



CIRCULAR ECONOMY SYMPOSIUM
(CES 2019) & INDIAN CIRCULAR ECONOMY
AWARDS (ICEA 2019)
PROCEEDINGS'

FICCI Quality Forum
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Conference Organizer

Federation of Indian Chambers of Commerce and Industry (FICCI)

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- Department of Science & Technology, Ministry of Science & Technology, Government of India
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Venue

FICCI, Federation House, New Delhi





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Background

The global economy stands at a critical crossroad today with an unprecedented volatility and supply-chain interruptions in critical and strategic materials leading to \$4.7 trillion loss in global economic growth by 2030, which could rise to \$25 trillion by 2050. This trend being unsustainable would deplete and degrade Earth's fragile ecosystem. Thus, sustainable development and resource circularity are inescapable necessities today.

In this context, adopting the principles of Circular Economy model would address wastage in all the above aspects along with decoupling growth from resource consumption. Circular Economy (CE) is an economic construct in which waste and pollution do not exist by design, products and material are kept in use and natural systems are constantly regenerated. CE fundamentally entails reorienting consumption through resource circularity by reusing and recycling waste and end of life products to create products, co-products and by-products of economic value.

With this background and considering the importance of the subject, the third edition of Circular Economy Symposium (CES) and first edition of Indian Circular Economy Awards (ICEA) was held at FICCI Federation House, New Delhi on 17 -18 June 2019 with the support of Department of Science & Technology (DST), Ministry of Science & Technology, Govt. of India and Ministry of Environment, Forest and Climate Change (MoEFCC), Govt. of India to mainstream discussions around Circular Economy in India.

Overview of the event

The two-day symposium brought together around 250 delegates from industry, start-ups, government and civil society showcasing innovative strategies and practices that will enable the Indian Economy to achieve sustainable economic growth through circularity.

The Day 1(Inaugural) of the symposium was opened by **Mr. Anirban Ghosh, Chair- FICCI Working Group on Circular Economy; Chief Sustainability Officer, Mahindra** who welcomed the delegates and guests on behalf of the entire working group who helped drive the agenda for the two-day symposium.

The inaugural was then proceeded with the Keynote address by **Mr. Amitabh Kant, Chief Executive Officer, NITI Aayog**. Mr. Amitabh Kant during his address underlined that fact that Circular economy has the potential to generate 1.4 crore jobs in the next 5-7 years and create lakhs of new entrepreneurs and resource circularity is need of the hour to implement circular economy. He also said that there is a need for legislation to promote the circular economy in the country. He also mentioned that by 2050 the world population would reach 9.7 billion and out of that 3 billion would be in the middle-class consumption level. This would require 71 per cent more resources per capita, thereby raising total mineral and material demand from 50 billion tonnes in 2014 to 130 billion tonnes in 2050.

Representing NITI Aayog, he also emphasized on the need to promote non-government organizations to spread awareness and develop a circular economy as national agenda. Applications of Industry 4.0 technologies and practices such as sustainable supply chain management, smart production systems, web





technologies, reverse logistics and additive manufacturing, all of them can be integrated with circular economy practices to establish a business model that reuses and recycles End of Life products, material and scrap. These new and smart technologies can be the foundation of the nation's Zero Defect and Zero Effect manufacturing agenda.

Felicitations of ICEA 2019:

During the inaugural right after keynote address, the winners of the Indian Circular Economy Awards were felicitated. The awards were curated to identify and reward organizations and individuals in India that have made notable contributions and brought in a change.

Applications across India were received under four categories namely Large enterprises, SME, Not for profit and start-ups. The winners were selected by the jury after comprehensive assessment of all the applications received across the categories supported by our knowledge partner Accenture Strategy. The Jury was chaired by Dr. Mukund Rajan, former Chief Ethics Officer, TATA Sons and comprised of Ms. Mridula Ramesh, Sundaram Textiles, Dr. Jyoti Parikh, Integrated Research for Action and Development, Mr. Kartikeya Sarabhai, Centre for Environment Education, Ms. Henriette Faergemann, EU Counsellor to India as members.

Announced one winner and one runner-up in each category as follows:

LARGE ENTERPRISE	
ACC Limited	Winner
Dell International Services India Pvt Ltd.	Runner - up
SMALL AND MEDIUM ENTERPRISES	
Geetanjali Woollens Pvt Ltd.	Winner
Ecoware Solutions Pvt Ltd.	Runner - up
NON-PROFIT	
Saahas	Winner
Govardhan Ecovillage	Runner - up
START-UPS	
Kabadiwalla Connect Pvt. Ltd.	Winner
Rapidue Technologies Pvt. Ltd.	Runner - up

Moving ahead, **Dr. Harry Lehmann, Federal Environment Agency, Germany** during his Special Address stated the fact that not everything can be recycled – only 70% on an average can be recycled and circularity in the systems (to be considered during design phase) at the moment is less than 8%. It is to be noted that circularity touches every sustainable development goal and there is an urgent need to work on the prolonged set human behaviours and the technologies/product are to be developed/designed





keeping in mind that they should be smart, circular and re-useable. In order to transform the society, systemic policies are to be looked at which requires joint action at regional and global level/s.

During his special address, **Mr. Carsten Grönblad, Trade Commissioner to India, Embassy of Sweden**, talked about incentivization and new opportunities lying around for businesses in the sector. He insisted on the fact that as global citizens, we share same challenge, but this also turns out to be a great opportunity for looking at cooperation from stakeholders both individual and corporates to be able to innovate and to look out at various business models to solve the underlying challenge.

The Day 1 also witnessed releasing of the FICCI-Accenture theme paper on **“Making Plastics Circular: Moving from Insights to Action”**. The highlights of the report are:

1. Currently, the on-going discussions are around plastic waste management which is an immediate priority. From targeting single use plastics to implementation of extended producer responsibility (EPR), government has made good progress.
2. However, there is a need to now shift gears and take a resource efficiency lens. Instead of just focusing on waste management, lets focus on the materials and design interventions upstream while accelerating efforts for right technologies downstream. In that context, a strong public-private collaboration underpinned by action on policy landscape, emerging technologies and appropriate funding is needed. We stand at a cusp of transition from current formative stage.
3. The paper has identified several recommendations for national and state governments, urban local bodies, MSMEs and startups and civil society. The call to action is to devise a plastic waste management roadmap that addresses the unique challenges of Indian context and incorporates the principles of circular economy.

Ms. Mridula Ramesh, Member of Jury – FICCI India Circular Economy Awards; Executive Director, Sundaram Textiles during her special address presented facts from a survey wherein an overwhelming majority (about 80%) of individuals were willing to pay more (between 2 -10%) for a green product that uses lesser water, is energy efficient and has recyclable packaging.

Vote of thanks and closing remarks were delivered by **Mr. Yogesh Bedi, Member FICCI Working Group on Circular Economy and Chief, TATA Steel Recycling Business** who appreciated and thanked everyone who worked behind putting up the symposium including partners and delegates and welcomed everyone to be a part of the discussions going forward.





Figure 1: (L-R) Deepa Chaudhary (FICCI), Mritunjay Kumar (FICCI), Archana Datta (FICCI), Carsten Grönblad (Embassy of Sweden), Anirban Ghosh (Mahindra), Dr. Harry Lehmann (Federal Environment Agency), Amitabh Kant (NITI Aayog), Mridula Ramesh (Sundaram Textiles), Vishvesh Prabhakar (Accenture), Sundeep Singh (Accenture), Yogesh Bedi (TATA Steel), Dilip Chenoy (FICCI)



Theme and focus areas

CES 2019 – an exclusive event in India, has an objective of mainstreaming Circular Economy Principles in Indian businesses for long term value creation, be it economic (extended value of products and materials for as long as possible) as well as environmental (minimizing waste generation and resource use).

The following sessions were organized based on their respective objectives and key take ways for the delegates:

1. SESSION - CIRCULAR ECONOMY: GLOBAL BEST PRACTICES

The session discussed the Circular Economy examples - how some of the global majors have successfully implemented new ideas, how some countries have created a very favourable business environment for circular business models and how some think tanks and NGOs are oiling the entire circular ecosystem to move ahead. The highlight here remained, case studies from Germany, Japan, Thailand and experiences from Latin America and the Caribbean. The session underlined on the importance of design in the circular economy whose development is not just looking into the whole circle but also treating each part as equally important. The objective was to highlight and provide a comprehensive understanding of the direction in which global leaders in Circular Economy are headed across globe and inspire action in India by setting benchmarks for to-be Indian circular vision.



Figure 2: Group Picture – Global Best practices: Circular Economy (L-R): Duangthip Chomprang (ITD Thailand), Dr. Chaiyod Bunyagidij (Thailand), Dr. Harry Lehmann (Federal Environment Agency, Germany), Hiroshi Tachikawa (Propharm Japan Co. Ltd.), Dr. Luz Maria Fernandis (UN Environment)

2. SESSION - TECHNOLOGY AS ENABLERS FOR CIRCULAR ECONOMY

The highlight of this session was showcasing and presenting a digital full-service waste and recycle enabling technology that focusses on sustainability by connecting generators, processors and recyclers and how digital technology can be leveraged to enable action amongst stakeholders. Any technology that assures 100 % transparency and traceability across supply chains would serve as a solution to enable the movement towards a circular economy. The idea of curating the session was to discuss how Technology (Physical, Biological & Digital) can enable the transformation towards a more sustainable circular economy. To further develop collective understanding ways in which Technology can foster efficient use and help closing the material loops e.g. by providing accurate information on the availability, location and condition of products, enables more efficient processes in companies. The Fourth Industrial Revolution (4IR) technology was identified as the key enabler of the circular economy along with the five enabling conditions for a scale up namely Standards and regulation, Change drivers, Data-enabled infrastructure, Investment, Innovation and entrepreneurship. Three imperatives for a successful transformation were flagged as: Digitize material flows, Join up solutions and Drive system leadership.



Figure 3: Group Picture - Technology as Enablers for Circular Economy (L-R): Aditi Namdeo (WEF), Dr. Rajesh Kumar Singh (Thinkstep Sustainability), Anirban Ghosh (Mahindra & Mahindra), Abhishek Deshpande (Recykal)

3. SESSION: INDUSTRY DEEP DIVES

The industry deep dives were planned for Day two to extensively discuss the circularity within the respective sectors to prioritize its adoption through the entire value chains.

a) Vehicle Dismantling & Recycling

Being a stern issue these days, India is facing a serious challenge to dismantle the end of use vehicle and there is an urgent need to address this challenge which is a part of trillion-dollar economy. Dismantling is a process which creates a lot of wastage and which is hazardous for the well-being. With Circular economy model, it would be easy to tackle this challenge and the model has the potential to stop the wastage.

We in India currently discard about 275 thousand tyres per day of which less than 40% is recycled legally. If the End-of-Life Vehicle policy is implemented with dated emission standards, about 22 million vehicles will be off road by 2021. Of this 80% will be two wheelers, 14% cars and about 3% each will be three wheelers and commercial vehicles. These End of Life vehicles present a huge business opportunity for growth, wealth creation and jobs. But at the same time the informal sector remains a social and environmental challenge due to inadequate implementation of pollution and occupational health guidelines.

There were many suggestions which came out from the session, but some of the most relevant points suggested by panelists are listed below:

- **Need to establish a Recycling park at one location.** End of life vehicle finds their way to unauthorized dealers currently with no check on it to resolve this, a model at one location could be tested where the aggregators could leave the end of life vehicle for the dismantling, dismantling centers then would collect and give that to the shredders and from there we could get good quality steel and same spare parts could go to the registered vendors.
- **Recognizing the informal sector and collaborating formal and informal.** The informal sector, which is currently unorganized, ambiguous alone cannot tackle the increasing demand for Recycling considering the volume today. Fiscal incentives could play a bigger role for Informal sector to take a quantum leap, reinvent & restructure themselves and move towards a mechanized space. Aspirations from ELV traders & workers, both organized and unorganized sector, must move together and collaborate for the upliftment of the entire sector.
- **Need for a single authority to manage taxation.** Another solution could be having a set GST and input tax credit on recyclable vehicles. One single authority within the government to deal with the challenges this sector is facing in terms of vehicle dismantling is the industry's demand for enabling transition.
- **Strong urge to move towards policy building.** Moving towards having a Material recycling policy can address a lot of challenges which the country is facing at the moment. Along with that, there is also a strong need to have mandates and centralized activities in place like de-regulation, de-



registration of vehicles especially if running in different states. Vehicle dismantling must be done with an equal and shared responsibility for which states could be the implementing agency.

- **Consumer awareness and Capacity building.** This is another aspect which could be a driving force in working towards reducing the challenges that lie ahead in the vehicle dismantling sector/formal recycling.



Figure 4: Group Picture – Industry Deep Dives: Vehicle Dismantling & Recycling (L-R): Zain Nathani (MRAI), Vijay Arora (Mahindra Accelo), Ruchika Govil (Ministry of Steel), Capt. NS Mohan Ram (TVS Motors), BB Singh (MSTC)

b) Circularity in Plastics & Packaging

Plastic has become an integral part of the value chain because of its user -friendly properties such as low-cost, light weight, high strength and durability. However, the raised demand for plastics has also raised concern over plastic waste management. Since end of life is a challenge- there is an urgent need to maximize utility, look at solutions to manage plastic waste including various circular economy business models. Following recommendations were given during the session:

- **Need for collaboration.** Collaboration amongst packaging industry in order to work towards minimizing packaging that is not required especially in the E-Commerce and food servicing businesses. The idea is to multiply impact through local and global partnerships.

- **Push towards recycling with the current technologies available.** With current technologies available, around 75% could be recycled which is not happening. Even the recyclable material is not getting recycled and there is a need to formalize the process and system.
- **Need for awareness creation and standardization of plastics.** Single use plastic is already banned in many states but there is no awareness about what exactly falls under the category and it's important to address and build capacities – no set standards available. It is also critical to build awareness and engagement (internal/external) of solutions for marine debris.
- **Engagement and collaboration across various stakeholders to look out at creating new business models.** There is a need to cultivate strong engagement with organizations to deliver more solutions and world class science for broader impact. Create new business models and policy levers to increase plastic recycling and to ensure recovery of value from waste.



Figure 5: Group Picture – Industry Deep Dives: Circularity in Plastics & Packaging (L-R): Amit Saha (PRO India), Dr. Rene van Berkel (UNIDO), Jaideep Gokhale (Tetra Pak), Milind S Chavan (Dow Packaging & Specialty Plastics)

c) Circularity in Building Materials

Construction and demolition waste is going to be a big challenge for the recycling industry. India's C&D sector is slated to be the third largest market in the world by 2025 with a market size of \$1 Tn, CE would help to cater those challenges which have been fiddled for many years.

The key recommendations that came out from the session are outlined below:

- **Regulations to encourage usage of C&D waste.** To introduce regulations to encourage individuals/groups to effectively use C&D waste as building material after recycling. Branding and labelling of the waste generated will promote effective usage and will help in balancing demand.
- **Ensuring integration of Circular Economy Aspects in Indicator Frameworks.** Promotion of Indicator Frameworks and Green Building Schemes – Showcasing & promoting positive examples and engaging market leaders, subsidize uptake of ratings in initial promotion phase to lower barriers, awareness raising, Public sector to lead by example through bonus systems & requirements in public tenders and stronger financial incentive system.



Figure 6: Group Picture – Industry Deep Dives: Circularity in Building Materials (L-R): Gaurav Bhatiani (IL&FS), VK Jindal (Ministry of Housing and Urban Affairs), Dr. Rachna Arora (GIZ), Srinivasa Desikan (UL)



- **Capacity at ULB level is required to tendering mechanism, business case of C&D plant.** The seriousness & emergency is not conceived in mind-set of ULB's.
- Increase use of Locally Sourced Resources & Vernacular Architecture.
- **Development of specific inventories & material catalogues** for all variations of available recycled building materials on a state level and norms and standards for all variations of recycled building materials based on functional criteria. Development of local inventory and database is required along with comprehensive norms and standards and information dissemination amongst all for the data that is already available.

d) Circularity in Textiles

India's apparel market is predicted to be the world's largest. The sector presents incredible opportunity especially for the private sector but not through business as usual approach but there is a need to look at models and various innovative technologies that is readily available with startups, entrepreneurs and others. It is to be noted that Circular innovations at critical points across the value chain are increasingly available and accessible yet not adopted by the industry. The reason being unwillingness of consumers, low risk appetites, lack of organization and maturing markets. MoEFCC has come up with a National Resource efficiency policy for all sectors which is slated to be released in 2019 and is currently in the draft stages. Setting up of a body including all stakeholders across sectors is also in process.

Few recommendations from the sector:

- **Industry-led, multi-sector collaboration & innovation are key to driving the circular economy.** The circular economy today presents a vast opportunity for the private sector, including industry, enterprises, and other key stakeholders. The discussion used case examples from the industry such as those of Reliance, H&M, and other brands to highlight the need to recalibrate business models and innovate on newer forms of engagement within and across the industry. This is critical for ensuring that the industry can collaborate seamlessly with innovators and enterprises to create a business case for transitioning from current industry practices to more sustainable and circular practices.
- **Policy efforts need to be focused on creating a regulatory framework for specific drivers of a circular economy.** The role of policy in driving industry transformation cannot be ignored, yet at the same time – the current policy landscape, while under transformation, is still not calling out explicitly for a circular economy in textiles and apparel. Interventions are required in specific areas like chemicals, renewable energy, microplastics, alternate materials, supply chain management, and other such issues.
- **An enabling policy environment needs to be created to further the circular economy agenda as a national policy with a robust regulatory regime.** Steps must be taken to understand various aspects of the supply chain and assess the kind of policy action that is required to inculcate more circular practices. There is a need to drive more policy innovation for a circular economy to prosper in textiles & apparel, with a focus on key policy instruments that would incentivize and regulate the industry.





- **Need for industry and policy to interact and work towards reducing material consumption and innovating on ways to design more circular products and services.** The industry is extremely heterogeneous in terms of prevalent material mixes, practices, technologies and products, and calls for streamlining.
- **Key policy instruments need to be used to develop a holistic and enabling environment for a circular economy to prosper.** These could be policies to support innovation and technology adoption, economic and financial incentives in the form of subsidies or concessions, regulative or instructive policies to drive down the shifts.
- **Green public procurement (GPP) could support the shift to a circular economy in textiles & apparel.** A green and sustainable public procurement policy specific to textiles and apparel could be helpful in enabling the transition at the lower levels of the supply chain as well. While there is currently a sustainable procurement policy in place within the purview of the Ministry of Finance, cross-industry GPP schemes could be a stepping stone towards driving a circular economy in the sector.
- **Need to build awareness and make the consumer & retail experience more circular:** Market surveys and industry reports indicate that there is a growing trend in consumption and retail due to the rise of a burgeoning middle-class with increased purchasing power. While this is an opportune moment in time, it has led to major problems in terms of waste, resource consumption, and the lack of an integrated system to take back waste material so it can be plugged into the production cycle again.
- **Need to focus on resource efficiency across life cycle stages with action being driven by both, policy makers and the private sector.** The environmental implications of textile production are very high, and there is a need for more resource efficiency driven by both private and public sector.
- **A regulatory body to oversee industry action towards a circular economy is necessary and requires collaboration with national & state level bodies.** Over the past two years there have been efforts to create a draft resource efficiency policy by MoEFCC that would mandate the creation of a regulatory body comprising representatives of ministries, state governments, as well as industry. This draft policy aims to minimize resource use and environmental impacts at each life cycle stage by adopting the concepts of resource efficiency and circular economy using one or more of the 6Rs principles.





Figure 7: Group Picture – Industry Deep Dives: Circularity in Textiles (L-R): Deepan Kannan (H&M), Dr. Divya Dutt (UN Environment), BN Satpathy (NITI Aayog), Dr. Bhawna Singh (MoEFCC), Deepak Goel (Geetanjali Woollens), Nikhil Deshpande (Reliance Industries)

4. SESSION: CIRCULAR CITIES

As engines for economic growth, cities can drive the circular economy agenda forward to unlock economic, environmental, and social benefits. Transition to a Circular Economy in cities will support SDGs, climate objectives, and Swachh Bharat Mission, in addition to the housing, mobility, and economic development. The objective of this session was to discuss the progress made at cities level with their strategy on resource efficiency, and Circular Economy, challenges faced and way forward. It was rightly highlighted during the session that the time has come for service industries and the built environment sector to embrace new principle around design, construction and operations of assets and components. We need to consider the circularity approach at each level of an asset life, right from the beginning, from the planning stage through design, construction, operation and end of current life. In the said scenario, Data and new technology and Systems of production and consumption could be considered as enablers to achieve the objective. Few underlined conclusions from the session:

- We must change the current approach to circular economy in the built environment
- We must consider circular economy of *assets, components and materials*
- Let's move from a circular economy to several *circular economies*
- Influencing circularity is dependent on the *stage of the asset* or infrastructure lifecycle
- Assets need to be valued in their subsequent lives which requires a *new marketplace*



- *Alliancing* is crucial to driving greater degrees of circularity – but leadership from asset owners and cities is fundamental.



Figure 8: Group Picture – Circular Cities (L-R): Davide Stronati (Mott MacDonald), Sanskriti Menon (CEE), Prabhat Kumar (EESL)

5. VALEDICTORY SESSION

Professor Ashutosh Sharma, Secretary, Department of Science and Technology, Ministry of Science & Technology, Government of India, stated in his valedictory address, "Recycling does not only make sense in terms of societal well-being of the future generations but there ought to be good business models that produce opportunities even for the present generation which we are not addressing right now." He further said that the country needs to identify those business models that offers opportunities to the current generation as well. Even the technology, which may have been developed in advanced economies, need to factor in the peculiarities of India. We need to think about the global aspect, but we also need to think about what's unique about India and in every technology that we put up there to develop, we need to factor in the uniqueness of India, he added. Also, stating the need to find the India-centric use of the technologies to deliver goods and services that we cannot deliver today using traditional means which means meeting the unmet demands of people who have not been reached today. He also mentioned that the Department of Science and Technology (DST) has come out with several schemes in the last 4-5 years that encourages sustainable development pointing out another important aspect about data – which he

said is as important as the machine or the algorithm and that the country needs to figure out how to collect and use this raw material.



Figure 9: Group Picture – Valedictory: Kartikeya Sarabhai (Centre for Environment Education), Anirban Ghosh (Mahindra & Mahindra), Prof. Ashutosh Sharma (Dept. of Science & Technology), Arvind Bodhankar (Ultratech Cement), Dilip Chenoy (FICCI), Nirankar Saxena (FICCI)



Conclusion and Recommendations

Businesses, across various sectors, require a switch from the traditional take-make-dispose model of growth to the circularity model. There is a huge value opportunity that lies when we go into the alteration from reduction of waste towards monetization of waste. Stakeholder collaboration at all levels is extremely vital to achieve the procurement cost control (with a flavor of innovation) in the entire value chain when we talk about redesigning and product development.

The grand discussions across both the days coerced into some incredible recommendations from the brilliant minds present: CE is way more than just recycling, components of a CE are centered on the '6Rs' of reduce, reuse, recycle, recover, redesign and re-manufacture, resource circularity is the key technology innovation that would reignite life in end of life products, the circular economy is structured to improve resource circularity and natural resource efficiency and so on. An annual incremental increase of 5% in achieving resource circularity through recycling alone of major commodities such as ferrous and nonferrous metal, construction and demolition waste, e-waste, paper, plastic and gas alone to generate 1.3 to 1.4 crore jobs, several lakhs of entrepreneurs, infuse about Rs 10 lakh crores and reintroduce upwards of 770 MMT of material into the economy apart from massive saving in energy and water use, huge reductions in GHG emissions and release of several hectare of landfills for more productive pursuits over 5 to 7 year time horizon.

The industry is beginning to embrace the idea that today's wastes are tomorrow's feedstocks and that an economy that circulates its resources continuously leads to cleaner environments, cost saving, waste prevention, job creation, innovation, inventors and entrepreneurs and a new breed of business start-ups. It is high time for industry to study the prospects that circular economy offers and develop sound business models for resource circularity of materials. It is time for India to explore the possibility of enacting an empowering legislation for promotion of the circular economy to achieve the objective of sustainable, stable and secure progress of the nation and prosperity of its peoples.





About the organizer

FICCI is the voice of India's business and industry. Established in 1927, it is India's oldest and largest apex business organization. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies. FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

This symposium was organized by FICCI Quality Forum (FQF), a specialized division of FICCI working in the areas of Quality and Environment Management including Climate Change and Sustainable Production and Consumption (SCP). To facilitate Indian industry, keep abreast of latest developments in its domain, FQF constantly strives to organize Scientific Symposiums and Business Seminars on topics of contemporary relevance. In environment space, FQF is currently working on projects to mainstream Life Cycle Thinking and Sustainable Consumption Production (SCP) in India through capacity building programmes, symposium and support to pilot projects.





Annexure I- Agenda

Day 1: 17 June (Monday)	
13:00 – 14:30	Welcome Lunch & Registration
14:30 – 15:45	<p>Inaugural Session: Transitioning towards Circular Economy: Progress so far and opportunities ahead & India Circular Economy Awards Ceremony</p> <p><u>Objective:</u> Set the context for the 1.5-day event. Will begin with short inaugural address from senior officers from government, and Industry leaders and close with launch of position paper & presentation of Awards. Overarching aim is to make industry aware that CE goes beyond waste recycling by creating business and societal value from efficient and circular use of natural resources, build a case for its adoption and call upon stakeholders for joint action.</p> <p><u>Expected Takeaway:</u> Appreciate the macro challenges posed by country's business as-usual resource-intensive growth model and view CE paradigm as a potential solution.</p>
14:30 – 14:35	<p>Opening Remarks</p> <p><i>Mr. Anirban Ghosh, Chair- FICCI Working Group on Circular Economy; Chief Sustainability Officer, Mahindra</i></p>
14:35 – 14:45	<p>Special Address</p> <p><i>Dr. Harry Lehmann, Federal Environment Agency, Germany</i></p>
14:45 – 14:55	<p>Special Address</p> <p><i>Mr. Carsten Grönbald, Trade Commissioner, Embassy of Sweden.</i></p>
14:55 – 15:15	<p>Keynote Address</p> <p><i>Sh. Amitabh Kant, CEO, NITI Aayog, Government of India</i></p>
15:15 – 15:25	<p>India Circular Economy Awards Felicitation Ceremony & Release of FICCI Knowledge paper on "Making Plastics Circular: Moving from Insights to Action"</p>
15:25 – 15:35	<p>Special Address</p> <p><i>Ms. Mridula Ramesh, Member of Jury – FICCI India Circular Economy Awards; Executive Director, Sundaram Textiles</i></p>
15:35 – 15:40	<p>Closing Remarks & Vote of Thanks</p> <p><i>Mr. Yogesh Bedi, Chief, TATA Steel Recycling Business</i></p>
15:40 – 15:45	<p>Presentation of Key findings from the Theme Paper</p>
14:45 – 16:15	Networking Tea
16.15 – 17.15	<p>Session 1: Circular Economy - Global Best Practices</p> <p><u>Objective:</u> To discuss state-of-art Circular Economy practices and business examples – how some of the global majors have successfully implemented new ideas, how some countries and cities have created a very favorable business environment for circular business models and how some think tanks and NGOs are oiling the entire circular ecosystem to move ahead.</p>





	<p>Expected Takeaways: Bring to life the theoretical concept of CE, a comprehensive understanding of the direction in which global leaders in Circular Economy are headed and inspire action in India by setting benchmarks for to-be Indian circular vision.</p> <p>Chair: Dr. Harry Lehmann, General Director, Federal Environment Agency, Germany</p> <ul style="list-style-type: none"> a) Dr. Luz Maria Fernandis, UN Environment b) Mr. Hiroshi Tachikawa, Propharm Japan Co. Ltd. c) Dr. Chaiyod Bunyagidij, Thailand d) Ms. Duangthip Chomprang, ITD Thailand
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Day 2: 18 June (Tuesday)

09.15 – 09.30	Networking Tea
09:30 – 10:30	<p>Session 2: Technology as enablers for Circular Economy</p> <p>Objective: To discuss the how Technology (Physical, Biological & Digital) can enable the transformation towards a more sustainable circular economy.</p> <p>Expected Takeaways: Collective understanding ways in which Technology can foster efficient use and help closing the material loops e.g. by providing accurate information on the availability, location and condition of products, enables more efficient processes in companies.</p> <p>Chair: Mr. Anirban Ghosh, Chief Sustainability Officer, Mahindra & Mahindra</p> <ul style="list-style-type: none"> a) Ms. Aditi Namdeo, Center for the Fourth Industrial Revolution India, WEF b) Dr. Rajesh Kumar Singh, Thinkstep Sustainability Solutions Pvt Ltd. c) Mr. Abhishek Deshpande, Recykal
10:30 – 13:00	<p>Session 3: Industry Deep Dive session</p> <p>Objective: To discuss Circular Economy examples – Indian context and sharing business challenges and understanding the capabilities required for the future to successfully implement new ideas keeping in mind the circular business models.</p> <p>Expected Takeaways: Business case for adoption of CE in the industry exists, discuss and prioritize industry-level action points and bring practical solutions to forum covering spectrum of CE approaches, including materials selection, efficient use and recovery;</p>
10:30 – 11:30 (in parallel)	<p>1. Vehicle Dismantling & Recycling (commission hall 3rd Floor) Chair: Ms. Ruchika Govil, Joint Secretary, Ministry of Steel</p> <ul style="list-style-type: none"> a) Capt. NS Mohan Ram, TVS Motors b) Mr. BB Singh, MSTC c) Mr. Vijay Arora, Mahindra Accelo d) Mr. Zain Nathani, MRAI <p>2. Circular Plastics & Packaging (conference hall 2nd Floor) Chair: Dr. Rene van Berkel, UNIDO Representative, Regional India office</p> <ul style="list-style-type: none"> a) Mr. Jaideep Gokhale, Tetra Pak b) Mr. Milind S Chavan, Dow Packaging & Specialty Plastics c) Mr. Amit Saha, PRO India
11:30 – 12:00	Networking Break





12:00 – 13:00 (In parallel)	<p>3. Circular Textiles (conference hall 2nd Floor) Chair: Mr. BN Satpathy, Advisor, NITI Aayog</p> <ul style="list-style-type: none"> a) Mr. Deepan Kannan, H&M b) Mr. Nikhil Deshpande, Reliance Industries Ltd. c) Mr. Deepak Goel, Geetanjali Woollens Pvt. Ltd. d) Dr. Bhawna Singh, MoEFCC e) Dr. Divya Dutt, UN Environment <p>Technical Partner: Circular Apparel Innovation Factory</p> <p>4. Circularity in Building Materials (commission hall 3rd Floor) Chair: Sh. VK Jindal, Joint Secretary, Ministry of Housing and Urban Affairs</p> <ul style="list-style-type: none"> a) Dr. Rachna Arora, GIZ (EU-REI) b) Mr. Srinivasa Desikan, UL c) Mr. Gaurav Bhatiani, IL&FS
13:00 – 14:00	Lunch Networking Break
14:00 – 14:45	<p>Session 4: Recommendations and way forward from 4 parallel deep dive sessions Objective: Moderators from the parallel deep dive sessions present the key challenges and recommendations on advancing Circular Economy and Resource Efficiency at a National level. Chair: Mr. Arvind Bodhankar, Joint Executive President, Chief Sustainability Officer, Ultratech Cement</p>
14:45 - 15:15	Networking Break
15:15 – 16:00	<p>Session 5: Circular Cities Objective: As engines for economic growth, cities can drive the circular economy agenda forward to unlock economic, environmental, and social benefits. Transition to a Circular Economy in cities will support SDGs, climate objectives, and Swachh Bharat Mission, in addition to the housing, mobility, and economic development. The objective of this session is to discuss the progress made at cities level with their strategy on resource efficiency, and Circular Economy, challenges faced and way forward. Chair: Ms. Sanskriti Menon, Programme Officer – Circular Cities, Centre for Environment Education</p> <ul style="list-style-type: none"> a) Mr. Davide Stronati, Mott MacDonald b) Mr. Prabhat Kumar, EESL
16:00 – 17:00	<p>Valedictory session: Call for Action -Enabling Circular Economy through Innovation and Technology Objective: Conclude the deliberations during the symposium. Committee member to share the summary of key take-aways and call for action pointers. Expected Takeaways: CE is the way forward and as India enters fast economic growth phase, the time for integration of CE mindset is now. Industry-specific learnings which participants can take back to their respective organizations and play the role of Circular Economy champions and a Way forward with National Agenda on enabling Circular Economy through Innovation and Technology.</p>
16:00 – 16:05	Mr. Arvind Bodhankar, Joint Executive President, Chief Sustainability Officer, Ultratech Cement





16:05 – 16:15	Mr. Kartikeya Sarabhai, Member of Jury - FICCI India Circular Economy Awards; Director, Centre for Environment Education
16:15 – 16:30	India Circular Economy Award Winners & Runner ups Presentation
16:30 – 16:50	Valedictory Address Prof. Ashutosh Sharma, Secretary, Department of Science and Technology, Ministry of Science and Technology, Government of India
16:50 – 17:00	Closing Remarks & Vote of Thanks Mr. Anirban Ghosh, Chair- FICCI Working Group on Circular Economy; Chief Sustainability Officer, Mahindra

