



European Union – Resource Efficiency Initiative Phase II (2021 – 2023)

Reva Prakash
Deputy Team Leader, EU-REI
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EU Resource Efficiency Initiative (EU-REI)



Foster the efficient and sustainable use of natural resources in India

<u>Result 1</u> Assessment of India's current and future use of resources	<u>Result 2</u> Partnerships and Networking Partnerships facilitated between European and Indian businesses and stakeholders on resource efficiency in sectors of interest	<u>Result 3</u> Awareness Raising and Promotion of Best Practices among key government and non-governmental organizations, business, students, media and the general public
Capacity development, Promotion of Standards, business models, support policy and fiscal measures		

Implementing Partners: the Ministry of Environment, Forest and Climate Change; NITI Aayog

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



1 draft National Policy on Resource Efficiency (RE) (MoEFCC, July 2019)

1 National RE Strategy (Niti Aayog, GoI)

Focusing on

- Institutional Development with 9 Ministries/Departments
- Action Plan till 2020

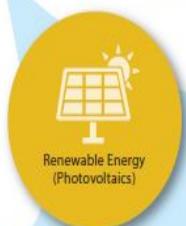
4 Sectoral RE Strategies

- Ministry of Mines
- Ministry of Steel
- Ministry of Housing and Urban Affairs
- Ministry of Electronics & Information Technology

- **3000** people outreached through events
- **4** awareness campaigns launched
- **11** EU Member States Embassies supported for collection of e-waste
- **3** Business Partnerships on EU-India Business cooperation

Focus Areas

The selected sectors are:



Renewable Energy (Photovoltaics)



Mobility (Electric and Hybrid Vehicles)



Building / Construction

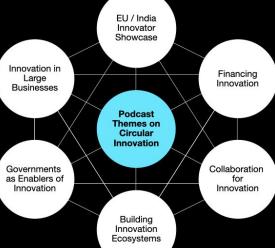


Waste (with Focus on Extended Producer Responsibility)



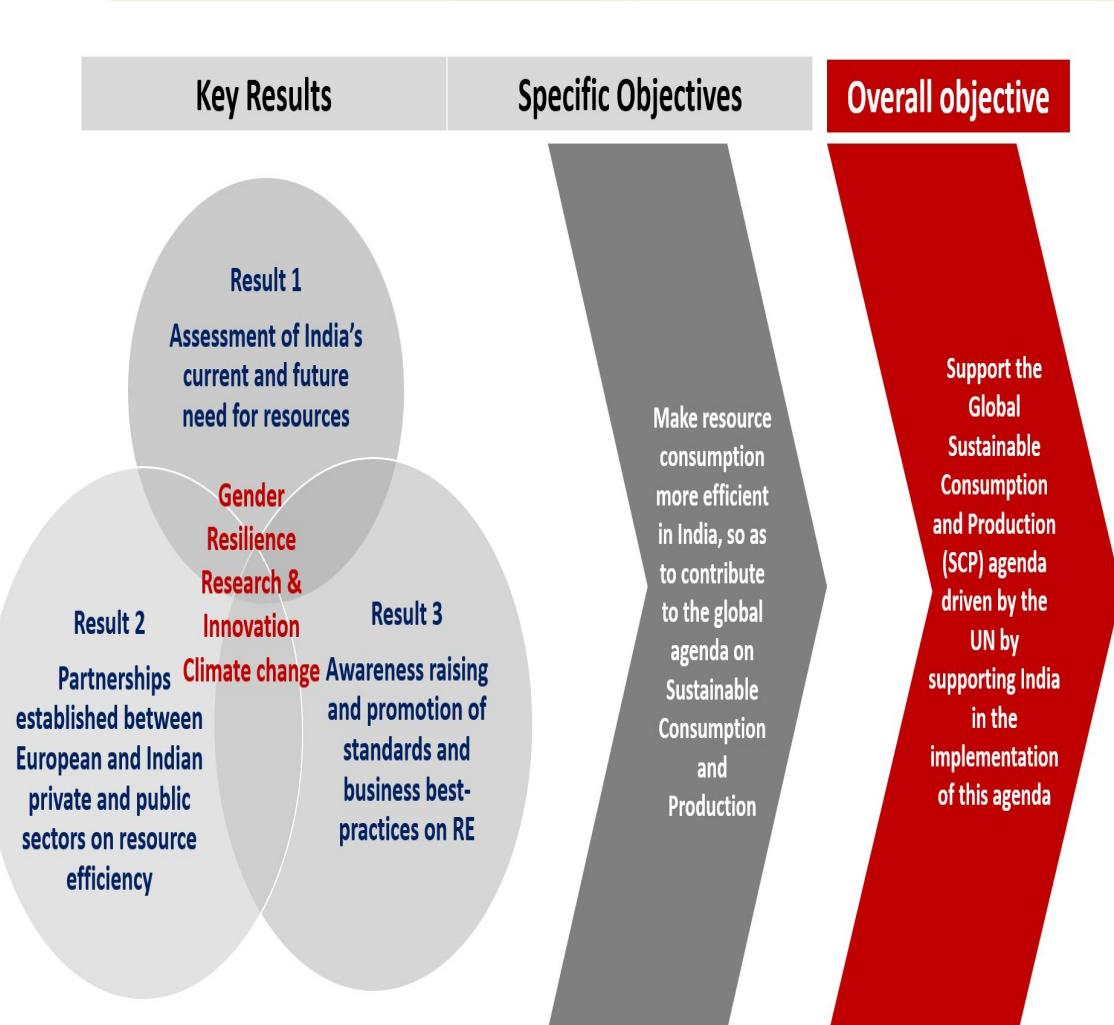
INNOV8IVE!

A deep dive into innovating for a circular economy





EU Resource Efficiency Initiative (REI) - II



- RE-Phase II commissioned by the EU to an international consortium - GIZ, TERI, CII and adelphi
- Mode of cooperation: EU-Partnership Instrument (PI)
- Project duration: 3 years (01/2021 – 12/2023)
- Implementing partner/s
 - Key: Ministry of Environment, Forest and Climate Change
 - Other: NITI Aayog & its CE committees, MeitY, MoM, MoS, selected states



EU-India Partnership for Circular Economy & Resource Efficiency

Supporting Policy Development & Implementation of Resource Efficiency

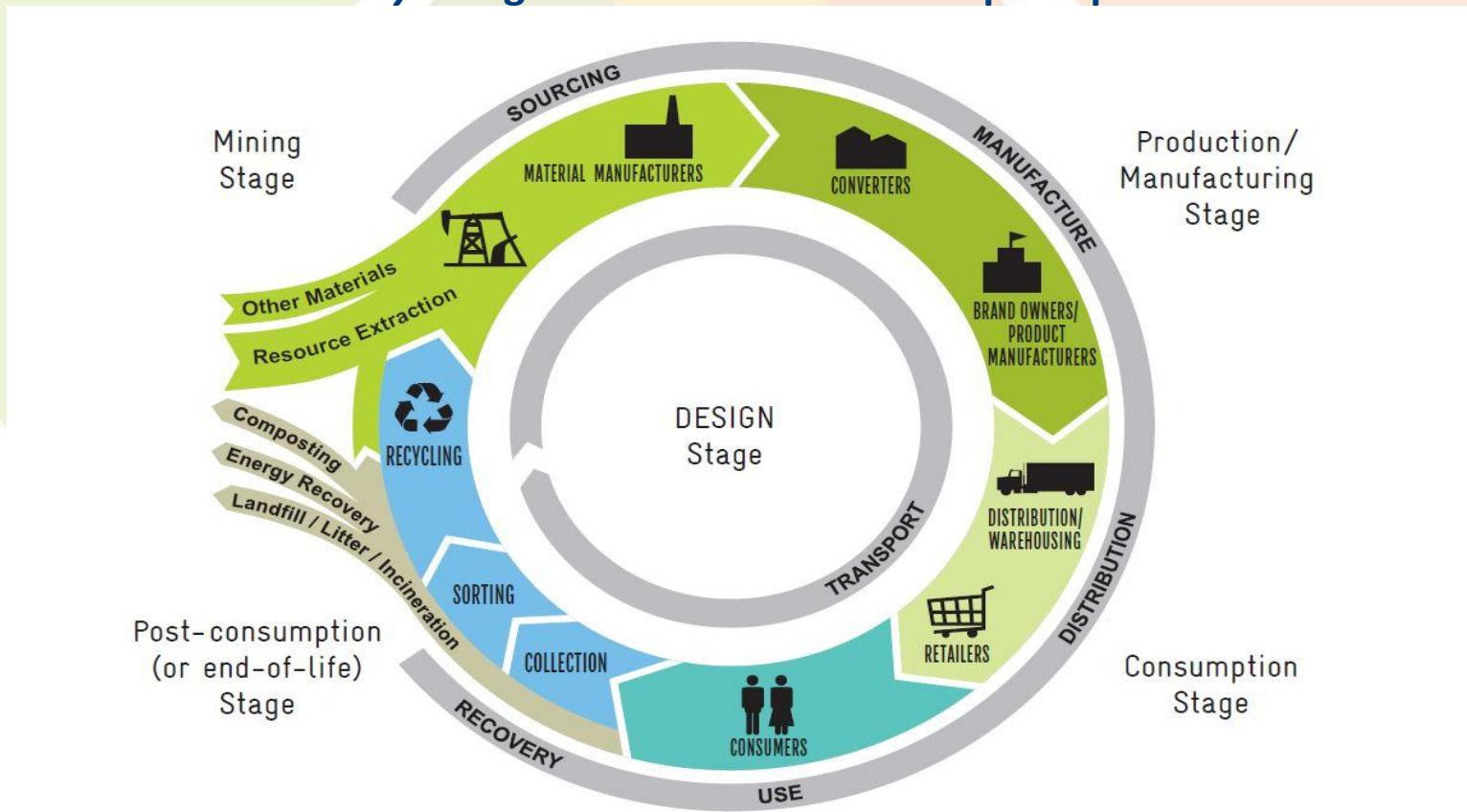




Life cycle Approach to RE and Circular Economy

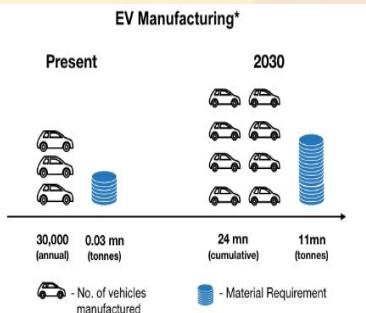
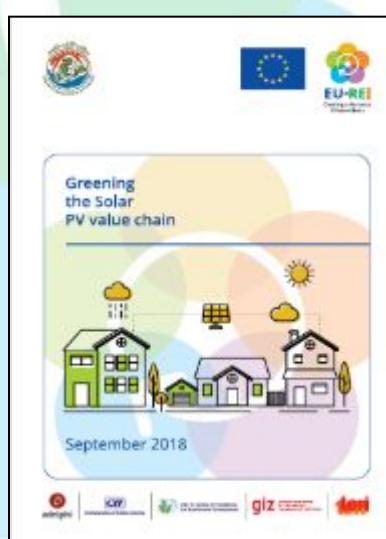
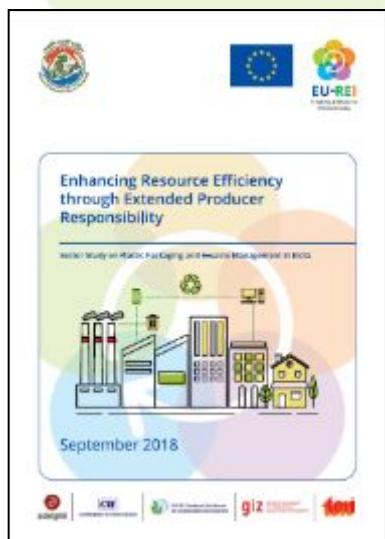
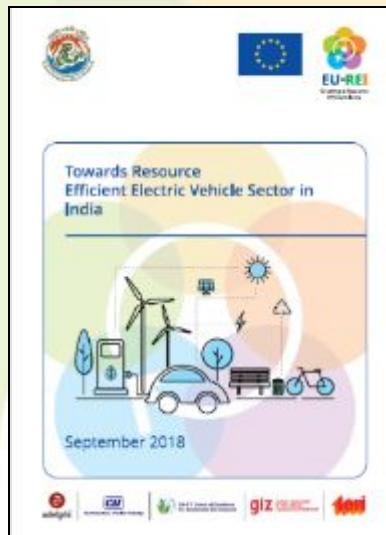
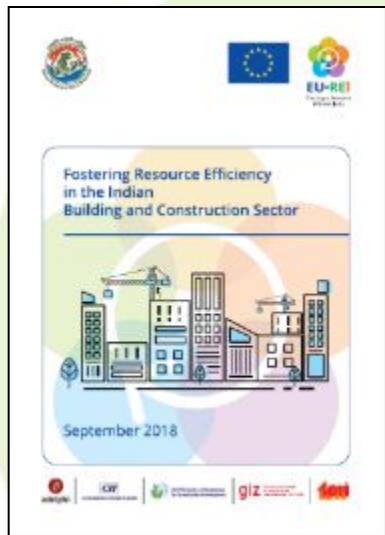


Minimize the resource use and environmental impacts at each life cycle stage by adopting the concepts of resource efficiency and circular economy using one or more of the 6Rs principles





Sectoral Assessment Studies



At its core, four recently developed studies recommend potential areas for policy innovation to foster resource efficiency in the four target sectors



EU-REI: EU and India Partnership: RE Strategy with NITI Aayog



- NITI Aayog and EUD release the Resource Efficiency Strategy in Nov 2017
- Status Paper and four RE Sectoral Strategies released in Jan 2019
- Due support for implementation from REI



Mr Tomasz Kozlowski and Mr Ratan P. Watal, releasing the Status Paper on Resource Efficiency and Circular Economy in Jan 2019

- Interdepartmental Committee of 9 key ministries
- RE Task Force of Experts
- Capacity Development RE and Circular Economy in 3 states held at Odisha, Telangana and Goa
- RE & CE Strategy initiated for development in Telangana and Goa
- Goa RE Strategy released in February, 2020



Mainstreaming RE & CE in Policy and Sectoral Areas



NITI Aayog



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Strategy on Resource Efficiency



November 2017

National Resource Efficiency Policy, 2019 (Draft)

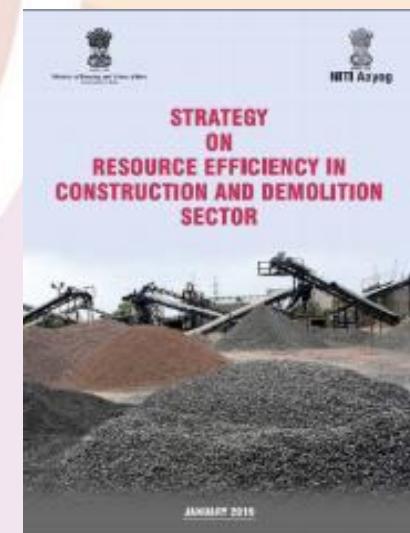
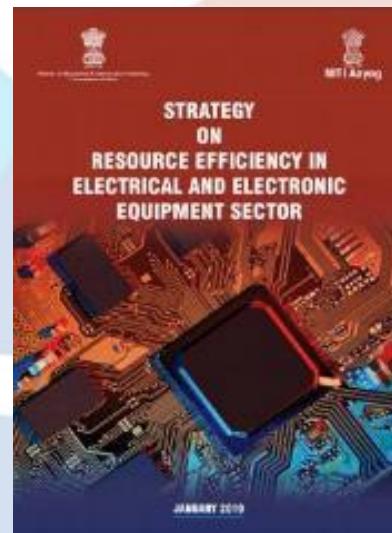
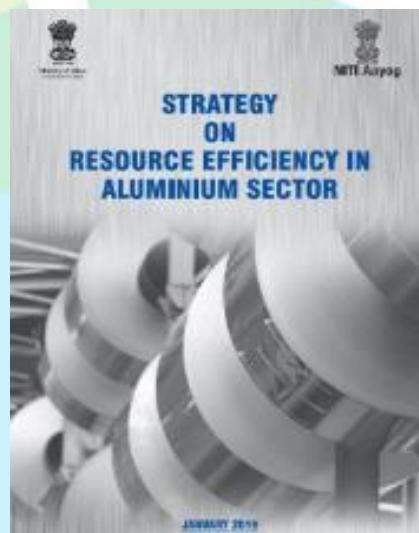
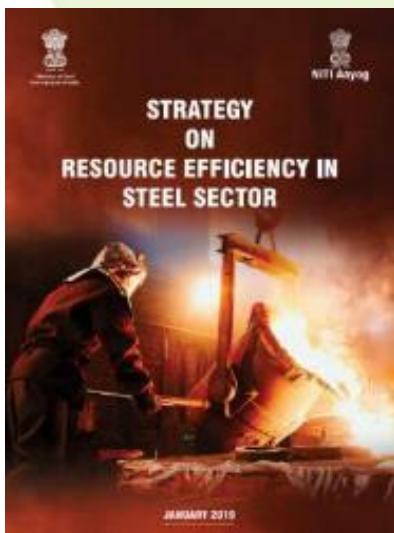
- Charting Resource Efficient Future for Sustainable Development



Ministry of Environment, Forest and Climate Change
Government of India

NITI Aayog and Mo/Steel, Mo/Mines, MoHUA, MEITY release

- Strategy on RE in Steel Sector
- Strategy on RE in Aluminium Sector
- Strategy on RE in EEE Sector
- Strategy on RE in C&D Sector

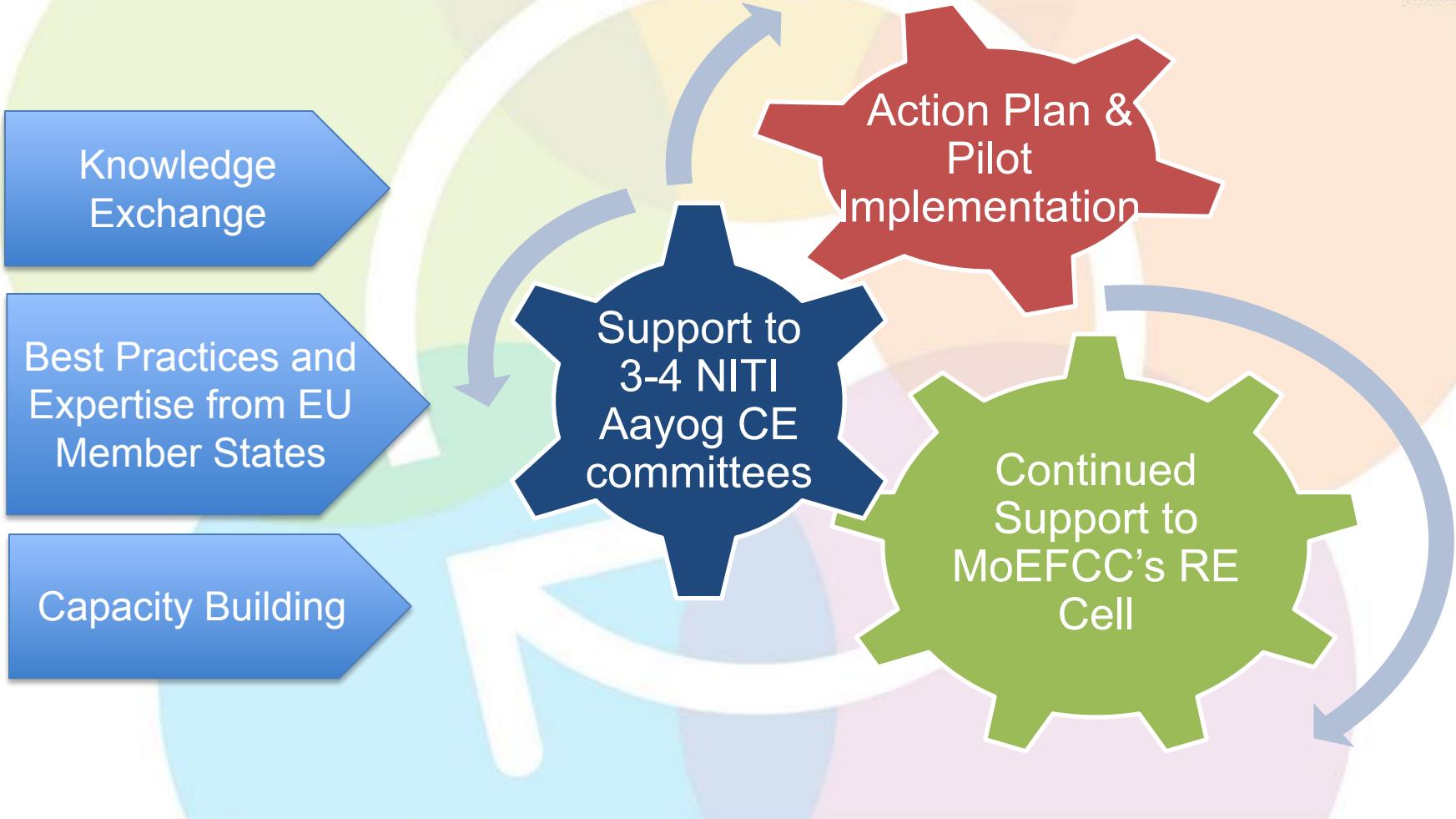


CII-ITC Centre of Excellence
for Sustainable Development



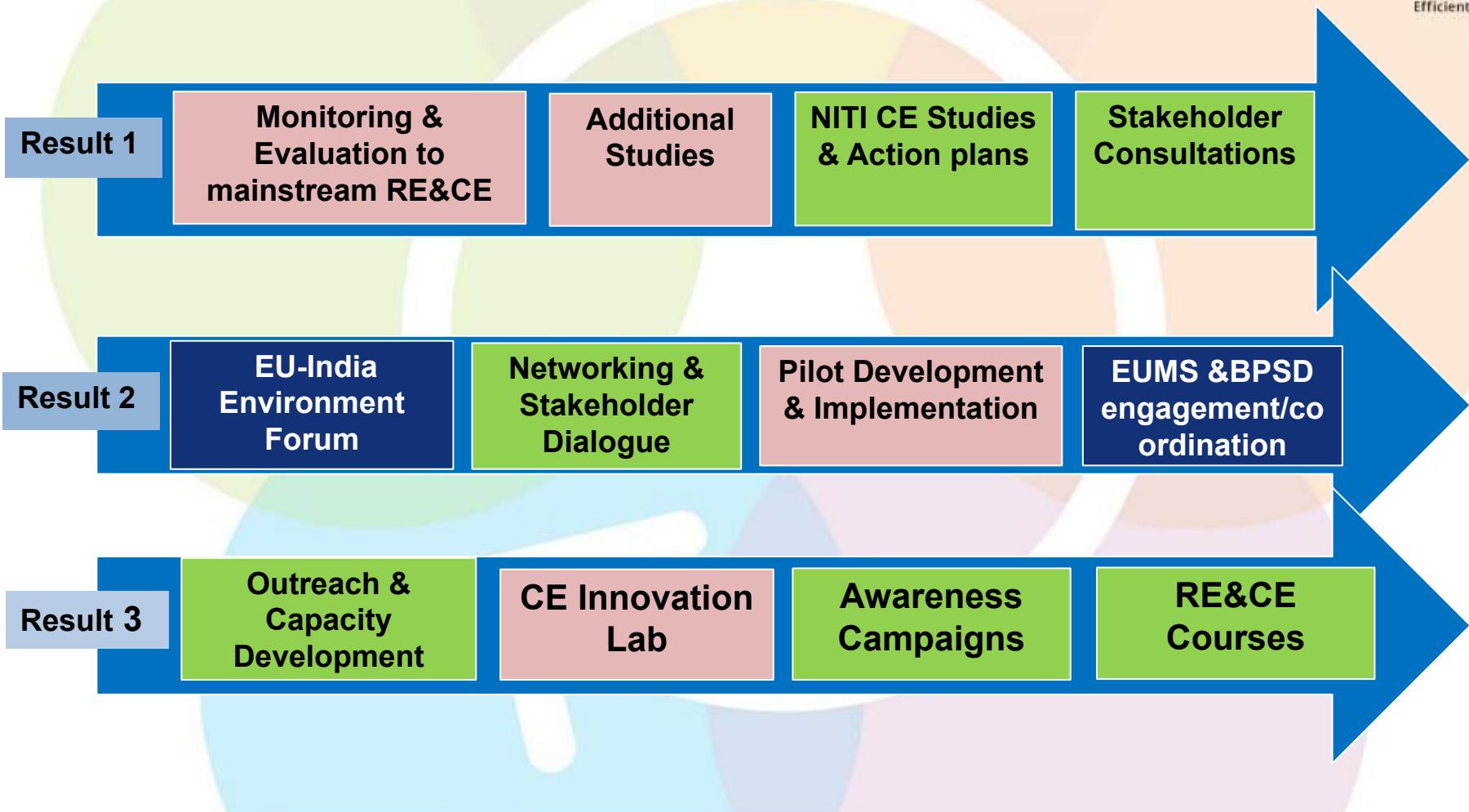


Continued Mainstreaming of RE&CE & Leveraging Partnerships





Overview of Results & Key Milestones for entire project duration





Overview Result 1: Key Activities



Monitoring & Evaluation to mainstream RE&CE across sectors

- Support for development of voluntary M&E Framework for Indian Industry by FICCI

Demand based
MoEFCC+ NITI
Aayog CE
Committee

Studies & Action Plans:
Circular Economy Assessment of
Textile Sector (focused on MSME)

Result 1

Assessment of Resource Use & Its Impact

Stakeholder Consultations

Stakeholder Consultation for Needs Assessment with ACMA members

3 stakeholder awareness workshops with FPOs on material value chain (AS 10) (December 2021 – February 2022)

Stakeholder Consultation for Needs Assessment with academics and architects

Additional Studies

Support to EU SME ECOR

Support to RECE Cell for Policy Dialogues

Building of Team EU Approach on RE&CE

Pre-feasibility study for Rajasthan's Waste Recycling Park

Subscription and Lease Models MeitY

Circular Ceramics LCA and Marketing Strategy



Overview Result 2: Key Activities



Support to MoEFCC & RECE Cell Operational Plan with 5 broad activity areas

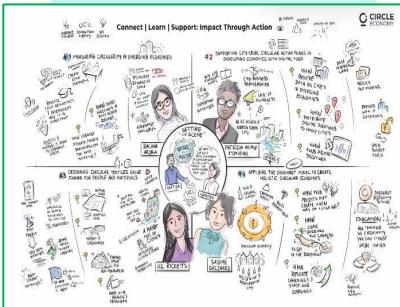
Dialogue between EU and Indian Stakeholders

- Support for NITI Aayog CE Committees and Sectoral Ministries
- Mapping of EUMS Actions and designing of activities
- EU-India Environment Forum

Result 2

Partnerships between EU and Indian Stakeholders

Pilot Development & Implementation



Workshops, Exchanges and Speaker events

Workshops, Exchanges and Speaker events

- Webinar on RE&CE Standards with EU-SESEI (January 2022)
- Webinar on Ecolabeling with EU-SESEI, ECOS (December 2022)
- CII Sustainability Summit Sessions with EU-India Participants;
- FICCI Circular Economy Symposium



Pilot Measure: Upcycling Discarded Fishing Nets in Goa



- Upcycling of Discarded Fishing nets to support the implementation of RE Goa Strategy**
 - Engagement with local fisher-folk community in three fishing villages
 - Reconnaissance study findings – annually ~21,468 kg of discarded fishing nets generation; Hand-made artefacts using discarded fishing nets were designed and training was given to fisher-folk on upcycling of abandoned fishing nets
 - Approximately, 550-600 kg of fishing nets is used by the fishermen in the three villages namely, Siridao, Cacara, and Odxel
- Scaling up for setting up of a collection mechanism for discarded fishing nets**
 - In consultation with Goa State Pollution Control Board and Goa Fisheries Department
 - Target - 2 fish landing sites and 3 fishing villages. To potentially benefit ~12,215 fishermen and allied workers.
 - Ongoing discussions with a German and French start-up for pilot collection through digital Deposit Refund Scheme





Pilot Measure - Circular Ceramics



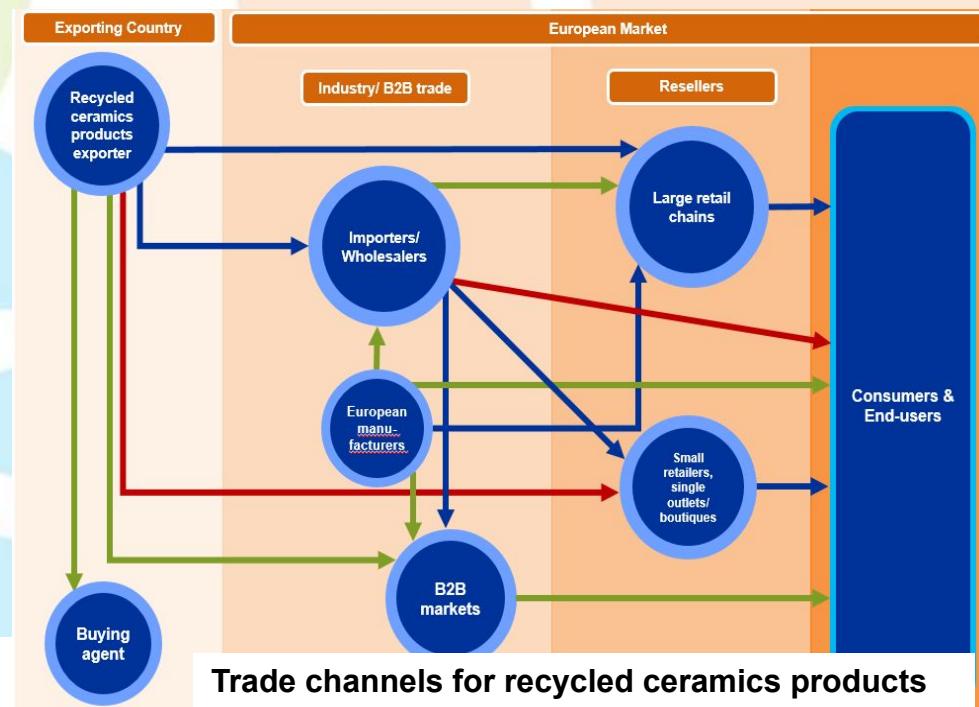
Background

- Earth Tatva uses 60% of post-industrial landfilled ceramic rejects to make food safe and 35% stronger ceramic wares that are 100% recyclable
- Offers green mealing and green building solutions
- exemplary case of an entrepreneur within the area of circular ceramics and building materials



Objective

- Supporting CE Start-up to Scale-up Impact :
- Route-to-market for opportunities of recycled ceramics in EU markets
 - Assessment of lifecycle benefits of recycled ceramics
 - Raising awareness about the value-added of circularity among consumers and entrepreneurs





Pilot Measure: Supporting Development of Waste Recycling Park



Objective

- ~44 hectares in Tholai Industrial Area, Jaipur
- Being undertaken by Rajasthan State Pollution Control Board and Rajasthan Industrial Development and Investment Corporation
- Selected waste streams: plastic waste, e-waste, hazardous waste, waste from PV panels and storage batteries, metal scrap, and EOL vehicles

EU-REI Support:

- Prefeasibility Study for the Waste Recycling Park
- Study on Benchmarking of Best Practices for Eco-Industrial Park
- Zoning and Master Planning for the Waste Recycling Park to be undertaken

Pre-feasibility Study – Key considerations and proposals

- The study provided evaluation criteria for recyclers of different waste streams within the proposed WRP/RRP, including overall rating criteria for technologies to be adopted by the recyclers
- Environmental considerations included, water, wastes (including solid and liquid wastes), land, air, and socio economic and health environment and green buildings for convention centres, guest houses, etc.
- The social criterion included amenities imperative for the local people and potential employees (e.g. transportation, public conveniences, complementary nature of business operations, training facilities)
- Economic considerations include efficient connectivity and transport linkages for material procurement across for waste processing, common infrastructure including system for supply of water, heat, power, gas, communication cables, etc.,



Overview Result 3: Key Activities



Outreach & Capacity Development

- **3 Repair Cafes** for Oxygen Concentrators (focus on Decentralised Manufacturing and Building Resilience) (September – December 2021)
- **SDG-12 Challenge – Make For Goa** (focus on discarded fishing nets, alternatives to single use plastics, textile waste, circular design, sustainable construction) (April 2022)
- **RE&CE Training Toolkit prepared for ACMA** and ToT sessions undertaken (May 2022)



Result 3

Awareness Raising on RE and CE

Setting up of a RE&CE Innovation Lab



Educational course/ awareness campaigns

- **RE&CE course for architects with Council of Architecture**
- **RE&CE Training Programme for Youth, and Women Entrepreneurs (IYCN)**
- **E-waste Collection Drive in 2022**



Resilience and Circular Economy



- Extension of Product life through repair of oxygen concentrators in Goa (with Makers Asylum)

MAKER'S ASYLUM

EUROPEAN UNION

EU-REI
Creating a Resource Efficient India

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

M19 COLLECTIVE

HOW TO REPAIR OXYGEN CONCENTRATORS #RighttoRepair

Join us for the virtual exchange on why are we repairing oxygen concentrators in India and how makerspaces & fablabs can become great conduits in the right to repair movement!

Come join us as we share and exchange what we have learnt in the last couple of months on decentralised manufacturing and results of open innovation, especially in the context of Medical Grade Equipment.

Date : 10th December 2021
Time : 1-2 PM CET | 5.30 - 6.30 PM IST
For : Makerspaces, Fablabs, Open Community Hubs and Individuals
Format : Online over Zoom

Technical Guide to Repairing Oxygen Concentrators

MAKER'S ASYLUM



