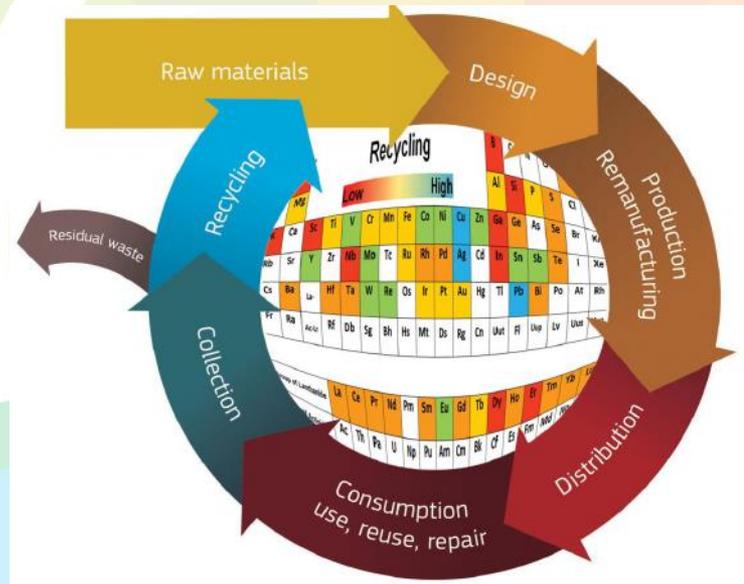




Idea → Policy → Action



Dr. Dieter Mutz, Team Leader EU-REI

Chennai, November 29, 2019



Prosperity in e-Waste



- E-waste is one of the world's fastest growing waste streams, **amounting to some 41.8 million tonnes globally in 2014**
- **Considerable secondary value** as it contains a range of precious materials, such as gold, copper, rare earth metals and miscellaneous plastic contents
- Global intrinsic material value of e-waste is estimated at about **48 billion EUR**



But:

- **Recovery** is complex
- Mismanagement of e-waste is associated with **negativ impacts** on human health and the environment



Sources: http://www3.weforum.org/docs/WEF_A_New_Circular_Vision_for_Electronics.pdf
<https://www.itu.int/en/ITU-D/Climate-Change/Documents/GEM%202017/Global-E-waste%20Monitor%202017%20.pdf>





EU Resource Efficiency Initiative (REI)



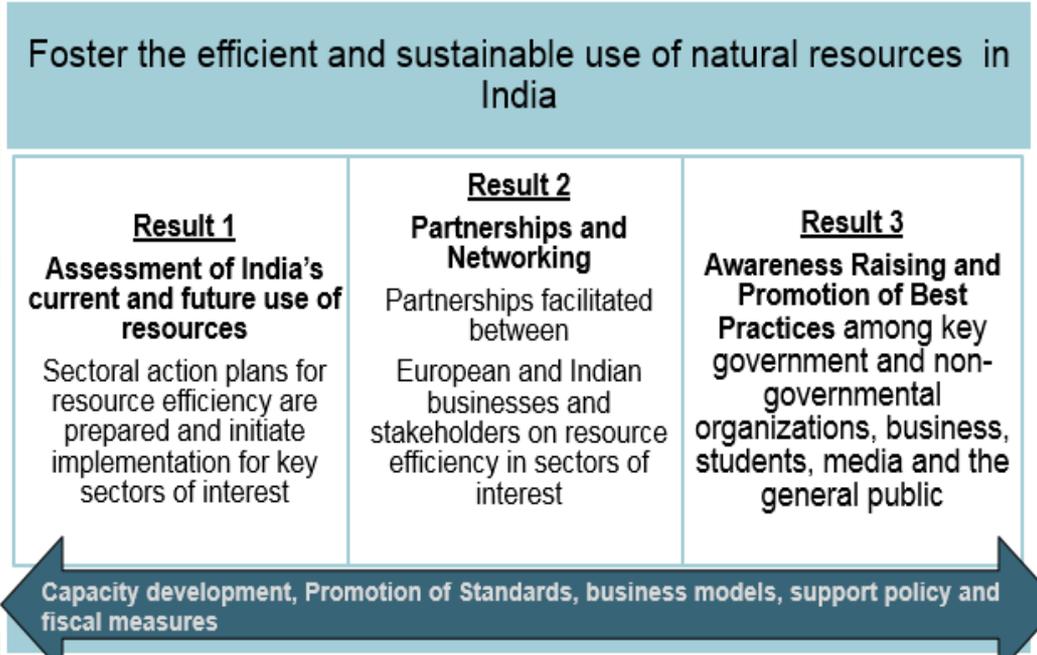
EU-REI
Creating a Resource
Efficient India

➤ RE project commissioned by the EU to an international consortium - GIZ, TERI, CII and adelphi

➤ Mode of cooperation: EU-Partnership Instrument (PI)

➤ Project duration: 3.5 years (01/2017 – 7/2020)

➤ Overall budget: €2.5 Mio budget



Joint Declaration of Intent with MoEFCC (June 2018)



NITI and EU cooperation on Resource Efficiency Strategy (November 2018)





Step 1: Lobbying for Resource Efficiency

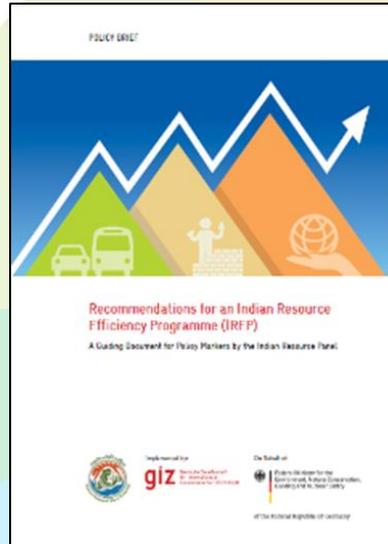


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2013

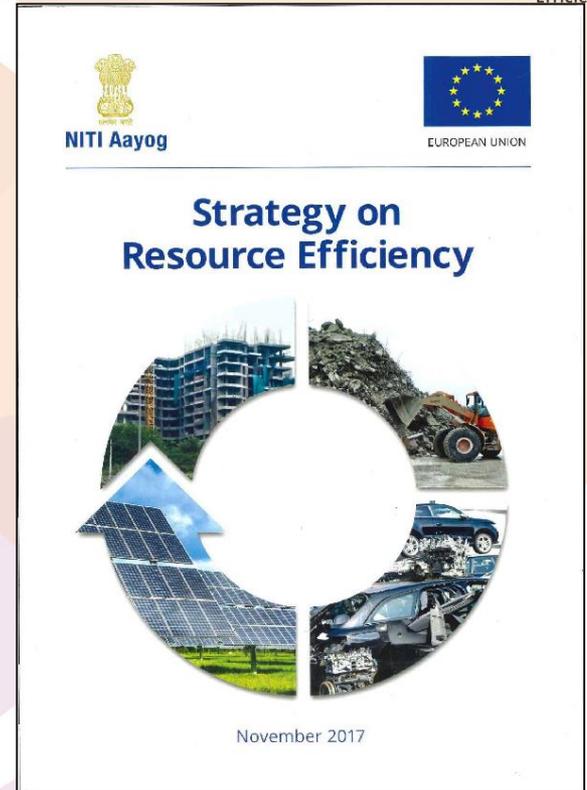


2017



MoEFCC & BMU released the Recommendations for an Indian Resource Efficiency Programme (IREP)

2017



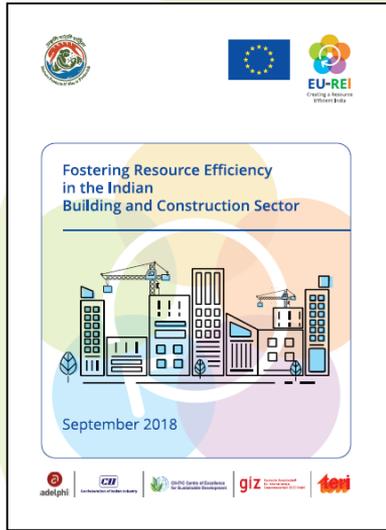
NITI Aayog publishes RE Strategy

The Indo-German Environmental Partnership Program released the baseline study on India's Future Need for Resources





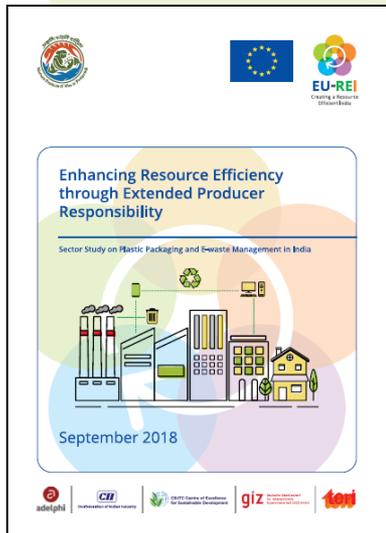
Step 2: Sectoral Assessment Studies



2018

Four studies released by MoEFCC and EU recommend policy innovation to foster resource efficiency in four target sectors:

- **Extended Producer Responsibility for E-waste & Plastics**
- **Solar PV**
- **Electric Vehicles**
- **Buildings & Construction**

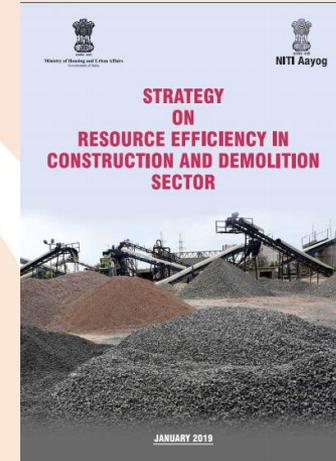
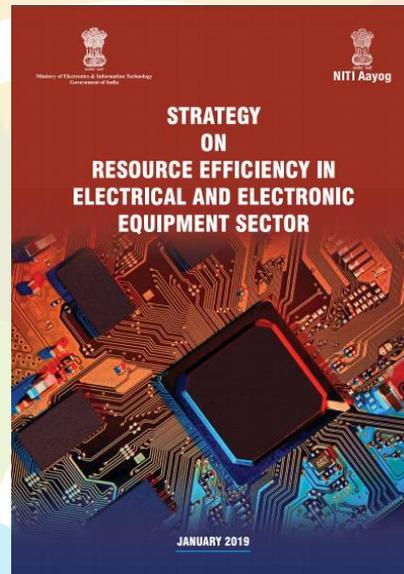
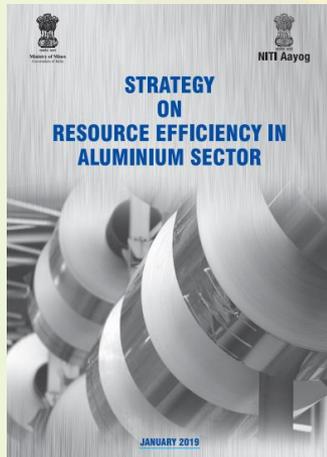
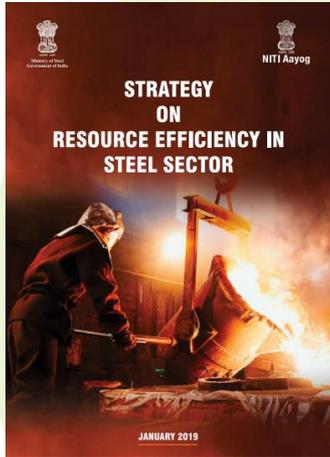




Step 3 : Mainstreaming RE in Core Areas of GoI



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2019

NITI Aayog and MoSteel, MoMines, 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

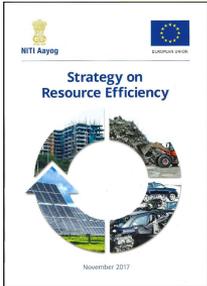


Step 4: Resource Efficiency Policy for India

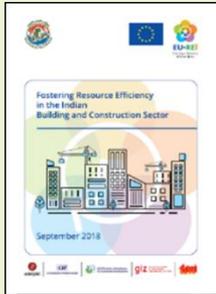


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2017



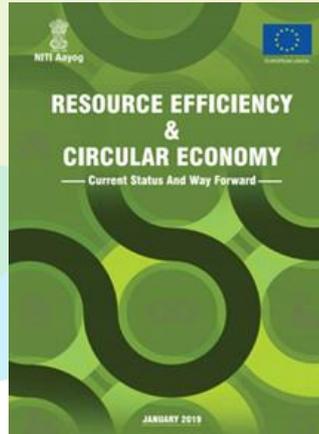
2018



2019



2019



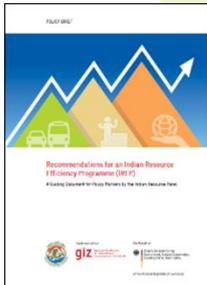
2019



2020

National Resource Efficiency Policy

2017



2013



Agenda Setting

Indian Resource Panel

Policy Mapping for Resource Efficiency Framework – Environment Ministry

Resource Efficiency Strategy – Niti Aayog
Action Plan 2017 - 2020

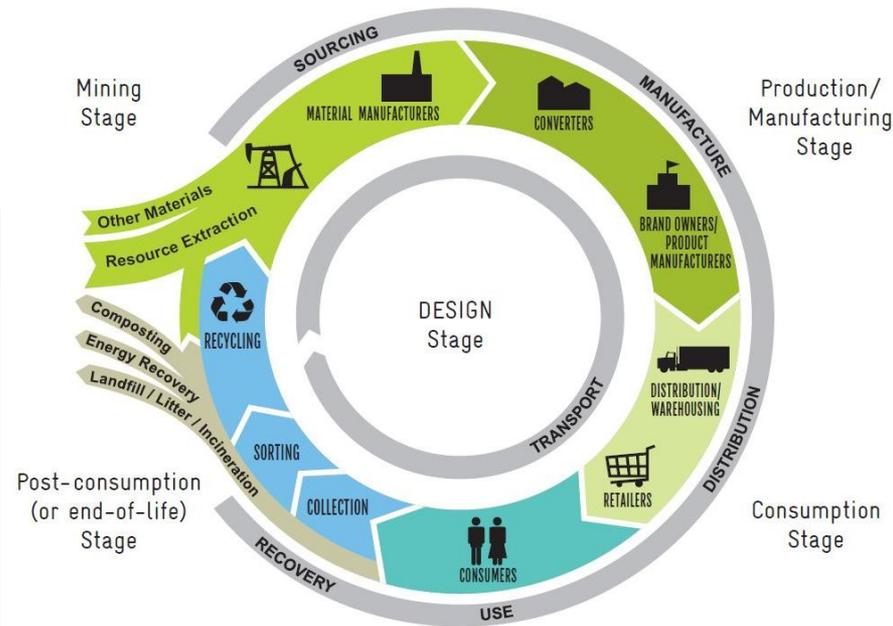
Multi-stakeholder engagement





Aim of the RE Policy

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





The EEE Strategy

Action Agenda (MeitY & NITI Aayog)



1. Initiate a **Resource Efficiency Scheme**

- Driving overall goal of RE and CE through the materials chain
- Inclusive framework to enhance participation from all stakeholders

2. Incorporate the role of **local bodies and informal sector** in collection of e-waste

- Enhance collection potential by including the role of local bodies and informal sector to be included in the E-Waste Rules 2016
- Local collection infrastructure to enhance ease of disposal for consumers

3. Feasibility Study for Assessing **Secondary Resource Utilization Potential**

- Define methodology for estimating secondary resource potential from end of life materials
- Estimating quantum of secondary materials which can be channelized into electronics production process

4. **Awareness Programme** for all stakeholders

- Awareness programmes for all of stakeholders in the electronics product chain
- Institutionalization of awareness to maximize potential of industry contribution under EPR obligation



EEE Strategy

Action Agenda (MeitY & NITI Aayog)



5. **Capacity building** of the informal sector and actors for proper handling of e-waste

- Development of online tools and certification programmes to enhance livelihood security
- On the job training at pilot facilities for proliferation of technology

6. **Business models** for technology proliferation

- Feasibility study to understand economic potential of technology proliferation in the informal sector
- Development of requisite infrastructure for integration of the informal sector

7. Policy & Guidelines for Promoting RE for **Eco-design BAT** for decontamination and dismantling, increased use of secondary raw materials in EEE production, **EPR and PRO**

- Development of guidelines for adoption of eco-design principles in the production process
- Guidelines for recycling and creation of market platforms for trade of secondary materials

8. **Standards** for reuse and refurbishment

- Research study for evaluating policy frameworks for incorporating 'Right to Repair' of used products
- Guidelines for product design and upgradation to remove forced obsolescence



Towards a Circular Electronics Sector



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A NEW CIRCULAR VISION FOR ELECTRONICS

Design

Products designed for durability, reuse and safe recycling, substances of concern substituted out.

Reintegration of manufacturing scrap

Scrap metal from manufacturing is re-introduced into new components.

Repair, second life and durability

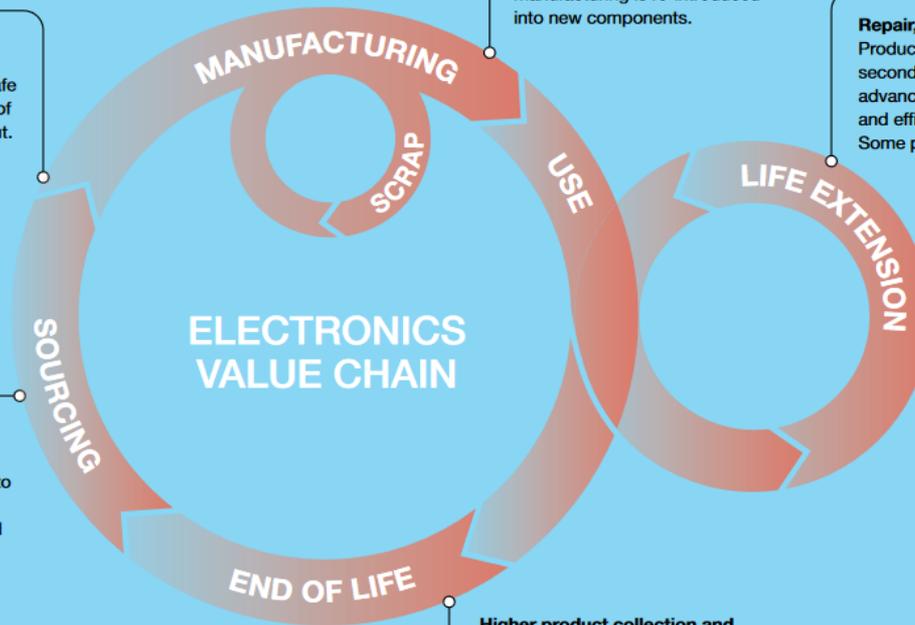
Products last longer and have second or third lives aided by advanced refurbishment and repair and efficient second hand markets. Some products sold as a service.

Advanced recycling and recapture

Policies to encourage recycling, and the integration of recycled content into new products. High tech recycling extracts broad range of materials and keeps them at the highest quality. All e-waste treated by the formal sector.

Higher product collection and return with incentives for consumers.

Maximize the collection of end of life electronics. In developing countries old products are collected by formalized workers.





EU Standards relevant for Material Efficiency and Circular Economy



Joint Technical Committee 10 on Energy-related products - Material Efficiency Aspects for Ecodesign



CENELEC is the European Committee for Electrotechnical Standardization

Starting Point: Mandate 543

Standardisation request to the EU standards organizations on ecodesign requirements for material efficiency and for ErP products

Objective:

Prepare general standards with a wide applicability to provide a common framework for the development of future product-specific standards



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CEN/CENELEC JTC10 'Energy-related products'



The JTC10 is developing general standards methods on material efficiency aspects of ErP under the Ecodesign Directive:



Release of Publications are set for early 2020

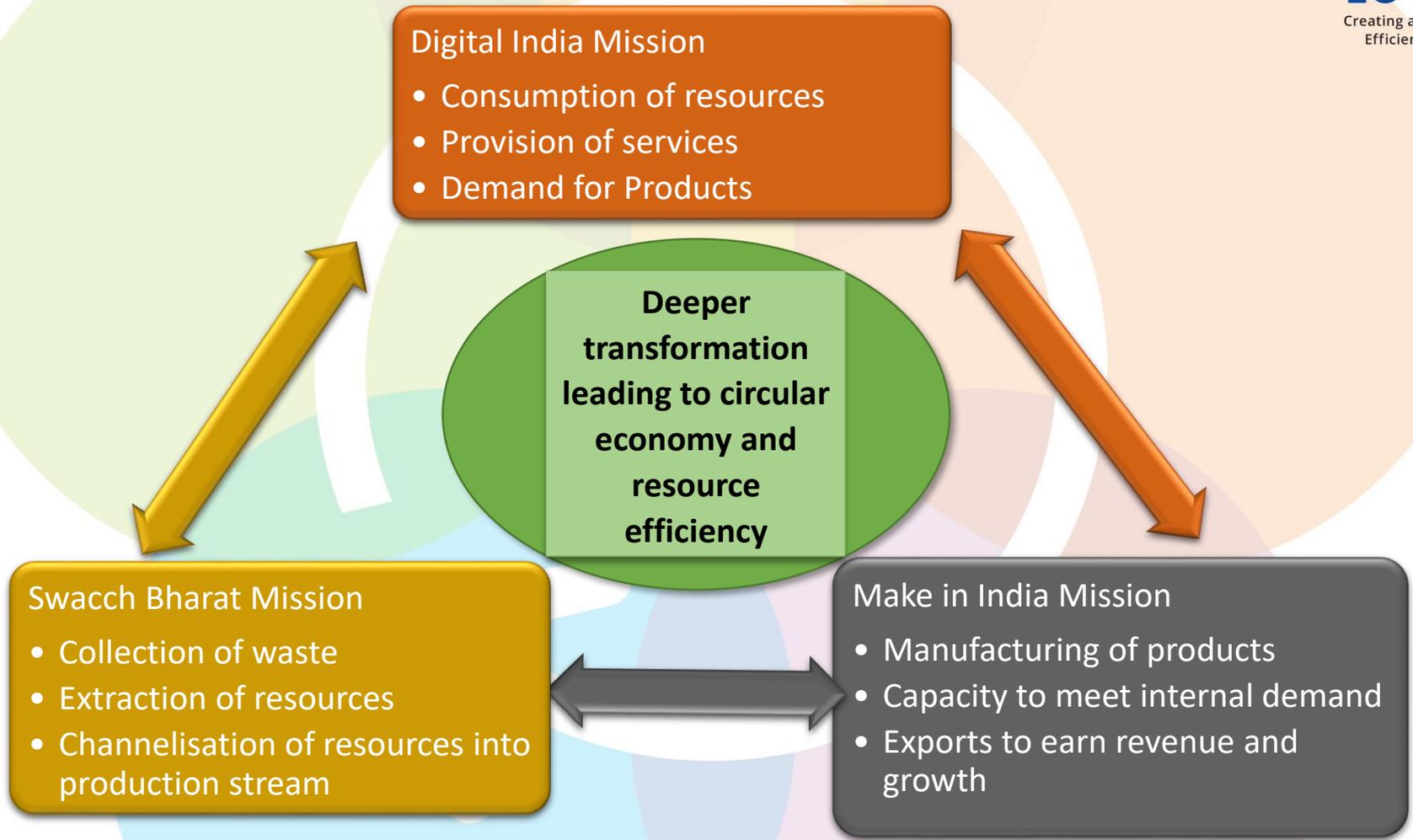


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Impacts on GoI Missions & Programmes





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Thanks for your attention

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