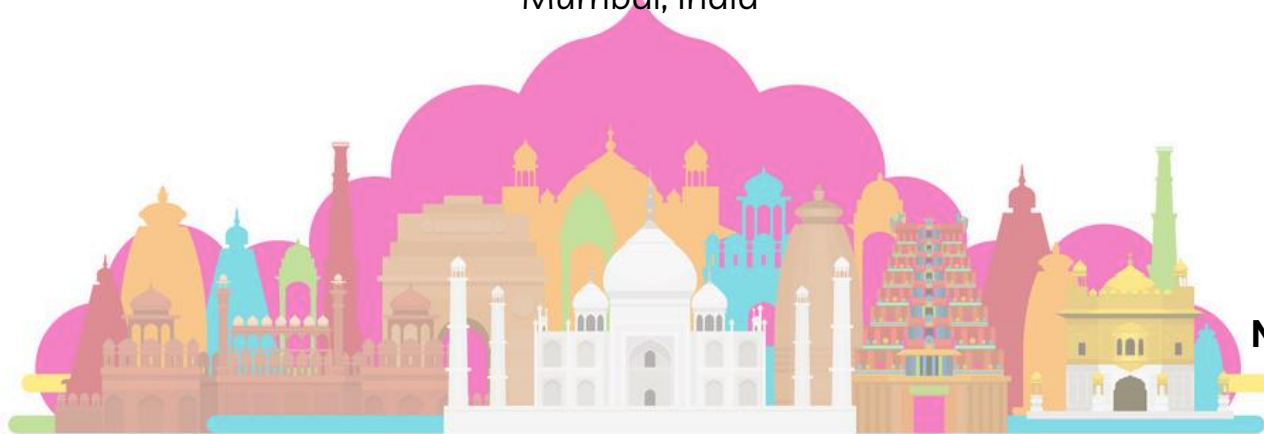


Exprience on Preparing National Action Plan on Circular Economy for India

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Scope of the Action Plan



Part 1

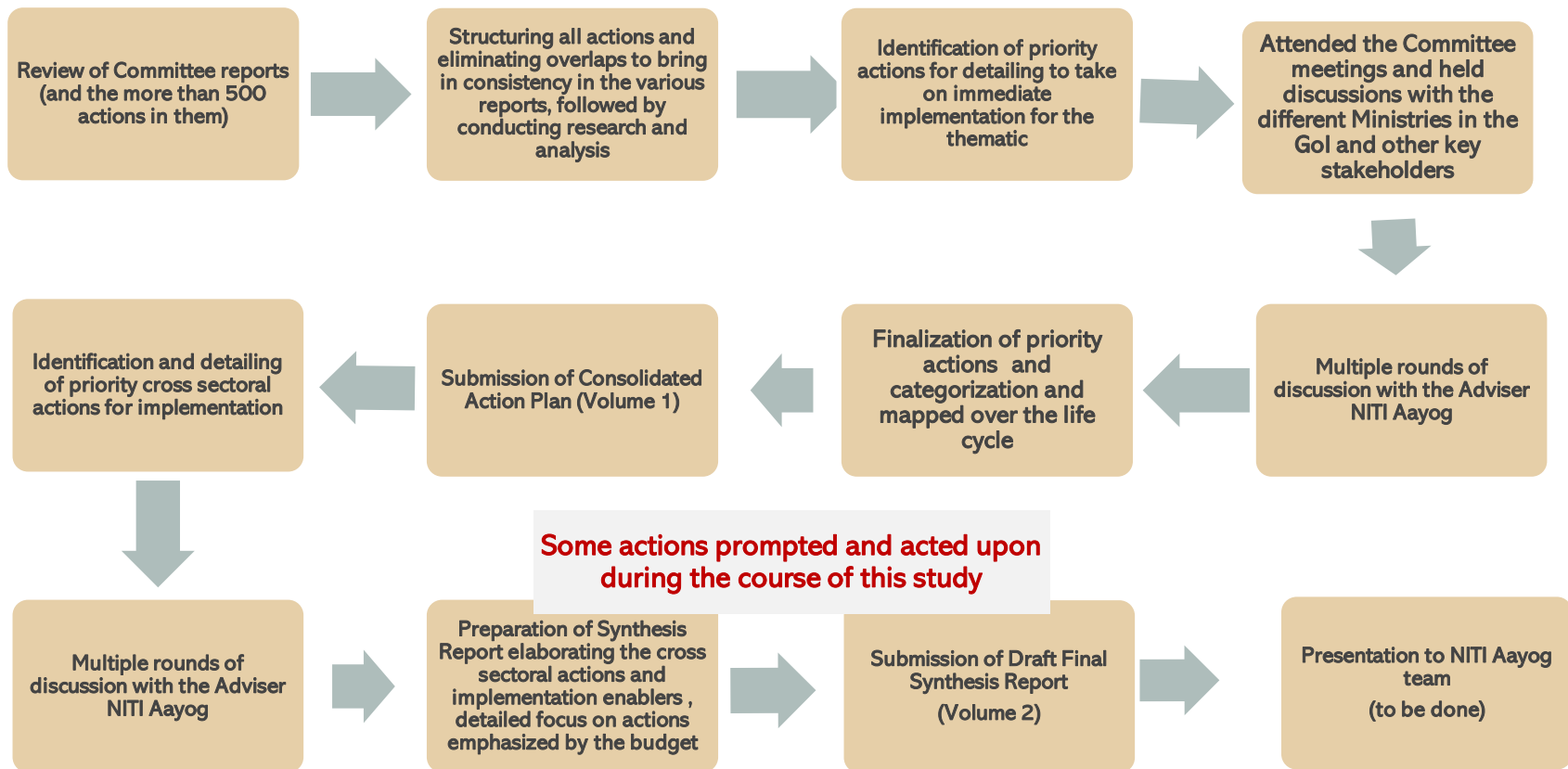
Consolidated Action Plan focussing on sectoral/high priority actions for the different themes/areas from the set of actions developed by the CE thematic committees. Implementation plan suggested, includes the time frames and responsible institutions

Cross sectoral
actions identified

Part 2


Synthesis Report elaborating on the high priority cross-sectoral actions (and their relevance in context of the Union Budget 2022-2023), the implementation enablers and suggestive way forward.

Approach




Volume 1: About key sectoral recommendations



Sectors  <u>Type of Actions as per the Union Budget 2022-23 categorization</u>	Gypsum	Toxic and Hazardous Industrial waste	Used oil waste	Used Tyres and Rubber	Lithium-ion batteries
Regulations	16	7	2	6	10
Extended Producer Responsibility Framework			1	3	
Technology Upgradation	1	1		5	
Innovation Facilitation	4			1	1
Infrastructure	1	1		5	1
Integration of the informal sector					1
Reverse logistics					

Volume 1: About key sectoral recommendations



Sectors  <u>Type of Actions as per the Union Budget 2022-23 categorization</u>	End of life vehicles	Municipal solid and liquid waste	Scrap metal (ferrous and non-ferrous)	Electronic waste	Solar panels	Agricultural waste
Regulations	11	12	15	29	6	These actions needed to be prioritized
Extended Producer Responsibility Framework		1	1	3	1	
Technology Upgradation			2	3	13	
Innovation Facilitation			3	1		
Infrastructure	5			4	15	
Integration of the informal sector	1			8	2	
Reverse logistics				3		

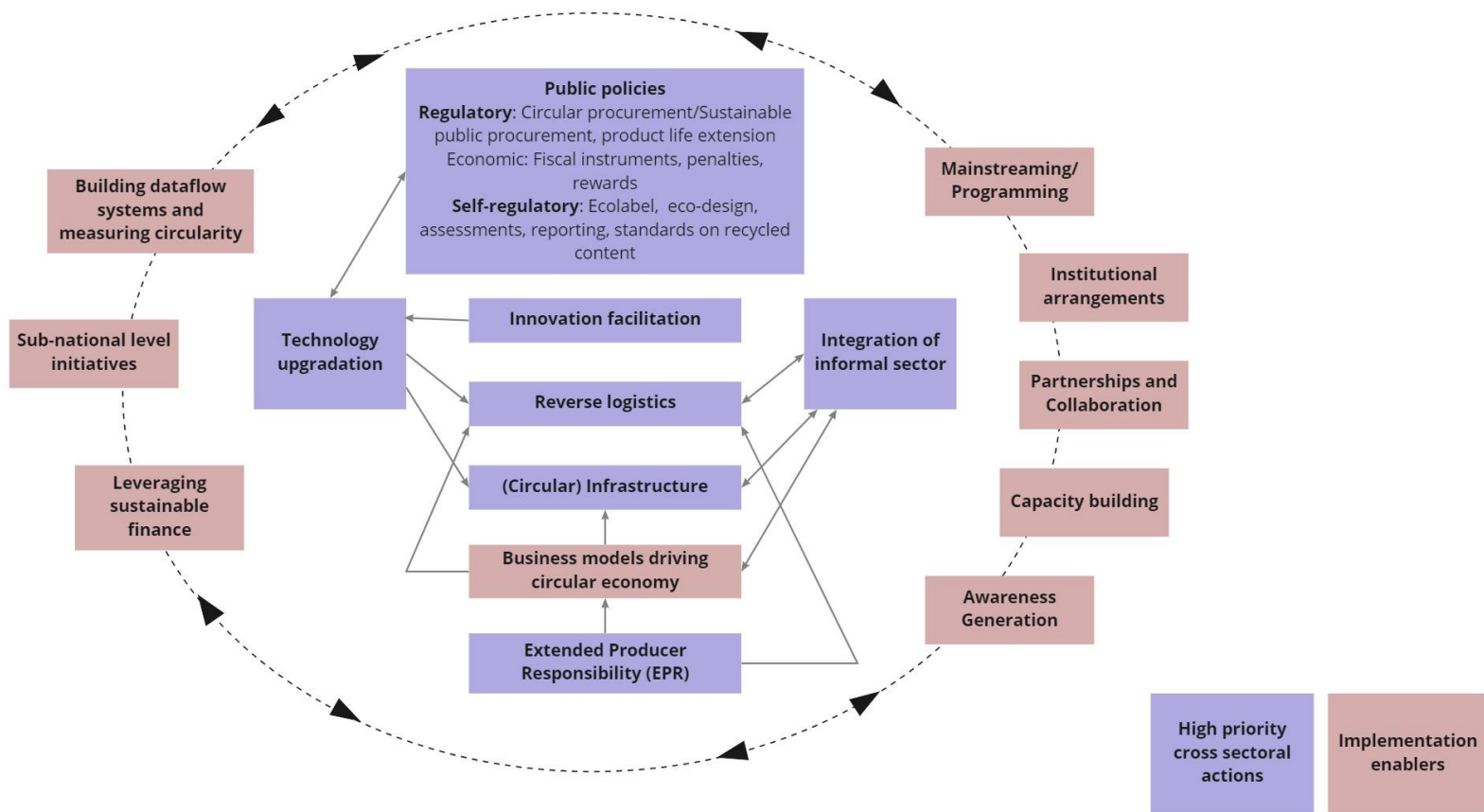
Actions prompted and acted upon by the line ministries during this study



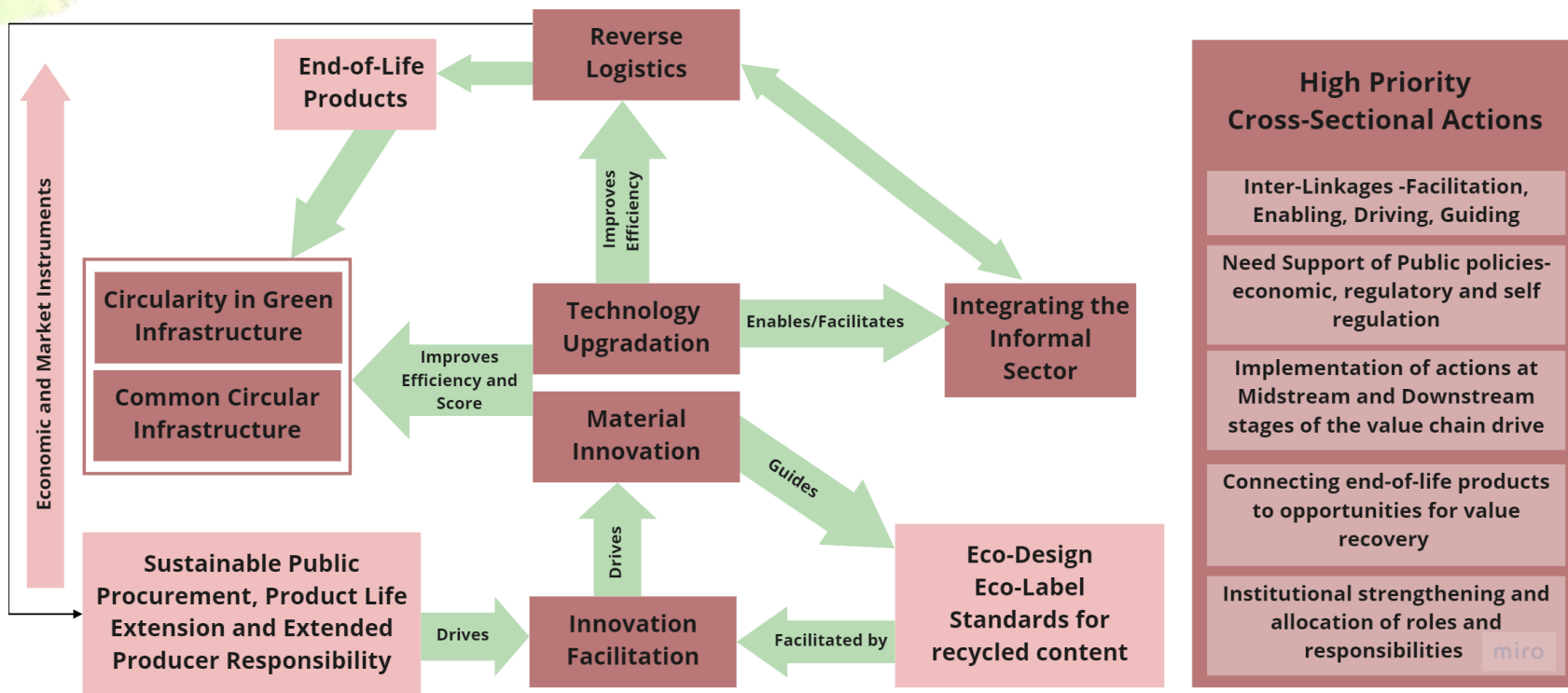
Sector	Initiatives in progress
Toxic and Hazardous Industrial Waste	<ul style="list-style-type: none"> Identification of 3 to 5 sector specific Hazardous Waste by CPCB for sector level interventions. DCPC decision to conduct quarterly awareness programs in CE from April 2022
Tyre and Rubber Recycling	<ul style="list-style-type: none"> Notification of draft Extended Producers Responsibility for Waste Tyres published in official gazette vide S.O. 5497(E) dt. 31.12.2021
Scrap Metal (ferrous and non-ferrous)	<ul style="list-style-type: none"> SOP/guidelines on production of bio-ethanol using off-gases of steel plants and ferro alloy units. Detailed notes being developed on the action plan for utilization of low-grade iron-ore, overburden/tailings, production of bio-fuels and the issue of viability gap funding taking into consideration the cost-benefit analysis, and on standards /guidelines on usage of iron and steel slag in cement making and eco marking of products
Gypsum waste	<ul style="list-style-type: none"> Notification of standards and prepare SOPs for all types of gypsum waste streams – CPCB
Used oil	<ul style="list-style-type: none"> MoPNG on 25th March, 2022 has issued directions to CPSEs (Lubricant manufacturers) for Implementation of action plan for circular economy and to finalize Standards/ specification of recycled base oils and identification of grades with formulations using minimum 25% recycled base oils for sale.

Sector	Initiatives in progress
Electronics and Electrical Sector	<ul style="list-style-type: none"> Developmental Programmes to be initiated by MeitY are being conceptualized with various stakeholders: Awareness programme Skilling of informal sector State of art recycling facilities for recycling of PCB/Li-ion battery, spent magnet etc., Sustainable Product Policy Strategy on Subscription/lease model in government offices Promotion of Green Public procurement, R&D promotion to development cost-effective technology, Studies on Global best available technologies, identifying critical raw materials & tracking secondary raw materials (SRM), promote eco-design etc.
End-of-life Vehicles (ELVs)	<p>Completed actions:</p> <ul style="list-style-type: none"> Notification of rules and amendment of existing CMVR for implementing the Scrapping Policy (4 final notifications, 2 draft notifications) Amendments to 'Automotive Industry Standard-129: Guidelines on Provisions for End of Life Vehicles' D/o Heavy Industry initiated interaction with SIAM on creating regulatory framework for certifying reusability of spares and critical components D/o Heavy Industry initiated interaction with SIAM on setting up of recycling zones.

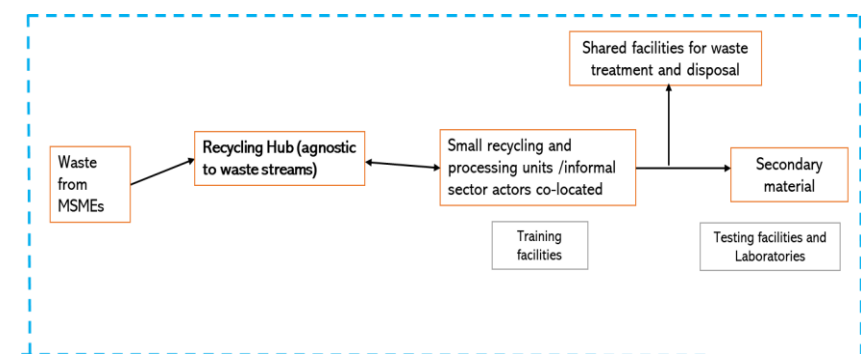
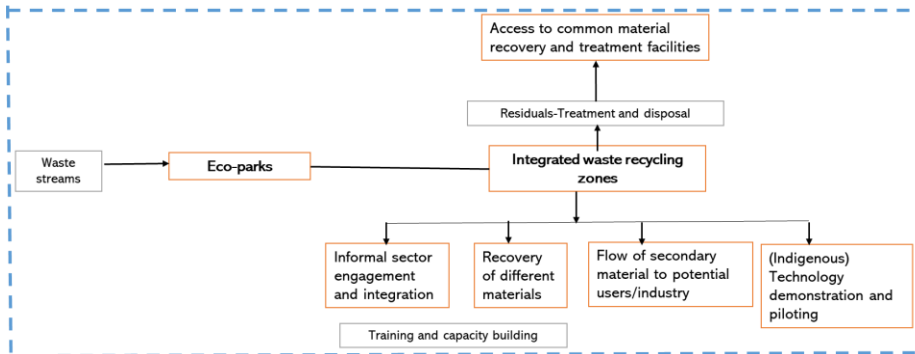
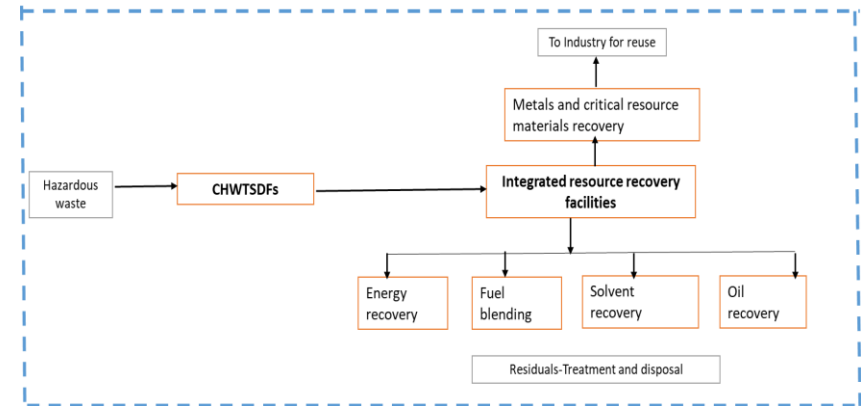
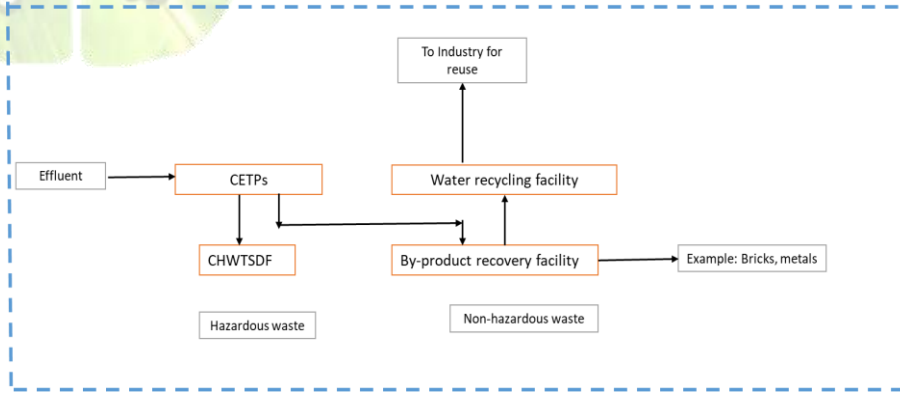
High priority cross sectoral actions and implementation enablers



Canvas of high priority cross sectoral actions with interlinkages and in alignment with Union Budget 22-23



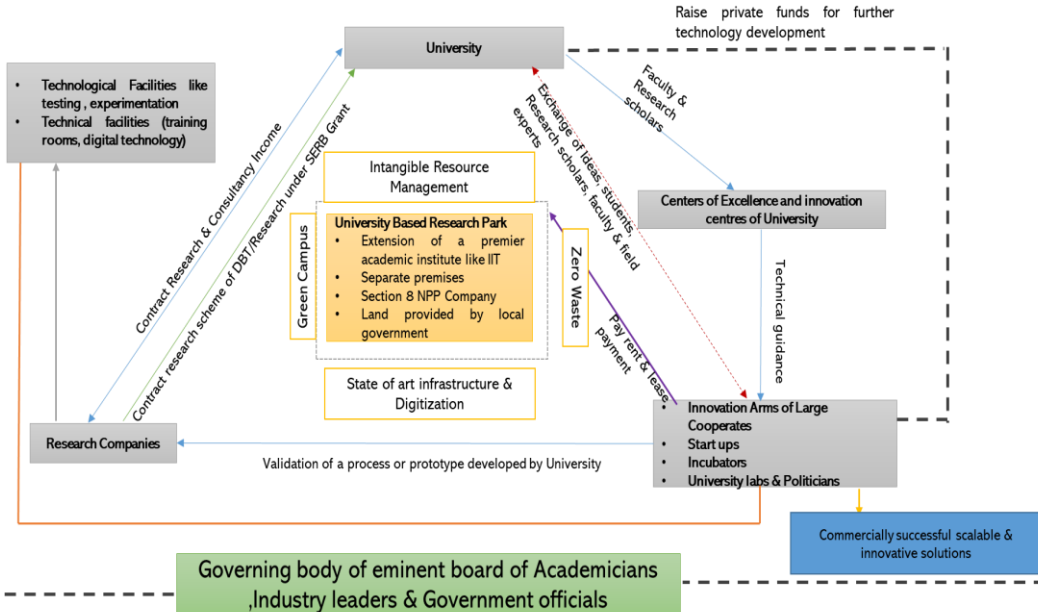
Circular common infrastructure



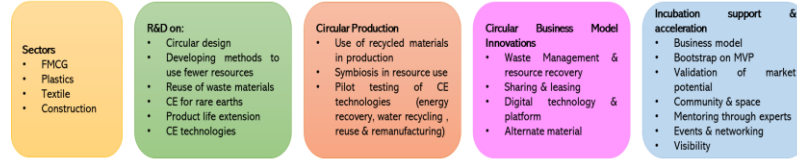
Research Park-Key way to structure, enable and foster innovation



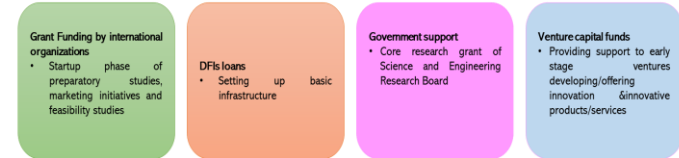
Association of University Research Parks (AVRP)



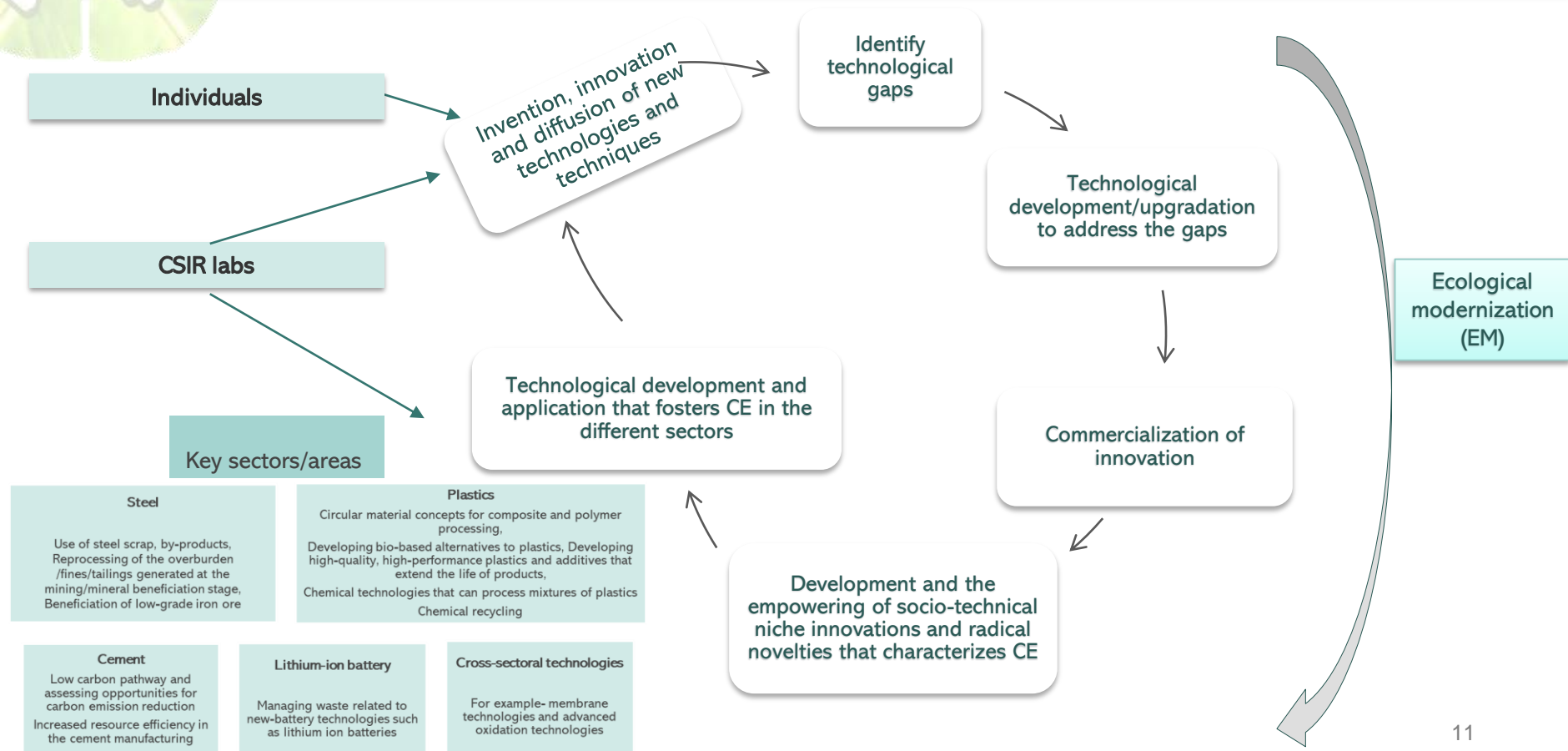
CE Focus in Research Park



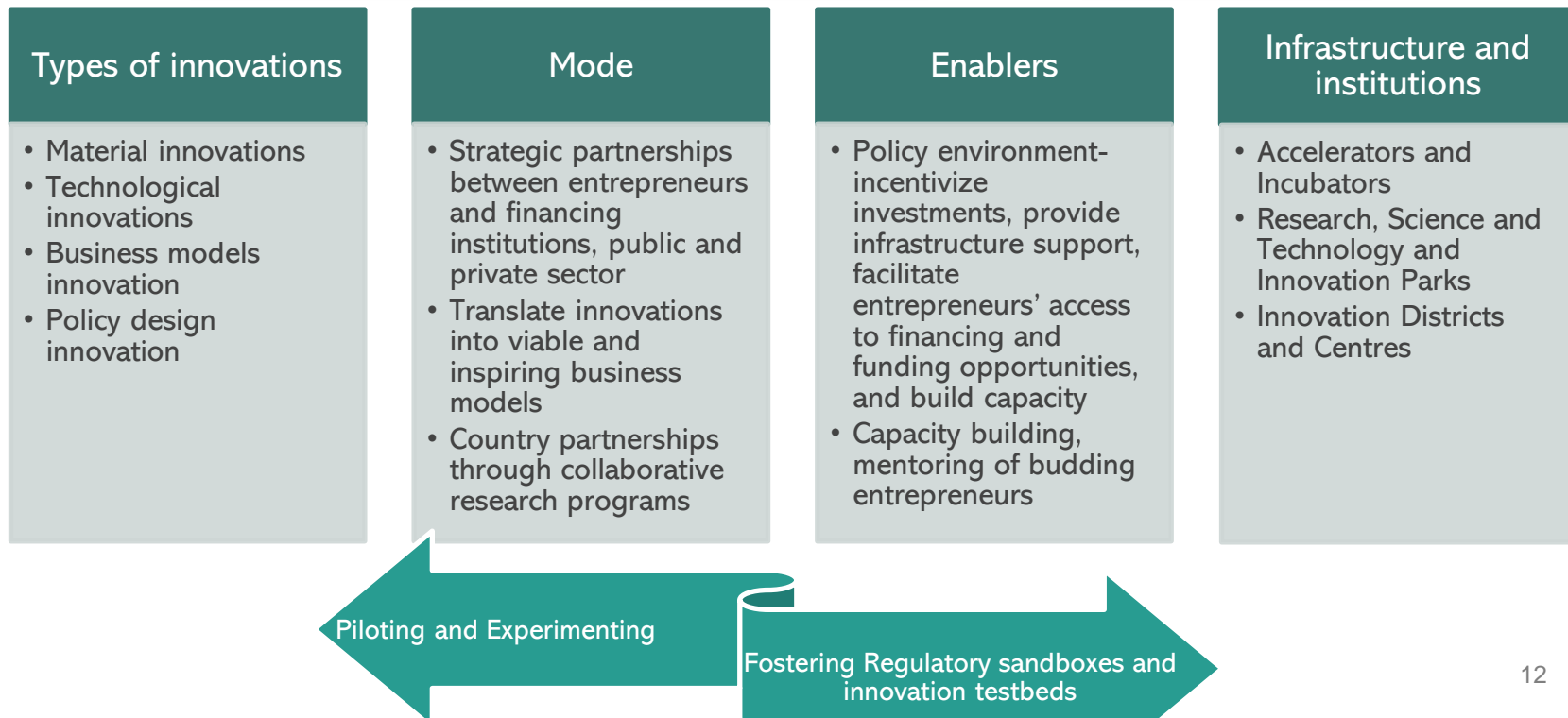
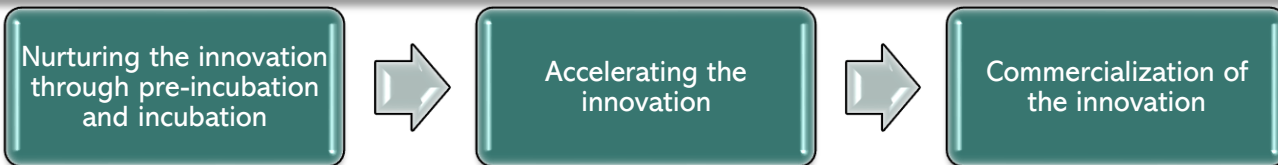
Funding Structure



Technology upgradation for advancing circularity in sectors

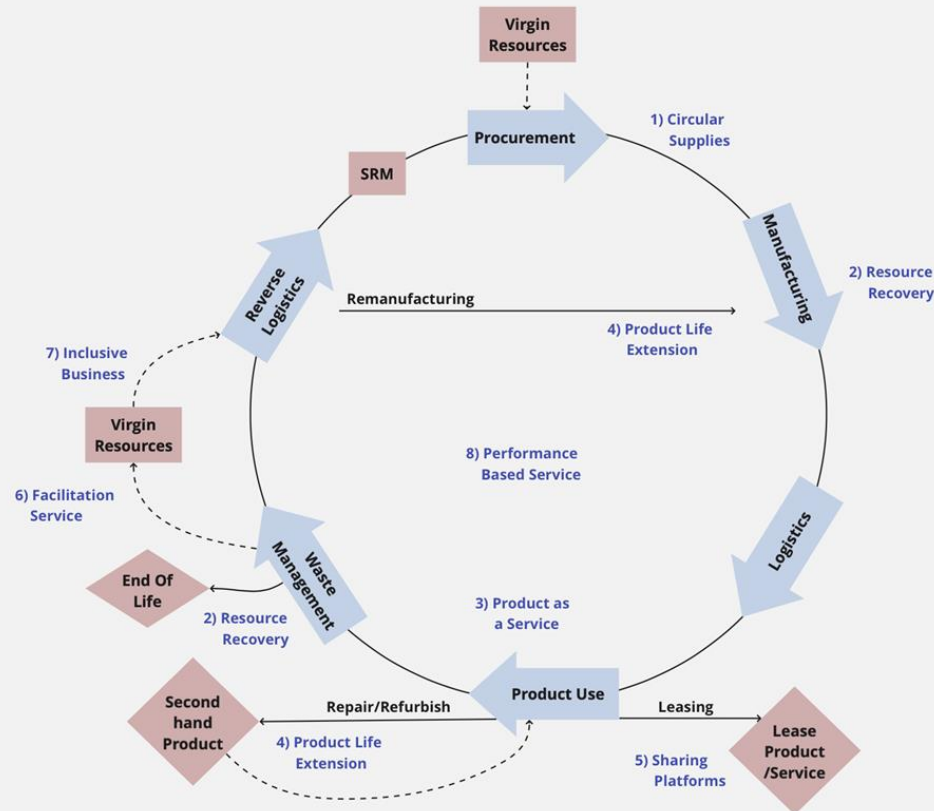


Facilitating Innovations



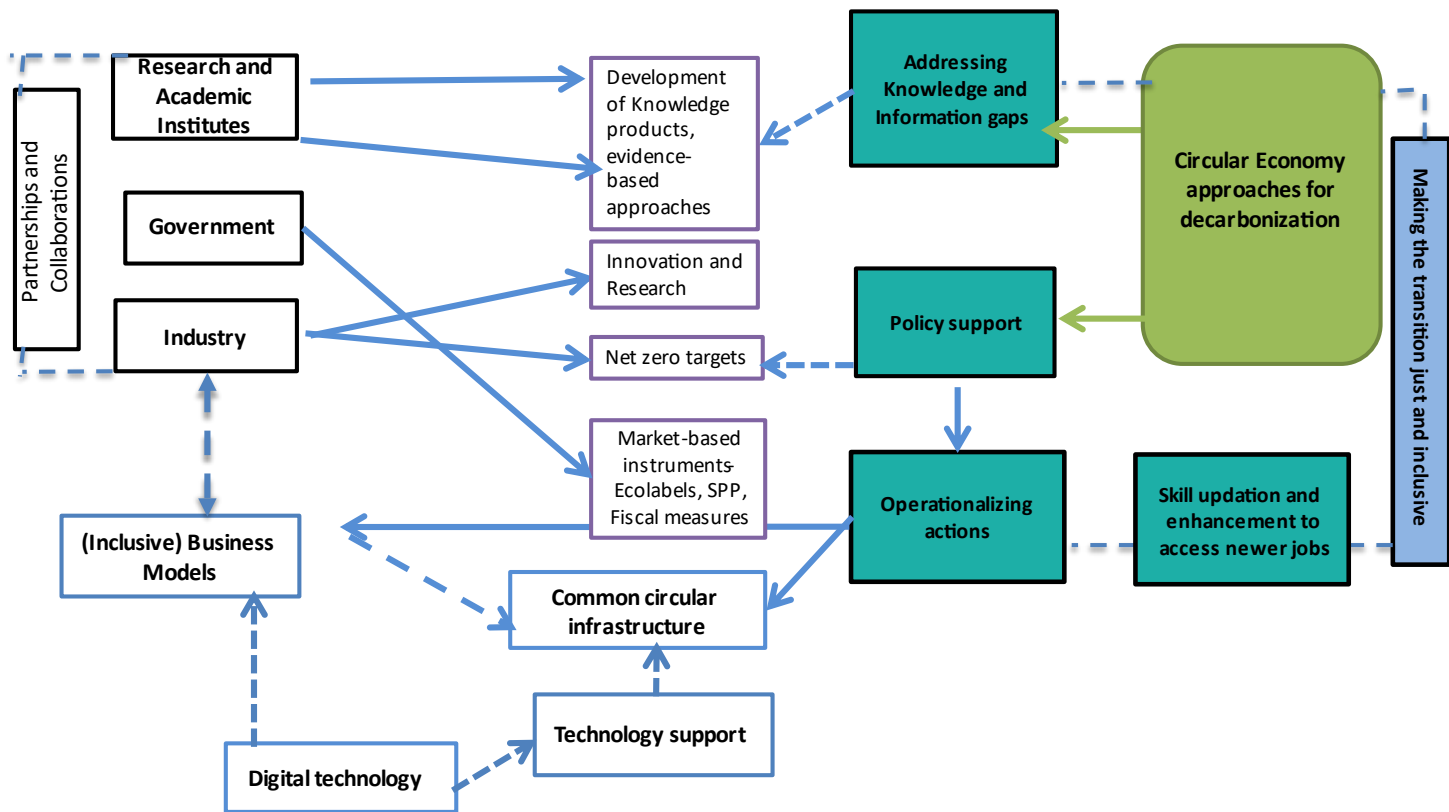
Circular Business models mapping with life cycle

: EPR Regime can be the core driver



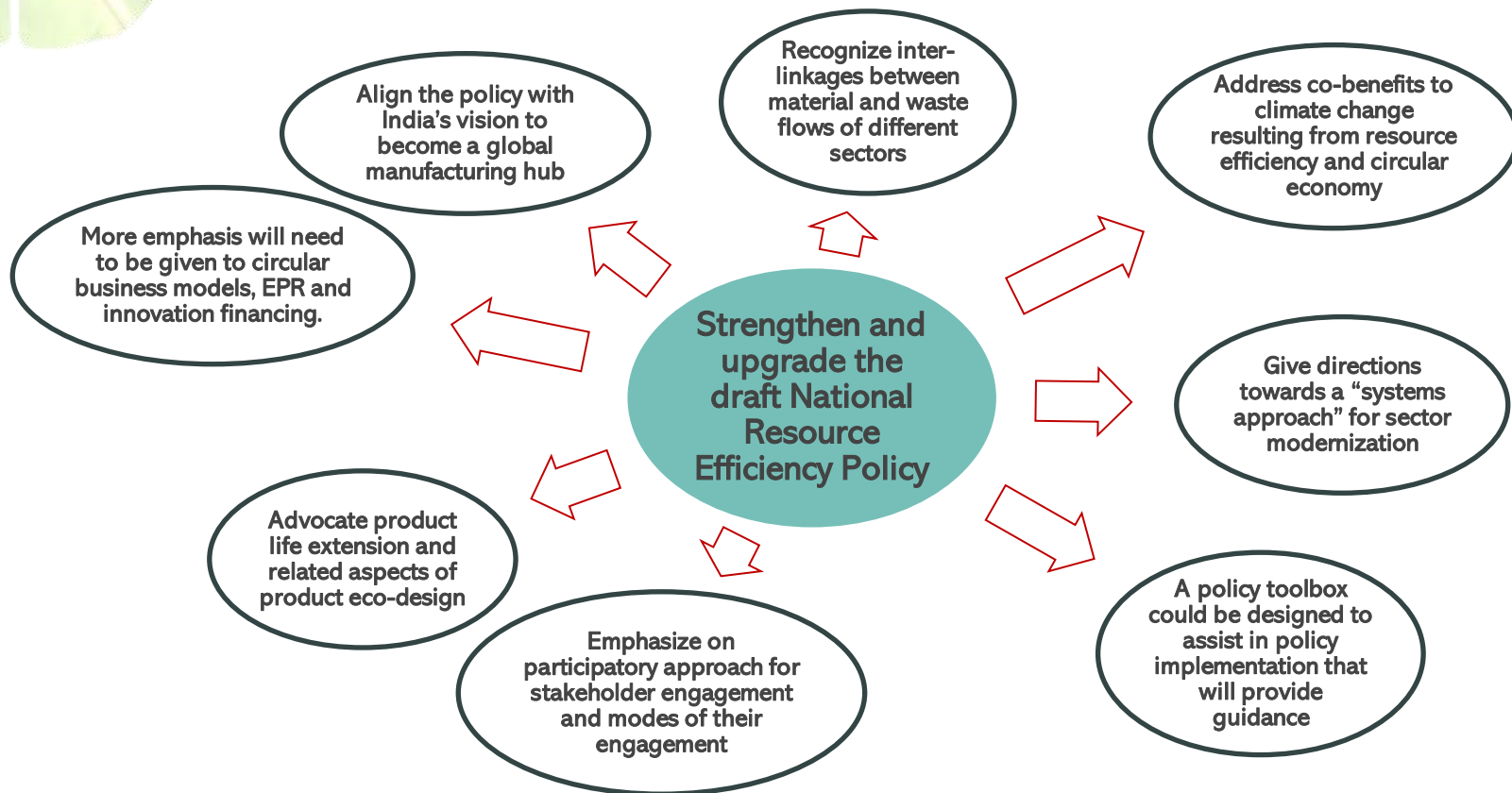
- Business models for Common Circular Infrastructure such as MRFs for different waste streams
- Business models for EPR implementation that encourage reuse, waste collection, recycling, upstream product design changes and material reduction.
- Business models for Product life extension such as leasing, hiring, renting, offering PaaS, supporting second hand sales
- Business models for creating reverse logistics
- Business models for performance economy
- Business models for circular supplies

Responding to Net Zero Target through circular economy



Integrated approach in policy and implementation that recognizes the climate mitigation potential of circular economy actions is the way ahead

Policy connect- Strengthening Draft National Resource Efficiency Policy



Key cross sectoral recommendations



- **Ministry of Environment, Forests and Climate Change** to develop **national policy on EPR**, which can be implemented through operation of National EPR Portal and innovative business models.
- **Ministry of Electronics and Information Technology** to develop a **national policy on product life extension** and implement a demonstration project in electronic white goods segment.
- **Ministry of Finance** to develop a **national SPP policy** & guidelines for priority products. Indian Railways, with their ongoing activities on SPP could be a sector to begin the roll out of the policy.
- **Setting up circular incubation centers and research parks** under the **Atal Innovation Mission** to foster circular product development and **creating innovation districts** where leading-edge anchor institutions and companies connect with academia, research organizations, start-ups, business incubators and accelerators in physical space.
- **Establish institutions** such as the **Remanufacturing Council** and a **Centre of Excellence** for Circular Economy and facilitate their engagement with Chambers of Commerce and other stakeholders.
- **Sectoral ministries** to promote **central sector financing schemes for common circular infrastructure** with focus on making CETPs circular, CHWTSDFs integrated resource recovery facilities, STPs as water production units, setting up MRFs, recycling hubs and eco-parks for waste streams. The modalities of implementation of these activities can be guided by the **Standard Bidding Documents**

Key cross sectoral recommendations



- Expand **capacity building programs** under the **Ministry of Skill Development and Entrepreneurship** on **waste management**, particularly designing and conducting skilling and certification courses on repair, remanufacture and refurbishment
- **Sectoral ministries** to take a lead in identifying **standards related to use of recycled content** and this should be **supported by BIS** to develop the standard processes to accelerate the use of recycled products and materials. **Ecolabels** can also be part of this initiative.
- **Sectoral ministries** to **expand laboratories and testing facilities for certifying the recycled content**, enabling inspection with risk assessment in context of use of recycled content in products
- Under the leadership of **Ministry of Corporate Affairs** and **Ministry of Housing and Urban Affairs (MoHUA)** include **CE indicators in BRSR and urban ESRs** for a gradual transition to a dedicated CE indicator reporting system. Such a system will help in tracking India's progress towards net zero

Thank You

