Session

Strategies & Actions to Prome 3R & Circular Economy in Various Waste Streams

Actions,and PPP TO Promote Circular Economy for E-waste Management

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IRGSSA Overview

Established in 2001, IRGSSA is an India based international professional services firm having executed more than *160 projects in 12 countries*. Some of the projects executed have set national & international benchmarks

IRGSSA provides technical assistance in environment, energy, natural resources, disaster relief & reconstruction, IT & Geomatics in the region. Recently into Circularity, Sustainability & Carbon Neutrality

The firm has executed several projects for a diverse set of clients such as The World Bank, ADB, UNDP / UNEP / GEF, JBIC / JICA / JETRO, DFID, USAID, GIZ, Government of India, Private Sector, NGOs and Industry Associations.

Incubation & Start Ups

Context (Evolving)

1. In 2019, the global generation was 53.6 Mt of e-waste, an average of 7.3 kg per capita.

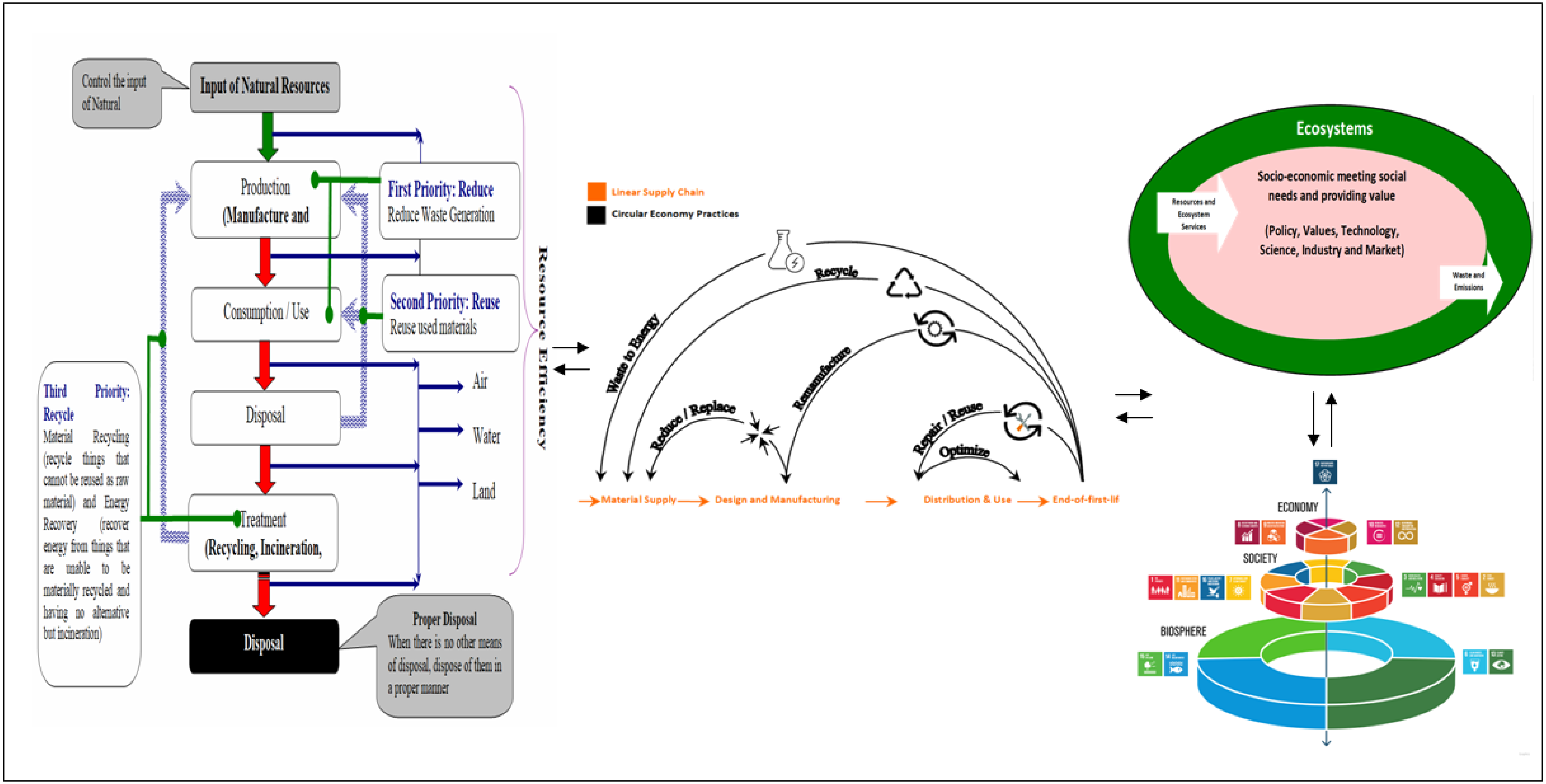
2. The global generation of e-waste grew by 9.2 Mt since 2014 and is projected to grow to 74.7 Mt by 2030 – almost doubling in only 16 years.

3. The formal documented collection and recycling was 9.3 Mt (17.4% compared to e-waste generated)

4. The fate of 82.6% (44.3 Mt) of e-waste generated in 2019 is uncertain

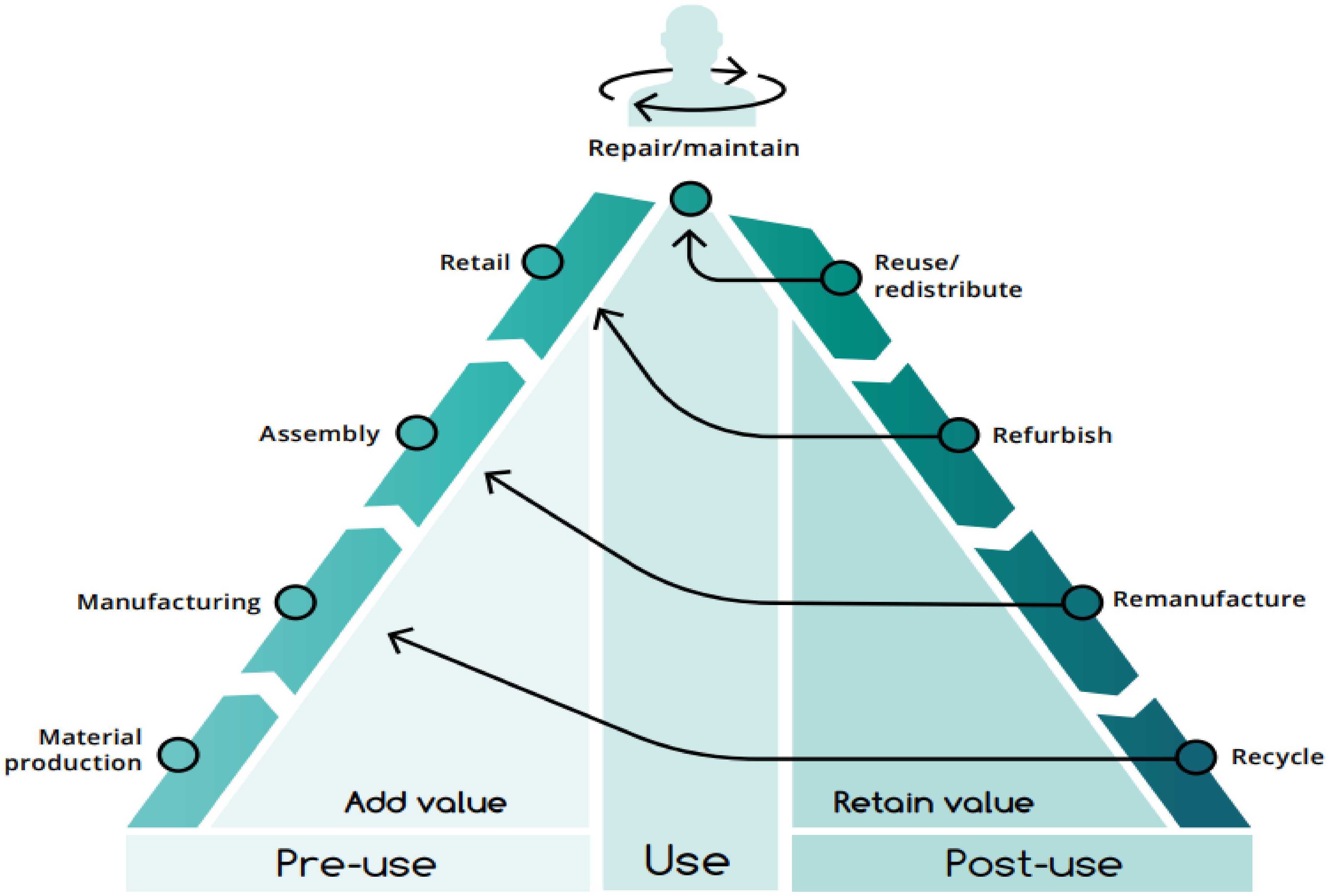
Source: E-Waste Monitor

Concept of 3Rs, Resource Efficiency & Circular Economy



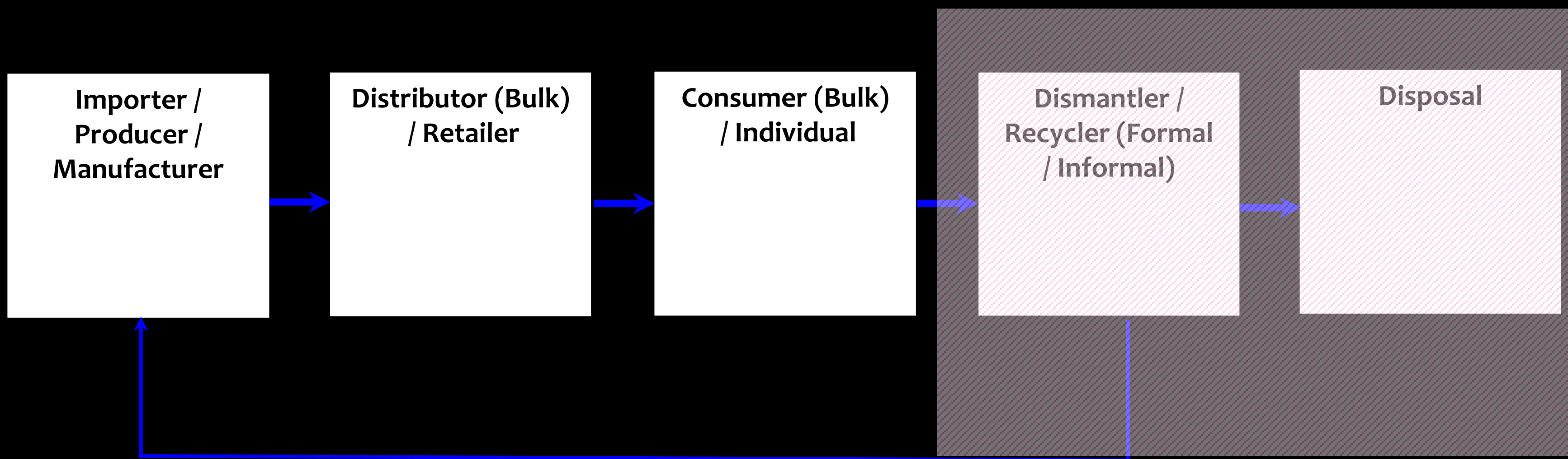
Source: Customized from UNCRD/IGES/MoEJ (2018); Regional 3R Forum in Asia and the Pacific; State of 3Rs in Asia and the Pacific / UNCRD (20th February, 2019); UNIDO (2019); CIRCULAR ECONOMY and the Emerging Compliance Regimes Division / UNCRD (2019); NINTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC, 4-6 MARCH 2019, BANGKOK, THAILAND Realising the potential of 3R and resource efficiency through Sufficiency Economy Philosophy (SEP) ~ Implication for SDGs (Background Paper for Plenary Session 1 of the Programme)

The value hill in a circular economy



Source: Circular Electronics System Map: An industry blueprint for action

Context (Evolving)



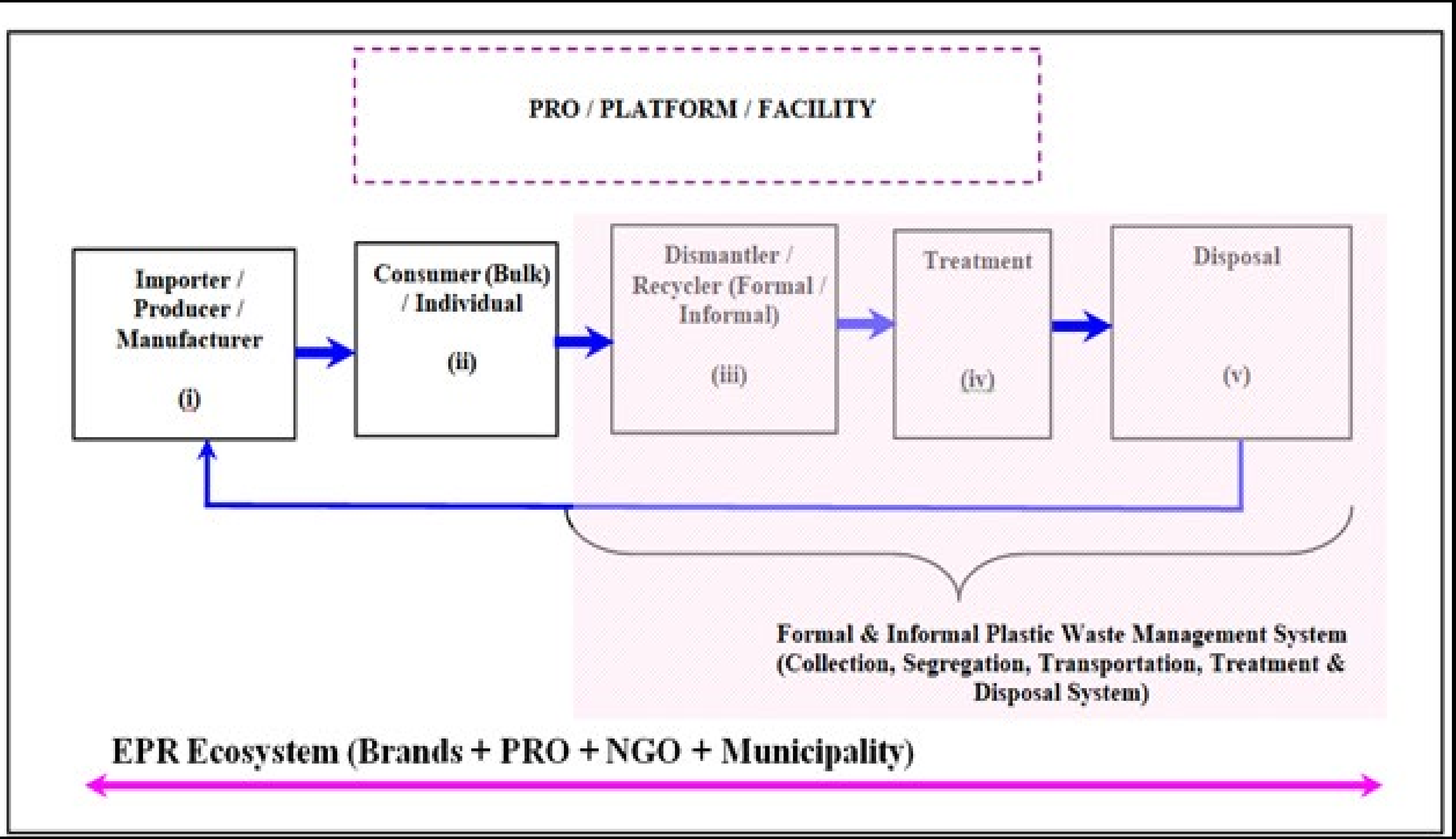
Response:

EPR Based (Recycling Targets) E-Waste Management Rules 2022 & Emerging Waste Management Rules e.g. Battery, E-waste

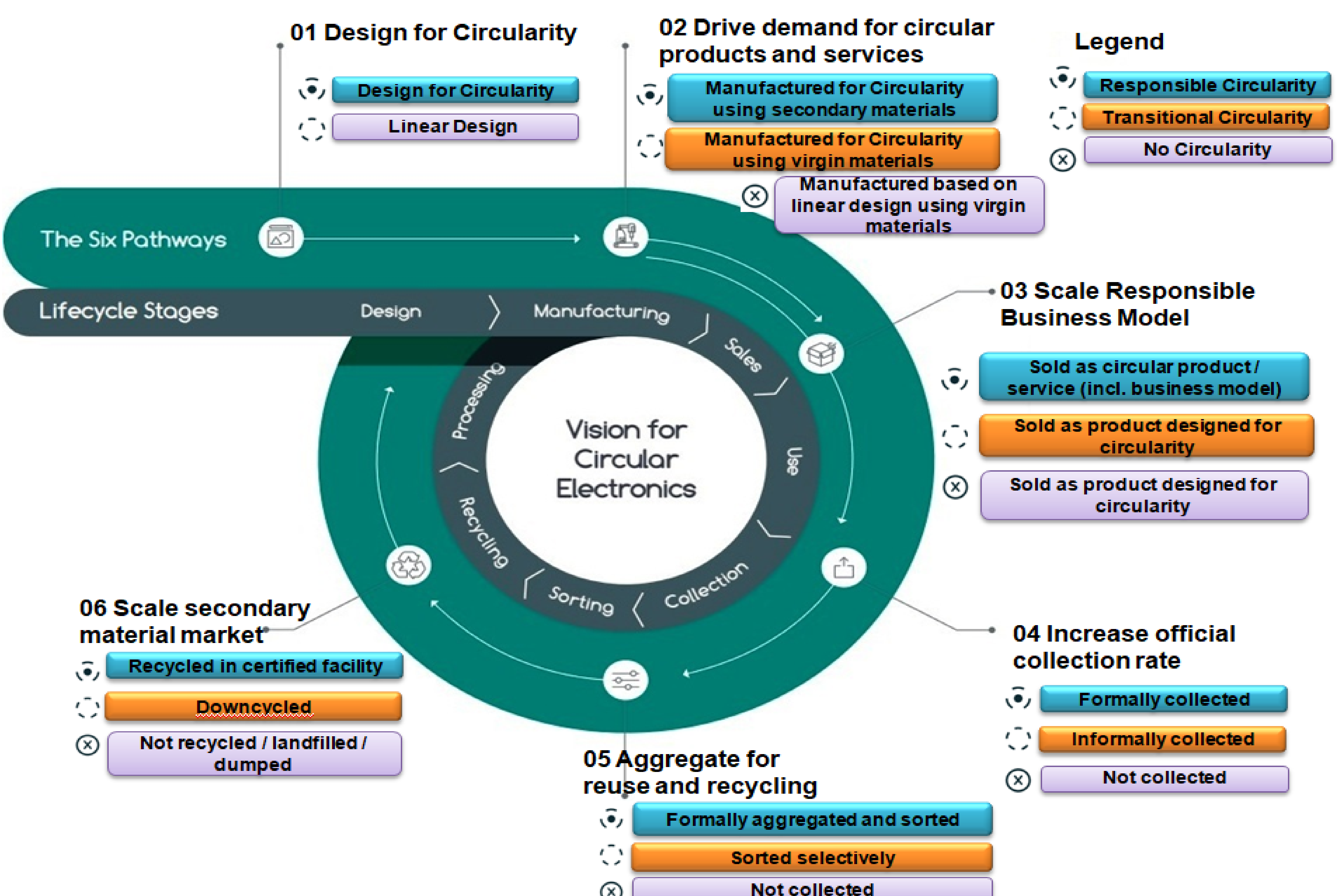
Energy Efficiency, Resource Efficiency & Pollution Control Policies

City/ state level project conceptualization and identification of countermeasures

Waste Value Chain (Battery/ Electronic)?



Vision for Circular Electronics



Source: Circular Electronics Road Map: An Industry Strategy Towards Circularity

Recent Trends / What is Lacking

1. While EPR is required for every firm, as of now, it is mostly the top brands in the respective sectors that have started adopting it

2. The existing model mostly requires individual franchise model or the intervention of PRO/ third party / facilitator / IT platform, who promise to channelize and connect brands with the statutory authority to meet compliance and for disposal and to recyclers for the treatment.

3. Medium to low value waste gets abandoned because "market for recyclables" is not available

Recent Trends / What is Lacking (Contd.)

4. The current system offers no advantage to cover all geographical areas ex. Locations

5. There are very limited evidence or virtually non existent “collective” responsibility.

6. There is lack of infrastructure and capacity for recycling, treatment & disposal of waste to meet the requirement.

7. The business model (organically developing/ model dependent)

Strategies

Upstream	Product Life Enhancement	Short term – Medium term
	Design for Recycling	Medium term – Long term
Midstream	Simplified Logistics / Reverse Logistics (Improved Collection Rate)	Short term – Medium term
Downstream	Improved Recycling	Short term – Medium term
	Secondary Markets	Medium term – Long term

What is to be Done

1. Formulate balanced circular economy policies: Design & better engineering

2. Robust evidence-based legal frameworks for optimum product stewardship e.g. Implementable EPR based regulation, Transparency in Implementation e.g. Web Portal Based

3. Relook at PRODUCER Vs. CONSUMER relationship e.g. Lease based models, service models

What is to be Done (Contd.)

4. Revaluate Traditional Value Chains

5. Simplifying - Cost Effective Reverse Logistics, Dissembly & Recyclability of Materials

6. Technology development e.g. Digitalisation

7. Business Models -PPP, Tech start ups

Actions

1. Sector & Industry wide Solutions

2. PPP Based Projects – E-waste

   - Case Study in India – Mumbai E-waste Facility (PPP) 2013 Vs. State Wide Recycling/ Circular Economy Parks in India – 2022/23

3. Community wide Solutions - E-waste Bank Indonesia

4. Tech Start UPs

Our Action (MOU with a Tech. Start Up)

Battery Based Green Energy Storage Solutions based on Circularity, Sustainability

THANK YOU

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