

Driving A Circular Economy Transition Through Digitalization in ASEAN and East Asia

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Twin Transition: Key questions

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Why circular transition and digitalization matter?

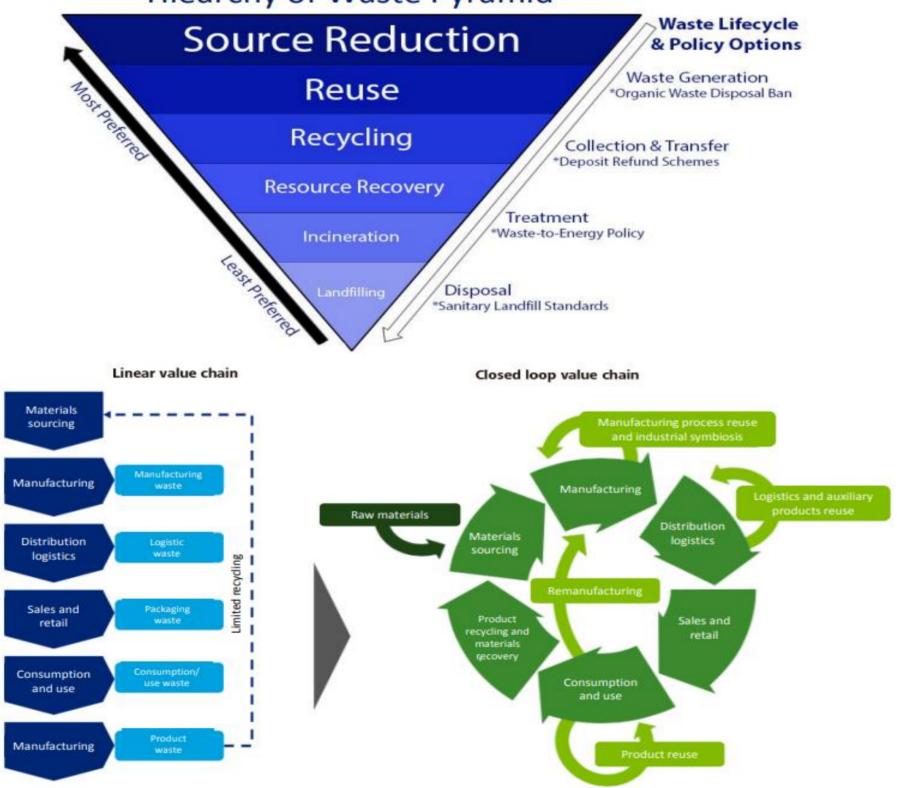
What are the opportunities and challenges of circular economy and digital innovation in ASEAN and East Asia?

How to make circular transition and digitalization work?

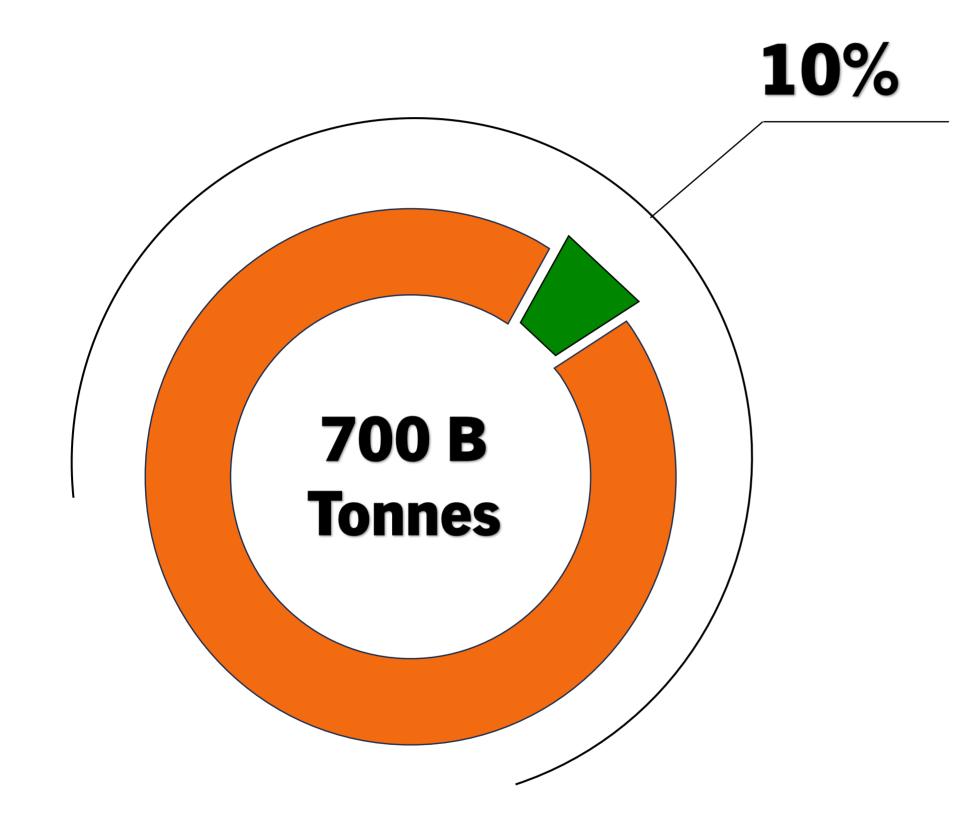
Imperatives for circular economy

Basic Principles of Circular Economy – A Cycle of Resource Efficiency Improvements

Hiearchy of Waste Pyramid

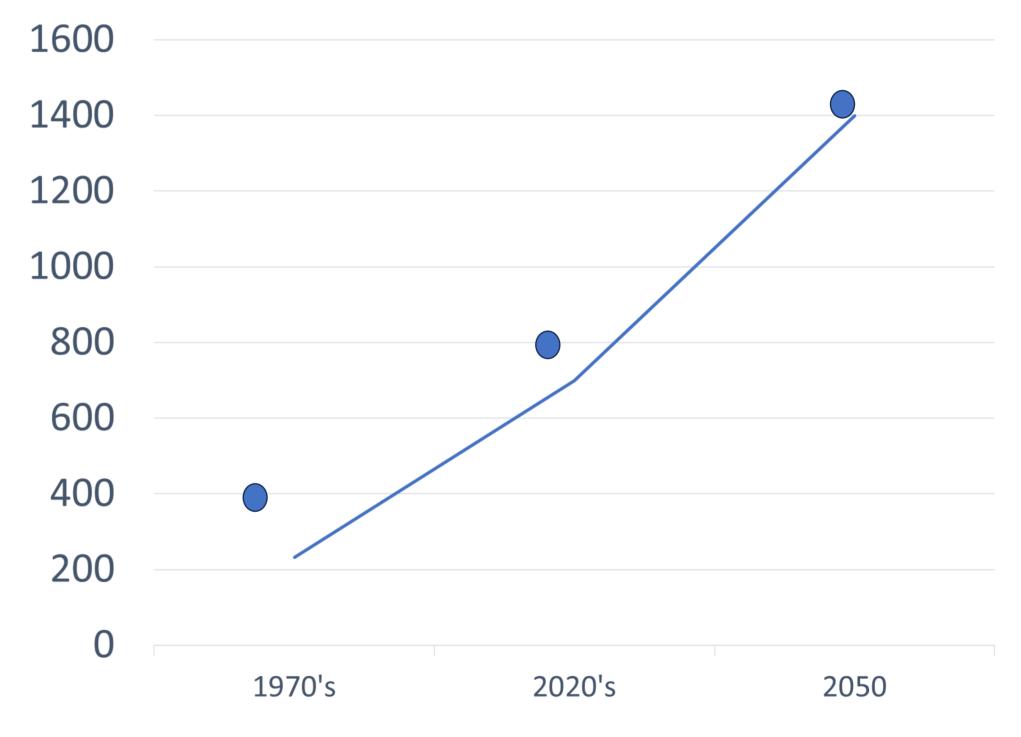


- Circular Economy is a means to improving resource efficiency along supply chains both upstream and downstream by adopting regenerative business model that need innovation
- ERIA's research demonstrates a positive vision of a circular transition
- ERIA's CADP 3.0 recognized the importance of digitalization in navigating the post-pandemic era
- Regional initiatives acknowledge how circular economy is crucial for inclusive and resilient future



Resource Entry = 700 B Tonnes Recycled = 10%

The Use of Resources in EAS



Will double by 2050

Digitalization as a driver of circular economy

1. Transformation to Circular Economy

Requires a change in production, consumption and distribution

4. Big Data Usage

Mapping of problems within various stages of economic cycle



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2. Digitalization as key to circular economy

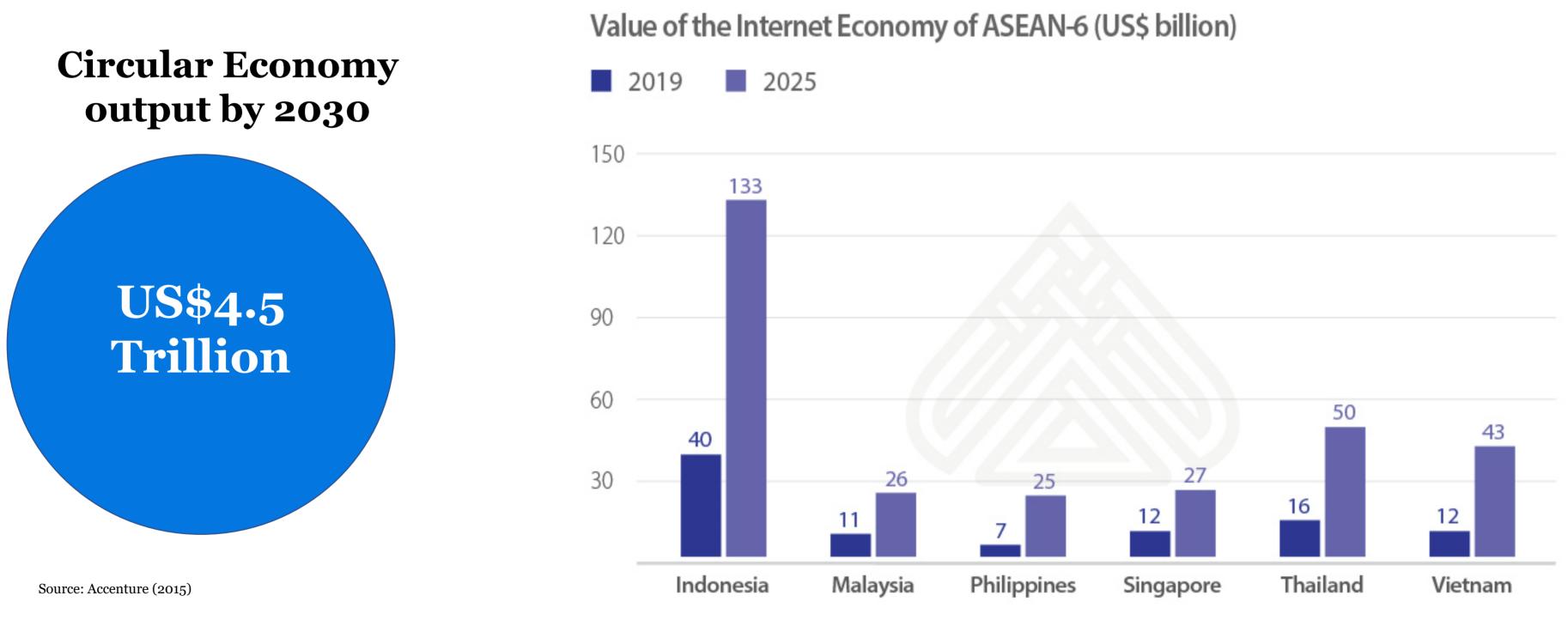
Robots, AI, IoT and ICT tools support recycling, re-manufacturing and enhancing connectivity

3. Digitalization of Supply Chain

Digital solutions can:

- Enhance efficiency and visibility
- Optimize production
- Minimize impact of future shocks

Maximizing the opportunities of circular economy and digital innovation in ASEAN and East Asia ...



Source: e-Conomy Report, Google, Temasek Holdings, and Bain & Co

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... and addressing challenges and constraints

Infrastructure

- Digital divide at the local level
- Limited powerful ICT infrastructure for new technologies e.g., AI, Blockchain

Governance

- The interconnected nature of EAS countries through trade and tech
- Lack of harmonized system codes and policy instruments

Circular transition and digitalization: Making them work in ASEAN and East Asia

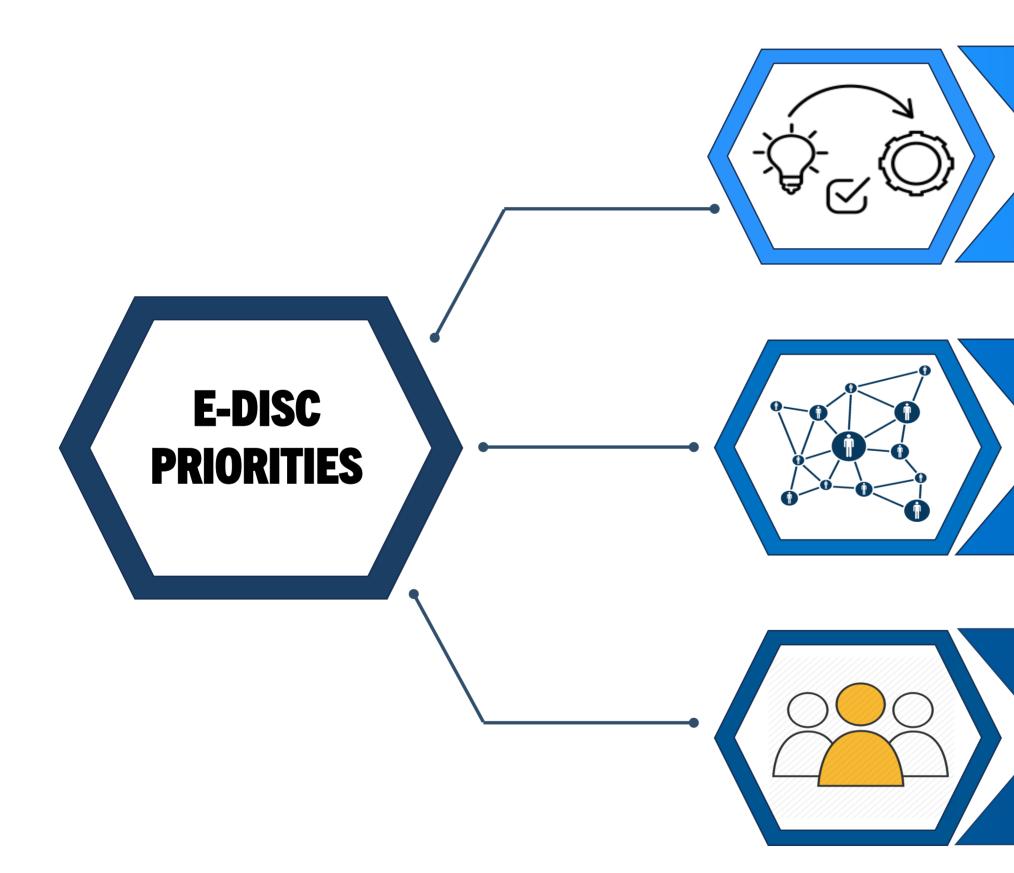
- 1.Provide technical solutions and raise awareness of the imperatives of circular economy
- 4. Implement systematic knowledge sharing and capacity building



2. Ensure digital ecosystem is supportive of a more circular economy

3. Identify priorities to support more circular business models

Supporting ASEAN and East Asia through E-DISC: ERIA's Digital Innovation and Sustainable Economy Center



RESEARCH

- Digital Trade and E-commerce
- Data Governance and Cross-Border Data Flows
- Circular Economy & Low-Carbon Transition
- ASEAN Digital Economy Framework Agreement

ENTREPRENEURSHIP AND INNOVATION

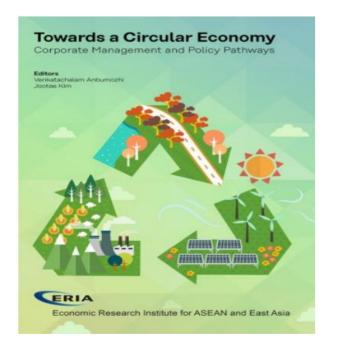
- Networking platform for Businesses & Investors;
- Incubators for Startups; and
- A Strategic Hub for promoting start-up ecosystem

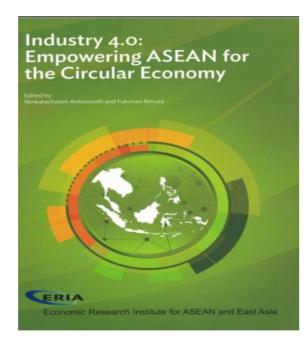
DEVELOPING DIGITAL SKILLS

- Training Programs & Workshops;
- Fellowships; and
- Capacity Building & Knowledge Sharing

Thank you! arillo@eria.org

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