Circular Economy with Intent & Integrity: towards a principles based framework for business action on circular economy in ASEAN Member States

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Thomas THOMAS

Making Circular Economy Work for Business and Industry
ASEAN Circular Economy Stakeholder Platform
30 November 2023
• Supports the transition to a low-carbon, resource efficient and circular economy, whilst promoting more sustainable supply chains and products
  • Operational since 2007 and currently covering 42 countries in Asia, the Pacific and the Middle East
  • Focuses on key polluting industries and export-led value chains (including food, fashion, plastics, tourism and construction)
• Operates through
  • Grant projects
    • pivoting good practices in countries
  • Policy Support Component
    • multi country policy support

https://www.switch-asia.eu/
• Catalyse business commitment and action towards CE through in country learning, consensus and commitment building
  • Contribute to a shared understanding of CE and its criticality to the ASEAN region
  • Identify opportunities for collective business action on CE
  • Facilitate promotion and implementation of ASEAN CE framework

At the request of and in partnership with the ASEAN CSR Network – the business-led, recognized ASEAN entity that works to advance implementation of the responsible business conduct
Circular economy?

• Change the predominant *take-make-use-throw-away* linear economic model into a *take-make-use-recover* circular economic model

• Sounds great but….
  • Concept hides a great diversity of interpretations that hamper implementation and drive scepticism
## CE: rooted in 3Rs

### Smarter product use and manufacturing

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R0: REFUSE</td>
<td>Make product redundant by abandoning its function or by offering the same function with a radically different product</td>
</tr>
<tr>
<td>R1: RETHINK</td>
<td>Make product use more intensive (e.g., through sharing products or by putting multi-functional production on the market)</td>
</tr>
<tr>
<td>R2: REDUCE</td>
<td>Increase efficiency in product manufacturing or by using fewer materials and natural resources</td>
</tr>
</tbody>
</table>

### Expand lifespan of products and its parts

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<tr>
<td>R3: REUSE</td>
<td>Reuse by another consumer of discarded product which is still in good condition and fulfils its original function</td>
</tr>
<tr>
<td>R4: REPAIR</td>
<td>Repair and maintenance of defect product so it can be used with its original function</td>
</tr>
<tr>
<td>R5: REFURBISH</td>
<td>Restore an old product and bring it up to date</td>
</tr>
<tr>
<td>R6: REMANUFACTURING</td>
<td>Use parts of a discarded product in a new product with the same function</td>
</tr>
<tr>
<td>R7: REPURPOSE</td>
<td>Use discarded product or its parts in a new product with a different function</td>
</tr>
</tbody>
</table>

### Useful application of materials

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<tr>
<td>R8: RECYCLE</td>
<td>Process discarded materials to obtain the same (high grade) or lower (low grade) quality</td>
</tr>
<tr>
<td>R9: RECOVERY</td>
<td>Incineration of materials with energy recovery</td>
</tr>
</tbody>
</table>

PBL, 2016
The convenient truth

- Recycling
  - Environmental benefit
    - Diversion of waste from incineration and landfilling
    - Conservation of virgin resources
    - Lower environmental footprint of recycled materials
  - Economic benefit
    - Cost competitive alternative to virgin materials
    - Decreased trade dependency
  - 3Rs form the actionable backbone for sustainable consumption and lifestyles
The inconvenient truth

- Recycling
  - Source of pollution
    - Loss of material, principally as micro-materials
    - Consumes energy and other resources
  - Material degradation
    - Technical – downcycling
    - Safety – accumulation of hazardous substances
- Undermines waste avoidance
  - Takes the guilt out of consumption
  - Discharges the responsibility of production
Planetary picture: Triple Crises

- Manmade
- One risk
  - Planet becoming uninhabitable for human beings
- One cause
  - Unbridled growth in the use of natural resources – energy, materials, water, land, nature
- One solution
  - Decoupling and circulating
    - Doing more with less for more

Circular economy is society’s best bet to navigate out of triple planetary crises!
CE: innovations that circulate resource use efficiently

**INNOVATION**

- Application of:
  - Research & Development
  - Design thinking
  - Entrepreneurship

**PRODUCT & SERVICE LIFECYCLES**

- Covering:
  - Product & Service Design
  - Manufacturing
  - Distribution
  - Use & Maintenance
  - End of Life Recovery

**RESOURCE USE**

- Through:
  - Resource Circularity
  - Resource Efficiency
  - Resource Substitution

**ENABLERS**

- Including:
  - Conducive Public Policy
  - Sustainable Consumption & Lifestyles
  - Transparent Markets
  - Appropriate Financing

Based on Van Berkel, 2023
Resource circularity

100% RECYCLED ECOBOARDS

100% RECYCLED PLASTICS
Our EcoBoards are made out of recycled plastic waste, including the difficult-to-recycle single-use packaging.

LOW MAINTENANCE
Our products are long-lasting, mildew proof, splinter- and weather-free. They require low maintenance.

MADE IN THE PHILIPPINES
Proven to say that the entire process is done within The Philippines, focusing the issue of plastic waste where it matters the most.

UNIQUE
Our ecoBoards are colorful and each one is unique. They are also easily customizable to meet your expectations.

Zero Waste Weave Fabric
### Resource efficiency

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Superbtex (spinning mill)</th>
<th>Argo Pantes (integrated mill)</th>
<th>Saudaratex (garment factory)</th>
<th>Tiara Utama (garment laundry)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Energy Consumption</td>
<td>-4%</td>
<td>-42%</td>
<td>Power -20% Coal -25%</td>
<td>Power -9% Coal -43%</td>
</tr>
<tr>
<td>Specific Water Consumption</td>
<td>n/a</td>
<td>-6%</td>
<td>-24%</td>
<td>-39%</td>
</tr>
<tr>
<td>Specific Pollution/Effluent Load</td>
<td>n/a</td>
<td>-33%</td>
<td>-24%</td>
<td>-39%</td>
</tr>
<tr>
<td>Chemical Consumption</td>
<td>n/a</td>
<td>-23%</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>GHG emissions</td>
<td>-4%</td>
<td>-9%</td>
<td>-25%</td>
<td>-42%</td>
</tr>
<tr>
<td>Annual cost savings</td>
<td>USD 47,000</td>
<td>USD 1.08 million</td>
<td>USD 538,000</td>
<td>USD143,00</td>
</tr>
</tbody>
</table>

![Image of factory equipment]
Resource substitution

• Solar Dryer Dome for fish drying
  • Solar thermal dome
  • PV with battery storage for ventilator
• Investment USD17,000
• Payback in 6-19 months, depending on load and distribution among fish species
  • Reduction of LPG and power use, labour cost
  • Improved hygiene & food safety
  • Reduction of drying time
CE business case

- Decrease in operational costs
- Increase in sales revenue
- Innovation driving diversification & growth
- Decrease of business risks through compliance and conformance
- Future readiness unlocks momentum and resources for growth
Guiding principles for CE business action

1. Net Zero for Climate, Nature and Environment
Circular Economy targets net zero by ending unsustainable resource use as the common root cause of climate change, loss of nature and biodiversity, and accumulation of pollutants and waste, which together constitute the triple planetary crises.

2. Resource Circularity, Efficiency and Substitution
Circular Economy closes natural resource use loops by designing in resource circularity, resource efficiency and resource substitution.

3. Responsible Business
Circular Economy involves business taking responsibility for the impacts on environment and society of the materials and other natural resources that are required throughout the lifecycle of its products and services.
Guiding principles for CE business action

4 Ideation and Co-creation
Circular Economy frames ideation and co-creation by business and its value chains to innovate and develop circular product and service solutions.

5 Net Benefits
Circular Economy de-risks the economy and society from the impacts and risks of their unsustainable use of natural resources to generate net socio-economic benefit.

Your feedback please!!
Are these guiding principles appropriate, relevant and actionable for business and industry in ASEAN Member States?
• Next steps
  • Collation and analysis of actual circular economy business examples – *your nominations are welcome*!
  • Finalization of operational framework – *your suggestions are welcome*!
  • Creation of a pan ASEAN CE business initiative – *your suggestions and commitment are welcome*!

Philippines, Thailand, Cambodia, Viet Nam, Indonesia

Aug 2023 – March 2024
A great idea!

- Building upon the positives
  - The goal is zero!
    - The earlier verbatim of ‘prevent’, ‘minimize’, ‘reduce’, etc. is simply not enough
  - The centrality of resource use for mitigating the triple planetary crises

- Mitigating the negatives
  - Romanticising recycling
    - Not all circular ideas have net environmental benefit
  - Offloading of (business) responsibilities

⇒ Accelerate innovation and implementation
  - intent and integrity matter!
Thank you

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