Solar E-waste management

Philips Lighting Foundation
# Product to sustainability

## Access to light value chain

## Table:

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Product</th>
<th>Last mile distribution</th>
<th>User Ownership</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable/Reliable</td>
<td>Availability</td>
<td>Consumer Finance</td>
<td>After-sales Support/EOL</td>
<td></td>
</tr>
</tbody>
</table>

## Enablers:

- BoP Innovation
- Frugal Manufacturing
- Seed/Early Stage Finance
- Supply Chain Innovation
- Micro Entrepreneur
- Working Capital
- Solar Sensitization
- User Training
- Consumer Micro-Finance
- Technical Upskilling
- End of Life Solutions
- Infrastructure Investments

## Actors:

- BoP Focused Enterprises
- Inclusive Marketing & Distributing Enterprises
- Customer Support & Micro-Finance Institutions
- Technical Experts

---

**Philips Lighting Foundation**
End of Life
Our Approach

LEARN
• Deep dive into current situation and practices

SCALE
• Gather learnings
• Embed best practices
• Expand scope

STRATEGIZE
• Define unified cross-sector plan
• Organize resources

PIONEER
• Build momentum through quick wins and pilots
• Support local solutions

E- waste management: Setting the stage

LEAD & INFLUENCE
• Create industry standards
• Influence regulation
• Share best practices

Philips Lighting Foundation
Product Flow to Secondary Markets
(Retail Example)

- Logistics (packaging) is organized for top down, factory to end user
- Reverse logistics is even more expensive as optimization on transport/packaging very difficult
- Last mile distribution is already difficult, reversed last mile distribution seems almost impossible
- How to secure payment for encountered costs bottom up.
- Disparate volume ratio between new and reverse product
- Reversed paperwork, clearing documents will not be available
- Loss of value of products prevents return to factory,
- Who pays? without clear financial value of reversed products. Can we create a value?

**EOL value chain**

**Local to local solutions**

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Responsible Consumption</th>
<th>Reverse Logistics</th>
<th>Recycling/Repurpose</th>
<th>Secondary product manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of sensitization</td>
<td>Lack of incentives with extra effort and minimal financial gain</td>
<td>Lack of regulatory policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of collecting points</td>
<td>Gap in logistics</td>
<td>Local processing as per international standards</td>
<td>Lack of value proposition</td>
<td></td>
</tr>
<tr>
<td>Cost for collection Logistics</td>
<td>Cost for recycling</td>
<td>Volumes to drive revenue model</td>
<td>Local/frugal manufacturing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Financial Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Support &amp; Training</td>
<td>Design changes to reduce the recycling cost</td>
</tr>
<tr>
<td>Awareness Program</td>
<td>Customer support &amp; Training</td>
</tr>
</tbody>
</table>