Post-Consumer Textiles Value Chain

Primary movement of post-consumer textiles through the value chain.

Note that materials also move between Functions and Process/Features.

**Inputs**
Includes clothing, rags, curtains, linens, shoes, bags, hats, belts, stuffed animals, pillows, fabric scraps, upholstery, and other similar products made from natural and synthetic fabrics/materials, such as cottons, wools, silks, woven nylon, rayon, polyesters and leather.

Products mostly loose or bagged.

Note: Other non-textile materials, such as books and household goods, are often collected in conjunction with the textiles on which this value chain focuses.

**Collection**
- **Public drop-off**
  - Thrift stores
  - Drop boxes/drop-off sites
  - Special events
  - Recycling facilities
  - Retail take-back
  - Mixed textiles
  - Textiles mixed with other household items
  - Products mostly loose or bagged, not baled or compacted

- **Private pick-up**
  - Residential curbside pick-up service
  - Charity or other organization
  - Garbage/recycling subscription service
  - Commercial/industrial pick-up service
  - Customer-directed packaging and shipping through a third-party carrier
  - Mixed textiles
  - Textiles mixed with other household items
  - Commercial rag grades
  - Commercial linen grades
  - Products mostly loose, bagged, or boxed, not baled or compacted

**Processing**
- **Sorting**
  - Primarily manual
  - Local to global sourcing and markets
  - Local and regional operations
  - Sort up to dozens of grades
  - Products include clothes, shoes and accessories
  - Packaging and shipping – products in bales, bags and gaylords

- **Grading**
  - Manual and highly mechanized
  - Local to global sourcing and markets
  - Sort up to hundreds of grades
  - Same as “sorting” products (above), with more specificity and combinations of sorted and graded items for more diverse and global markets
  - Packaging and shipping – products in bales, bags, boxes and gaylords

**Markets**
(In order of highest and next best use.)
- **Resale and rewear**
  - Second-hand sales
  - Informal sharing activities
  - Local to global markets
  - Wide variety: from high-end fashion items to mismatched shoes

- **Repurpose and reuse**
  - Adapt for a different purpose/use
  - Wiping rags
  - Absorbent materials
  - Use materials to create new products – toys, clothing, accessories

- **Recycle/downcycle**
  - Fiber reclamation to produce raw materials and new products
  - Fill for automotive industry
  - Insulation and sound-proofing for household appliances and other applications
  - Padding for carpet, mattresses, upholstery and other applications
  - Towels, rugs, blankets
  - Niche markets – example: punching bags
  - Bi-products of processing; sometimes burned for energy (for example, dust bricks)
  - Building products (emerging)

- **Recycle/closed loop**
  - Closed-loop remanufacturing of textiles specifically designed for this purpose
  - Textiles remanufactured into the same product or product line

**Key/Legend**

<table>
<thead>
<tr>
<th>Primary Links</th>
<th>Process/Features</th>
<th>Products/Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sorting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber conversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Markets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>