



Fibersort™

closing the loop on textiles

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Presentation outline

1. Valvan Baling Systems
 - i. Intro
 - ii. Machine
 - iii. Technology

2. Smart Fibersorting

Valvan Baling Systems

Sorting and baling solutions for applications in :

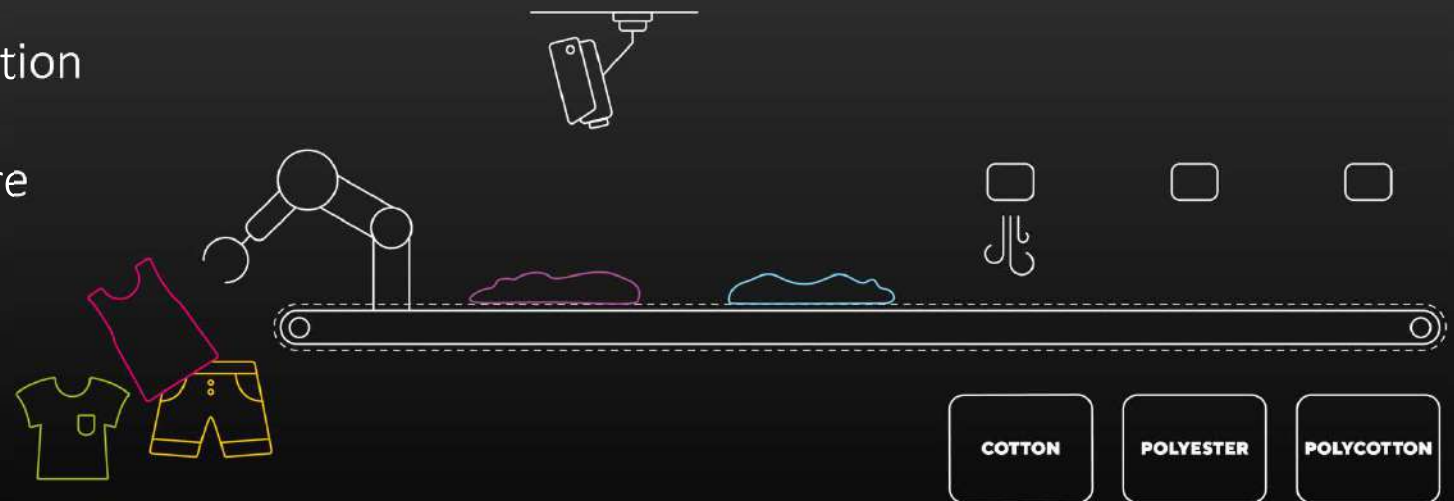
- Recycling industry
- Fiber industry
- Used clothing industry



Fibersort machine

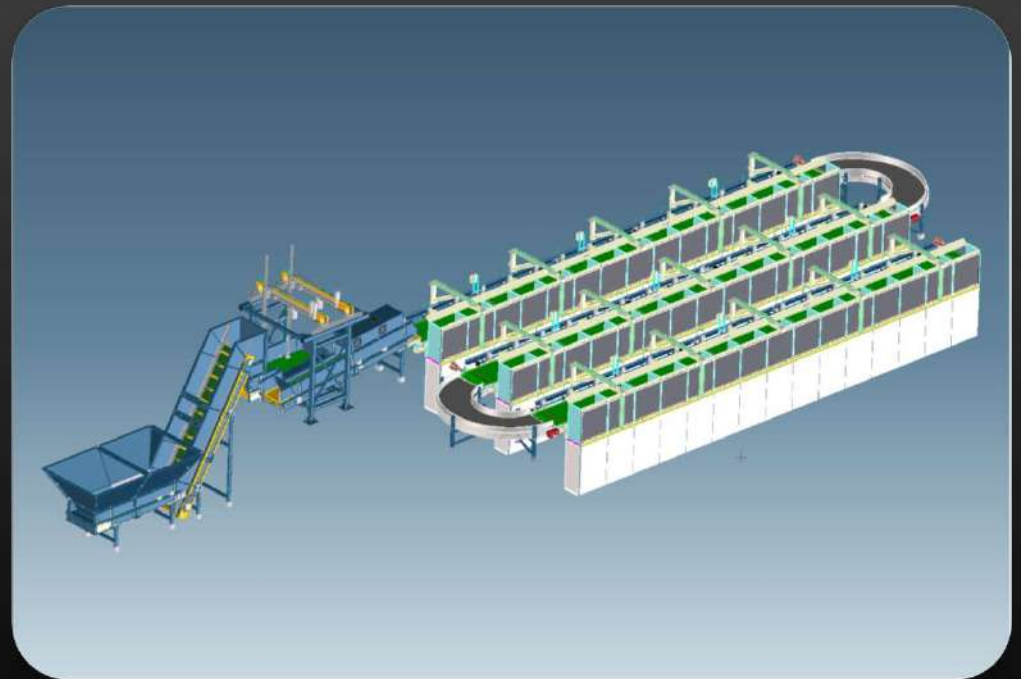
Automatic sorting machine, sorting textiles in different categories based on :

- Fiber composition
- Color composition
- Fabric structure



Fibersort machine

- Automatically sorting textiles based on **fiber type, color and structure**
- Production rate:
 - 1 sample every 1 second
 - 3.600 samples / hour
 - +1260 kg / hour
- Feeding options:
 - Manual – 1 fulltime operator
 - Automatic – feeding robot which feeds pieces one by one



Color sorting – single vs multi color textiles

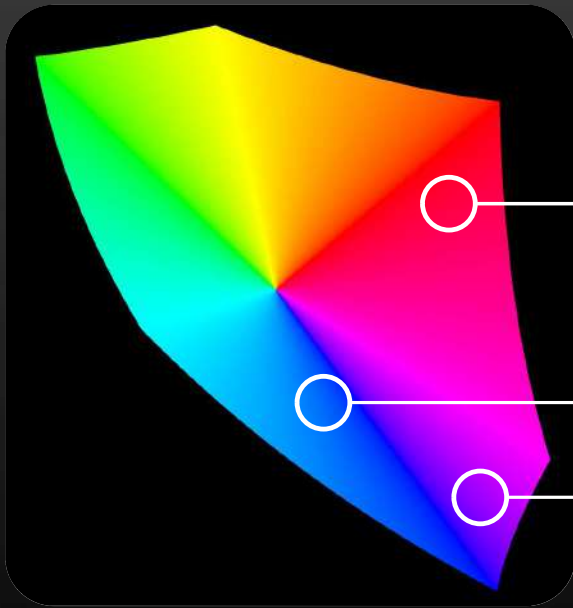
Single color



Multi color

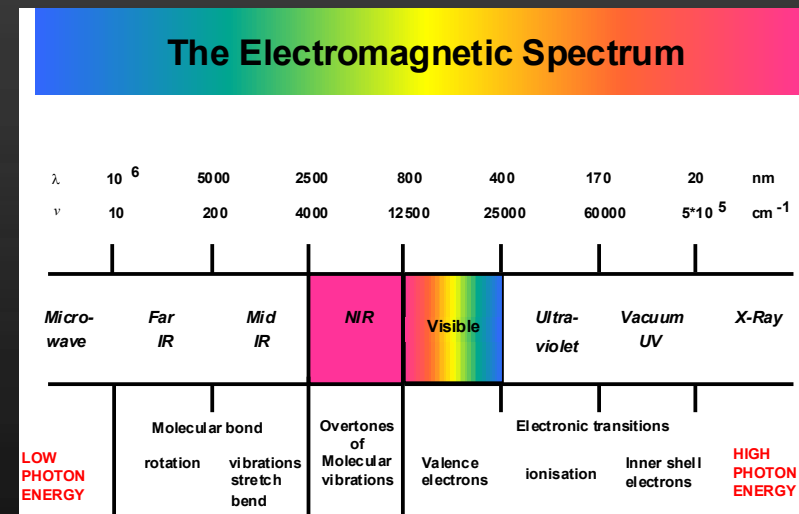


Color sorting – precise color sorting

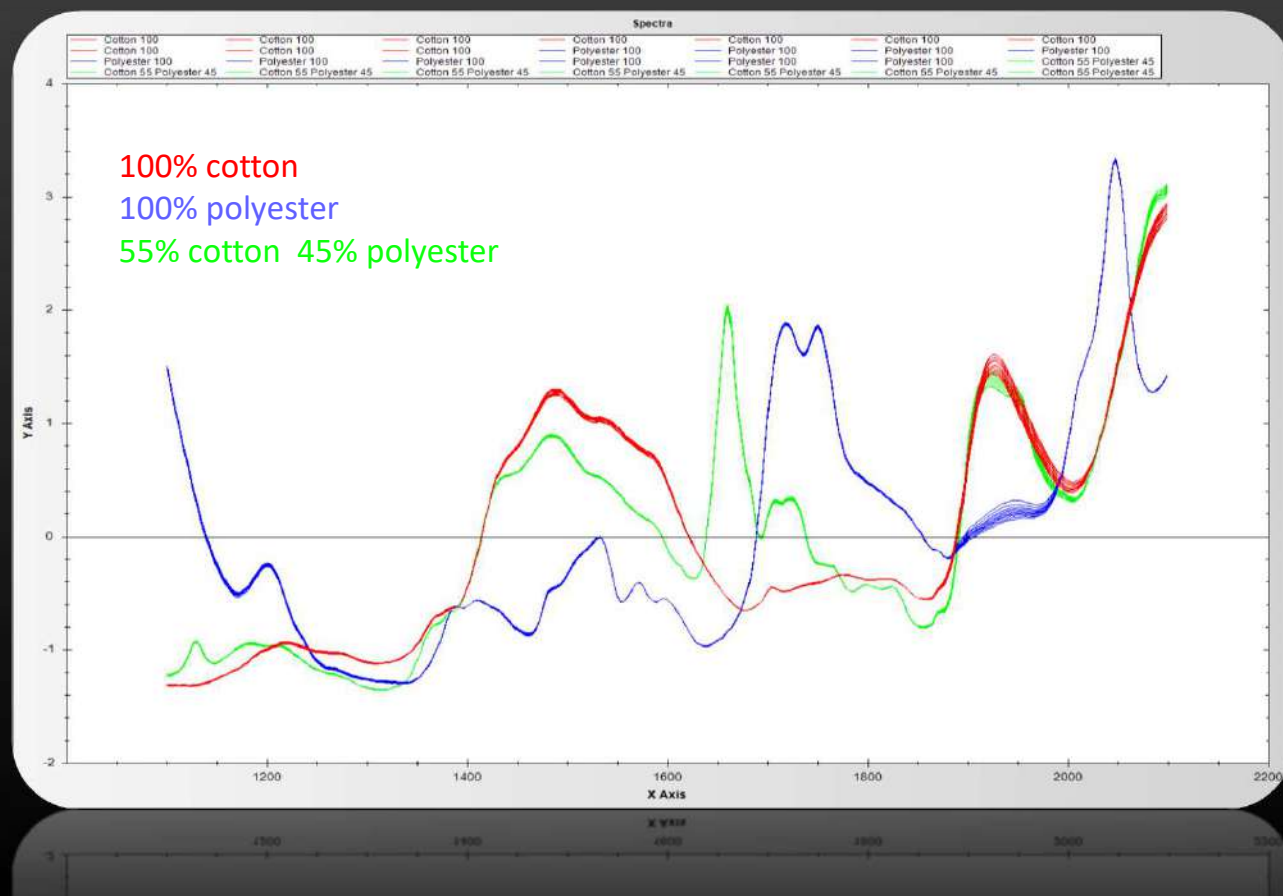


Fibersort technology – NIR

- ✓ Scanner emits Near Infrared light
- ✓ NIR light is reflected or absorbed
- ✓ Reflection profile of each textile composition is unique
- ✓ One scan every 1 s (50 ms)



Fibersort technology – NIR



Why do we need the FIBERSORT?

- Sort by fiber type with very high accuracy and increased speed
- The alternative is manual sorting, with following limitations:
 - A trained manual sorter needs 6 seconds to read the label
 - Used clothing doesn't always have a label
 - Some labels are inaccurate

Textiles2Textiles

- Creating clean raw material
 - After Fibersort, cutting and removing all contamination, including labels
 - Trimclean Innivation
 - Creating Post Consumer Clippings
 - Raw material suitable for fiberizing and spinning yarn
 - Fiber Farms, world wide concept!
- European policy 2025, 25% PCR in all garments
 - More pressure on the industry
 - Fantastic new initiatives, Denim Deal