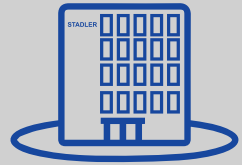


STADLER



Engineering at its best



Sustainable Textiles and Recycling Route

Ismael Aviles

CCO Spain

Marina Munar

Sales Engineer department

Profile STADLER



- Excellent Financial Solvency (AAA⁺)
- Family business with a long tradition (>230 years)
- Three factories located in Germany and Slovenia
- > 80% export
- > 600 employees
- > 650 plants in operation
- > 3000 individual teams

Headquarters and Manufacturing

Altshausen, Germany



Krško, Slovenia



Our plants sort various types of waste



Municipal Solid Waste



Dry mixed recyclables



Commercial waste



Lightweight packaging



Wood



Films



Paper and cardboard



Waste-derived fuel



Construction Materials



Electrical/Electronic Waste



Plastics



Textiel

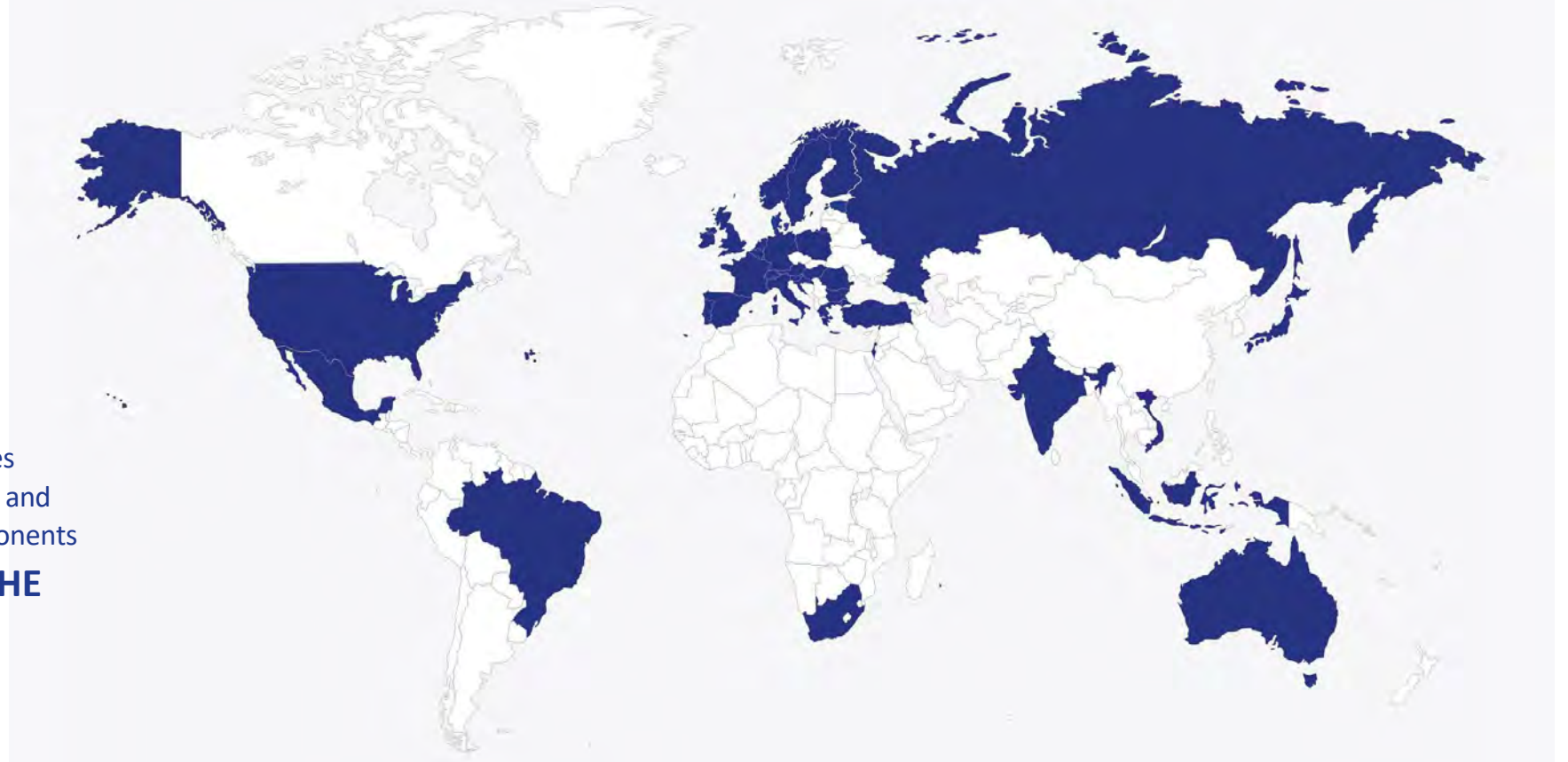
More than 650 turnkey sorting plants

WORLDWIDE



STADLER supplies
turnkey systems and
individual components

**ALL OVER THE
WORLD**



In Europe: Austria - Belgium - Bulgaria - Croatia - Denmark - Estonia - Finland - France Germany - Greece - Hungary - Ireland - Italy - Luxembourg - Netherlands - Norway Poland - Portugal - Romania - Russia - Slovenia - Spain - Sweden - Switzerland - Turkey United Kingdom

In Asia: India - Indonesia - Israel - Japan - Vietnam – Australia
In Americas: Brazil - Guadeloupe - Mexico - United States
In Africa: La Reunion - South Africa

The problem



The Solution



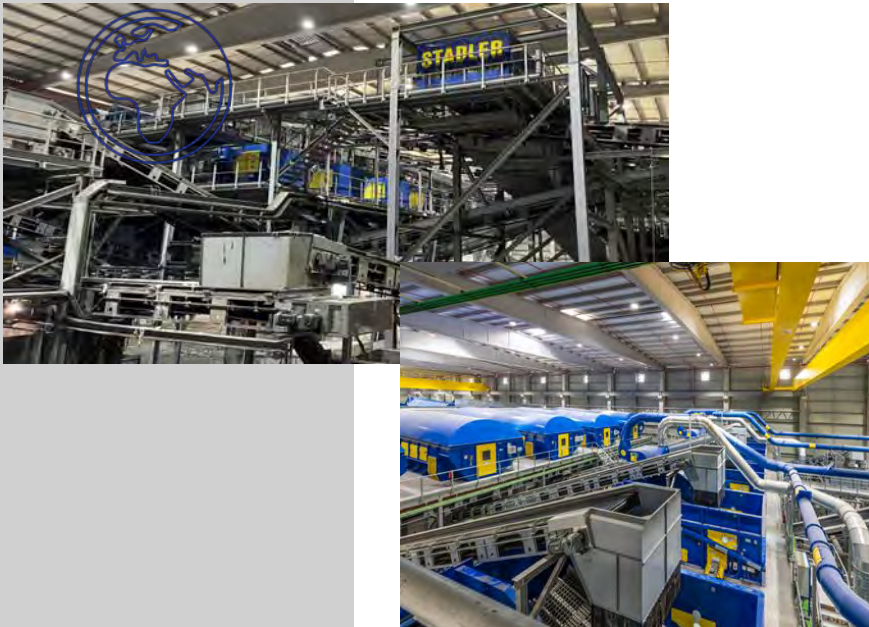
Sogama MSW (A Coruña)

Spain



PET/HDPE/PP/PS/Tetra/
FE/nFE/Films/Paper/
Cardboard/MP/etc...

- 5 lines (>180 t/hr)
- 1.000.000 tones per year
- 10 x Screen drums and 6 x Ballistic
- 11 different material recovered.
(+RDF Material)
- 27 Optical Separators.



Ecoparc 4 MSW (Barcelona)

Spain



PET/HDPE/P.Mix/Tetra/
FE/nFE/Films/Pape/
Cardboard/etc...

- 3 lines (>120 t/hr)
- 350.000 tones per year
- 9 x Screen drums and 4 x STT5000 Ballistic
- Different material recovered. (+RDF Material)



Orizon MSW (Brasil)

Pernambuco, Brazil



PET/HDPE/P.Mix/Tetra/
FE/nFE/Films/Pape/
Cardboard/etc...

- 2 lines (>100 t/hr)
- 500.000 tones per year



Alexandre Citvaras He explains:
"Our biggest challenge has been to design a sorting process with proven technology that increases the efficiency of waste treatment in the Jaboatão dos Guararapes Ecopark. With this machinery, we will achieve a sorting efficiency ranging from 75% to 85% of economically viable recyclable material. It is a breakthrough in our operations, which have gained productivity and will play a key environmental role in returning materials to the production chain, helping us move towards a true circular economy."

ROAF MSW

Norway (Oslo)



- World's First Fully Automatic Plant
- Avfall Norge Award for Innovation and Development, among other awards
- Separation by colored garbage bags of: biological waste and recyclable materials (>600 tons/year)
- High degree of automation with 3 operators per shift



PreZero (Eitting)

Germany

Europe's largest light packaging plant



PET/HDPE/PP/PS/Tetra/
FE/nFE/Films/Paper/
Cardboard/MP/etc...

- >20 t/h. Entrance fee
- 120,000 tonnes of high-quality recycled material
- Up to 18 fractions are separated, differentiated by type of material and color
- 38 Optical Separators.



Alzira Vaersa (Valencia)

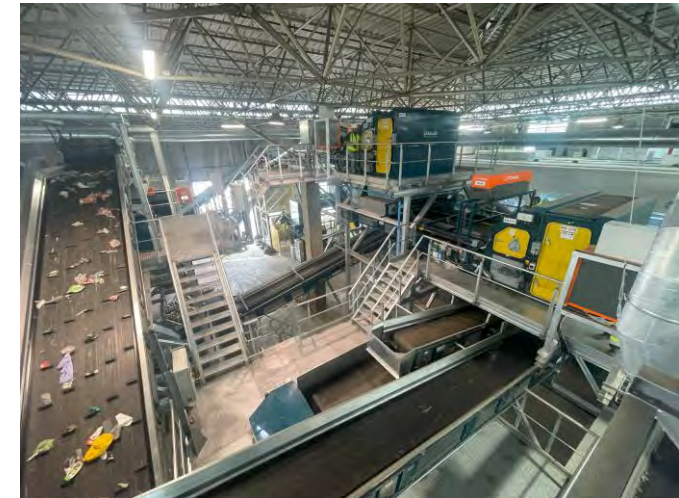
Spain

Light Packaging Plant



PET/HDPE/PP/PS/Tetra/
FE/nFE/Films/Paper/
MP/etc...

- >8 t/h. Entrance fee
- 40,000 tonnes of high-quality recycled material
- Up to 7 fractions are separated, differentiated by type of material



Polymer Center (Indianapolis)

USA

Light Packaging Plant



PET & PO....

- >5 t/h. Entrance fee
- Up to 6 fractions are separated, differentiated by type of material and color



Kunststoff Recycling Grünstadt (KRG)

Germany

Plastic recycling for your
Processing

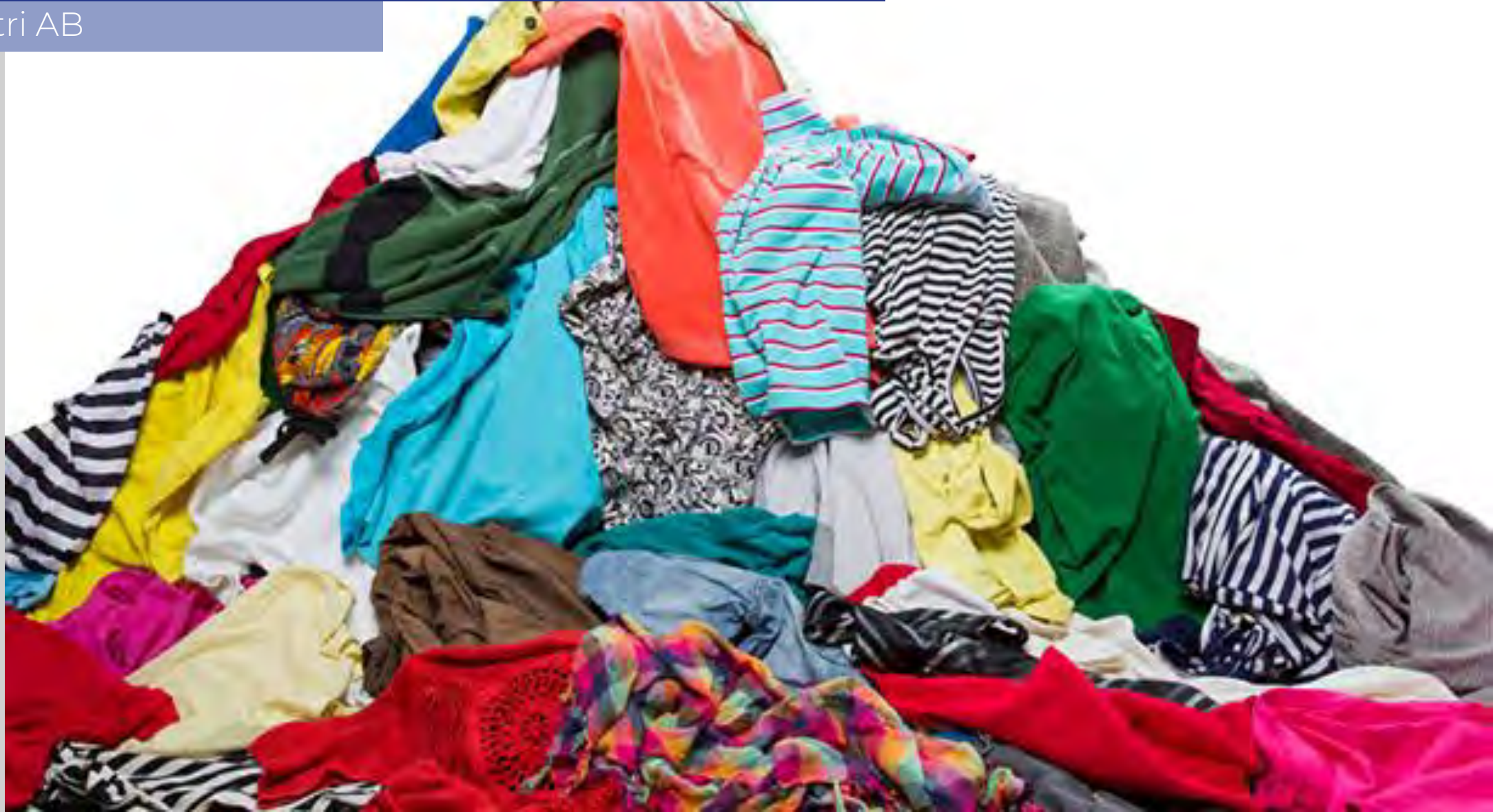


- 10 t/h input for processing
- 30,000 tonnes of high-quality recycled material
- Up to 6 fractions differentiated by type of material and color
- 2 hot washing lines (the rest is stored for further processing)



(SIPTex) Government-funded project

Sysav Industri AB



SIPTex (Swedish Innovation Platform for Textile Sorting)

(Malmö, Sweden) Sysav Industri AB

The world's first fully automated textile sorting plant

Fully automated plant sorting C&I and Post-Consumer textile waste in South Skåne, Sweden.



- 4.5 t/hr of process input.
- Pre and Post-Consumer Material. (industrial waste and separate SIGs_recolección)
- Plant designed by STADLER.
- 4 optical separators.

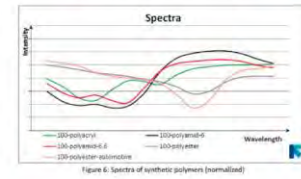
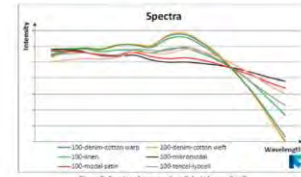


Successful detection and sorting:

- 100% polyester
- 100% cotton
- 100% polyamide (6.0 & 6.6)
- 100% wool
- 100% polyacrylic

Polycotton blends

- >90% polyester
- >90% cotton
- >80% cotton
- 100% white cotton
- >90% white cotton
- 100% blue jeans cotton
- >80% polyamide
- >90% cellulose
- + colour sorting

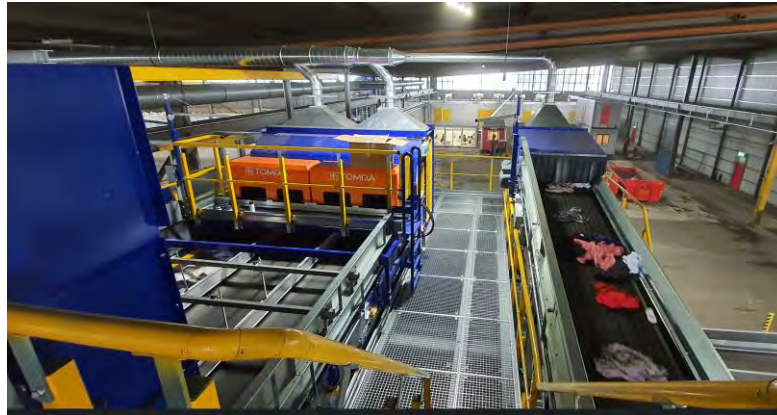


SIPTeX (Swedish Innovation Platform for Textile Sorting)

(Malmö, Sweden) Sysav Industri AB



ALIMENTACIÓN Y DOSIFICACIÓN



SEPARACION AUTOMÁTICA NIR

DESPOLVORIZACIÓN

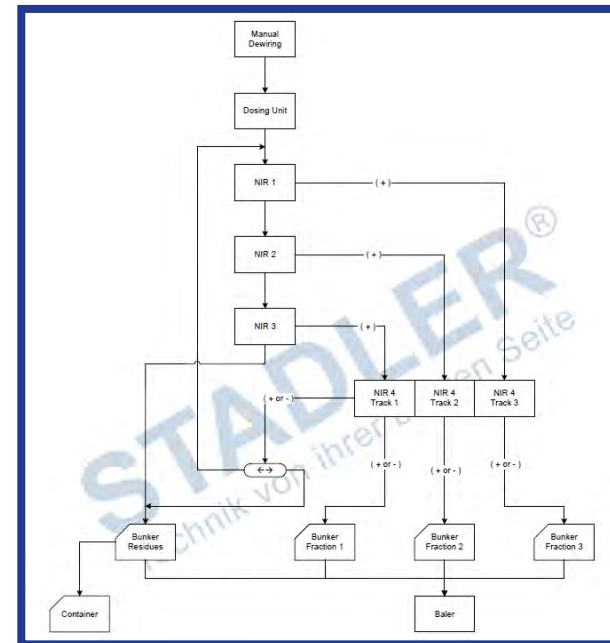
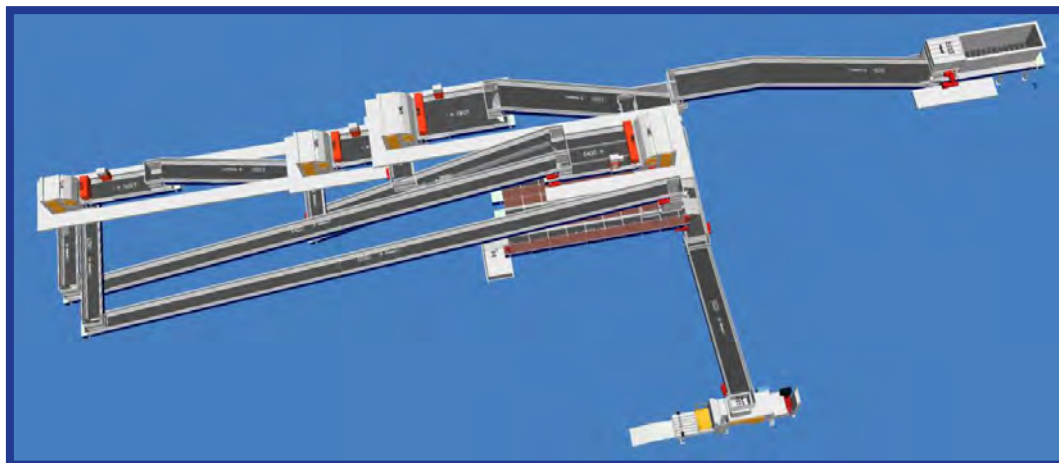


The world's first fully automated textile sorting plant

Fully automated plant sorting C&I and Post-Consumer textile waste in South Skåne, Sweden.

SIPTex (Swedish Innovation Platform for Textile Sorting)

(Malmö, Sweden)



Other selection models

PICVISA

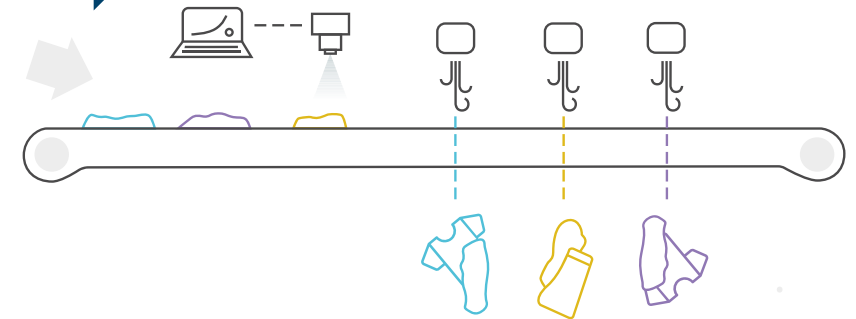


PICVISA

Garment Classification ECOSORT

- Size: textile garments
- 1 ton/hour x conveyor belt
- >70 simultaneous separations
- More than 12 installations

VIDEO



STADLER VALUES



Trust

Honesty

Reliability



Thank you

For your kind attention



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