

i-sorting
Intelligente Sorting

**recycling- and sorting
technologies 4.0**

**Sustainable and innovative
waste management**

Expertise for more than 30 years in treating, sorting and recycling of solid waste and recyclable materials

Engineering and assembling of turn-key sorting plants for
Used paper– plastics– light packaging– demolition waste– industrial waste–
Single Stream – wood

Plant optimisations – individual solutions

Maintenance and services

CE-certifications



Seamless project management for smooth operation and your durable success:

- Engineering
- Development of concepts
- Turn-key assembling and setting in motion
- Personal trainings
- Maintenance and services
- CE-certifications



Delivery programme

Dosing bunkers and conveyors

Screen technologies

sensor based sorting machines

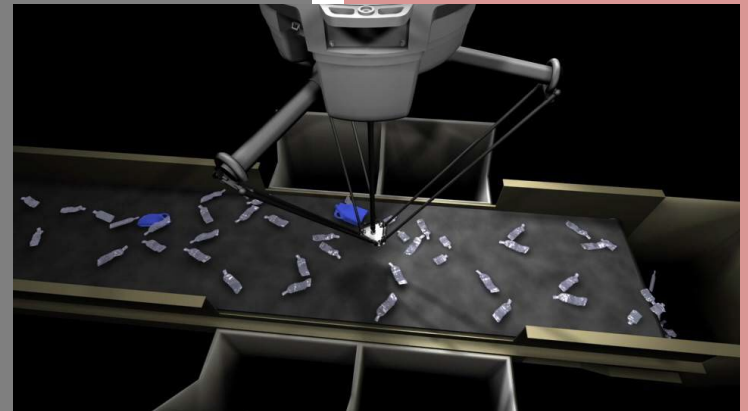
Sorting robotics

Shredder

Data shredder

De-dusting systems

Air-classifiers



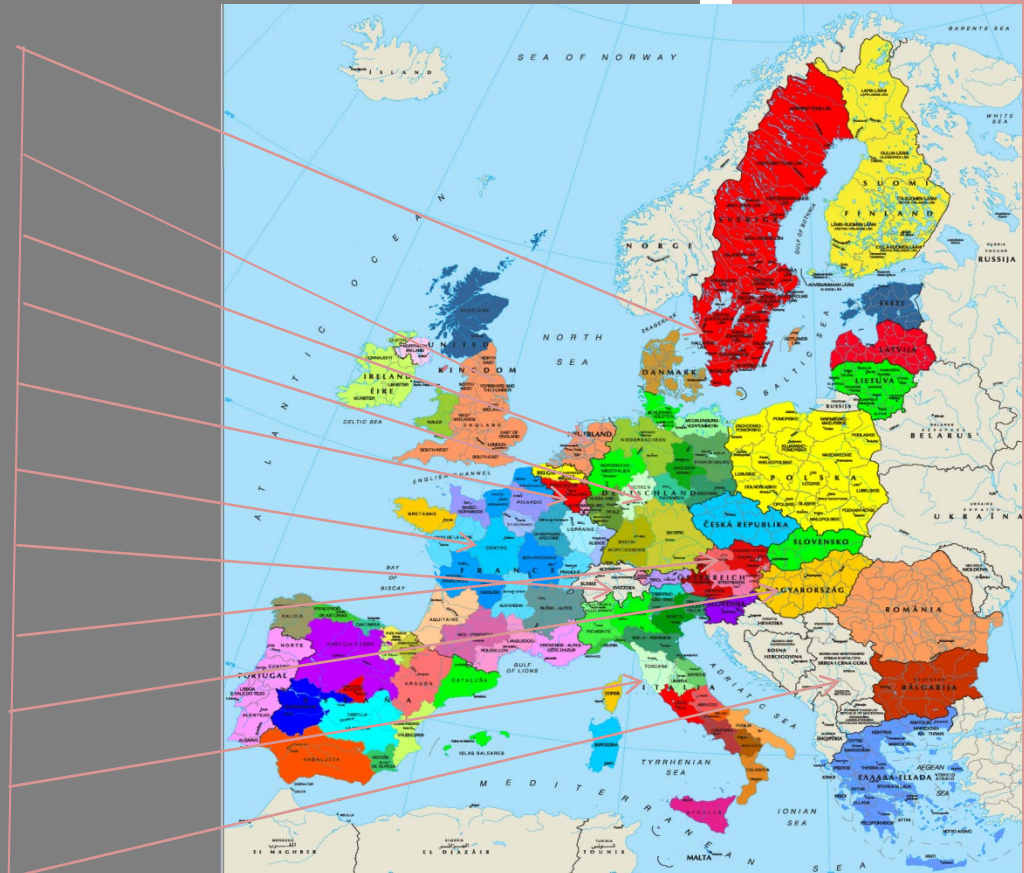
JOINT RESEARCH PROJECT PARTNERS

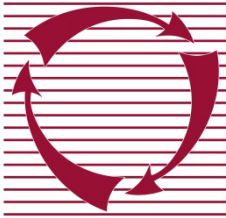
- INGEDE e.V. Internationale
Forschungsgemeinschaft Deinking-Technik e.V.
- I.A.R. (Institut für Aufbereitung und Recycling),
Aachen
- Hochschule für angewandte Wissenschaften
München (field image processing, pattern matching
and Computer Vision)
- PTS (field raw materials and recycling , measuring
and sensor technology)



references

- Sweden
- UK
- Netherlands
- Germany
- Belgium
- France
- Switzerland
- Austria
- Hungary
- Italy
- Serbia





References

- ALBA, Waiblingen
- ASD, Dachau / UPM Kymene
- ASK, Kinsau /UPM / VEOLIA
- Bunzl+Biach, Chiemgau Recycling
- Duparec / Hamburger, Hungary
- Hoffmann Group, ROWE,, Nürnberg
- Koppitz GmbH, Knetzgau
- Linz AG, A- Linz
- Onyx, F- Mur de Sologne
- Palm Paper, UK
- Papyrus, A- Salzburg + Villach
- RI.ECO,I-Milano
- Rohprog GmbH, Munich
- Stena, N-Oslo
- Stora Enso, Belgium
- Thevenaz Leduc S.A., CH-Genf
- Zimmermann Ganahl, A-Hall



Rowe Hoffmann Gruppe, Nürnberg Fully monitored Waste paper sorting



Packaging waste sorting plant

(Duparec, Budapest, Hungary)



Recycling of Nespresso-capsules

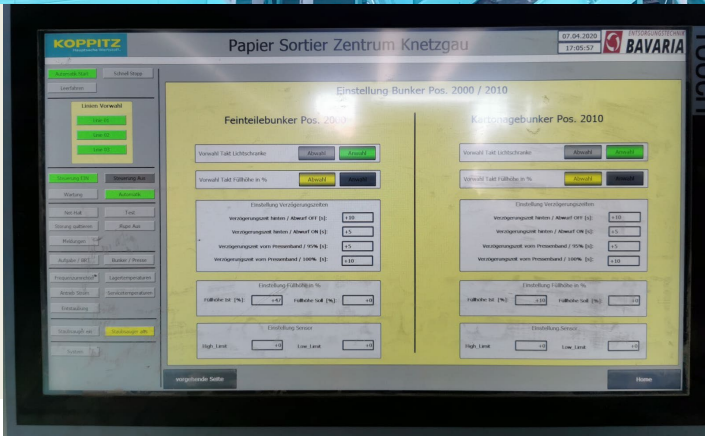
(Thevenaz Leduc Lausanne Switzerland)



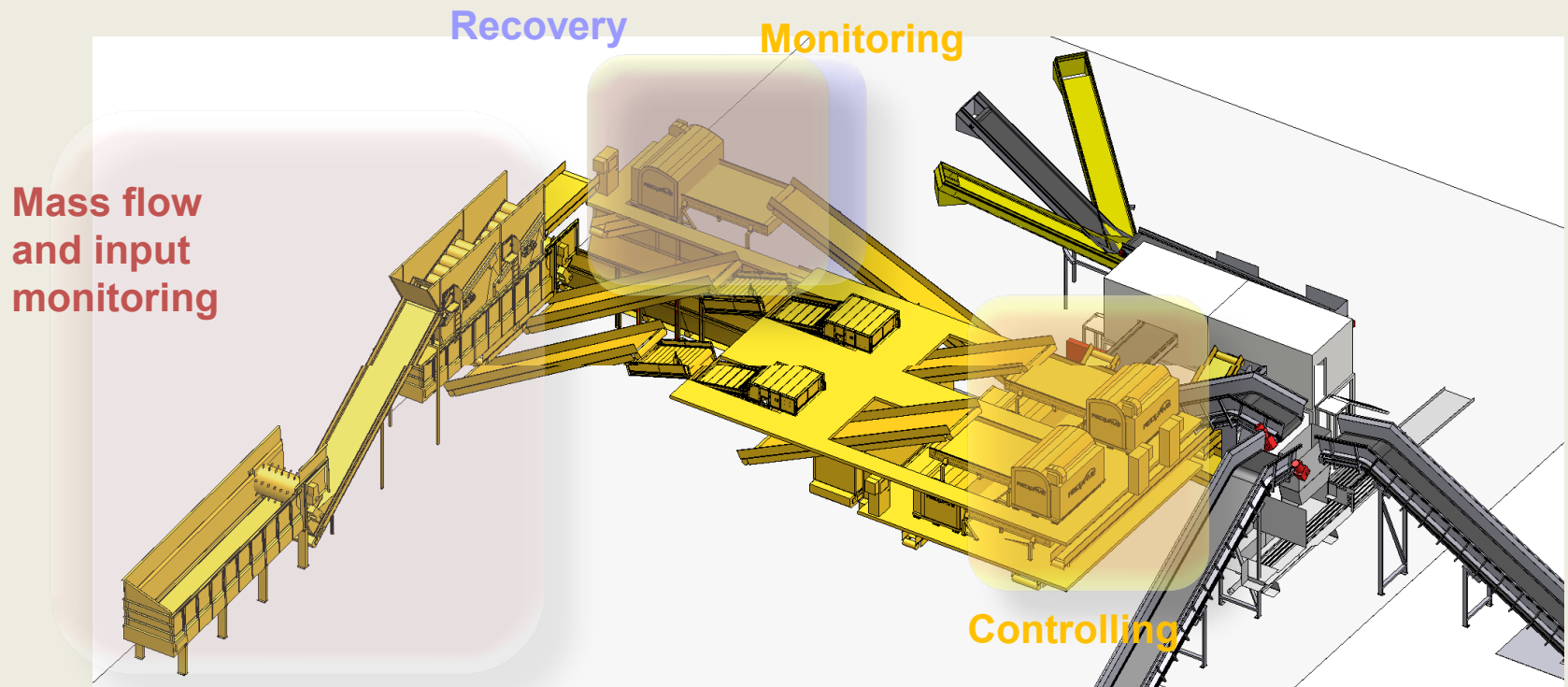
Sorting of light packaging Sweden



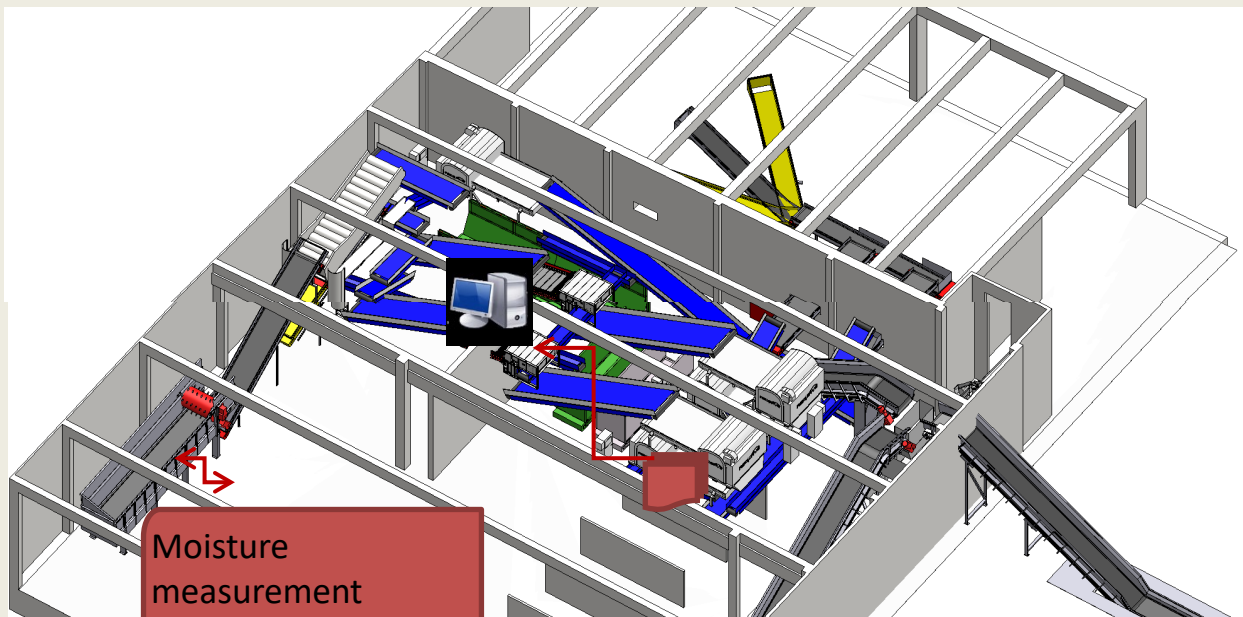
Biggest waste paper sorting plant in Europe,
fully automatically
Koppitz, Knetzgau 50 t/h, mounted in 8 weeks



engineering



Process optimisation



Moisture
measurement
Throuhput-controlg

Sorting
parameters
determine

Data control f.e.:
- Quota Cardboards
- quota nonpapers

1. Mass flow control and –management
2. Moisture measurement
3. Online-Monitoring material data and sorting parameters at the NIR
4. recovery –control and –management
5. *Optional: Quality-Analyser*

Technologies

with automatically
moisture measurement



input-dosing bunker, bale opener

Technologies

Disc screens



Technologien



Film sorting with vaccum drum

Innovative Technologies

MAX AI sorting robotics

Identifiable materials:

PET bottles, thermoform PET, HDPE transparent and coloured, polypropylene (PP), mixed plastics, aluminium, paper, cardboards, residue, black plastics, tetras

Up to 60 picks per minute

Up to 6 discrete sorts



MAX-POS Process optimisation



For highest reliability:

- Permanent online quality-control
- Just-in-time reactions
- Optimal efficiency and availability of the site
- High deinking yield
- High throughput
- Steady high quality
- Early-warning mechanism for each machine
- „Würde ich nie wieder hergeben“



Bearing temperature control

Koppitz, Knetzgau



05/11/2010 09:08

Sorting plant optimisation

**Thank you for your kind
attention!**

