



waste no more

CAPITAL MARKETS DAY

Booklet 2 – Site Tours

27/28 September 2017



ZOETERWOUDE, SITE TOUR

September 2017





Why are we here?

- ▶ Our newest site
- ▶ Built with sustainability and continuous improvement (CI) in mind
- ▶ Specialist in paper and cardboard handling





Zoeterwoude – The Site

**Completed in 2016 following fire
at the old location in 2013**

- ▶ Combines activities of 3 former sites (Vliko, Kluivers & PRA)
- ▶ 1,245 solar panels in place before end 2017, making site CO₂ neutral
- ▶ Revenue: € 36m
- ▶ Volumes:
 - 50 Ktons paper
 - 150 Ktons I&C waste
 - 110 employees (approx.)





Zoeterwoude – Renewi Continuous Improvement



Continuous Improvement (CI) or LEAN is a proven methodology to increase productivity & reduce cost

- ▶ CI introduced to Shanks in 2015 and by early 2017 was rolled out to 21 sites in NL & BE Commercial Division
- ▶ Annualised savings in 2016 fiscal year of €2m in CW-NL

FIVE CORE TOOLS:

- Process analysis
 - Standard work & 5S
 - Visual management & daily stands
 - Problem solving
 - Workplace audit
- ▶ Bas Blom will build further on this success and secure CI roll-out in all the divisions in 2018



Zoeterwoude – CI: Visual Management

Daily meeting of teams checks wellbeing, safety, reviews performance and identifies problems for resolution or escalation

Clear, visual and auditable





Zoeterwoude – Fire: A Major Industry Risk

FIRE IS A MAJOR RISK OF HANDLING WASTE:

- Flammable
 - Self heats
 - Contains hazardous materials (batteries etc)
- A major waste company may handle >20 incidents per month

Increasing insurance costs becoming a strategic industry issue





Zoeterwoude – Fire: Renewi's Approach

Renewi's Head of SHEQ is a UK industry expert on fire

PREVENTION:

- ▶ Clear operational instructions on handling waste
- ▶ Observations using hand-held thermal cameras
- ▶ Hall-mounted thermal cameras

SUPPRESSION:

- ▶ Fire improvement works
- ▶ E.g. Zoeterwoude deluge systems

INSURANCE:

- ▶ Close collaboration with insurers
- ▶ Use of scale to self-insure for lower costs







Zoeterwoude – Site Tour

Site safety rules:



**YOU ARE REQUIRED TO
WEAR REFLECTIVE AND
FLUORESCENT OUTWEAR**



**YOU ARE REQUIRED TO
WEAR SAFETY SHOES**



**MOBILE PHONE USE ONLY
IN A SAFE PLACE AND
STANDING STILL**



**OPEN FIRES ARE
PROHIBITED ON THE
ENTIRE SITE**



**SMOKING IS PROHIBITED ON
THE ENTIRE SITE, EXCEPT
FOR THE SMOKING AREA**



**YOU ARE VISITING, PLEASE
ALWAYS FOLLOW THE
INSTRUCTIONS GIVEN BY
OUR STAFF**



WATERINGEN, SITE TOUR

September 2017





Why are we here?



OUR LARGEST AND MOST PROFITABLE SORTING CENTRE

- ▶ Focused on the strongly recovering C&D segment
- ▶ New sorting line in 2015 delivering returns >20% and incremental profits >€1m
- ▶ Speciality market: Rockwool
- ▶ New €6m stone crusher to be installed in 2018



Wateringen – The Site

- Site area is 9 ha
- Located in the centre of the Region Randstad South
- Revenue €73m

VOLUMES:

Rubble	560 kton
Green	230 kton
C&D	200 kton
Rockwool	60 kton
Wood	20 kton
Paper/plastics	20 kton
Other	110 kton
Total	1,200 kton

- 230 employees (approx.)





Wateringen – Site Tour





Wateringen – C&D Market Recovery

- ▶ Construction market has recovered by 15% from its 2014 trough
- ▶ Shanks C&D volumes up 10% in FY17
- ▶ Legacy Shanks C&D volume up 12% in first 5 months of FY18
- ▶ Modest recovery – pricing

Construction Market Recovery (% Revenue growth y-o-y)



OUTLOOK CONSTRUCTION MARKET





Wateringen – C&D Sorting Line

Installed in 2015 to replace old lines in Wateringen, Den Haag, Zoetermeer (VVC) and Leiderdorp (Vliko)

- ▶ Cost of €5M
- ▶ Delivering strong returns >20%
- ▶ Higher throughput (tonnes per hour)
- ▶ Higher recycling rate approx. 12%
- ▶ Higher quality of recyclates – better price per tonne
- ▶ 75% reduction in labour costs per tonne





Wateringen – C&D Sorting Line

Most advanced sorting line in use since April 2015 equipped with the best available techniques including:

- 3D tumble sieve
 - Optical separators
 - Windshifters
- Improved sorting percentages combined with higher quality of sorted fractions and less manual labour due to higher level of automation
- Suited for dry commercial waste (incl. VGG Legacy)
- Recycled fractions:
- | | |
|------------|---|
| – Rubble | – Sieving sand |
| – Paper | – Wood |
| – Metals | – Residue (partly used for energy generation) |
| – Plastics | |





Wateringen – Stone Crusher

- ▶ Current stone crusher built in 1998
- ▶ It has crushed 12,000 Ktons and is now at end of life
- ▶ New €6m stone crusher to be installed in 2018
- ▶ New crusher will increase capacity and reduce energy and maintenance costs
- ▶ New impervious flooring to meet latest environmental standards
- ▶ Install summer 2018 (holiday period) to minimise loss of productivity





Wateringen - Rockwool

- ▶ Rockwool used as substrate within greenhouses (tomatoes/peppers)
- ▶ Largest rockwool recycling company in Europe
- ▶ Strong peak in collection during crop changing season (Q4)
- ▶ Shredding - dehydrating - drum sieving - windshifting

100% RECYCLING:

- Granulate
- Plastics (plastic granulate)
- Organic (composting)
- ▶ Rockwool granulate used as additive within the brick industry
- ▶ New impervious flooring to meet latest environmental standards in 2017/18





THEEMSWEG, SITE TOUR

September 2017





Why are we here?

- ▶ New site in centre of Europoort
- ▶ Reym is a differentiated business to rest of Group
- ▶ ABI: adds value to cleaning
- ▶ Total Care: secure margin and locking in customers
- ▶ Innovation in action: our award winning “crawler” and new ultrasonic cleaner



Introducing Reym

Leading industrial cleaning NL company

- ▶ Founded 1953
- ▶ Revenue €100m (approx.)
- ▶ 550 employees (approx.) and 175 trucks
- ▶ Serves Dutch heavy industry, oil & gas, chemicals etc.

OUR COMPETITIVE ADVANTAGES:

- ▶ Industry leading focus on safety
- ▶ Scale & capability to deliver complex projects on time
- ▶ Skilled workforce & bespoke equipment
- ▶ Total care offering #1 in NL
- ▶ 24/7 flexible service





Our Customers





Our People

- ▶ Four months basic training to join Reym
- ▶ Dedicated Reym “university”
- ▶ Trained to work in hazardous conditions with specialist equipment
- ▶ Average of 12 years of service in our team
- ▶ Safety passport: need to be separately qualified on each customer site

We have won four prestigious customer safety awards in the last 2 years





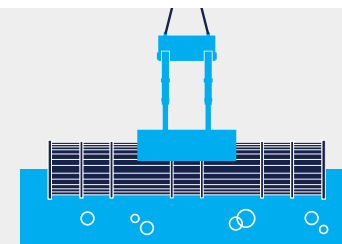
Our Specialist Equipment



960 weighings



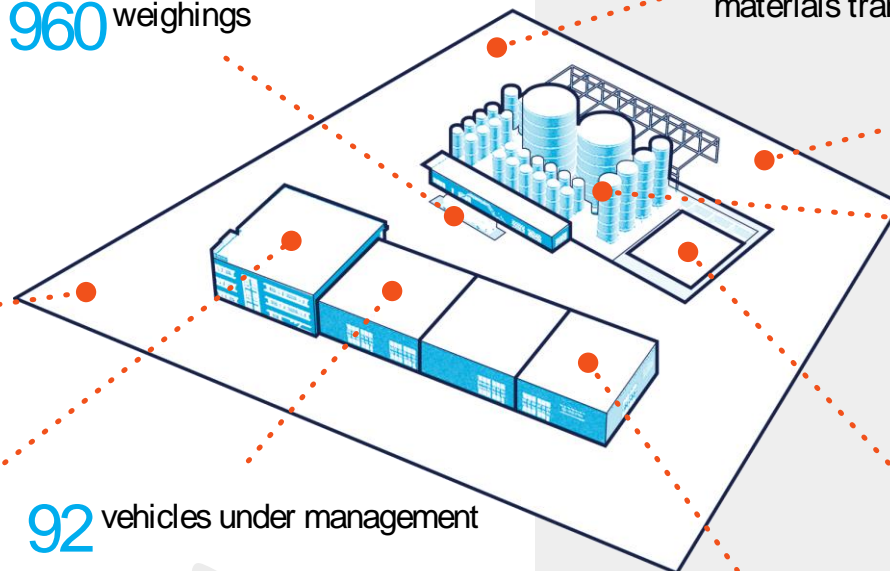
13.517 tonnes of waste materials transported to ATM



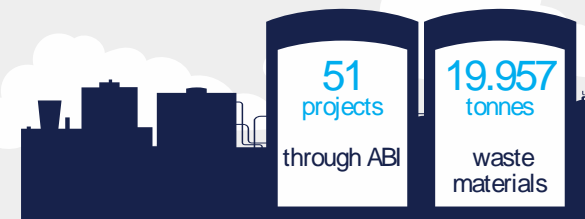
55 cleaned bundles



cleaning projects



434 waste projects



92 vehicles under management

915 m² storage

356 of our own vehicles cleaned



222 transport projects



131 employees



workshop
700 m²



warehouse
215 m²





Total Care Centre

Reporting

Waste Processing
Techniques

Cleaning
Techniques

Customer Portal

Recycling

TCO

One contact



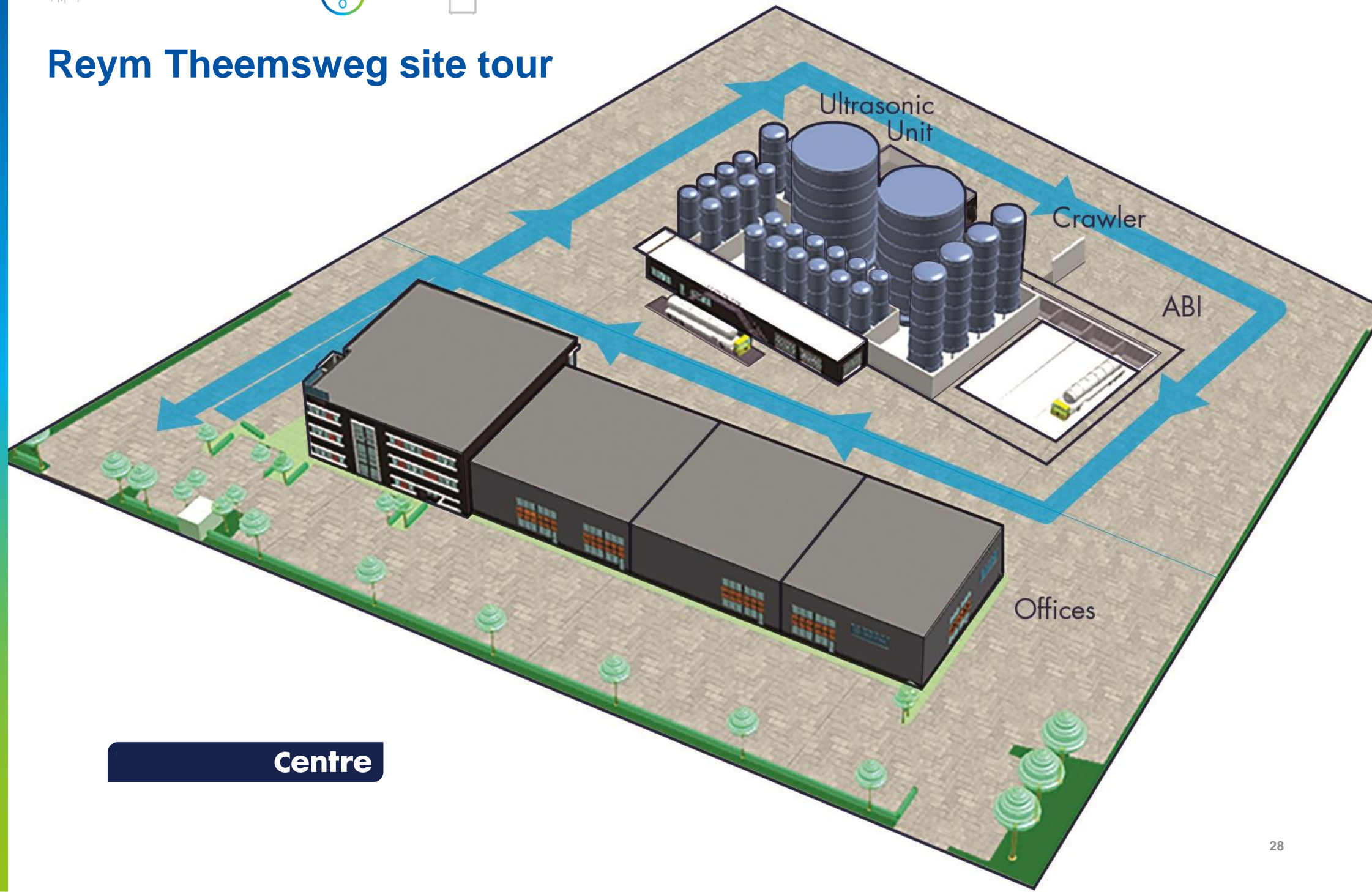
Reym Theemsweg

- ▶ Built in 2015
- ▶ Replaced obsolete rented site
- ▶ Cost of €10m
- ▶ Delivering return >20% on net investment in year 2
- ▶ ABI – storage processing tanks serves Reym and other customers time and bulks volumes for delivery to ATM
- ▶ Ultrasound equipment offers enhanced cleaning for e.g. heat exchanges
- ▶ 130 employees (approx.)





Reym Theemsweg site tour



Centre



Reym Theemsweg - ABI

Total area tankyard 1,200 m²

Total liquid tight surface 3,100 m²

MAIN FACILITIES:

- ▶ Wastewater intake
- ▶ Wastewater processing
- ▶ Ship unloading
- ▶ Tank cleaning facility
- ▶ Cleaning area
- ▶ Storage facilities for various other waste
- ▶ Facilities for industrial cleaning





Reym Theemsweg - Ultrasonic

- ▶ Innovation in new technology
- ▶ New technology launched in 2015
- ▶ Cleans internal areas of complex parts like heat exchangers
- ▶ Uses ultrasound to vibrate pollution from surfaces

ADVANTAGES:

- ▶ Cleaning of poorly accessible spaces
- ▶ Reduced risk of mechanical damage
- ▶ Reduces water consumption
- ▶ Improved cleaning, hence longer service life





Reym Theemsweg - Crawler

- ▶ Developed in 2014
- ▶ Winner of Casos Safety award (Shell - NAM)
- ▶ Cleans the inside of highly contaminated and dangerous tanks
- ▶ Second and third generation crawlers add capabilities

ADVANTAGES:

- ▶ Removes coatings, rust and scale
- ▶ Extremely cost-efficient: no scaffolding required
- ▶ Ideal for non-entry systems





COOLREC, SITE TOUR

September 2017





Why are we here?

Coolrec is a new business for the former Shanks investors and analysts

- ▶ Cutting edge of circular economy: agreements with OEMs like Philips
- ▶ European leader in fridge recycling





Coolrec Dordrecht – The Site

- ▶ Moved from Eindhoven to Dordrecht in 2005
- ▶ Revenue of € 13m

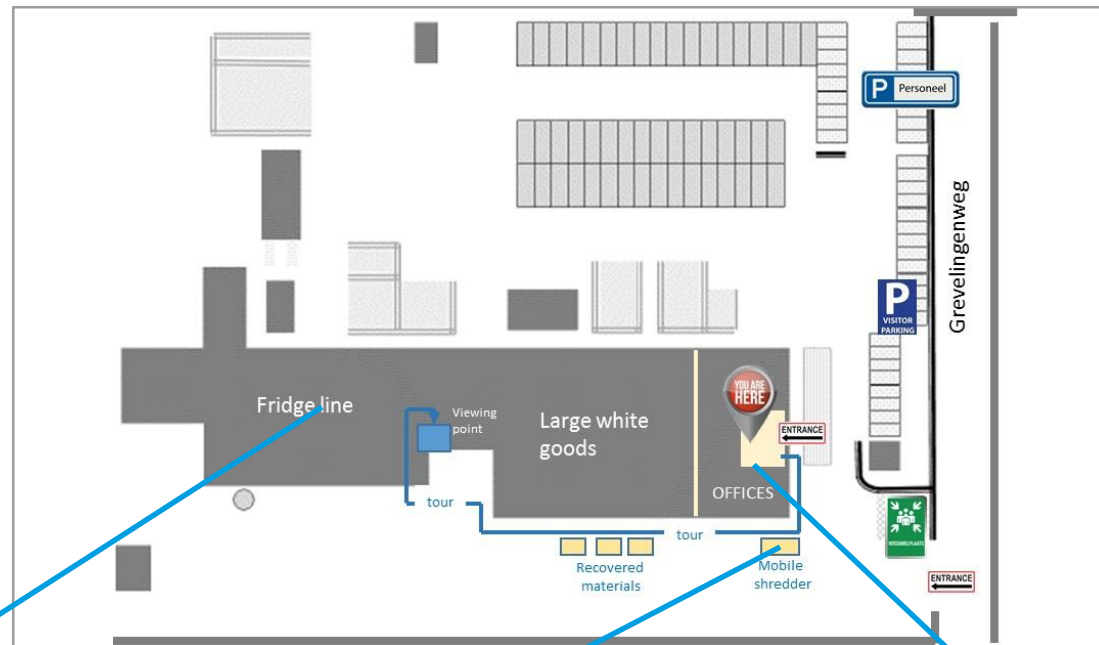
KEY ACTIVITIES:

- Fridge recycling 700,000 units per annum
 - Washing machines recycling 50,000 units per annum
 - Depollution of WEEE before processing
 - Manual dismantling of high value B2B ICT material
- ▶ 85 employees (approx.)





Coolrec Dordrecht



1. Fridge recycling line

- ▶ Domestic fridges
- ▶ Ammonia cooled fridges
- ▶ Professional fridges (for example CocaCola vending machines)



2. Mobile shredder

- ▶ Secure destruction of data carriers
- ▶ According to DIN 66399
- ▶ Offering solution for upcoming GDPR



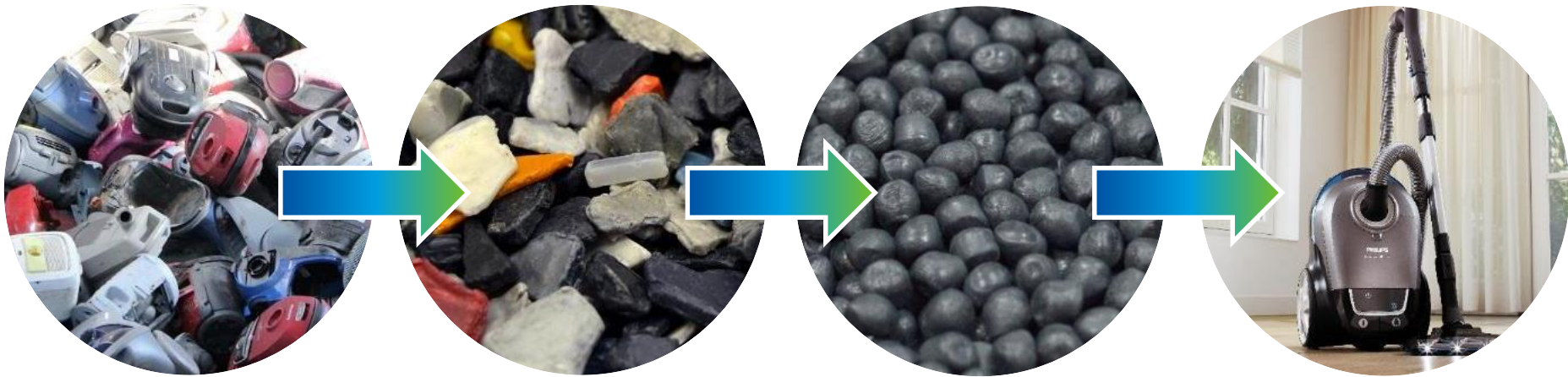
3. Expo 'from WEEE to Products'

- ▶ Producer of secondary raw materials
- ▶ Re-marketing of parts
- ▶ Closed Loops, for example Philips



Practical interpretation of circular economy

Philips vacuum cleaner





Coolrec Dordrecht – Fridge Recycling

Fridge contains hazardous components, ozone depleting and greenhouse gasses (CFCs and other hydrocarbons)

1 fridge equals 10,000 km by car on CO₂ impact

KEY PROCESS STEPS ARE:

- ▶ Check/removal of any waste
- ▶ Take out glass
- ▶ Check on mercury switches and remove
- ▶ Suck out oil
- ▶ Cut of compressor
- ▶ Shredding with degassing
- ▶ Material separation for maximum valorisation
- ▶ Cryogenic separation of liquids and gasses





Coolrec Dordrecht - Depollution

European law requires WEEE products to be “depolluted” before destruction

DEPOLLUTION INCLUDES:

- ▶ The removal of hazardous components (such as batteries, mercury switches, capacitors, etc)
- ▶ Removal of waste (foil, wood, etc)
- ▶ Removal of cables
- ▶ Removal of ink cartridges

Products then transferred for specialist deconstruction and materials recovered at Coolrec site Recycdel (BE) and further processing of plastics by PHB (NL)





AMSTERDAM, SITE TOUR

September 2017





Why are we here?

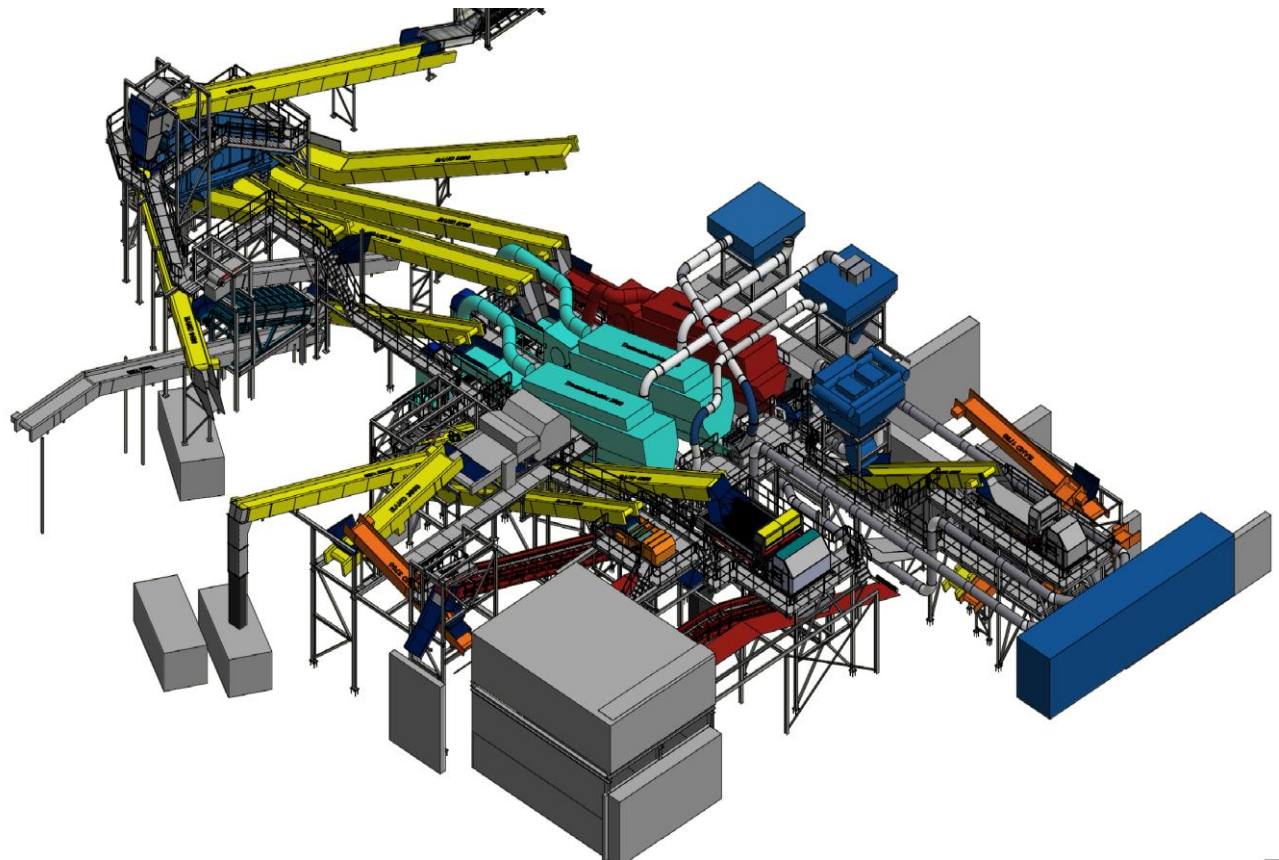
One of our largest and most modern sorting lines in the Netherlands, similar to Nieuwegein and Wateringen

SPECIALISED IN:

- Construction & demolition (33%)
- Bulky household (67%)

USP: Sorting line is engineered to handle bulky household stream and therefore in Renewi is an interesting counter partner for the Municipalities in the region

Upgrade of the installation in 2015





Amsterdam – The Site

- ▶ 24,366 m² outside area
- ▶ 10,567 m² sorting hall
- ▶ Revenue app. €60m/ annum

VOLUMES

- ▶ 180,000 tonnes C&D + Bulky Household Waste
- ▶ 120,000 tonnes monostreams as:
 - Wood
 - Sieve sand
 - Rubble
 - Metals
 - Paper
 - Foil

NUMBER OF TRUCKS:

Roll-off: 16

Roll (commercial): 22

- ▶ 84 employees (approx.)



Amsterdam– Site Tour

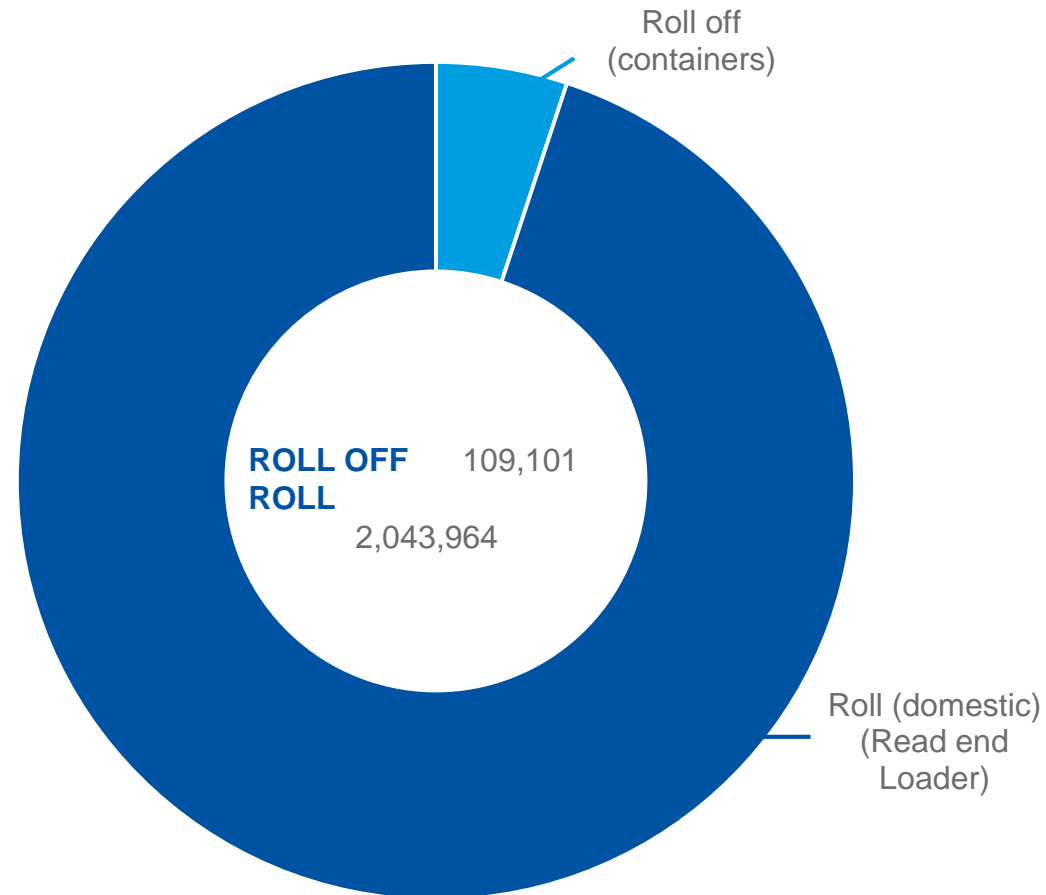
- ▶ Kick-off tour / break out in groups
- ▶ Acceptance policy
- ▶ Entering the sorting line





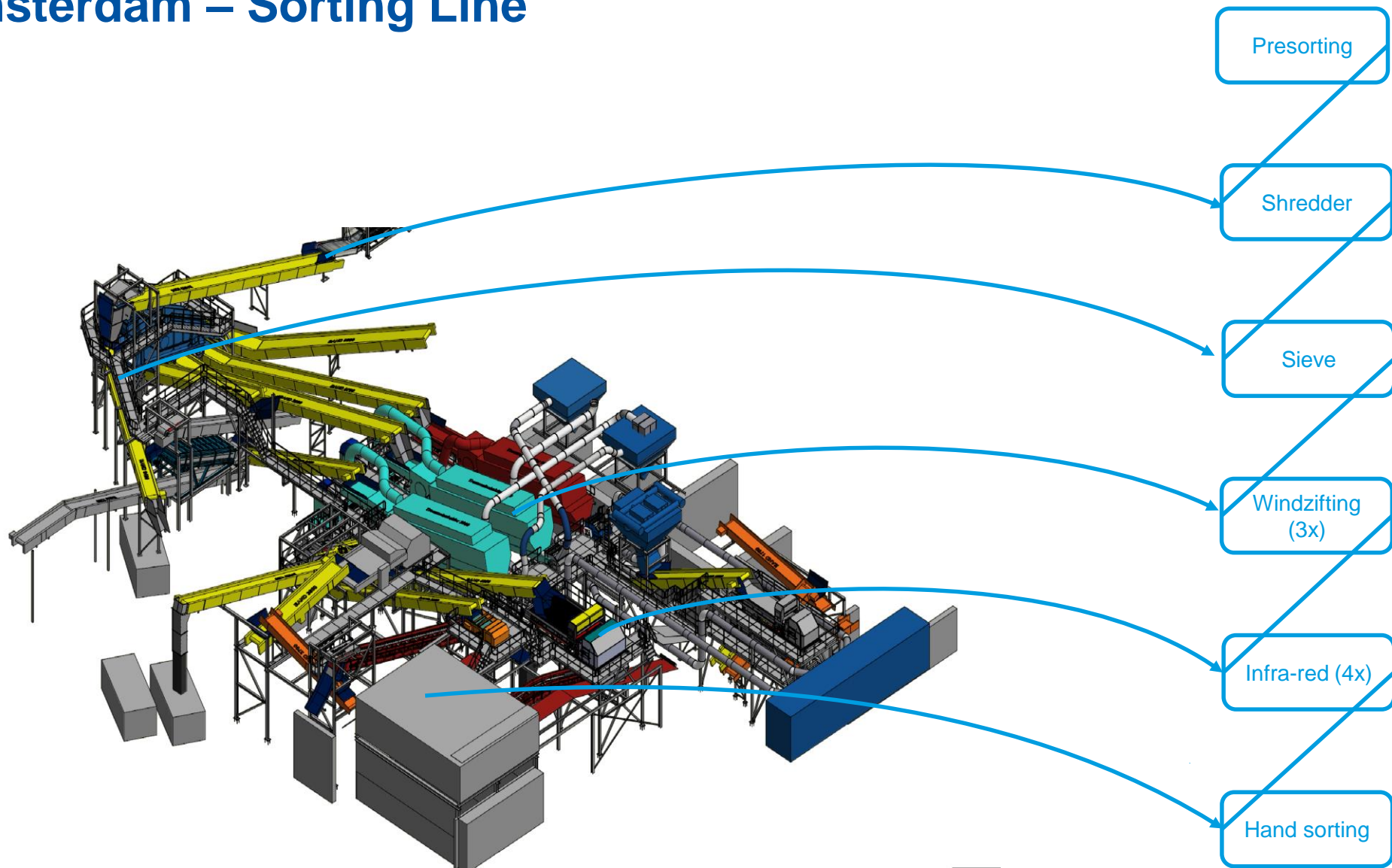
Amsterdam – Logistics

ASSIGNMENTS 2016



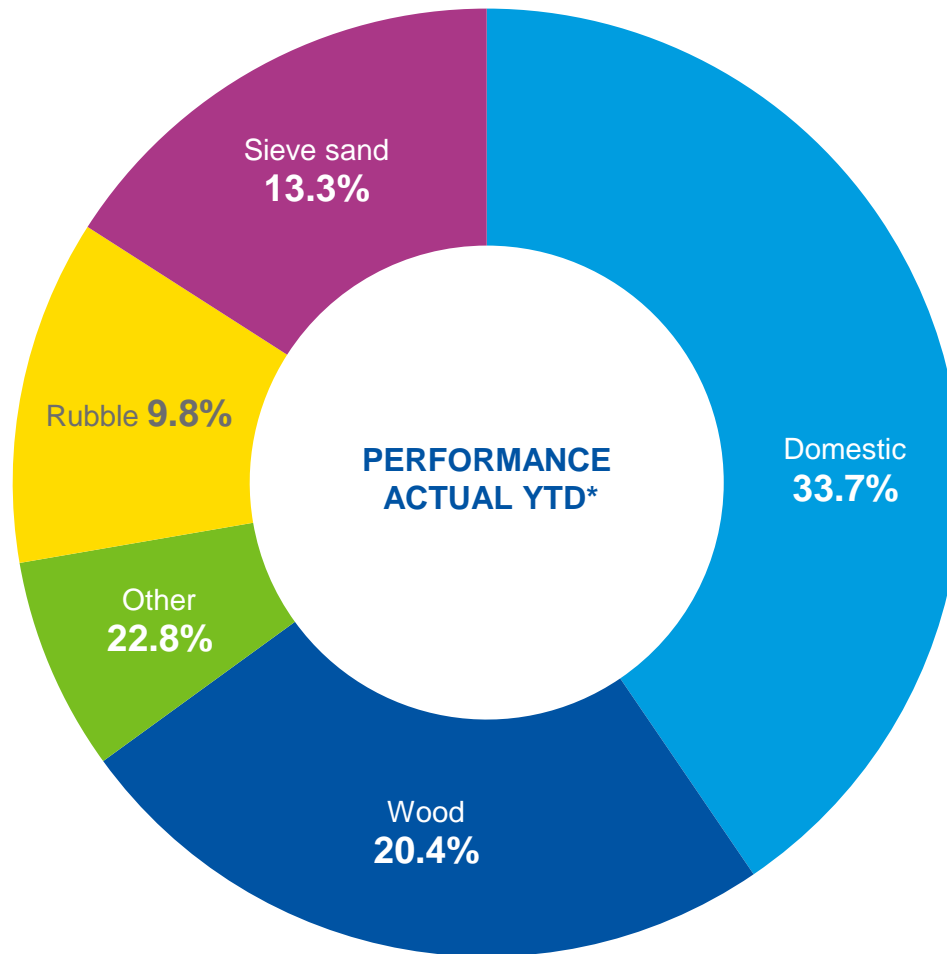


Amsterdam – Sorting Line





Amsterdam – Sorting line



* Represents 2016 full year



THANK YOU