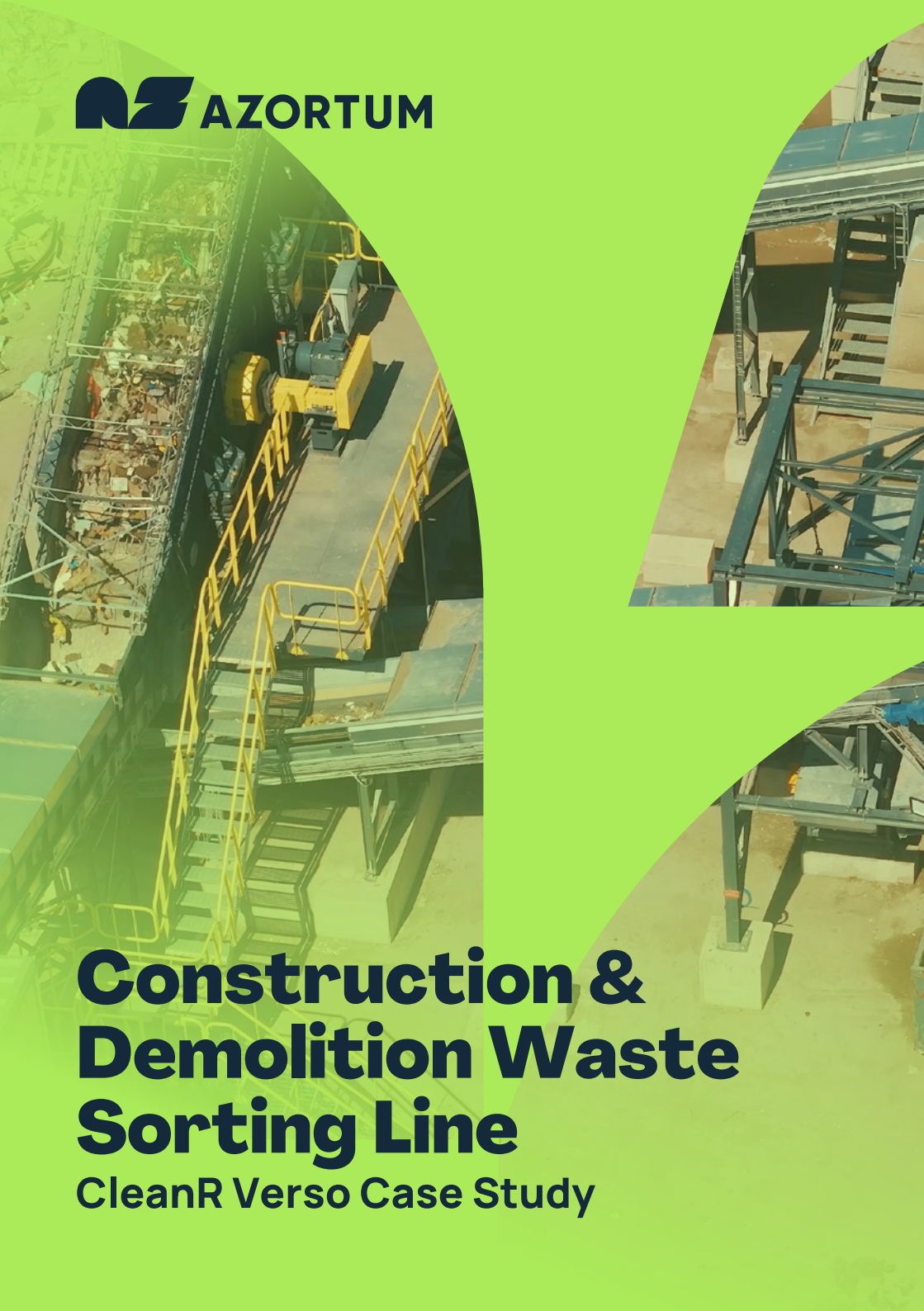




Construction & Demolition Waste Sorting Line

CleanR Verso Case Study





CAPACITY

Processes 25 t/h of construction & demolition waste, aiming for 50,000 tonnes annually



KEY CHALLENGES

Harsh winter installation without building cover, heavy-duty conveyor requirements, and high waste load



INNOVATION

Shredder-less system and intelligent absorber for vibrating screens, improving energy efficiency and output quality



The opportunity to recycle more waste

In 2023, Latvia's environmental legislation changed dramatically — landfill fees more than doubled, making recycling not just environmentally responsible but also economically compelling. This policy shift reduced landfill and incineration dependency, creating an urgent demand for more efficient material recovery solutions.

CleanR Verso, already committed to circular economy principles, saw an opportunity. With the surge in available construction and demolition (C&D) waste, they needed a sorting line that could handle heavy-duty loads, maintain consistent throughput, and produce high-quality recycled materials that meet strict environmental standards.



Meeting the challenge head-on

Azortum partnered with CleanR Verso to engineer a robust, high-performance C&D waste sorting line capable of processing 25 tonnes per hour – with a design target of 50,000 tonnes annually. The system separates materials into clean, reusable fractions including concrete, wood, textiles, and plastics, ensuring that valuable resources are recovered and reintroduced into the economy.

Before handover, the line was stress-tested at maximum load to verify stable performance. This gave CleanR Verso confidence that the system could sustain heavy throughput year-round while handling the varied and abrasive nature of construction waste.



→ **Area 2600 sqm**

→ **Installed power 140 kW**

→ **Output materials:**

- Fe-metal
- Wood
- Wires
- Plastics
- Cardboard
- Stones
- RDF





Overcoming engineering constraints

One of the most demanding aspects of the project was designing conveyor systems strong enough for continuous heavy-duty operation. The waste stream contained dense, irregular, and oversized materials, with stone fractions requiring thorough cleaning for use in road construction and underlayers.

To ensure consistent manual sorting, oversized material over 180 mm was evenly spread before workers separated fractions into dedicated bins. A dust suppression fog system was also installed over the screening and loading areas to improve air quality, safeguard workers, and minimise particulate emissions in the surrounding environment.

The project took place without a building cover, in the middle of harsh Latvian winter conditions — a factor that required careful planning of both installation steps and equipment durability.



An energy-efficient approach

Unlike many traditional C&D sorting lines, CleanR Verso's system operates without a shredder. This omission saves significant amounts of electricity, reduces fine dust creation, and preserves material purity.

Another innovation is the intelligent absorber integrated into the vibrating screens. Using a compressed air system, it absorbs shocks from vibration, reducing structural strain, extending equipment lifespan, and enabling smoother operation.

Delivering quality and value

With its new line, CleanR Verso can now recover cleaner fractions, operate more efficiently, and deliver the highest quality recycled materials to its clients. The combination of shredder-less processing, heavy-duty conveyors, and smart vibration control means the plant is not only more energy-efficient but also built to last.

This project stands as a model for future C&D waste facilities — showing that with the right engineering, even the harshest operational and environmental challenges can be turned into long-term advantages.





Why Choose Azortum for Your Waste Sorting Project

From A to Z – we'll sort it out.

We don't just supply machinery – we deliver turnkey waste sorting and bulk material handling solutions designed around your business, your space, and your operational priorities.



We talk business.

We start by understanding your operational goals, financial targets, and compliance requirements – then engineer a solution that meets them in both the short and long term.



We are dedicated to you.

From the first consultation to post-installation support, we work for you. Our team stays engaged to ensure your system runs reliably and delivers the performance promised.



We are agile.

Independent from fixed equipment brands, we select and integrate the most suitable technologies for your specific material streams, capacity needs, and footprint limitations.



Proven across industries.

Trusted by leaders such as Norsk Gjenvinning, Ragn-Sells, and Jämtkraft, we have delivered complex, high-value projects across the Nordics, Baltics, and Central & Eastern Europe.

Our offering includes:

- Feasibility studies and layout engineering
- Complete line design, sourcing, and integration
- Installation and commissioning with minimal downtime
- **Optimisation for specific material streams** (plastics, metals, waste wood, RDF, C&D waste)
- Ongoing after-sales support and upgrades



With Azortum, you gain a partner committed to making your waste sorting operations more efficient, profitable, and future-ready.



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