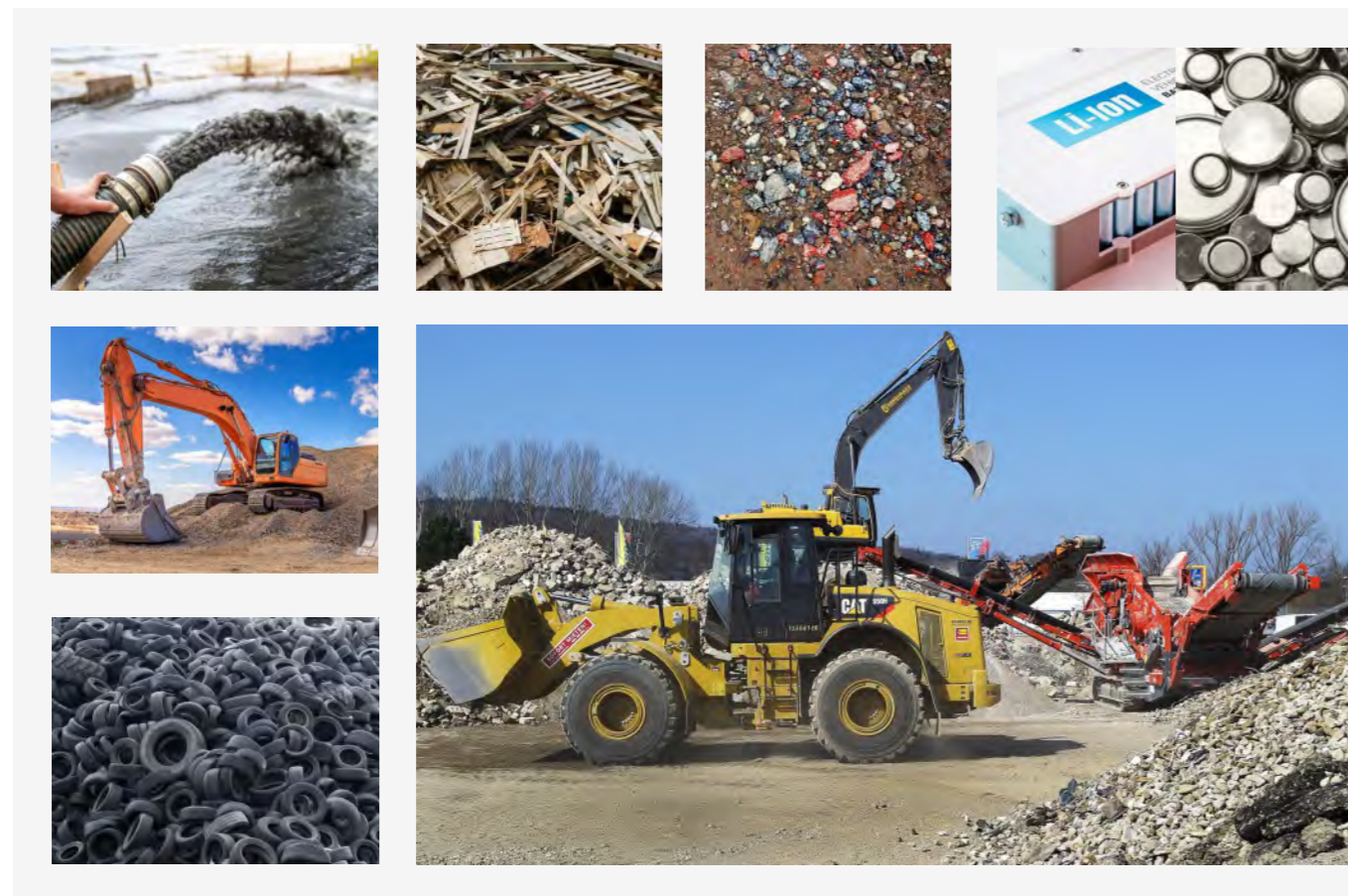


Solutions for Recycling and Remediation



ONE PLANET - EVERYONES RESPONSIBILITY

ZETTL - Technologies with versatile applications

ZETTL technologies can be used to process critical types of waste materials. The contaminated substances will be separated and, depending on the application, disposed or further processed and made available again for the recycling cycle. This is cost-effective, environmentally friendly and sustainable.

Mercury-containing and NORM-containing drilling sludge

Oil and gas drilling repeatedly produces large quantities of drilling sludge that contains mercury and can be naturally radioactive. These sludges are processed in high-temperature paddle dryers and the mercury is distilled and collected. The remaining minerals can be disposed of in usual landfills. For NORM-containing sludges, a unique technique allows the stabilization of the minerals, making it possible to dispose them on normal landfills.

Oily mineral sludge in refineries, grinding sludge in the automotive industry

Oil refineries produce mineral sludge in which the oil and, if necessary, mercury must be separated. In many industries, metal-containing sludge is produced in metalworking. Metal shavings, oil and water are cleanly separated from each other. The remaining metal particles can be made available for melting without further post-

treatment. High-temperature paddle dryers are successfully used for these applications.

Contaminated solids with and without high liquid pollutant content

Construction waste or contaminated soil with chemicals, oil, mercury or other pollutants must be separated if the solids are heavily contaminated after accidents in chemical plants or after longtime usage, accidents with tankers, etc.

Depending on the degree and type of contamination, rotary kilns or high-temperature paddle dryers can be used here. Both technologies have proven themselves best in their specific applications. After pollutant removal, the cleaned floors are suitable for disposal in normal landfills.

Sewage sludge, waste wood, waste tires, batteries, composites, asbestos, bitumen, masonry

Recycling and disposal of the above-mentioned residues are typical applications for rotary kilns. The rotary kiln is an all-rounder, even for higher mass throughputs. For recycling tasks, rotary kilns are often operated in the absence of oxygen to realize pyrolysis, a thermal decomposition process. The resulting products are biochar, biooil and synthesis gas and thus reusable recyclable materials.



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