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Recycling reinvented: Swiss innovation targets 3 tons per hour with zero emissions

Predatec's technology uses mechanical forces and material science to disassemble complex e-scrap into pure, reusable components. Aluminum, copper, plastics, fibers, precious metals, and mineral dust are recovered with up to 99.8% purity, and recovery rates reach as high as 95%.

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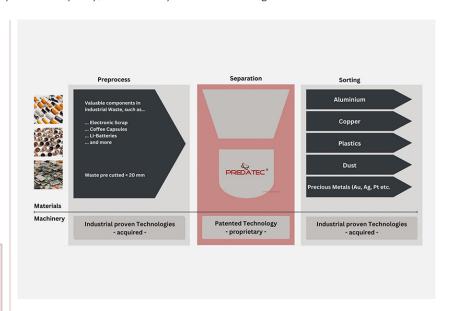
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Applications of Predatec's Clean Separation Technology: From e-scrap and EV batteries to aerospace composites —
Predatec enables clean material recovery across industries.

As global e-waste levels rise and consumer awareness around sustainability grows, the demand for clean, efficient recycling solutions is stronger than ever. Swiss cleantech innovator Predatec Inc. is answering that call with a patented dry-mechanical separation technology that is redefining the future of waste and resource recovery.

Unlike traditional recycling methods that rely on acids, smelting, or high-energy treatment, Predatec's system works without any chemicals or heat. Instead, the technology uses mechanical forces and material science to disassemble complex e-scrap into pure, reusable components. Aluminum, copper, plastics, fibers, precious metals, and mineral dust are recovered with up to 99.8% purity, and recovery rates reach as high as 95%.

From a consumer's perspective, the system delivers on key priorities: it reduces CO₂ emissions by up to 90%, consumes significantly less energy, and ensures traceable, responsible material recovery — especially when compared to conventional primary extraction methods such as mining or smelting. Instead

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of sourcing new raw materials at high ecological cost, Predatec enables the recovery of high-purity resources directly from waste — cleanly, efficiently, and close to where the consumption occurs.

"Electronic waste is not just a disposal issue — it's an untapped urban mine," says Dr. Deniz Graf, founder and CEO of Predatec. With a background in mechanical and process engineering, Dr. Graf built the company around the belief that true sustainability must be scalable and uncompromising in performance.



Predatec's system processes complex e-waste without chemicals or heat – powering a cleaner circular economy. The picture above showcases materials recovered from a PCB: copper, fiberglass, and epoxy dust.

The company's modular system is designed for large-scale industrial applications and can process up to 3 tons of material per hour and per machine — all without the need for melting or chemical treatment. It integrates easily into existing infrastructures and is adaptable across industries.

Key applications include:

- E-scrap recycling
- Automotive and aerospace composites
- Battery dismantling
- Industrial production waste
- Urban mining and circular economy

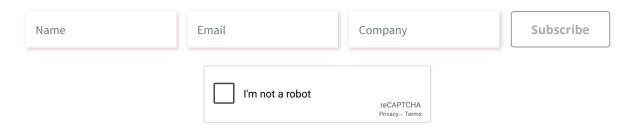
Predatec's interdisciplinary leadership team combines expertise in technology, environmental strategy, finance, and circular systems — all aligned with its global vision. The company offers its solutions for partnerships, licensing, and pilot projects worldwide.

Across the Gulf region, where countries are investing heavily in sustainability, circular economy, and advanced manufacturing, Predatec presents a compelling model. For municipalities, recyclers, and industrial players seeking cleaner, more efficient resource recovery, this Swiss technology delivers both ecological and economic value.

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