

SOLUM Accelerates ESG Strategies with Sustainable Retail and Energy Innovation

LONDON, UNITED KINGDOM, April 22, 2025 /EINPresswire.com/ -- [SOLUM](https://www.solum.com), a global leader in retail technology and power solutions, is accelerating the transition toward sustainable operations through its innovations in Electronic Shelf Labels (ESL), power infrastructure, and display technologies. As a spin-off from Samsung Electro-Mechanics, SOLUM has continued to drive digital transformation in retail and deliver eco-conscious technology that supports environmental responsibility.



In celebration of Earth Day, SOLUM reaffirms its commitment to building smarter, greener systems that enhance operational efficiency while minimising environmental impact, empowering retailers and infrastructure operators with future-ready solutions.

Reducing Food Waste through Real-Time Expiry-Based Pricing

SOLUM's ESL solutions enable real-time price updates and inventory control, allowing retailers to adjust pricing dynamically based on product expiration dates. This helps reduce unnecessary food waste while supporting the sales of perishable goods. The digital nature of ESL also helps reduce reliance on paper-based labels. In actual deployment cases, paper consumption has been reduced by up to 90%, demonstrating that digital transformation can simultaneously improve sustainability and cost efficiency.

Long-Lasting Battery Life with Easy Replacement Design

SOLUM's Newton ESL series offers a battery life of up to 10 years under typical usage conditions. Designed with a top-removal battery structure, the ESLs make replacement and maintenance more convenient for store operators. The combination of extended battery life and ease of

replacement contributes to lower labor costs, reduced waste, and improved sustainability.

A Sustainable Future with SOLUM

With businesses increasingly prioritising sustainability, SOLUM is committed to providing innovative solutions that align with global efforts to reduce waste, lower emissions, and enhance energy efficiency.

“SOLUM is dedicated to developing innovative technology solutions that benefit both businesses and the planet,” comments Sung-ho Jeon, CEO of SOLUM.

“From reducing food waste to improving energy efficiency, we believe in driving meaningful change through innovation. This Earth Day, SOLUM reaffirms its mission to revolutionise retail and energy solutions with sustainability at the core, helping businesses thrive while preserving our planet for future generations.”

Power Rail: Centralised Power for Sustainable ESL Operations

SOLUM's proprietary Power Rail system delivers centralised power to ESL devices, reducing dependence on individual batteries and supporting consistent energy delivery across retail environments.

Two sustainable Power Rail models are available:

- Battery Type Power Rail: Powers up to ten 2.9" ESLs with a convenient top-removal battery structure.
- Solar Cell Power Rail: Generates energy from indoor lighting, minimising reliance on disposable batteries

The system also supports up to 10x faster update speeds and is compatible with shelf cameras, sensors, and other in-store devices, setting a new standard for energy-conscious retail infrastructure.

High-Efficiency EV Charging with OTA Capability for Enhanced Security

SOLUM is advancing sustainable mobility with its high-efficiency EV charging modules. With power outputs of up to 50kW and support for up to 256 interconnected modules, the chargers optimise energy distribution while minimising energy loss, achieving up to 95% efficiency.

Beginning in the first half of 2025, SOLUM's EV chargers will feature Over-the-Air (OTA) software updates, starting with 50kW models and expanding to 30kW models later in the year. The OTA function enhances cybersecurity and enables remote maintenance, supporting safer and smarter EV infrastructure management.

- Key sustainability features of SOLUM EV Chargers
- Low standby power consumption to minimise unnecessary energy use
- Wide voltage range (150VDC to 1000VDC) for broad vehicle compatibility
- Built-in safety mechanisms for improved durability and reliability
- Compact, high-density design for efficient urban installation

SOLUM: A Trusted Global Partner for Retail Innovation

Founded in 2015 as a spin-off from Samsung Electro-Mechanics, SOLUM is a KOSPI-listed company driving retail transformation through its ESL, digital signage, and power module technologies. With a commitment to sustainability and customer-centric innovation, SOLUM provides advanced solutions that help global retailers operate more efficiently in an increasingly digital and eco-conscious world.

For media inquiries: solum@ranieri.agency

Ranieri

Ranieri

[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/805458689>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.