

Kawada Technologies Builds the Future

Blending century-old craftsmanship with robotics, sustainability and global partnerships, Kawada Technologies confronts Japan's construction challenges while shaping a safer, greener and more connected future for industries worldwide. By Daniel de Bomford, Arthur Menkes and Paul Mannion



"Japan should be working on infrastructure projects because it has the most experience."

Tadahiro Kawada, President, Kawada Technologies, Inc.

The blacksmith's forge was the heartbeat of its community, shaping the tools and materials that built civilization and carried humans through the ages. For Kawada Technologies, that forge still burns, only now the hammers are joined by robotic arms developed to solve tomorrow's challenges.

"Our company's background was always steel," said Tadahiro



A device for guiding suspended loads with ropes "EG-Guide"

Kawada, president of Kawada Technologies. The president comes from a line of blacksmiths, metalworkers and engineers, and that experience is built into the fabric of the organization. "It doesn't matter if it is steel, concrete, or hybrid. That thinking is still found in our company," he states

With the construction sector facing unprecedented challenges, the company is addressing these headwinds with innovative, inclusive solutions. Kawada states that it is a difficult time to be in the industry, given its aging workforce, shortage of skilled labor, and dramatic cost increases, but also sees it as an opportunity for Japan to evolve.



AGVs passing through a narrow inspection road

Kawada Technologies is reshaping job sites with innovations that merge human skills



Collaborative robots working with people NEXTAGE (GLORY Ltd. Saitama Factory)



3D welding mask System



Akashi Kaikyo Bridge

with advanced robotics: automated ground vehicles (AGV) to transport heavy loads, the EGGuide to steady suspended beams with a single operator and a 3D welding mask that shortens the years needed to master the craft. Kawada says that technology can encourage and support young people in honing their craft, citing it as the reason that they develop technology like the welding mask. "That is the strength of the Kawada Group," he states.

Collaborative robots like NEXTAGE work alongside crews, freeing them for higher-skilled roles. Drones and AI are also becoming part of the toolkit, predicting safety risks by analyzing near-miss data and preserving the knowledge of veteran engineers for future generations.

Kawada Technologies' sustainability strategy ranges from using "green steel" in bridge projects to installing solar panels at all three factories. A rooftop greening system called Midori-chan, first developed to conserve water in Japan's urban gardens, is now drawing interest from drought-prone regions worldwide.

Overseas, Kawada prefers partnerships over outposts, from Hong Kong's Midori-chan installations to Swiss distributors for NEXTAGE robots. "I want to find good business partners wherever it makes sense," Kawada said, noting opportunities in earthquake-prone "Ring of Fire" countries

that could benefit from Japan's anti-seismic expertise.

Kawada Technologies' commitment to the Valuable 500 inclusion initiative extends beyond policy. The firm supports Avatar Robot Cafe DAWN, where homebound individuals control service robots remotely. Kawada envisions similar systems allowing older or disabled workers to perform construction oversight from safe, comfortable locations.



Greening system"Midori-chan"

Like the blacksmiths of old, Kawada Technologies is creating the materials that will take society into a new era. The company's mission is rooted in the spirit of Happo Yoshi, an expanded version of the traditional Japanese principle Sanpo Yoshi, emphasizing benefit for all stakeholders. "I want our engineers, salespeople and everyone that works with us to be proud," Kawada said. "By the day I retire, I hope I have achieved all of that."

