

the AI investments paying off in waste and recycling right now



Speakers



Evan Schwartz
Chief Innovation Officer,
AMCS

When we think of data-forward industries, waste and recycling may not be at the top of the list — but perhaps it should be. This industry has extensive data sources, from vehicle telematics and sensors to customer interactions and billing information. Operators have begun to leverage this data for greater efficiency and regulatory compliance, and with the rise of agentic AI, all these data points are even more valuable.

How is agentic AI different from the automation and advanced technologies that waste operators are already using? Experts from AMCS, the leading provider of AI-powered software solutions designed and built specifically for the waste industry, answered this question in the recent webinar, “The AI Investments Paying Off in Waste and Recycling Right Now.”



Anton Morrin
Global Head of Presales and
Sales Enablement, AMCS

They addressed the process of digital transformation still taking place across the industry and explained how external factors have been the driving force behind technological adoption. Now, however, operators in the waste and recycling industry can use rich data and agentic capabilities to differentiate themselves from competitors, gain more efficiencies and provide a better customer experience.

Here are the key takeaways from the discussion.

Why agentic AI is different

As AMCS experts explained, agentic AI can handle the repetitive, low-value tasks that AI tools are already known for, but it can also go a step further and solve more complex problems quickly and efficiently. For example, AI agents can handle a repetitive task like invoice reconciliation, but when given proper context and knowledge, they can make more advanced decisions, such as determining if container inventory is at appropriate levels based on the context of which customers need certain sizes.



“When you look at traditional automation, the automation is still two parts: the process and what we could consider the knowledge. The flow is baked into the automation...you just insert your data and that automation produces the result you’re looking for. The dynamic nature of this industry has a lot of fuzzy logic and so many infinite variations across the data. You need something that is a little more sophisticated.”

Evan Schwartz,
Chief Innovation Officer,
AMCS

What is critical is for waste companies to provide that knowledge and not expect a large language model (LLM) to fill in the blanks — when that happens, it leads to hallucinations. With a SaaS solution like the AMCS platform, data is configured with knowledge and processes so that AI agents have accurate context. That context is how agents know what to do and how to do it.

When configured in such a way that it has appropriate knowledge, agentic AI produces outputs, such as sending a certain number of emails to customers, but it can also drive outcomes, which are the business results, like time saved for customer service representatives or greater revenue brought in.

“The shift from output to outcomes is really the last battle that’s going to allow agentic activities to shine within your business, because that’s going to affect your bottom line,” Schwartz added.

Outputs >

Deliverables or items on a scorecard.
Examples: Number of phone calls made, number of emails sent, number of invoices reconciled.

Outcomes >

Business results that have strategic benefits.

EXAMPLES: Revenue increase, time saved by human agents, amount of fuel conserved.

How agentic AI streamlines key operations

What are some real-world use cases? In the webinar, AMCS experts detailed several instances where agentic AI improves operations:

- Route optimization** ➤ Every day, trucks are covering miles upon miles of pickup routes. Determining the most efficient routes and avoiding redundancies are crucial to reduce mileage, fuel consumption and drivers' time, while also providing quality service. The panel highlighted that AI-assisted dispatch can save more than \$87,000 annually.
- Reporting** ➤ Relatedly, AI agents can analyze route profitability for reporting purposes. Were stops made in the correct sequence? Were there access issues for the driver? This reporting can reveal profitability issues and share actionable insights.
- Customer service** ➤ AI agents can handle most customer service inquiries while shifting more complex cases to human operators. For larger issues such as a billing error affecting numerous customers, they can implement communications and take corrective action before a call center is overwhelmed with inbound calls and emails. With AI-assisted customer service, businesses can save as much as \$945,000 per year.

When implementing tools of this nature, Schwartz highlighted the importance of keeping people in the process.



“This is the model of the AI steward,” he said. “It knows how to prompt to ask the agent to do things and set that up; it understands how to define the context, what data is required, and what is the context. There’s too much of that where you need to go in and massage and repair what the agent did — that’s not agentic, that’s just you dealing with bad AI. You need to learn the framework.”

Evan Schwartz,
Chief Innovation Officer,
AMCS



A margin intelligence agent

that helps organizations identify underperforming contracts and recommends adjustments to pricing or contract terms.



An AI-assisted customer service workflow

that aids representatives in quickly investigating complaints and resolving issues.



A route profitability report

that combines operational, telematics, and pricing data to uncover missed windows, unnecessary trips, and other ways to improve margins.

Scaling up for sustainability

Economic, social, and environmental sustainability is a huge imperative for the waste and recycling industry," Morrin noted. "AI is a great opportunity to make sustainability an operational capability as opposed to just measuring your footprint after the fact."

The efficiencies gained through optimized routing lead to improved sustainability metrics, such as reducing fuel consumption and lowering vehicle emissions. AI-driven improvements also make waste and recycling operations more resilient for the long-term, and in that sense, they support business as well as environmental sustainability.

AMCS experts reiterated the importance of not letting the proverbial perfect be the enemy of the good. For example, even if a company's data isn't completely clean and structured, what matters most is getting started rather than getting left behind. Choosing one goal and building out a small use case is a recommended tactic to achieve success and build trust in the technology. From there, waste operators can move to more complex use cases.



"Don't wait for everything to be digitized. You may have pockets of data that are really well developed and allow you to start AI projects. Ultimately, you have to digitize all your data, and when you can do that, you can make a real impact."

Anton Morrin

Global Head of Presales and
Sales Enablement, AMCS

The panelists also emphasized the importance of change management within companies, and that cultural change to work alongside AI agents is a critical part of successfully incorporating this technology into their operations. They also noted the importance of keeping humans in the loop and not looking at AI as a way to simply cut headcount. Those types of fears can derail the change management that organizations need.

Yet, ultimately, the shift to AI-enabled operations will happen for the entire industry. Those companies that embrace it and leverage technology to improve their service and streamline any inefficiencies will be better placed for future success. With real use cases and industry examples, the webinar highlighted how far this technology has come and where it's going, and how it will make lasting changes in the waste and recycling industry.

[WATCH THE WEBINAR](#)

