

MACRO TRENDS

What's Driving Technology Adoption in Waste and Recycling?

INTRODUCTION

Changes in the economic and regulatory environment continue to present challenges for municipalities and private haulers. Rising costs, fleet efficiency, safety, growing populations, and adhering to myriad regulatory, environmental, and compliance standards are pushing cities and waste haulers to their limits. Forward-thinking municipalities and waste haulers already use some forms of technology to address these issues today. But even they are asking for smarter, more integrated tools.

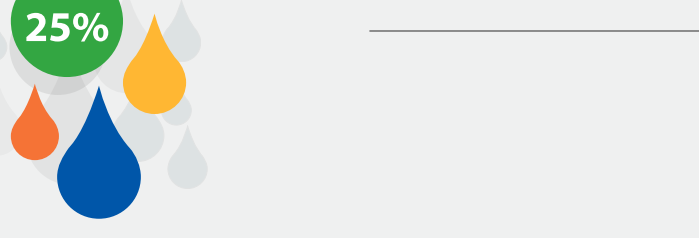
While technology used to be an option that helped organizations gain efficiencies, those who have yet to adapt are seeing it as a necessity to forge ahead, provide excellent citizen services, and maintain a profitable bottom line.

A number of industry factors are converging to enhance the need for technology:

1 RISING COSTS

Global inflation continued to impact all businesses in 2023. High fuel prices, compounded by higher costs to maintain fleets and retain drivers are again top issues we hear from our customers. According to SP Global, gasoline prices are expected to rise another seven cents per gallon in 2024.

Many haulers are turning to route optimization software and in-cab technology to keep fuel costs down. These technology solutions also have the added benefit of increasing driver satisfaction and safety.



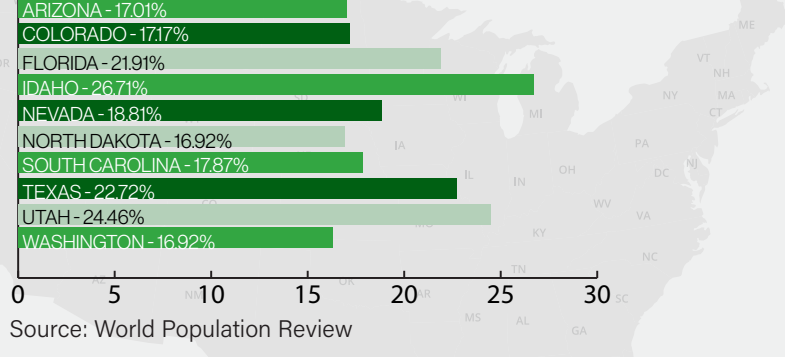
2 POPULATION & SERVICE AREA GROWTH

Population growth is a heavy burden on municipalities and private waste haulers. When there is rapid population growth, it is difficult (and in some cases impossible) to meet increasing demand.

With outdated legacy service routes created with pen and paper and delivered to drivers via paper route sheets, it is especially onerous to add households or incorporate newly acquired routes into existing driver schedules. Route optimization software specific to solid waste collection is a game changer, streamlining the process required to develop efficient routes, often decreasing route costs by 15-20 percent.



TOP 12 FASTEST-GROWING US STATES (BY PERCENTAGE GROWTH RATE SINCE 2010):



Source: World Population Review

3 CLOUD ADOPTION

Another way cities and haulers are able to optimize costs and scale is by moving their IT systems to the cloud. Cloud adoption among enterprise organizations in other industries is now over 94%, according to a 2023 survey conducted by Rightscale, while the cloud is expected to host more than 60% of SMB working within the next year.

Two areas where companies are seeing the most benefit from cloud adoption is operations and billing.

Moving to a Software as a Service (SaaS) model eliminates the need for organizations to manage onsite hardware and software. This reduces costs, staffing requirements, and risk for the organization, while increasing security, flexibility, and reliability.

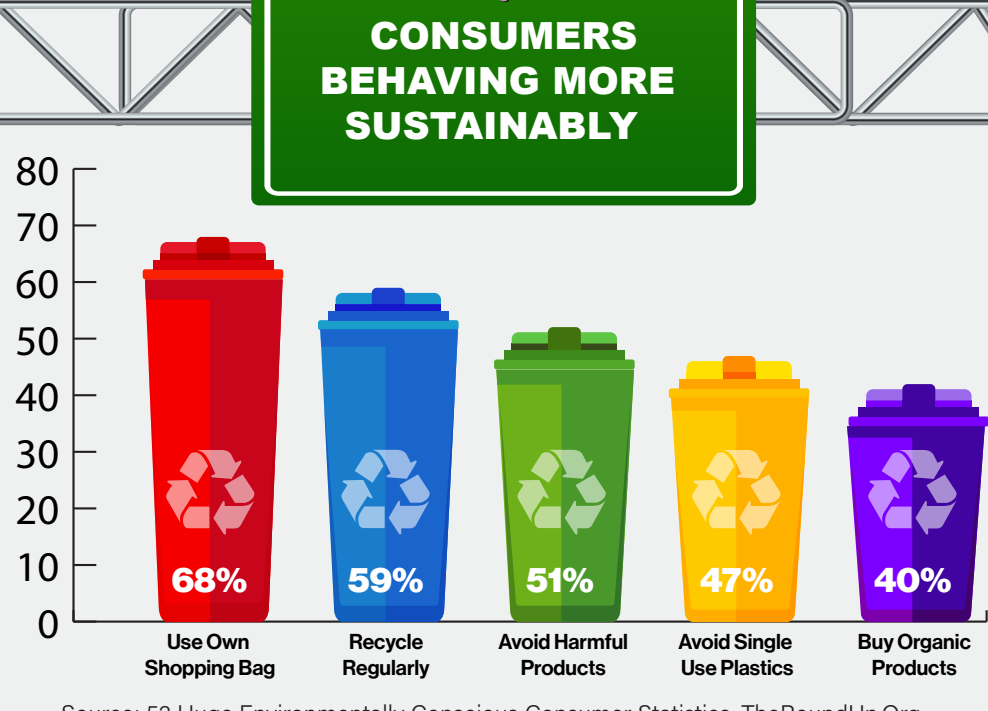
From a billing standpoint, cloud platforms can centralize billing. This simplifies the billing process, making it easier for companies to track and manage expenses across different services and departments.



4 RISING CONSUMER EXPECTATIONS

Global attitudes towards sustainability continue to rise as greater emphasis is put on consumer education and engagement to promote responsible recycling habits. With the help of social media and the internet, it's never been easier to educate and engage with residents.

Furthermore, residents are becoming more digitally savvy, increasingly turning to digital channels for customer support. They've become accustomed to a good online customer experience. Having the right technology to allow residents to schedule pickups, easily view schedules and receive alerts, and learn how to be more sustainable reduces the burden on your customer service department, lowers costs, and increases resident satisfaction.



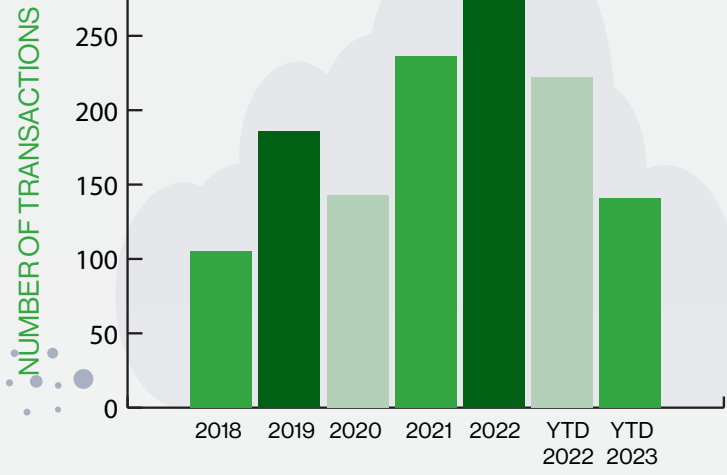
Source: 52 Huge Environmentally Conscious Consumer Statistics, TheRoundUp.Org

5 NEW BUSINESS OPPORTUNITIES & EXPANSION

While M&A activity within the solid waste industry is expected to continue to decline from 2022 highs (according to Capstone Partners), sector participants are expected to continue to pursue acquisitions to scale operations and meet increased waste volume. Legacy paper-based and manual processes can inhibit growth and expansion efforts.



WASTE & RECYCLING M&A ACTIVITY MODERATES

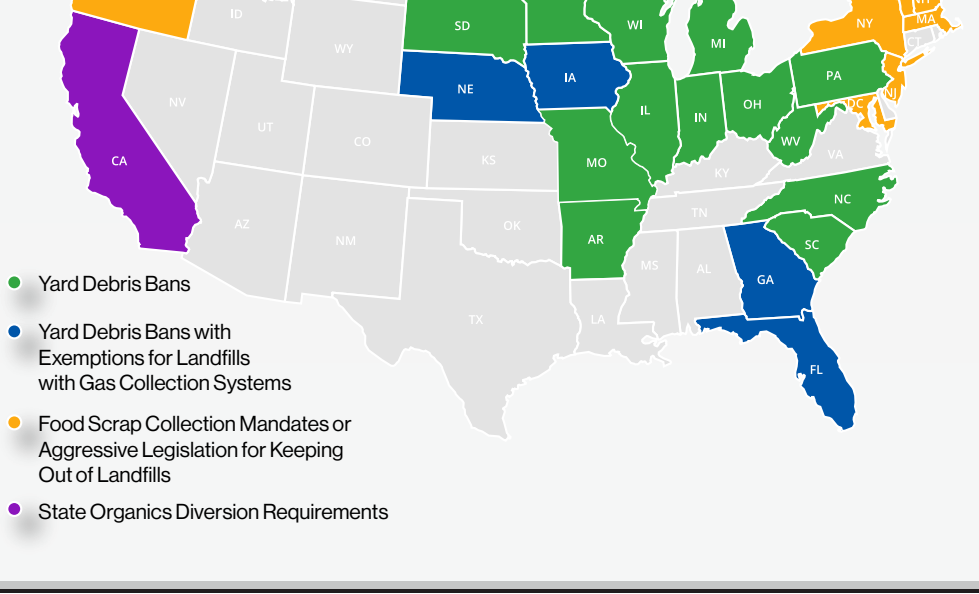


6 REGULATIONS

Legislation around e-waste, organics recycling programs, sustainability-related jobs, and more are gaining momentum. New legislation will impact how cities and haulers operate their business, what goes in trucks, and the need for proper reporting to ensure compliance—which could lead to hefty fines if not implemented properly. Waste technology eases regulatory burdens by streamlining operations, tracking compliance, automating reports, and communicating with and educating residents.

Take California's SB 1383, for example. On January 1, 2024, the enforcement provision of the bill came into effect. Now, jurisdictions that do not comply or do not meet the standards will be subject to fines of \$500 to \$10,000 per violation per day, depending on the violation.

STATES WITH ORGANIC BANS, AS OF 2023



7 KEEPING UP WITH CHANGES

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Whether you are looking to grow organically or expand through acquisition, having the right technology in place that integrates collection routes, streamlines billing, and replaces outdated legacy processes enables you to pursue new business opportunities, grow your business, and increase profits far easier.

LET'S GET STARTED.

Sign up for a consultation with one of our waste experts.