

кивісом Helping create a nationwide recycling infrastructure



andfills across the country are rapidly reaching capacity, and it is therefore more important than ever that we remain mindful of how we dispose of our waste.

Something as simple as ensuring that waste materials are placed in the appropriate container will help keep them out of the landfill and allow them to be repurposed in various ways.

Collective action is needed on the part of industry and business leaders, cities and governments, and citizens around the world to develop an infrastructure that promotes recycling, the composting of organic materials, and ultimately, that helps to bring about the end of waste.

The journey to zero waste will be defined by steady progress, not instant perfection. Businesses and governments cannot achieve zero waste overnight. Instead, they should aim for measurable, attainable goals in shorter time frames. Furthermore, there would be a large benefit



to private and public entities working together to drive more sustainable waste and recycling solutions. Community-Based Public and Private Partnerships (CBP3s) are a great way to provide flexibility, access to advanced technologies and government resources, and encourage long-term financial and regulatory commitments to integrate greener infrastructure into local communities.

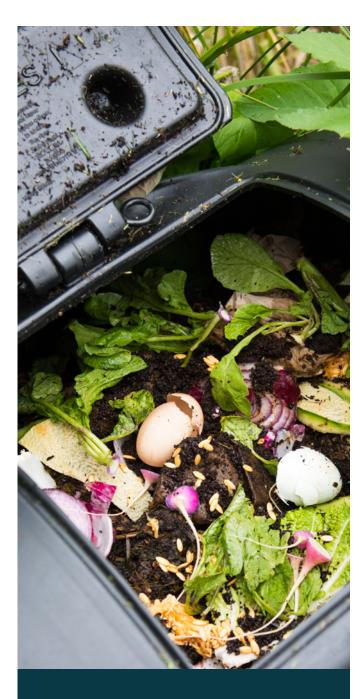
Here are a few examples of <u>Rubicon®</u> and its partners working together to create recycling infrastructure across the United States.

San Diego, California

The <u>City of San Diego</u> estimates that around 75 percent of its waste could be recovered by reusing, recycling, or composting. As a result, it has started to take measures to encourage local businesses to adopt food waste programs.

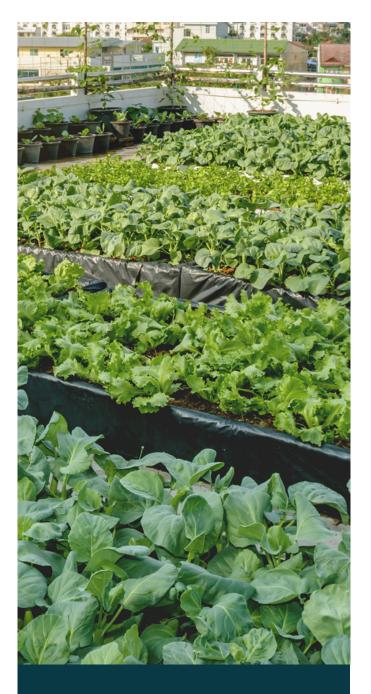
Rubicon recently worked on a project in the City involving setting up composting programs at dozens of commercial locations. Previously, there were few viable end destinations that would accept food waste, so local haulers were not offering the service. The only facility in the area that could accept food scraps was owned by the City itself, and they only allowed materials pre-approved by the City to be dumped there.

In order to allow these commercial sites to recycle their food scraps at its facility, the City of San Diego has been building partnerships with franchise haulers since the 1990s. Most recently, in 2021, they onboarded <u>Ware Disposal</u> as their newest private hauler handling food waste. The City requires each participating site to complete a training session so they know how to properly dispose of food waste. Rubicon's team worked with each of these new individual sites, brought into the program in the midst of the COVID-19 pandemic, to facilitate the training in close collaboration with the City and hauler.



75%

of San Diego waste recoverable by reusing, recycling, or composting, per city estimates



6,000+

fruits and vegetables maintained in Thomas jackson's urban garden in Toledo, Ohio

Toledo, Ohio and Mighty Organics

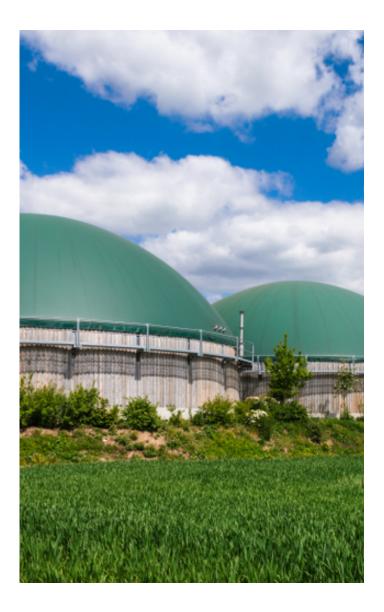
Located in America's heartland, Toledo, Ohio has been at the center of some home-grown innovation in sustainable food production.

Residents such as <u>Thomas Jackson</u> of Toledo have taken to urban gardening as a source of organically grown fruits and vegetables. An urban garden is one that must be confined to a small or specific space, such as a rooftop or an empty lot. Alongside providing a community with a source of fresh produce, they contribute a number of other benefits, including the promotion of self-sustaining agriculture, reduced consumption of fossil fuel in the food system leading to a smaller carbon footprint, and improving the ecology of an area by creating habitats.

Jackson had the vision to create a garden that he could share with his community and provide them with a source of nutrientdense, fresh food. Jackson started by using wood chips that turned into soil in which he was able to maintain more than 6,000 fruit and vegetable plants. Now, Jackson has become a champion of the urban agriculture movement in Toledo as a result of his determination and perseverance.

The State of Ohio saw that Jackson was

working to make a positive impact, and so they tweaked their composting regulations to allow him to continue on his mission. He became a certified master composter and he now operates professionally under the business name <u>Mighty Organics</u>. He works with many businesses in the Toledo area that create large amounts of organic waste including Starbucks, a Rubicon partner. Today, Rubicon is proud to call Mighty Organics a partner, too.



Depackaging and anaerobic digestion

One of the biggest difficulties of successfully setting up and adhering to a food waste program is the fragility of the process. Contamination of food waste is easy if one is not paying close attention to what is disposed of in a food waste bin. Plastic wrap and containers can easily find their way into a composting container. In an effort to combat this, many cities and regions have been implementing depackaging in their operations.

Depackaging is the process of separating organic waste from its packaging, leaving nothing but compostable waste as the end product. Many cities and regions such as Teton County, Wyoming; Muscatine, Iowa; and Hermitage, Pennsylvania; have been setting up depackaging facilities for organics recycling purposes.

According to Brenda Ashworth, Superintendent of Teton County, Wyoming's Integrated Solid Waste and Recycling program, "Depackaging food waste allows this valuable commodity to be composted and removed from the landfill bound waste. Depackaging is crucial for removing contamination and making the resulting



compost a salable product." Teton County's composting facility recently installed a new <u>depackaging system</u> that can remove 99.5 percent of contaminants from food waste.

Once the organic waste is depackaged, it can safely be sent to a composting facility or <u>anaerobic digester</u>. Anaerobic digestion (AD) of food waste is the process of decomposing organic material by using anaerobic bacteria in an airtight tank or digester. This process gives businesses a better option than sending their organic waste to the landfill. When these materials end up in the landfill, they produce large amounts of methane, a harmful pollutant and greenhouse gas.

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A large component of Rubicon's mission to end waste lies in establishing strong and efficient recycling programs. While this is not something every community, business, or government has in place already, Rubicon works with its partners to help build and expand this infrastructure across the United States. Rubicon is a digital marketplace for waste and recycling, and provider of innovative software-based solutions for businesses and governments worldwide. Our platform enables organizations of all kinds to seamlessly manage waste and recycling services. View invoices and billing history, explore cost and waste savings, and gain complete visibility into waste streams across multiple locations.

If you are interested in learning more about Rubicon's sustainability offerings, please visit <u>Rubicon.com/</u> sustainability-hub.