



How AI is Transforming Recycling Facilities

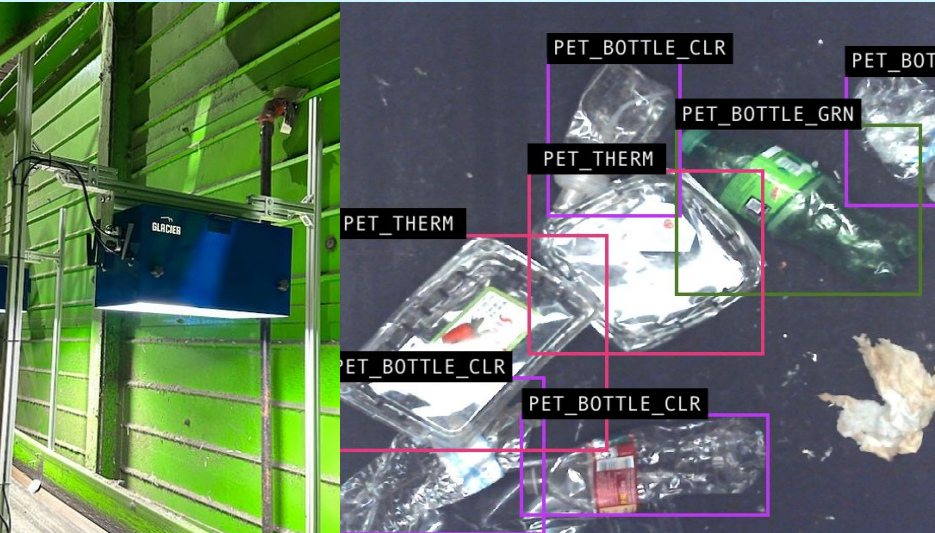
Ting Zhang · VP of Business Development @ Glacier · NERC 2026





See everything.

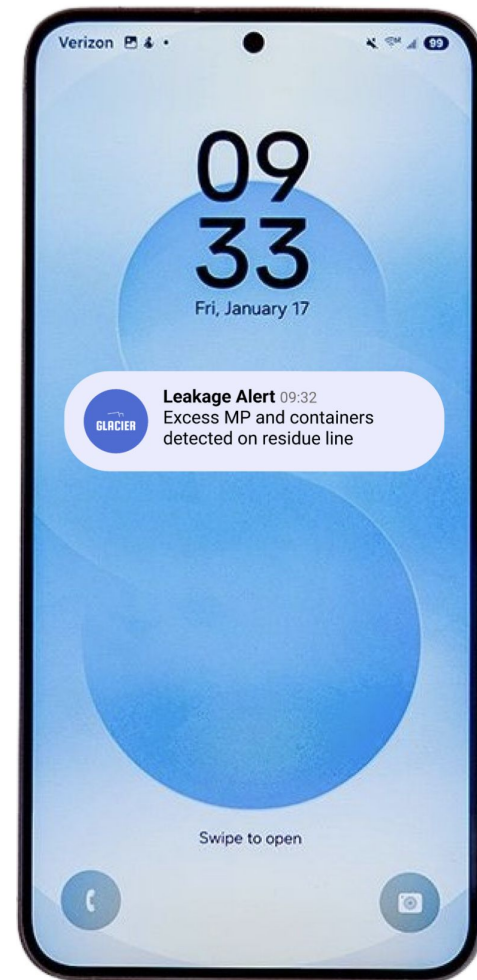
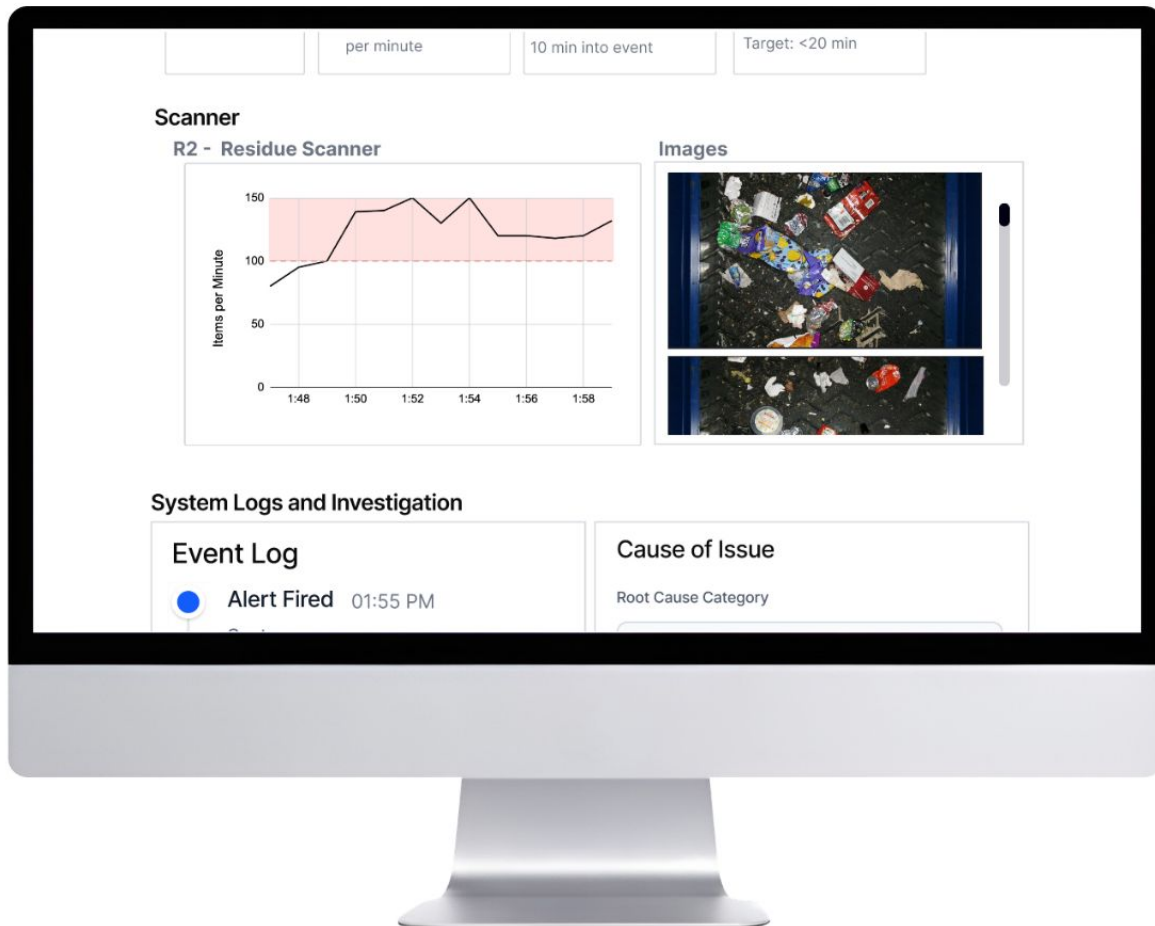
Groundbreaking AI
can track recycling in
real time, by item



Sort everything.



Purpose-built automation
can sort, learning as it goes



CASE STUDY #1

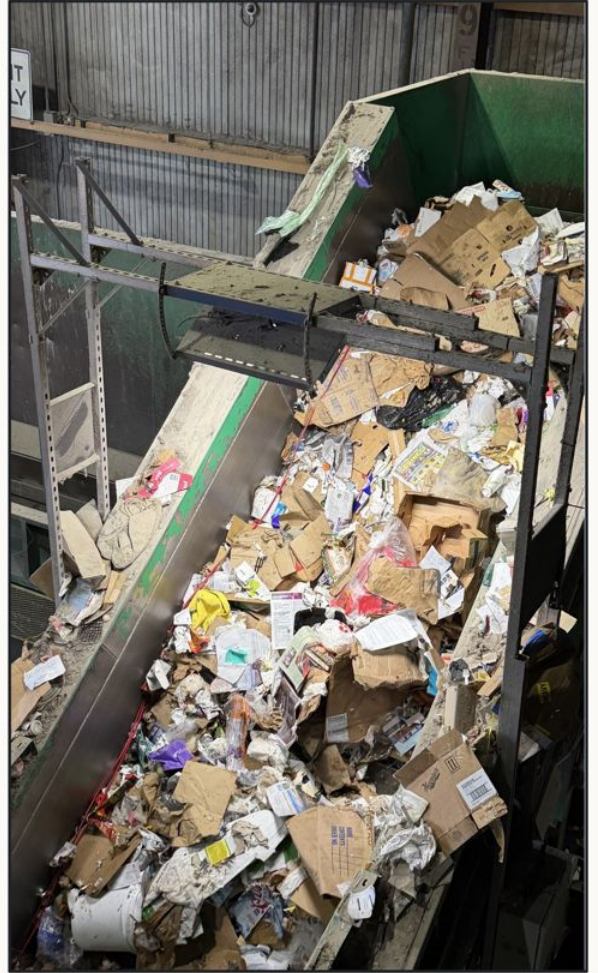
Using AI to drive more efficient, higher-performing MRFs

At several MRF partners, Glacier installed 15-25 AI scanners across their facilities and trained their teams to monitor alerts and take action.

The goal was to give the MRFs real-time answers to facility-wide questions, such as:

1. Where do we see opportunities to make plant operations more efficient?
2. What specifically needs to change?
3. How do we standardize operations across all our recycling plants?





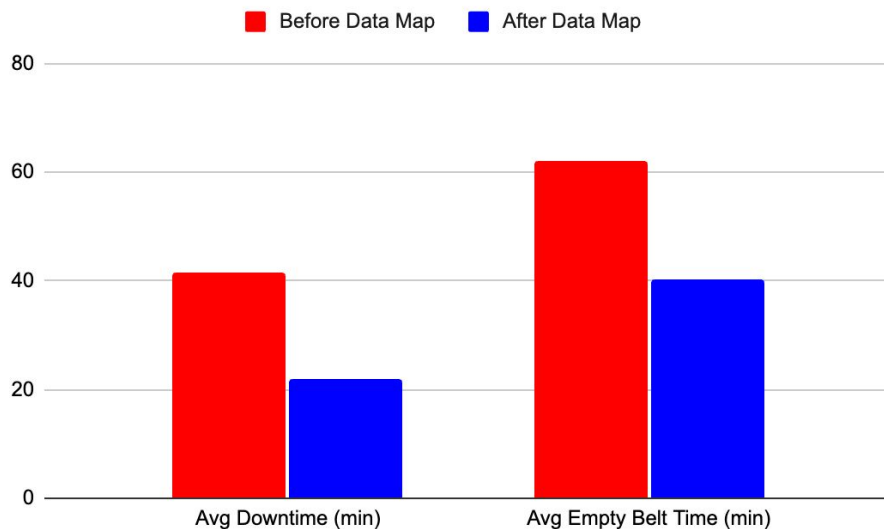
CASE STUDY #1

Using AI to drive more efficient, higher-performing MRFs

With **no change to staffing, inbound material, or equipment**, Glacier Data Map users are seeing:

- **Downtime cut nearly in half**
- **5 additional hours of productive runtime** per week
- **\$2.1M in projected annual savings** from increased runtime

Comparative Metrics (Before vs After Data Map, Per Shift)



CASE STUDY #1

Trust, data accuracy & a shared version of reality

"There's no more debating what's real anymore. It's right there on the screen. I can finally prove what I'm seeing."

Measurement

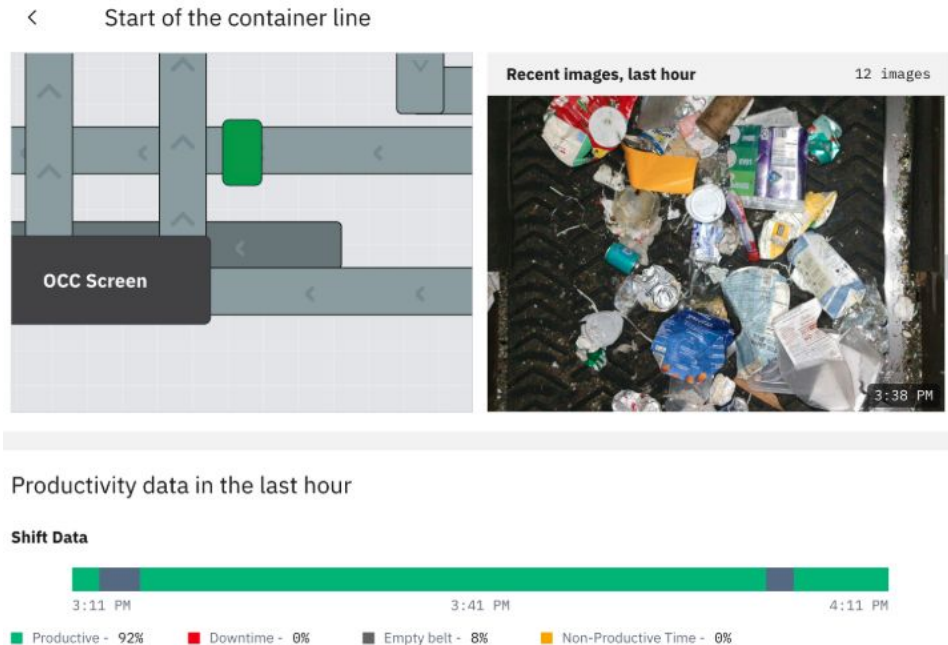
Accurate, trusted facility data

Ownership

Operators drive their own improvements

Competition

Site teams now focused on improving metrics



CASE STUDY #1

Empowering teams to solve problems

"I want my team to spend less time recording problems and more time solving them. The insights from Data Map have given my crew all kinds of ideas for how to get the plant running better - and we're using Data Map to measure the impact their ideas have on our operations."

Measurement

Accurate, trusted facility data

Ownership

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Site teams now focused on improving metrics

 Downtime	✓ Resolved ✗ Unassigned 📄 Not Reported	12:08PM • 1h 17m
Empty Belt	✓ Resolved ✗ Unassigned 📄 Not Reported	11:05AM • 0h 12m
Downtime	✓ Resolved 👤 Assigned 📄 Reported	09:47AM • 0h 06m
Empty Belt	✓ Resolved 👤 Assigned 📄 Reported	08:51AM • 0h 11m

CASE STUDY #1

When people trust the numbers, they start playing to win

"The first time I saw the real numbers, something clicked for me. It's not just tracking numbers anymore - it's a game I can win. My whole team is competitive, and we got our uptime to a record high."

Measurement

Accurate, trusted facility data

Ownership

Operators drive their own improvements

Competition

Site teams now focused on improving metrics

Overview

Runtime

2h 41min

Uptime

96% ✓

+6%

Target: 90%

Productive time

94% ✓

+4%

Target: 90%

CASE STUDY #2

How AI helped Niagara better understand PET recyclability

Niagara partnered with Eureka and Glacier to better understand the recyclability of its PET water bottles.

Glacier installed a single AI scanner on Eureka's audit line and analyzed 35,000 Niagara bottles to:

- Identify Niagara and other PET bottles
- Estimate the weight of PET bottles
- Measure how those bottles were being sorted

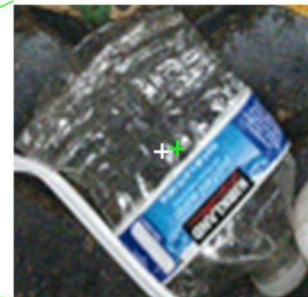


CASE STUDY #2

How AI helped Niagara better understand PET recyclability

What We Learned

- Very lightweight PET can be **mistaken for paper** by traditional screens
- Eureka upgraded to a paper optical sorter, which recovered **2M additional Niagara bottles / 17.5 tons of PET per year**
- Glacier estimated PET bottle weight with **>95% accuracy using vision** alone



But AI isn't magic. It's important to ask:

- What problem are we trying to solve?
- Why does solving that problem matter?
- What would success look like, and how will we measure it?

