

Physical AI for the Materials Economy

R. Paul Singh – CEO, EverestLabs
rps@everestlabs.ai



Three Structural Problems Run Through the Materials Economy

01 LABOR

Plants can't run
the lines they have

DRIVERS

-  Chronic labor shortages
-  Occupational hazards
-  Wage inflation

02 QUALITY

Quality varies shift-by-
shift, operator-by-operator

DRIVERS

-  Legacy & error prone equipment
-  Manual inputs



Iran war showed us how
precarious our oil & gas-
based product position is.

03 OPERATIONAL BLIND SPOT

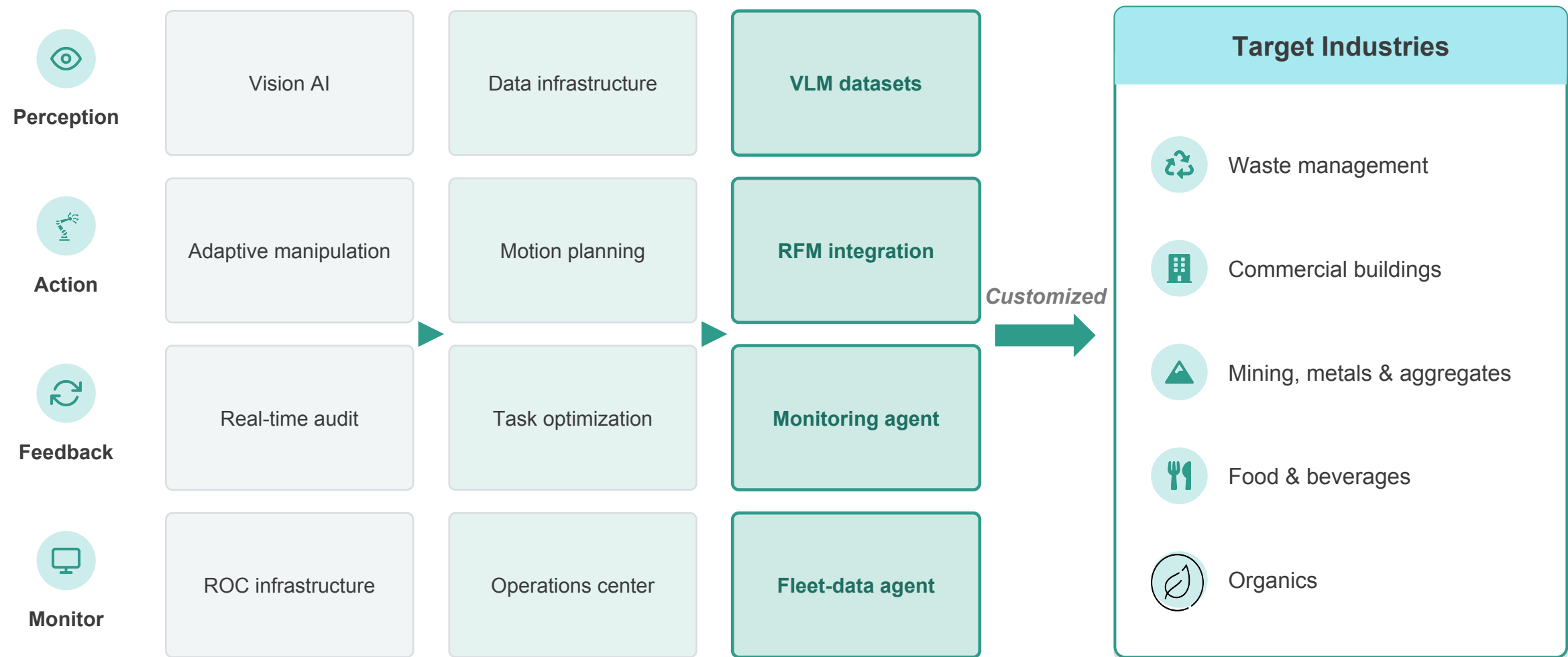
The material economy
is running blind

DRIVERS

-  Plants run by gut experience
-  No data to learn from
-  No real-time feedback

Physical AI for Industrial Economy

Physical AI framework maturing toward agentic autonomy — customized for each industry



Introducing EverestLabs

■ AI for the Materials Economy



Navigator
Agentic AI Platform



Robotics
High Speed Sorting



TRUSTED
BY CLIENTS



The four pillars of EverestLabs Solution

Building block technologies for digitizing and optimizing recycling operations

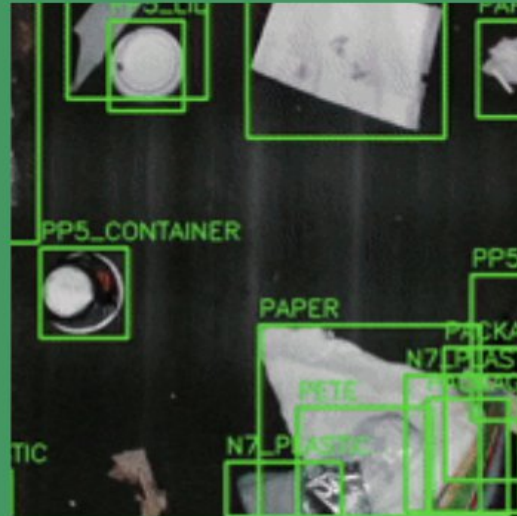
01 SEE

Recyclables & trash



02 LEARN

Plastic (1-7), metals & fiber



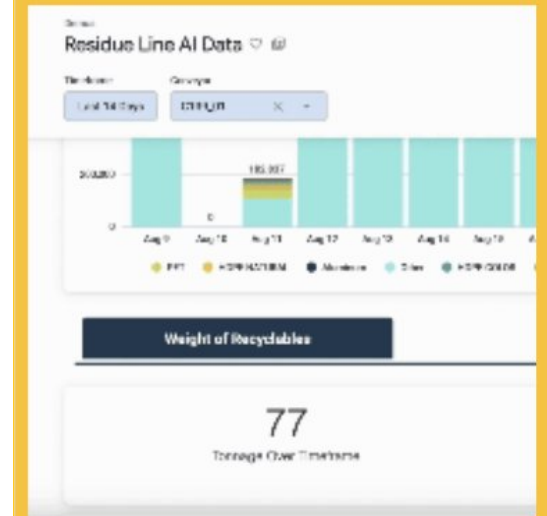
03 AUTOMATE

Positive & negative sort



04 ACT

Insights & actions



Our Solutions

- We build product and infrastructure that digitize and automate material processing.

PRODUCTS →

Navigator

AI assistant for plant operator



Robotics

AI driven high speed sorting cells



INFRASTRUCTURE →



Vision AI

Edge vision models for recycling domain



Remote Operations Center

AI & human agents for 24/7 monitoring



100B+

RECYCLING
DATA POINTS

6M+

BELT HOURS
OF EXPERIENCE

200+

PROVEN
DEPLOYMENTS

95%

DETECTION
ACCURACY

Customer Success Stories | Robotics



Over 2M

UBCs recovered annually,
more than paying for itself



Over \$400K

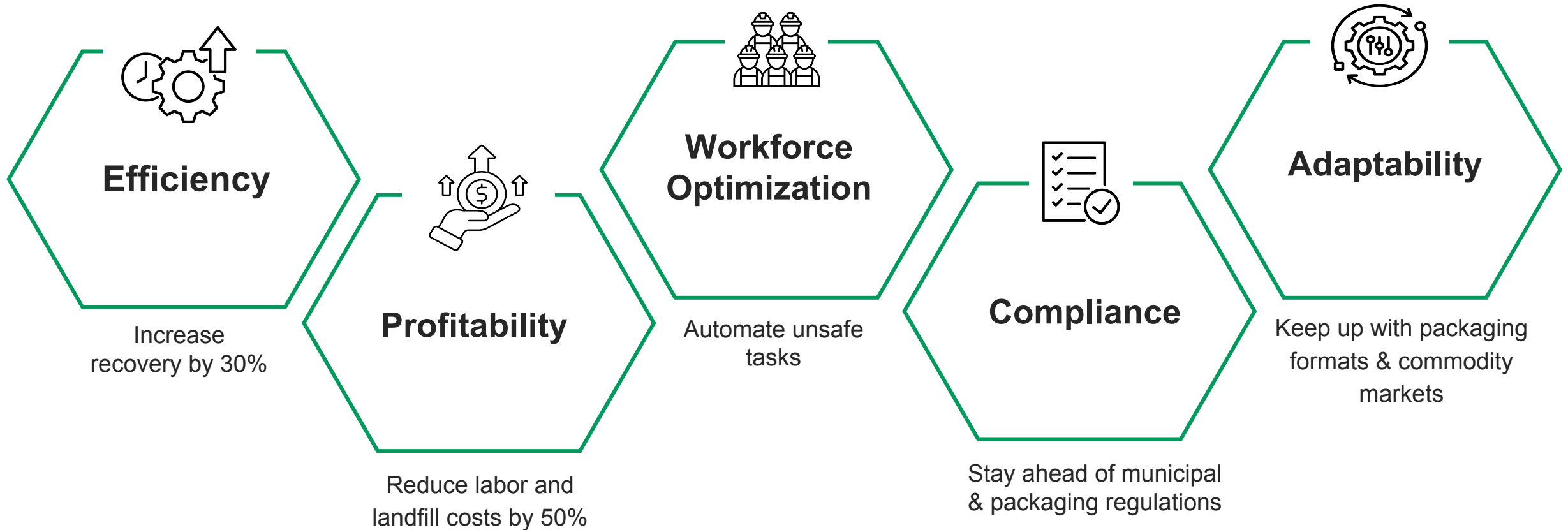
netted annually in
additional recovery



125 tonnes

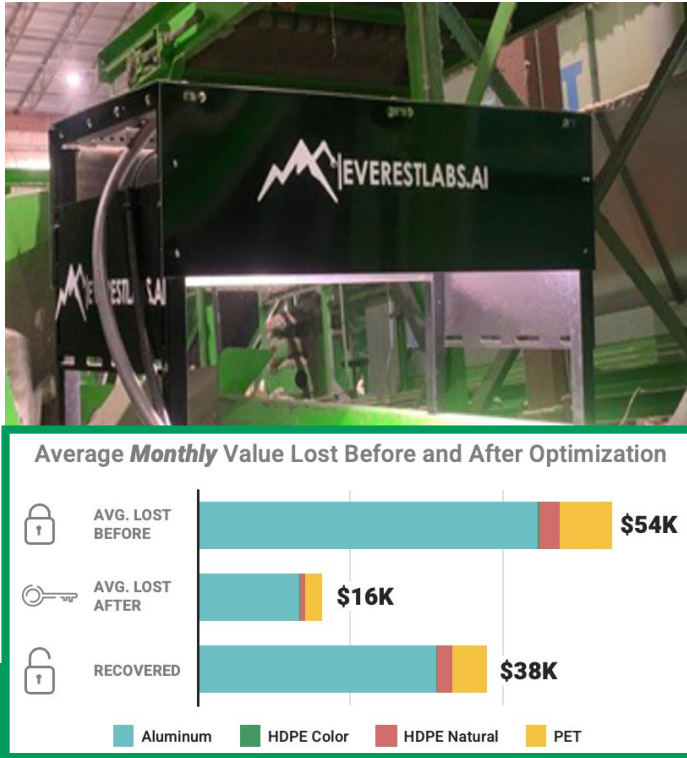
of plastic containers
picked annually

Driving top and bottom line for recycling operators



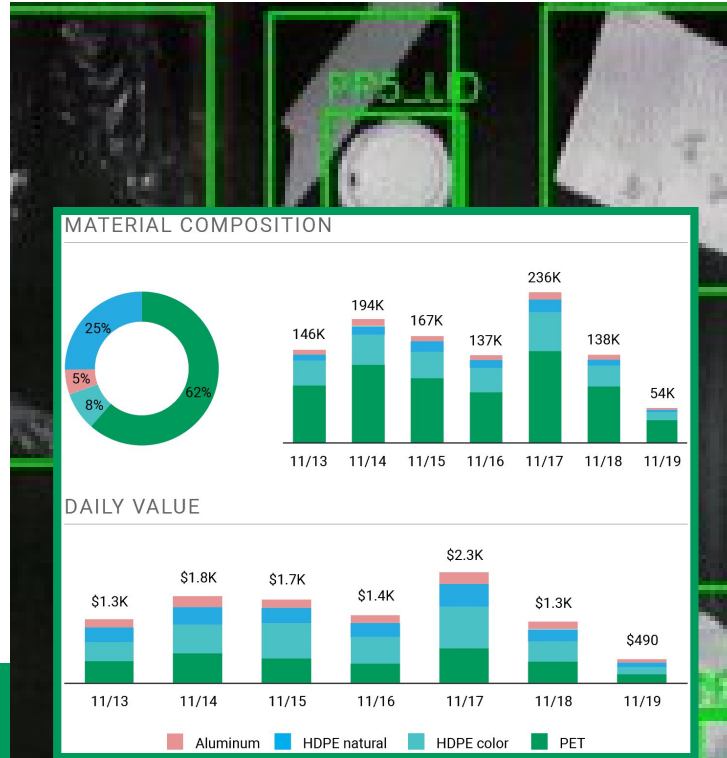
Delivering payback under 12 months

Customer stories | Navigator



Upstream Optimizations

Real-time optimizations increased recovery by \$38K monthly by optimizing upstream equipment



Recovery Potential

Diverted 200 tons of valuable
recyclables from landfill each month with
recoverable value of \$400K annually



Yield Improvements

Eliminated contamination and yield loss
by integrating to process controls for
plastics recycling

Benefits of Navigator to MRFs and PRFs

Every competitor stops at the data. **Navigator acts on it.**



Vision AI

Built for the recycling domain —
“parameterizes” recycling operations



Ask Navigator

Conversational agent
with plant level context



Dashboards

Real time KPIs built
for the operator



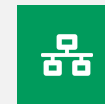
Artifacts

Prebuilt entities for
managing processes



Alert & Alarm Engine

Rules based notifications
and communications



Automation

Integration to PLC or
SCADA systems

The window to act is now

Only **6.9%** of the 106 billion tonnes of material the world uses each year comes from recycled sources. The rest is virgin — extracted, refined, and exposed to foreign chokepoints.

93%

of global material inputs are still virgin

Recovered material is domestic content
— insulated from foreign supply shocks.

What organizations can do



Brands & manufacturers

Fund physical AI in the facilities that handle your packaging. Treat recovered material as upstream supply security, not a downstream obligation.



Investors

Target the gap between today's \$273B recycling market and a \$10-\$13T materials economy waiting to be modernized.

Stop treating recycling as an obligation. Start treating it as strategic infrastructure.