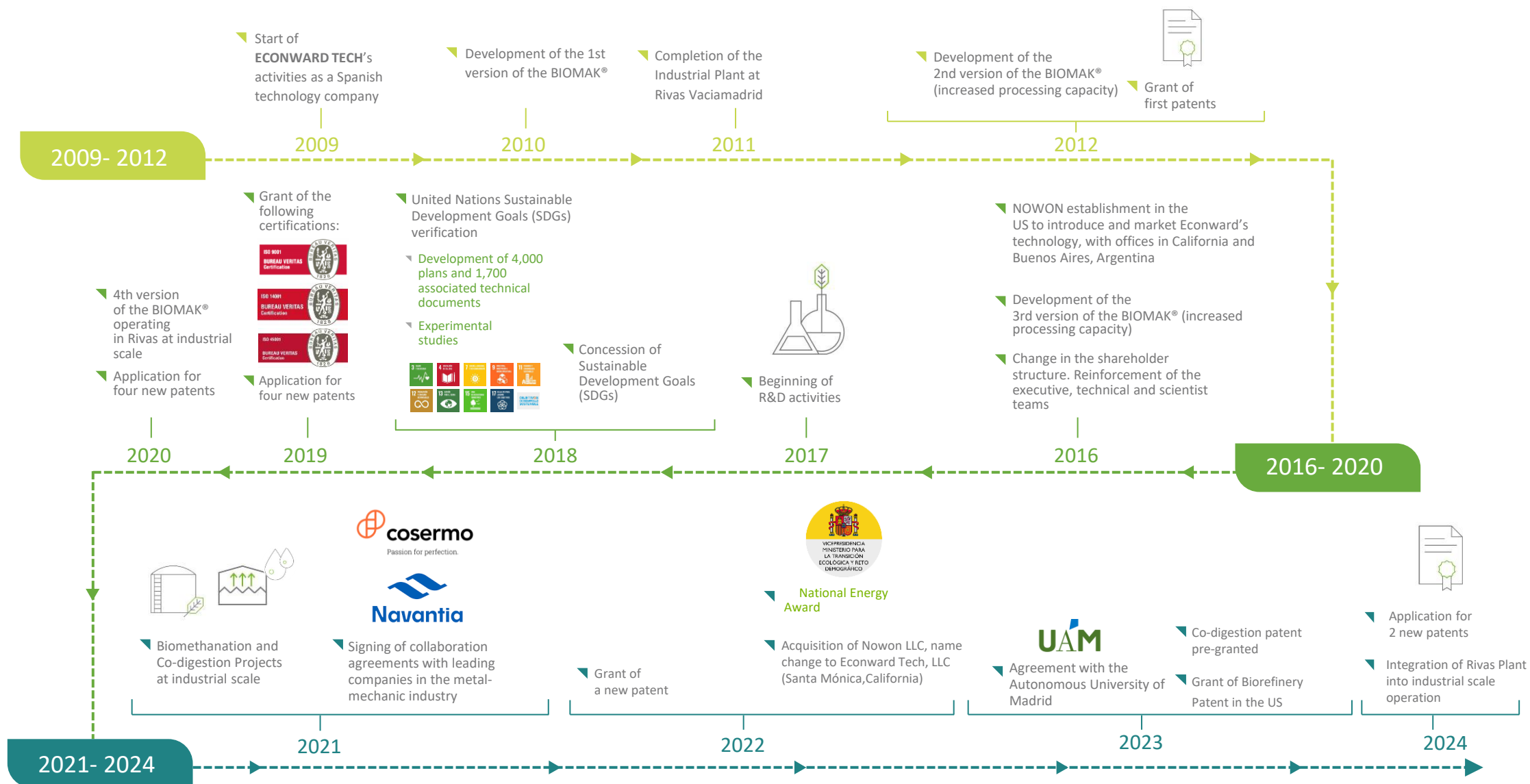




Econward Tech Introduction Organics Capture with Biomak[®]

ECONWARD TECH

WE ARE BACKED BY 15 YEARS OF EXPERIENCE, GREAT TECHNICAL SOLVENCY AND STRATEGIC ALLIANCES WITH LEADING COMPANIES IN THE INDUSTRY



Why are we here? Problem and Context



SB1383 & Landfill Diversion Mandates

California's ambitious goals require aggressive organic waste diversion



The Challenge of Contaminated Organics

Municipal Solid Waste and MRF fines are too dirty for traditional processing



Limits of Existing Recycling, Composting & Digestion

High contamination reduces efficiency, quality, and economic viability without proper pre-treatment

“BIOMAK turned our contaminated fines from a disposal cost into a revenue stream.” Operations Manager, Regional MRF Facility

BIOMAK™

- ▼ High Capacity
- ▼ Compact
- ▼ Reliable



System Specifications

8.8 short tons per hour/70,000 tons per year

Treats high solid organic fraction of MSW (20% - 70% TS)

Full facility footprint: 3,000 sq. ft.



Operating Parameters

150 °C / 305 °F

4 bar/ 58 psi / 400 kPa

4 autoclaves, total of 20 minutes residence time

Rapid Thermal Hydrolysis for MSW, contaminated SSO & MRF fines

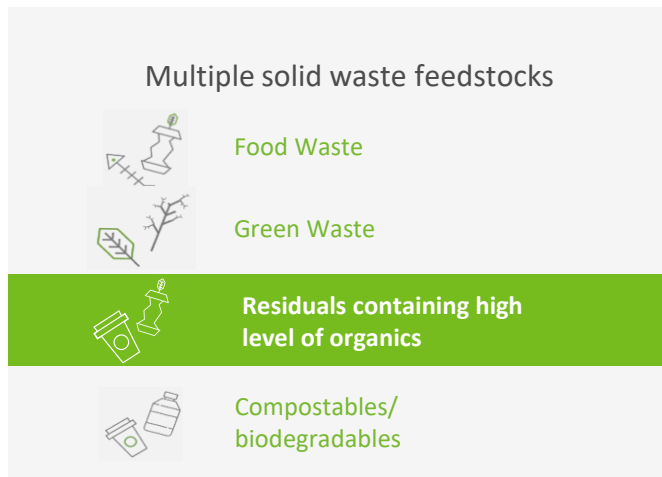
Thermal Hydrolysis acts as a pressure cooker by adding temperature and pressure through saturated water steam

Separation of hydrolysis from the anaerobic digestion process increases biomethane potential and reduces residence time

HYDROLYSIS



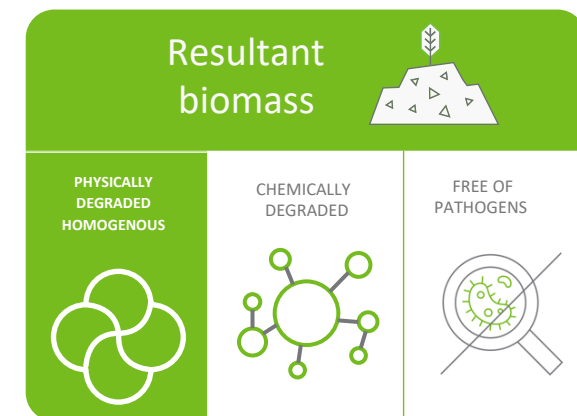
Waste in



BIOMAK[®]



Biomass out



How it works: Simple two-step process to decontaminate organic-rich waste streams



Waste Input

Contaminated SSO

MRF fines

MSW

Multi-unit residential

Organic-rich waste stream input

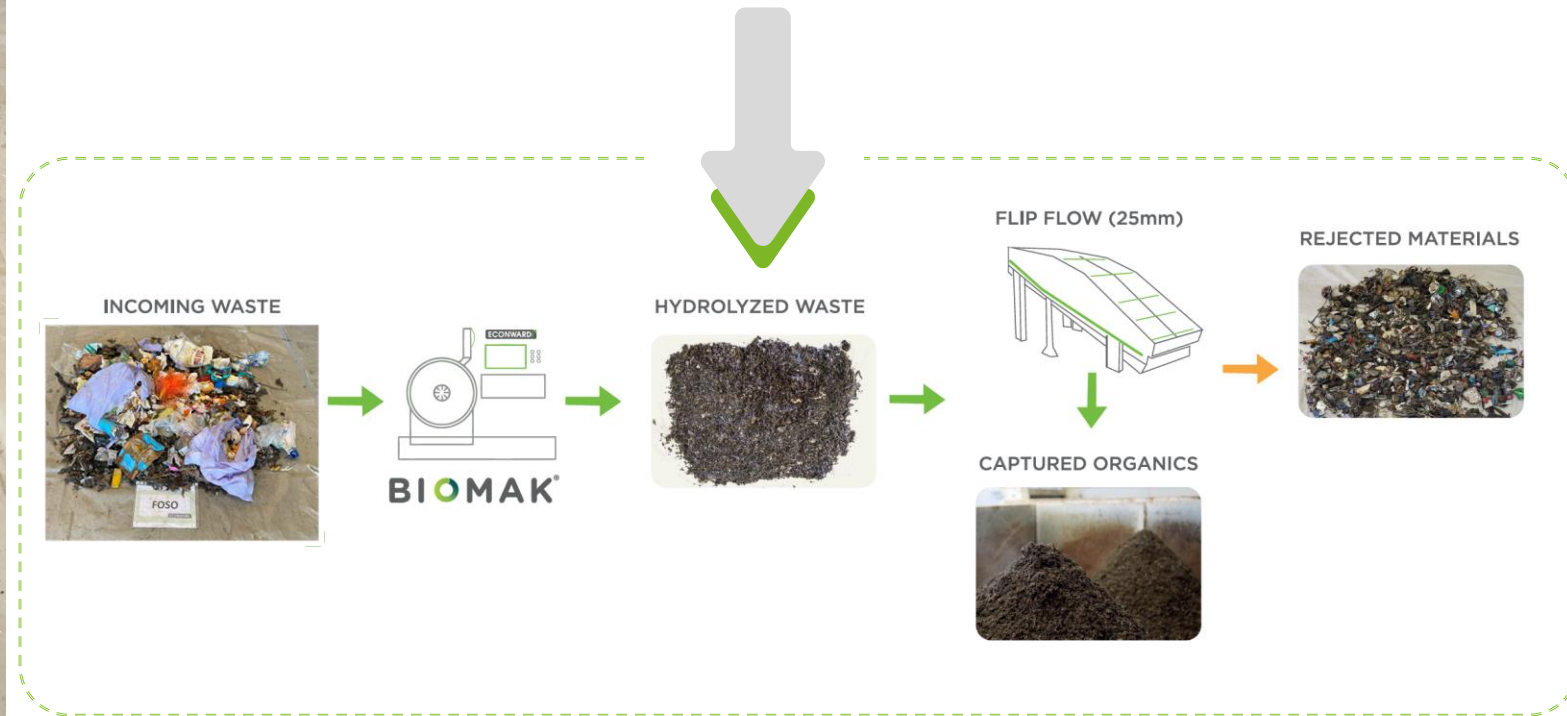


Waste Input

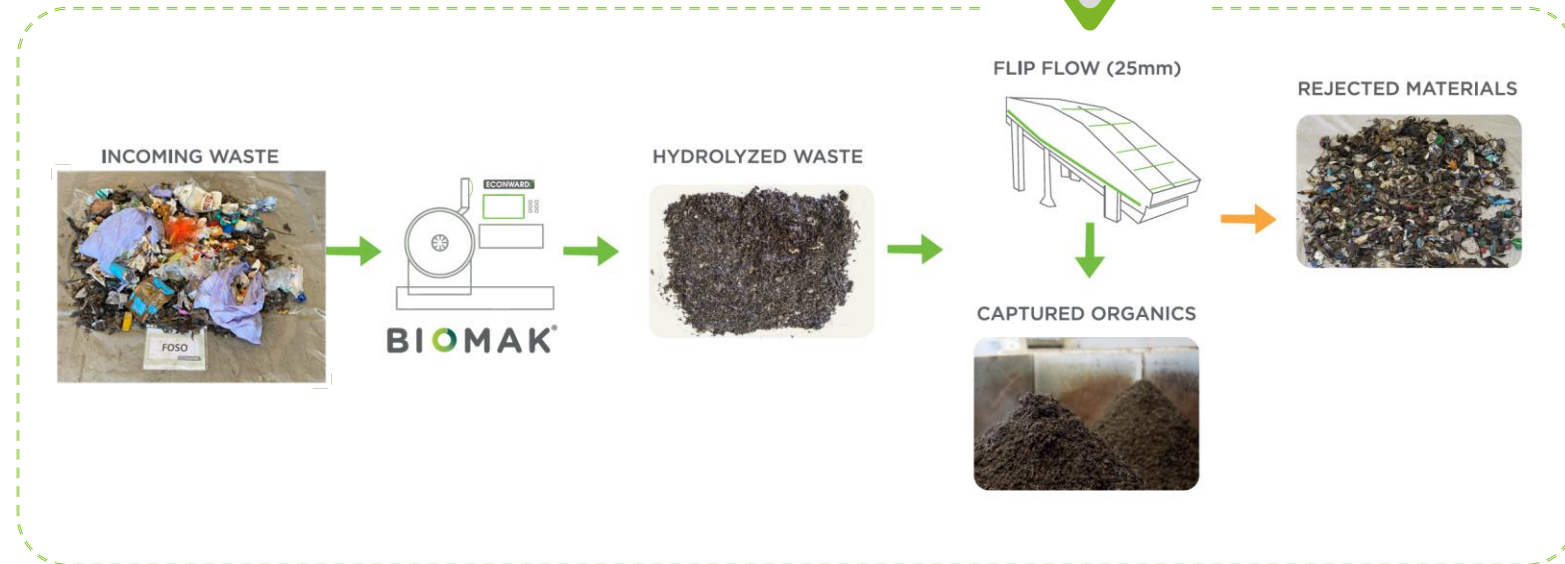


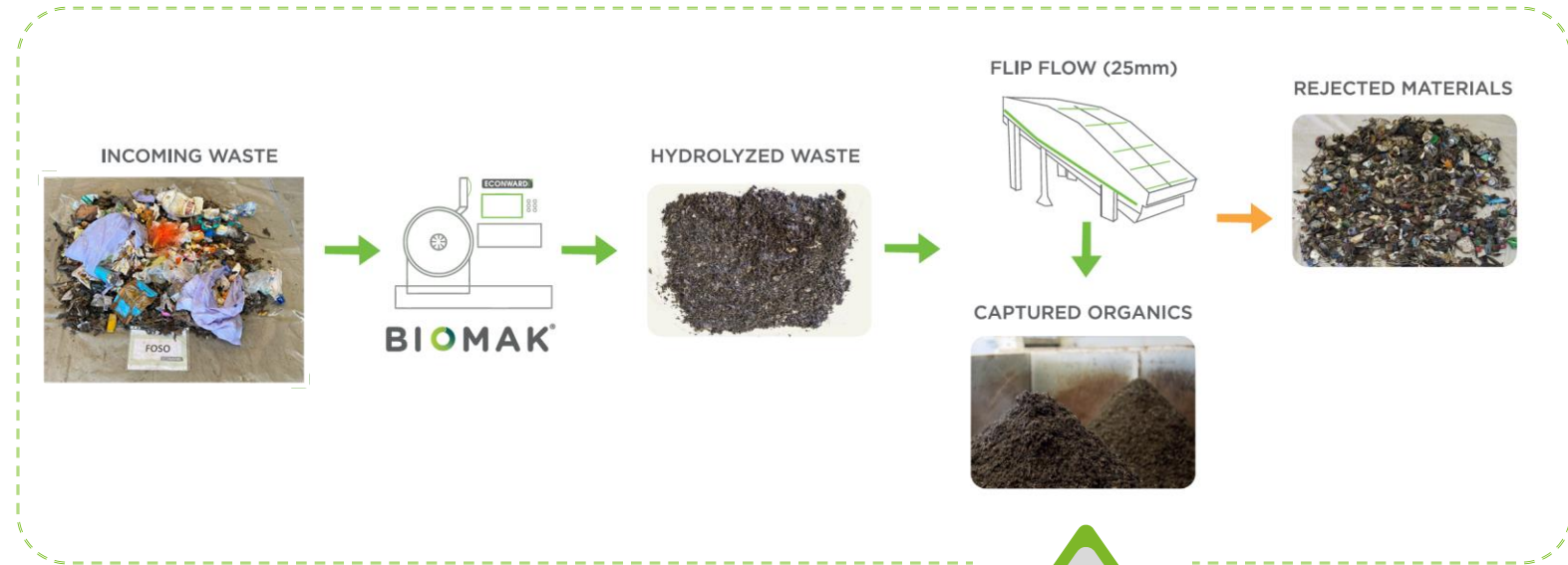


Organic-rich waste stream
fast hydrolysis (20 minutes)



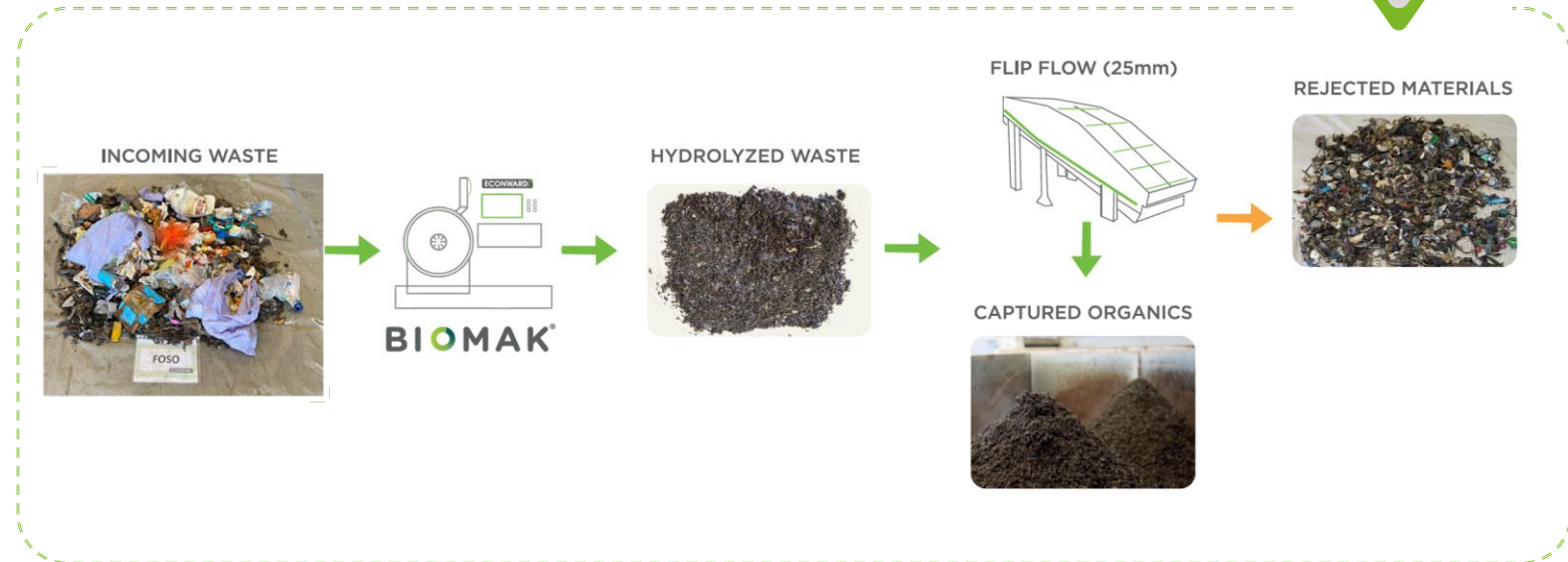
Hydrolyzed waste goes
through vibrating screen





From waste to pathogen free,
hydrolyzed organics in less than 40
minutes

Rejected materials suitable for
further recycling



All four pictures
in one slide

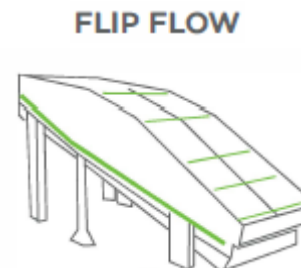


BIOMAK Input		
Tons/year	64,333	-
Organic	50,910	79.1%
Non-Organic	13,423	20.9%
Humidity	56.0%	-



Hydrolyzed		
Tons/year	71,017	-
Organic	57,594	81.1%
Non-Organic	13,423	18.90%
Humidity	60.1%	-

HYDROLYZED WASTE



CAPTURED ORGANICS



Reject Fraction		
Tons/year	11,328	-
Organic	2,410	21.3%
Non-Organic	8,918	78.7%
Humidity	21.4%	-

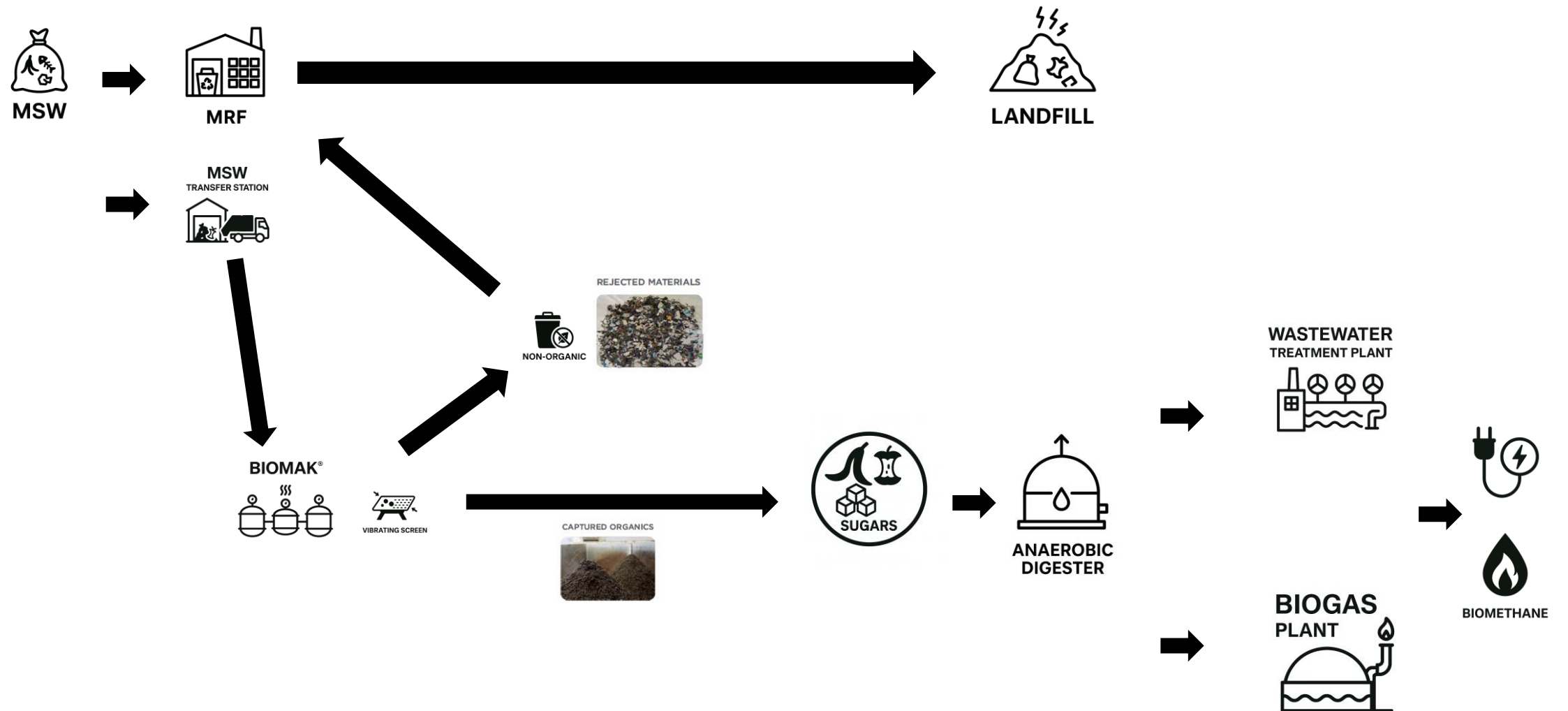
REJECTED MATERIALS



$55,184/57,594 = 0.96$
96% organics capture

Unders 40 mm		
Tons/year	59,689	-
Organic	55,184	92.5%
Non-Organic	4,505	7.5%
Humidity	70.3%	-

This innovation leads to a significant contribution to organics diversion from landfills to bioenergy generation



BIOMAK at a Glance

- **Commercially proven in Europe**
- **Extracts high-value organics from unsorted MSW**
- **Ideal for AD**
- **U.S. market entry underway with first project in the Northeast**

Where We Are Now

- Engaged with forward-thinking counties & municipalities
- BIOMAK technology has prompted new RFI/RFP processes
- Currently preparing a submission for a live RFP—a great fit for Urbaser as operator

Why We're here

- Looking to collaborate early with experienced operators
- Interested in exploring how your team's capabilities align with BIOMAK's roll-out
- Open conversation—see if this feels like the right venture to build together

Let's lead the change!

The logo for ECONWARD, featuring the word "ECONWARD" in white capital letters on a dark rectangular background, with a small green square icon to the right.

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