



CIRCULAR INDIANA: ORGANICS AND CLIMATE

Matt Flechter

Recycling Market Development Specialist
Michigan Department of Environment, Great
Lakes and Energy (EGLE)

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A LITTLE ABOUT RECYCLING & ORGANICS IN MICHIGAN

Michigan has a long history of recycling
And environmental protection
11,000 lakes and 3,288 miles of great lakes shoreline.
And manufacturing.
And creating the recycling experts of tomorrow.
The Michigan Department of Environment, Great Lakes, and
Energy (EGLE) works to create the conditions where recycling and
organics markets can thrive.
We work to deploy about \$15M/year directly to businesses and
communities to grow the recycling system
We work closely with the Michigan Recycling Coalition



- Increase **Access** to and **Participation** in recycling opportunities
- Inform residents and businesses on **How, Where, and Why to Recycle**
- Taking an **Equitable and Inclusive** approach to expanding recycling in diverse communities.
- **Training** the recycling professionals of tomorrow
- Improve the **Quality** of recycled materials
- Grow **Markets** for recycled materials
- Expand recycling **Infrastructure** (to grow Michigan's supply chain)
- Form **Partnerships** to finance recycling activities
- Recycling as a Climate Solution to **Decarbonization**

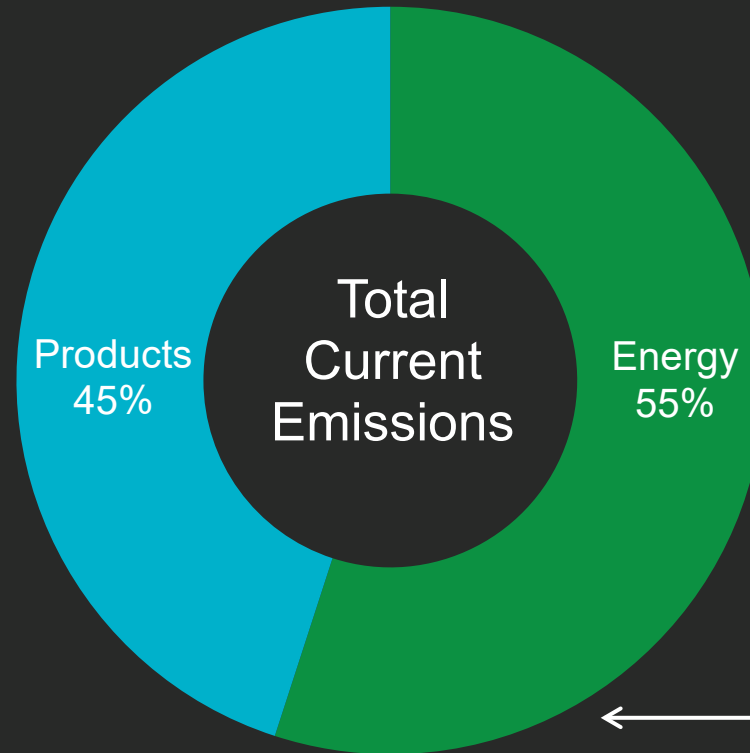


COMPLETING THE PICTURE

Tackling the Overlooked Emissions

45%

of Global GHG Emissions can be attributed to the production of materials, Products, and Food, as well as the management of land



Examples covered in paper

- Food
- Steel
- Cement
- Plastic
- Aluminum

Emission Reductions in 2050

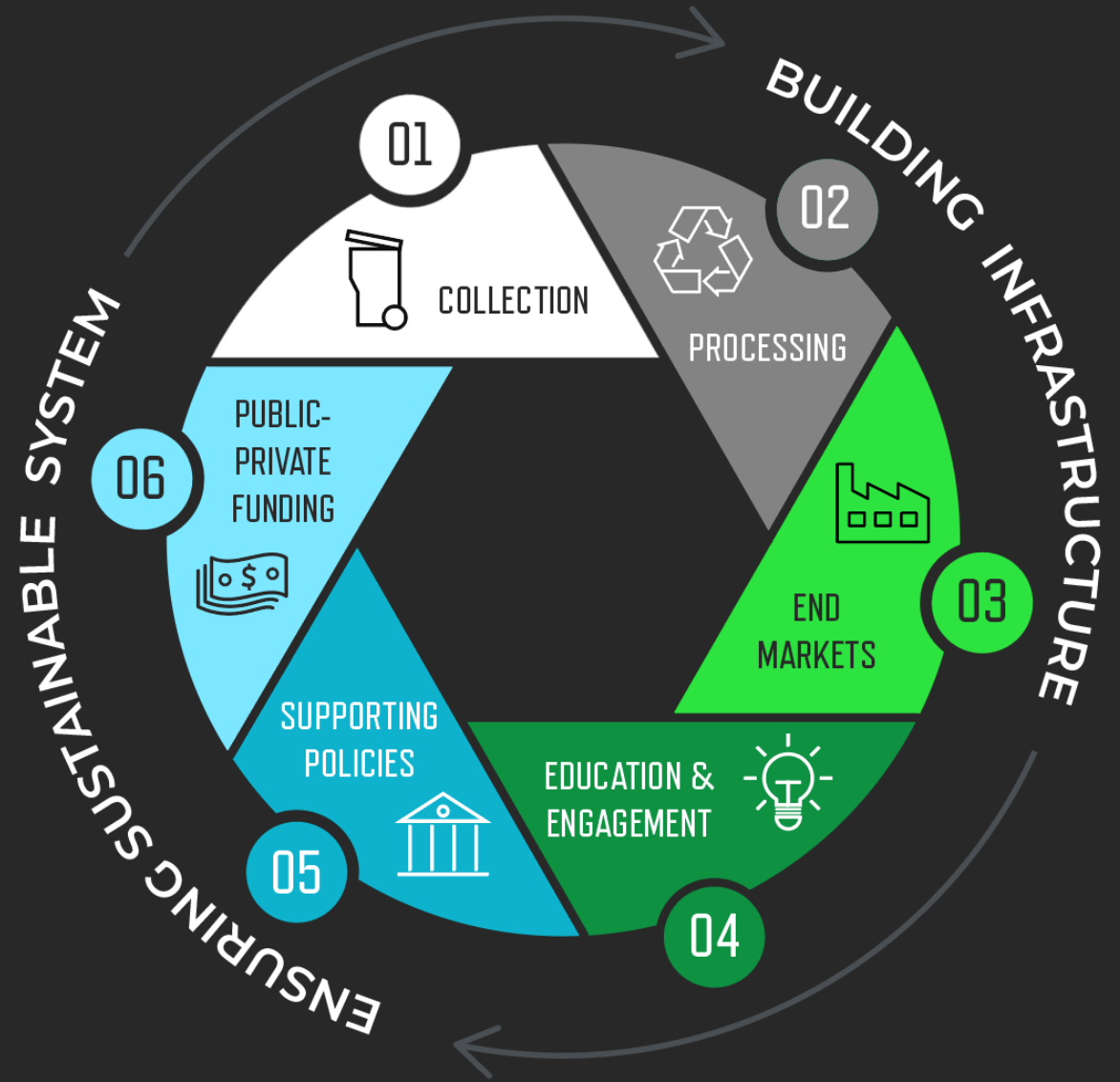
45% Circular Economy

55% Emerging tech, carbon capture storage and diet shift



ZERO EMISSIONS

BEST PRACTICES FRAMEWORK TO ACHIEVE **45%** **RECOVERY**



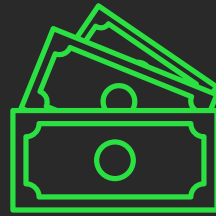
ECONOMIC BENEFITS OF REACHING 45% IN MICHIGAN

If Michigan's recycling rate tripled, the recycling, reuse, and recovery industry would total...



138K

JOBS IN MI



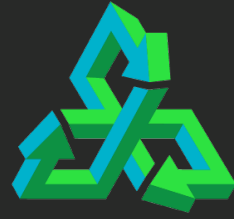
\$9.0B

TOTAL ANNUAL
LABOR INCOME



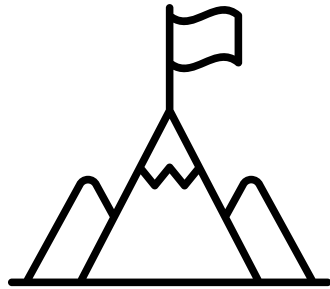
\$33.8B

ECONOMIC
OUTPUT

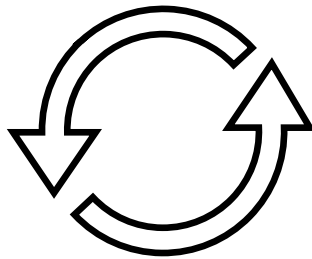


NEXTCYCLE
MICHIGAN

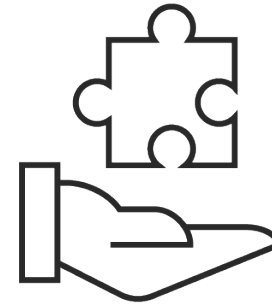
A multi-track idea incubator that provides technical support and subject matter expert mentoring to move ideas toward implementation.



INNOVATION
CHALLENGES



CIRCULAR
ECONOMY



RENEW
PARTNERSHIP
PORTAL

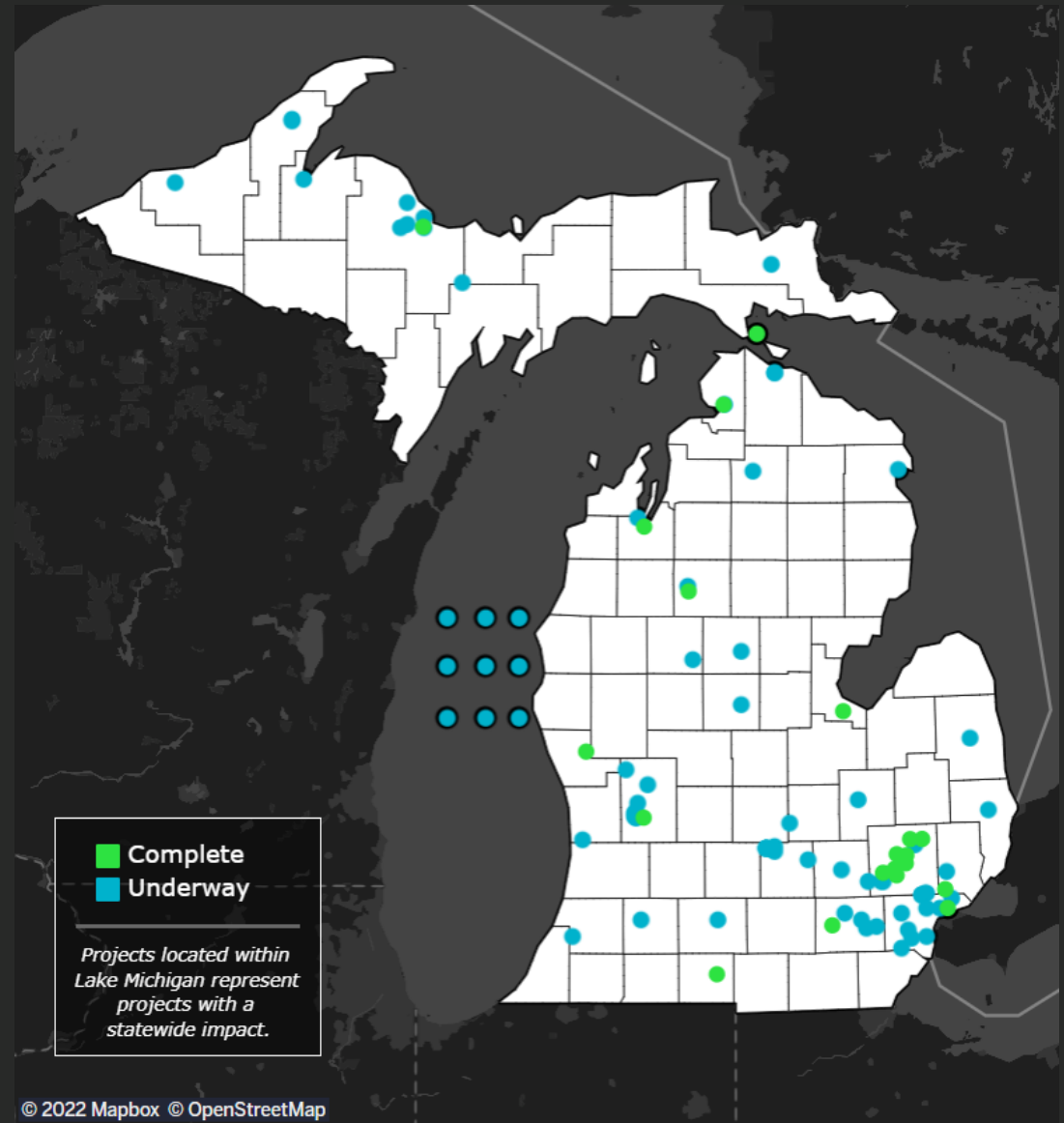
NEXTCYCLE MICHIGAN ACCELERATING IMPACT

238

Initiatives Tracked across Michigan
accelerating recycling and the circular
economy

\$692M

Of total investments captured for completed
and underway projects in the State.





NEXTCYCLE
MICHIGAN

ACCELERATOR TRACKS

13

COHORTS
LAUNCHED

341

APPLICATIONS
SUBMITTED

107

TEAMS
SELECTED

\$21.3M

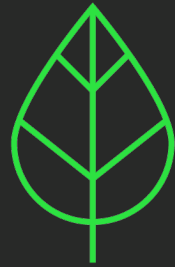
TRACKED
INVESTMENT IN
TEAMS

COLLABORATIVE NATURE



6

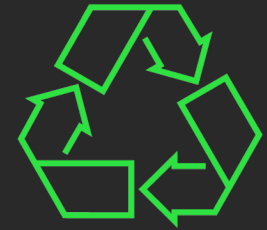
INNOVATION CHALLENGE TRACKS



Food, Liquids, and
Organic Waste
Systems (FLOWS)



Intergovernmental
Initiatives & Public
Private Partnerships
(I2P3)



Micro Scale
3Rs Solutions
(MICROS)



Recycling Innovation
and Technology
(RIT)



Recycling Supply
Chains (RSC)



Roads &
Pathways
(ROADS)

1

DATA ROOM

Resource and data library

2

ADVISORY COMMITTEES

Business plan support and subject matter expertise

3

BOOT CAMP / TRAINING

Opportunity to refine and improve concepts; build network

4

PITCH SESSION / SHOWCASES

Opportunity to generate interest from funding partners

5

PROJECT IMPLEMENTATION

Opportunity for partnerships, support, awards, grants

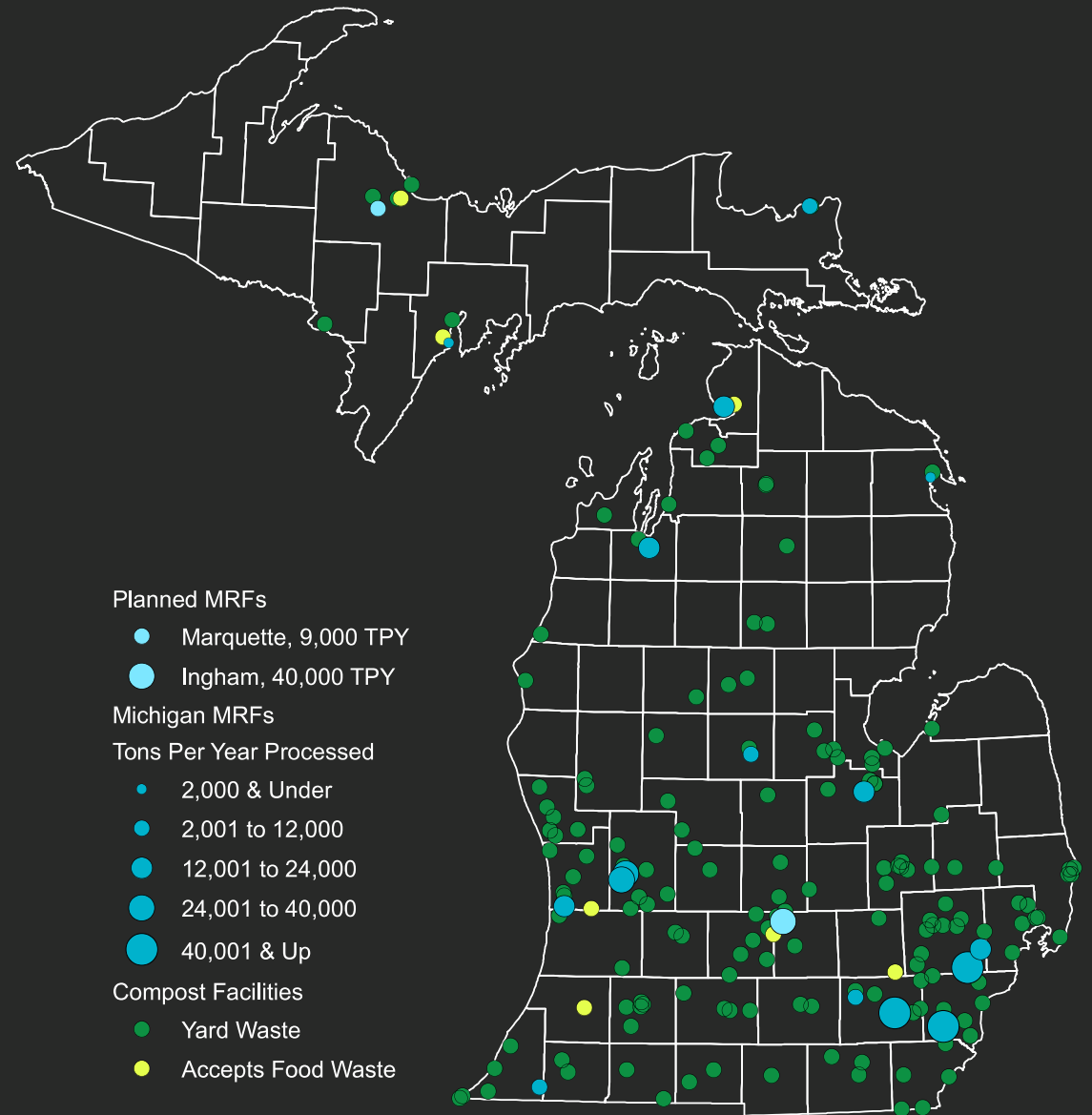
KEY CHALLENGE TRACK SUPPORT

CURRENT INFRASTRUCTURE

23%
MI Current Recycling Rate

366,232 tons/yr
Current MRF Throughput:

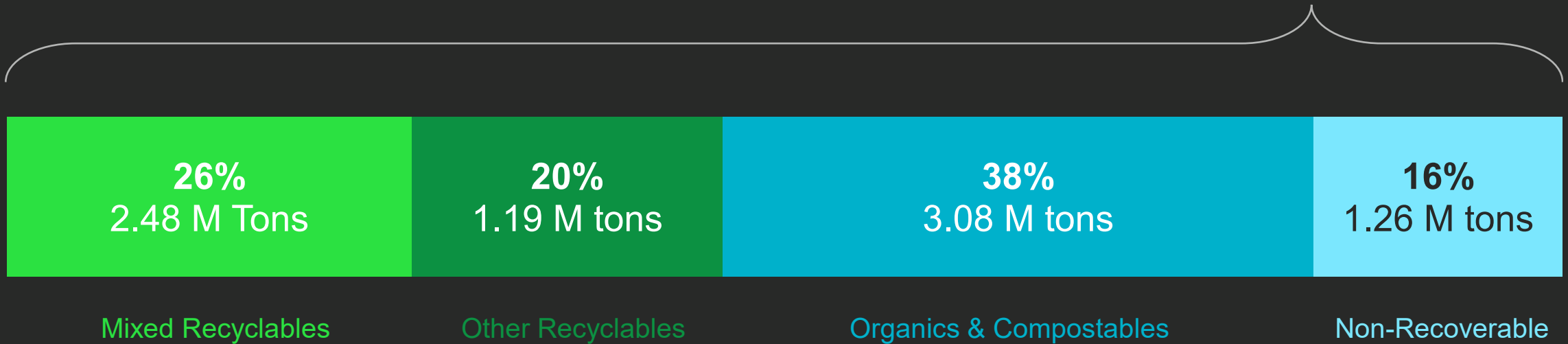
1,892,257 tons/yr
Current Organics Processing
(93% yard waste)



TONS OF MSW DISPOSED IN MICHIGAN

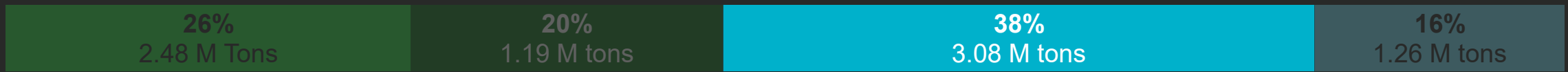
MSW DISPOSAL STREAM

Total 8.012 Million Tons



MSW DISPOSAL STREAM: 8 MILLION TONS

ORGANICS & COMPOSTABLES



SOLUTION OPPORTUNITIES



Food Waste Collection



Compost material used for landscaping, road construction, or other applications



Composting Facilities accepting food waste



Vermicompost

ORGANIC PROCESSING

367,197 tons/yr

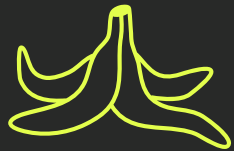
Current Organics Processing (93% yard waste)

1,116,492 tons/yr

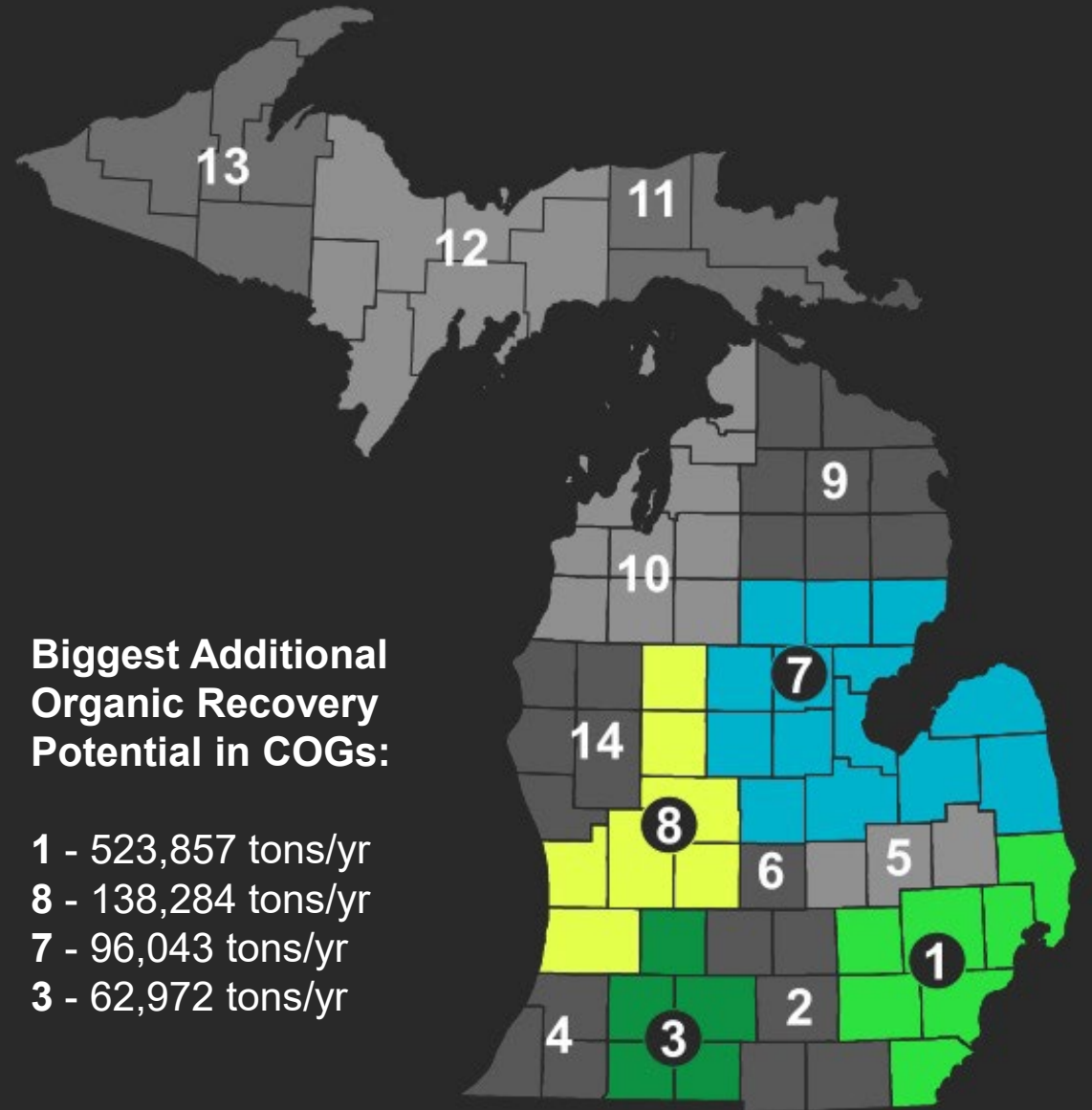
Additional Organics Recovery Potential
(split between residential & commercial sources)



Yard Waste
Processing
Good

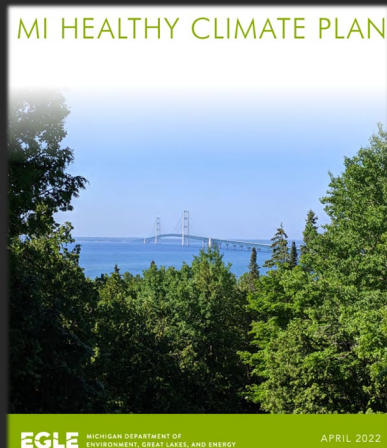


Food Waste
Processing
Needs Improvement



Governor Whitmer

“Under the MI Healthy Climate Plan...Michigan will become an incubator for economic innovation that will create good-paying jobs for hard-working Michiganders across the state in the clean energy, climate technology and recycling sectors.”



Drive Clean Innovation in Industry: Encourage clean innovation hubs where private enterprises strategically co-locate and collaborate to develop and deploy new, cleaner manufacturing technologies and conduct research and development to reduce emissions from hard to decarbonize industries. Triple Michigan’s recycling rate to 45 percent and cut food waste in half by 2030.

MICHIGAN CLIMATE POTENTIAL

7M

Additional
mTCO₂e tons
avoided at 45%
goal

300K

Additional
mTCO₂e tons
avoided at 45%
goal for
organics

700K

Additional
mTCO₂e tons
avoided at
14% food
waste
reduction

760K

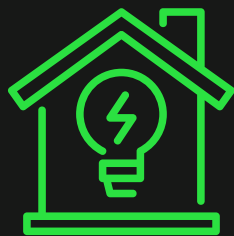
GHG
equivalent to #
of household
energy
consumption



GHG EMISSIONS FROM

1,498,030

PASSENGER VEHICLES DRIVEN FOR ONE YEAR



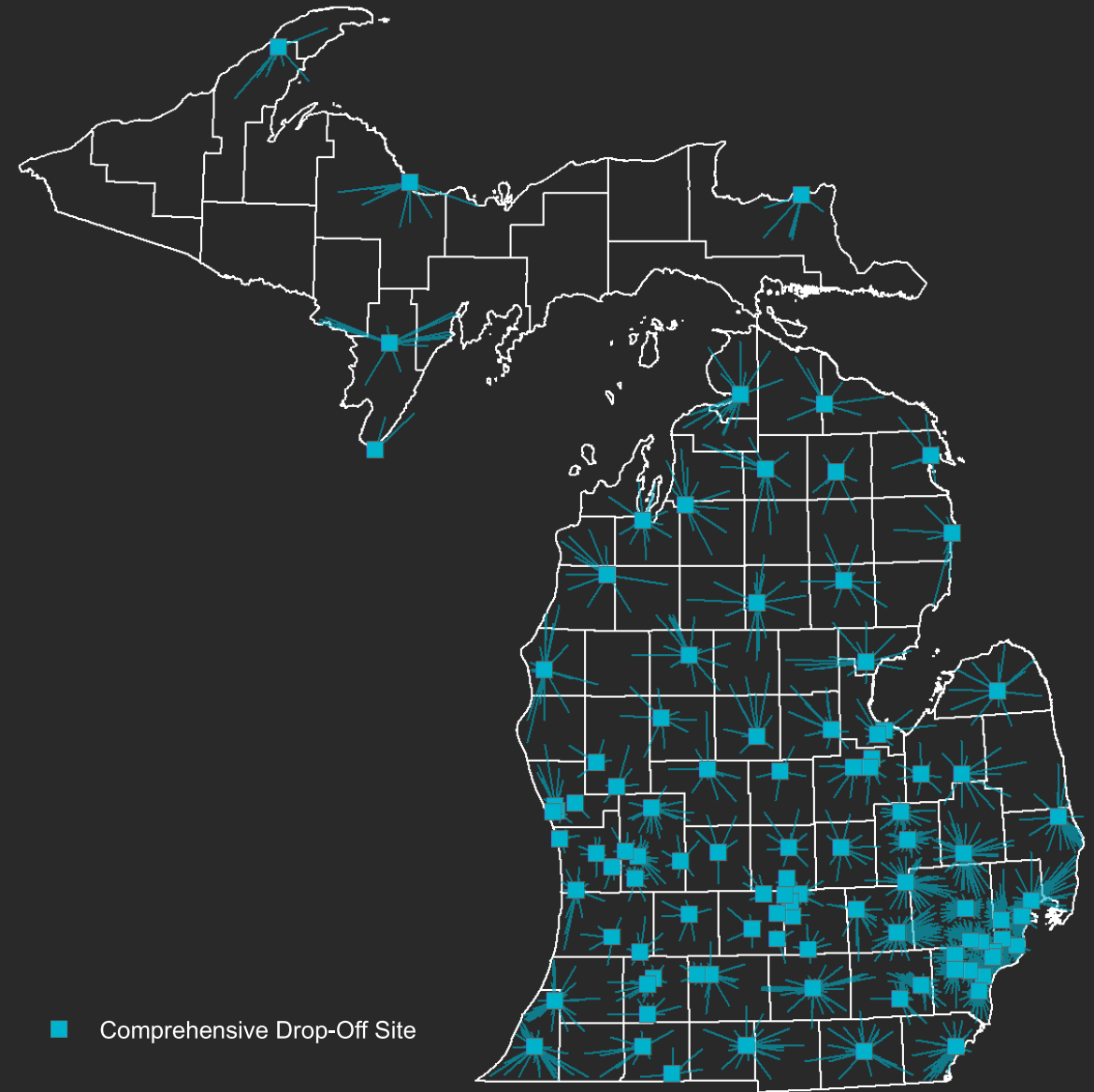
GREENHOUSE GAS EMISSIONS AVOIDED BY

760,731

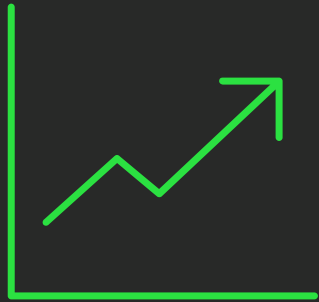
HOUSEHOLDS' ANNUAL ENERGY CONSUMPTION

FOOD WASTE ROADMAP

<https://misbf.org/michigan-food-waste-policy-road-map/>



NEXTCYCLE MICHIGAN EQUITY POTENTIAL



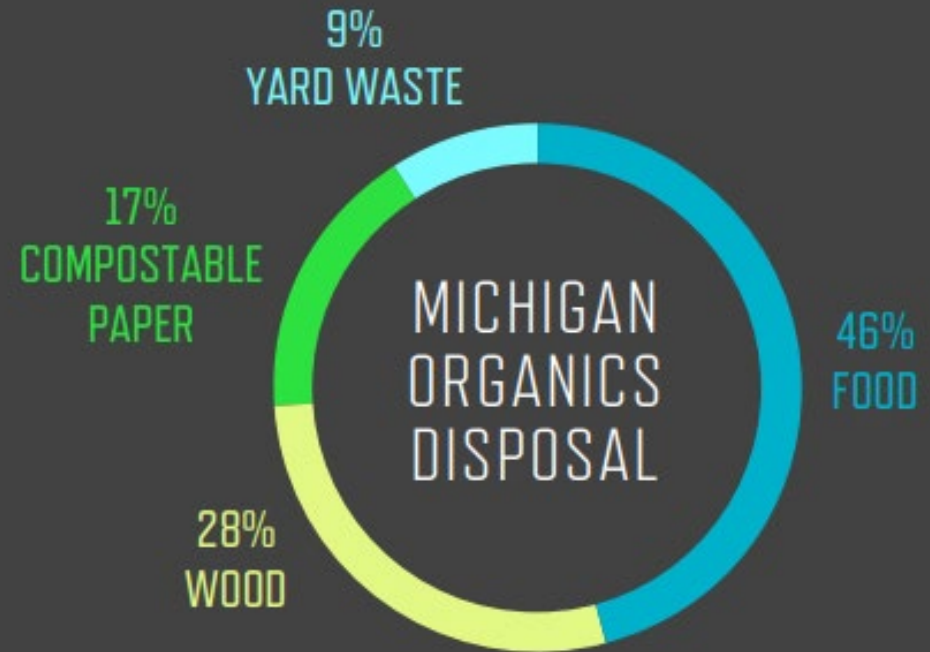
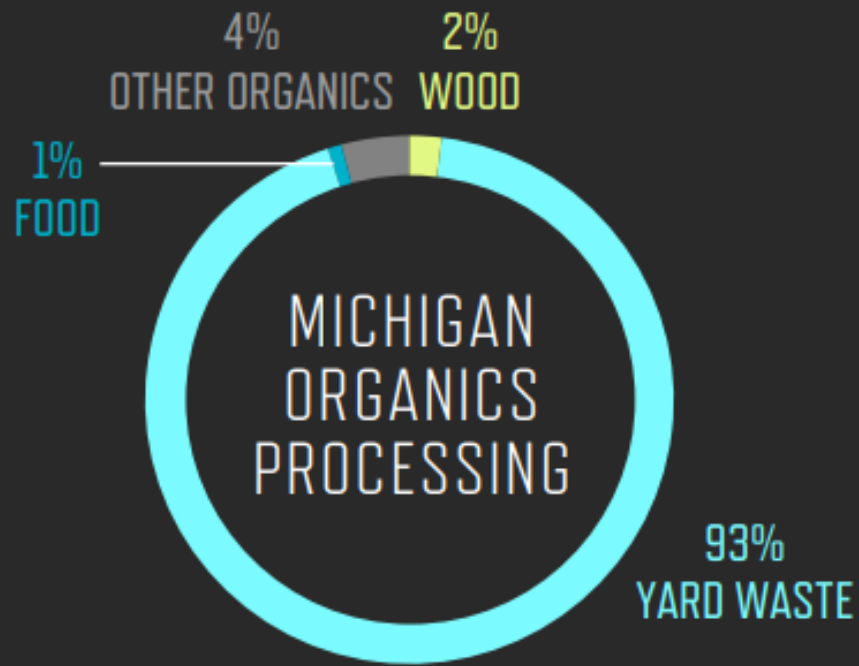
New minority
business
enterprises and
associated jobs



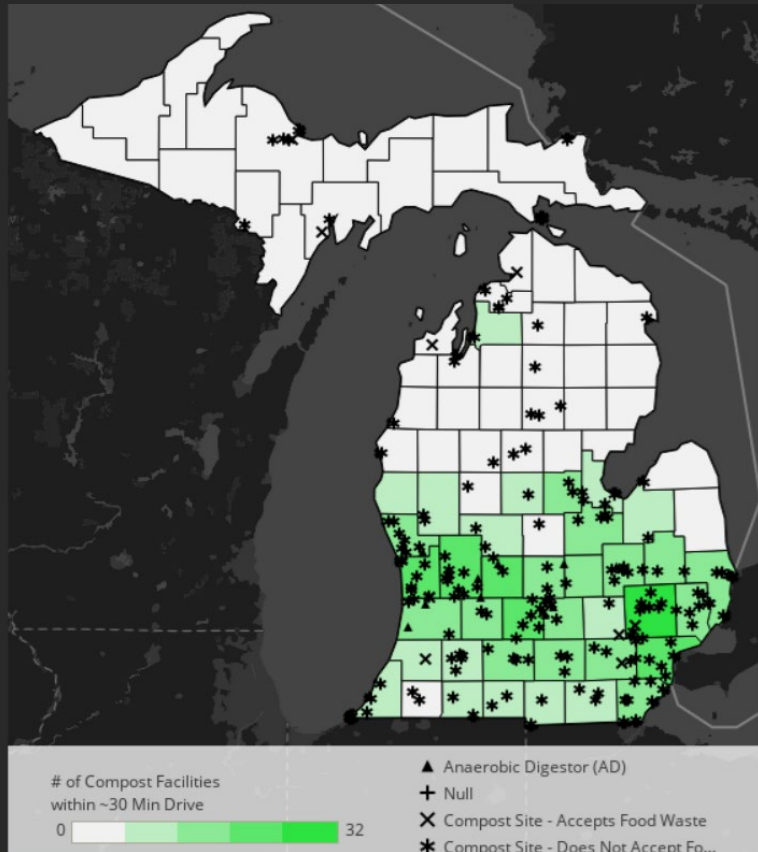
Community wealth
building with new
investments in
underserved
communities



Equitable and fair
access to
economic
opportunities



GREATEST POTENTIAL FOR BRIDGING GAPS



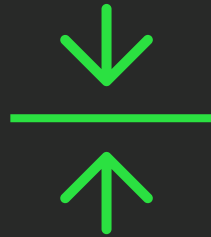
Existing Organic Waste infrastructure in MI

- More organic processing in Northern MI and UP
- More facilities handling food waste statewide
- Services for organic diversion - connecting generators to processors
- End markets

WHAT DOES **SUCCESS** LOOK LIKE?



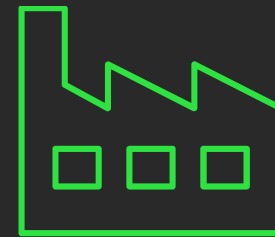
Impact to
communities



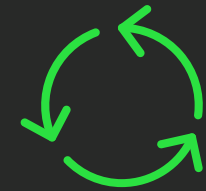
Filling
the gaps



Attracting
investment
& talent



Increased
access,
infrastructure
and end
markets



A growing
and robust
Circular
Economy