



Growing Our ACRE:

What we've done, and where we're going.



HOBBYISTS
TINKERERS
CREATORS
FARMERS
ENGINEERS
INNOVATORS WANTED

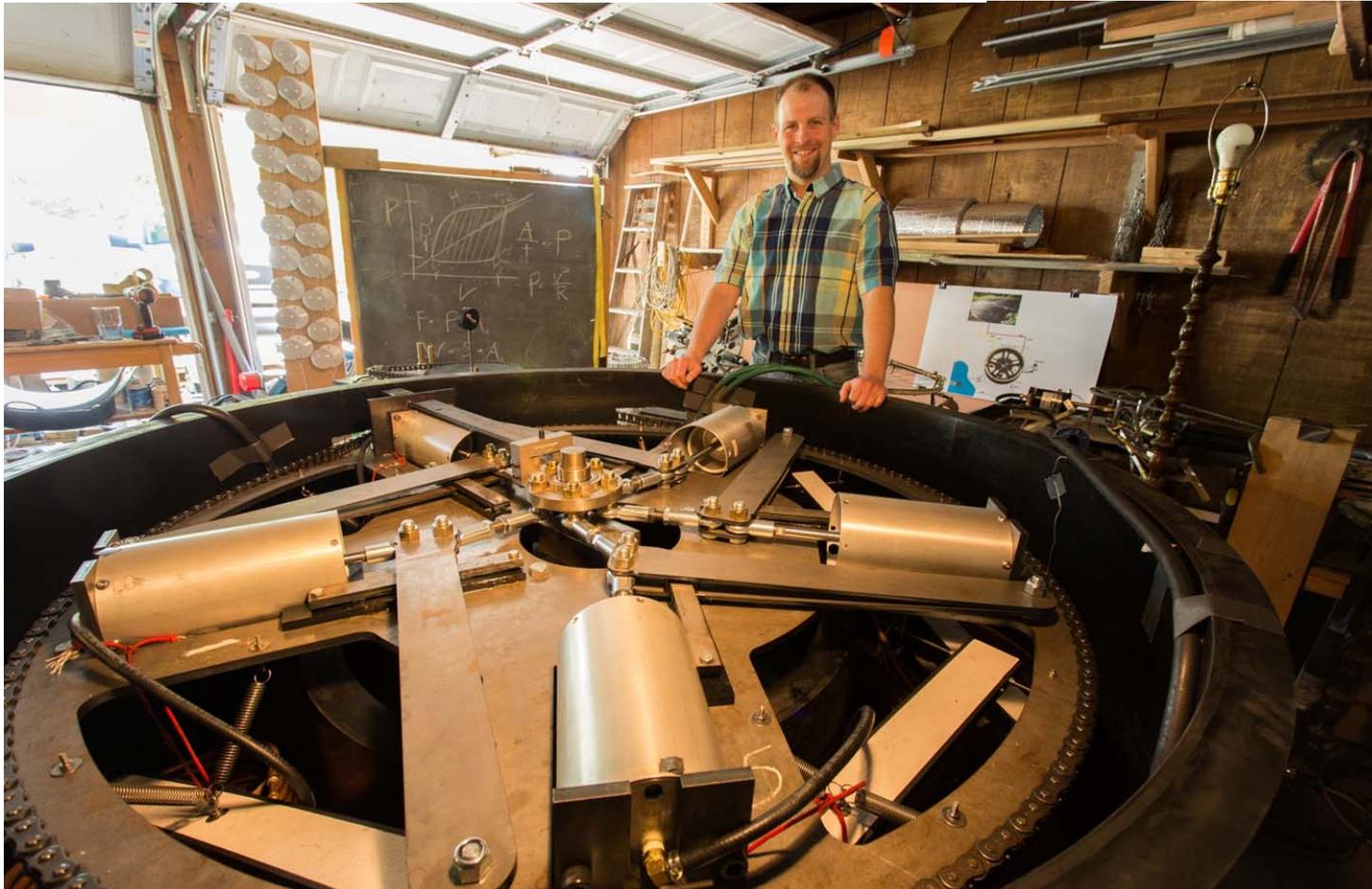


Agtech **C**onnections and **R**esources for **E**ntrepreneurs:

Michigan's only entrepreneurial support organization dedicated to developing and commercializing new technologies to advance agriculture

ACRE is a 501 (c)(6) non-profit corporation

SYNERGY Power™



DigestedTM
ORGANICS





TwoScoreTwo

Blockchain Technology Company





Our Story



Prep the Soil

Michigan Agriculture

\$101.2 billion

is contributed to Michigan's economy each year by the Agricultural industry

Michigan is the **2nd** most agriculturally diverse state in the country, behind California, producing over **300** commodities



22%
of Michigan's workforce is in the Agricultural industry (923,000 people)

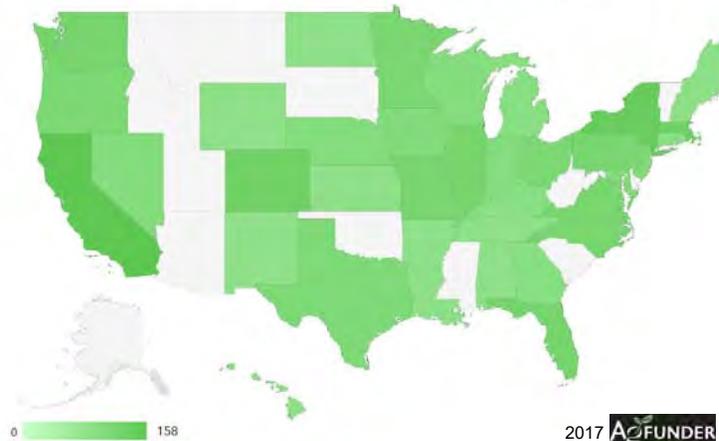
**Michigan is
Poised to Lead
in AgTech**

***Many of tomorrow's greatest ag tech
opportunities will not be found in Silicon Valley,
but in the Mid-West."***

- Joseph Byrum, Senior Research Executive at Syngenta

Michigan is Poised to Lead in AgTech

DEALS BY GEOGRAPHY
U.S. Investment: Number of Deals by State



TOP STATES BY CAPITAL INVESTMENT

Deals in California far outpaced anywhere else in the country. Still, Michigan ranked eighth in the nation for investment in agtech between 2010 and mid-2017.



**2012 Feasibility
Study**

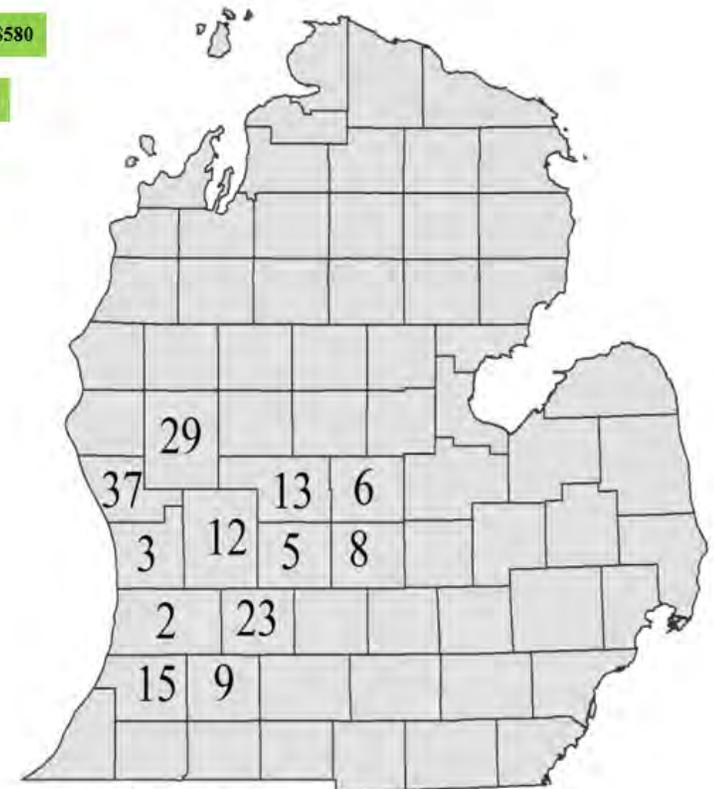
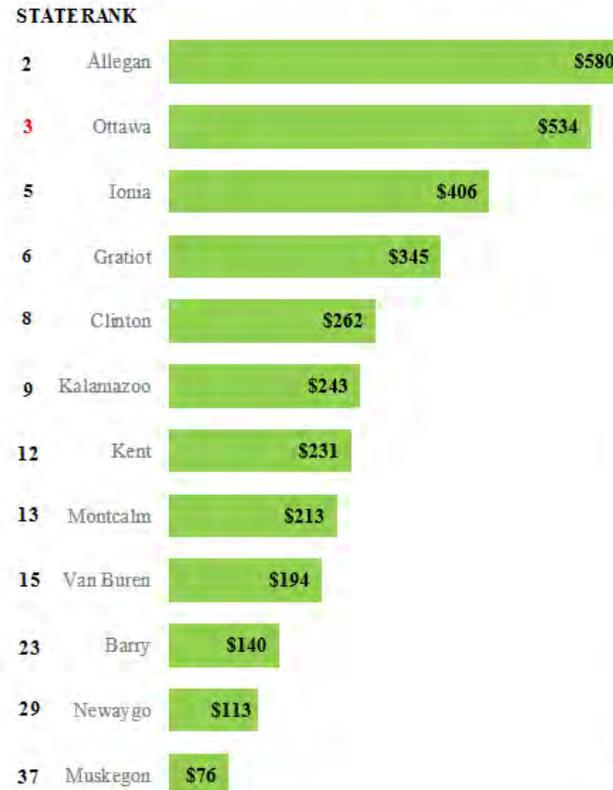


Ottawa County
Where You Belong®



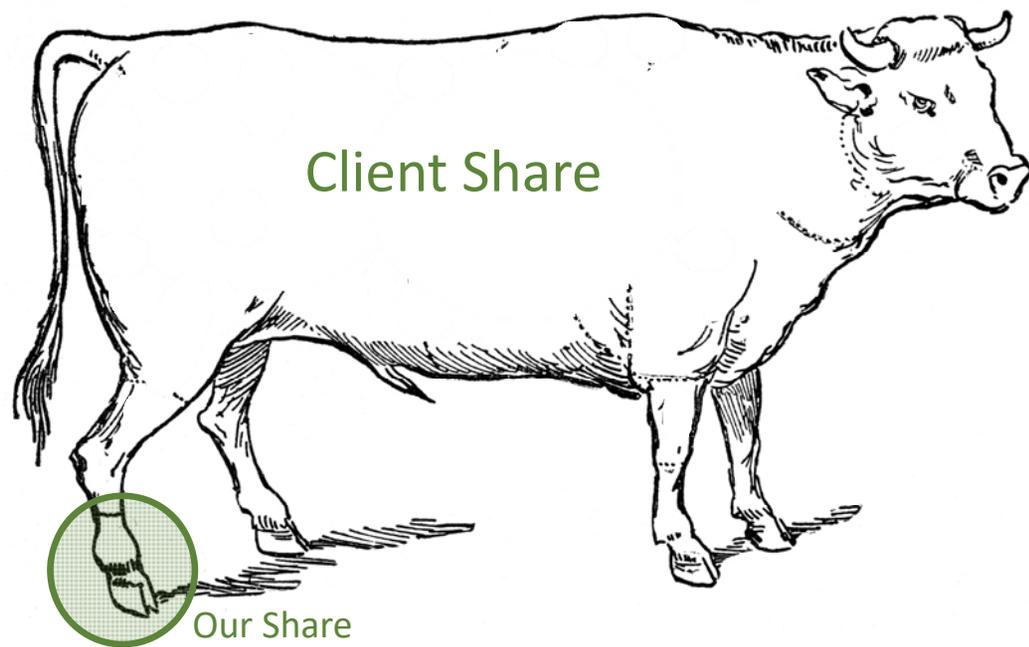
West Michigan Proving Ground

Total Farm Receipts (2012 Ag Census)



Source: USDA Census of Agriculture

Results Driven “Incubator” Model





Plant the Seeds

**State
Seed Funding**



Initial Sponsor Seed Funding

Total sponsorships leveraged: \$157,293.00

Sponsor	Cash	In-kind
		\$60,293.00
	\$5,000.00	
	\$25,000.00	
	\$5,000.00	
The WATSON IP GROUP plc	\$5,000.00	
	\$5,000.00	
	\$2,000.00	\$25,000.00
	\$25,000.00	
Total Sponsorships	\$72,000.00	\$85,293.00

Board of Directors (past and current)

Don Disselkoen 

Loren Koeman 

Cliff Meeuwsen 

Larry Kooiker 

Kurt Brauer 

Merle Langland 

Jim Byrum 

Mark Schmidt 

Cary Grover 

Tim Parker 

Dan Lennon 

Jennifer Owens 

Michigan 501(c)(6) Non-Profit Created





Taking Root

National Attention



Ag-Tech Startup Lures Sponsors, Startups With Unusual Model

Entrepreneur

This AgTech Incubator Offers Both Independence and Assistance



A Complete Guide to Startup Resources in Agriculture and Food Technology Innovation



AgTech Grows in Michigan

Client Successes



Energy startup wins grant to power up



Extracting Drinking Water from Manure?



How building an outdoor ice rink led to a new way to produce cheap, clean power



USDA Awards \$55,000 to Great Lakes AgTech Business Incubator

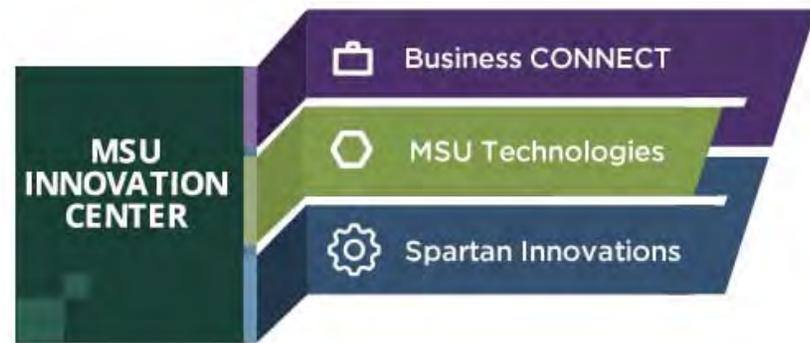
**Scouting for
Ag Challenges**



**Scouting for
Ag Challenges**



Technology Transfer



**Legal
Assistance**



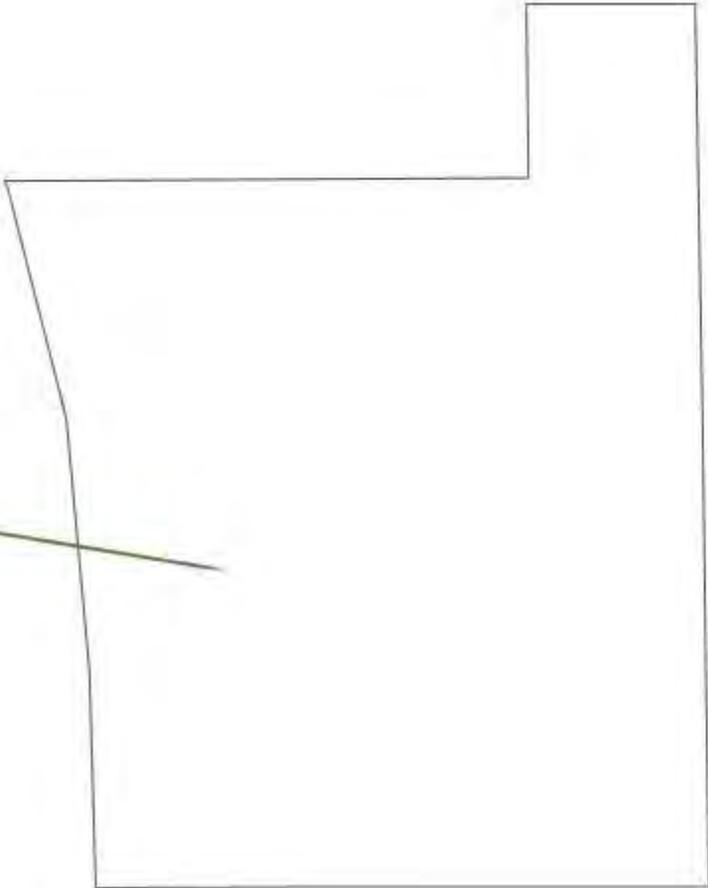
Business Accelerator Funds

SURGE
POWERED BY LAKESHORE ADVANTAGE

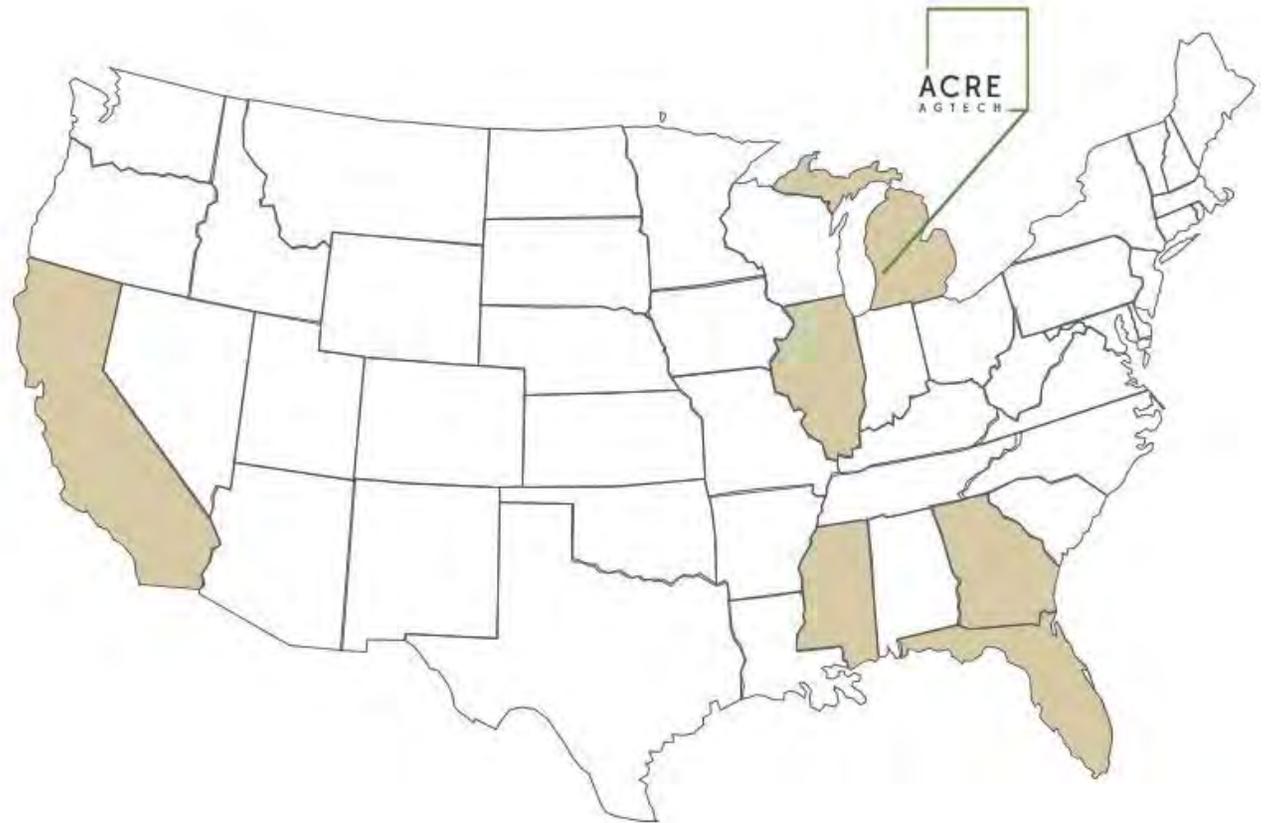
Outreach Activities



**Ottawa
Start**



National Reach



Global Attention



Multi-County Partnerships



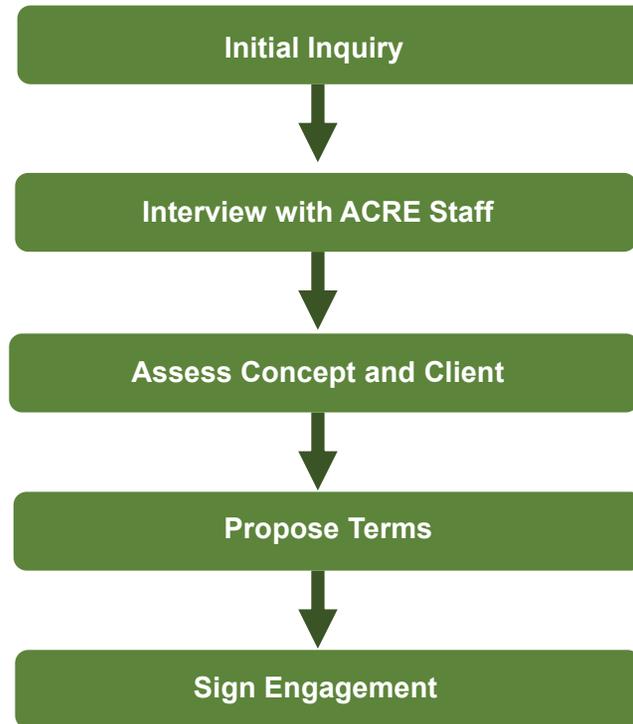
Expansion Potential





Cultivate the Field

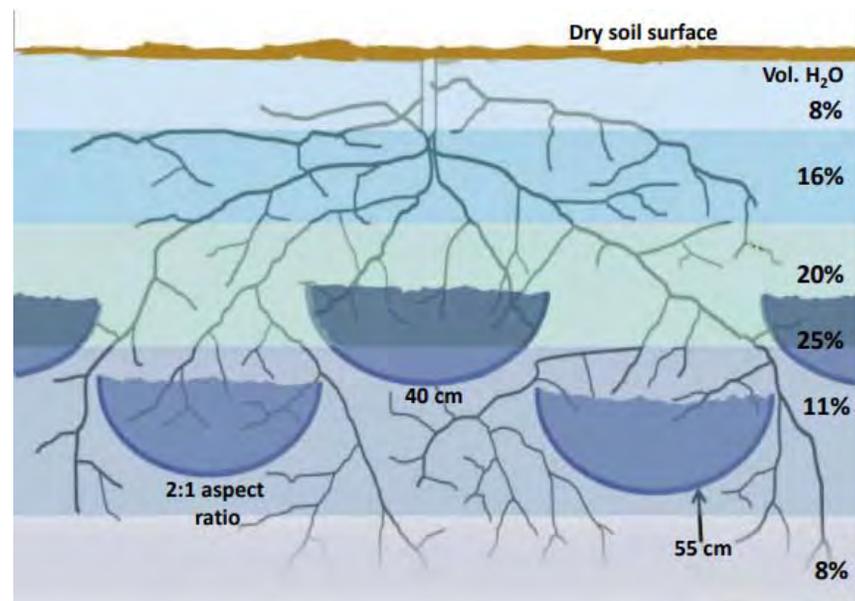
Client Engagement Process



Prospective Client



MSU MTRAC Program



Sub-surface Water Retention Technology (SWRT)

Agreement Proposal



- License technology from MSU
- “Seed money” from MSU Foundation
- Establish business management team



Harvest the Crop

Portfolio Client: Water Reclamation



Proposed Deal: 3,000 Head Dairy = 100,000 gal/day of manure

Current Manure Handling

- ➔ .02 per gallon cost to pump, haul, and spread (raw manure)
- ➔ Producer owns/maintains/repairs equipment
- ➔ \$730,000 annually in labor, fuel, and equipment costs

New Technology

- ➔ .01 per gallon cost to pump, filter, and discharge (processed water)
- ➔ DO owns/maintains/repairs equipment
- ➔ \$365,000 annually paid on per gallon of manure processed system

\$365,000/year potential cost savings
(that's 32 tanker loads of milk)



Portfolio Client: Software Architecture



Ag Trucking Challenge	Blockchain Advantage	Positive Change
E-log/recordkeeping	Full automation/easy input	Simplified, accurate driver logs
Long waits to unload	Precise, documented leave/arrival times	Less downtime at docks
Traceability for food products	Decentralized architecture	Unhackable chain of custody
Order discrepancies	Distributed Ledger	More accurate invoicing



Portfolio Client: Alternative Energy



	Wind Turbine	Solar Array	Synergine
Cost	\$55,000	\$35,000	\$12,000
Payback	12-20 years	12 years	7 years
Power Available	1,000 kwh	1,000 kwh	1,000kwh
Storage req.	Battery bank	Battery bank	none
Resource req.	Wind	Sunshine	Waste heat
Space req.	100ft	500ft ²	54ft ²
Output	Variable	Variable	Continuous

Additional Tech Companies

Other Current Portfolio Clients:



NEW ERA *Green* **ENERGY**

Other Inquiries:

- EWS – aerobic **digestion** in landfills
- B-Funnel – **pollinator** products
- Black Soldier Fly – **alternative protein** source
- Campesino – seasonal **labor** app
- Panicum Biomass – compressed switch grass for use as **biofuel** or deck/furniture material
- U of M Tech Transfer – **air filtration** system for hog barns that kills Porcine Reproductive & Respiratory Syndrome virus

Client Success

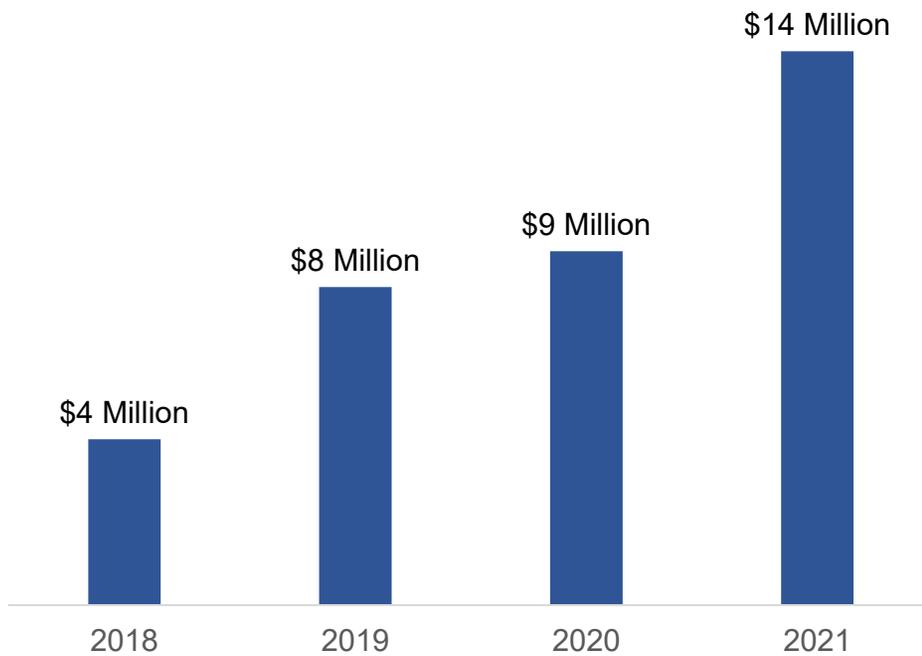
Sustainable Model

Economic Growth

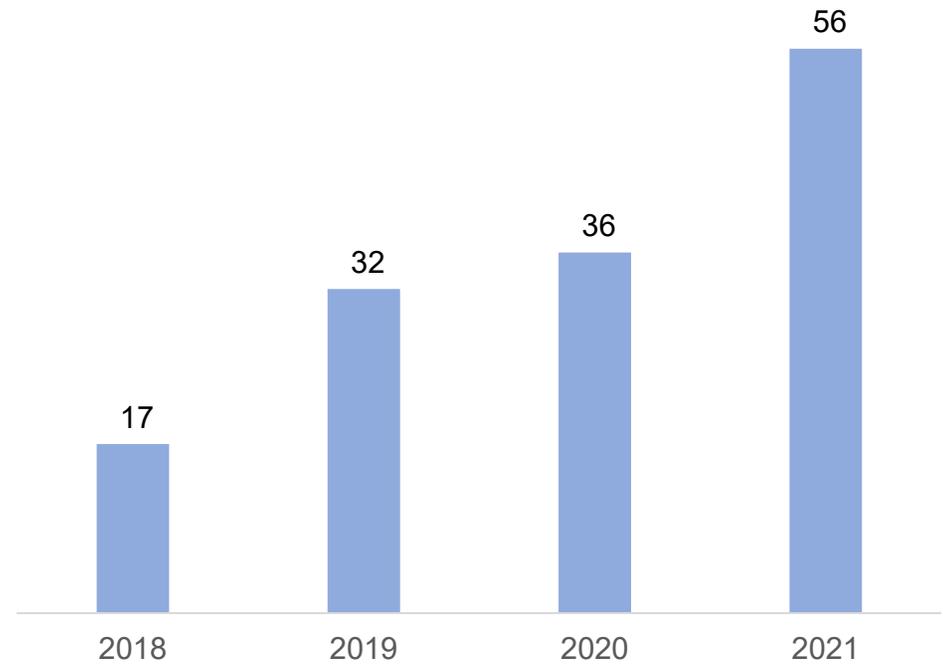


Economic Impact: ACRE Clients

Annual Sales: \$35 Million (in 4 years)



New Jobs Created: +140 (in 4 years)



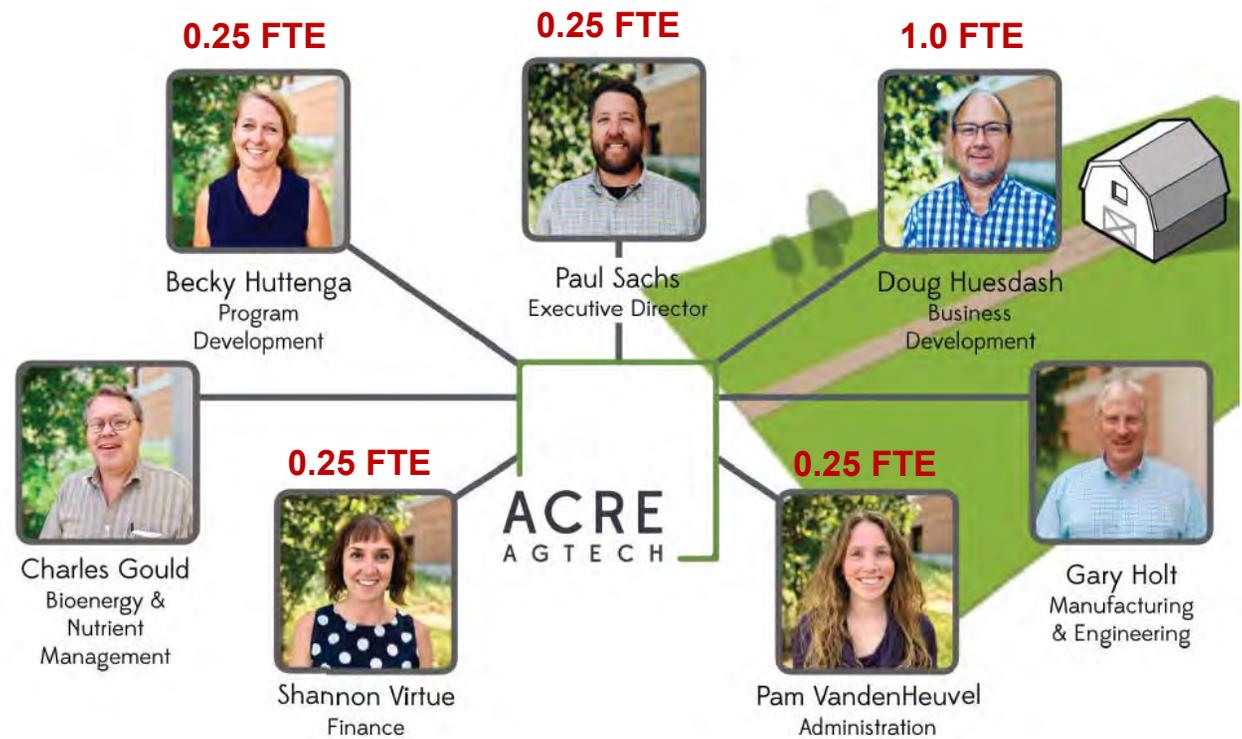
Sustainable Business Model





Planning for Increased Yields

Talent and Capacity



Current Staffing Level: 2.0 Full Time Equivalents

Future Need: Minimum of 1.0 additional full time Business Dev Mgr

2nd Round Sponsor Seed Funding

Total sponsorships leveraged: \$104,500

Sponsor	Cash	In-kind
 NEXT CREATIVE CO		\$45,000
 OTTAWA COUNTY FAIR MUSEUM	\$500*	
 Choices Inc. FISCHER INSURANCE	\$500*	\$2,000
 Rehmann <i>Business window delivered</i>		\$10,000
The WATSON IP GROUP plc	\$15,000	
 BizStream™ www.bizstream.com		\$22,500
 GreenStone FARM CREDIT SERVICES	\$9,000*	
Total Sponsorships	\$25,000	\$79,500

*one year commitment to be renegotiated annually

** additional \$30k+ currently in discussion

Grant Opportunities



M E D C

MICHIGAN ECONOMIC
DEVELOPMENT CORPORATION

MEDC Incubator Support

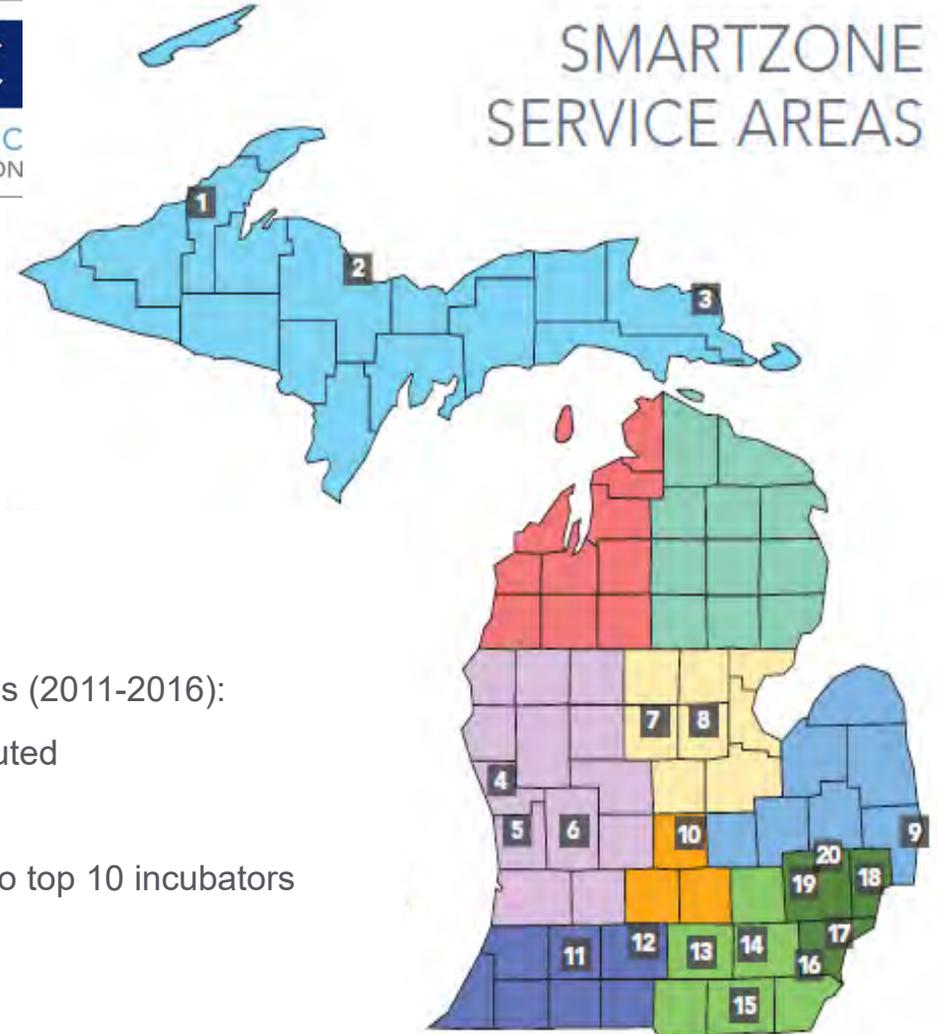
MEDC Grant Awards (2011-2016):

\$21.5M total distributed

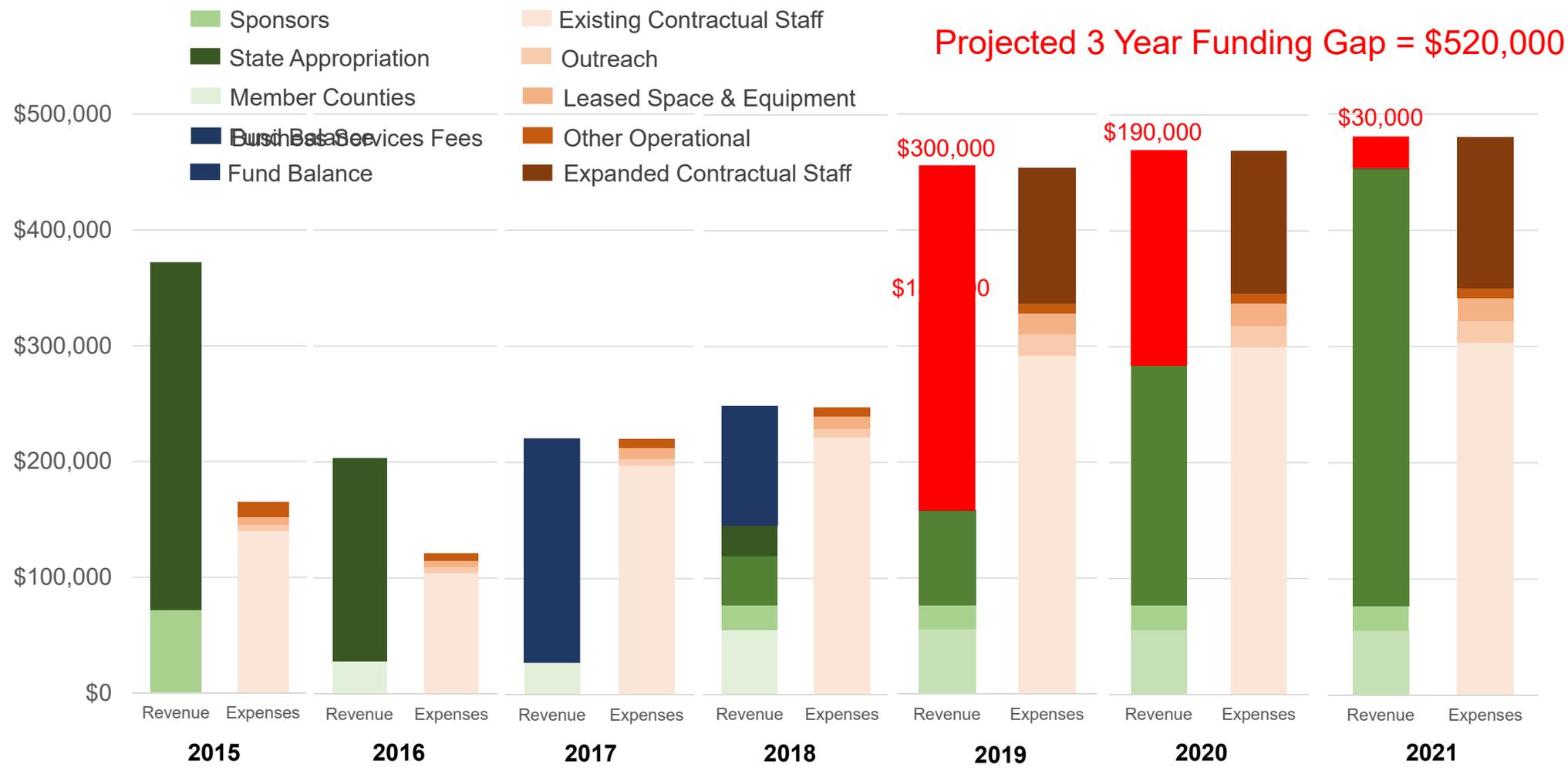
\$3.6M avg per year

\$509K annual avg to top 10 incubators

SMARTZONE SERVICE AREAS



2015-2017 Actual & 2018-2021 Projected Budget



- Sponsors
- State Appropriation
- Member Counties
- Business Services Fees
- Fund Balance

- Existing Contractual Staff
- Outreach
- Leased Space & Equipment
- Other Operational
- Expanded Contractual Staff

Projected 3 Year Funding Gap = \$520,000

\$300,000
\$190,000

\$30,000

Legislature Support



\$520,000 over 3 years (\$174k per year; 2019-2021)

Leverage Additional Partnership Support to Strengthen ACRE



**Thank you.
Discussion?**

