

# Madison Terminal Market Study

IDEATION PROCESS

Rev: 7/10/2019

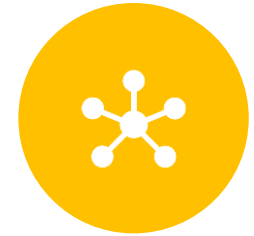
Terminal  
markets  
perform a  
critical role in  
the food  
supply chain



INFORMATION  
EXCHANGE



PRICE  
DISCOVERY



NETWORK  
DEVELOPMENT



LIQUIDITY



EFFICIENCY

# ACDS Process

## **Market Analysis** (37 one-on-one interviews, so far)

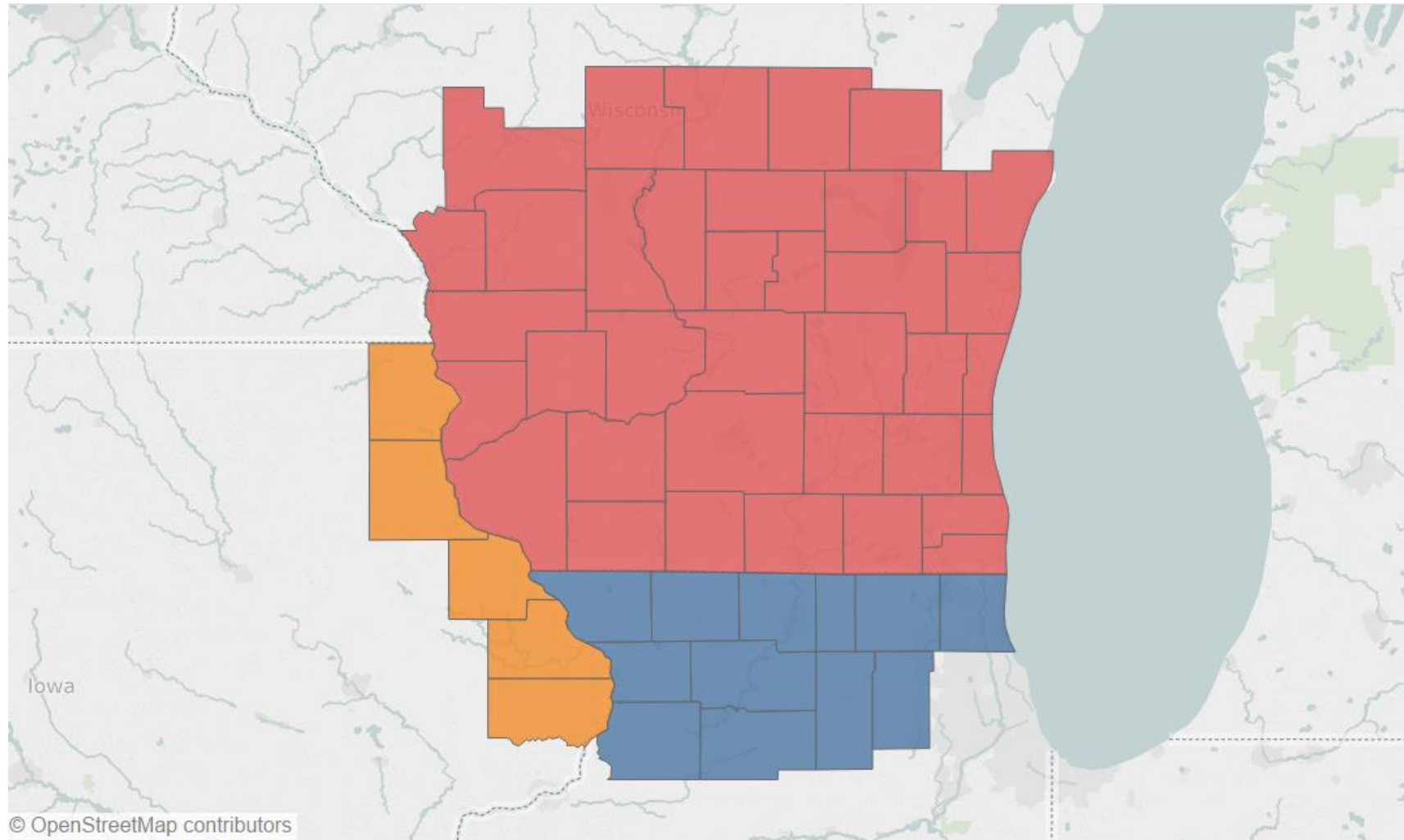
- How and what produce moves from the farmer to the consumer?
- What do consumers (thus retailers and restaurants) demand in Madison and regionally?
- What can local and regional farmers produce to fill that demand?

## **Facility Analysis** (2 site visits with interested vendors)

- What would the tenant and vendor need to operate safely and efficiently?
- Is the Oscar Mayer space the best location? How does it compare with other locations in Madison?

**Feasibility:** Given the results of the market and facilities analyses, might an XXXX business be profitable?

# Study Region





Consumers Provide  
Liquidity

# Consumer Facts

- Market is bifurcated
  - High disposable income groups
    - Families
    - Singles
  - Low income groups
    - Families
    - Students
- Large number of institutional consumers

		Madison	5 Hours
<b>Food at Home</b>			
	Average Spent	\$4,936	\$5,132
	Spending Potential	98	102
<b>Food Away from Home</b>			
	Average Spent	\$3,615	\$3,565
	Spending Potential	103	102

# Consumer Food Spending Potential

- Madison
  - Organic foods
  - Dine out more often
  - Fast-food
  - Home delivery
- Region
  - On par with national average

	Madison	5 Hours
Used beef (fresh/frozen) in last 6 mo.	93	100
Used bread in last 6 mo.	98	100
Used chicken (fresh or frozen) in last 6 mo.	96	100
Used turkey (fresh or frozen) in last 6 mo.	86	102
Used fish/seafood (fresh or frozen) in last 6 mo.	96	99
Used fresh fruit/vegetables in last 6 mo.	99	100
Used fresh milk in last 6 mo.	97	100
Used organic food in last 6 mo.	120	97
Went to family restaurant in last 6 mo.	101	101
Went to family restaurant: 4+ times a mo.	98	101
Fast food/drive-in last 6 months: eat in	104	102
Fast food/drive-in last 6 months: home delivery	143	100
Fast food/drive-in last 6 months: take-out/drive-thru	100	102
Fast food/drive-in last 6 months: take-out/walk-in	117	101

# Community Tapestry

## Madison

- Younger, mobile, well-educated, affluent
- Savvy users of technology
- Connected via mobile devices
- Care about health, nutrition, environment
- Tend to buy organic and all-natural foods
- Convenience is important

## Region

- Several segments
  - Empty nesters
  - Gen X in their middle age
  - Young families in their first homes
- Mostly older households
- Rural, semi-rural, and suburban
- Traditional, cost-conscious, and family-oriented
- Care about quality, price, brand, and buying American



# Market Trends

## Produce consumption continuing a decade long decline

- Positive trends seen in:
  - Value-added products
  - Snackable fruits
  - Organic and local

## Dairy products consumption continuing a decade long decline

- Positive trends seen in:
  - Ethnic specialty
  - Cheese
  - Yogurt
  - Organic and local

## Functional foods demonstrate strong, but fickle growth characteristics

- Positive trends seen in:
  - Plant-based protein replacements
  - Fermented foods
  - CBD and THC based products
  - Health supplements



# The Intermediate Supply Chain Responds to Consumers

# Supply Chain Facts

- Dane County
  - Retail driven market
  - Manufacturing undergoing structural change
  - Distribution and warehousing driven by retail relationships
- Study Region
  - Export driven manufacturing sector

## 54 County Region

Food and Beverage Segment	Firms	Employees	Revenues
Manufacturing & Processing	1,870	67,832	\$58.4 Billion
Retail	23,925	362,590	\$39.4 Billion
Wholesale	2,096	26,406	\$14.5 Billion
Distribution & Warehousing	6,851	58,708	\$9.1 Billion

## Dane County

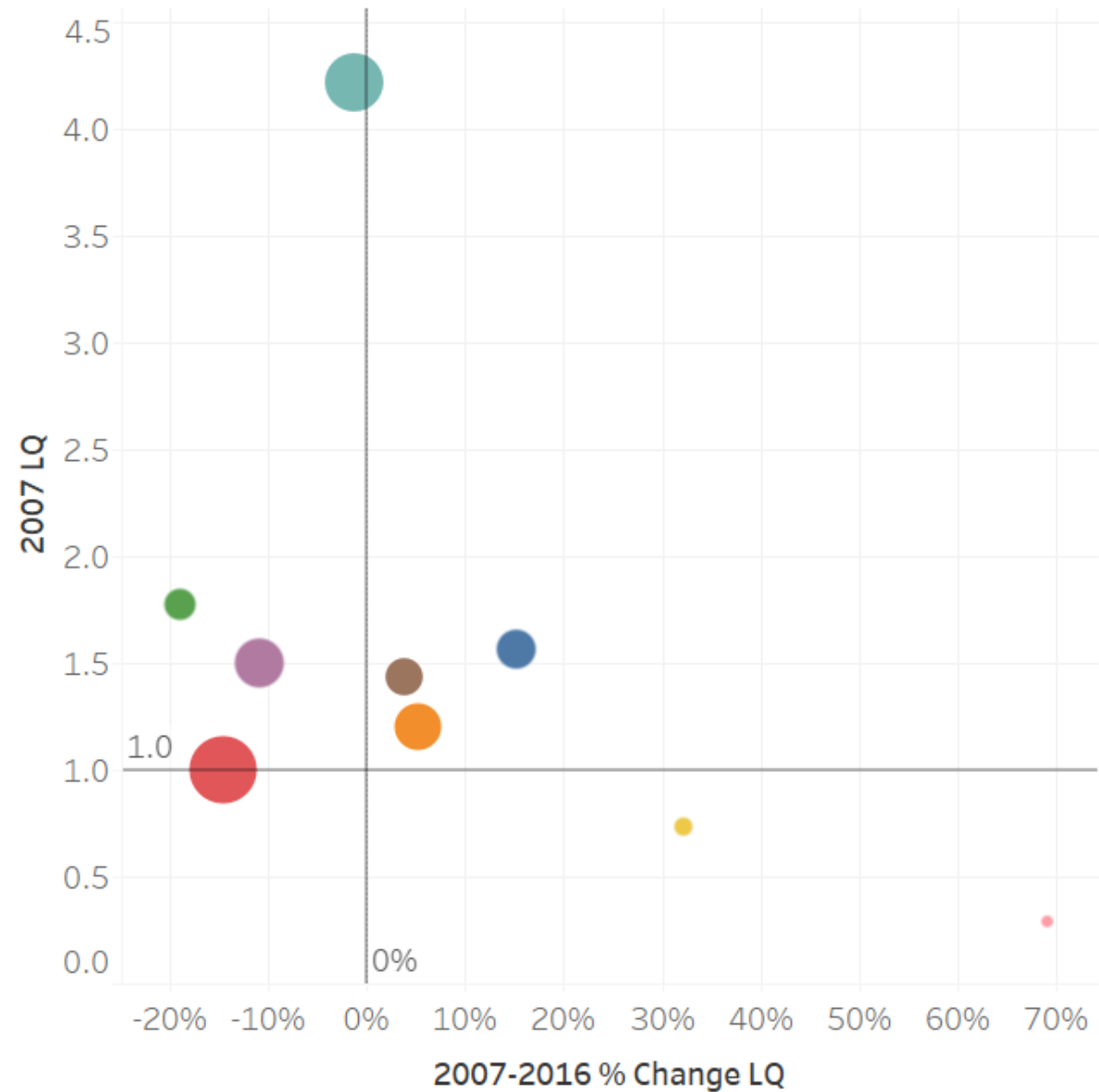
Food and Beverage Segment	Firms	Employees	Revenues
Manufacturing & Processing	195	4,181	\$477.7 Million
Retail	2,202	29,727	\$1.9 Billion
Wholesale	164	2,298	\$1.6 Billion
Distribution & Warehousing	307	1,923	\$557.8 Million

# Industry Concentration

## Industry

- Animal food manufacturing
- Animal slaughtering and processing
- Bakeries and tortilla manufacturing
- Dairy product manufacturing
- Fruit and vegetable processing
- Grain and oilseed milling
- Other food manufacturing
- Seafood product preparation and packaging
- Sugar and confectionery product manufacturing

## Food Manufacturing Industry Cluster LQ Change

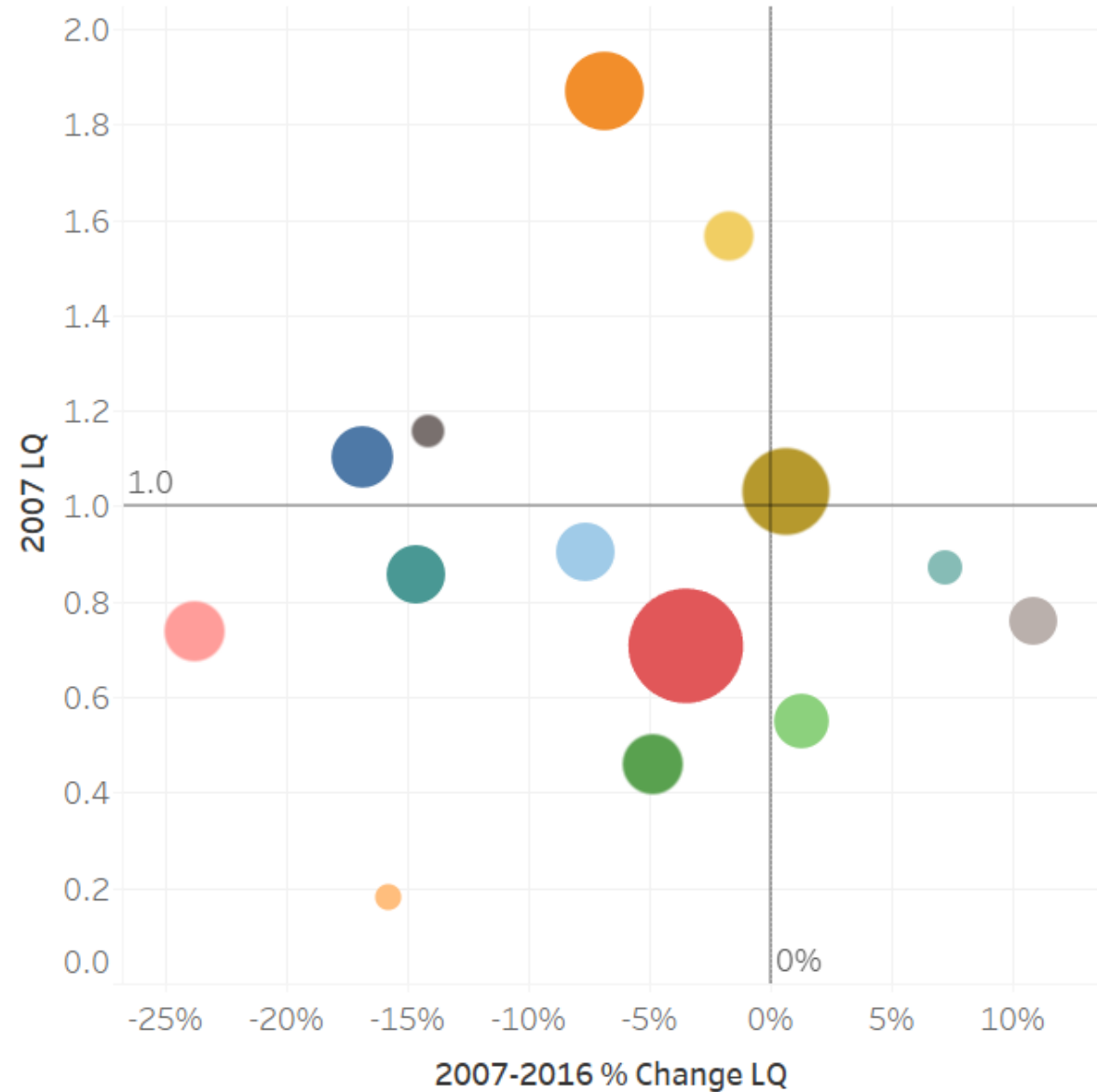


# Industry Concentration

## Industry

- Beer and ale wholesalers
- Confectionery wholesalers
- Dairy product wholesalers
- Fish and seafood wholesalers
- Fresh fruit and vegetable wholesalers
- General line grocery wholesalers
- Grain and field bean wholesalers
- Livestock wholesalers
- Meat and meat product wholesalers
- Other farm product raw material wholesalers
- Other grocery and related products wholesalers
- Packaged frozen food wholesalers
- Poultry and poultry product wholesalers
- Wine and liquor wholesalers

Food Wholesaling Industry Cluster LQ Change



## Freight Carriers

	2007	2016	% Change
<b>General freight trucking</b>	<b>2,224</b>	<b>2,550</b>	<b>15%</b>
General freight trucking, local	874	941	8%
General freight trucking, long-distance, truckload	1,097	1,244	13%
General freight trucking, long-distance, less than truckload	253	365	44%
<b>Specialized freight trucking</b>	<b>1,673</b>	<b>1,674</b>	<b>0%</b>
Specialized freight trucking, local	1,173	1,194	2%
Specialized freight trucking, long-distance	310	309	0%

- LTL is fastest growing segment, but contributes to:
  - System inefficiency
  - Wholesale bypass
- Trucker-Jobber growth is slow to emerge

## Warehousing and Storage

	2007 Firms	2016 Firms	% Change	2007 LQ	2016 LQ	% Change
<b>Warehousing &amp; storage</b>	<b>343</b>	<b>391</b>	<b>14%</b>	<b>0.9</b>	<b>1.0</b>	<b>11%</b>
General warehousing & storage	245	277	13%	1.0	1.0	5%
Refrigerated warehousing & storage	39	57	46%	1.3	1.9	44%
Farm product warehousing & storage	18	17	-6%	1.0	1.2	19%
Other warehousing & storage	41	40	-2%	0.6	0.7	4%

- Dry grocery dominates market share
- Refrigerated warehouse is fastest growing segment

# City of Madison Retail Surplus/Gap

Sector	Demand	Supply	Gap
Grocery Stores	\$507,401,093	\$642,945,203	-\$135,544,110
Specialty Food Stores	\$41,957,068	\$26,238,975	\$15,718,093
Beer, Wine, Liquor Stores	\$34,290,100	\$69,583,939	-\$35,293,839
Restaurants	\$374,891,708	\$486,953,380	-\$112,061,672
Source: ESRI, Business Analyst Online			



# Critical Issues Driving Change



TECHNOLOGY  
INTEGRATION



MATERIAL  
HANDLING



SUPPLY CHAIN  
VISIBILITY



REGULATORY  
STRUCTURES

*Technology  
Integration Is  
Driven by a  
Host of Needs*

Industry 4.0

Big data

Blockchain & distributed ledger

Multi-tenant applications

Artificial intelligence

Virtual & augmented reality

*Material  
Handling*  
Trends Are a  
Response to  
Low Labor  
Availability and  
Improved  
Fulfillment  
Requirements



PROCESS  
AUTOMATION



AUTONOMOUS  
SYSTEMS



DIGITAL TWINS



MACHINE  
LEARNING

*Supply Chain  
Visibility Is  
Building  
Collaborative  
& Trusted  
Relationships*



Food Safety



Efficiency



Transparency



Cost Control



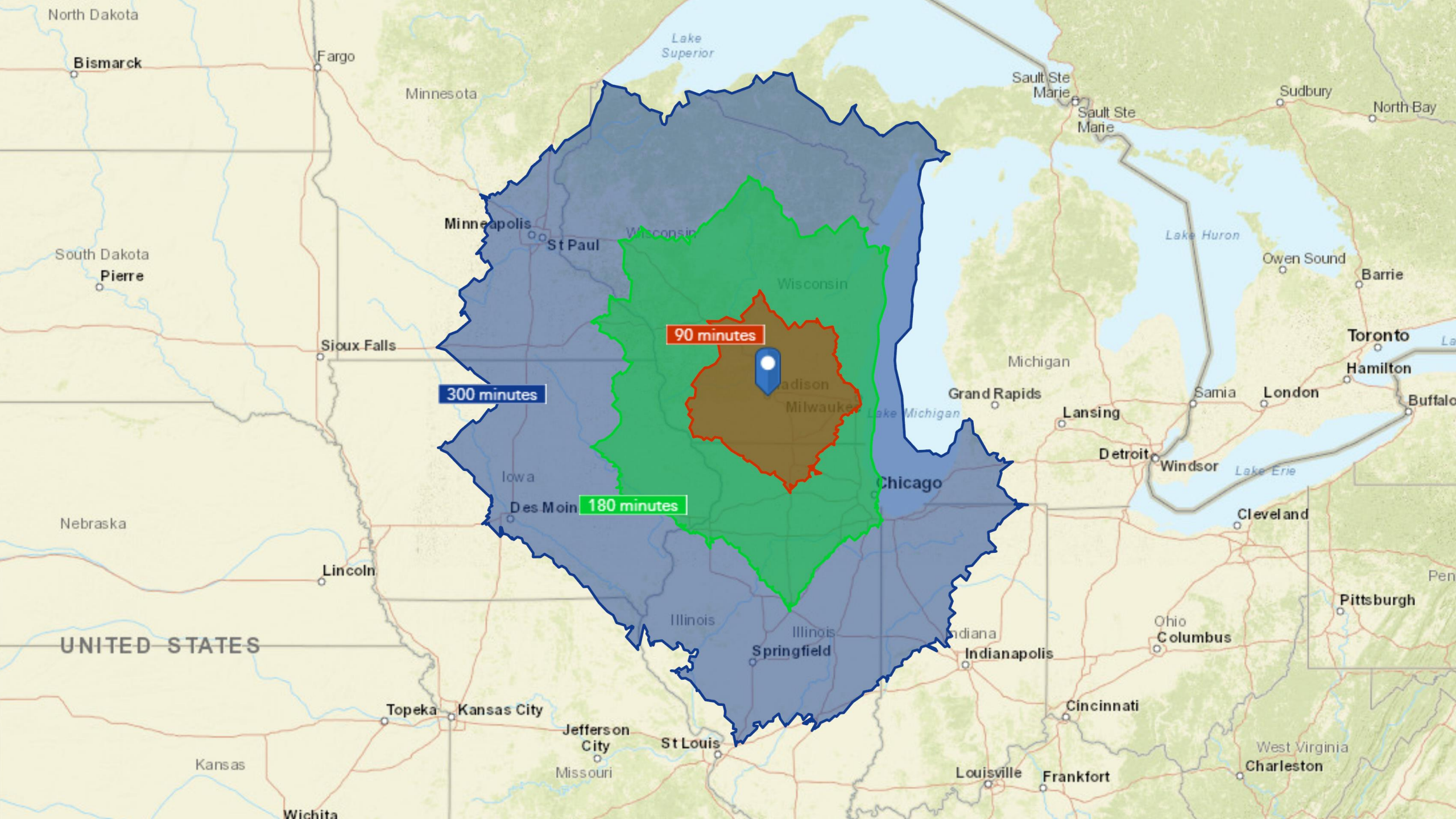
Just-in-time Fulfillment



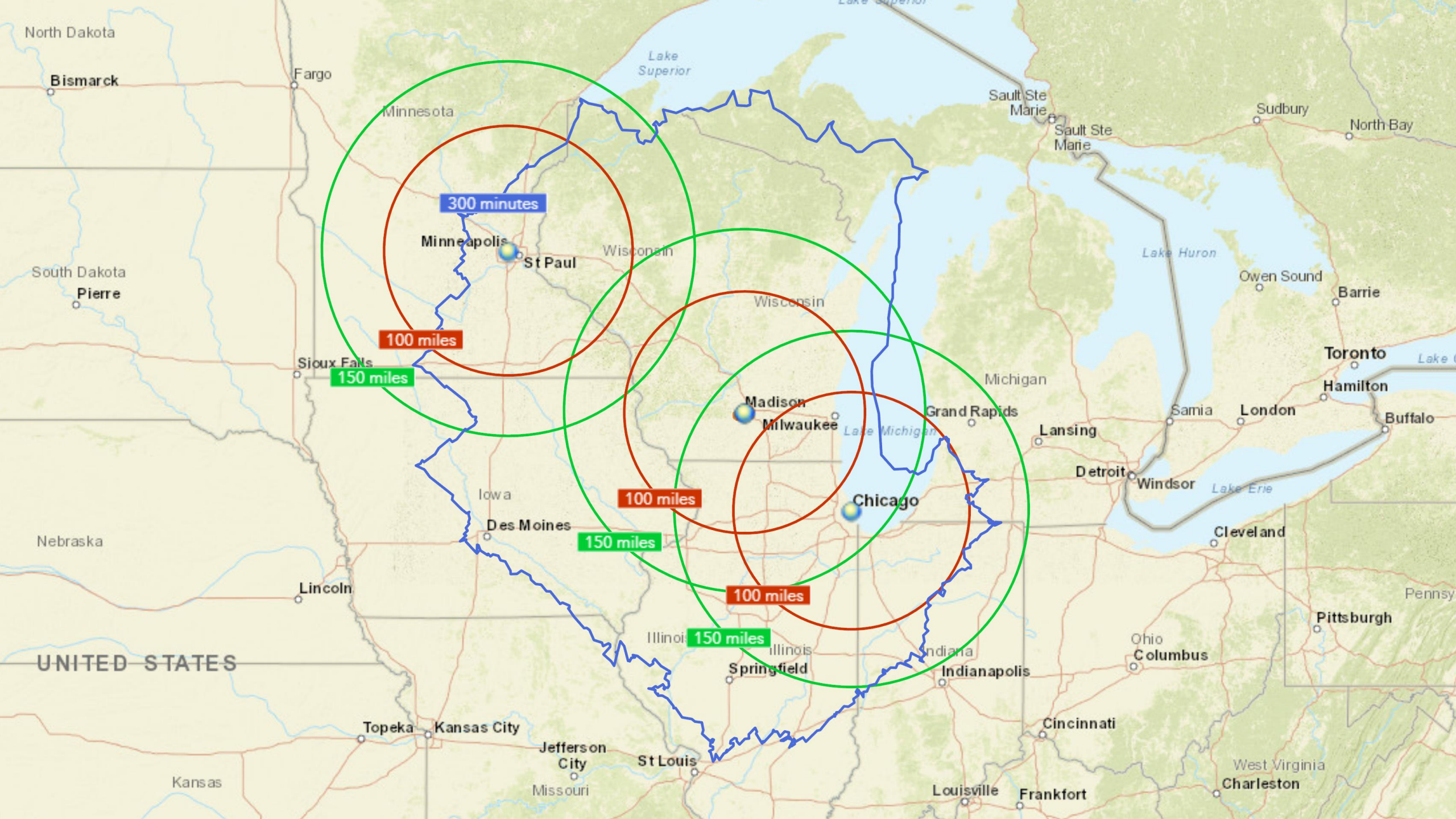
Resource Sharing - Category Management

# Regulatory Influences

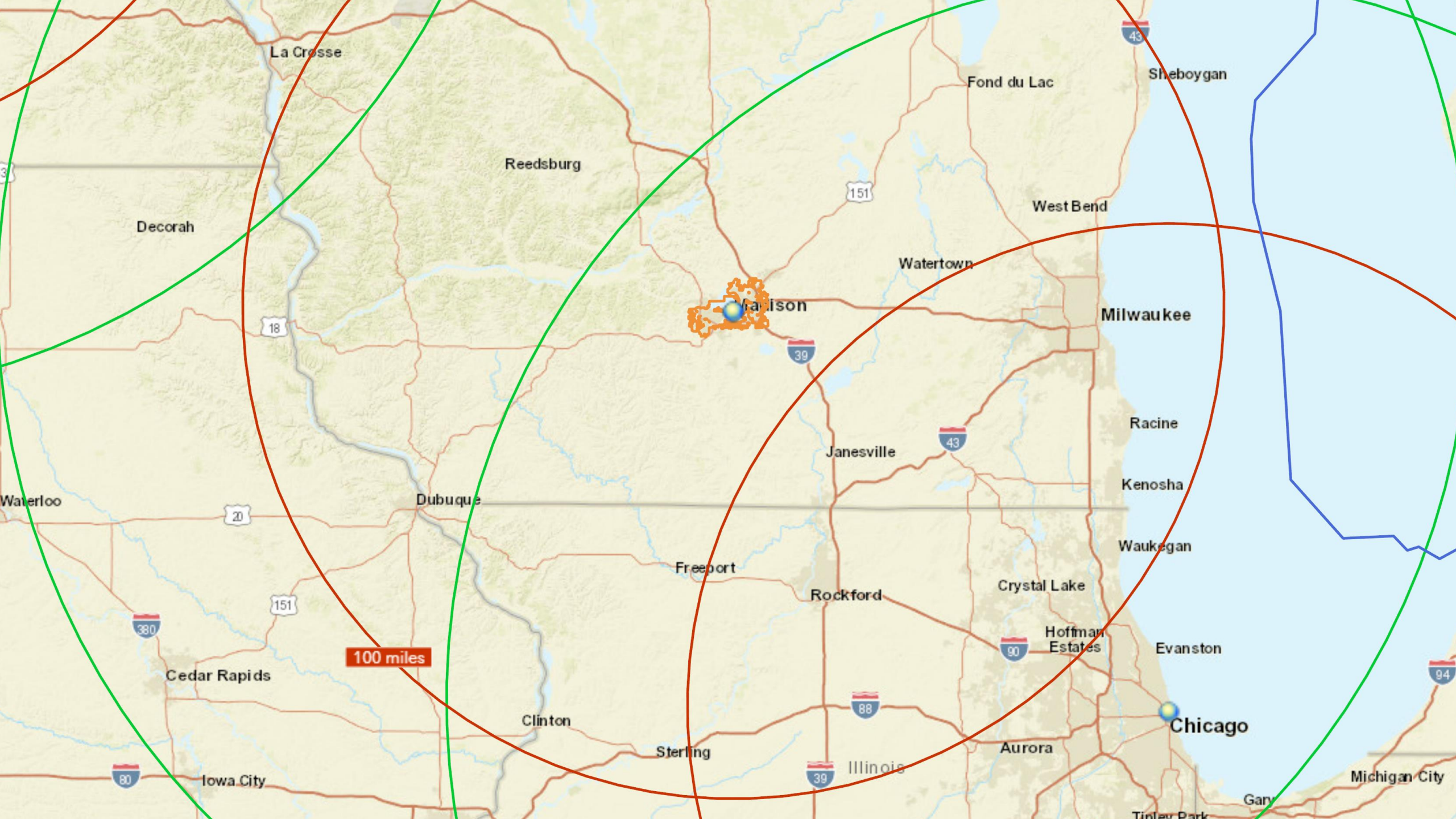
- Food Safety
  - GAP
  - Harmonized GAP
  - FSMA
  - Global Food Safety Initiative
  - Others
- Transportation
  - 11 hour rule
  - 100/150 rule













# How Do We Move Forward?



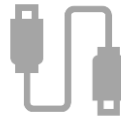
Adopting a systems  
approach to new  
development



Leading customer  
trends



Creating flexible real  
estate environments



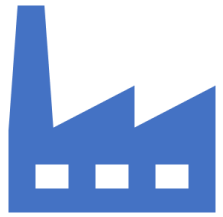
Investing in  
Technology



Building shared and  
scalable systems that  
are tech friendly



Supporting nimble,  
crossover business  
platforms



# Industry Facing Products

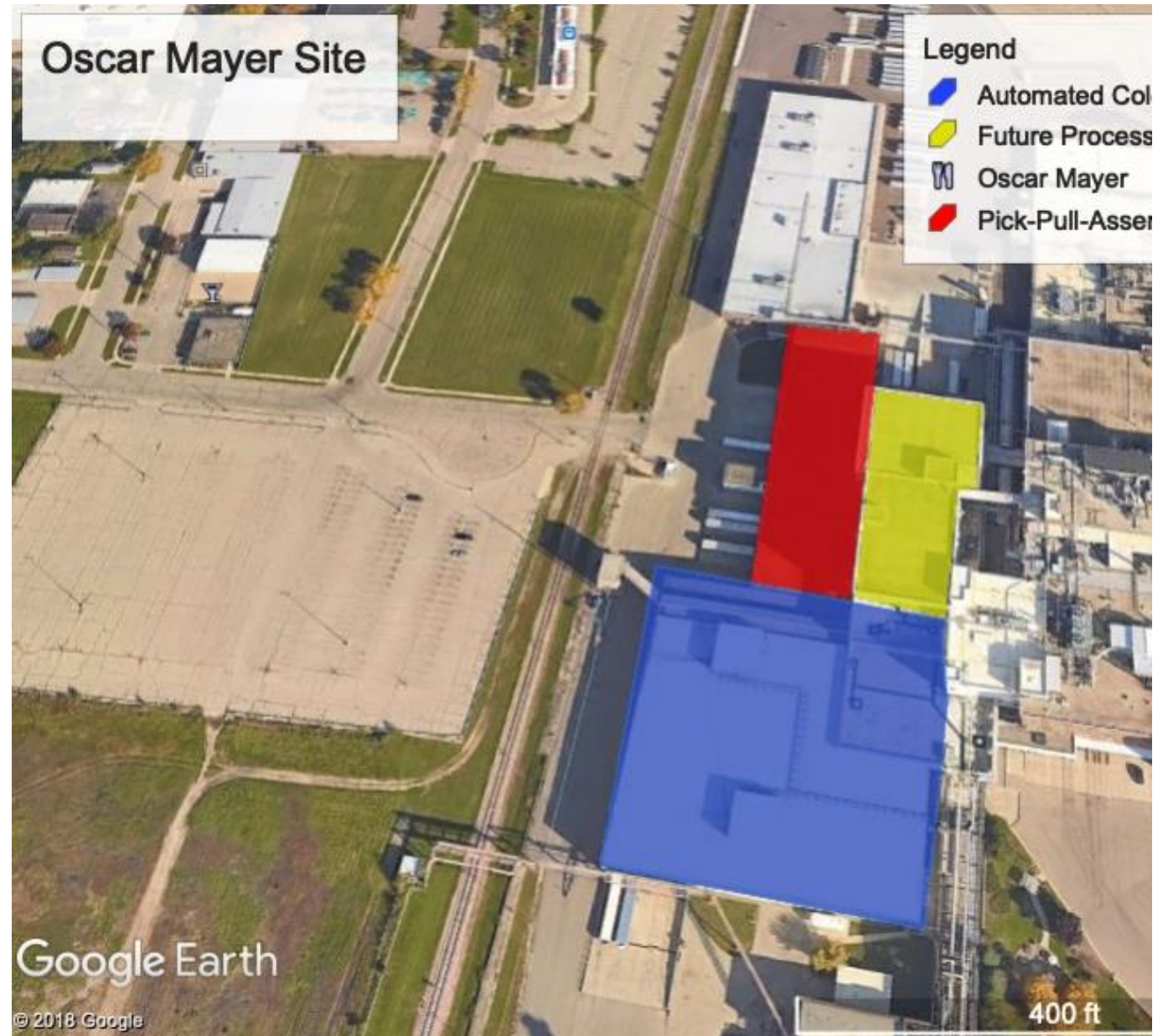


# Real Estate Solutions

- Warehousing
  - Preconditioning
  - Long-term crop storage
  - Automated storage facilities
  - Pick and pull
  - Repacking/club pack
  - Order fulfilment
  - LTL Assembly
  - GFSI, FSMA and BRC compliant
  - Food waste recovery system
- Processing
  - Single user Gluten Free Processing facility
  - Multi-user commissary
    - Modified Atmosphere Packing
    - Individual Quick Freeze
    - Cut and wrap
    - USDA processing
    - Fermentation
  - Functional foods
    - Clean room processing/packing
    - Lab services

# Oscar Mayer Site

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## Additional Location Criteria



### **Up to 100,000 square feet of high cube (50' plus) Warehouse**

Zoned for ambient, cold, and freezer  
Floor sloped and drained, as needed  
Narrow aisle, automated racking  
Pick and pull center  
Load assembly area



### **Up to 50,000 of flex manufacturing**

Interstate adjacency  
28' or higher  
Floor sloped and drained, as needed  
Flex units ranging from 2,000 sf to 20,000 sf  
Additional Features

- Shared offices
- Meeting and conference space
- Lab
- Retail

# Technology Solutions

- Multi-tenant application
  - Inventory management
  - Logistics planning
  - Transactions
  - Traceability
  - Transparency
  - Recall
- Distributed ledger/blockchain
- RFP – Bid center
- Trucker – jobber dispatch
- Retail integration

# Business Services

## Trucking and Logistics Support

- Local distribution
- Long haul load consolidation

## Merchandising and Category Management Support

- In-store stocking and support
- Promotional activities
- Collaborative marketing

## Training

- Food entrepreneur
- Food worker

## Collaborative Brand Development

- Audience segmentation
- Advanced advertising using RCS and SMS
- Journey mapping



# Consumer Facing Products





# Consumer Interface

## Mobile Application

- White face/Multi-tenant
- Imbedded augmented or virtual reality experiences
- AI to track preferences
- Transaction enabled
- Linked to distribution and logistics module

## Last Mile Lockers and Vending

- Meals and meal kits
- A la carte orders

## Corporate stores and catering

“Click and  
Collect”  
Market Units



## Next Steps

- Complete interviews 7-18
- Complete draft report and business cases 8-2
- Hold listening session on draft business cases 8-12 to 8-23
- Complete business case by Fall 2019