Wisconsin Food Innovation Facility Opportunity Analysis

Final Report to the Economic Development Administration

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Any inaccuracies or subjective assessments made in this report should only be attributed to the authors. The version submitted to EDA will be circulated among our partners in the summer of 2015 and widely distributed after receiving their input and consent.

Pre-Project Assessments

Wisconsin’s rich heritage in both agriculture and manufacturing explains why the food processing industry has thrived so well here for more than a century. However to maintain profitability and job growth in this sector, continuous innovation at every scale of operation is required to adapt to changing consumer demands and survive in a highly competitive marketplace.

Our motivation to conduct the “Wisconsin Food Innovation Facility Opportunity Analysis” was based on our contacts and conversations over the years with farmers, small and mid-sized processors, their prospective customers, and with the technical specialists and consultants who serve these companies. The general conclusion we drew from these largely anecdotal accounts was that Wisconsin was not doing enough to support innovation in food processing.

1 Submitted by Andrew Bernhardt, Mary Pat Carlson, Erin Peot, Erin Shaw and Greg Lawless, University of Wisconsin Cooperative Extension, May 26, 2015.
This reported deficiency falls into two categories: physical infrastructure and technical assistance. The former included a perceived lack of university facilities supporting research and development (R&D) as well as flexible options for expanding production, either through larger and more fully-equipped facilities that could be rented as needed or via “co-packers” who could efficiently take over and scale up production on a small processor’s behalf.

In terms of technical assistance, we heard often from start-up companies that the information and guidance they needed was difficult or impossible to find on many topics, including regulatory and food safety requirements, ingredient sourcing, equipment and packaging needs, market trends, financing strategies, etc. It was less clear whether more established companies faced similar needs.

Of course we were aware that some industry sectors and areas of the state are very well served with both facilities and technical assistance. The dairy industry, for instance, is fortunate to have gained a substantial investment in the Wisconsin Center for Dairy Research at the UW-Madison. Also, co-packing options in dairy are more available thanks to many well-distributed private plants with excess capacity.

We also knew there were plans to significantly expand the Meat & Muscle Biology Lab on the Madison campus to support the state’s extensive meat processing industry that includes large meat packers in the NE as well as small family-owned operations located throughout the state.

In addition, prior to seeking funding for our study we had visited the Discovery Center at UW-Stout in Menomonie. This facility is able to provide technical assistance and product development support to a broad spectrum of food processors, and while many of their clients are concentrated in NW Wisconsin, they do attract companies from across the state as the country.

Also, one significant area of improvement in recent years has been the establishment of small “food business incubators” spread throughout much of the state to support new small-scale food businesses. Many of these facilities received construction funding from the EDA. In some cases these “shared-use” commercial kitchens had staff or clients who offered co-packing services, and one non-profit facility in SW Wisconsin was having success focusing exclusively on co-packing.2

However, having visited many of these incubators and small co-packing facilities, we were not aware of many that were large enough to scale up significantly and/or equipped to meet specialized production needs. We also heard reports that many of the kitchens were operating under capacity, and that they often operated with little internal staff or adequate access to external services and resources that could nurture their young businesses clients.

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2 The success of the Wisconsin Innovation Kitchen in Mineral Point led its founder, Rick Terrien, to establish a for-profit firm, Innovation Kitchens, to create similar solutions statewide.
In terms of technical assistance, the dairy industry had received substantial support for eight years through the Dairy Business Innovation Center. Described as “one of the most effective and efficient dairy innovation catalysts ever,” the DBIC play a large role in expanding the “specialty cheese” industry in Wisconsin. Unfortunately, the Center ceased operations in the fall of 2012 for lack of sufficient funding.

Based on these reports and observations over the years, our preliminary assessment—and our motivation for pursuing an EDA planning grant—was that some specific food product categories and geographic areas of our state were not well served.

For instance, the needs of processors that emphasize fruits and vegetables, organic and gluten-free ingredients and other products were not sufficiently supported, and this limited our industry’s ability to serve growing national interest in healthier diets and lifestyles.

Likewise it appeared that we were not adequately addressing the needs of farmers or processors who were interested in meeting the growing consumer demand for “place-based” products. While this market is often labelled “local food,” we had encountered small companies that would have gladly marketed their distinctive Wisconsin products outside the state if they had the capacity to expand their production and marketing efforts.

In terms of geography, while some parts of the state had proximate access to university-based R&D facilities, and a much larger territory was populated with food business incubators, there was clearly a substantial deficit of R&D support and technical assistance in the highly populated metropolitan area of Milwaukee.

In a more general sense, there appeared to be no single facility, organization or effective network that provided coordinated statewide and comprehensive technical assistance to food processors that are looking to expand production, improve operations, and conduct product research and development requiring specialized food science expertise.

**Intended Outcomes and Plan of Work**

To help us to explore ways to help food processors launch, adapt and capitalize on market opportunities, in October 2013 the EDA awarded $89,910 to University of Wisconsin Cooperative Extension to conduct an analysis into whether a new R&D facility—with a possible “co-packing” function—could effectively spur innovation and industry growth while also coordinating improved technical assistance to companies across the state.

We did not assume from the outset that such a facility was needed nor had we determined where it should be located. In fact, in frank conversations with our EDA contact we speculated that the

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state may not need a new facility but rather we may only require better coordination and use of existing resources.

Given that uncertainty, we developed an 18-month work plan that would give us a better understanding of the needs of food processors across Wisconsin. At minimum we expected that our final outcome would be recommendations for addressing these deficiencies, including a preliminary business plan for a new facility if it was deemed necessary and expedient.

To that end we developed a work plan and timeline that included the following activities:

1. Conduct a statewide needs assessment utilizing a web-based survey and in-depth focus group interviews.
2. Visit food business incubators across the state to determine their capacity to support processors’ efforts to launch new products and scale-up production.
3. Engage with on-going efforts in Milwaukee to meet the presumed need for physical infrastructure and technical assistance in that region.
4. Conduct site visits to university-based facilities in other states that might provide models for supporting the R&D as well as co-packing needs of food processors.
5. Develop recommendations for addressing statewide needs, including a new facility if

The following five sections correspond roughly to the chronology of the project. At each phase we applied the knowledge and insights we gained to the next activity.

**Survey Results**

In January 2014 we pulled together a meeting in Milwaukee of our team of advisory partners to collect their feedback on our survey instrument. The survey was finalized and emailed out via email our extensive database of 636 food processors as well as via our 51 different organizations we contacted. We estimate that at least 1,000 processors received the survey.

For the survey instrument we used an online service called Qualtrics. In brief comments introducing the survey (see Appendix A) we explained that the results would be used to help us determine “if there is a need for one or multiple physical facilities that would help business growth and spur food innovation in the food processing/manufacturing industry.”

We received 160 responses. The complete results can be found in a PowerPoint presentation (see Attachment B) that we made in Milwaukee in June 2014. As seen in Boxes 1 and 2 below, most of the respondents own their own facilities (66%) and had been operating more than five years (58%). In fact 29% had been in business more than 20 years.
In terms of the diversity of companies and their products, Boxes 3 below illustrate that the respondents manufactured a wide spectrum of food products with (1) meat, (2) baked goods, (3) fruit and vegetable-based products, and (4) dairy products representing the top four product categories. (Respondents were allowed to select more than one category.)

Companies were also asked to select the top 4 characteristics of their products from a list that we provided. Scoring their responses in a weighted system that assigned 4 points for their first choice, 3 for their second, etc., in Box 4 we present the most frequently cited characteristics, with (1) high quality, (2) local, (3) artisanal/specialty, and (4) healthy/nutritious at the top of the list.
What these results told us was that our survey results reflected a broad spectrum of Wisconsin processors, including many well-established companies. While many of our pre-project assessments of industry needs were based on our prior experience start-ups, these survey results would enable us to assess the needs of well-established firms as well.

We intentionally kept the questions focused on the needs of companies and the larger industry, rather than concentrate their attention on matter of a new facility that might meet those needs. We felt such an approach would solicit a higher response rate and richer answers. In fact, the first question we asked even before soliciting their company name was:

- **How are you looking to improve your business? (expand operation, improve current products, develop new products, improve operational efficiency, etc.)**

In this case we asked an open-ended question followed by specific examples of possible responses. 123 companies (77%) replied. To enable a simplified presentation of their responses, we coded and categorized the combined 2,015 words into themes that closely mirrored the examples we had suggested, as presented in Box 5.

![How are you looking to improve your business?](image)

Box 5

Or course a great deal of rich information is lost when combining so many words into one simple graphic. Below we highlight just a handful of the responses that seem particularly relevant to our study. We redacted words that could compromise confidentiality.
How Companies Will Improve

- Create new ready to eat items for today’s fast paced world.
- Operate more efficiently, packaging/marketing and create new products.
- Always developing new products and flavors.
- We need to update our refrigeration system. Constant product improvements and new product development
- Develop new and improve current products. Also, improve efficiency on operation and products.
- I am looking for input to find a safe, convenient, inexpensive way to access patrons' debit and credit cards.
- We process fresh fruits and vegetables for schools - it would be great to increase capacity to service more schools.
- Moving toward local flours and sustainable energy and water practices.
- We have developed a new [redacted] in our bakery that we are now selling coast to coast. Part of the recipe is using a [redacted] base product that we would like to be able to produce ourselves. Currently we are purchasing the base. We can reduce costs by making this base ingredient ourselves. We have worked with the Food Science Dept. at the U. of Nebraska. The distance from our location results in delays. We are anxious to work locally to complete the reverse engineering of the base, and also then to ramp up our production of our product.
- Develop new bakery products
- Improve current products, update packaging
- Partner with co-packers to offer new products to our customer base. Develop resource network for product development and access to food science experts
- Find a way to make more efficient use of our kitchen time without sacrificing the quality of our product.
- Expand distribution
- Diversifying our customer base
- Develop new flavors
- Increase ease of collaboration and marketing.
- We are working on improving our management structure and building a succession plan.
- I have yet to find a product ingredients wholesaler to suit my needs and standards.
- Update to newer automated equipment. Currently hand filling which is very inefficient.
- Move to better facility, get own retail space as well.
- Buy equipment for small manufacturers to increase efficiency.
- We are looking to get into the wholesale business and provide local food stores with our product.
• We're interested in reducing our carbon footprint with regards to energy, like investing in solar or wind to generate more of our own power in an environmentally friendly way.
• We are considering adding a new flavor. We are currently expanding to a second production facility in Milwaukee.
• So many ways! We have been open for 18.5 years. It is high time for us to do another, updated business plan.
• Our grand plan is to build a new facility which incorporates not only our business but is an anchor for other artisans in the area.
• Looking for a co-packer in the state who can do carbonated fruit beverages.
• We would like to develop a new line of products this coming year, expanding to acidified foods, such as salsas and sauces. We are on track to do this, registered for the Better Process School and have tested several recipes. We also need to improve our operational efficiency, especially in terms of equipment. This is where we are lacking information and will need to seek advice before going further. We are at the point of needing automation (filler, labeler etc) but are unsure of what is out there at this point.
• Stay on top of changes in regulations, technology, client demands, training, certifications, etc. to improve testing capabilities and turnaround time.
• We have just completed significant investments in space, software and equipment. We are expecting greater capacity, higher quality and lower costs. / We are reorganizing our sales and marketing to better develop brands and better sales management. In addition, we expect to expand our geographic footprint.
• Expand current operation through growth of distribution at area grocery stores, additional farmer's markets, bar and restaurant distribution. Also looking for ways to reduce overhead costs.
• Grow plant count, streamline costs, get state license for certified kitchen and retail sales, kitchen process machines, product bottling/package/storage, marketing, urban farm equipment
• We are looking to expand our existing business to meet the increased demand for our products. However, due to lack of collateral, we have been turned down four times already. This is extremely frustrating considering the funds asked for is a relatively small amount!
• Get UPC and nutrition labeling, purchase larger capacity machines.
• In my first year I was added in 10 stores, this year I want to be in 30 stores in the Midwest by the end of the year. So short answer is expand my footprint of retail locations, look into catalog area, and add new flavor.
• Tweaking recipes / Slowly growing inventory without borrowed monies. Continued experimentation.
• Improve sanitation efficiency.
• Our primary focus right now is increasing capacity so shorten lead-times. we are also focusing on QA procedures (3rd Party Audits) and operational efficiency.
• Expand Midwest footprint and a duplicate location outside the Midwest.
• We are looking to develop a small but diverse artisan food brand, with awareness in the Midwest. We would like to increase sales and production by 5 times current production in the next three years. We will expand to wholesale business. In 2014, we will expand our product line. Our processing facility is very small, but can accommodate a substantial amount of processing growth. We will outgrow our parts of our facility, particularly inventory management and storage space. We are satisfied will sales and projected growth. Our ideas exceed our cash flow and we cannot afford more resources for sales, marketing, brand development and business planning.
• Looking for a new kitchen in the Janesville area to rent and expand my business
• We are looking to add reverse osmosis to our operation to improve our productivity and increase production.
• I have reached out to Weinert Center for Entrepreneurship and sent an application into your organization seeking assistance but I seems as though I need to be an alumnus or faculty to receive assistance.

**Ranking Functions that a New Facility or Enhanced Network Might Address**

Midway through the survey we presented “five categories” and asked companies to rank them in order of which would be most beneficial to their business success. Our project team considered these categories to be potential functions of a new facility and/or of an enhanced statewide network of technical assistance providers. But we did not make that consideration explicit.

While formal definitions of these categories were not provided, a set of sub-functions provided more explication, as reproduced below:

**Food Science Services:** food safety education; recipe development; nutritional analysis; shelf-life improvement; sensory tasting studies, etc.

**Food Processing Commercial Services:** Custom Processing/Co-Packing; Custom Ingredient Development; Private Labeling; Local Ingredient Sourcing; Brokerage/Retail; Advertising, etc.

**Business Development Technical Assistance:** business plan development; consumer preference studies; market feasibility research; advertising and brand development; licensing and regulations information; pricing/price structures, etc.
**Operations Technical Assistance**: sustainability improvement; traceability and tracking systems development; distribution and logistics assistance; management and workforce development; packaging design; equipment and facility design; accounting assistance; product commercialization assistance, etc.

**Expansion Technical Assistance**: Identifying loans and grants; Securing investments, facility; Upgrade assistance; Assessing equipment needs; Relocation assistance and site identification, etc.

As seen in Box 6 below, the function that received the most #1 votes was “operations technical assistance,” and over half of respondents ranked this in their top two. The least common top choice was Food Processing Commercial Services, but 28% still ranked this in their top two.

[Image: Ranked categories most beneficial to your business success]

Box 6

Unfortunately we encountered a problem with how the technicians at Qualtrics designed the backend functionality for the question above. In an effort to keep the survey questions as concise as possible, we only wanted respondents to rate the usefulness of the “sub-functions” for the larger function that they ranked first. However because of the mistaken way the responses were collected, we lost the association between the ranked sub-functions and their corresponding function. This resulted in a disappointing loss of detail for assessing companies’ needs and priorities.
Fortunately we were able to regain some richness of response in the open-ended answers to the following questions:

- What opportunities/resources have helped expand your food processing/manufacturing business?
- What challenges/obstacles prevent or hinder growth with your food processing/manufacturing business?
- What does Wisconsin need to do to successfully spur innovation in its food processing and manufacturing industry sector?

Following qualitative analysis methods recommended by project partner, Dr. Jenifer Buckley of the Organic Processing Institute, Project Intern Erin Shaw carefully review 352 responses to these three questions, which taken together comprised over 9,000 words. After categorizing respondents’ comments by eight recurring themes, we then quantified the answers as presented in Boxes 7-10 below.

In Box 10 we combined the number of times each of the eight themes were identified and compared their frequency in response to the three questions. So for instance the theme that received the most mention was “Operations” with 14% attributing this operational improvements or advantages to their success in expanding; 29% attributing operational problems to their hindered growth; and 12% saying that operational needs should be addressed to spur innovation in the industry as a whole.
While clustering responses into major themes is helpful for comparing aggregate numbers, a great deal of valuable detail is lost in the process. To demonstrate the detail and richness of the responses, we present highlights of answers related to “operations” below.

**How “Operations” Supported their Expansion**

- Finding my own space after working from a shared kitchen
- We have been upgrading our equipment and the facility itself.
- We are able to do customer formulas and small runs for our customers.
- The cooperative kitchen owner is very good at marketing.
- A good resource for us in expanding our food processing/manufacturing has been attending national bakery trade shows that demo products and equipment. We have used these shows to develop our product line.
- We have expanded in the past to provide better product flow and increase the amount of storage room.
- Madison Enterprise Center
- Roll stock machine
- Dedicated employees, hard work
- Access to a decent building space to expand 10 years ago at the Iron River Enterprise Center through Northwest Regional Planning Commission (NWRPC).
- Purchased a Rollstock packaging machine.
- Access to local commercial kitchen
• My hard work. The state and city have been of no help at all!!!!!!!!!
• The Food Enterprise Building
• Beginning work with the Kenosha Achievement Center
• Demand for...our processing/packaging capabilities.
• Farming ourselves; The primary reason we were able to start out is because we already operated a business with a kitchen, so we just expanded the existing kitchen
• Asset purchase of another local roaster (we added 40% to our sales in one year)
• The shared use kitchen I use, The Farm Market Kitchen, in Algoma, has been very helpful with getting my 2 sauces ready for sale.
• Renting from Commonwealth Development certainly had an ease of entry that would not be the same in a totally commercial setting.
• FEED Kitchen
• Finding a very well maintained kitchen close to my house with flexible hours has been the number one resource to my success.

**How Operations Hindered their Growth**

• Improving facility and adding equipment
• Could use some more space to produce more product.
• Good help
• The main challenge has been to convince employees and the Board that change is good and sometime necessary to succeed in the business that we are in
• My own energy levels
• Labor intensive product
• Amount of time needed to get through my process of producing my goods.
• Not enough space in our buildings
• Quality employees. We start around $3.00 above minimum wage. Still very hard finding quality dedicated employees.
• Limited capacity.
• Logistics
• Transportation
• Time
• Needing specialized equipment/aging facility
• First facility is becoming too small.
• The time it takes to keep up with all the proper documentation for new products and processes
• Turnover
• Human Resources
• Having our own facility to make the dressing. Find enough of the "right" people to work for us. Must be outgoing, honest, hard-working and excited about the product. Finding the right equipment to mix and produce the dressing. We use no emulsifiers or artificial
preservatives, so there is a separation of product once it stops blending. We quickly pour 6 to 7 bottles out of the pitcher before it separates out. We would need some type of large mixer that continually mixes while we fill bottles from spickets on the bottom.

- **TIME!**
- Production machines
- Physical space
- Higher cost of production being located in an urban setting.
- Limited equipment at our facility (FEED Kitchens) that means that processing is limited to smaller quantities only.
- Space, process to add an employee?
- Having good bookkeeping records to determine what direction to grow the business / TIME to do it all
- From mistakes that we do our best to learn from.
- Facility size limit both for workspace and storage space. Due to the clients we employ we face an unpredictable work force in that the clients often miss work one a week or more and not with prior warning. This makes it difficult to create and adhere to a weekly schedule for tasks.
- Room to expand
- Having time to develop a marketing plan and implement it

**How Addressing Operational Needs Can Spur Industry Innovation**

- Strive to improve on safety and cleanliness. Manufacture wholesome and high quality products
- Encourage people to use shared kitchen space. I do this for my kitchen and is how I got started in business. The expense of buying/renting/leasing a kitchen and all the equipment and to get licensed is daunting for some. But the shared kitchen idea is a wonderful outlet for brand new businesses. I appreciate that is an option and I am so happy I can provide that service for other renters in my kitchen.
- Provide affordable production/storage space for new entrepreneurs.
- Accessible, affordable facilities for manufacturing.
- Have more commercial kitchen rental facilities with adequate space and equipment for small batch processors.
- Work with companies to train and retain good employee's
- Trying to find adequate affordable employees.
- We need REAL money directed to the urban areas designated not to "headlines" but to actually deliverables and results. This means taking abandoned/city owned properties like the old Stella’s on MLK and converting it into an incubator kitchen which houses, staff from accounting, to marketing, to licensing, to operations etc.
- Encourage innovation and entrepreneurship with... and incubation opportunities and locations in strategic areas
- Low labor costs
- Provide simple steps for small business to set up the addition of new employees. (taxes, etc.)
- Grants for people value adding local agricultural products, kitchen incubators, "maker spaces".
- Get the word out more. The kitchen is a wonderful space.
- CUT THE COST OF WORKERS COMPENSATION INSURANCE. Study it carefully, it is a rip-off. Medical bills paid by WC are higher than everyone else. This is a waste of our money.
- My response only addresses small scale production, because we only do small scale production. In the case of small processors, taking a leap from 1-2 people to 5-10 people to a 50 person operation can be difficult if not impossible.
- And how do we process all the sap that we collect as well as what we purchase from neighbors in a delicious, safe and timely manner.
- Workers compensation insurance premiums are very high in Wisconsin. Coding penalizes some businesses such as ours. We are lumped together with all bakery employees even though we do not have a fryer or other dangerous pieces of equipment. We have never had a claim but that doesn't reduce the premiums we must pay (only our experience rate for the UC we pay quarterly). Our premiums are over $10,000 a year and will go up as our payroll goes up regardless of our safety record. This should change.
- I think that offering low-cost kitchen spaces for small businesses is very important. We have our space in an incubator but there are not many of these buildings around the city where we can expand our business over the years.
- Create more incubator kitchens with affordable rent for people to start their business. It seems like the number one obstacle to starting a food business (legally). But even more importantly, along with the incubator kitchen space, offer business assistance, as well. It would also be nice to offer a Phase 2 incubator. i.e. When a business is at the point where it no longer needs/wants to share kitchen space, but maybe not ready to open their own retail shop/restaurant/bakery. So a spot where the business owner is still making their own investments, but still a stepping stone to the "end" goal. (i.e. something similar to the Madison Enterprise Center)

What We Learned about Co-Packing

We asked a rather long and complex question about co-packing that was intended to apply to those who offer the service as well as those who might utilize it, as presented below.

- Custom packing/co-packing/contract processing is a valuable service for many food processing businesses. Please describe your experience in this
area. (Do you provide a co-packing service? Are you happy with your current co-packer? Have you had trouble locating one who can meet your needs?)

It was an open-ended question so again we coded and clustered the responses along the categories presented in Box 11.

As with the open-ended questions above, the insight provided by the aggregate data is limited. Some additional understanding can be gained from the responses of those who cannot find suitable co-packing.

- I currently package myself however I found it difficult to come up with a design that is truly functional, noticeable to customers but inexpensive enough so that the packaging doesn’t cost more than the product itself.
- Not able to find a confectioner that does small batches to my recipe
- We do not provide co-packing. More regional processor in the area processing local fruits and vegetables would go a long way towards getting local food into schools.
We have a very unique product that requires a lot of packaging logistics. We have had a lot of trouble working with supplies to help us with a good solution.

Do not use. Wish we could do so economically.

We have co-packed alcoholic beverages for others with some success. Hard to make it pay though with our old equipment. We need a co-packer now who can do carbonated non-alcoholic beverages using in-bottle pasteurization. I have not been able to locate anyone in the state who can do our very modest volumes. Tough sourcing even out of state.

We have used a co-packer and found processing costs and transportation cost to be prohibitive. Processing quality was not at the level we achieve ourselves.

I would be interested in finding a new co-packer who was already USDA inspected and able to help us meet our FDA/FSMA obligations.

I bottle my [redacted] one at a time now. A low cost service that would be willing to work with us, very small amounts now.

Have had trouble finding one to meet our needs. We do some private label packaging for others.

I am very familiar with the challenges of copack arrangements. It would be helpful to have a master list of who is capable of doing what types of products by location.

We would pursue custom packaging if we could find sustainable packaging to put our product in. Currently there are no good recyclable or compostable options for [redacted].

It's hard to find the unique look in packaging without spending a fortune.

I have had trouble locating one that can [redacted].

I am just starting to look into co-packers. As this is a new area for me, a 101 tutorial would be a great resource.

I have only contacted 2 companies to see if they could co-pack my products for me but their prices were outrageous.

I don't provide co-packing service but would be interested in talking to those that do.

We identified a couple co-packers we may utilize in the future. Currently there is no one small enough.

Summary Comments on the Survey Results

Despite the restraints on our own project resources, our preference to limit the number of questions to encourage participation, and the technical problems we encountered with the Qualtrics survey system, we are nevertheless very satisfied overall with the results of the survey. We were pleased with the number and diversity of companies that replied. We learned a great
deal about what has facilitated and hindered their growth, and what they think is required to spur innovation in the state’s food processing industry.

However it is important to note that at no point did we ask companies to comment on whether a new “statewide facility” could meet their own or their industry’s needs. Instead we wanted their attention to be focused on their own needs. As such we can only make very general inferences from their answers about the need for a new facility or enhanced network.

With regard to the question that asked them to rank five functional categories, our project team has determined that two of the “five functions” circled in Box 11 would require some sort of specialized facility —whether new or existing. The other three could be provided with a more “virtual” support infrastructure.

It would be imprudent to draw much more specific conclusions about the need for a new “statewide facility” in Wisconsin based on our 160 survey responses. To gain richer understanding in our 18-month study of the needs of food processors and how a new facility might support them, we also utilized focus group interviews.

But before we consider the focus group interviews that were conducted for our study by the Organic Processing Institute, we will first consider our visits to 15 Food Business Incubators across Wisconsin, our focused work in Milwaukee, and our visits to New York and New Jersey.
Assessing Existing Wisconsin Capacity and Areas of Need

We determined at the outset of our project that a decision about any new facility would have to be made with an appreciation for the physical infrastructure that was already in place. Members of our project team had visited the Discovery Center at UW-Stout prior to beginning our study, and being Madison-based we are also familiar with the dairy and meat processing facilities at UW-Madison.

Over the course of our 18-month EDA project we developed a strong relationship with Dr. Renee Surdick, who manages the support to food processing clients at the Discovery Center. She played an invaluable role in the design of the recommendations that we will present in the final section of this report.

Likewise Dr. Scott Rankin, Chair of the Food Science Department at UW-Madison, has been a constant source of advice and information. It was Rankin who advised early on and consistently that if we were going to propose a new university-based facility in Wisconsin, it should target a segment of the food processing industry that was not already well served.

Given the strengths in dairy and meat products at UW-Madison, he agreed that a focus on fruit- and vegetable-based foods and other health-inspired products could provide what he called a distinctive “theme” for a new facility. He also explained that there was no available real estate on the Madison campus, and he concurred that placing it SE Wisconsin could address capacity issues there.

In regular meetings with another key project advisor, Tera Johnson of UW Extension, she also proposed a focus on an industry segment, but her advice was to look to niche markets like organic and gluten-free foods. What we saw as common in both Rankin and Johnson’s ideas was a possible focus on products related to “health and nutrition.”

Meanwhile our core project team was also quite aware that food business incubators represented another existing capacity throughout much of the state. The Small Scale Food Processing Specialist who we hired part-time with EDA funds, Mary Pat Carlson, was managing one of the state’s oldest and most successful of these incubators in Algoma east of Green Bay.

Members of our team were involved with another EDA planning grant in 2009 that, among other things, helped to launch a loose network of these facilities called the Food Business Incubator Network (FoodBIN). Since that time our EDA project’s Rural Development Outreach Development Specialist, Erin Peot, has maintained a website (https://fyi.uwex.edu/foodbin/) to publicize the availability of FoodBIN facilities and other incubators around the state (Box 12).

Early in our latest EDA project, Food System Specialist Andrew Bernhardt created a map that reflected our best knowledge of the various facilities around the state (Box 13). The map
attempted to distinguish variations in facility design and function. In trying to foster a common vocabulary, we have distinguished “shared-use kitchens” from “food business incubators” by describing the latter as providing significant business and technical support to their clients.

Most of the facilities were organized as non-profit organizations or affiliated with local public agencies. While a handful offered co-packing services, we did not attempt to include for-profit co-packers, in part because they are not easy to identify.

We decided that it was necessary and advantageous to visit as many of these sites as possible to get a better understanding of how they operated, what they provided small processors, and how a new facility and/or enhanced network might benefit the incubators and their clients.

In the spring and summer of 2014, two project members visited 15 incubators across the state. Video was our primary means of documenting what these facilities currently offer. We have uploaded our 15 videos to a playlist on our YouTube channel called Wisconsin Food Business Incubators 2104.” See Appendix B for a list of the kitchens we videotaped.

The videos average about 6 minutes in length and provide an introduction to the facility managers, a look at some of their equipment, and a discussion of services offered. The videos can be found at https://www.youtube.com/aginnovation. A few of the general conclusions that we made from these visits:
1. The fifteen incubator facilities are quite similar with regard to the space and equipment they offer.
2. The managers appear to be professional and very dedicated to the success of their clients.
3. Many of the facilities are operating below their full capacity, although we did not inquire into their financial stability.
4. There appears to be very limited communication or sharing between facilities despite the fact that many of their clients are new to food processing and undoubtedly share many of the same informational needs.

5. While there are food processing incubators providing technical support to new food start-ups in many parts of the state, there are large territories where none are located—including the highly populated area around Milwaukee.

**A Focus on Milwaukee**

Due to the timing of the federal funding cycle, our EDA project got started a year later than anticipated. By the time we began our study in October 2013, we were well aware of the deficiency in facilities and technical support for food processing in Milwaukee, and we had made strong commitments to partners there to explore opportunities to address these needs.

<table>
<thead>
<tr>
<th>Population</th>
<th>Wisconsin</th>
<th>North Side of Milwaukee</th>
<th>South Side of Milwaukee</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>89%</td>
<td>27%</td>
<td>62%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>7%</td>
<td>70%</td>
<td>10%</td>
</tr>
<tr>
<td>Hispanic or Latino (any race)</td>
<td>6%</td>
<td>4%</td>
<td>65%</td>
</tr>
<tr>
<td>Per capita income</td>
<td>$27,523</td>
<td>$16,773</td>
<td>$12,631</td>
</tr>
<tr>
<td>Median household income</td>
<td>$52,413</td>
<td>$31,946</td>
<td>$29,096</td>
</tr>
<tr>
<td>Individuals below poverty level</td>
<td>13%</td>
<td>33%</td>
<td>38%</td>
</tr>
<tr>
<td>Percent Unemployed</td>
<td>8%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Food Stamp/SNAP Benefits</td>
<td>12%</td>
<td>35%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Table 1

Our two main partners in Milwaukee at the start of our EDA study were the Urban Economic Development Association of Wisconsin (UEDA) and Food and Beverage Milwaukee (FaB) which changed its name to FaB Wisconsin in the midst of our 18-month project.

**Our Work with UEDA**

While UEDA is nominally a statewide organization, its full attention is focused in the city of Milwaukee and it is especially involved in the “North Side” where it is located on Dr. Martin Luther King Junior Drive.

Milwaukee is one of the country’s most segregated cities. Ten zip codes on the North Side are predominantly African American. Two zip codes on the South Side contain most of the city’s Latino population. The remaining 16 zip codes are 84% White, and the surrounding suburbs have considerably higher percentage of White residents.
Table 1 above presents these demographic distinctions along with a set of economic indicators that show that the residents of the North and South Sides of Milwaukee are considerably disadvantaged compared with the rest of the state.

By the time our EDA study was underway, UEDA was deeply involved in leading an informal group called the Food Enterprise Development Network (FEDN) in its own study of the feasibility of “food hub” in Milwaukee to promote food-related economic development with a focus on local and regional farms and other food companies.

While we originally contracted with UEDA to conduct focus group interviews in Milwaukee around the topic of food processing, with our approval they switched their methodology to a combination of 1-on-1 interviews and surveys with an enlarged focus on food hubs and food-related entrepreneurship.

In exploring food hubs, the FEDN group developed a common Interview Guide to maintain consistency between interviews (see Appendix C). Seven FEDN volunteers visited with 21 diverse stakeholders in and around Milwaukee to determine their level of interest in potential components of a food hub, as illustrated in Box 14 above.

Extensive notes from the interviews were sent to EDA Project Director Greg Lawless for qualitative analysis. As with the analysis of our EDA survey results presented above, Dr. Jenifer Buckley from OPI shared her expertise in qualitative methodology. The resulting 22-page
analysis and report was distributed to FEDN members and other stakeholders. A 2-page summary of the results are presented in Appendix D

With regard to interest in the food processing component of a food hub, the full report included the following summary:

Some feel strongly that it’s needed ("Processing is a HUGE hole."); others question the need for it, and some or don’t mention it at all.

Of those who were silent on the need for processing capacity, one did mention a shortage of processors, and another expressed a need for education on “how to process.” All three of the “doubters” qualified their statements (“might,” “I don’t know,” and “not sure”) and one of them expressed opposite opinions about the need for food processing in the same interview.

In short, while there was some strong interest in processing, the general sentiment was more ambivalent. In subsequent months UEDA and FEDN elected to focus more attention on supporting entrepreneurship in the food sector more broadly by supporting a series of “Recipes to Retail” workshops and networking events. At these events they also distributed a new survey and publicized a web-based version that solicited current and prospective entrepreneurs’ interest in and needs related to food processing.

**FEDN survey of Milwaukee Food Entrepreneur Needs**

<table>
<thead>
<tr>
<th>BARRIERS TO SUCCESS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Plan Development</td>
<td>13</td>
</tr>
<tr>
<td>Access to Technical Resources</td>
<td>10</td>
</tr>
<tr>
<td>Access to Capital</td>
<td>10</td>
</tr>
<tr>
<td>Access to Commercial Kitchen Space</td>
<td>9</td>
</tr>
<tr>
<td>Determining Market Need</td>
<td>7</td>
</tr>
<tr>
<td>Marketing / Advertising</td>
<td>2</td>
</tr>
<tr>
<td>Initial Networking</td>
<td>1</td>
</tr>
<tr>
<td>Sales</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2

The results are summarized in Appendix E and F. In contrast to the food hub interviews, the subject of food processing was elicited more interest. The 28 respondents included a wide variety of food products, with condiments/salsa/jams and bakery/confections most prevalent. Commercial kitchen space was also considered a priority.
As shown in Table 2 above, “Access to Commercial Kitchen Space” ranked fourth as a barrier to success for these new and prospective food entrepreneurs. However in another question concerning “Topics of Interest” for future workshops only one person listed “Processing.”

Our Work with FaB Wisconsin and the Milwaukee Area Technical College

In contrast to UEDA’s work with very small and beginning entrepreneurs with a focus on economically disadvantage areas of Milwaukee, Food and Beverage (FaB) is a membership organization that caters primarily to larger, well-established food processors in the 7-county region surrounding Milwaukee.

FaB’s Executive Director Shelley Jurewicz was a valuable advisor to our EDA project with a strong interest in developing capacity in the Milwaukee region to support innovation in food processing.

In the spring and summer of 2014 our common interests led us suddenly and rapidly down a path of exploring a partnership with the Milwaukee Area Technical College (MATC). In the midst of this development we took our first out-of-state trip to New York and MATC food science instructor Marie Colmerauer joined us.

In recent years FaB and its members had strongly encouraged MATC to develop courses and degrees to train the workforce of the food processing industry. A new program was quickly developed and soon need expanding facilities to provide practical, hands-on education. Colmerauer was hired to support the new program, and MATC administrators received approval from their governing body to spend $1.6 million remodeling and equipping a building on the near South Side.

While our EDA project was only about half-way through our feasibility study, the emergence of an opportunity to partner with MATC and FaB in an area of the state that clearly needed was too great to ignore. For a period of a few months in the summer of 2014 members of our EDA core team directed much of our attention to helping MATC prepare to submit a proposal to the EDA for a maximum construction grant of $2.5 million.

Unfortunately the opportunity with MATC and FaB evaporated even quickly that it had appeared. While the research visit to New York State (described in the section below) strengthened our relationship with Colmerauer, we had less success developing a shared vision with all the parties involved.

In hindsight we were too assertive in promoting a “satellite facility” on the North Side to complement the MATC facility on the South Side. Nor had we been able to achieve consensus among the various stakeholders on the North Side that food processing was a pressing priority or an appropriate focus for collaboration.
Photos of the Proposed MATC Food Maker School, March 2014
Another challenge was that our EDA planning grant had a statewide focus, while FaB, MATC and many other Milwaukee organizations that we work with are intensely focused on the urgent needs of that city.

As mentioned earlier, the input we had received from one key advisor across the state was that “fruit and vegetable processing” represented an area of unmet need and potential opportunity. Our attempt to insert this priority into the MATC vision, like our proposal for a North Side satellite, may have been too great a distraction from their central concern of training the food industry workforce in SE Wisconsin.

In any case, by August of 2014 we were no longer participating in meetings with MATC and FaB in pursuance of an EDA construction grant. While they continued with plans to build a new facility to house their Food Makers School, by the late winter of 2015 we were informed that MATC had decided to proceed without seeking EDA funds to support the construction. Fortunately we have maintained cordial relations with Jurewicz and Colmerauer and there is no reason to think we cannot revisit a partnership in the future.

**New York, New Jersey and a Shift in our Project Focus**

Originally we intended to visit four locations around the country that offered models for the design of a university-based food processing facility that could serve the state. We did visit two of the locations we originally considered: Nelson Farms at Morrisville State College east of Syracuse, New York, and the Food Innovation Center in Bridgeton, New Jersey that is affiliated with Rutgers University in New Brunswick.

Our decision not to visit additional facilities in Lincoln, Nebraska and Portland, Oregon was factor of cost, time and priority. Our travel around Wisconsin visiting 15 food business incubators required more travel dollars and staff time that we anticipated. Our investment of travel to and time in Milwaukee also far exceeded our original plans.

And while the visits to New York and New Jersey were extremely valuable and enlightening, by the fall of 2014 it had become clear that there was no consensus on the need for a statewide facility. Also, given the budget situation in state government and the prospect of a severe cut in funding for the University of Wisconsin System, had become extremely unlikely that any funds would be made available to match a grant request to EDA for a construction grant in the near future.

For these reasons we decided to shift our focus from the development of a preliminary business plan for a new statewide facility toward a vision for an enhanced network of public and private partners to support innovation in Wisconsin’s food processing industry.
Nevertheless the two out-of-state visits that we did make were extremely valuable, not only in promoting a vision of a future facility, but also in helping us to foresee how an “enhanced network” would operate. (Photos of the two trips are presented in Appendix G.)

In the summer of 2014 our project team visited two campus-based facilities located about 90 minutes apart on either side of Syracuse, New York. We first visited the Cornell Food Research Lab at Cornell University. We learned that in earlier years the staff there had received grant funding to provide training and support for food entrepreneurs, but that funding expired and they refocused their efforts on food science support for product development.

They operated a small but productive lab in their building to which many small and mid-sized processors sent samples of their new products for chemical analysis. The also had a “sensory evaluation room” for conducting taste tests, and a “vinification and brewing technology laboratory.”

_Floor Plan for the Pilot Plant at Cornell University in Geneva_

![Floor Plan](image)

Box 15

However we spent most of our time touring their Pilot Plant (see floor plan in Box 15). There was no production underway the day we visited, so the plant manager was able to give us an extensive tour. The size of the facility was comparable to the industrial space pictured in the
photos of the MATC building above. A moveable crane attached to the ceiling permitted the movement of large equipment around the facility as needed.

While the equipment was quite dated it was considerable larger and more diverse in function than anything we encountered in the 15 food business incubators in Wisconsin. We were told that the facility served both small processors who were looking at running pilot batches much larger than their current production as well as large processors who wanted to run trials on new products for which they either lacked the equipment or what they had was too large for pilot runs.

We also learned that recently Cornell received a commitment of about $4 million from the New York State Legislature to develop a more modern facility in an adjacent building. The plant manager had no information about what was planned for that new building, but he was able to send us detailed, decades-old floor plans for the older facility we visited.

The Cornell facility did not provide business development support for their clients, and their pilot batches could only provide short-term production support. They explained to us that for these functions they often direct people to Nelson Farms, with whom they communicated frequently to support mutual clients.

The primary reason we went to New York was to visit Nelson Farms because we had heard that it was specially designed to provide long-term co-packing services. As a university-owned facility affiliated with Morrisville State College, this co-packing function was very unique for a public institution and we wanted to learn more.

Based on the retail store at Nelson Farms, it appeared that the products coming out of the facility were quite similar in nature to what is produced at many of the food business incubators in Wisconsin: a lot of condiments, salsas and sauces with a “homemade” or cottage industry feel. The difference was that the Nelson Farms facility was not rented out to small processors.

Instead a small staff used equipment (which was moderately larger and more specialized than you would find in most Wisconsin incubators) to make products on behalf entrepreneurs.

In a long conversation with the Director of Nelson Farms, Dave Evans, we learned more about the connection and cooperation between his facility at Morrisville State College and the team at Cornell in Geneva. This collaboration across university boundaries was a worthwhile model, and while there we learned about a third facility called the Cornell Agriculture and Food Technology Park.

This third facility seemed to serve another type or scale of food entrepreneur. The companies who rented private space in this university-owned facility seemed to be well-beyond the start-up phase and yet they were not large enough yet to justify their own stand-alone facility.
facility really functioned as was a more traditional business incubator in the sense that each client was given their own space to rent and operate, as opposed to the food business incubators in Wisconsin in which small processors share space and equipment.

One of the biggest lessons that we took from New York was a vision of a network of distinct, disaggregated, university-based facilities that served a diverse set of clients within a hundred mile radius. Actually, the Food Research Lab in Geneva and Nelson Farms both claimed to serve customers from throughout the Northeastern United States and beyond.

However, several months after our visit we learned that Dave Evans had retired and that the administration at Morrisville State University was intent on cutting back entirely on its support of the co-packing service. At this time we do not know the status of that operation, but the news did throw some doubt on our ideas for including co-packing as part of a public or university-supported facility.

Food Innovation Center at Rutgers University

As mentioned above, by the fall of 2014 we had also begun to doubt the feasibility of securing any state or UW support for a food processing facility in Wisconsin at this time. Nevertheless we decided to proceed with plans to visit the Food Innovation Center about two hours south of the main campus of Rutgers University.

Mary Pat Carlson on our project staff had heard good things about the Center for years and had recently had long conversations with its Director Lou Cooperhouse. Accompanying Carlson on the trip was Dr. Renee Surdick of UW-Stout.
Carlson and Surdick came back from New Jersey very excited about the relevance of the Rutgers model for Wisconsin. According to Cooperhouse it is operating sustainably from modest public support at user fees. However it took five years to raise the funds for construction and in the meantime they began providing assistance to food processors statewide by providing technical assistance and access to a network of private facilities and specialists. (For a list of affiliated Center staff, see Appendix H.)

The 23,000 sq. ft. facility at Rutgers (see Box 16) serves four separate functions under one roof, with rooms sectioned off to support cold process, hot process, dry process and cold assembly. Space in the facility can be rented by entrepreneurs and there is Center staff on site to provide technical training on the equipment.

In an interesting twist, they also rent the facility to co-packers who come in and process products for other businesses. This distances the university from “entanglement” with a traditionally private sector function that we saw at Nelson Farms.

Photos from the Rutgers visit are presented in Appendix I, and we also have a video that is available upon request of a presentation that Cooperhouse gave to our team about the Food Innovation Center. Also, the Center’s website presently contains substantial information for any other state looking to replicate their model.

**OPI Focus Group Interviews**

Finally, our last project report subject before turning to our recommendations involves the focus group interview that was designed by Dr. Jenifer Buckley of the Organic Processing Institute and conducted in September 2014 in Milwaukee.

As mentioned earlier, Buckley had provided our project with valuable guidance earlier in the project that supported our qualitative analysis of both our open-ended survey questions and the result of FEDN food hub interviews.

The quality of the OPI research was exceptional. The results of the focus group interviews are presented in Attachment J, and they largely speak for themselves and deserve close attention. Nevertheless we will highlight a number of excerpts:

- Participants repeatedly indicated a need for information resources, technical assistance (including assistance with marketing), logistics, coordination services, and mentoring.
- They indicated difficulties locating facilities to accommodate a diversity of specialized production needs. These included organic, gluten-free, and allergen-free production; wet and dry processes; and new technologies such as aseptic packaging and high-pressure
pasteurization. A facility with differentiated production capabilities would help fill this gap.

- Other desired features included a receiving dock, ingredient and supply storage, warehousing, and a business center.
- Participants indicated interest in a facility that provided expert guidance on complying with regulations, including labeling requirements.
- Participants who were developing their own processing facilities expressed a need for expertise on the practicalities of manufacturing, such as managing scale of production, selecting equipment, improving efficiency, and establishing best practices.
- Laboratory services, such as formula development, shelf life testing, and nutritional analysis, are offered by a variety of public and private sources, and pricing is variable. Participants expressed the need for help in navigating these services.
- Most participants indicated little familiarity with HACCP plans, recall plans, and traceability systems.
- Discussion returned repeatedly to participant interest in coordinating purchases of ingredients and packages; printing; distribution and shipping; and demos at retail outlets.
- Participants also indicated a need for assistance at different stages of their business enterprise development to find and assess financing options.
- There was more consensus on the need for information resources, technical assistance, and coordination services as detailed above.

**Final Report Recommendations**

Contrary to the preceding content, we will keep our recommendations brief. As explained we determined last fall that the time was far from ripe to propose a new facility in Wisconsin that would depend on any new funds from state government or University of Wisconsin as match in an EDA construction grant.

Had the promising partnership last summer with MATC continued to flourish, we were prepared to put remaining project resources behind supporting their construction grant proposal to EDA in early 2015. Nevertheless we have by no means given up on a future partnership with MATC and FaB Wisconsin.

Moreover we continue to believe that Milwaukee needs and deserves not only “food business incubator” on par with many other areas of the state, but for many reasons the city would an excellent location for a specialized facility that could support R&D related to food products that tap into the growing demand for healthier food options, including fruit and vegetable-based products as well as organic and gluten-free foods.

However in following the Rutgers model, we believe there is no reason to wait until financing is secured and new buildings are built and equipped. What we envision and recommend is the
formal establishment of a network of public and private partners who are committed work together to support innovation in Wisconsin’s food processing sector.

The preliminary recommendations that we are making to support innovation in Wisconsin’s food processing center include the following five actions.

1. Establish an enhanced network of personnel at academic institutions, public agencies, non-profit organizations and for-profit companies who are committed to collaboration in support of innovation in Wisconsin’s food processing industry.
2. Identify regional Food Innovation Sites in Menomonie, Madison and Milwaukee that include facilities to support research and development for new food products.
3. Integrate into the network Food Business Incubators that commit to providing quality technical assistance and support to their clients.
4. Utilize video communication to link specialists, consultants and companies as a way of making the most of existing resources and shrinking the distance between them.
5. Develop protocols and procedures that ensure the highest quality technical support for food product development, new business formation and expansion.
6. Continue planning a new facility in Milwaukee that offers expertise and equipment for developing products that target the growing consumer demand for healthier food options.

Our approach to developing these recommendations involved a series of iterative conversations with project partners from January through March of 2015. In terms of naming the “enhanced network” we floated a number of possibilities and finally settled on suggesting “Wisconsin Food Innovation Partners.” However we are not attached to these words or to the logo above. Like the other graphics and language presented below, it is offered as a starting point for further discussion.

One early design of a conceptual rendition of how an innovation network might work is presented in Box 17 below. In this graphic we emphasized the distinct role of people (i.e., expertise) and facilities in supporting innovation that leads to job growth. After receiving extensive and constructive feedback from project partner Cate Ramlow at the Wisconsin Economic Development Corporation, we developed a new design that focuses attention on the “client” of a proposed network and how their needs could be met with support from specialists.
and consultants via “virtual support” (telephone, email, websites, video, etc.) and disaggregated facilities located throughout the state.

The graphic in Box 18 (next page) represents the journey of a food processor from the conception of an idea or the identification of a problem through each stage of support that the enhanced network might offer. The blue and green steps both represent the capacity of participating “Partners.”

For instance, individuals at some of the Small Business Development Centers of UW Extension who commit to supporting food processors could be represented in the blue stages associated with 1-on-1 technical assistance and business planning. But private consultants offering the same service could also fall under those “virtual” components.

The three green stages represent Partner capacity involving food processing facilities. For example, the Discover Center at UW-Stout could provide lab services and sensory testing; a Food Business Incubator can provide an affordable option for small-scale production while testing the market for a product; a small, for-profit co-packing facility could save an entrepreneur the time of production so they could focus on marketing.
The orange stages in Box 18 (above) are attempt to show the client operating in a private facility that is not part of the formal network. It is at this stage that expansion and job growth would occur.

Another graphic we developed early in 2015 is presented in Box 19 (below.) This outline map of Wisconsin fill with a “Wordle” of organizational names is intended to promote a conversation about some of the public, university and non-profit organizations that might be persuaded to join and develop an enhanced network to support innovation.
Most of the entities that appear in the Wordle map above were partners in our EDA planning project. However we do not mean to imply that they have agreed to join a new partnership. Nor is it meant to be a permanent or exhaustive list. While for-profit consultants and co-packers are not included in Box 19 (above), they could certainly be added.
In Box 20 (above) we highlight just three types of facilities in a proposed statewide system: Food Product Development sites that support R&D; Food Business Incubators that provide technical assistance to clients who rent out their commercial kitchens on an hourly basis; and a select set of private co-packers.

The various locations are connected by video communication as indicated by the camera icon. One-on-one and multi-party video communication has become increasingly affordable and accessible thanks to fiber optics and web-based tool like Google Hangout and Skype.

One of our recommendations is to take full advantage of these technologies to enable established food companies and incubator clients to link with experts on the campus and across the network of partners across the state.

Two existing R&D facilities included in Box 20 are UW-Stout and UW-Madison. In the case of Milwaukee we present a vision of a third Food Product Development site that would be supported by local partners, like Food & Beverage (FaB) Wisconsin, the Urban Economic Development Association (UEDA) and universities and colleges participating in the Institute for Urban Agriculture and Nutrition (IUAN).

The IUAN was established in the spring of 2013 by the agreement of chancellors and presidents of seven academic institutions in Milwaukee and Madison and by leaders of two prominent community organizations and the Mayor of Milwaukee. Representatives of these ten entities have been meeting twice per month for three years and are close to forming a new legal structure to direct and manage the collaboration.

The IUAN is described on its website as a “coalition of universities, community organizations, businesses, and public agencies advancing the principles and practices of sustainable urban agriculture, healthy nutrition practices, and economic development through innovative collaboration.”

The long list of anticipated activities of the IUAN includes:

- Promote collaborative research.
- Develop programs and infrastructure related to sustainable urban food systems.
- Foster healthy nutrition practices.
- Catalyze partnerships to secure funding.
- Enhance resources and build the capacity of the Milwaukee food community.
- Foster and support the development and implementation of a research agenda that supports a collective food agenda.
- Use its collective voice to provide leadership in instruction and training.
- Expand the general public knowledge of a healthy food system.
- Networking, and building relationships.

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4 IUAN website: [http://iuanmilwaukee.org](http://iuanmilwaukee.org).
• Disseminate, and demonstrate and facilitate technology transfer.
• Address policy and economic issues in Milwaukee’s food system (i.e. issues of corporate power imbalances)

While food processing is not explicitly mentioned, it has been factored into discussions from the beginning. Furthermore there are two strong reasons that we have proposed the IUAN as a unifying entity for food processing R&D in Milwaukee. One is that no single academic institution in the city is well positioned to support innovation in food processing on its own.

While MATC has taken an important lead, their planned facility at 9th and National on the near South Side will be focused on job training. They may also support entrepreneurship, but it is unlikely they will have the staff to fully support product development. In fact, to our knowledge there is currently limited academic capacity in Milwaukee that compares to the food science staff at UW-Stout and UW-Madison.

Until food science staff is added, a Food Innovation Site in Milwaukee may have to rely on Madison and Stout for that expertise. However there is tremendous capacity across at the Milwaukee-based schools in IUAN that can support business planning, market analysis, engineering and especially the field of nutrition.

It is the IUAN’s strong emphasis on nutrition that provides a second reason for our recommendation to attach a Food Innovation Site to that new Institute in Milwaukee. We agree with our EDA project advisors that there is not adequate support for companies in Wisconsin that serve the rising consumer demand for healthier food options like fruit- and vegetable-based products as well as organic and gluten-free foods.

The IUAN is particularly strong in the area of nutrition, and we believe there will be opportunities to secure grants as well as corporate and foundation support to advance the development of new products and new companies that can simultaneously turn a profit while promoting public health.

***

This concludes our official report to the EDA for the Wisconsin Food Innovation Facility Opportunity Analysis. We invite anyone to join us in improving and implementing the vision that we have loosely outlined above.