

Partners and Friends of Food21,

Food21 began in 2018 with the ambitious task of making our region's food economy more resilient and sustainable. Our partners throughout the region are the key to the progress we have achieved and our foundation for the future. We are pleased to report to you on our progress and to highlight our diverse portfolio of initiatives underway in 2022.



As we work to build a resilient food ecosystem, we rely on three powerful principles to guide each of our efforts: ***innovation, collaboration, and inclusion.***

We have organized this report to highlight how these principles form the unique foundation for our work and how we: (1) focus on providing innovative solutions to address the challenges and leverage the opportunities in the region; (2) collaborate across industries, communities, and business sectors; and (3) are inclusive in the methods we use, the constituents we serve, and the partners we engage.

We are grateful for your support and willingness to join us on this important journey as we continue to focus on the six core pillars of our work.

1. Expanding jobs and economic opportunities in the food economy
2. Creating sustainability through the application of clean and cost-effective energy
3. Achieving broad participation in the food economy
4. Being environmentally responsible in the production and processing of food
5. Advocating for health and well-being through nutritional food
6. Producing financial sustainability through regular market exchanges

As we reach the mid-point of our fourth full year, much has been accomplished, and much more is still in front of us. Challenges and opportunities have marked these years, but through it all, we have found a community of dedicated leaders and experts who have shared in the journey.

We invite you to continue to be part of this effort.

*Thank you for your continued support and partnership
Dr. Audrey J. Murrell, Chair and Co-founder, Food21*

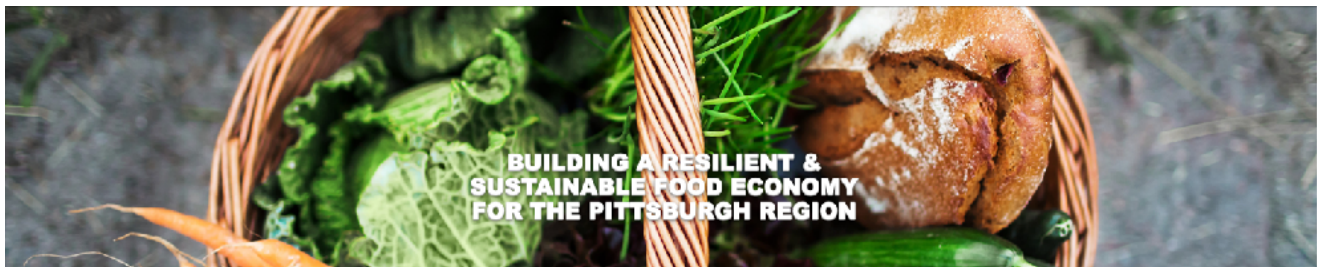


MID-YEAR PROGRESS REPORT

August 2022

Building Resilience and Sustainability Through Innovation

Demonstrating innovation through market-driven solutions can point to practical ways to solve some of our most complex problems in the food economy. *Farm to Tap* addresses building a value chain and, in turn, increasing farm financial sustainability in an environmentally sound way. *Oasis Grocery Direct* creates a scalable answer to the lack of full-service grocery and food access in some of our most isolated communities.



FARM TO TAP

A core finding in our work has been overcoming the lack of real value chains that connect our food communities – from growers and producers to end markets and consumers. In 2020, we began to prove the case for bringing locally grown and processed ingredients into the food and beverage sector. Our research found that emerging craft beer and spirits makers were one of the fastest growing and most dynamic groups of businesses. Often referred to as “craft” manufacturers, this group has gone from a small number of makers into a multi-billion dollar industry. But despite this growth, the craft beer segment uses almost no ingredients grown, harvested, and processed locally. Chief among this group is malt – a product made from barley.



In less than two years, we went from an exciting idea to on-farm production to processed malt for sale in our region’s beer-making community. This year, we are in our second season of planting, growing, harvesting, and processing high-quality local malt. By starting with 50 acres in 2021, the project has demonstrated that the impact of this pilot effort represents approximately \$17 million in craft beer sales annually.

Our research this year resulted in identifying over 80 local craft breweries. Interviewing their brew masters, nearly half of these businesses expressed a strong interest in using and promoting local malt in their brewing program.

This effort has now received the support of Pennsylvania’s Liquor Control Board. Starting next year, the project will transition to establishing a brand – *Allegheny Mountain Malt* – and become a standard ingredient in our local beer-making community. Large, mid-sized, and small breweries will all become part of this effort.



In addition, by using the recommended growing season of planting the barley in the winter cycle, local farmers will now be able to grow barley – once a relatively underused grain just for cover crops and no-till farming – into a new revenue source while leaving those farms free to continue to plant and manage their spring and summer seasons as they were before. By the end of 2023, we anticipate that *Allegheny Mountain Malt* will grow on well over 200 hundred acres of our region’s farmland and generate additional revenue for all participating farms.

OASIS GROCERY DIRECT

Amid the COVID-19 global pandemic, Food21 wanted to find ways to overcome the barriers facing communities that did not have ready access to traditional grocery stores and supermarkets. Beyond “food deserts,” the growing number of food insecure communities in the region has been growing.

There are many areas in our region where the population density does not support a full-service supermarket. From 2020 to now, we conducted meetings in these communities and assessed the actual cost of food purchases where income, transportation, and other barriers reduce the purchasing power of households. Our research concluded that there is, in effect, a “poor tax” that minimizes the grocer dollar’s purchasing power by as much as 25%.

Food21 partnered with a leading innovator in supply chain management and online solutions, Azoti, Inc., to design a solution that would strengthen communities in these areas, empower their local organizations and ensure that a scalable solution that would bring affordable groceries – food as well as non-food items – to them while increasing their purchasing power. The innovation, *Oasis Grocery Direct*, is now entering the pilot phase of the effort. The concept takes control of online grocery ordering and links it to local organizations that will serve as Pick up Points (PuPs).

Food21 will provide the last mile support and, recruit these locations, support the PuP managers, while *Oasis Grocery Direct* will manage an online platform and supply chain



OASIS GROCERY

DIRECT-TO-NEIGHBORHOOD

managers, while *Oasis Grocery Direct* will manage an online platform and supply chain program.

By early 2023, the *Oasis* solution will be in place in communities including the greater Pittsburgh area, Columbus, OH, and Akron/Cleveland, OH. The platform is vetted and ready for launch. Work is underway to partner with established grocery chains and distributors and introduces local and hyper-local products that can come to consumers through a trusted community organization such as a church or social service agency. The model is designed to provide a full-store experience and is scalable.

BUILDING RESILIENCE AND SUSTAINABILITY THROUGH COLLABORATION

One team member likes to say, “many hands make light work.” Building ways to bring our diverse community of food enterprises, investors, community leaders, and government together is critical to moving us all forward. The food economy is uniquely suited for work that re-imagines how to connect existing assets and make them work together to achieve a more significant result than they can apart.

The **Food & Beverage** network aligns businesses of all sizes and shapes to find common ground and opportunities. The work

in the **Larimer** community to build community assets around food unites residents with their local institutions and businesses to see the transformative power of food in neighborhood revitalization.

PITTSBURGH FOOD & BEVERAGE NETWORK



From a small group of local food and beverage businesses in 2017, Food21 has supported the establishment of the region's first all-inclusive food and beverage trade association. Dubbed the "Food and Beverage network" (FaB), we have helped bring together 200 businesses in this sector over the past three years. The members include local makers, distributors, restaurants and caterers, and the businesses that support them with technical help and critical services.

In 2022, FaB has turned a corner and developed a firm position in the region as a convener and resource for member businesses and an on-ramp for new and emerging food businesses.

Starting in 2021, Food21 supported and worked with *Catapult of Greater Pittsburgh* to launch their first Black-owned business development platform. Members exchange ideas, resources, and business opportunities by bringing this diverse community together and looking forward as the network grows, builds even more shared resources, and establishes a united voice for the food makers and servers in our region.

LARIMER FRESH & NEIGHBORHOOD FOOD DISTRICT

Food21 believes that food can play a central role in revitalizing our neighborhoods. In 2018, we started meeting with the community leadership of the Larimer neighborhood, located on Pittsburgh's East End. Over the last several decades, it has seen a significant loss in population and critical neighborhood amenities – particularly the loss of its once thriving commercial district.

Food 21 evaluated how a food-centered approach could substantially contribute to the revitalization and future of this historic community. Currently, we are engaged as the developer of a repurposed space, the former auditorium, and gym of Larimer School. The school itself is being purposed for rental housing. An agreement was reached between the community and the Urban Redevelopment Authority to turn this space into a fully equipped event center as well as a resource for bringing prepared foods into the area.

Larimer Celebration Hall will enable families and community members to have a first-class catering center for celebration events of all types. It will also showcase catering businesses that work and operate in the East End of Pittsburgh.



In addition, it will provide a demonstration kitchen and a resource to area schools and organizations and advance opportunities for fellowship around food-based events. This year, we focused on developing high-impact projects that tackled food, health, and jobs by partnering with *Flourishing Communities*, a newly formed, faith-based development organization. The objective is to build the prototype of a community-based greenhouse and green grocery on the main avenue of the community. Future projects will also target ways to advance local culinary businesses and introduce food producers and small manufacturers within this revitalizing corridor.

BUILDING RESILIENCE AND SUSTAINABILITY THROUGH INCLUSION

Food21 recognized from inception that integrating the existing resources and assets to increase the regional food economy would fall short if the critical infrastructure was not also addressed.

This year two examples stand out. First, we are working with an experienced local developer in the historic Hill District to launch the region's first Afro-centric food hall, *Smoketown, at Sankofa Square*. Secondly, we are working to establish a waste management solution for our dairy farms while at the same time bringing renewable energy back to our entire economy.

The *Air Liquide* anaerobic digester plant, located in Indiana County, will convert animal waste into revenue for our farmers and energy for our communities.

Smoketown At Sankofa Square

This joint venture between Sankofa Development and Food21. Currently, in the final stages of design and approvals before construction, the project will establish the region's first Afro-centric culinary experience. The 32,000 of the building will cost approximately \$15 million, with the Smoketown space's build-out costing roughly \$3 million.



Smoketown, named after the historical reference to Pittsburgh, was given to it by reporters at the *Pittsburgh Courier* when it opened by providing a food launch site for upwards of six food concepts that represent the broadest possible range of the Black food experience. It will also host a live stage for acoustic and spoken word and an event and executive conference center with a commanding view of downtown Pittsburgh.

Food21 has taken this project through design and is waiting on the developer to finalize the pre-construction phase. We anticipate that construction will begin by January 2023 and come on line by the beginning of 2024. This project will create 50 jobs for the 6 participants in each cohort, as well as annual direct sales of \$300,000 per cohort participant and \$1 million in bar and event sales. We project sales from Smoketown to be approximately \$2.8 million at total capacity.

Farm To Energy

From the beginning, Food21 has understood the intersection of energy and food. Food is one of the most significant contributors to climate change. The ability to capture reoccurring manure waste in local agriculture has always represented a lost opportunity for the farmers and an untapped potential for renewable energy for the region. In 2021, we began working closely with a private and public team that would close the energy-waste loop for our local farmers. The initial focus was on the region's dairy farms – a critical asset in our area. Organic waste (manure) is never ending in the dairy farm, and farmers must store it and find ways to reuse it for soil nutrients. But this is expensive for the farmer and represents a high cost. Beyond that, it wastes the naturally generated methane gas. Over the last two years, we played a vital role in launching the region's first community-based large-scale anaerobic digester that the waste could sustain that dairy farms are generating.

This year we completed the pre-construction phase of this project in partnership with *Gruppo Technologie* and with the full support and collaboration of the state of Pennsylvania and Indiana County. This major infrastructure project, a \$27 million investment, will be owned by *Air Liquide* and managed locally. It requires the participation of over 20 dairy farms with a combined herd of more than 5,000 cows.

Besides extracting and cleaning the methane, which will be sold to Peoples Gas, participating farmers will divide nearly \$1,000,000 of additional annual income. The processing also sends back to farms the dry bedding and the extracted fluids used to fertilize their croplands and reduce operating costs.

Air Liquide views this as the first of many in the region, which was made primarily because of our efforts to connect the farmers to this renewable energy platform.

IN THE FUTURE

When Food21 began our journey in 2018, we were a small group of folks with a shared vision. Today our community has grown. We have 21 active senior advisors and experts in their fields.

Our F&B network has nearly 200 business members. We have more than 30 partner organizations and operational initiatives in rural and urban communities throughout the Pittsburgh region and beyond. We have begun to look at programs that can be extended throughout our region's food shed, an area that goes from the greater Pittsburgh region to western Ohio.

We have built this platform on a foundation of innovation, collaboration, and inclusion. But if we have learned anything, it is that there is always room for more who share the vision of a food system that is both resilient and sustainable. We cherish this network and urge you to help us grow it in size and strength.



Thank you to all of our partners, advisors, and funders. Our progress and achievements are enhanced by the involvement and support of regional organizations that share a commitment to improving the food economy.

ATK Design

Azoti, Inc. and Oasis Grocery Direct

Bidwell Training Center

Blackberry Meadow Farm

Brooks Branding

Catapult of Greater Pittsburgh

CNC Malting

Community Forge

Community Kitchen of Pittsburgh

Cushman & Wakefield

5 Generation Bakery

Greater Pittsburgh Community Food Bank

Gruppo Technologie

Henry J. Simonds Foundation

Honors College, University of Pittsburgh

Katherine McKenna Foundation

Larimer Consensus Group

Larimer Flourishing Communities &

Lone Pine Farm

Market District Division, Giant Eagle

Moss Architects

Neighborhood Allies

Peoples Gas/Essential

Sankofa Development Group

Six Mount Zion Missionary Baptist

The David Berg Center, College of Business Administration, University of Pittsburgh

The Massaro Center for Sustainability, School of Engineering, University of Pittsburgh

Urban Redevelopment Authority

Western Pennsylvania Data Center



BARRY KUKOVICH STEPPING DOWN

Co-founder of Food21, Barry Kukovich is stepping down from the Board of Food21 this month. His energy and insights have been a central part of the success of our work. Barry brought the idea of developing a shared approach to energy and food to Peoples Gas in 2017 after learning about the food revolution in the Netherlands which applied the power of natural gas to support year-round agriculture. Projects. That insight has led to the Dutch being a leader in food and energy technology. Food21 was launched after a white paper was written for Peoples Gas in 2018 on the need to develop a resilient and sustainable food economy for Pittsburgh. Barry's humor and unique perspective have been a part of Food21 ever since. While Peoples Gas will continue as an important corporate partner in our work, Barry will never be far from our thoughts.