

**SODEXO & ASHOKA**

# REIMAGINING FOOD SUSTAINABILITY



QUALITY OF LIFE SERVICES



ASHOKA



# Introduction and Contents

In January 2017, Ashoka and Sodexo joined efforts to explore what a more sustainable food system could look like in the UK and Ireland. A key part and first stage of this project was to map the innovations that are standing out in the food system, and what trends and drivers are occurring in the social innovation landscape. The mapping presented in the following pages helps construct the roadmap for our engagement, which will culminate in electing a “Stop Hunger” Ashoka Fellow. This is a tool to identify innovative approaches, while co-creating with key stakeholders in the Ashoka and Sodexo networks. We aim to highlight the social innovators already transforming the food system across the UK and Ireland, as well as those that have the potential to do so in the coming years.

Ashoka’s Innovation Mapping is an invitation to reimagine what is possible through the eyes of social entrepreneurs.

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# 1. Mapping a more sustainable food system: Context and framing

The global food system is beset by serious challenges and risks. There is little doubt that producing enough food without doing irreparable damage to biodiversity and to our health is one of the greatest challenges our global community faces. The threats of climate change, decreasing fossil fuel supplies and deteriorating ecosystems are compounded with income-based nutrition and health disparities. Within this framework lies another paradox: whilst millions of people starve, other countries face public health crises through diseases such as obesity and diabetes.

These global challenges are political, cross-sectoral and endemic. The global food system needs to be redesigned to meet the challenge of feeding the growing population. For that purpose, Ashoka and Sodexo are partnering to identify innovative approaches that can help Sodexo in their Stop Hunger mission. Our work together aims to foster co-creation between key stakeholders in the Ashoka and Sodexo networks.

In this way, the mapping to be found in the following pages highlights the work of 30 social innovators who are already transforming the food system across the UK and Ireland.

How can we shape a food system that allows us to feed the population in a sustainable way for generations to come?

Innovations that cut across social outcomes and business interests fall along each stage of the supply chain from production to distribution and ultimately consumption. In order for a food system to be sustainable, practices and activities must merge across each of these steps, including sustainable production, waste-less distribution and informed consumption.



The food system is broken. Opaque supply chains, inefficient production and distribution systems, and lack of clarity and awareness with regards to what a healthy and sustainable diet is, has resulted in unsustainable production, distribution and consumption.

According to the Square Meal report published by the The Food Research Collaboration:

**33%** of under 18 year olds in the UK are overweight or obese.

**913,138** people in crisis across the UK were provided with three days of emergency food in 2016 (by the Trussell Trust alone). The issue of food insecurity – when people do not have sufficient food to eat (or are concerned that they may not do so in the future) – has been brought to the fore of public and policy debate as it underlies the recent rapid growth in the use of emergency food provisioning in the UK. In particular, the rapid expansion of foodbank networks in the UK has raised concerns that food insecurity is an emerging public health emergency.

**75%** of the protein fed to our livestock in the EU is imported.

**25%** of all UK farmers live in poverty.

In order to combat these myriad and complex challenges, social innovation cuts across sectors, improving business structures, mobilising and convening communities, and driving technology towards sustainable alternatives to the status quo. The innovations below improve health and tackle food poverty to ensure fair food supply chains in line with resilient sustainable farming practices that respect and protect the natural environment. Building a more just and sustainable food system requires changes at different levels, from our day-to-day eating choices to global institutional arrangements and from food producers and consumers to policy makers and academics.

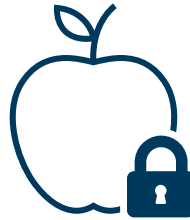
From over 150 innovative solutions three clear areas of intervention emerge: food security, nutrition poverty and sustainable livelihoods. Underscoring all of the mapping is environmental sustainability. All three intervention areas require food systems to achieve greater resilience and major reductions in environmental impact. Environmental depletion is a fundamental root cause of the problem; therefore, most of the innovations presented here are working, in one way or another, towards achieving higher environmental sustainability.

## 2. Intervention areas and trends spotted



### Sustainable livelihoods

The business case for sustainable farming is increasingly under threat. What interventions and market drivers promote the capabilities, assets and activities of those who produce food sustainably? How can those who produce our food be put at the front and centre of the solution?



### Food security

In the context of decreasing biodiversity and the world's growing population, what innovations are out there to diversify supply chains and alternative sources of food to build more resilient food systems? What are the alternative sources for safe, nutritious and affordable food, using less land and lower inputs?

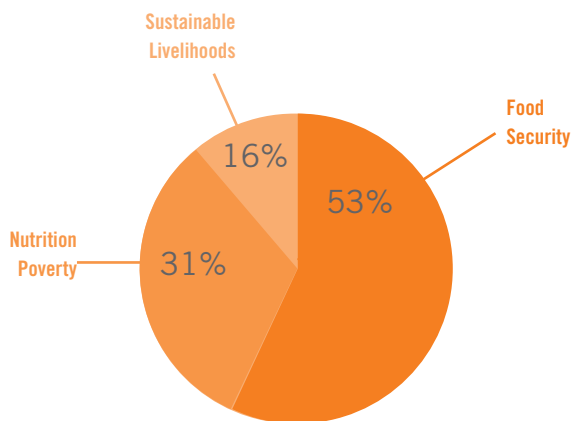


### Nutrition poverty

The world has never produced so much food and yet affordability, access and psychosocial factors prevent equitable production, distribution and consumption. Food poverty is a complex issue and does not only affect dietary intake but also has implications for lifestyle, social interaction and, importantly, health status. How can communities mobilise limited resources to tackle these issues at the

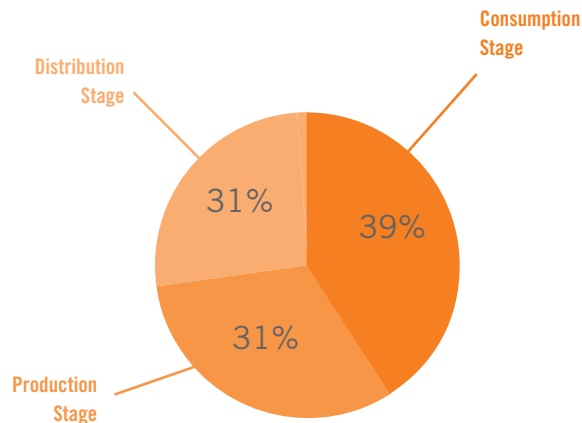
By examining the innovations presented in the mapping, we found that more than half (53%) of the ventures are working in increasing food security. This was followed by 31% of innovations focused on tackling nutrition poverty, while sustainable livelihoods is the area where we spotted less innovations, with only 8 ventures focusing their work on that. However, it is worth flagging that increased food security was usually not the initial focus of the ventures but a secondary impact, as will be shown in the innovations listed in pages 7 to 26.

In terms of the stages of the supply chain where innovations are focused, this is more evenly distributed, with 39% of the ventures working with consumers, 31% with producers, and 31% working on the distribution stage of the supply chain.



More interesting is to examine the links between the areas of social impact and the intervention points across the supply chain. Most of the initiatives focusing on nutrition poverty target the consumption stage (56% among those working on nutrition poverty). When it comes to food security, however, the focus is evenly spread through all three stages of the supply chain.

In terms of sustainable livelihoods and its correlation to the different stages of the supply chain, while the total number was relatively small to make strong assumptions, all innovations focused either on the production or consumption stages, as they are either working with producers to help them become more competitive (push) or changing consumer behaviour to increase demand for local and sustainable products (pull).



### 3. Who are the Innovators changing the system?

After reviewing a pipeline of 150 innovations in the food sector, the Ashoka UK team has chosen to showcase the 30 named below in this mapping around sustainable food systems. The innovations listed below have stood out to us because of the way they are approaching the challenges of the current food system in an innovative way or, in some of cases, for their potential scalability and impact.

The index below shows the 30 ventures listed alphabetically. The 10 ventures matched to a **green circle ●** are explained in depth, and have been chosen as the most significant examples of innovation and how this can integrate with the supply chain. These 10 ventures also include a box a suggestion for how Sodexo can engage with the person behind the venture, as we expect to select among those 10 the five ventures that Sodexo will meet in the event taking place on June 1st. For the remaining 20 only an overview is provided, and these have been matched to a **yellow circle ●** in the index.

All 30 innovations are placed within one of the three intervention areas described above (sustainable livelihoods, food security and nutrition poverty), as well as within one or several stages of the supply chain (production, distribution, consumption). After the individual overviews, all 30 innovations are placed in the visual map in page 27, which showcases where each of them fall within the supply chain and the intervention areas.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×



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# Sustainable Food Trust

**Name:** Patrick Holden  
**Stage:** Established  
**Location:** Bristol, UK  
**Founded:** February 2012

Patrick Holden founded the Sustainable Food Trust (SFT) aiming to catalyse the transition towards a more sustainable global food system. As CEO of the Soil Association - the UK's biggest organic food organisation - and a practicing farmer, Patrick was a pioneer of the organic food market in the UK more than 30 years ago. Realising that he was part of a polarised debate that left farmers and consumers limited choice between 'good' - sustainable - or 'bad - unsustainable - production and consumption, he is now building a cross-industry coalition that designs and introduces a more inclusive approach that enables sustainable farming and food systems to become mainstream. The SFT team works across three levels, creating tools that incentivise sustainable farming and consumption practices: industry, consumer and policy. Through engagement with influencers on all three levels, SFT is able to: make the business case for farmers to produce more sustainably; educate consumers and retailers, ensuring they purchase sustainable goods; and promoting policy change through evidence-based research. Patrick's approach builds on the principle

of True-Cost-Accounting, which demonstrates how food that is seemingly cheap actually comes at a huge cost to the environment, animal welfare, and public health. This approach allows the SFT to remain a small organisation that educates, influences, and empowers other organisations to implement change. This enables Patrick to work between and within organisations, convening dialogues between stakeholders and maintaining a strategic focus on topics with the potential to catalyse change across the food industry.

## IMPACT

- Patrick has convened some of the most influential stakeholder gatherings in the UK and the US over the last four years, influencing and advising industry players across sectors (eg. WholeFoods, Mars, YUM! Brands and Kaiser Permanente, Sainsbury's, Nestle, Unilever).

## ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	●

AREA OF IMPACT		
Production	Distribution	Consumption
		✗



# Feedback

**Name:** Tristam Stuart  
**Stage:** Established  
**Location:** London, UK  
**Founded:** 2011

Feedback is triggering a global movement to significantly reduce food waste, which currently amounts to one-third of all food being wasted at a global level. Through engagement with every stakeholder in the value chain, from farmers to supermarkets, policy-makers and consumers, Feedback is creating a series of powerful levers to shift markets and change the food system. Feedback was founded in 2009 to mobilise public understanding and support to end food waste. The Feedback team is working to relax cosmetic standards in supermarkets and EU policy, drawing together pools of volunteers to harvest surplus food across the UK and the EU. They have also engaged major UK supermarkets who are now committed to publicly disclose their food wastage figures. Feedback is also working at the policy level, raising the issue of food waste in the government agenda and aiming to change EU policy, allowing food waste to be converted into animal feed. Feedback galvanizes public action by engaging communities and holding successful 'Feeding the 5000' events. At a systemic




scale, Feedback also offers expert advice and recommendations to international institutions (UN, European Commission), politicians, and decision-makers in the food industry.



**IMPACT**

- Feedback has delivered over 40 food waste feast events worldwide, as well as launching two other campaigns - the Pig Idea and the Gleaning Network.
- The Gleaning Network has managed to save over 142 tonnes of food that would have otherwise been wasted, engaging over 8,000 volunteers and expanding across the UK and Europe.
- Feedback was instrumental in persuading Tesco to become the world's first retailer that commits to publicly reporting their audited food.

## ENGAGE WITH THIS PERSON AS:

- Thought Leader 
- Charitable Giving 
- Supply Chain Innovation 

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
		

AREA OF IMPACT		
Production	Distribution	Consumption
		



# Incredible Edible

**Name:** Pam Warhurst

**Stage:** Established

**Location:** Todmorden, Yorkshire, UK

**Founded:** February 2008

Incredible Edible re-imagines public spaces and the way people perceive their environment and their food. Pam Warhurst is dedicated to growing food locally by planting on unused land throughout the community. Starting as a community project across Todmorden in 2008, the group began planting herb gardens on public land. The core aim is to change the way people perceive and live in their environment and to promote growing and eating local food - ideally to the point of self-sustainability. The produce is often there for the public to take, in other cases it is given to local whole food shops or markets. All the projects are completely volunteer based. Incredibly Edible also aims to influence local governments, city planners and schools, creating databases of open space for planting and paving the way for a new way of living in which green spaces are used. Incredible Edible is getting people involved, creating informed awareness of

community issues and solutions and facilitating a local market for food. Pam's work creates new low-barrier education opportunities and jobs around eco-human development and reaches a significant cost reduction for city administrations through the change in greening and caretaking concepts for public spaces – a key selling point to cities, which face ever more restricted budgets.

## IMPACT

- The UK network alone has more than 60 independent groups.
- The Incredible Edible ethos has been taken up by communities all over the world, with more than 700 official groups worldwide.

## ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

AREA OF IMPACT		
Production	Distribution	Consumption
		✗



## Zero Carbon Food

**Name:** Richard Ballard & Steven Dring

**Stage:** Early

**Location:** Wandsworth, London, UK

**Founded:** 2012

Zero Carbon Food is a commercial venture that utilises underground redundant spaces to produce leafy greens, herbs and micro-greens, using LED lights and a hydroponics system. Hydroponics is a subset of hydroculture, which is the growing of plants in a soil-less medium or an aquatic based environment. Hydroponic growing uses mineral nutrient solutions to feed the plants in water without the need for soil, meaning that production is not limited by climate or season. Zero Carbon Food's growing technique uses 70% less water than traditional systems, and less energy than a typical greenhouse by sourcing clean energy locally. Rather than bringing consumers to where the food is, Zero Carbon Food reduces food miles for retailers and consumers by growing the food where the consumer is. The food, which is grown free from pesticides, is sold to restaurants, wholesalers and through a consumer-facing brand called Growing

Underground. At-scale alternative food-production models like Zero Carbon Food could feasibly reduce the destructive impacts of industrial farming as these solutions save oil, water and phosphorus resources and avoid CO2 emissions.

### IMPACT

- Zero Carbon Food's pesticide-free crops reach markets within 4 hours of harvest, heavily reducing food miles for retailers and consumers.
- 70% less water usage compared to traditional open-field farming, with less energy use than a typical greenhouse.
- Ensuring local production, reducing dependencies, and increasing food security.

### ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

AREA OF IMPACT		
Production	Distribution	Consumption
×		



# Farmdrop

**Name:** Ben Pugh  
**Stage:** Early  
**Location:** London, UK  
**Founded:** 2012

Farmdrop is an online food delivery social enterprise that distributes food to consumers sourced directly from local farmers. They work with a click-to-harvest model: producers harvest only when the order has been placed, and eco-cars deliver it at the customer's home within 48 hours. The farmers, rather than retailers, receive 70-75% of the retail price reducing food waste, increasing the efficiency and making sustainable farming a viable business proposition. How does it work? Farmdrop 'Keepers' create and manage an online food marketplace for their local Farmdrop community. Keepers encourage 'Members' to join their Farmdrop and together place orders with a range of local producers (butchers, bakers, greengrocers, etc.) all via the Farmdrop website. Orders are sent through to the 'Producers', with all food delivered to and collected from one venue, at one time, organised by the keeper. Farmdrop operates with a demand pull vs. a supply push. Products don't enter the supply chain until the customer has indicated that they want

to buy them. This introduces significant savings, not only via less waste, but also because it avoids distribution of products that may sell slowly or not at all. All accredited producers are given a dedicated page on the Farmdrop website, an excellent way of gaining an online presence without the investment needed to build a website from scratch.

**IMPACT**

- They source food from producers from within 150 miles, High animal welfare, No air-freighted food (100% electric vans).
- Puts farmers at the centre, producers get 75% of the retail price.
- By requiring all food to be paid for in advance of delivery, the risk of arriving at a market with a van full of produce - only to discover inclement weather has kept shoppers at home, is eliminated.

## ENGAGE WITH THIS PERSON AS:

Thought Leader 

Charitable Giving 

Supply Chain Innovation 

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
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AREA OF IMPACT		
Production	Distribution	Consumption
	✕	



# FoodCloud

**Name:** Isuelt Ward & Aoibheann O'Brien

**Stage:** Established

**Location:** Dublin, Ireland

**Founded:** 2013

FoodCloud connects businesses with surplus food with local charities using an online platform and app. FoodCloud launched in October 2013 in Dublin City Centre, with one Tesco store, a few small food businesses and six partner charities and has since grown to have over 160 donors and 350 partner charities across Ireland and the UK. Stores across the world are throwing out perfectly good food every day and charities in their communities are struggling to feed those in need. This is a global problem, with 30% of food produced going to waste and 1 in 7 people suffering from food poverty. Retailers donate their surplus food through the platform to charities and create meaningful relationships within their communities through this shared food. FoodCloud is a not-for-profit social enterprise and funds its operations by charging retailers. Any additional revenue is reinvested in the

organisation. Their software platform uses cutting-edge technology to deliver a reliable, user-friendly and efficient service.

## IMPACT

- To date, they have partnered with over 100 retailers and food suppliers and have redistributed over 5,000 tonnes of food, which is the equivalent of 12 million meals.
- In their first two years, 150 retail stores signed up, including Aldi and Tesco, and over the last 4 months and additional 200 stores began donating enabling 750 charities across Ireland and the UK to received the equivalent of over 2.2 million meals.

## ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

AREA OF IMPACT		
Production	Distribution	Consumption
	✕	



## Future Farm Lab

**Name:** Abi Glencross  
**Stage:** Start Up  
**Location:** London, UK  
**Founded:** February 2015

Abi is a cellular agriculturalist driving research on tissue engineering and the production of cultured meat. She is one of a handful of researchers globally proving how technical innovation can help us leapfrog entrenched social and environmental problems such as animal welfare and climate change as well as food security. Her specific research focuses on creating thick muscle tissue to produce a steak. Cellular Agriculture is an academic discipline that focuses on the farming of agricultural products from cells rather than plants or animals. Her work outside the lab focuses on how alternative proteins can relieve the burden of livestock production on the current system to ensure that her product is an integral part of a sustainable farming system. She specialises in growing meat from cell cultures rather than plants or animals. Her work encourages people to question science and technology's role in food and farming. She is also the co-founder of the Future Farm Lab, which uses lab research, workshops and exhibitions to explore a more ethical future for farming. They conduct laboratory

research, run workshops experimenting with and educating on food; support and collaborate with conscious, inquisitive and agro-ecological groups within the food chain; and create thought provoking and engaging exhibitions to regain transparency and trust in our food system. Abi is also the founder of #OurField, a cereal co-operative in which a field of heritage grain in Hertfordshire is co-managed and owned by a group of 40 people.

### IMPACT

A 2011 study calculated that growing meat in labs would cut down on the land required to produce steaks, sausages and bacon by 99 percent and reduce the associated need for water by 90 percent. It also found that a pound of lab-created meat would produce much less polluting greenhouse-gas emissions than a pound of meat produced by cows, pigs, or poultry.

### ENGAGE WITH THIS PERSON AS:

Thought  
Leader



Charitable  
Giving



Supply Chain  
Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
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AREA OF IMPACT		
Production	Distribution	Consumption
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# The Dearman Engine Company

**Name:** Tobey Peters  
**Stage:** Start Up  
**Location:** Croyden, UK  
**Founded:** 2010

How society delivers clean and sustainable cooling systems is a major issue, given the global challenges of food scarcity, changing demographics and growing energy demand. Dearman is a 'clean cold' power refrigeration technology, fueled by liquid nitrogen engines. It reduces food waste and carbon emissions, thereby improving the efficiency and effectiveness of the food supply chain. The engine produces power like a petrol engine, with liquid nitrogen expanding to drive a single piston. Before the nitrogen gets to the engine, however, it has absorbed the heat of the refrigerated compartment through a heat exchanger. This latent heat changes the nitrogen into a gas without any increase in temperature. It is then injected into the cylinder to mix with a water-glycol fluid, which enables the gas to expand at a consistent and efficient rate, a feat previous attempts at liquid nitrogen engines have struggled with. Building cold chains in both the UK and developing countries would not only increase the food supply, but also help tackle poverty. Food

prices can be reduced for consumers, because if markets are better supplied, prices fall, and farmers' incomes increase, because more of what they produce can be sold rather than discarded.

## IMPACT

- Two-thirds of the world's food wastage happens in Asia and Africa, and these are also the regions where cold chain capacity is often rudimentary or non-existent.
- The International Institute of Refrigeration has estimated that if developing countries had the same level of cold chain as developed nations, they could save 200 million tonnes of perishable food each year.

## ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
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AREA OF IMPACT		
Production	Distribution	Consumption
	✕	



## Grow It Yourself

**Name:** Mick Kelly  
**Stage:** Established  
**Location:** Waterford, Ireland  
**Founded:** 2008

Michael Kelly founded the organisation “GIY (Grow it Yourself)” in 2008, a not-for-profit organisation which aims to inspire people to grow their own food and give them the skills they need to do so successfully. Michael is creating an international network of local Grow It Yourself (GIY) groups designed to provide a grassroots, tangible structure to the local food movement and spark new growers by capitalizing on the knowledge of mavens in the area. Through GIY, Michael is creating offline and online knowledge networks of engaged citizens. Michael compares his structure to that of Alcoholics Anonymous, envisioning GIY meetings available everywhere and offering a well-established open community in every town and city. Rather than relying on expensive courses or politically-driven agendas, GIY groups provide a place where neophytes can mingle with master gardeners to learn the tips and tricks of growing food from one another, offering a mechanism to create structure from fragmented local food initiatives. Michael has created an organisational model that facilitates viral spread. His program, offering free monthly meetings

consisting of group skill-sharing around gardening, focuses specifically around building community between participants, and works equally well in cities, villages, rural areas, or corporate settings. Tapping into social networking, Michael offers local groups opportunities to connect with others around the country, and has built a structure that allows painless adoption, offering mavens a platform and guiding local champions to launch branches in their own communities.

### IMPACT

- Currently fielding over 60 groups with roughly 5,000 members around Ireland within a year of the program’s inception, he also has citizens furthering expansion of the program in three other countries.
- The community has now more than 150,000 growers, and has launched more than 800 groups across 5 countries.

### ENGAGE WITH THIS PERSON AS:

Thought Leader



Charitable Giving



Supply Chain Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

AREA OF IMPACT		
Production	Distribution	Consumption
×		



## Bump Mark

**Name:** Solveiga Pakstaite

**Stage:** Start Up

**Location:** London, UK

**Founded:** 2014

Bump Mark is a prototype label that expires as food does, enabling consumers to more accurately know when food is expired. Current labeling ('best by,' or 'use by' dates) are often inaccurate and lead to massive amounts of food waste. Bump Mark uses gelatine as a "bio-reactive" layer that degrades at the same rate as the food inside the package. Prototypes for Pakstaite's invention appear on the corner of food packets as a modest triangle. It consists of a layered pod: on the bottom is a sheet of plastic with bumps on it, which is then topped with a gelatine solution and sealed. Gelatine, being an organic material, deteriorates at the same rate as the food that is in the packaging. The gelatine solution mimics the reaction of the food to changing temperatures. If it is kept in the cold, it will remain solid for longer whereas if it is put in warmer conditions such as a car boot or on a kitchen counter top, it will deteriorate quicker, just as a piece of meat would. The amount of gelatine used

in packaging reflects the expected lifespan of the food. Smaller amounts of gelatine deteriorate more quickly, so a piece of cooked chicken – which needs to be eaten within days – requires less gelatine than a piece of cheese. The advantage of the system is that it avoids the existing calculation of best before dates which can be too conservative, resulting in food being thrown out.

### IMPACT

Solveiga is in conversation with some of the biggest UK food retailers (such as Sainsbury's, Marks & Spencer, and Asda). While other smart labels have existed in the past, none of the competing solutions have been cheap enough to be successful or accessible to the mainstream.

### ENGAGE WITH THIS PERSON AS:

Thought  
Leader



Charitable  
Giving



Supply Chain  
Innovation



AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

AREA OF IMPACT		
Production	Distribution	Consumption
		×



## How It Should Be Supermarkets (hiSBe)

**Name:** Amy & Ruth Anslow  
**Stage:** Early



## Sustain

**Name:** Kath Dalmeny  
**Stage:** Established

hiSBe is an independent Brighton based supermarket focusing on stimulating the local economy by making good, locally sourced and sustainable food more affordable. They stock local and sustainable producers and use reduced packaging and use compostable alternatives and help customers buy in smaller quantities.

Sustain is an alliance for better food and farming, and advocates for agriculture policies and practices that enhance the health and welfare of people and animals, improve the working and living environment, enrich society and culture and promote equity. They represent around 100 national public interest organisations working at international, national, regional and local level.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	○	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	×

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	◐	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		×



## Nourish Scotland

**Name:** Peter Ritchie

**Stage:** Established

Nourish Scotland is an NGO campaigning on food justice issues in Scotland. They take a systems approach towards food and health, poverty, fairness, workers' rights, economy, environment, climate change, land use, and waste. They supported 24 entrepreneurs to make a living out of local food with their mentoring programme and empower people to take back control of the food system through their Food Leadership programme.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	●	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		×



## Impact Vision

**Name:** Abi Ramanam

**Stage:** Start Up

Impact Vision is building a more transparent and secure global food system, using hyperspectral technology. They use a software platform that provides insights about the quality and characteristics of different foods non-invasively and rapidly, using image recognition and predictive learning. Hyperspectral imaging combines the power of digital imaging with a chemical technique called spectroscopy. This means you can take a picture of a food item and understand the nutritional content, freshness levels and how much protein, fat, sugar or moisture it contains.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×



## Bio-bean

Name: Arthur Kay

Stage: Early

Bio-bean is the first company that has industrialised the process of recycling waste coffee grounds into advanced biofuels, biomass pellets and, in the near future, biodiesel. Bio-bean's products are second-generation biofuels. Pellet fuels (namely, biomass pellets) from waste coffee grounds are burned in biomass boilers as a sustainable local renewable heat alternative, saving money on waste disposal and displacing fossil fuels.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	



## Rubies in the Rubble

Name: Jenny Dawson

Stage: Early

Rubies in the Rubble is a sustainable food brand, making high quality relishes and jams out of surplus produce that would otherwise go to waste. Rubies in the Rubble is first and foremost dedicated to making delicious preserves, but at the same time it is a venture which seeks to address the issues of unemployment by employing less fortunate individuals. Rubies in the Rubble has already prevented thousands of tonnes of vegetables from going to waste.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		



## Box Chicken

**Name:** Giles Smith

**Stage:** Early



## Grow NI

**Name:** Siobhan Craig

**Stage:** Established

Box Chicken is a project by Shift – a not-for-profit behaviour change company that is developing a proposition for a new UK fast food brand, which will aim to take tasty, affordable and healthy fast food into communities across the country. Tapping into the current trend for street food, but for the first time directly focused on school children, the unit serves tasty, hot and -crucially- cheap food. The project aims to subtly shift young people's eating behaviours towards healthier, more positive options, without nagging or patronising consumers.

Grow NI works with communities to create community gardens in their area. In addition to promoting community gardens, they promote healthy cooking and eating as another key objective. Focusing on reducing costs by growing their own produce, they tackle food poverty by using community gardens as educational spaces to lead cooking workshops in the gardens themselves.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	○	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×



## Oddbox

**Name:** Emile Vanpoperinghe

**Stage:** Early

Oddbox has launched London's first wonky vegetable box scheme. The social enterprise helps farmers earn an income from their whole crop -- marketing ugly and misshapen produce in a creative way. In the UK, 30% of fresh produce is wasted as a result of strict supermarket specifications and cosmetic standards. Oddbox turned the problem into the solution and sells what would otherwise go to waste through an online market platform.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	◐	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	×



## Winnow Solutions

**Name:** Marc Zornes

**Stage:** Established

Winnow is a waste calculating technology installed in large production kitchens. An electronic scale records the weight of all food thrown away and sends a message to the user, showing the cost of the food they've put in the bin. The meter is connected to cloud software which records and analyses the day's waste, giving chefs the information necessary to drive improvements in their production processes, cutting food waste in half, saving money and reducing their environmental footprint at the same time.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	





## Bags of Taste

Name: Alicia Weston

Stage: Early

Bags of Taste is a social enterprise that works to alleviate food poverty by teaching healthy home cooking recipes at prices that compete with the cheapest fast food, and ready meals that cost less than £1 per portion. They offer month-long courses, one day per week in Hackney, Southwark, the City and Islington. In end-of-course evaluations, 92% of students report eating more vegetables and reported saving on household food bills per household of £16.50 per week, equating to £851 per annum.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	○	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×



## SoleShare

Name: Jack Clarke

Stage: Early

SoleShare is a community-supported fishery that uses sustainable low-impact techniques to catch fish to order (removing problems with overfishing), supporting local fisherman whilst also giving people access to fresh seafood. As a member, you choose a box scheme model and pick it up at a delivery hub. They operate a whole catch ethos, they don't just cherry pick well known species, and they buy everything a fisherman catches, making it a more sustainable way of doing business.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
◐	◐	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		



## Grub

**Name:** Shami Raddia & Neil Whippey

**Stage:** Early

Grub is a UK food company with a unique offering: edible insects. They propose a low maintenance, less resource-consuming way to eat protein. They do this by bringing tasty insect dishes to the British palate; spreading the word about this under-used food and its benefits; sourcing and selling insects; hosting exciting insect food events; and developing new insect recipes.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×



## City Harvest

**Name:** Laura Winningham

**Stage:** Established

City Harvest is a London-wide food rescue network for food establishments to turn to in order to transport their surplus food to where it is most needed. Using refrigerated vans, City Harvest collects nutritious surplus food from restaurants, retailers and manufacturers and delivers to organisations that feed balanced meals to the hungry each day. The food delivered significantly reduces the food costs of the recipient organisations and enables their limited funds to be redirected to other essential services.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	



## Too Good to Go

**Name:** Jamie Crummie (co-founder)  
**Stage:** Early



## L8 Living Sustainably Liverpool

**Name:** N/A  
**Stage:** Early

Too Good To Go is an environmental social enterprise dedicated to reducing food waste. Their revolutionary concept links consumers with delicious food that would otherwise be thrown away at prices from as little as £2 and a maximum of £3.80. Through the app the consumer can order delicious food from local restaurants, cafes and bakeries, collect it up to an hour before closing time and enjoy on-the-go in an environmentally-friendly TGTG sugarcane box.

L8 Living Sustainably is an initiative in Toxteth, Liverpool to promote local food growing, energy generation with the objective of educating people about the impact of climate change and the measures they can take to improve their lives. Their Patchwork Urban Farm is an association of food growing sites across the wards which will provide opportunities for local people to grow their own food. They are also launching a local food retailer, the L8 Superstore, that will be engaged to promote the project and local produce to the public.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	◐	○

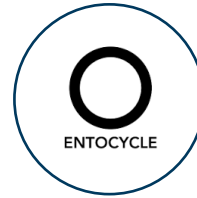
SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		×



## The Kindling Trust

**Name:** Helen Woodcock

**Stage:** Established



## Entocycle

**Name:** Keiran Olivares

**Stage:** Start Up

The Kindling Trust acts as a catalyst for social change through progressive yet practical projects, their main focus being to create a more sustainable food system for Greater Manchester. They have established a network for sustainable food initiatives (Feeding Manchester), a volunteer force to support local organic growers (the Land Army) and an incubator farm for brand new growers (FarmStart Manchester).

Entocycle is an innovative feed company that is utilising the power of *Hermetia illucens* (Black Soldier Fly) to 'up-cycle' organic food waste into a sustainable protein feed alternative for aquaculture and livestock. The insect they farm is nutritionally superior to soya bean meal and comparable to fishmeal, whilst being unaffected by growing environmental issues such as drought or dwindling supply. The Black Soldier Fly is the fastest, most efficient and ethical way to produce organic protein.

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	●

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
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AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
○	●	○

SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
×		



## Vegucation

**Name:** Phoebe Wingate

**Stage:** Early



## OLIO

**Name:** Tessa Cook

**Stage:** Early

Vegucation aims to embed food growing into the school curriculum in an educationally meaningful and sustainable way. The programme will be piloted with five Cardiff primary schools over one academic year (reaching approximately 1,500 children) and deliver a one hour-long gardening session for each class per half-term. A volunteer support network encourages sustainability and wider community involvement.

OLIO is a free app connecting neighbours with each other and with local shops so surplus food and other items can be shared, not thrown away. All the food on OLIO is either available for free, or for a 'pay as you feel' donation to charity. Since its launch, the app has had over 100,000 downloads and has been used to re-distribute over 180,000 items of food. Over 77,000 meals have been saved from going to waste.

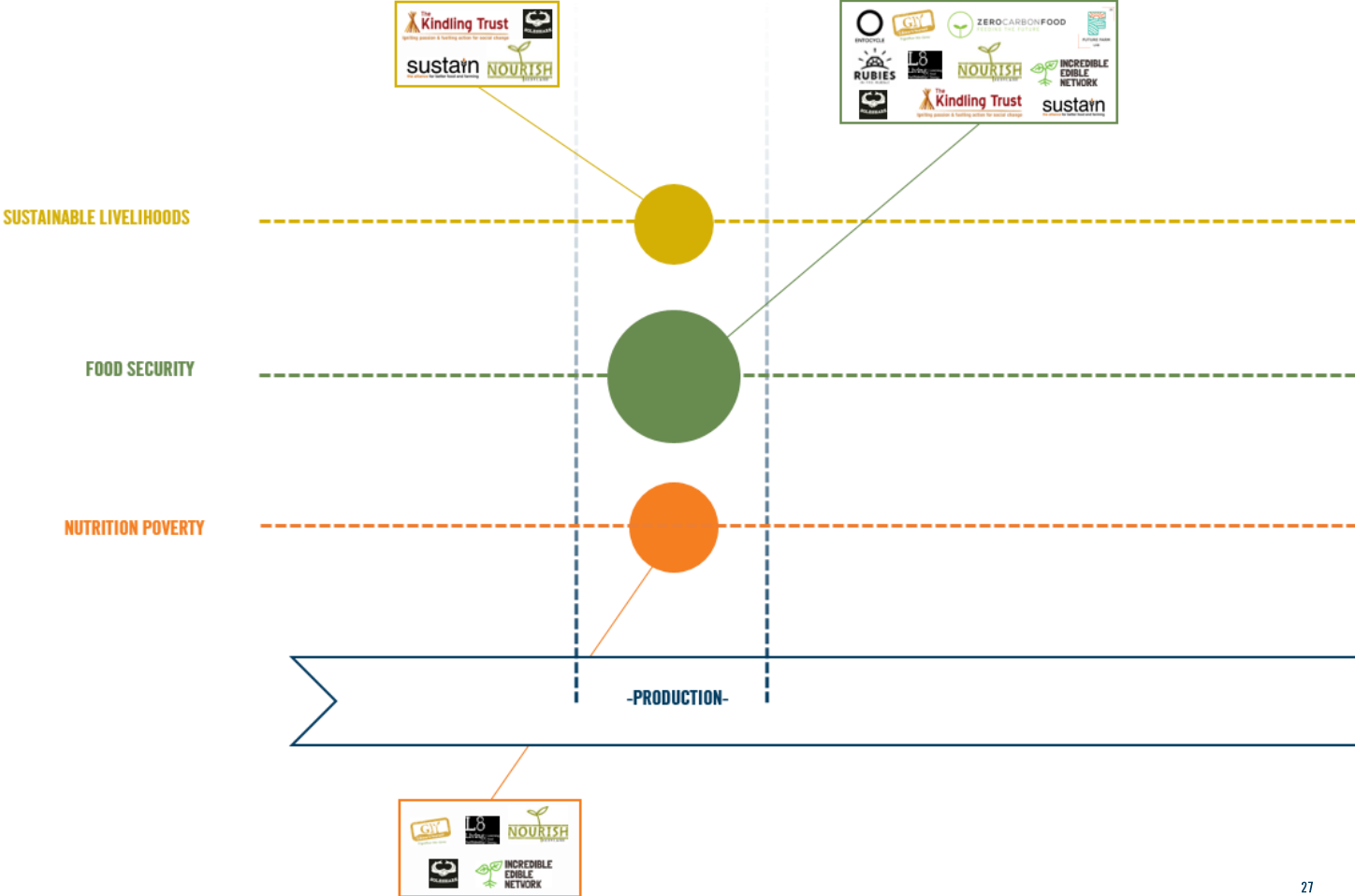
AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
●	○	○

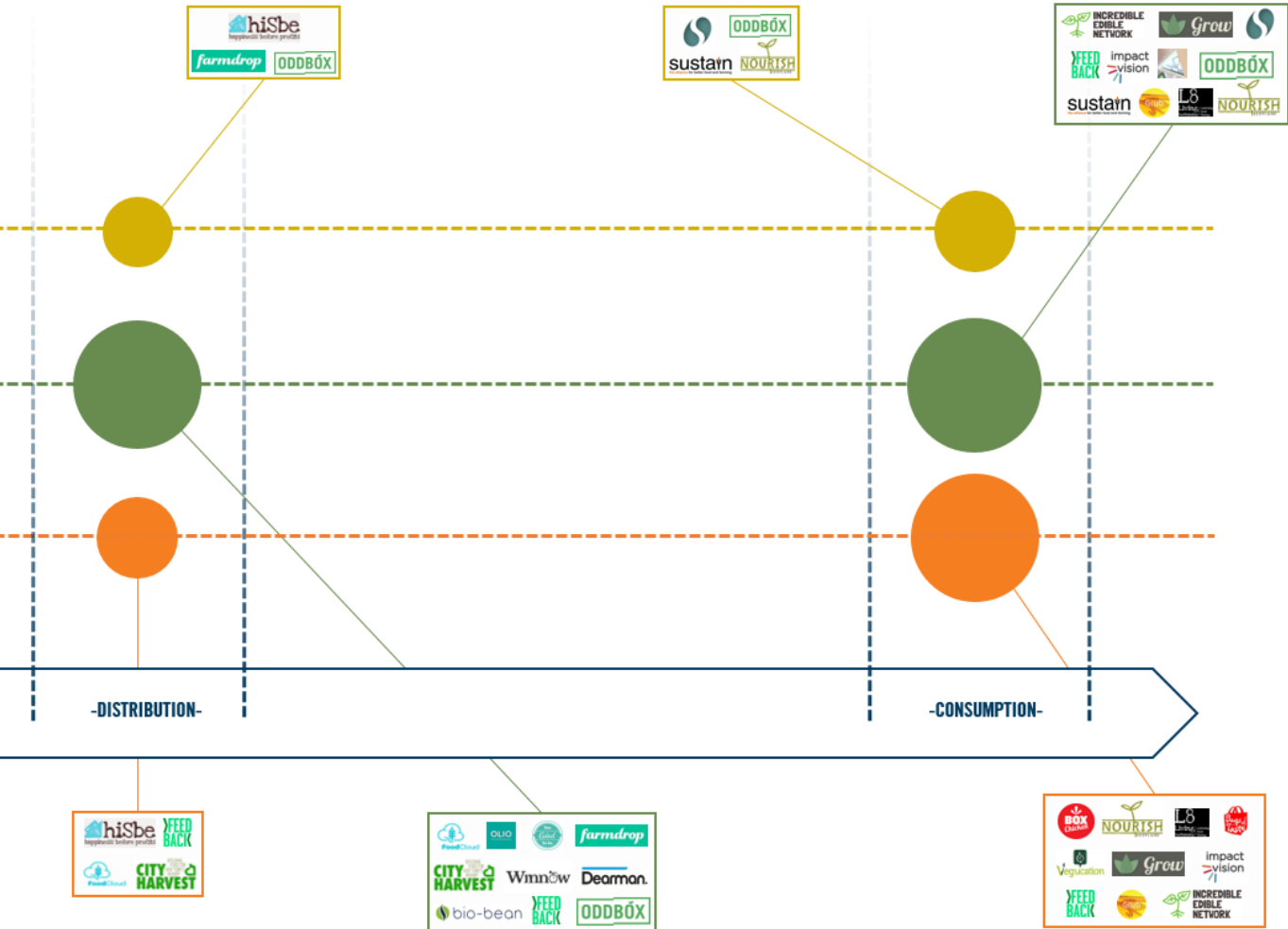
SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
		×

AREA OF IMPACT		
Nutrition Poverty	Food Security	Sustainable Livelihoods
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SUPPLY CHAIN INTERVENTION POINT		
Production	Distribution	Consumption
	×	

# 4. Visual map of innovations





April 2017

