

**EACH TIME WE GATHER  
AROUND THE TABLE,  
WE HONOR THE PAST,  
EXPERIENCE THE PRESENT,  
AND PREPARE FOR THE  
FUTURE.**

by IFTF



## Food is a global language.

Being a highly **interdisciplinary sector**, the **first commodity** and a **primary form of cultural expression**, it **joins people**, industries and countries.

**Food players are pioneers in taking care of something more than profit**: their choices can have strong impacts on human health, economic growth and world sustainability.



The question is:

How Might We strike the **magic balance between people needs and the environment?**

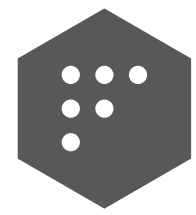
The challenge is turning constraints into business.



**HUMAN CENTRED INNOVATION EVENTS**

**SHARING KNOWLEDGE**

**INTENSIVE INNOVATION PROGRAMS**



# HUMAN CENTRED INNOVATION EVENTS



## **bibimbap: a new human centered innovation tool**

A real marathon of 48 hours with the objective of examining, innovating and changing well-established paradigms in the food system.

A model of human centered innovation which arises from tech hackathons, so renowned in the Silicon Valley, to create a new process of innovation, a method of cognitive investigation, of in-depth analysis and co-creation of value, which will involve students from different fields of specialization. This mix is necessary in order to avoid stagnation and foster blending.

The Bibimbap (which means "mixed rice" in Korean) makes the context and the content the two main variables of change. It will follow educational objectives which will value the heterogeneous knowledge of the students and professionals joining the event. In this way, the Bibimbap wants to experiment a model that could be used by entrepreneurs and policy makers for the creation of knowledge, innovation and knowhow, both theoretical and practical.

The "game" will be led by keywords such as green, design, food and tech. This will trigger a two-day brainstorming exercise which will end with the creation of projects aiming at innovating the traditional paradigms and to a building a new possible future in the food sector.

## **the concept**

Mix different ingredients together. Transform them through a process of meeting, in which it is the context, the content that triggers the change. Every culture has a particular way to cook vegetables (the skills) through a specific cooking technique (the context).

Starting from this culinary metaphor, we are planning a speed hacking model (Bibimbap, [비빔밥 in Korean](#)) based on a 4 step process: gather, peel, chop, cook.

# HUMAN CENTRED INNOVATION EVENTS



## FIVE INNOVATION ZONES TO REMAKE THE WORLD THROUGH FOOD

### START HERE

Consider these five innovation zones to discover ways to shape a better food system for all. For each zone, we point to...

- New organizational and thinking **MODELS**
- Emerging **TOOLS** to enable change
- Ways to engage with and focus on **PEOPLE**
- New **METRICS** for meaningful impact

Choose an entry point, then...

### MAKE THE FUTURE!

**GATHER** ideas, data, information, and a team.

**PEEL** back the layers of complexity and map the network of stakeholders and potential impacts.

**CHOP** through existing assumptions and move different pieces of your idea around. What new partnerships can you form? What gaps can you fill?

**COOK** your idea—let it simmer. What new flavors emerge? What's missing? Ask others to taste your creation and then go back through the process to make it even better!

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[IFTF.ORG/FOODFUTURES](http://IFTF.ORG/FOODFUTURES)



### RETHINK FOOD

#### To Remake the World

#### To Remake the World

**Food is the nexus of society.** With

food we embody our values and connect with nature. We meet our physical needs and nourish creativity and community. Each time we

gather around the table, we honor the past, experience the present, and prepare for the future. The

importance of thinking about the future has never been greater.

Today's planetary challenges

present a call to rethink the food system that we cannot ignore. From breakthroughs in personal health

monitoring to the sprouting of rooftop aquaponics, now there are unprecedented opportunities for all

of us to remake the world through food. Now is your chance to make the future.

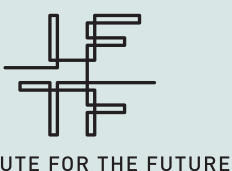
**better food governance**

**resilient ecosystem**

**celebrated cultures**

**food secure cities**

**stronger economy**



INSTITUTE FOR THE FUTURE



FUTURE  
FOOD  
INSTITUTE

# FIVE INNOVATION ZONES TO REMAKE THE WORLD THROUGH FOOD




**MODELS**  
How can we ensure food safety while also creating scale-appropriate regulations?



**TOOLS**  
Can participatory platforms enable collaborative food governance and cross-border cooperation?



**METRICS**  
What new technologies allow us to account for the environmental and social costs of our food?



**MODELS**  
How can we activate a diversity of production methods to ensure a diversity of foods, including open-source and biosynthetic approaches?



**METRICS**  
How can we use food security and health as measures of accountability?

## BETTER FOOD GOVERNANCE




**PEOPLE**  
What potential do citizen reporting and citizen science have for shaping food policy?




**MODELS**  
How can we ensure new and needed innovations still honor culinary heritage?


## RESILIENT ECOSYSTEMS



**PEOPLE**  
How can we rethink local production and distribution systems to truly enable food sovereignty?



**TOOLS**  
How can we use sensor networks and coordination technologies to reduce waste?



**MODELS**  
What new business models can encourage reciprocity, open-source solutions, and entrepreneurship?



**TOOLS**




**METRICS**  
How can we track the sharing of food, knowledge, and resources as an indicator of food system strength?

## CELEBRATED CULTURES



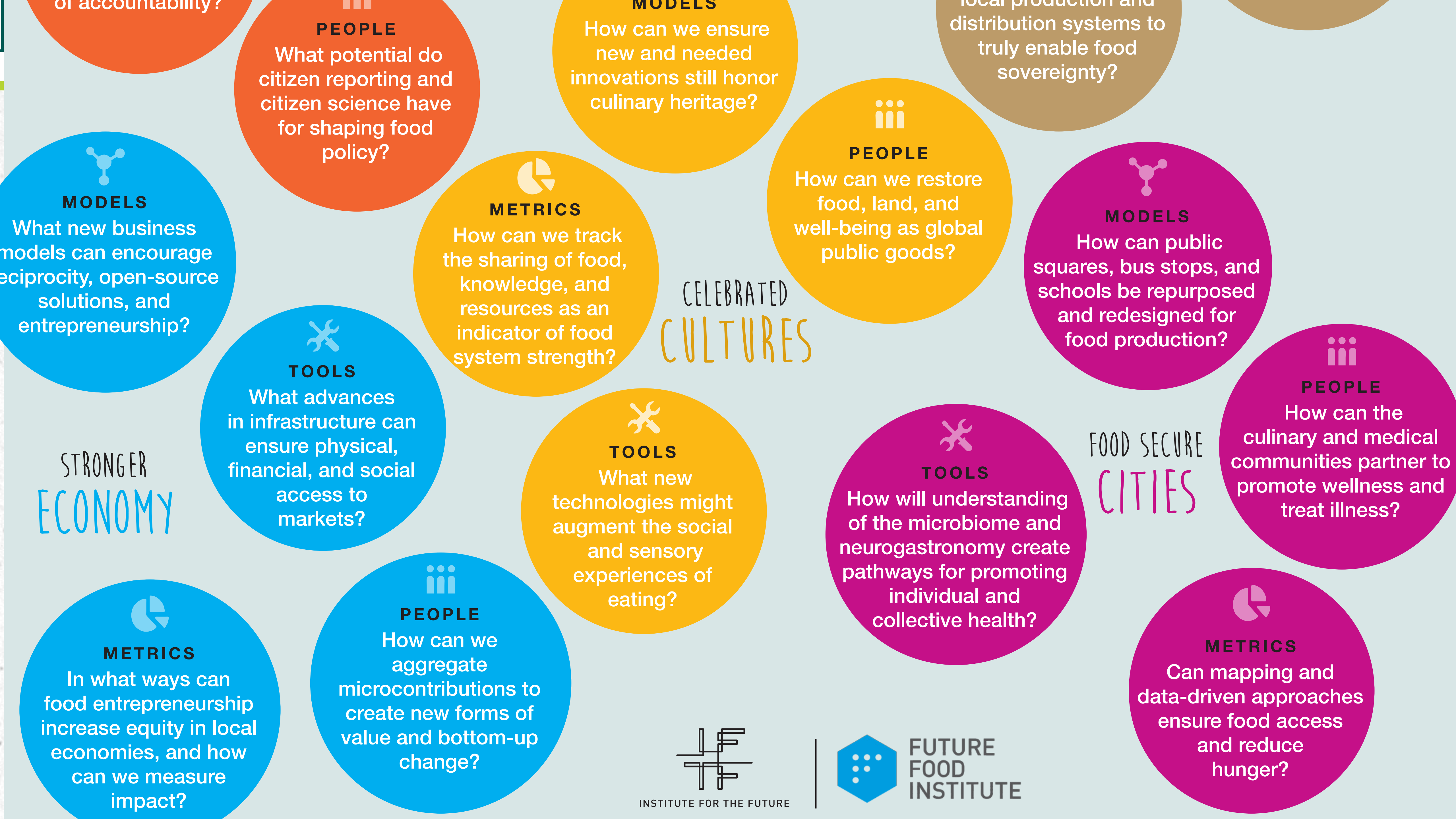
**PEOPLE**  
How can we restore food, land, and well-being as global public goods?



**MODELS**  
How can public squares, bus stops, and schools be repurposed and redesigned for food production?







of accountability?

**PEOPLE**  
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**MODELS**  
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**TOOLS**  
 What advances in infrastructure can ensure physical, financial, and social access to markets?

**METRICS**  
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STRONGER  
 ECONOMY

**TOOLS**  
 What advances in infrastructure can ensure physical, financial, and social access to markets?

CELEBRATED  
 CULTURES

**TOOLS**  
 What new technologies might augment the social and sensory experiences of eating?

**TOOLS**  
 How will understanding of the microbiome and neurogastronomy create pathways for promoting individual and collective health?

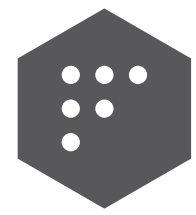
FOOD SECURE  
 CITIES

**PEOPLE**  
 How can the culinary and medical communities partner to promote wellness and treat illness?

**METRICS**  
 In what ways can food entrepreneurship increase equity in local economies, and how can we measure impact?

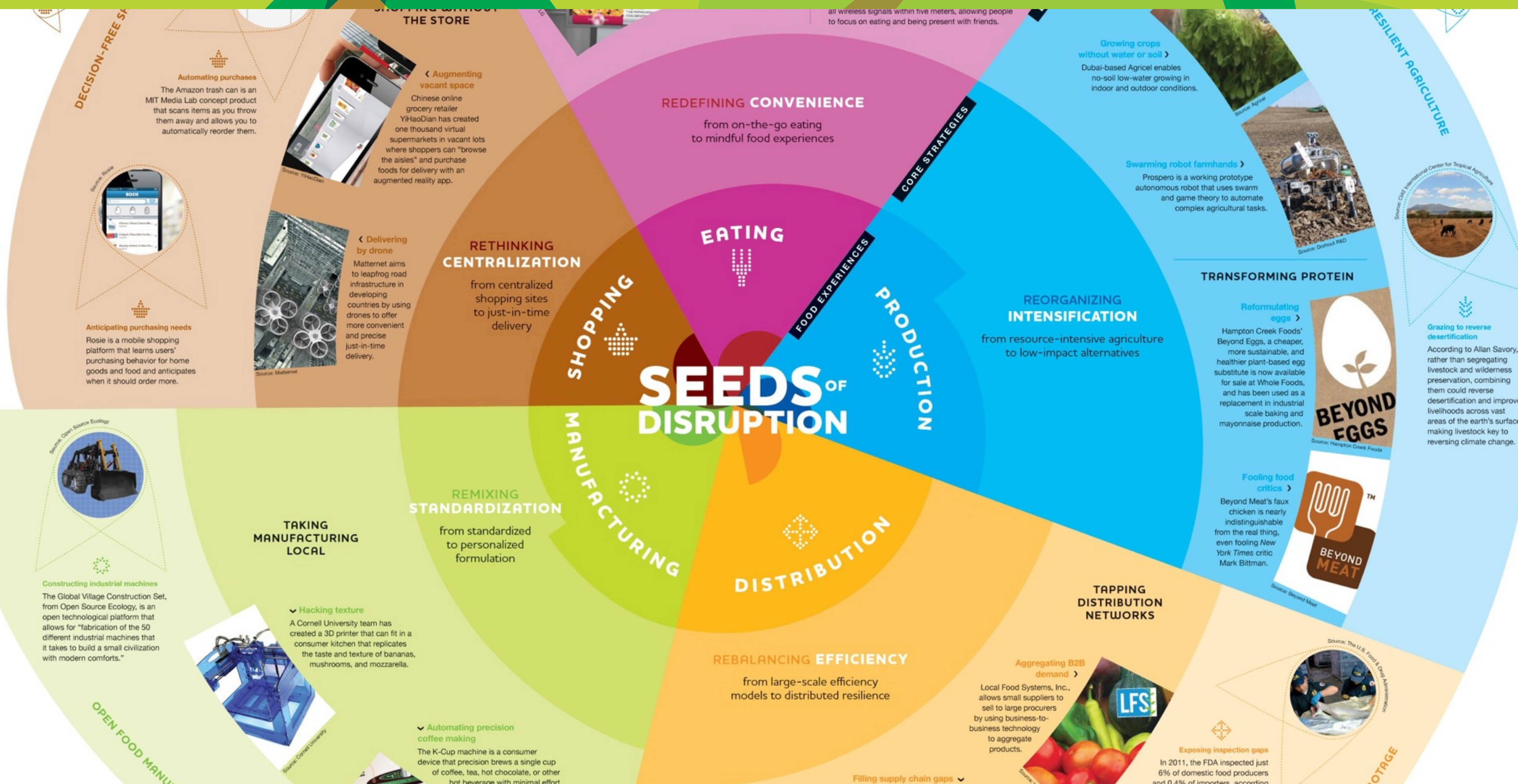
**PEOPLE**  
 How can we aggregate microcontributions to create new forms of value and bottom-up change?

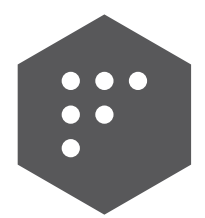
**METRICS**  
 Can mapping and data-driven approaches ensure food access and reduce hunger?



# SHARING KNOWLEDGE

# SEEDS OF DISRUPTION by IFTF.ORG

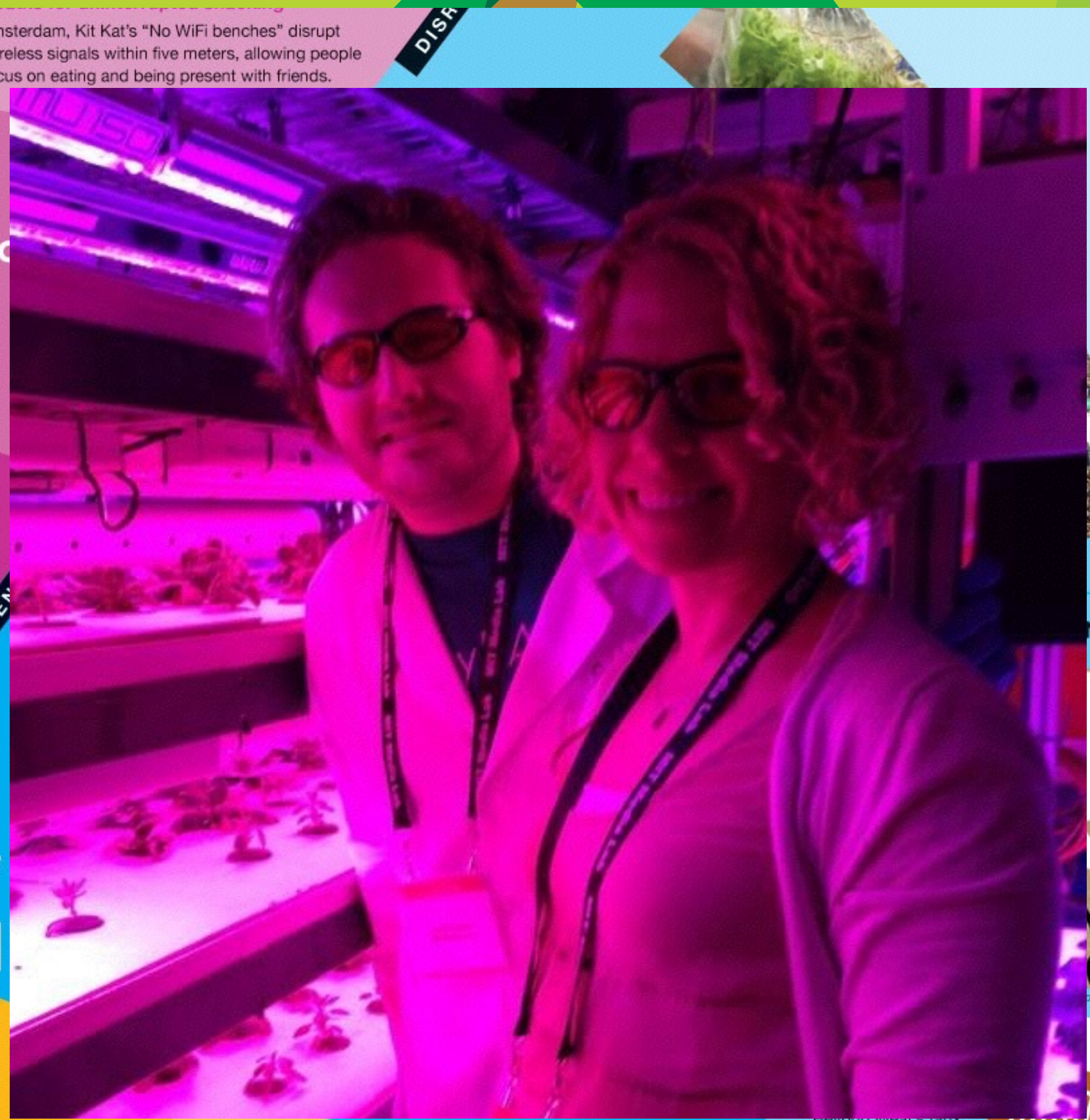




## Production | Reorganizing intensification: from resource-intensive agriculture to low-impact alternatives

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

- ➔ Growing food on every surface
- ➔ Transforming proteins



## Production | Reorganizing intensification: from resource-intensive agriculture to low-impact alternatives

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### Growing crops without water or soil:

**Aeroponics** is the process of growing plants in an air or mist environment without the use of soil or an aggregate medium (known as geoponics)

**Hydroponics** is a subset of hydroculture and is a method of growing plants using mineral nutrient solutions, in water, without soil. Terrestrial plants may be grown with their roots in the mineral nutrient solution only or in an inert medium, such as perlite, gravel.

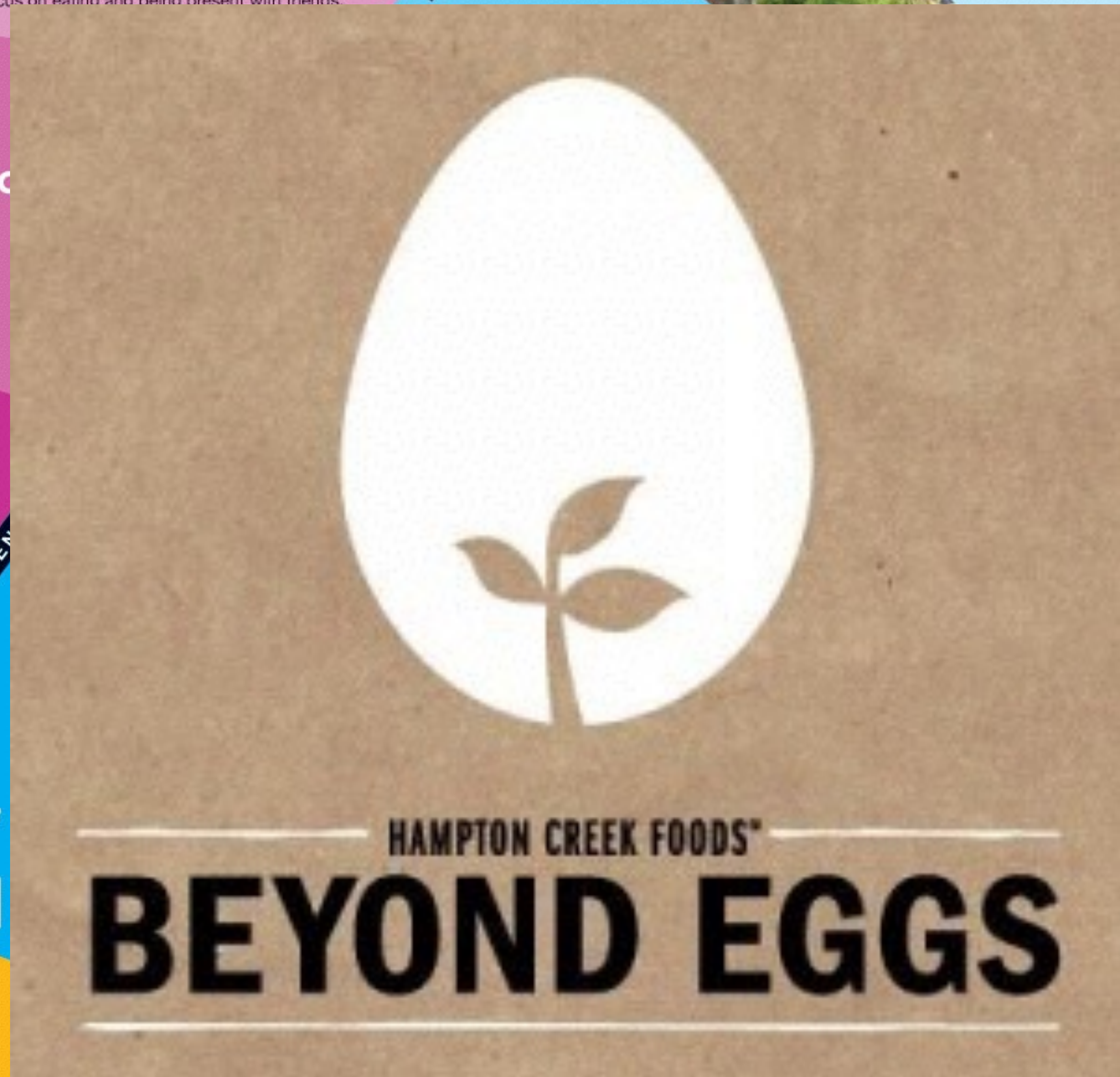


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### Swarming robot farmhand

Move over farmers: soon a swarm of robots could take over all the hard labour. A new robot developed by David Dorhout and colleagues from Dorhout R&D is designed to plant seeds in a field while coordinating with a gang of other robotic farmhands.



**Production** | Reorganizing intensification: from resource-intensive agriculture to low-impact alternatives

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## Transforming proteins

**Hampton Creek** is a company dedicated to making it easy for good people to do the right thing. Whether you're a hip college student or a single mom raising two kids, everyone should be able to eat delicious food that's healthier, sustainable, and affordable.

The company's formula of plant compounds accurately reproduces egg-like qualities in baked goods at a cost that's 18 percent cheaper for food manufacturers. By appealing to industry's bottom line and not its environmental ethic, Hampton Creek could quickly make food production more sustainable. Vegans will benefit from the quest to replace eggs with plants too.



## DISTRIBUTION

### REBALANCING EFFICIENCY

from large-scale efficiency models to distributed resilience

#### TAPPING DISTRIBUTION NETWORKS

**Aggregating B2B demand** >

Local Food Systems, Inc., allows small suppliers to sell to large procurers by using business-to-business technology to aggregate products.



Source: localfoodsystems.org

**Exposing inspection**

In 2011, the FDA inspected 6% of domestic food products and 0.4% of importers, according to *Bloomberg*. Under the Food Safety Modernization Act, there are still no requirements for mandatory microbiological testing to confirm the efficacy of safety programs.

**Filling supply chain gaps** v

ColaLife is a non-profit that delivers essential medicine and nutritional supplements to remote regions by leveraging unused capacity in Coca Cola's supply chains.



Source: ColaLife

**Speculating on food**

Acknowledging the impact of "financialization" on agriculture, the World Bank and the International Fund for Agricultural Development (IFAD) have called for closer agricultural financial markets. According to a report, global agricultural financial assets doubled from 2000 to 2010.



Source: Food and Agriculture Organization

**Sourcing local** v

States Northwest-based... with Massachusetts... Ex to expand alternative... on systems for local and... and producers.



Beyond the chicken industry from the recent even fooling York Times Mark Bitt

## Distribution | Rebalancing efficiency: from large-scale efficiency models to distributed resilience

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

### ➔ Tapping distribution networks





## **Distribution** | Rebalancing efficiency: from large-scale efficiency models to distributed resilience

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

### **Filling supply gaps**

ColaLife's strategy to tap into existing distribution infrastructure by literally filling the gaps in shipping containers. - See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.N1hPyeMs.dpuf>



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### Sourcing Local

A vegetable box scheme is an operation that delivers fresh fruit and vegetables, usually locally grown and organic, either directly to the customer or to a local collection point. Typically the produce is sold as an ongoing weekly subscription and the offering may vary week to week depending on what is in season.

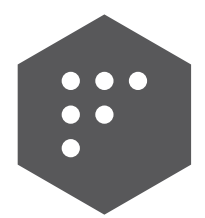


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### **Aggregating B2B demand**

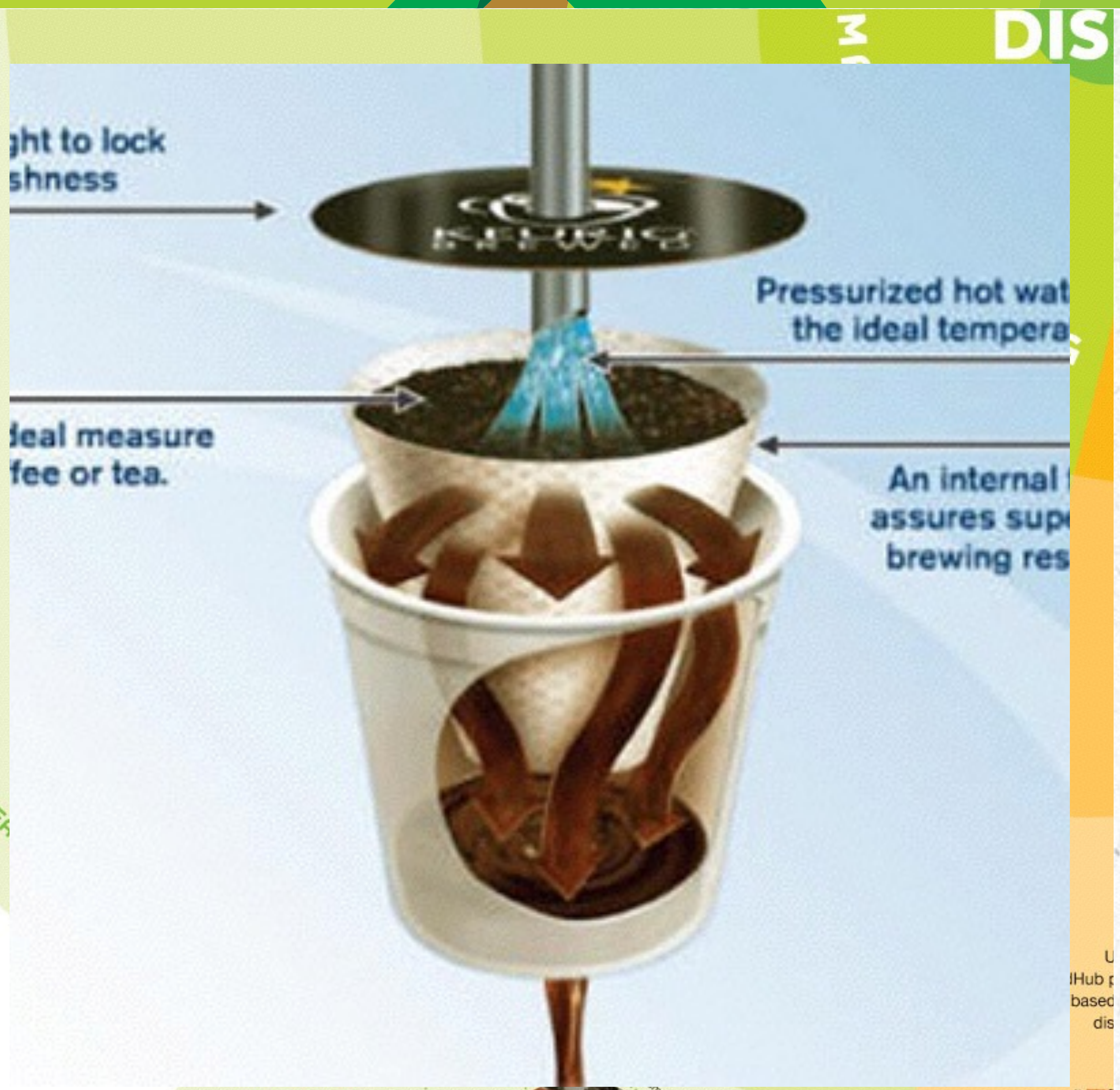
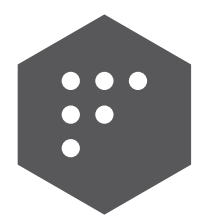
Local Food System Inc. helps entrepreneurs work together to grow businesses rooted in agriculture, helps small suppliers to sell to large procurers.



## Manufacturing | Remixing standardization: from standardized to personalized formulation

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

➔ **Taking manufacturing local**



**Manufacturing** | Remixing standardization: from standardized to personalized formulation

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## Automatic precision coffee machine

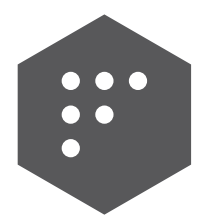
The K-Cup blended the disruptive innovation of a leading-edge technology company with the consumer focus of a socially conscious, premium coffee company.

K-Cup enable consumers to self-create high-quality beverages that personally satisfy any in-the-moment beverage need, as well as those of their families and guests.

Replacing line cooks  
Momentum Machines' robots can make hamburgers more precisely than humans at a



Source: Food Hill



MA DIS



Photo: Floris

## Manufacturing | Remixing standardization: from standardized to personalized formulation

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### Hacking the texture

Pas manufacturer Barilla launched a competition, called 'Print eat', seeking designs for a 3D printable new pasta shape. 3DPrint.com reports.



Momentum Machines' robots can make hamburgers more precisely than humans at a



Source: Food Hub

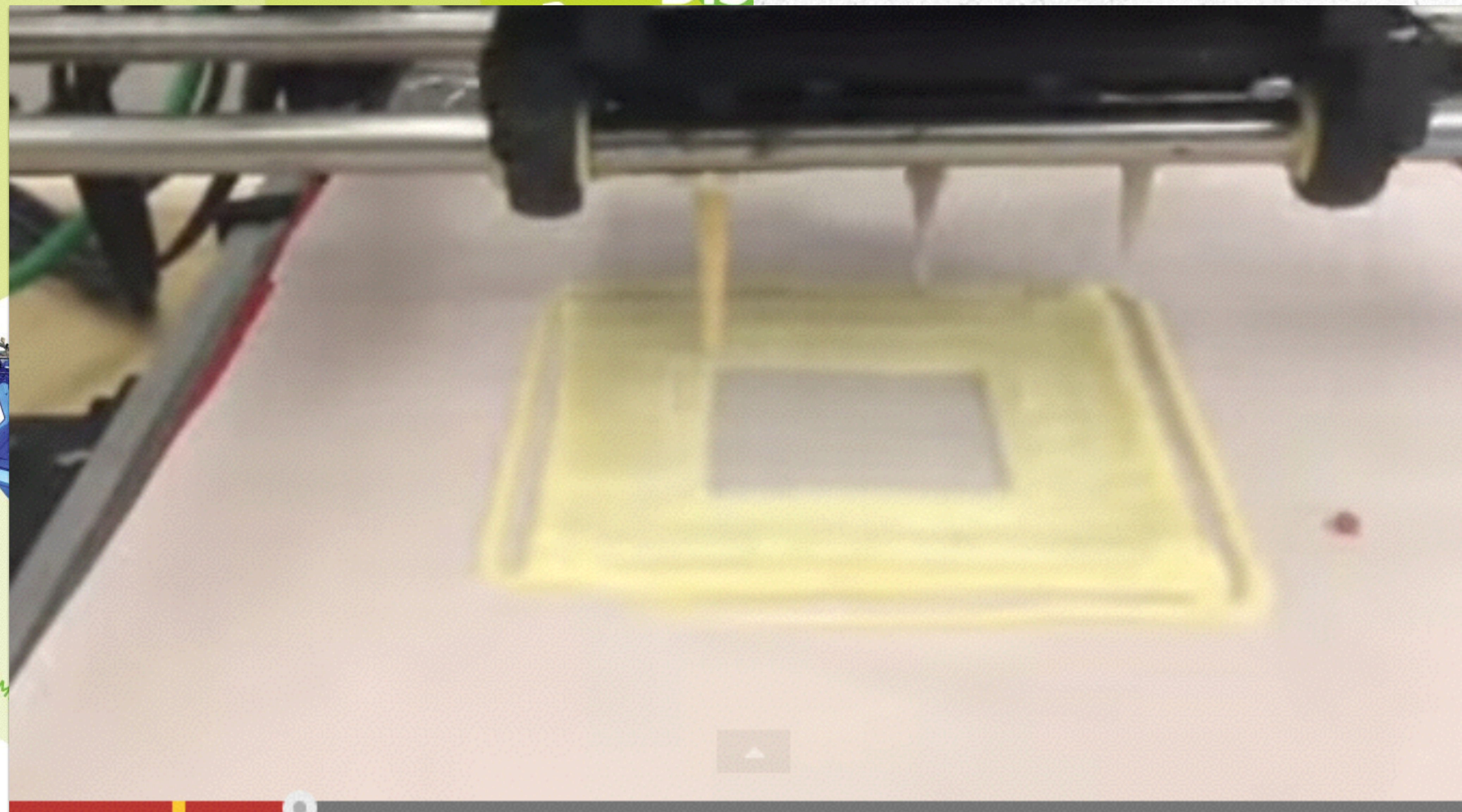
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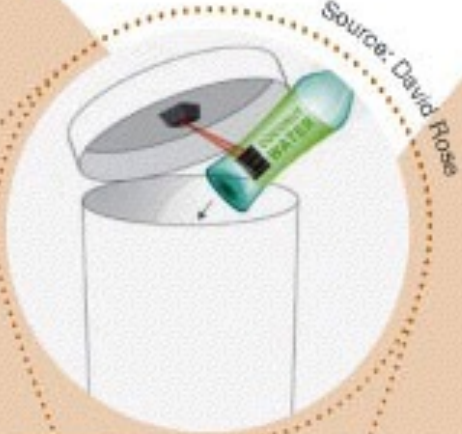


rice: Food Hill



At the edges of possibility are **strains of uncertainty**, wild cards that are low probability but with the potential for high impact.

FREE SHOPPING



Source: David Rose



### Automating purchases

The Amazon trash can is an MIT Media Lab concept product that scans items as you throw them away and allows you to automatically reorder them.



Source: Acquia



### Anticipating purchasing needs

There is a mobile shopping app that learns users' purchasing behavior for home goods and food and anticipates what it should order more.

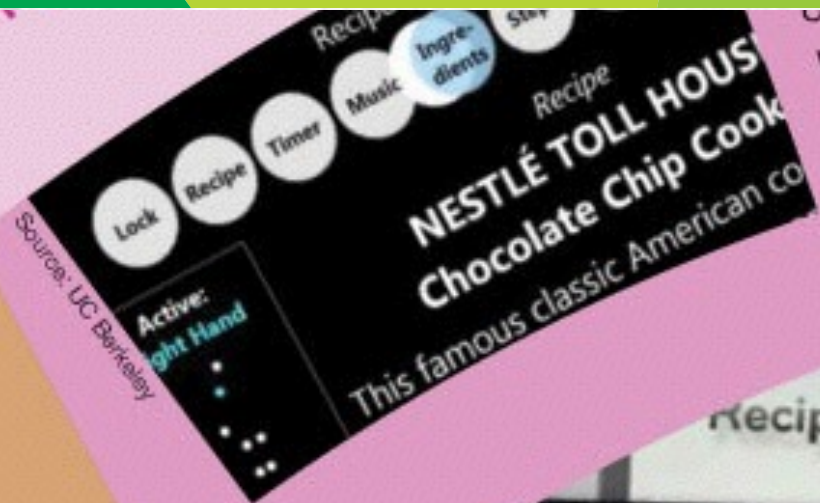
## GROCERY SHOPPING WITHOUT THE STORE



Source: YiHaoDian

### Augmenting vacant space

Chinese online grocery retailer YiHaoDian has created one thousand virtual supermarkets in vacant lots where shoppers can "browse the aisles" and purchase foods for delivery with an augmented reality app.

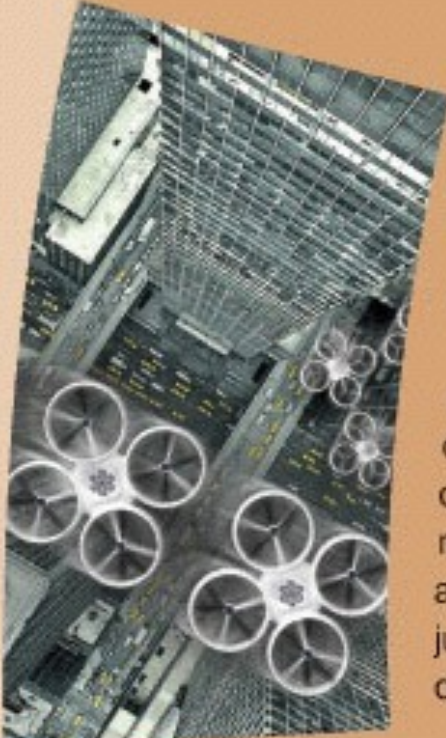


Source: IJC Berkeley



Source: LG

### Delivering by drone



Source: Matternet

Matternet aims to leapfrog road infrastructure in developing countries by using drones to offer more convenient and precise just-in-time delivery.

## RETHINKING CENTRALIZATION

from centralized shopping sites to just-in-time delivery

SHOPPING



# Shopping | Rethinking centralization: from centralized shopping sites to just-in-time delivery

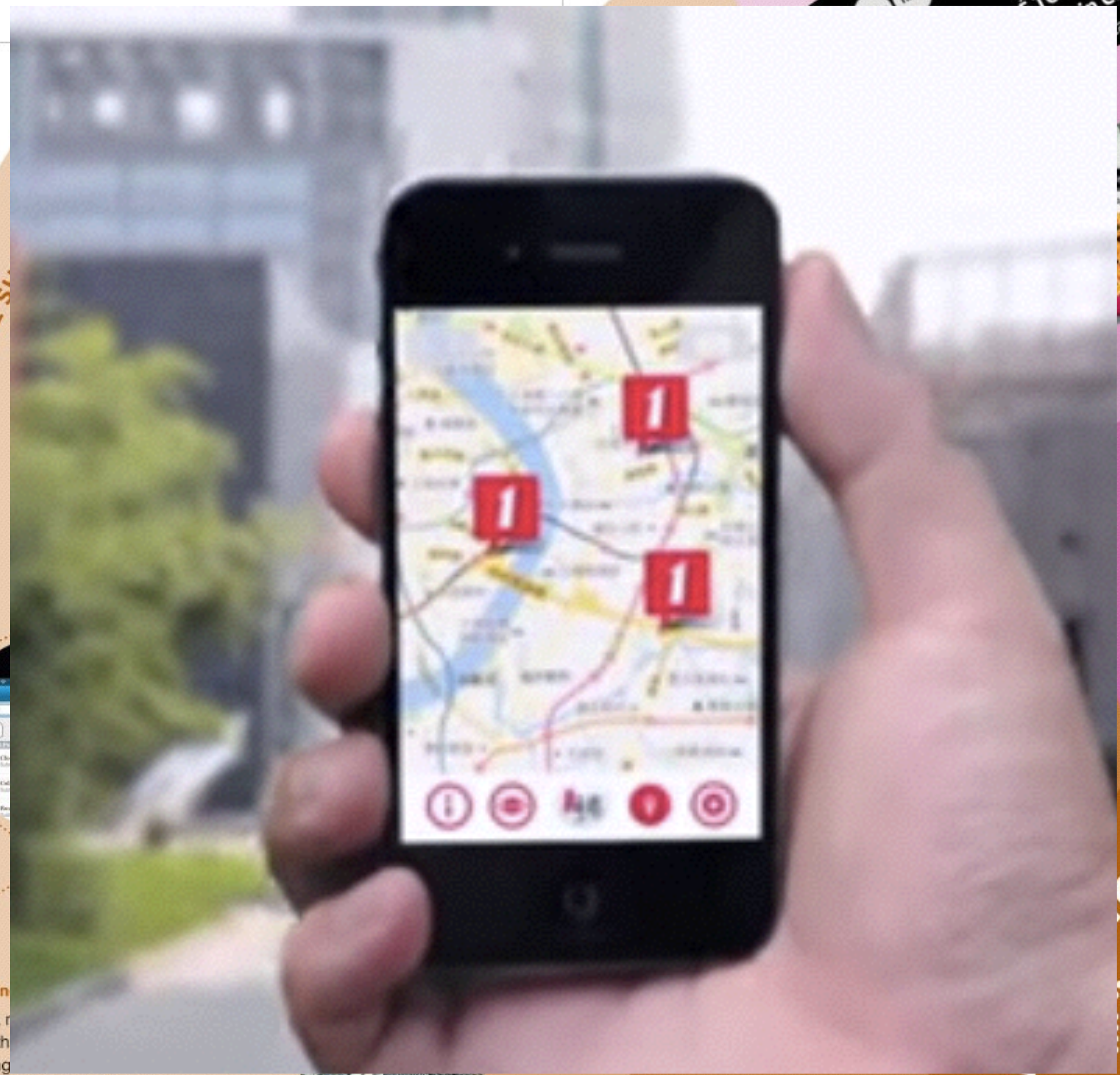
- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

- ➔ Grocery shopping without the store
- ➔ New delivery





At the edges of possibility are **strains of uncertainty**, wild cards that are low probability but with the potential for high impact.



## Shopping | Rethinking centralization: from centralized shopping sites to just-in-time delivery

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

### Augmenting vacant space

Chinese E-commerce Grocer Yihaodian & O&M Advertising Shanghai's 1,000 Virtual Stores App Case Study

Yihaodian, one of China's leading e-commerce websites, has teamed up with Ogilvy & Mather Advertising/Shanghai -- this time taking the battle for China's grocery shoppers 'offline.'

<http://www.youtube.com/watch?v=hJqIplIR3nl>

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s and food and anticipates  
it should order more.

Source: Matternet



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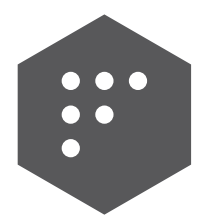
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- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

### Delivery by drone

Diners at a branch of Yo! Sushi in Soho, central London, see their burgers delivered on a flying tray. The stunt to promote Japanese rice-burgers allowed the food to float past tables without a waiter. The 'I-tray' gadget is made from a lightweight carbon fibre and has four propellers. Two built-in HD cameras allow kitchen staff to deliver the food via a real-time video broadcast viewable on an iPad screen

Source: Matternet



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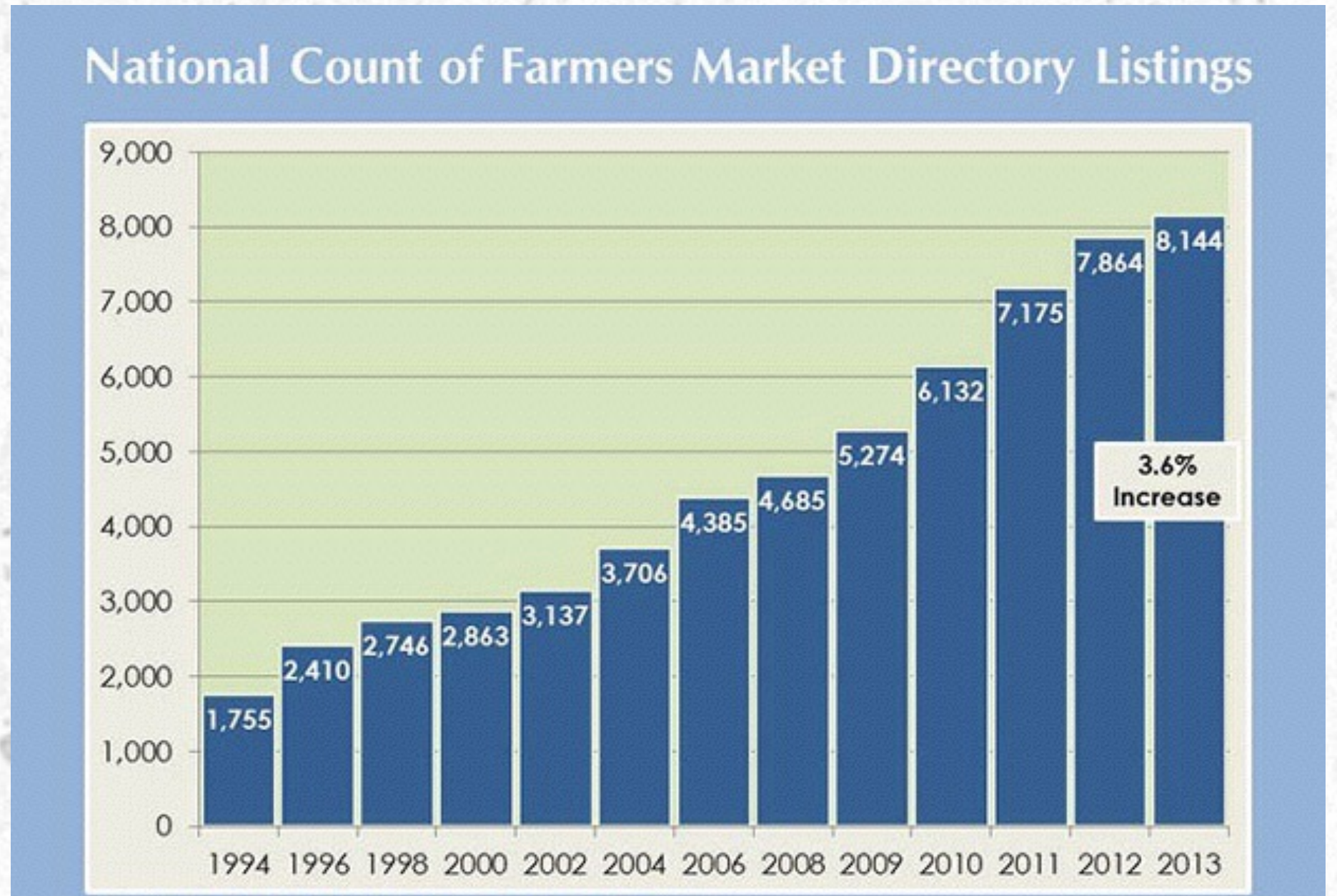


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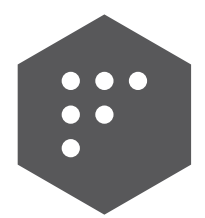
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## New markets

Farmers markets cut the distribution chain



Source: USDA-AMS-Marketing Services Division  
Farmers Market information is voluntary and self-reported to USDA-AMS-Marketing Services Division



## Eating | Redefining convenience: from on-the-go eating to mindful food experiences

- See more at: <http://www.iftf.org/our-work/global-landscape/foodforfuture/seeds-of-disruption/#sthash.BUz0dbvV.dpuf>

- ➔ Leveling up cooking skills
- ➔ Augmenting mindful eating



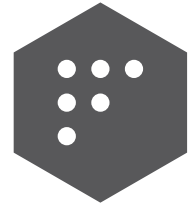
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## Leveling up cooking skills

**Nomiku** is the first immersion circulator designed for the home cook. Designed in-house by the trio, Nomiku got its start from a successful Kickstarter campaign.

The team traveled between the States and China to start production of Nomiku and started selling the circulator direct-to-consumer online shortly after their Kickstarter campaign finished.



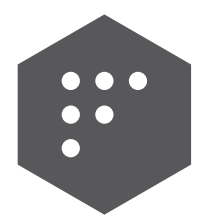
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### Forcing digital sabbaths for uninterrupted snaking

In Amsterdam Kit Kat's "no WiFi benches" disrupt all wireless signals within five meters, allowing people to focus on eating and being present with friends.





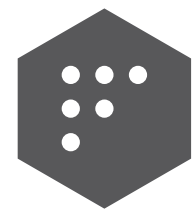
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### **Quantifying eating speed**

Eating too fast leads to poor digestion and poor weight control. The HAPIfork, powered by Slow Control, is an electronic fork that helps you monitor and track your eating habits. It also alerts you with the help of indicator lights and gentle vibrations when you are eating too fast. Every time you bring food from your plate to your mouth with your fork, this action is called: a "fork serving".





# INTENSIVE INNOVATION PROGRAMS

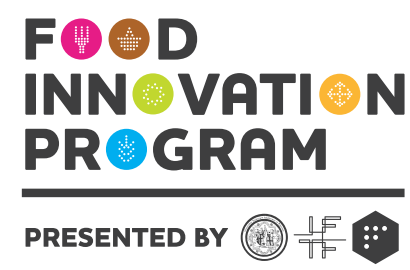
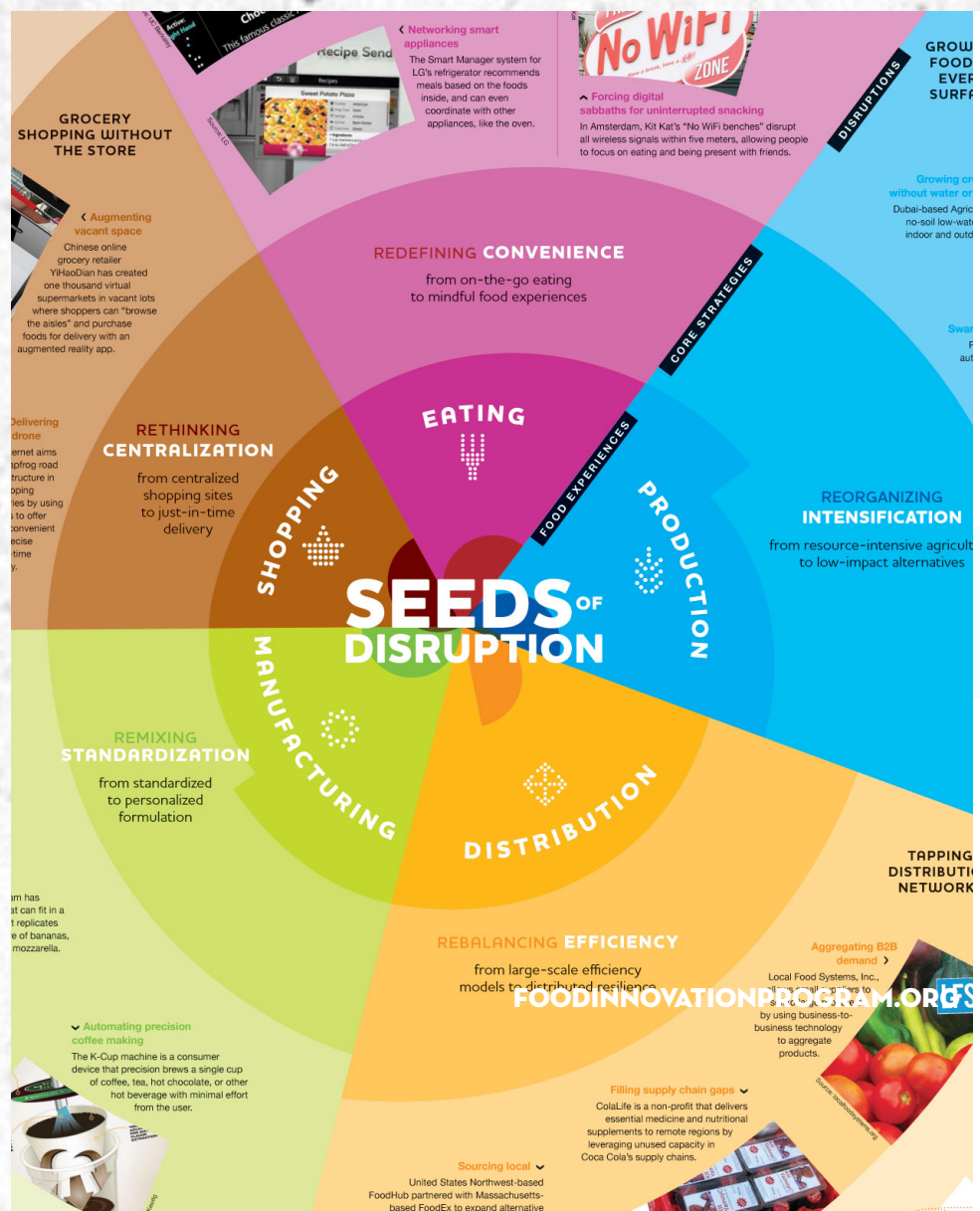


# FOOD INNOVATION PROGRAM

PRESENTED BY   



# INTENSIVE INNOVATION PROGRAMS



**9 MARZO - 30 NOVEMBRE 2015**

**FOOD INNOVATION CENTER**  
Musei Civici - via Spallanzani, 1 - Reggio Emilia  
OFFICUCINA info@foodinnovationprogram.org

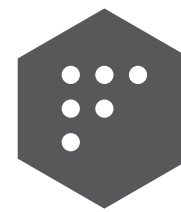
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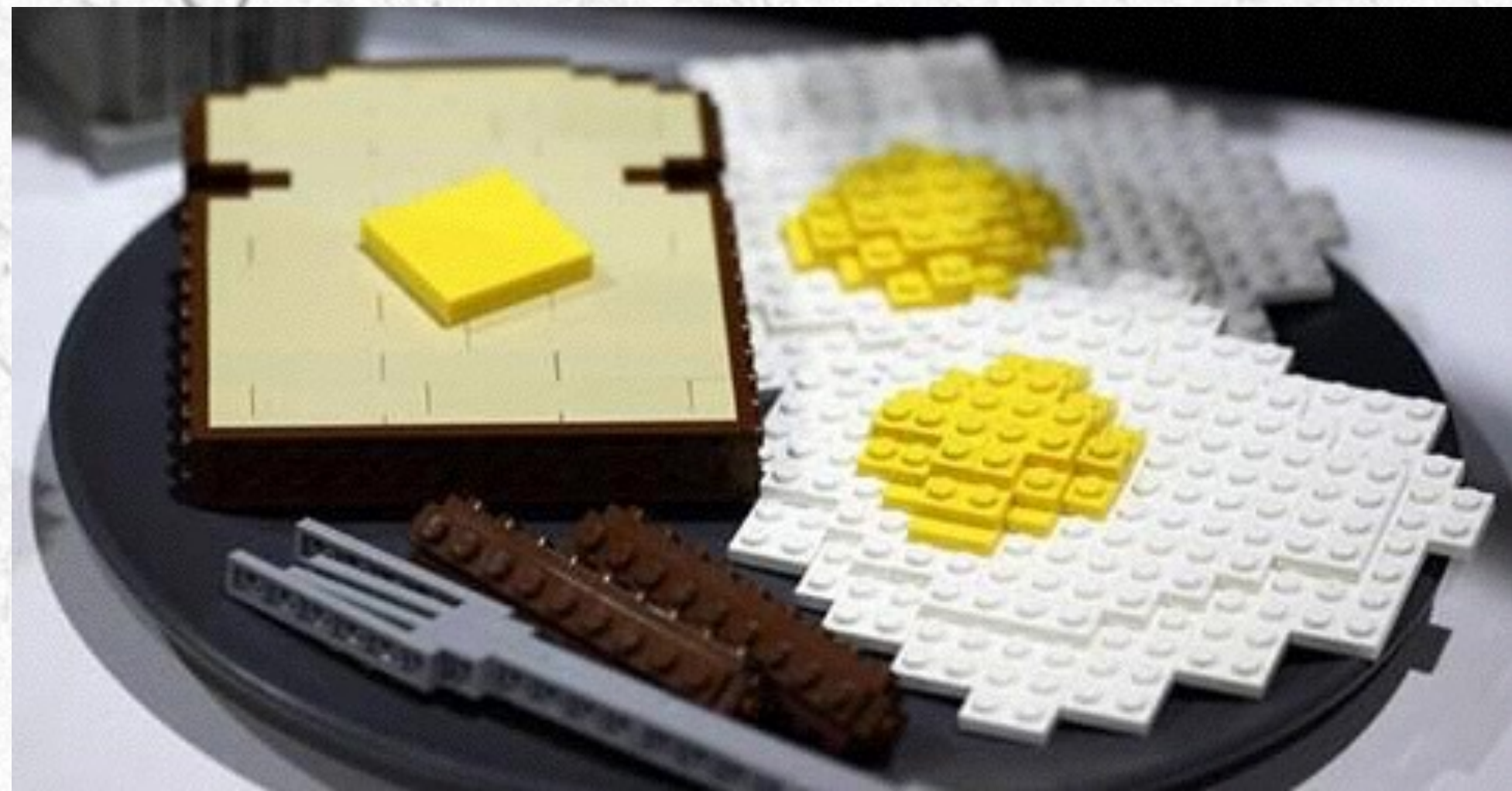
The **Food Innovation Program** is a **full time advanced comprehensive Master's program** that spans across the fields of food, innovation and entrepreneurship in order to meet requirements of the modern and future course of the food industry. The Food Innovation Program aims to identify the critical technologies for shaping agriculture, food distribution, retail and consumption while taking into consideration food safety, social relationships and regulations.

In addition, the program aims to expand and develop radical innovations outlined in the **Institute for the Future** (IFTF) forecast map, **Seeds of Disruption: How Technology is Remaking the Future of Food**. The Program is one of the few programs of its kind that is inspired by the **Reggio Approach** teaching methodology that acknowledges and cultivates creativity and interest in learning.

The Food Innovation Program provides an enriching environment that successfully combines two renowned worlds of forward thinking approaches – **Design Thinking and Foresight** – fueled by a well integrated, multidisciplinary and technically advanced faculty.



# INTENSIVE INNOVATION PROGRAMS



The theory phase of the **Food Innovation Program** is comprised of 6 modules: an introduction to the Institute for the Future's research methodologies and design thinking, followed by the five modules: Production | Reorganizing intensification: from resource-intensive agriculture to low-impact alternatives; Distribution | Rebalancing efficiency: from large-scale efficiency models to distributed resilience; Manufacturing | Remixing standardization: from standardized to personalized formulation; Shopping | Rethinking centralization: from centralized shopping sites to just-in-time delivery.

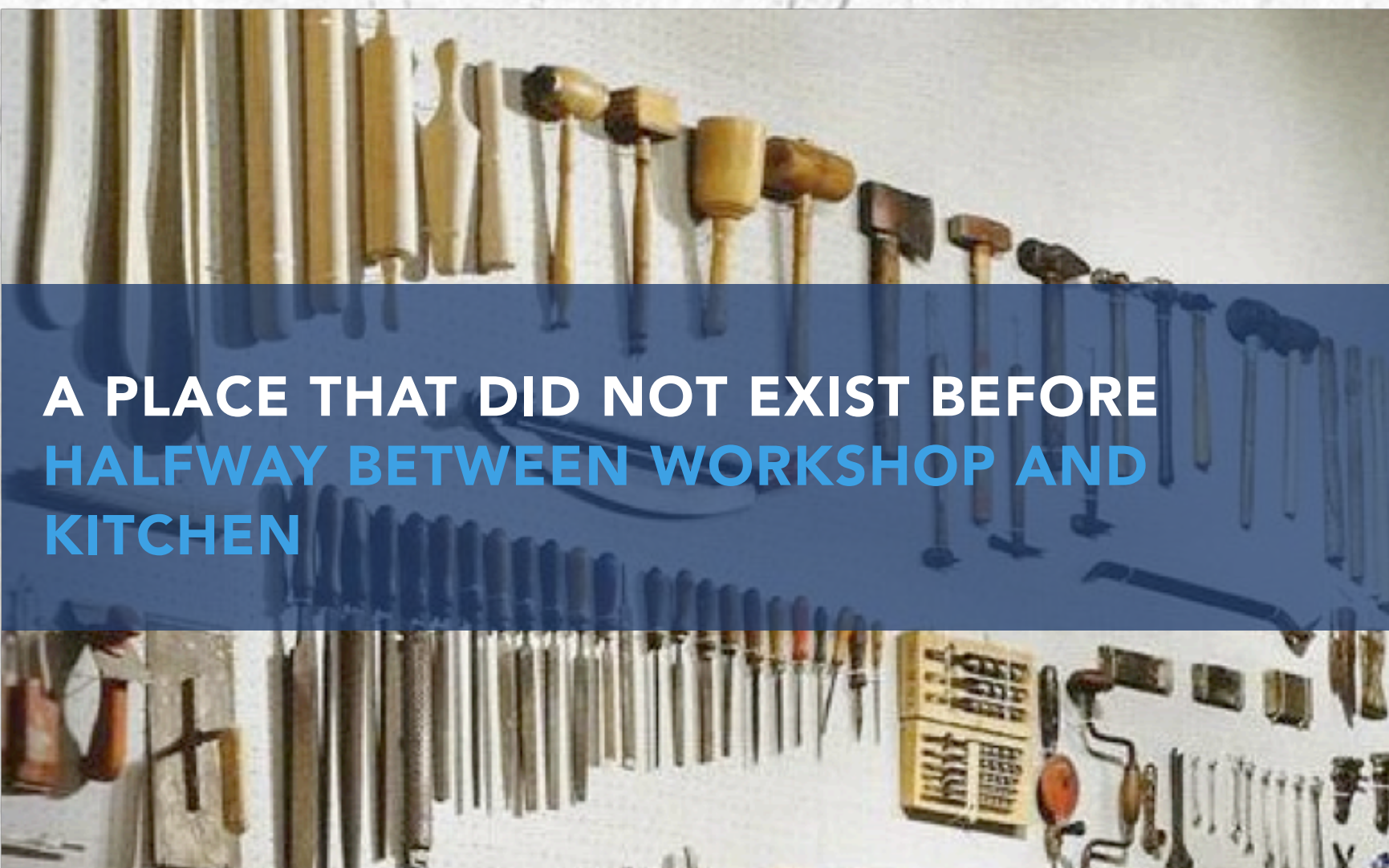
At the end of each module, participants will engage in prototype development activities based on design thinking methodology and food. Each participant will then submit a report based on the identification of case studies that are relevant and consistent. Alternatively, the report could involve students in activities to identify issues relevant to stakeholders of the project.

This phase of the program will allow students to identify the critical technologies for shaping agriculture, food distribution, retail and consumption, while taking into consideration aspects of culture, safety, social relations and regulations all centered round food. Students will gain entrepreneurial insight as they move on to the next phase of the program.

**FOODINNOVATIONPROGRAM.ORG**



## THE LAB OF FOOD INNOVATION PROGRAM “OFFICUCINA”



A PLACE THAT DID NOT EXIST BEFORE  
HALFWAY BETWEEN WORKSHOP AND  
KITCHEN



A PLACE TO SHARE  
TOOLS AND EXPERIENCES

Source: dezeen

A series of stimulating and dynamic workshops carried out in "Officucina", a state of the art kitchen inspired maker space for prototyping innovative products and services.

Specifically created for the program, the Officucina is a unique space that blends culinary tools with 3D printers, laser cutters, sensors, Arduino, and more.

# THE FOUNDERS



Founded by Andrea Magelli and Sara Roversi in 2003, You Can Group is a vibrant **entrepreneurial ecosystem** rooted in **passion, creativity, innovation** and **entrepreneurial spirit**. The powerhouse is dedicated to creating **positive impact** to stimulate **economic, cultural and social growth** in the world. The dynamic operation spans across various areas that include **communication, education, business** and **personal development** that are all tied together through a **shared vision** of wanting to better ourselves, our communities and our planet.

## You Can

A positive message concealed in the brand itself, to communicate that "everything can be done", and to group together all the various companies and projects generated since 2003.





**FUTURE  
FOOD  
INSTITUTE**



PROUDLY FOUNDED BY  
**YOU CANGROUP**  
INNOVATION AND ENTREPRENEURSHIP FOR GROWTH

*We believe that life is about creating, building, sharing, seizing opportunities, giving, growing, improving, living out dreams and having a positive impact on our world.*

**>> ANDREA MAGELLI // FOUNDER + CEO**

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