



Ministry of Economic Affairs  
and Climate Policy

# *Circular Food Co-Design Event*

*Commissioned by the Netherlands Enterprise Agency*

*>> Sustainable. Agricultural. Innovative.  
International.*



# Circular Food Co-Design

Event



# Introduction

Today, 815 million people globally suffer from hunger while 30% of the food production is wasted. Whilst agreeing on some of the basic facts is challenging, there is at least fairly universal consensus on one thing — our current food system is not working, and needs to change. The good news is that solutions exist and are beginning to take a root. However, in order to accelerate the transition to a sustainable food system, we first of all need an ecosystem with stakeholders who have a **shared understanding** of the major problems and who are willing to **co-create** solutions for these problems.

Hence, **the Consulate General of the Kingdom of the Netherlands**, in partnership with **Impact Hub Istanbul**, **Impact Hub Amsterdam**, members of the world's largest network of social innovators and **Whole Surplus**, leading social enterprise focused on food systems, brings Turkish and Dutch Food Ecosystem actors together in a 2-day event, to identify the key challenges in the food chain, combine best practices and different approaches, co-design actionable solutions and develop meaningful partnerships.

This document provides an overview of the Dutch parties that are going to participate during this event: **The City of Amsterdam**, **Instock**, **Louis Bolk Institute**, **Impact Hub Amsterdam**, **Goldsmith** and **Inter.National.Design**. It shows briefly their activities regarding circular food and how they contribute towards a circular economy in the Netherlands.

Read more about the Dutch Circular Economy goals for 2050 [here](#).

# City of Amsterdam

By **2050**, Amsterdam wants to be a clean city with as little residual waste as possible. The transition to a **circular economy** offers the city opportunities in the fields of **employment, science, reducing CO2 emissions and health**. That is why the municipality wants to make Amsterdam circular as soon as possible. The current city government has set a number of clear targets:

- **2025: 65% of all household waste must be separated to enable recycling or reuse**
- **2030: 50% reduction in the use of primary raw materials**
- **2050: Fully circular economy**

## Circular Food

The municipality promotes a sustainable food cycle in Amsterdam by means of:

- actively entering into **cooperation** with specific sectors (hospitality, care institutions, event organisations)
- focusing on: a larger share of **regional** products, a greater supply of **vegetable** products, fewer **transport kilometres**, cleaner and more efficient **local transport**, **less** waste of food and more **reuse** of food **waste**.

## Projects

The city of Amsterdam supports many projects regarding circular food. One of them is Power to Protein, where protein is extracted from **sewage sludge** and then used as **animal feed**. The production of proteins in the form of, for example, soy as animal feed requires intensive agriculture. This requires a great deal of water and farmland. This can be prevented with the use of this technology.



## Partners

To ensure a successful transition to a circular economy, the municipality works with other companies and partners, such as the **Amsterdam Institute for Advanced Metropolitan Solutions** and **Amsterdam University of Applied Sciences**, the **Amsterdam Economic Board**, **Amsterdam Smart City** and private partners.

The municipality promotes the exchange of knowledge about food at **regional, national and international** level, by means of:

- **Food Consultation:** a consultation between involved and expert people from the business community (large and small, multinational and urban farmer), education and research, social organisations and government. This consultation stimulates the coherence and exchange of knowledge between these groups.
- Entering into **consultations** with the business community and educational institutions about further improvement of the connection between **food-related training** and the **labour market**;
- Co-organizing an **Amsterdam Food Contest** once a year.

# Louis Bolk Institute

## Circular Food

The Louis Bolk Institute is an organisation with an anthroposophical background for advice and research for the development of **sustainable agriculture, nutrition and health**. Founded in 1976, the institute is named after the anatomist Louis Bolk and is based in Bunnik.

The institute sees nature as a **source of knowledge of life**. Based on the vision that processes and elements are interconnected, it works with a systems approach and multidisciplinary teams. Research themes are in the field of nature-inclusive agriculture, animal welfare, soil, biodiversity, plant breeding, economics, climate, nutrition and alternative medicine.

## Efficient chain

Together with chain parties Udea, Odin, GreenOrganics and Eosta, the Louis Bolk Institute carried out the **'efficient chain'** project, in collaboration with research partner Wageningen UR Food & Biobased Research. The project partners analysed the current situation in the chain and formulated efficient improvements which were then tested. In addition, they investigated how lost food could still be valorised as high as possible: preferably as human food, then as animal feed, and only then as a residual stream for e.g. compost or fermentation. When wholesale and bio-supermarkets **cooperate intensively**, this approach to food waste is efficient and effective. The 'Elastic chain' pilot project with Udea and Eosta showed that flexible cooperation between wholesalers, retailers and retailers can reduce loss.

# Instock

Four employees of Albert Heijn (the largest Dutch chain of supermarkets) were confronted with the problem of food lost in production and took action. With their **Instock initiative**, they map out food waste since 2014. From **unsold products**, they prepare breakfast, lunch and dinner every day in three restaurants in Amsterdam, The Hague and Utrecht and with catering.

With an **electric mobile**, Instock goes to various Albert Heijn branches to collect products that are no longer allowed to be sold. Don't think of rotten or mouldy products, but of products that have reached the sell-by date and are therefore no longer allowed to remain on the shelves. Instock ensures that people can still enjoy them. Bread from the day before, bunches of tomatoes of which one is rotten, but the rest is still fine, broccoli's that are no longer bright green... in short: everything that doesn't look perfect anymore, but is still fine to use.

They also hope to contribute to awareness about food waste, through a **teaching package** for primary schools and with their cookbooks **Instock Cooking and Circular Chefs**.





# Impact Hub Amsterdam

Impact Hub Amsterdam (IHA) is part of the fast-growing global Impact Hub network of impact entrepreneurs and innovators with more than 16,000 members in over 100 cities around the world. IHA builds impact ecosystems to solve societal issues through entrepreneurial solutions, particularly in the areas of food, plastics, inclusion and circularity.

## Circular Food

To accelerate the transition to a circular economy, IHA helps building a circular community and network, design circular knowledge sharing events, run accelerators for circular innovations, scout the best circular entrepreneurs, and develop strong partnerships. With a series of events, a community, publications and accelerator programs, IHA brings together entrepreneurs, investors, consumers, government, corporates, and other organisations to accelerate positive change in the food sector.

## Circular Programs

### Business Model Challenge | Packaging & Food

The agro-food sector in the Netherlands is responsible for a large share of national CO2 emissions; air, water, and soil pollution; and biodiversity loss. For a 3-month incubator program, IHA has selected 10-12 entrepreneurs who are taking the first steps in developing a product or service that aims to make food or its packaging more sustainable. The aim of the program is to help entrepreneurs to turn their innovative idea into a successful start-up.

### The Food Chain Accelerator

For this programme, IHA has selected 10-12 innovative start-ups that aim to make the food chain more sustainable. During two weeks, IHA trains companies to be ready for financing, growth and impact.

## Cooperation

To achieve a more circular economy, IHA works with several Ecosystem Partners, such as the Ministry of Agriculture, Nature & Food Quality, Province of Noord-Holland, City of Amsterdam, Food Hub etc.

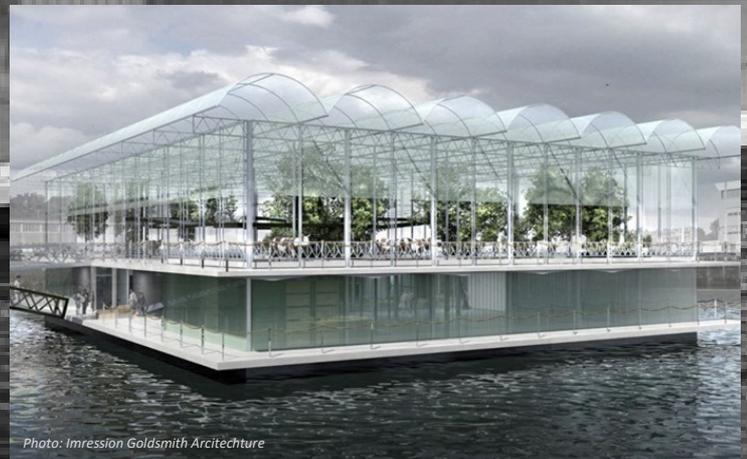
# Goldsmith

Goldsmith operates within the boundaries of architecture and urbanism. The aim of the company is to solve complex spatial issues in the most direct and efficient manners, with simple but significant solutions. One of their most popular work is the floating farm in Rotterdam.

Floating Farm produces healthy food in cities, close to the consumer. In a sustainable, innovative, transparent way with animal welfare as top priority.

The farm is practically circular. A field of solar panels on the water provides the electricity needed to control modern technology such as the milking robot. In addition, the farm collects rainwater from the roof for purification and reuse. It doesn't stop there, the cows' manure is separated into a dry and wet part. The dry part serves as soil in the barn. And the wet part of the manure can hopefully be purified in the future so that the cows can drink the water again and the minerals can be used elsewhere. This is currently still being experimented with.

The farm is completely focused on Rotterdam. Consumers can get locally produced food and also the cows eat locally in this system. They eat the grass of the Feyenoord Stadium and spent grain of a local brewery. In this way, the cows ensure that a waste stream is used. Because all the food for the cows comes from Rotterdam and the surrounding area, the transport costs for 1 litre of milk are considerably reduced. Moreover, electric cars transport all products to and from the farm.



## Inter.National.Design

Inter.National.Design (IND) is also an architectural company that focuses on sustainable design. Besides their sustainable designs they also organize conferences and contribute to research regarding sustainable architecture.

### Farm to Fork

An example of such a conference is Farm to Fork. The aim of this conference was to examine design processes in the farms of the future, in respect of the whole production cycle, and discuss about the existing practices. Designs can be built, used and demolished with minimal impact on the environment and the architect plays an important role in this. During Farm to Fork, discussions were held about how this role should be fulfilled in order to reduce negative environmental impacts in agricultural practices.

This a publication of  
Netherlands Enterprise Agency  
Prinses Beatrixlaan 2  
PO Box 93144 | 2509 AC The Hague  
T +31 (0) 88 042 42 42  
E klantcontact@rvo.nl  
www.rvo.nl

This publication was commissioned by the ministry of Economic Affairs and Climate Policy

© Netherlands Enterprise Agency | May 2020  
Publication number: RVO-087-2020/RP-INT

NL Enterprise Agency is a department of the Dutch ministry of Economic Affairs and Climate Policy that implements government policy for Agricultural, sustainability, innovation, and international business and cooperation. NL Enterprise Agency is the contact point for businesses, educational institutions and government bodies for information and advice, financing, networking and regulatory matters.

Netherlands Enterprise Agency is part of the ministry of Economic Affairs and Climate Policy.