

Deliverable 2.2
Package of fact sheets
and multi-media
illustration on maturing
and combining food
system innovations for
each FAL

Due date of deliverable 31/10/2022
Actual submission date 08/11/2022
Start date of project 01/01/2020
Duration 48 Months



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 862716.

Project Title	FoodSHIFT2030 - Food System Hubs Innovating towards Fast Transition by 2030
Contract Number	862716
Work Package	WP2 Accelerating the Solutions
Deliverable	D2.2 Package of fact sheets and multi-media illustration on maturing and combining food system innovations for each FAL
Task(s)	Task 2.2 Mature existing food system innovations towards higher TRLs and SRLs Task 2.3 Combine existing food system innovations across the food value chain Task 2.4 Devise plan for scaling up food system innovations towards wider application in the city-region
Document Name	Package of fact sheets and multi-media illustration on maturing and combining food system innovations for each FAL
Due Date	M34: 31 October 2022
Submission Date	M35: 8 November 2022
Dissemination Level	<input checked="" type="checkbox"/> P - Public <input type="checkbox"/> CO - Confidential
Deliverable Lead	SusMetro EU BV Tilburg, the Netherlands
Author(s)	Poppy Eyre Dirk Wascher Gustavo Arciniegas
Point of Contact	Poppy Eyre poppy@susmetro.eu
Reviewers	Annika Frühbeißer (Agrathaer) - Preliminary Review Anita Beblek (Agrathaer) - Preliminary Review Gabriela Perez (IAAC) - Open Review Luke John Schafer (UCPH) - Technical Review
Keywords	Acceleration, Innovation, Maturing, Combining, Upscaling
Statement of originality	This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.
Abstract (for public dissemination only)	The following document contains General guidelines and templates for the production/collection of fair data and storage in the foodshift2030 data warehouse

Role in 2.2	Role in WP2	Partner	Participants	Contact details
Task Leader	WP Leader & Innovation Management	SusMetro	Dirk Wascher Poppy Eyre Gustavo Arciniegas	dirk@susmetro.eu poppy@susmetro.eu gustavo@susmetro.eu
Sub-Task Leader	Task Lead T2.2 Maturing	CIHEAM	Francesca Volpe Lorenzo Labellarte	volpe@iamb.it l.labellarte@iamb.it
Contributor	Alignment with WP5 & review	Agrathaer	Annika Frühbeißer	annika.fruehbeisser@agrathaer.de
Contributor	Alignment with WP5 & review	Agrathaer	Anita Beblek	anita.beblek@agrathaer.de
Contributor	FAL representative	Das Baumhaus	Karen Wohlert	kwohl@mailbox.org
Contributor	FAL representative	ZALF	Beatrice Walthall	beatrice.walthall@zalf.de
Contributor	FAL representative	UCPH	Marin Lysak	marinrr@plen.ku.dk
Contributor	FAL representative	Highclere Consulting	Catalina Rogozan	catalina@highclere-consulting.com
Contributor	FAL representative	IAAC / Fab Lab Barcelona	Sally Bourdon	raluca@highclere-consulting.com



Accelerating Food System Innovations

Maturing, Combining & Scaling

What is Acceleration?

Transforming our food systems to be **circular, low-carbon and plant-based** is essential for addressing climate change, regenerating communities and landscapes, and providing access to nutritious food.

Luckily, most city-regions have an abundance of passionate innovators developing new solutions for the food system. These innovations are particularly powerful in transforming our food systems as they are **adapted to** and **embedded in the local context**. This results in a diverse array of innovations, addressing the specific local needs.

Accelerating innovations is the process of providing targeted support & guidance to maximise the innovation potential more rapidly.

Why Acceleration?



City-region food systems are made up of large networks of stakeholders. We can look at these as 'ecosystems' of relationships that allows the exchange of knowledge, services, products, money and food itself.

Within these ecosystems we can identify stakeholders working towards a sustainable food system, who we call innovators. By providing these innovators with support, they can become frontrunners in transition. As these innovators are part of the ecosystem, they become catalysts for change.


What does Acceleration look like?


Acceleration happens in 3 different modes, which can be implemented together or individually:


1. **Maturing** – increasing the readiness of an innovation to fulfil its purpose.
2. **Combining** – collaboration & cooperation between stakeholders to reach common goals.
3. **Scaling** – maximising the systemic impact of an innovation.


For each acceleration mode, a dedicated factsheet with more information is available.

Follow the project

 FoodSHIFT2030

 foodshift2030.eu

 @FoodSHIFT2030

 @FoodSHIFT2030

 foodshift2030@ku.dk





Maturing Food Systems Innovations

What is Maturing?

Maturing is the process of increasing the readiness of an innovation. It refers to how well the innovation functions, how it achieves the intended impact and how ready it is to be implemented. For example, readiness can be assessed for:

- The readiness of a product or service for the market / user (e.g. for technology or product innovations).
- The readiness of an initiative to be implemented in the local community (e.g. for social innovations).
- The readiness of governance strategies and instruments to be applied in the catchment area (e.g. for policy innovations & developments).

To measure this, we can use Innovation Readiness Levels (IRL) as set of criteria to assess the readiness of an innovation. By increasing the IRL of an innovation, we can increase the likelihood of impact and improvement of city-region food systems.


Pictured below you will see the 4 main phases in increasing Innovation Readiness Level. The process moves **from IRL 1, a very early stage innovation** in the form of an idea, **to IRL 9, a mature innovation that has been tested, demonstrated and is fully implemented.**




How to increase the IRL of an innovation?


1. Assess the current Innovation Readiness Level of the innovation(s) (see annex).
2. Understand the ambitions and key challenges of the innovation(s).
3. Identify the main needs of the innovation(s) based on the ambitions & challenges.
4. Prioritise the needs of the innovation(s) into high, medium and low priority.
5. Pinpoint, plan & implement actions to address high priority needs, followed by medium and low priority needs.

Follow the project

 FoodSHIFT2030

 foodshift2030.eu

 @FoodSHIFT2030

 @FoodSHIFT2030

 foodshift2030@ku.dk





Maturing Food System Innovations

Examples of Increasing Innovation Readiness

Food Tech Acceleration Program in Barcelona



An inspiring example of support to technological food system initiatives can be seen at the Fab Lab Barcelona, which successfully implemented [the Food Tech 3.0 Acceleration Program](#) for 10 local innovators over 7 months.

Covering 4 phases of validation, acceleration, growth & demonstration, the program supported the development of innovations to have real impact and application in their communities by supporting innovations to increase their IRLs.

Fab Lab Barcelona will be sharing more about the acceleration process and methodologies in an upcoming Gitbook. In the meantime, makers and communities can join the discussion on [Discord](#).

Supporting local producers in Brasov

Brasov has a diverse variety of local, high quality food producers. Products range from fresh fruits and vegetables to dairy products. Linking small, local producers directly to the consumers is a key step in allowing the integration of these producers into the wider and more resilient food system. A key element in achieving this is the partnership with the Brasov Municipality for reopening the space for local producers at the city level and revitalize the farmers markets. Also, the collaboration with small, but highly accredited restaurants is critical for a better integration of local producers into the food system, educating consumers and tourists throughout the menus. Weekly, the cooperative is providing a food box with seasonal products to an increasing number of families.

The next step is integration of local products into the public procurement. To do so, the capacity building of local producers is needed to allow them to offer their products on public procurement platforms and to empower them in understanding the legal and business procedures involved. To improve this, local partners in Brasov (Highclere Consulting - HCC) have initiated a consultation process on revitalizing and innovating the farmers market functions at the city level, in partnership with the local administration, while promoting and facilitating trainings for the professionalization of local producers.



Innovation pictured top left: [POWAR](#), Barcelona
Innovation pictured bottom right: SolBun Coop, Brasov
For more innovation examples, [click here](#).
Photo Credits: Fab Lab Barcelona (top left).
Raluca Barbu (bottom right).

Follow the project

FoodSHIFT2030

foodshift2030.eu

@FoodSHIFT2030

@FoodSHIFT2030

foodshift2030@ku.dk





Combining Food System Innovations

What is Combining?

Combining is the collaboration and cooperation between food system stakeholders that offers benefits to both of the actors involved, and the wider food system.

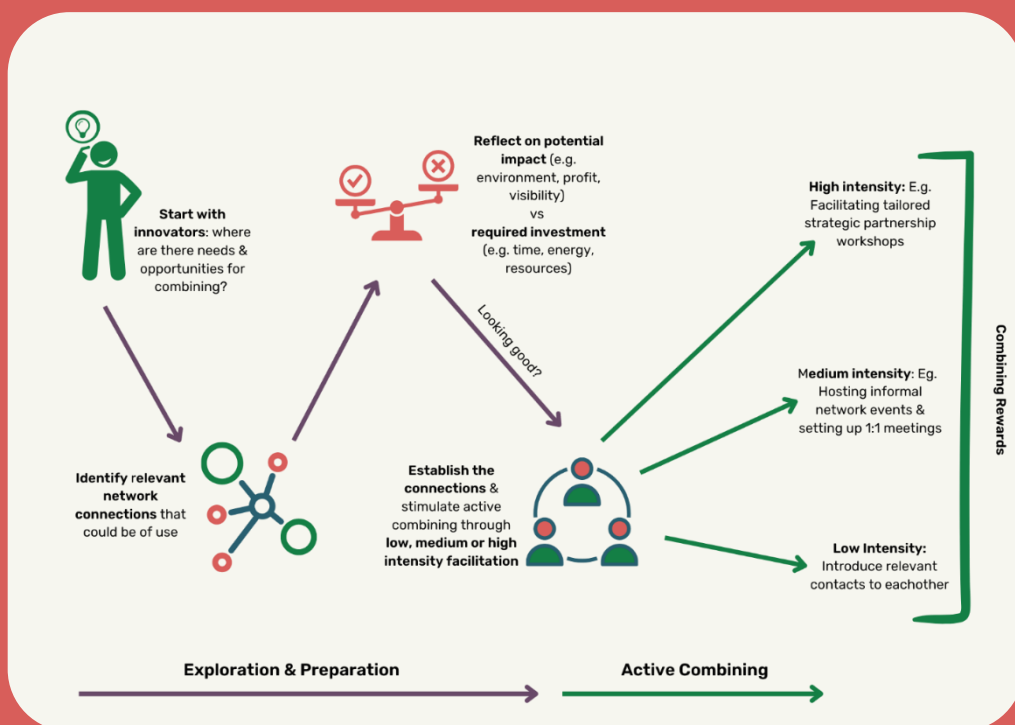
Combining can be implemented for a number of reasons, including:

- Allow expansion of service or product offerings
- Increase outreach
- Reduce costs through resource sharing
- Risk sharing
- Improve circularity & waste reduction
- Access to expertise and knowledge

How to stimulate combining?

To encourage combining in your local or regional food system, it is useful to encourage practitioners to position themselves as 'catalysts' for facilitating and supporting the combining process, as outlined in the figure below.

For more detailed guidance, please refer to the FoodSHIFT Combining Handbook.



Follow the project

FoodSHIFT2030

foodshift2030.eu

@FoodSHIFT2030

@FoodSHIFT2030

foodshift2030@ku.dk





Combining Food System Innovations

Examples of Combining

Combining farming initiatives: Gemüse Syndikat (the Vegetable Syndicate), Berlin



[The Vegetable Syndicate](#) is a Community-Supported-Agriculture (CSA) initiative based on collaboration between two farms (Auenhof Havelland & Karolinengarten) in the Berlin & Brandenburg area. The collaboration between these farms to serve a common community provides the opportunity for increased product variety whilst sharing resources & risks. This is an example of high-intensity combining in the form of long-term partnership. It offers high rewards by increasing the resilience of individual innovators (each farm), by spreading the workload and specializations, whilst still working towards a joint vision and maintaining a common market.

Network platforms: Bowline, Copenhagen

Copenhagen is a hotspot for culinary exploration, with a diverse selection of restaurants across the city. Nonetheless, restaurateurs were hard hit by the COVID-19 pandemic, resulting in the initiation of the Bowline network. [Bowline](#) brings together chefs, restaurant owners and academics across Copenhagen to pool resources for collective action. Together, the network aims to facilitate conversation on challenges facing the industry, developing resilient and collaborative solutions for restaurants across the city.

Medium-intensity combining initiatives such as Bowline reduce fragmentation of the food system, offering a common platform for addressing challenges and opportunities for stakeholders with shared interests.

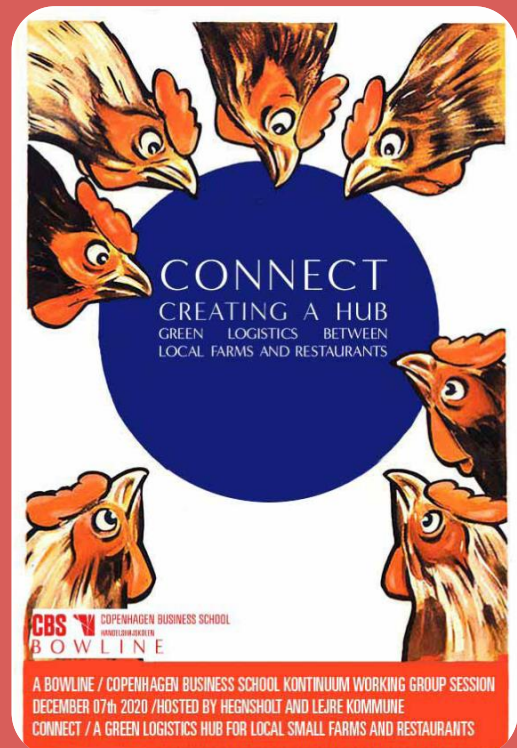


Photo credits: Johanna Naatz (top left), Bowline (bottom right)

Follow the project

FoodSHIFT2030

foodshift2030.eu

@FoodSHIFT2030

@FoodSHIFT2030

foodshift2030@ku.dk



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 862716.

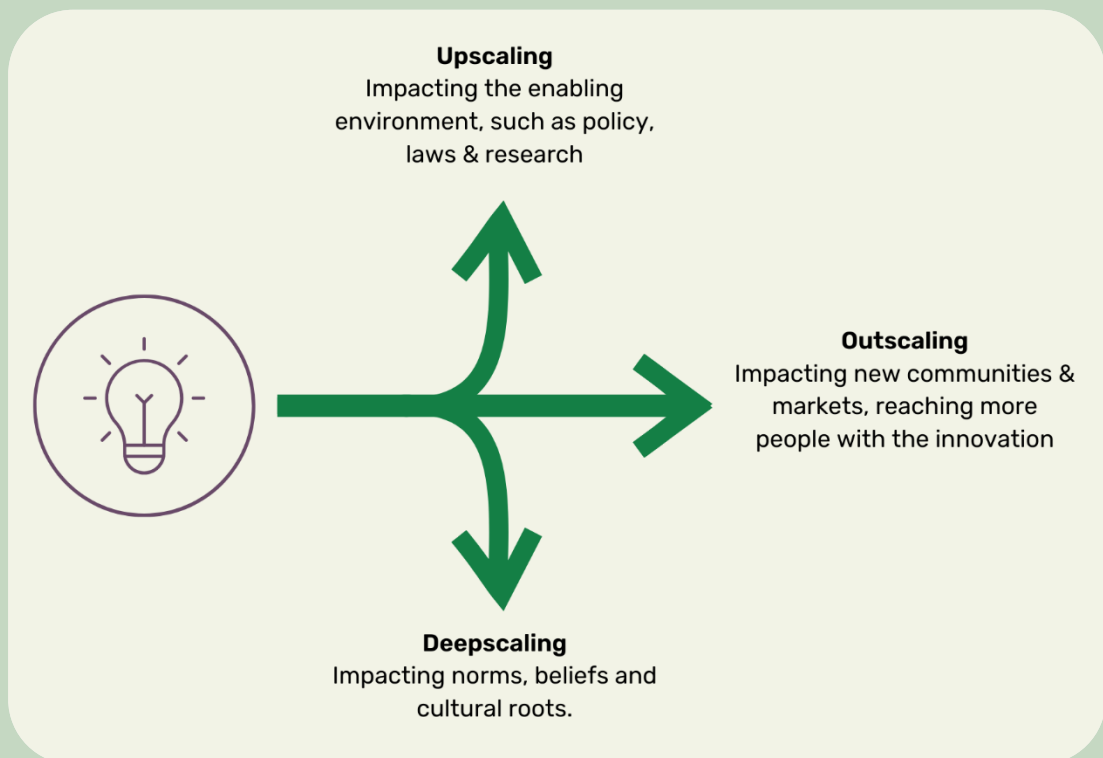


Scaling Food System Innovations

What is Scaling?

Scaling is an important part of food system transformation, allowing innovations to maximise their impact. Often when talking about scaling, it is assumed that this refers to 'upscaling' in the traditional sense of increased production, increased market and increased sales. This focus on linear growth no longer delivers the transformative impact that our food systems need.

Luckily, new approaches to scaling have been developed and can be applied to finding new ways to maximise impact of innovations in food systems. The 3 types of scaling shown below can be used: **Upscaling, Outscaling & Deepscaling***.



These 3 types of scaling can help achieve **systemic change**, by addressing the cultural and legislative paradigms that shape our food systems. Therefore, when thinking about scaling, it is essential to consider not only the innovation as a single entity, but the ecosystem of stakeholders, policy makers, citizens, researchers and other innovators it interacts with.

This systemic approach challenges the conventional understanding of growth and change, requiring a shift in our understanding of our food systems, and our position within it.

*Based on models from the J.W. McConnell Foundation & Tamarack Institute, 2015. Full text [available here](#).

Follow the project

FoodSHIFT2030

foodshift2030.eu

@FoodSHIFT2030

@FoodSHIFT2030

foodshift2030@ku.dk





Scaling Food System Innovations

When is scaling appropriate?

Although scaling is often a future goal for many innovators, it should be carefully considered whether the innovation readiness is sufficient to begin scaling processes, and whether scaling is appropriate in the local food system context. Below please find some key questions to consider before scaling an innovation:

Is scaling necessary to achieve the mission & vision of the innovation?

Consider carefully if scaling is absolutely necessary for the achievement of the mission & vision. Scaling activities can be highly resource intensive and challenging to manage. First consider whether the goals can be achieved with maturing & combining approaches.

Before embarking on a scaling process, it is essential that the innovation has been successfully demonstrated in the existing context. By ensuring the innovation is mature enough before scaling, efforts can be focused intensively on the scaling process, rather than simultaneously dealing with the core functionality of the innovation itself.

Is the innovation fully operational at the existing scale? (e.g. min IRL 7?)


Would scaling the innovation also contribute towards the transformation of the food system for other stakeholders & citizens?


Responsible scaling requires the consideration of whether this process contributes positively to food system transformation. For example, if scaling would only benefit the innovation, then it is important to re-examine and understand the influence of the innovation on the rest of the local food system. Keep in mind that scaling an innovation is an opportunity to contribute towards systems change.

Innovations undertaking scaling may find that more than one of the three scaling types is relevant. It is recommended to develop a strategic scaling plan detailing the specific goals of the scaling, linking each goal to the most relevant scaling type. In this way, innovators can design actions according to each goal, arranging these into a plan of action.


What type of scaling is most suitable?

Follow the project

 FoodSHIFT2030

 foodshift2030.eu










 @FoodSHIFT2030

 @FoodSHIFT2030

 foodshift2030@ku.dk




Annex: Innovation Readiness Levels

Exploration		IRL 1: A problem has been identified and there is an idea about how to fix it.
		IRL 2: The idea is translated into a more detailed proposal for a new innovation.
Proving Feasibility		IRL 3: A prototype / test-run of the innovation is conducted, which provides general feedback.
		IRL4: A test-run of the innovation is conducted in a more relevant environment with targeted feedback.
		IRL 5: Testing is continued at a larger scale where it's main functions are approved.
Demonstration		IRL 6: The innovation is demonstrated among relevant stakeholders with only minor problems.
		IRL 7: The innovation is demonstrated in an operational environment, showing the minor problems can be overcome.
Deployment		IRL 8: The innovation works well in an operational environment
		IRL 9: The success of the innovation is fully displayed and acts as a catalyst for change in the operating environment / market.


The Innovation Readiness Levels have been developed based on adaptations of Technology Readiness Levels (TRL) and Societal Readiness Levels (SRL)

Follow the project

 FoodSHIFT2030

 foodshift2030.eu

 @FoodSHIFT2030

 @FoodSHIFT2030

 foodshift2030@ku.dk



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement number 862716.