

### **Circular Food Series**

Commissioned by the Netherlands Enterprise Agency

























### **OVERVIEW**

As the world rapidly urbanizes, there is an increasing pressure on urban areas to deliver sustainable and healthy food supplies. Food security is crucial to economic performance and social wellbeing. Food systems (from production to distribution to consumption) should ensure that enough nutritious food is available for everyone. The challenge is doing so while minimizing any harmful impact on the environment. Accelerating the transition to a sustainable food system is crucial not only in preserving the environment but also in meeting the growing needs of nourishment.

Today, 815 million people globally suffer from hunger while 30% of the food production is wasted. Even though the planet contains enough resources and opportunities to feed everyone in a sustainable way, the number of existing necessary projects, ventures, partnerships and policies that are needed for a sustainable food system is far from ideal. Within the new context under the influence of COVID-19 and an accompanying economic recession, the majority of the systems face difficulty in adapting to the challenges and opportunities in the post-Covid world.

In order to accelerate the transition to a more sustainable and resilient food system, first of all we 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. In this report you will find the outcomes of the **Circular Food Series**, which organized in partnership with the Dutch Consulate in Istanbul, Impact Hub Istanbul, Impact Hub Amsterdam, Whole Surplus, Food Rescue Association and EIT Food-Foodback to link different actors to address knowledge gaps and develop targeted actions; promote multi-stakeholder collaboration and showcases inspirational food sustainability practices.

## BACKGROUND & PURPOSE

Turkey and the Netherlands are two countries that particularly rely on the agro-food sector socially and economically. Having a productive and sustainable food value chain is therefore one of the biggest and shared challenges of both countries. While there have been a significant number of social innovations in this domain in the Netherlands, the topic is also gaining a lot of attention in Turkey in line with increasing focus on 'zero waste' in public and private institutions as well as the rise of impressive food entrepreneurs recently.



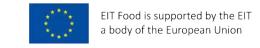


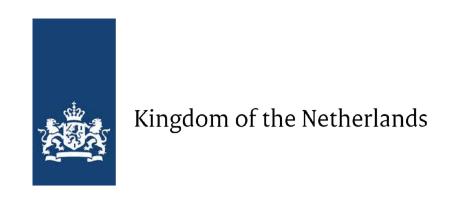














In partnership with the Dutch Consulate in Istanbul, Impact Hub Istanbul, Impact Hub Amsterdam, Whole Surplus, Food Rescue Association and EIT Food-Foodback Circular Food Series is designed to explore potential partnerships that can accelerate the transition towards a more sustainable and circular food system. It is a top priority topic especially after the covid pandemic. The main objective of the workshop is to promote participatory multi-level food governance; enhancing stakeholder participation at the city/ metropolitan level through dialogue and co-design. That's why the series is based on creating meaningful connections that can lead to collaborations. Throughout these connections a more connected loop can be created where waste is minimized. The seeds of this event grow into long-lasting relationships and feed into a supporting ecosystem for the food industry.

## **AUDIENCE & PARTICIPATION**

The opening event of the Circular Food Series took place on September 9th 2020 which brought together a diverse group of 90 participants; from whom 34% were entrepreneurs and startups, 28% were representatives from governmental institutions, 17% private sector actors, 13% were from International Organizations and 8% were from other sectors. On September 23rd 2020, the following co-design event brought together 45 participants; from whom 33% were entrepreneurs and startups, 17% were representatives from governmental institutions, 27% private sector actors, 17% were from International Organizations and 6% were from other sectors. In total more than 200 individuals from 60+ organizations from Turkey and the Netherlands participated in the Circular Food Series. These diverse groups of organizations include governmental organizations, International NGO's, entrepreneurs, universities and many other actors which is crucial for this transition.

Below chart demonstrates the participation from a diverse group of organizations to co-design workshops.



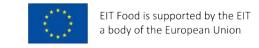




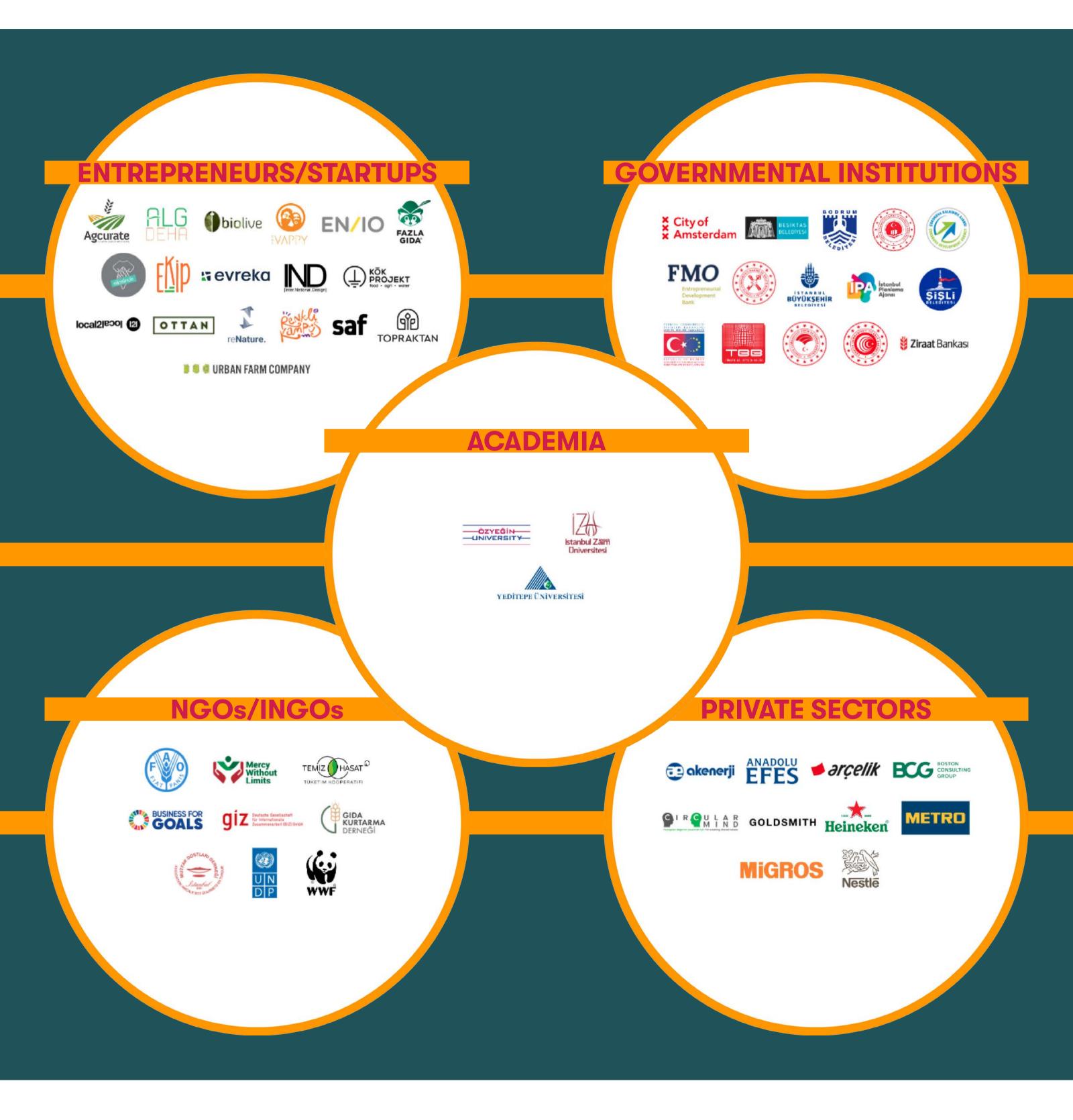
















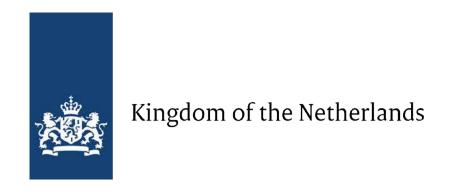














## **FLOW OF THE SERIES**

### **ONLINE CO-CREATION WORKSHOP DAY 1**

**SEPTEMBER 9<sup>TH</sup>, 2020** 

- Opening Remarks
- Introduction of Groups
- **Co-Creation Sessions**

### **ONLINE CO-CREATION WORKSHOP DAY 2**

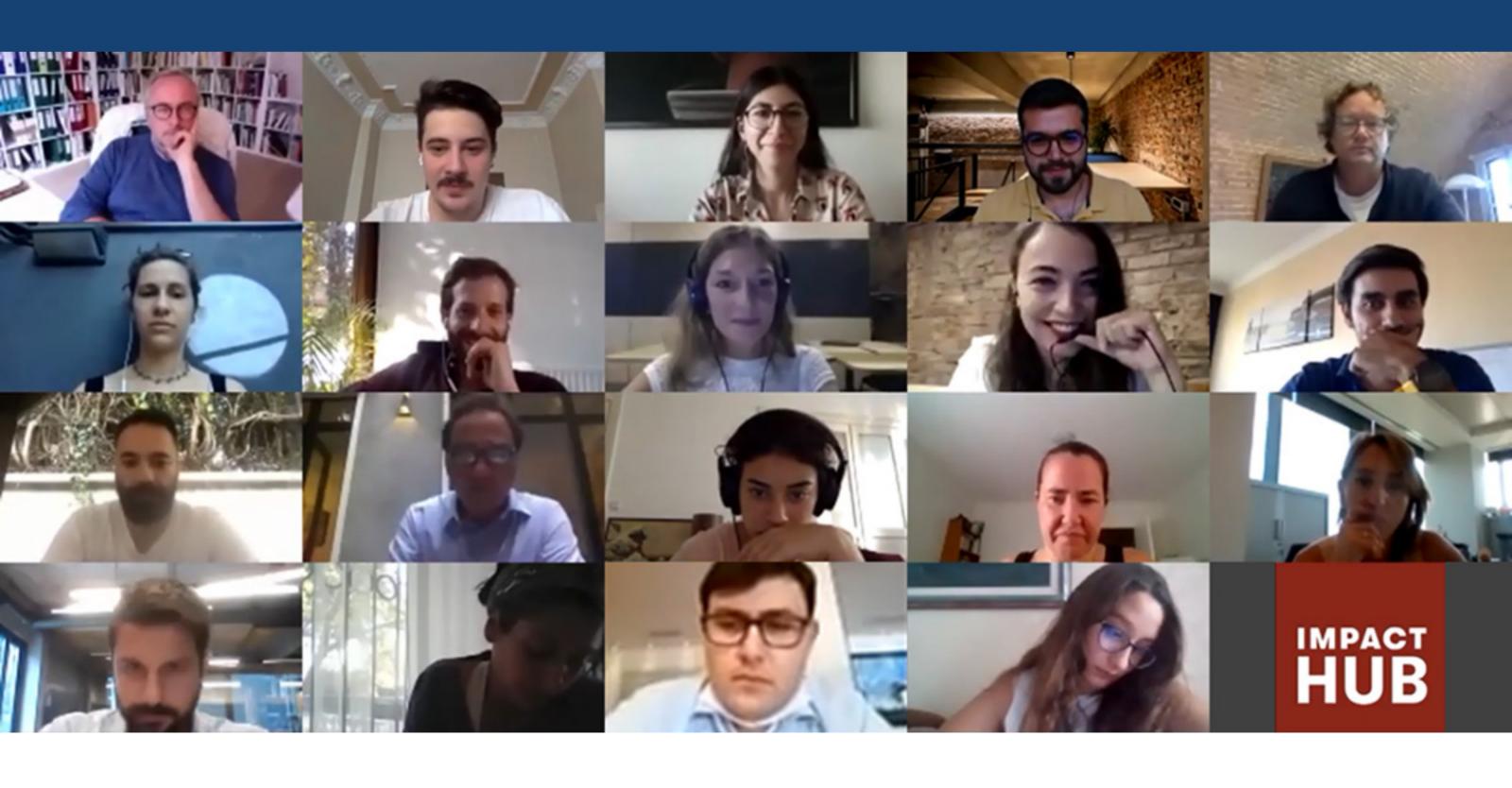
**SEPTEMBER 23<sup>RD</sup>, 2020** 

- **Co-Creation Sessions**
- Next Steps and Points of Action

### **ONLINE PUBLIC EVENT**

**OCTOBER 13<sup>TH</sup>, 2020** 

- Opening Remarks
- Presentation of Outputs
- **Panel Discussion**





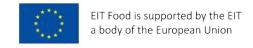


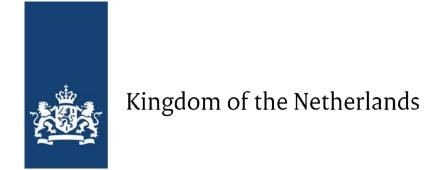


















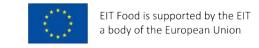


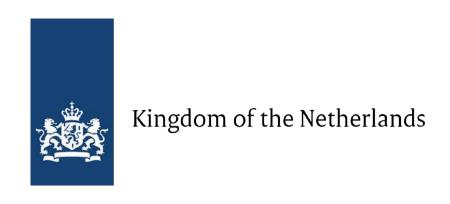














## HIGHLIGHTS OF THE SERIES

In partnership with the Dutch Consulate in Istanbul, Impact Hub Istanbul, Impact Hub Amsterdam, Whole Surplus, Food Rescue Association and EIT Food-Foodback, the Circular Food Series which consist of two co-design workshops and one public event hosted various inspirational keynote speakers and fruitful discussions. In this section, you will find the highlights of the series.

### REMARKS FROM KEYNOTES OF THE CIRCULAR FOOD SERIES

**Bart Van Bolhuis**, Consul General of the Netherlands, shared the ambitious agenda of the Netherlands to become fully circular in 2050 and introduced the concept of waste as a commodity. He also encouraged us to think big and act small and look for scalable and implemental solutions.

**Tatiana Glad**, Founder of Impact Hub Amsterdam shared how they work with food entrepreneurs in Amsterdam with a particular emphasis on the importance of networks and ecosystems in scaling best practices and innovations.

Tatiana shared their approach to ecosystem building based on the principles below:

- Creating right conditions for the ecosystem
- Building entrepreneurship network
- Facilitating access to capital (to make sure that best practices can scale up)
- Strengthen connections to build the ecosystem (In ecosystem building, it is always important to ask the question: 'Who is not on the table yet?' and 'Who do we need to invite next to broaden the ecosystem?')

Ellen Oetelmans from the City of Amsterdam, who is working closely with Impact Hub Amsterdam shared insights of the of the City of Amsterdam and how they stimulate impact entrepreneurship broadly, including not only social enterprises but also for all companies that tackle societal challenges through entrepreneurship. Ellen shared their approach in terms of building trust and acting together by ensuring a strong and transparent link between the City and stakeholders.



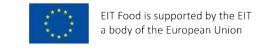
















Olcay Silahlı from Whole Surplus shared the importance of changing the way we approach waste: the amount of waste might seem negative but it is also a huge business opportunity for investors, companies, entrepreneurs and other actors. "There is a big opportunity in Turkey, to turn a big chunk of waste into business in a circular economy environment."

**Begoña Perez Villarreal** from EIT Food shared focus areas of EIT innovation and how they work around them in line with social, environmental and entrepreneurial challenges. Those six focus areas cover the topics of Alternative Proteins, Sustainable Agriculture, Targeted Nutrition, Sustainable Aquaculture, Digital Traceability and Circular Food Systems which are supported with education, innovation, entrepreneurship and public engagement activities throughout the year and got stronger over the years.

**Aylin Çağlayan Özcan** from the Ministry of Agriculture and Forestry emphasized the importance of food loss and food waste. She explained "SAVE YOUR FOOD CAMPAIGN" that they introduced with the Food and Agriculture Organization (FAO) which aims to establish common sense and build partnerships from civil society to academia for food waste issues.

"Pandemic, the trade wars, development in technology, digitalization, climate change and resilient food systems are all on spotlight. Agricultural issues remained on top of the agenda and showed us again that it is the most important topic. After the changes in the European government last year, important policies introduced: European Green Deal. It is not only important for Europe to take this step but for every other country because the environmental crisis is global. Timing of this session is really parallel to what has been discussed in the EU Green Deal lately. That is why the discussion today is really important. The main goal of the EU Green Deal is to provide healthy, affordable and sustainable food for everyone. Preserving biodiversity, climate change, protecting the environment in the name of agriculture, and making the supply change operational are also some objectives that the EU Green Deal tackles. We are entering a new period, where there are lots of funding opportunities. Besides discussing, we have to find different opportunities for different establishments."

**Bülent Özcan**, Director-General for Financial Cooperation and Project Implementation | Ministry of Foreign Affairs Directorate for EU Affairs



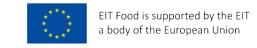
















## **CO-CREATION SESSIONS**

In the first workshop to cover the different elements of the food system, the break-out rooms were designed to discuss various themes such as "Agricultural Production, Alternative Solutions in Food Value Chain, Food Supply & Safety, Sustainable Food Consumption, Waste & Recovery".

In those groups, participants shared the most pressing challenges that they face/observe in general or in post-COVID world as well as some opportunities they identify and the first steps they would take towards a more sustainable food system. Based on the outputs of the first workshop, the discussion groups of the second workshop groups were organized. During the second workshop, discussions were based on some key topics and modalities that were identified by the participants in the first day as critical in transition to a sustainable food system. "Providing 'food system' skills", education and capacity building of stakeholders; "Catalysing food entrepreneurship and innovation", leveraging agrifood technologies for sustainability; "Developing public-private partnership models for inclusive & green economic recovery"; "Building a more citizen-centric and connected food system"; "Datacentric solutions for sustainability", integrating data utilization throughout the food chain to ensure sustainability were subthemes for solution paths discussed during the second event.

The harvesting process of the group discussions contained interesting exchanges and observations but more importantly a very high level of willingness for ongoing collaboration between participants to solve the pressing social/environmental challenges related with the food sector.























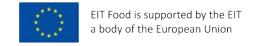






















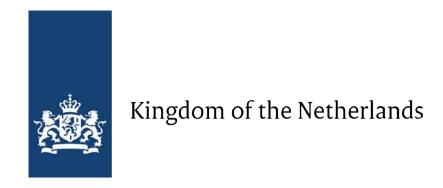


















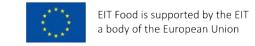
















As follows the highlights of the co-creation sessions are shared towards more sustainable food system:

### **COLLABORATIVE GROUNDS**

"Creating interconnected systems that facilitates cooperation is crucial."

The most significant need to make a radical improvement for a more sustainable food value chain was mentioned as lack of collaborative grounds. Participants emphasized the size of opportunities missed in terms of more sustainable operations and operational efficiency due to working isolated and in big siloes. Also, result-oriented collaboration was underlined as critical in order to expand the impact of an organization's actions. The real value was defined as unlocking collaborations between different actors and developing multi-stakeholder partnerships. Moreover, the knowledge gap between different actors and existing innovations were identified.

As an example, the public sector does not have much access to technology ecosystems. For this specific example; exclusively designed support mechanisms and projects may unlock and facilitate collaboration between the public sector and innovative organizations.

Another example from the waste management field; significant opportunity was identified for operational efficiency and waste reduction by increasing shelf performance in retail stores. To capitalize on this opportunity, big firms look for guidance in establishing new collaborations (e.g. triangular collaborations - supplier, retailer, startups). These actors are required to come together to tackle the problem and are supported to access new innovations.

Regarding the supply chain operations the focus was the same: rebuilding a closer connection between citizens and their food, shortening the food supply chain from farmers to consumers identified essential to better create healthier local structures that enable new consumption patterns and increase access to locally produced food better.



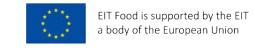


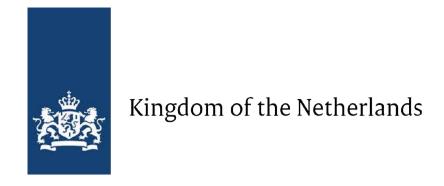


































#### **RAISING AWARENESS**

"There is a need for awareness raising for firms with insufficient sustainability agenda and KPIs."

In all discussion groups, there was an awareness raising element both on societal and citizen level as well as on organizational level across different domains and industries. In order to name some key highlights related with awareness levels:

- Training and capacity building should be done in order to prevent food waste and make correct waste management particularly on businesses.
- Education and capacity building needs and targets are very complex; for this reason, enabler/ capacity builder institutions should also align and combine their forces based on their expertise and target groups.
- Organizations should share challenges and priorities more clearly and openly with innovation
  ecosystems and solution providers such as startups; and startups and innovative organisations need
  to explain the benefits and financial value better in addition to the social value.

"Cultural patterns and socioeconomic factors should be considered in terms of advocacy, awareness raising and mindset shift."

Social and economic incentives should go hand in hand with awareness raising activities. As an example: in waste management, separation at the source is very critical for the reuse of waste. Willingness to separate waste at the source should be created. However, there is an awareness problem on a societal level but there is also a motivational problem: People are not sure if their separation will work because they are not convinced about the efficiency of the process after separation. This situation hinders willingness to separate waste at the source, which is a problem that would hinder the impact of awareness raising campaigns. It's important to improve these structures and also inform/demonstrate citizens about what happens with their separation efforts.

#### **INCENTIVIZATION**

"Building social and economic incentives & knowledge base in order to reduce food loss and food waste."



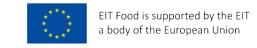
















Incentives and fines are important for firms to adopt sustainability agenda faster. This should be accompanied with awareness raising. For instance, the change in tax incentives in food donation and making food donation financially more attractive compared to food destruction with tax incentives has led to a massive improvement in food banking in Turkey recently. In addition to social value, financial value for producers and retailers led to social value. Similar incentives should be designed for other contexts as well (E.g. farmers)

There is a significant need to apply incentive mechanisms starting from the farmer level - new incentives in data driven production, new technology, circularity incentives can be provided to farmers besides seeds, vehicles and other incentives.

#### IMPORTANCE OF PUTTING DATA IN THE CENTER

"Data collection and management are significant for the transparency of food production, supply, consumption and for understanding the root causes of waste in the food value chain."

As the popular saying explains, 'We can not manage what we can not measure.' Therefore correct data is very important for the whole system. Data structure in Turkey should be up-to-date, measurable, reachable, transparent and systematic. There is a lack of relevant data of where and what is being produced, the volume of food production and the amount of waste. As declared in the workshop "If an organization invests 1 dollar in waste management, they receive 7 dollars." There needs to be the ability to make similar data that demonstrates the value visible and understandable to reverse the equation.

- There is a need for datasets to understand the source of waste: gathering data and gaining insights into the root causes of waste by integrating different data sets can be important guidance to have a better understanding of waste management and generate sustainable value from it.
- Cultural component: Data analysis is not very well internalized on an organizational and societal level. We need more awareness raising and capacity building on this topic.
- Collaboration is critical in collecting data: There is a particular problem in understanding the situation from farm to store processes. The real challenge is to collect data from the producer and farmer. Farmers also need data-driven guidance on consumption data. Significant agricultural efficiency is lost because of lack of a link and coordination mechanism between the consumer demand and agricultural production. Digital literacy and technological developments of stakeholders will be key topics in the future food system.



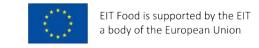
















### LACK OF VISIBILITY OF EXISTING SOLUTIONS

"There is a lack of solutions mapping systems (on a product and sectoral level) that can guide organization's in becoming aware of different kinds of innovations and technologies."

Mapping out existing innovations and solutions can serve as a sectoral guidance and shed light on potential collaborations opportunities. For instance; many products are wasted since there is no guidance about different kinds of wastes and waste management tools/methods. The challenge is to understand how to use different kinds of waste and enhance the lifecycle of products. There could be product based sectoral waste maps that can show different kinds of waste, how to deal with them and what kind of organizations can exchange their wastes. There is significant untapped potential for generating value out of waste or turning waste into value for organizations, startups and municipalities.

#### **ENTREPRENEURIAL SUPPORT MECHANISMS**

"Entrepreneurs look for better support frameworks (government incentives, access to data, funding opportunities) and spaces for innovation to contribute to a more sustainable food chain."

- Big companies and producers need innovative solutions from startups that could help them to transition to a more sustainable food value chain.
- Entrepreneurs should be supported in scaling and making partnership with these big companies and producers.
- Lack of coordination and planning which inhibits matching the knowledge and opportunities across stakeholders.
- Scaling pilot projects and success stories are important to take the impact to a systemic level. (Both for entrepreneurs and organizations that act in an entrepreneurial way who are proactive to solve social and environmental problems.)



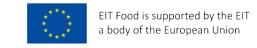
















### **ECOSYSTEM BUILDING PANEL**

The series concluded with a panel discussion: "Ecosystem Building" formed by experts from diverse perspectives. All the panelists, in their own ecosystems have different experiences in taking action towards creating solutions for sustainability. Tatiana Glad from Impact Hub Amsterdam and Ellen Oetelmans from the Municipality of Amsterdam have been the architects of a unique public-private partnership for the benefit of the city of Amsterdam. Erol Özgüner, CIO at Istanbul Metropolitan Municipality has set a mission to make Istanbul a more smart and more entrepreneurially driven city. Olcay Silahlı, through Whole Surplus, has dedicated himself to disrupting the food waste issue while similarly Mr. Robert Van Otterdijk, from FAO's regional office as its resident agrifood expert, has been leading the efforts on reducing food loss and waste through the global SAVE YOUR FOOD platform; and finally Ayşe Sabuncu has co-initiated Turkey's first agrifood community, Foodback to answer the needs of our local agrifood ecosystem. During the panel discussion panelists reflected on the outcomes of the series and showcased different practices from Amsterdam and Istanbul, acknowledged the importance of multi-stakeholder grounds for collaboration and inclusive solutions.

### FINAL THOUGHTS & KEY TAKEAWAYS

Circular economy offers attractive solutions to create a food system that is healthier and more resilient that addresses shortcomings and aligns with future trends. With the Circular Food Series we showcased opportunities available to businesses, entrepreneurs and governments to take a long-term view of the future of food and catalyse a fundamental shift in the system. As action points:

- Grounds for collaborations and partnerships should be created. There should be an ongoing support to accelerate them, map the ecosystem to lay a foundation for collaborations.
- Role of entrepreneurship is essential to scale the existing solutions and nurture the food ecosystem.
- There should be better data collection and developed access to data systems to increase the efficiency of the system and provide traceability.
- Awareness raising activities should go together with well planned incentives.



















# ADDITIONAL RESOURCES

(in Dutch, Executive Summary in English)















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