



Report on Communication with local and regional actors along the food supply chain

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Executive summary

This report, part of the EU's Horizon 2020 FOX project, focuses on the dissemination and communication strategies employed during the project. The FOX project, titled "Innovative down-scaled FOod processing in a boX," aims to revolutionize small-scale food processing technologies, particularly for fruits and vegetables. A critical component of this initiative is the Work Package 9 (WP 9), dedicated to effectively disseminating project objectives and results to key stakeholders.

The communication strategy primarily targets local farmers, small-scale food producers, and the general public. The focus of this report is the communication with local and regional actors along the food supply chain. The key messages revolve around raising awareness of innovative processing technologies and sharing progress and achievements of the project. These messages are conveyed through various channels, including small-scale events in model regions, the establishment of the FOX Small Scale Food Processors Interest Group, and digital platforms such as webinars and stakeholder workshops.

Significant achievements include substantial participation in workshops and webinars, demonstrating active engagement and interest in the project. The Interest Group has shown notable growth, serving as a testament to the project's relevance and impact on the food processing community.

The project planned to expand its dissemination efforts, with a focus on increasing the visibility of its findings and fostering broader engagement across the European food processing sector. The ultimate goal was to ensure that the innovative solutions developed by the FOX project are widely adopted, leading to more efficient and sustainable practices in the small-scale food processing industry.



1.Purpose (“Why?”)

The project aims to develop and promote innovative, downscaled food processing technologies that are more accessible and affordable for small-scale producers. By doing so, the FOX project seeks to empower these producers, enabling them to enhance their competitiveness, reduce their environmental impact, and ultimately contribute to a more sustainable and resilient food system.

In line with these objectives, Work Package 9 (WP 9) focuses on effective communication and dissemination. This aspect of the project is critical for ensuring that the knowledge and technological advancements generated are effectively shared with and adopted by the target audience.

The report delves into the various methods employed to communicate the project's goals, progress, and successes. By engaging stakeholders through workshops, interest groups, webinars, and other platforms, the FOX project not only spreads awareness of its innovative technologies but also fosters a community of practice and collaboration. This approach is pivotal in achieving the overarching goal of enhancing the efficiency, sustainability, and profitability of small-scale food processing across Europe.

Through its concerted efforts, the FOX project aspires to make a lasting contribution to the European agri-food sector, driving innovation and sustainability in small-scale food processing, and ultimately supporting the economic and environmental health of the region.

2.Target audiences (“Who?”)

The FOX project, in its mission to revolutionize small-scale food processing, particularly targets the following key audiences:

- **Small-scale Food Processors and Local Farmers:** These are the primary beneficiaries of the project. The aim is to reach small-scale processors and local farmers across Europe, particularly those who are either already involved in fruit and vegetable processing or have the potential to diversify into this sector. By adopting the innovative technologies developed by FOX, these groups can improve their operational efficiency, product quality, and sustainability.
- **Agricultural and Food Processing Industry Stakeholders:** This includes larger food processing companies, equipment manufacturers, and technology providers. Engaging with these stakeholders is crucial for the diffusion of new technologies and practices developed under the FOX project, potentially leading to wider industry adoption.
- **Policy Makers and Regulatory Bodies:** These entities play a significant role in shaping the environment in which small-scale food processors operate. The



project seeks to inform and influence policy and regulatory frameworks to be more supportive of innovative, sustainable practices in food processing.

- **Academic and Research Communities:** Collaboration with educational and research institutions is vital for the validation and further development of the technologies and practices introduced by the FOX project. This collaboration can also aid in the dissemination of knowledge and training of future professionals in the field.
- **General Public and Consumers:** Raising awareness among the wider public about the importance of sustainable food processing practices and the role of small-scale processors in the food supply chain is another goal. Educated consumers can drive market demand towards more sustainably processed products.
- **Investors and Financial Institutions:** Attracting investment is key to the implementation and scaling of innovative food processing technologies. Therefore, the project also targets investors and financial institutions, showcasing the potential economic benefits and opportunities for growth in the sector.

By engaging these diverse audiences through tailored communication and dissemination strategies, the FOX project aims to create a broad-based support network, fostering an ecosystem that is conducive to the adoption and scaling of innovative food processing technologies. This approach is designed to maximize the project's impact, driving change across the entire food processing value chain.

3.Message (“What?”)

In the FOX project, the dissemination efforts centered on conveying general messages to elevate awareness about the initiative. These messages primarily highlighted the project's core focus on downscaled fruit and vegetable processing technologies. Additionally, they encompassed related themes like short food supply chains, the broader fruit and vegetable sector, the significance of seasonality in agriculture, and the overarching theme of sustainability. This approach aimed to inform and engage a wide audience on these crucial aspects, integral to the project's objectives.

4.Dissemination activities & tools (“How?”)

To reach the target group of local and regional actors small-scale events were organized in the FOX model regions, dialogues were created with local farmers and producers, to engage them and allow them to provide into the project development. For these events we made use of the FOX Small Scale Food Processors Interest



Group (SSFPIG). During these local and regional events we also aimed at the general public and linked with the FOXLINK consumer engagement activities in WP6.

The FOX Small Scale Food Processors Interest Group (renamed) is the main tool to bring technical innovation towards local and regional actors in the food supply chain in a decentralized manner, via an EU-wide platform for the transfer of innovative technologies and new business models creating new market opportunities. For more information on how this Interest Group was setup, we refer to D8.1 Report on launch European Interest Group of Small Scale Food Producers.

At the end of the project the FOX Small Scale Food Processors Interest Group grew to group of 335 members. By this we reached the expected grow over the time of FOX. At project start we aimed for 100 – 150 members.

First FOX European Stakeholder Workshop

The first FOX European Stakeholder Workshop was held as planned in M18 (24 and 27 November 2020). The scope of this first workshop was to stimulate an open and mutually beneficial discussion on best practices of small-scale (on-farm) food processing. Participants were carefully selected according to their practical experience in small-scale food processing and regional distribution over the FOX food circles.



Figure 1: Screenshot of participants at the 1st European Stakeholder workshop.

Details about the programm and results of this workshop can be found in the report D8.2 (European Stakeholder Workshop Region: proceedings and recommendations).



Workshop organized by Fraunhofer ISI

As part of the FOX project, partner Fraunhofer ISI organized a workshop on June 14, 2021, aimed at uniting stakeholders from industry, policy, science, and agriculture to deliberate on the future opportunities and challenges in the European Food sector. The discussions focused on the FOX framework scenarios in relation to specific aspects of the 4 FOX Food Circles. Participants explored how global trends and developments might unfold in the FOX regions and whether artificial intelligence would drive the FOX technologies or if regulation might slow them down.

The workshop, conducted virtually, facilitated intensive exchange by working in small groups, with a maximum of 12 participants per group. Attendance was by invitation only, ensuring a focused and productive dialogue among the selected attendees.

Details about the program and results of this workshop can be found in the report D5.2 (Documentation of the food circle scenario workshops).

Second FOX European Stakeholder Workshop

The [2nd FOX European Stakeholder Workshop](#) took place on 28 June 2021 as an online event. This workshop had to deal with the best practices on innovation for European Farmers with a diversity of experts like farmers, representatives of farmers organizations, research institutes, non-governmental organizations, or other stakeholders sharing their stories and opening a fruitful dialog in innovations either on-farm or in cooperation with external partners. Although one should not ignore regional and cultural diversity, farmers face some similar hurdles and can be helped by sharing experiences to find solutions and upscale innovations.

Details about the program and results of this workshop can be found in the report D8.3 (European Stakeholder Workshop Innovation: proceedings and recommendations).



Figure 2: Screenshot of participants at the 1st European Stakeholder workshop.



RADIANT CREATOR Workshop

The [RADIANT CREATOR Workshop](#) – TECH event took place at FOX partner DIL from March 30 to 31, 2022. It was a pivotal moment for the RADIANT project, as it aimed to bolster the understanding and utilization of underutilized crops (UCs). The workshop featured the first public demonstration of the FOX container Food Circle 1 by FOX partner DIL, which was used to produce tomato juice.

This event was designed to showcase the latest trends and state-of-the-art technological processing options for UCs. These efforts were geared towards strengthening the value chains of these crops and fostering engagement with various stakeholders involved in this chain. Participants had the opportunity to witness several success stories from the alternative protein value chain. Additionally, the workshop included a visit to the Technology Centre Proteins of the Future, offering insights into a wide array of research and innovation activities associated with selected UCs.

One of the key elements of the workshop was the interaction with stakeholders from the agri-food processing sector. This interaction was especially highlighted during a demonstration tour to a Mobile Processing Unit. Here, attendees could taste various products made from underutilized crops while also gaining insight into consumer needs and expectations. The combination of demonstrations, tours, and stakeholder interactions made the RADIANT CREATOR Workshop a comprehensive and enlightening event, culminating in a deeper understanding of the potential and challenges associated with underutilized crops.

First research network meeting

The FOX project was presented by Falkenstein during the 1st research network meeting hosted by KOB on 02.05.2022. In this event, the audience had the possibility to visit the juice processing container of the Food Circle 1.

Topics on the resource and climate-friendly circular economy for fruit and vegetable residues included:

- Nationwide strategy to reduce food waste (dialogue forums).
- Status and potential analysis of a resource-efficient circular economy.



Figure 3: Flyer of the 1st Research Network Meeting (regional initiative) at Ravensburg, Germany, 2022.



- Distribution and preservation of food scraps in the model region of Lake Constance Upper Swabia (Bodensee-Oberschwaben).
- Curse and blessing of the best-before date (BBD).
- Zero Waste Factory.
- Digital platform / Commodity exchange.
- Food Processing in a Box (FOX).
- Is it possible to feed 800 million people with food for 2 billion people?

FOX Segment Meeting in the Bodensee region, Germany

On Tuesday the 4th and Wednesday the 5th of October, FOX partners had met in Aulendorf and Ravensburg in the Bodensee region of Germany. This two-day meeting provided an outlook on the final year of the project, with updates from various work packages and discussions on the next steps.

The first day's meeting took place in the city hall of Aulendorf, hosted by FOX partner FALKENSTEIN, and concluded with a celebratory drink at their offices. Fruitful discussions revealed upcoming realizations and scientific research.

The second day led everyone to the KOB Research Centre in Ravensburg-Bavendorf to see the FOX container. Fresh apple juice was tasted while observing juice processing and touring the fields. This was followed by brainstorming sessions on business plans, consumer events, and the final conference.

With fresh ideas and energy, all participants were ready to make the final year of FOX a period of great inspiration and innovation. The meeting was memorialized with photos.



Figure 4: Impressions of FOX Segment Meeting at partner KOB, 2022:



Consumer Workshop at AINIA, Spain

On October 28th, 2022, FOX partner AINIA celebrated the Food Circle 3 consumer workshops. The workshop demonstrated the innovative packaging technologies down-scaled in a container unit. Through interactive hands-on materials, consumers could discover the workings and functions of the packaging unit. Over 30 consumers participated in the live event in Paterna/Valencia, Spain.



Figure 5: FOX container Food Circle 3 at Consumer Workshop at partner ainia, 2022.

FOX at Food Ingredients (FI) Europe

FOX partner and Senior Researcher Food Technology at Wageningen University & Research, Martijntje Vollebregt, presented the FOX processtimator ([Food Circle 4: Upscaling side streams](#)) as part of an expert panel at FI Food Ingredients Europe on December 7th, 2022.

The session, titled 'Using innovative tools to upcycle your agri-food side streams' was co-hosted by Wageningen colleague, Martijn Bekker, Expertise Leader Microbial Cell Factories.



Figure 6: FOX presentation at Food Ingredients (FI) Europe, 2022.



Third FOX Small-Scale Processors Workshop, Leuven, Belgium

KU Leuven, and partners for the FOX project bundled forces to organize a workshop on business opportunities and sustainable solutions to reduce and valorize food waste. This was the last event in the series of the FOX European Stakeholder Workshops. The workshop took place on the 14th of December, at the Irish College in Leuven. 21 experts discussed the challenges and opportunities of flexible and mobile solutions to valorize food waste and give farmers and other actors a new perspective to gain value from fruits and vegetable surplus or waste. The workshop was organized within the framework of the H2020 project Food processing in a box (FOX). Tessa Avermaete (KU Leuven) and Peter Holl (DIL) hosted the workshop.



Figure 7: Participants at the 3rd European Stakeholder workshop in Leuven, Belgium, 2022.

Details about the program and results of this workshop can be found in the report D8.4 (European Stakeholder Workshop Political Exchange: proceedings and recommendations).

Exploring Synergies and Exchanging Experiences in Valencia

On the 30th of November and 1st of December, Tessa Avermaete (KU Leuven, project manager FOX, COCOREADO and RUSTICA) and Dioni Ortiz (project coordinator Visionary) met at the Universitat Politècnica de València (UPV). They had been working together in the European FP7 project, TRANSMANGO, 2014-2018, on the topic of food security in Europe. TRANSMANGO included the development of scenarios and pathways for sustainable solutions. Both the covid pandemic and the Ukraine crisis demonstrate the relevance of studying unexpected shocks to our food system.



Exchange on European projects

Dioni invited junior and senior colleagues for this dialogue on opportunities and bottlenecks in our food system. Tessa presented several European projects in which the division of bioeconomics is: FOX, COCOREADO and RUSTICA. These projects all deal with making the food system more sustainable, with a strong focus on the added value of circular food systems and short food supply chains. RUSTICA and FOX both deal with waste streams from fruit and vegetables.



Workshop: presentation of a mobile prototype line for drying fruit and vegetable products

On April 14, 2023, a total of 21 participants gathered for the presentation of a mobile prototype line for drying fruits and vegetables using innovative Pulsed Electric Field (PEF) technology. This event was part of the European project FOX – Food processing in a Box and was held in the Czech Republic. Attendees included partners from the Food Research Institute Prague, Warsaw University of Life Sciences – SGGW, Cedrus Technology, Elea GmbH, and Sady Tuchoraz s.r.o.

The workshop aimed to acquaint apple growers with the prototype mobile line for processing fruits and vegetables into dried slices showcased at Sady Tuchoraz s.r.o. premises. During the event, the equipment was installed, connected to the electrical network, and started for a verification operation, including the PEF high-voltage pulse treatment.



Figure 8: Impressions of FOX container of Food Circle 2 demonstration at partner Cedrus, 2023.



The verification operation enabled drying samples from both untreated and PEF-treated apples, which were then packed in plastic pouches. Following the lecture, which provided an overview of the FOX project and detailed information about the slice drying line, participants visited the headquarters of Sady Tuchoraz in the village of Tuchoraz, where a successful demonstration of the line in operation was conducted.

Workshop: introduction to the FOX technology and products

The FOX online workshop on Business Model Validation and Robustness Check for the economic use of innovative down-scaled and mobile food-processing units for low-temperature drying was held on May 16th, 2023 from 13.00 to 16.00. The workshop was designed to be a comprehensive introduction to the FOX technology and products developed by the FOX partners located in the Central Bohemian Region (Czech Republic) and the Kuyavian-Pomeranian Voivodeship Region (Poland). The target audience consisted of professionals from diverse backgrounds, including business, engineering, and researchers, who were interested in gaining knowledge about business opportunities originating from the FOX project and participating in a constructive discussion on validation against present market dynamics and future scenarios.

The workshop comprised three sessions, which included the introduction to the FOX project, its aims and the peculiar innovations for down-scaled and mobile food processing units for low-temperature drying; an explanation and discussion of the business model canvas framework and economic opportunities, and an explanation and interactive discussion about the nature and potential effects of several future scenarios. Each session was led by experienced project practitioners who shared practical insights and interactive exercises. The online platform allowed for real-time interaction, chat-based discussions, and multimedia presentations, enabling a dynamic and engaging learning environment.

The workshop successfully achieved its objective of introducing participants to the project's innovative approach and technological practices. Furthermore, the workshop enabled FOX partners to refine their understanding of business opportunities and their robustness against future scenarios. The positive feedback received from participants highlights the effectiveness of the workshop in delivering foundational project knowledge, as well as the opportunities and limitations of multi-stakeholder approaches to test business models for technologies that are in their earlier development.

The event was organised by KU Leuven and the Fraunhofer Institute for System and Innovation Research, in collaboration with DIL, the Warsaw University of Life Science (SGGW), and the Food Research Institute of Prague (VUPP).



DIL Technology Day 2023 Showcases Cutting-Edge Solutions for the Food Industry

The **DIL Technology Day 2023**, with the theme “**Technology for a Changing World**,” was a big hit! It provided valuable insights into the challenges faced by today’s food industry. Attendees had the unique opportunity to witness hands-on demonstrations of state-of-the-art technology. The event, held on the 13th and 14th of June, featured a diverse range of technology solutions showcased by industry experts.

The DIL Technology Day specifically catered to decision-makers, specialists, and managers in the food industry, as well as professionals from related business areas and food research and development. Participants had the chance to explore innovative approaches to address the evolving demands of the industry.

One highlight of the event was the presentation of the FOX container, a mobile unit for juice and vegetable juice processing. The FOX container, a high-tech solution in a small-scale package, garnered significant attention from the interested audience. Its mobile juice/smoothie processing capabilities offered a glimpse into the future of efficient and flexible food processing.



Figure 9: Impressions of FOX container of Food Circle 1 demonstration at partner DIL, 2023.

FOX final conference

The final conference of the FOX project took place in Brussels on September 26, 2023. Over the last four years, FOX has revolutionized food processing by integrating health and sustainability values, resource efficiency, and local production hubs. Within FOX, researchers from different fields have worked side by side to transform large-scale technologies for processing fruits and vegetables into small, flexible, and mobile container units.

This event was designed to provide valuable insights, innovative solutions, and a platform for meaningful discussions. It brought together a diverse group of experts, stakeholders, and policymakers to share their knowledge, experiences, and groundbreaking ideas. See what you missed or relive the best moments of the FOX Final Conference through our dedicated conference pages.



Details about this conference can be found in the report D9.11 (Report on the final event).

More information from the final conference can be found here as well:

<https://www.fox-foodprocessinginabox.eu/fox-final-conference-post-event-page/>



Figure 10: Impressions of FOX Final Conference, Brussels, 2023.



Conclusions

As the FOX project's "Report on Communication with local and regional actors along the food supply chain" draws to a close, several key conclusions emerge, underscoring the impact and progress of the project over the past 54 months. These conclusions underscore the project's effective engagement with key stakeholders and its contribution to advancing the small-scale food processing sector in Europe.

Effective communication and dissemination: The project successfully implemented a comprehensive communication strategy that effectively raised awareness about downscaled fruit and vegetable processing technologies. Through targeted messages, the project reached a wide array of stakeholders, including small-scale food processors, local farmers, industry players, policymakers, and the general public.

Engagement and outreach success: The engagement activities, such as workshops, webinars, and the establishment of interest groups, have proven successful. These platforms have facilitated valuable discussions, knowledge exchange, and collaboration among stakeholders, significantly contributing to the project's outreach and impact.

Positive reception and feedback: The feedback from various stakeholders indicates a positive reception of the project's objectives and technologies. This reception highlights the relevance and potential of the FOX project's innovations in transforming small-scale food processing practices in Europe.

Challenges and learning opportunities: The journey has also presented challenges, particularly in adapting communication strategies to a diverse audience and in ensuring the practical applicability of technologies. These challenges have been valuable learning opportunities, shaping the project's approach and strategies moving forward.

Future directions and sustainability: Looking ahead, the project is poised to build upon its achievements, with a continued focus on promoting sustainable, efficient food processing technologies. The emphasis will be on further engaging stakeholders, refining technological innovations, and influencing policy frameworks to support the sustainable transformation of the small-scale food processing sector.

Lasting impact and legacy: The FOX project is set to leave a lasting legacy in the field of small-scale food processing. By driving innovation and sustainability, the project not only aims to enhance the competitiveness and viability of small-scale processors but also contributes to a more sustainable, resilient, and health-conscious food system in Europe.

In conclusion, the FOX project, through its dedicated efforts in communication and dissemination, has laid a strong foundation for the continued growth and success of its innovative technologies. The project stands as a testament to the power of collaborative efforts in driving change and sustainability in the European food processing sector.

