

ZeroW

Systemic Innovations Towards a Zero Food Waste Supply Chain

Enabling a Just Transition to near-zero food loss and waste

Policy Seminar - Accelerating action to reduce greenhouse gas emissions in the food value chain

13 June 2025

Antonio De Carluccio, Safe Food Advocacy Europe

Policy & Project Officer

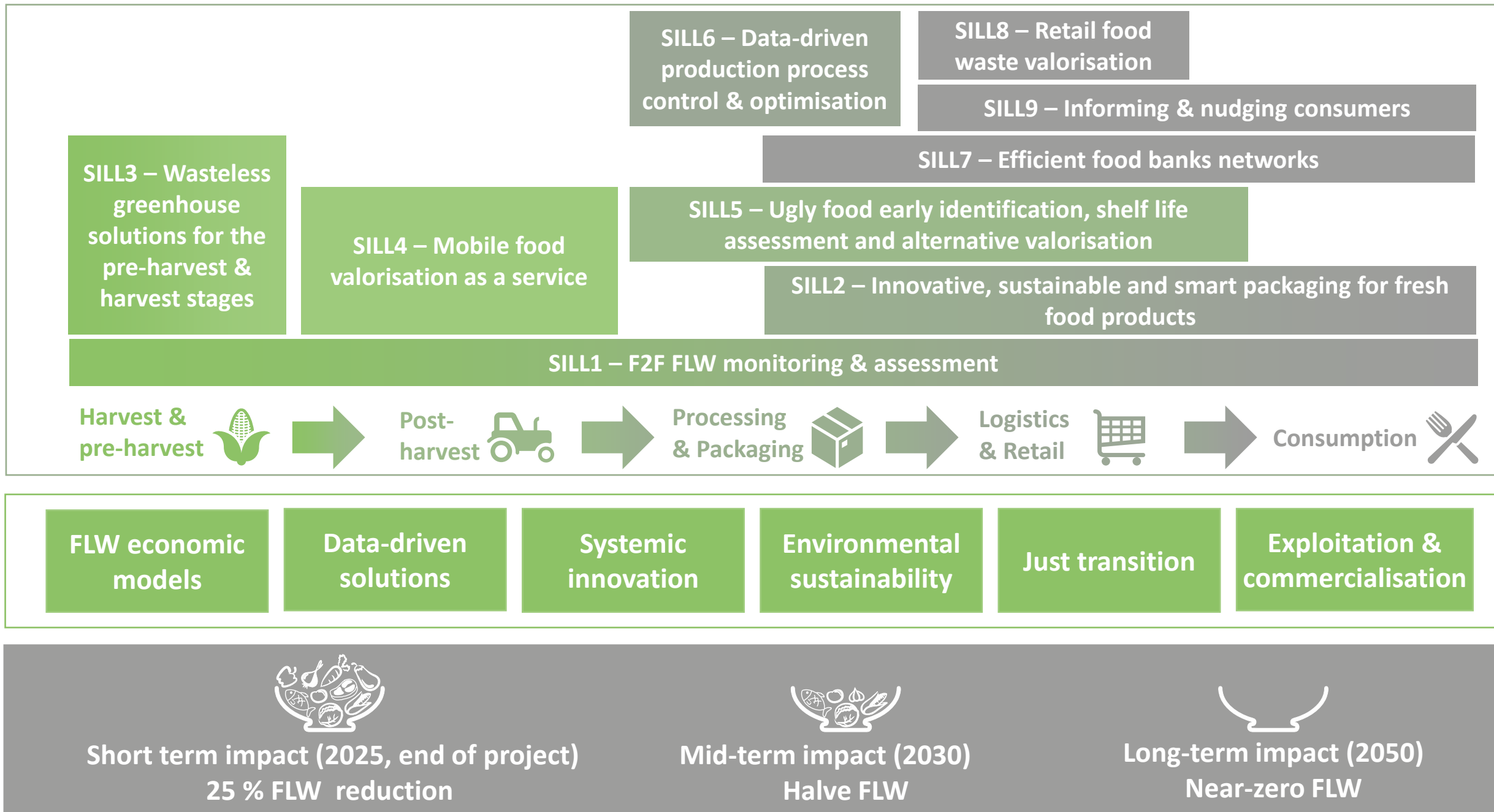
ZeroW, WP8 - Policy recommendations for just transition to near-zero FLW



Overview

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1. The ZeroW Project and its Systemic Innovations Living Labs (SILLs)
 2. The work of the ZeroW Policy Team in WP8
 3. Overview of our Policy Briefs: key recommendations to reduce GHG emissions in the food value chain and enable a just transition

Impact = Assessment + Demonstration along value chain



Policy pathways (D8.1)

Table 3: FLW reduction targets in policy pathway 1 (D'haese et al., 2023).

Food waste reduction target on	Mandatory FW reduction target in 2032	Voluntary FW reduction target in 2032
Primary production	n/a	n/a
Processing and manufacturing	10% (absolute amounts in mass units)	25% (absolute amounts in mass units)
Retail	30% (per capita)	50% (per capita)
Consumption	30% (per capita)	50% (per capita)

Table 4: FLW reduction targets in policy pathway 2 (D'haese et al., 2023).

Food waste reduction target on	Mandatory 2030 FW reduction target	Voluntary 2030 FW reduction target
Primary production	50% (absolute amounts in mass units)	For higher target levels
Processing and manufacturing	50% (absolute amounts in mass units)	For higher target levels
Retail & Consumption	50% (per capita)	For higher target levels

Approach with regards to...	Pathway 1	Pathway 2	Pathway 3
Policies	Pragmatic	Vertical	Horizontal
Innovation	Green growth	"Sustainability first"	Solutionism
Consumer behaviour	Semi-interventionism	Dirigisme	Market-driven

Table 5: FLW reduction targets in policy pathway 3 (D'haese et al., 2023).

Food waste reduction target on	Mandatory 2030 FW reduction target	Voluntary 2030 FW reduction target
Primary production	n/a	10%
Processing and manufacturing	n/a	50% (absolute amounts in mass units)
Retail and consumption	15% (per capita)	50% (per capita)

Our report on a 'Just' transition pathway & intermediate FLW reduction targets

Purpose and framework:

- Second deliverable by ZeroW Policy Team (WP8).
- Focuses on Food Loss and Waste (FLW) reduction in the EU.
- Defines a 'just pathway' aligned with Farm-to-Fork Action Plan and EC proposals.
- Analyses economic modelling results from the simulation of three transition policy pathways developed in D8.1.
- Combines simulation findings with a justice-based framework.
- Integrates stakeholder insights and internal ZeroW SILLs workshop findings.

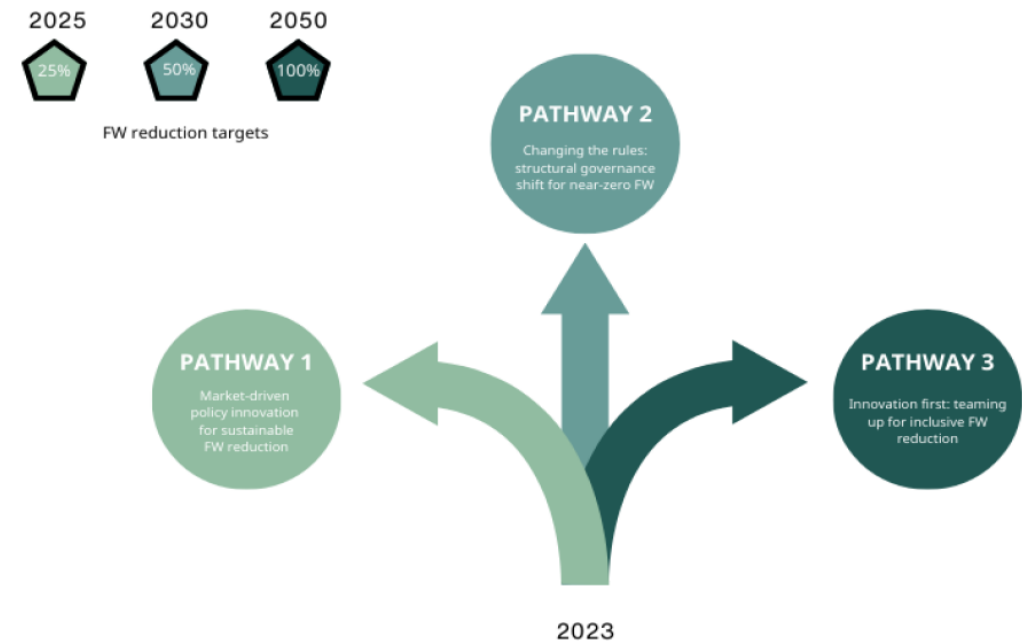


Figure 5: Visualisation of the three alternative pathways (D'haese et al., 2023)

Simulations and validation of the three policy pathways and their targets

Our approach: analysing the results of the quantitative simulations of the FLW reduction targets proposed in each policy pathway and integrating them with the feedback from external stakeholders and our conceptual framework on the 'just pathway'.

- **Outputs:** we provide considerations on the feasibility and fairness of each set of targets and the related policy scenario. The benchmark/frame of reference are the targets set in the original EC Proposal for EU-level targets for food waste reduction.
- Based on these considerations, we set our proposal for 'just and realistic intermediate FLW reduction targets.'
- Ultimately, we identify **key actions/interventions** that need to be pursued/addressed within a 'just' pathway to enhance the likelihood of meeting these targets.
- These are especially relevant to address **unintended spillover effects**.

The Just Pathway

Food waste reduction target on	Mandatory 2030 FW reduction target	Voluntary 2030 FW reduction target
Primary production	n/a	10%
Processing & Manufacturing	10% (absolute amount in mass units)	For higher target levels
Retail & Consumption	30% (per capita)	For higher target levels

Table 7: Final proposal for just and realistic intermediate FLW reduction targets (2030)

The Just Pathway Actions

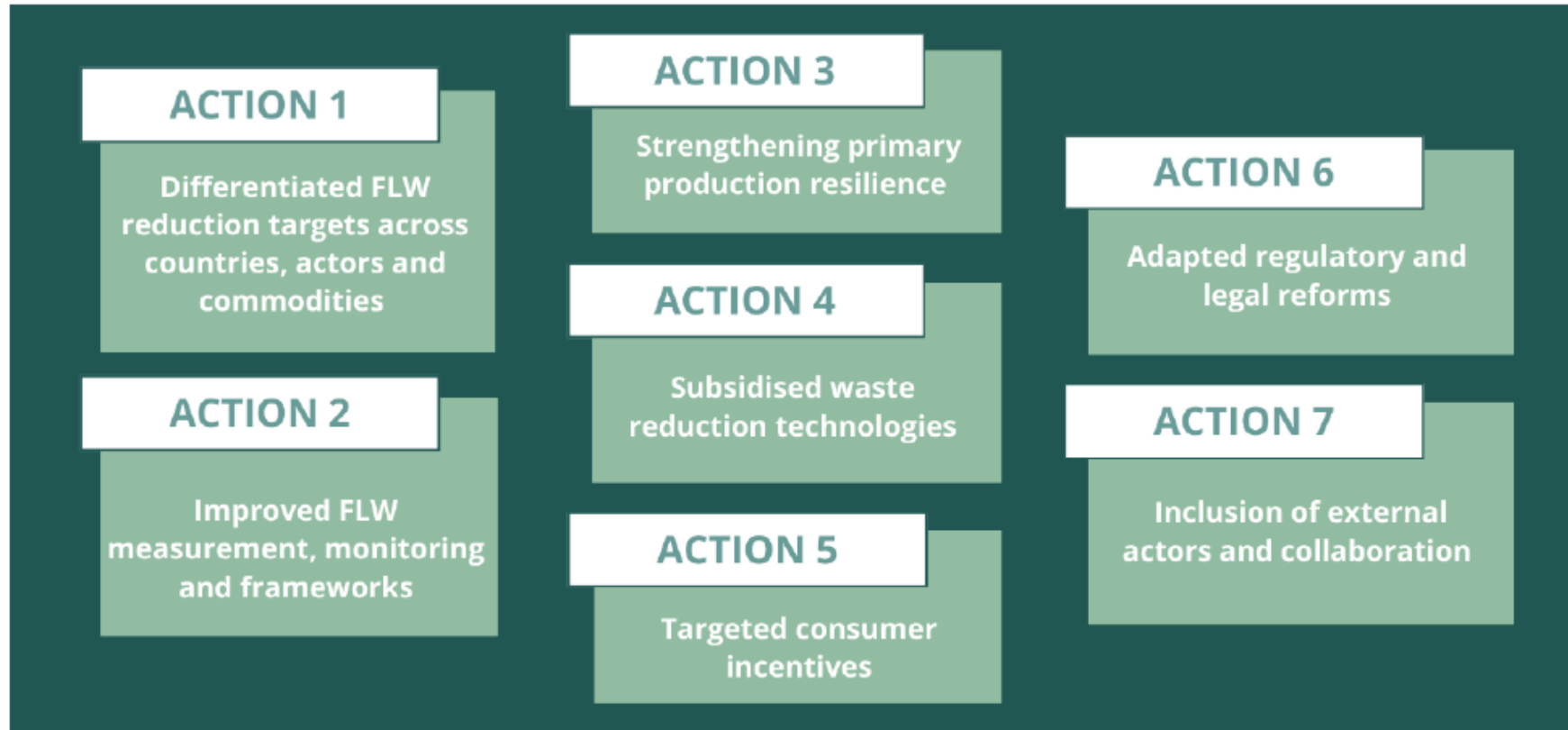


Figure 16: Overview of the Just Pathway Actions

Our Policy Briefs (in development): “Empowering farmers for a Just Zero Food Waste Transition”

1. Enhancing farmers' resilience to climate change through sustainable practices

- Accelerate adoption of climate-smart agriculture (CSA).
- Mobilise policy support to enable CSA implementation (financial incentives, technical assistance, advisory services).
- Enhance the role of digital tools and innovation.

2. Supporting small-scale farmers' digital transition

- Build digital infrastructure and deliver training.
- Promote the use of digital tools' role in farm management efficiency and resource optimisation.
- Bridging the digital divide among rural farming communities.
- Address behavioural and gender barriers to digital adoption.
- Ensure responsible data use, sharing, and innovation scalability.

POLICY BRIEF
EMPOWERING FARMERS FOR A
JUST ZERO FOOD WASTE
TRANSITION

ZEROW

ZeroW tackles food loss and waste (FLW) through a coordinated set of innovations piloted in 9 real-world Systemic Innovation Living Labs (SILLs) aiming to achieve significant reductions across all stages of the food supply chain – from pre-harvest to consumption. A dedicated Policy Team complements this work by defining a ‘Just Transition Pathway’ toward near-zero FLW, offering a practical framework to bridge systemic barriers and on-the-ground FLW solutions. Drawing on economic modelling and insights from the stakeholders and the SILLs, the team identified 7 Actions and key recommendations promoting a flexible, equity-focused transition.

FLW reduction in primary production is deeply interconnected with broader structural, economic, and technological dynamics, making it necessary to pursue a systemic and just transition that prioritises farmers’ needs, especially those of smallholders and marginalised groups. This policy brief outlines evidence-based recommendations to help governments create enabling environments that support farmers in the EU’s Just Transition, which will guide the action plans of Member States for the newly adopted binding targets.

Policy Problem

Economic modelling from ZeroW shows that reducing FLW can improve production efficiency and food security by boosting output. However, this may cause rebound effects like increased land use and fertiliser use. Small-scale farmers face barriers such as limited infrastructure, finance, market access, and digital tools. Ongoing digital divides, weak enforcement of fair trade protections, and lack of tailored support worsen inequalities in the food system.

Key insights from ZeroW project

- Digital tools boost efficiency and reduce losses but must be paired with sustainable farming to prevent environmental harm and avoid deepening inequalities.
- Bridging the digital divide requires investment in infrastructure, training, and fair data-sharing to support scaling innovations through trust and peer learning.



ZEROW

<https://www.zerow-project.eu>

 Funded by
the European Union

Our Policy Briefs (in development): “Building consumer capacity for a Just Zero Food Waste Transition”

1. Enhance data-driven, consumer-centric interventions

- Embed educational initiatives in school curricula and community-based learning environments, offer interactive and participatory tools.
- Provide tax incentives and targeted subsidies for low-income households.

2. Foster social innovation and reframe Food Waste perceptions

- Policies should encourage community-driven projects that promote FW reduction as a matter of social responsibility.
- Comprehensive training, culturally tailored outreach, and personalised feedback mechanisms are necessary to build trust and ensure adoption of technological innovations.

3. Incentivise urban consumers through local initiatives

- Cities are critical arenas for food waste reduction and should be equipped with tailored, grassroots policies (smart incentive systems, including household-level tracking apps and reward schemes).

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Consumer-level food waste significantly contributes to overall food loss and waste (FLW) within the EU, notably within households, restaurants, and retail. This issue is shaped by behavioural patterns, insufficient information, and systemic barriers disproportionately impacting vulnerable consumer groups. Addressing this aligns with the EU's Fair Transition and the European Pillar of Social Rights, offering substantial opportunities to reduce greenhouse gas emissions, ease food system pressures, and achieve sustainability goals.

Policy Problem

Household food waste constitutes the largest share of FLW in the EU, yet traditional awareness campaigns alone are inadequate. Effective strategies require targeted consumer incentives, behavioural interventions, and comprehensive policy frameworks that foster significant social innovation and consumer engagement.

Key insights from ZeroW project

- Meaningful behavioural change must accompany systemic reforms.
- Food should be reframed from merely a tradable commodity to a valuable social, cultural, and nutritional good.
- Consumer acceptance of innovations (e.g., smart packaging, food-saving apps) necessitates targeted guidance and support.
- Technological innovations must be integrated with behavioural interventions, ensuring accessibility, inclusivity, and practicality.



Our Policy Briefs (in development): “Transforming the Food Chain Structure to Reduce Food Loss and Waste (FLW)”

1. Strengthen Short Food Supply Chains for resilient primary production

- SFSCs reduce waste by minimizing intermediaries and transport, while increasing system resilience and empowering small actors.
- Expand green public procurement for local and organic food.
- Invest in logistics hubs, cold storage, and public infrastructure for SFSCs.

2. Enhancing agricultural sustainability through innovation and digital data access

- Create a secure EU “FLW Data Space” to support real-time monitoring.
- Ensure rural access to broadband, digital skills training, and funding.
- Co-develop digital tools with farmers and compensate their participation.

3. Supporting sustainability transitions in the food chain with interventions targeting logistics and transportation

- Set up regional food logistics hubs using underutilised public spaces.
- Fund reverse logistics systems for the redistribution or valorisation of surplus food.
- Provide subsidies for electric vehicles and shared low-emission fleets.



Our Policy Briefs (in development): “Participatory local governance and empowerment for Just Zero Food Waste Transition within the urban context ”

- 1. Strengthen multi-level governance for systemic, evidence-informed action**
- 2. Promote multi-actor collaboration on urban food waste**
- 3. Incentivise sustainable procurement to align public spending**

➤ Prioritising sustainability over purely financial criteria.

- 4. Revise tax frameworks to encourage redistribution and discourage waste**

France: 60% tax break on donated food; unused benefits transferable over 5 years.

Catalonia: Redistributes landfill/incineration tax revenues to municipalities based on waste reduction performance.

- 5. Adopt monitoring tools for equity, impact, and waste reduction**

➤ Monitoring should include equity indicators, such as the engagement of SMEs, cooperatives, and minority-led food initiatives, groups often underserved by standard monitoring and tech solutions.

Our Policy Briefs (in development): “Effective governance for a Just Zero Food Waste Transition”

1. Establishing a non-punitive, incentive-based approach to food waste governance

- Governance innovations, like performance-based contracts, procurement scoring systems, and bonus incentives, can reward businesses that demonstrate strong food waste reduction efforts.

2. Increasing accountability and transparency in digitalisation and public procurement

- Clear data governance, inclusive communication, and supportive regulation.

3. Creating EU-level guidelines for co-governance of Just Transition in the food system

- Inclusive, context-sensitive policymaking: public-private partnerships, inclusive data sharing, and support for community-led innovations should be central. EU leadership is key in harmonising policy, promoting knowledge exchange.

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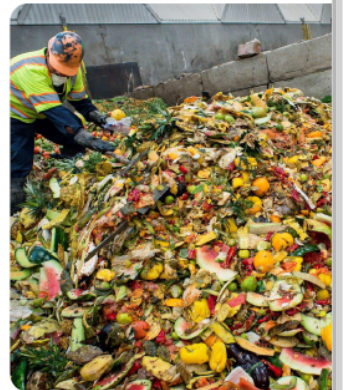
Addressing FLW requires coordinated governance that balances incentives, accountability, and collaboration across diverse food system actors. This policy brief presents evidence-based recommendations to support inclusive, transparent, and effective governance frameworks aligned with the EU's Just Transition, which will guide the action plans of Member States for the newly adopted binding targets.

Policy Problem

FLW amounts remain high due to the lack of a coherent governance framework that ensures transparency, accountability, and coordinated action across the food supply chain. Companies are not consistently required to measure or report FLW, and current policies offer limited incentives for prevention, data sharing, or collaboration.

Key insights from ZeroW project

- Non-punitive, progressive, positive incentive-based approach, such as tax breaks for verified food waste reduction and tiered taxation based on business size or waste volume, is both effective and equitable.
- Mandatory FW tracking is essential to ensure transparency and accountability.
- Horizontal peer learning and data sharing, as demonstrated in SILLs, foster trust and collaborative progress.



Joint ZeroW/SISTERS/TITAN Policy Brief: “Unlocking the scalability of Food Waste innovations in Europe”

1. Subsidising innovation for scalability and equity

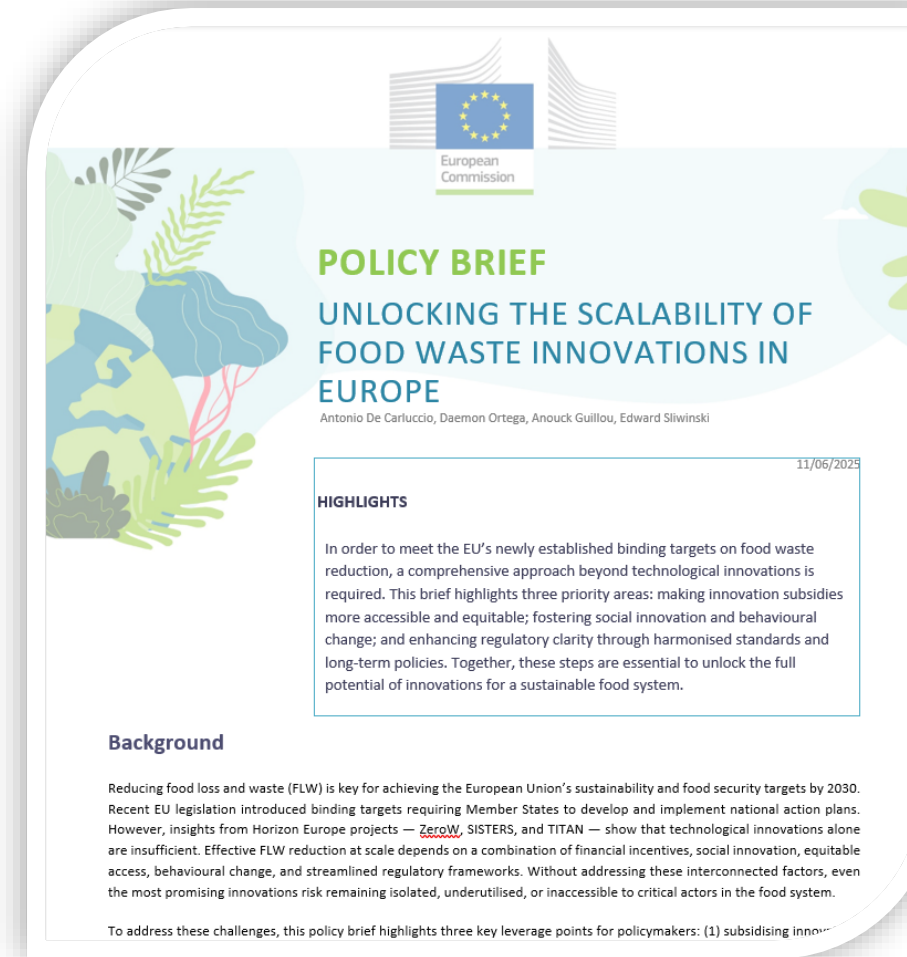
- Tiered subsidy models, scale-up financing enhancements, inclusive funding criteria (e.g. evaluating FSC actors not only on economic but also on environmental and social performance).

2. Fostering social innovation and behavioural change

- Widespread awareness campaigns of food waste impacts, EU-owned digital platforms, data-driven feedback loops.

3. Enhancing regulatory and governance clarity

- Harmonise EU-wide standards (unified certification scheme for sustainable packaging), recognise emerging technologies, facilitate data sharing, ensure regulatory predictability.



The final policy briefs will be shared with you in the coming weeks.

We look forward to further engagement and cooperation!

LET'S FIGHT FOOD WASTE TOGETHER!

JOINT FINAL EVENT

MULTI-STAKEHOLDER CONFERENCE

 16th September 2025  9:30-18:00

 Herman Teirlinckgebouw Building, Brussels

What to expect?

- Inspiring talks on key research results
- Live innovation demos
- Interactive sessions on education, packaging and more...
- Networking with experts, innovators and institutions

[Register Here](#)





Thank you for your attention!

Antonio De Carluccio, Safe Food Advocacy Europe

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projects@safefoodadvocacy.eu

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