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1 Working work overview

Aim and objectives of Working Group 3

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2 Progress to date

Actions and deliverables completed
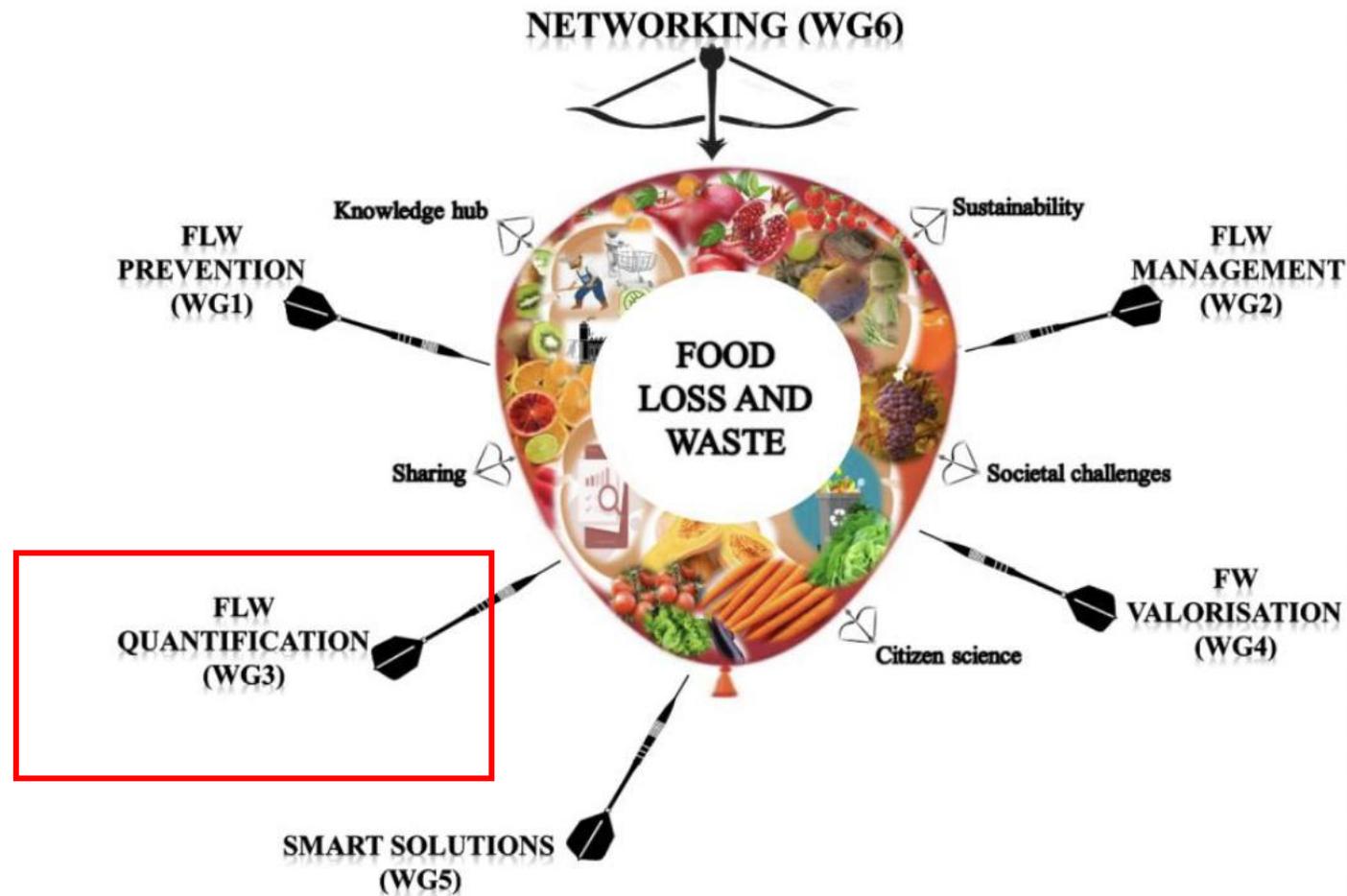
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3 Nex steps

Delivery plan

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4 Q&A

Open floor for any remaining discussion points

Working Group 3: Quantification of food loss and food waste

Working Group 3: Quantification of food loss and food waste

Answer the question: **How can citizen science contribute to quantify food loss and waste?**

- Creation of a robust database that will gather the available information to quantify food loss and waste as well as:
  - Validate estimations
  - Identify drivers
  - Raise awareness

- Develop recommendations for prevention, and mitigation.

This Network will be beneficial for all stakeholders, starting with the policy makers, and including all the agrifood chain operators

Working Group 3: Quantification of food loss and food waste

Tasks:

- Identify the common definition of food loss.

- Estimate more precisely the loss during primary production (agriculture production, postharvest storage, transportation).

- Quantification of food waste according to a common methodology (Commission Delegated Decision (EU) 2019/1597 of 3 May 2019 supplementing Directive 2008/98/EC of the European Parliament and of the Council as regards a common methodology and minimum quality requirements for the uniform measurement of levels of food waste.

- Identify common definitions of food waste.

- Estimation of food loss and waste in:
    - Processing and manufacturing;
    - Distribution and retail;
   - Food services and households.

Progress to date

Training School
Food loss reduction: a global challenge
Cranfield (UK), 9-11th July 2024

- International teaching team, including FAO Senior Technical Expert/food loss and food waste reduction Rosa Rolle.

- Technical visit to G's Growers, major UK-based agricultural cooperative, farming over 13,800 to 20,000 hectares and producing over 1 billion packs of fresh produce annually.

- 37 participants, prioritising ECRs, from over 10 different countries.

- Certificates awarded to all attendees.

Working Group 3: Quantification of food loss and food waste

WG3 D3.1. Design and implementation of an online survey to estimate Food loss and waste from production to consumption	12	Delivered
WG3 D3.2. Prospective report on the quantification of Food loss and waste	36	Not delivered, but expected before end of Action
WG3 D3.3. Review paper on appropriate quantification of Food loss and waste	36	Not delivered, but expected before end of Action
WG3 D3.4. Develop at least 3 models for estimation of Food loss and waste	48	Not delivered, but expected before end of Action
WG3 D3.5. Review of current citizen science projects that focus on quantification of Food loss and waste	48	Not delivered, but expected before end of Action
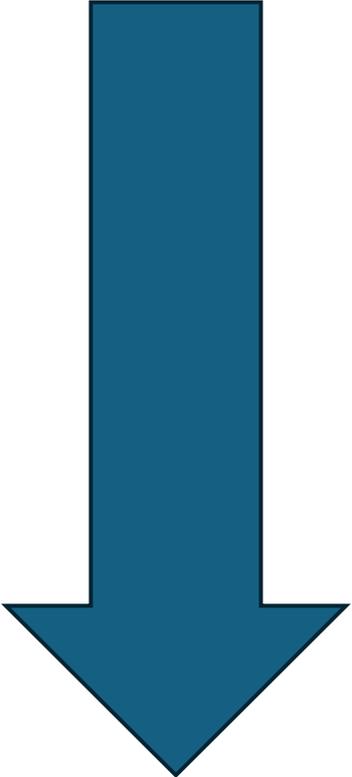
Progress to date

i. **Deliverable no. WG3 D3.1:** A report titled 'Design and implementation of an online survey to estimate Food loss and waste from production to consumption' was submitted in Q4 2025, containing quantification of food loss in participant countries and recommendations for food loss prevention.

ii. **Data:**
- Survey: A total of 93 responses from 23 countries were collected to investigate food loss across agricultural supply chains.
- Relevant information: scientific studies, industry reports, and field measurements.
- Fruits and vegetables dominated the data, accounting for 83% of responses, with a strong focus on common crops like apples and potatoes. Other food categories, especially dairy, meat and seafood were underrepresented.
- Uneven representation across regions.

iii. **Key food loss drivers**: Primary production: weather extremes and systemic limitations (lack of labour or knowledge); in storage: inadequate management and unpredictable shelf life; and behavioural issues. Market demand was not flagged as a key driver, though alternative markets could offer opportunities. This highlights a gap in the FLW priority pyramid, where reuse is high priority but underrepresented in the data.

iv. **Conclusion:** Although the report highlighted challenges around quantification, it is a very promising first step towards a manuscript that is able to quantify the losses in specific supply chains.

Progress to date

i. **Deliverable no. WG3 D3.1:** A report titled 'Design and implementation of an online survey to estimate Food loss and waste from production to consumption' was submitted in Q4 2025, containing quantification of food loss in participant countries and recommendations for food loss prevention.

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   - Relevan...
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   - Uneven...

iii. **Key food lo**... labour or knowledge); ... issues. Market demand was ... his highlights a gap in the FLW ...

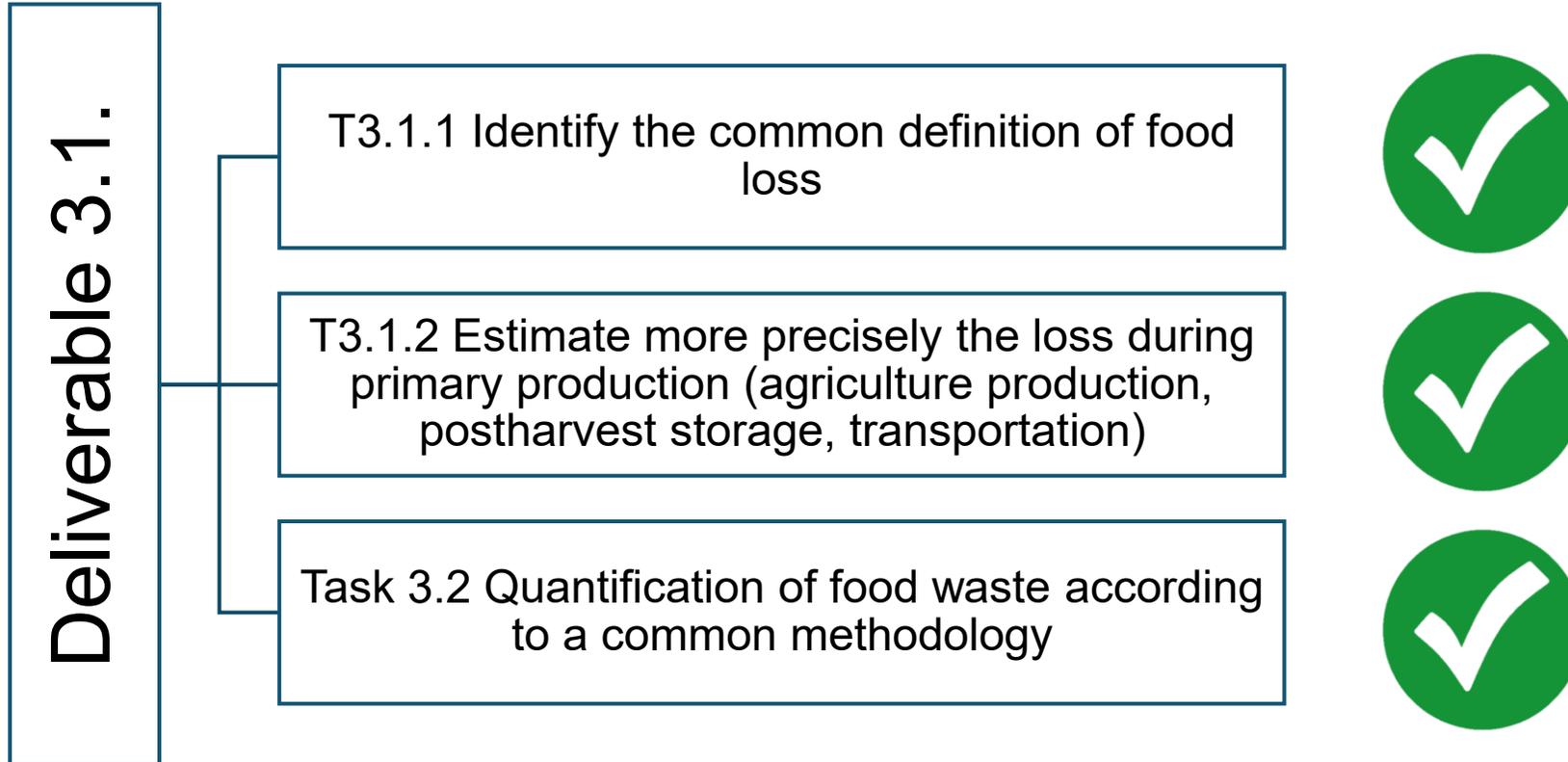| Deliverable Title	Design and implementation of an online survey to estimate Food loss and waste from production to consumption
Deliverable number	WG3 D3.1
WG number	3
WG name	Quantification of food loss and food waste
Participants to the deliverable	Dr Natalia Falagán, Cranfield University, UK, natalia.falagan@cranfield.ac.uk Dr Ewan Gage, Cranfield University, UK, ewan.gage@cranfield.ac.uk
Delivery date	21.07.2025.

iv. **Conclusion:** Although the report highlighted challenges around quantification, it is a very promising first step towards a manuscript that is able to quantify the losses in specific supply chains.
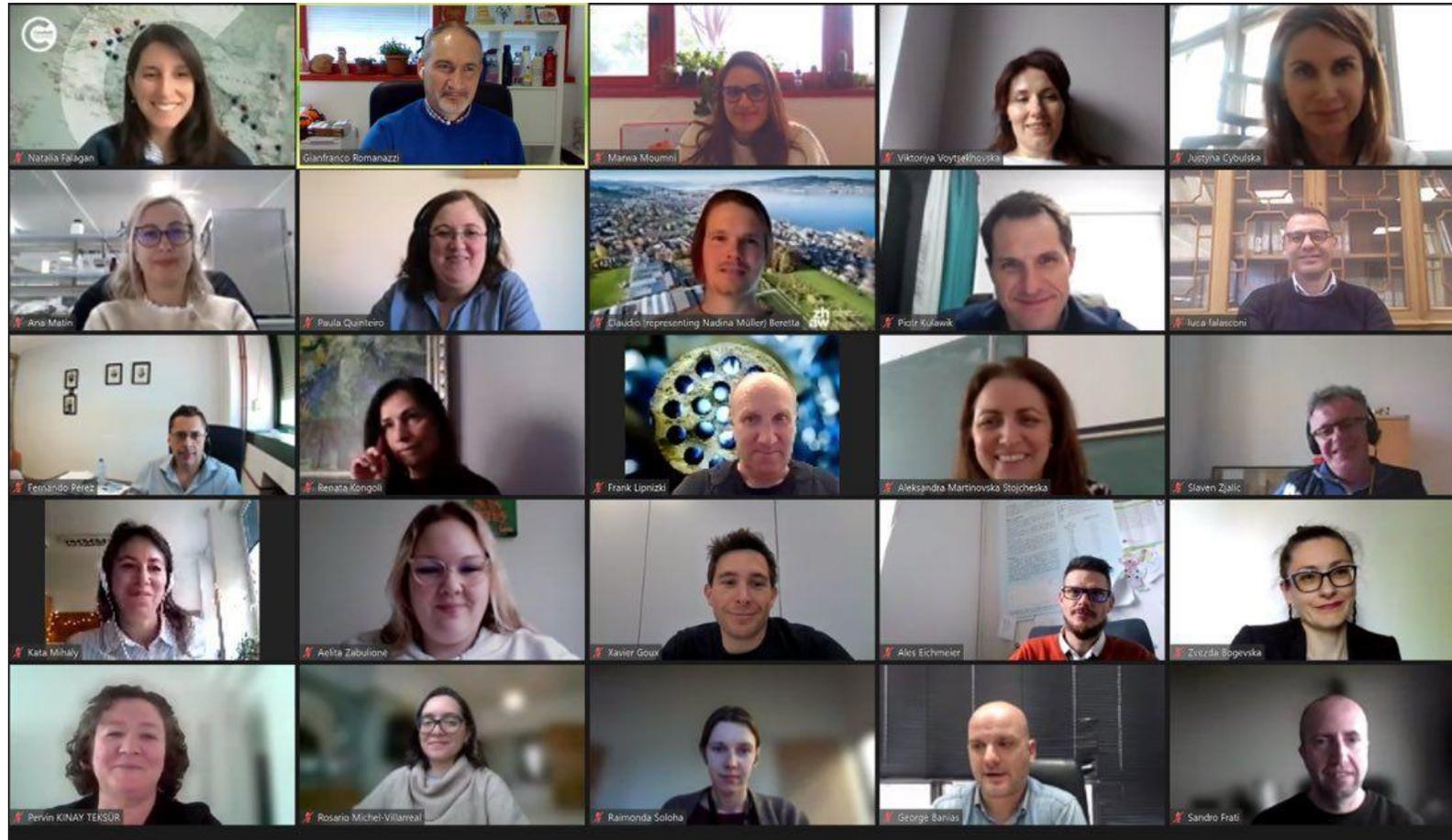
Progress to date

Results were discussed and validated by the wider group via a public webinar held on the 22/04/24 before producing the final report.

Progress to date

Deliverable 3.1.

T3.1.1 Identify the common definition of food loss

T3.1.2 Estimate more precisely the loss during primary production (agriculture production, postharvest storage, transportation)

Task 3.2 Quantification of food waste according to a common methodology

Progress to date

T3.2.1 Identify common definitions of food waste;

T3.2.2 Estimation of waste in:

    T3.2.2.1 Processing and manufacturing;

    T3.2.2.2 Distribution and retail;

    T3.2.2.3 Food services and households.

Survey

Encuesta sobre el desperdicio alimentario en España

UNIVERSIDAD DE CÓRDOBA

A22134 – Sustainable Network for agrofood loss and waste prevention, management, quantification and valorisation (FoodWaStop)

Start now

T3.2.2.3 Food services and households.

Survey on Household Food Waste – Objectives

- Capture household food waste at large scale through self-reported data (1,030 respondents across 70 countries).
- Move beyond quantities to investigate behavioural drivers, habits, and decision-making processes behind food waste.
- Identify socio-demographic patterns and lifestyle factors associated with different waste behaviours.
- Understand *why* food is wasted, not only *how much*.
- Generate evidence to inform targeted prevention strategies and policies.

Key messages

- Household food waste is primarily a behavioural issue, not only a measurement issue.
- Perception-based surveys cannot replace direct measurement, but they are essential to explain causes and motivations.
- Understanding drivers enables more effective, targeted interventions than quantities alone.
- Large-scale cross-country evidence helps design scalable policies and behaviour-change actions.
- This work supports the shift from "estimating waste" to "preventing waste".
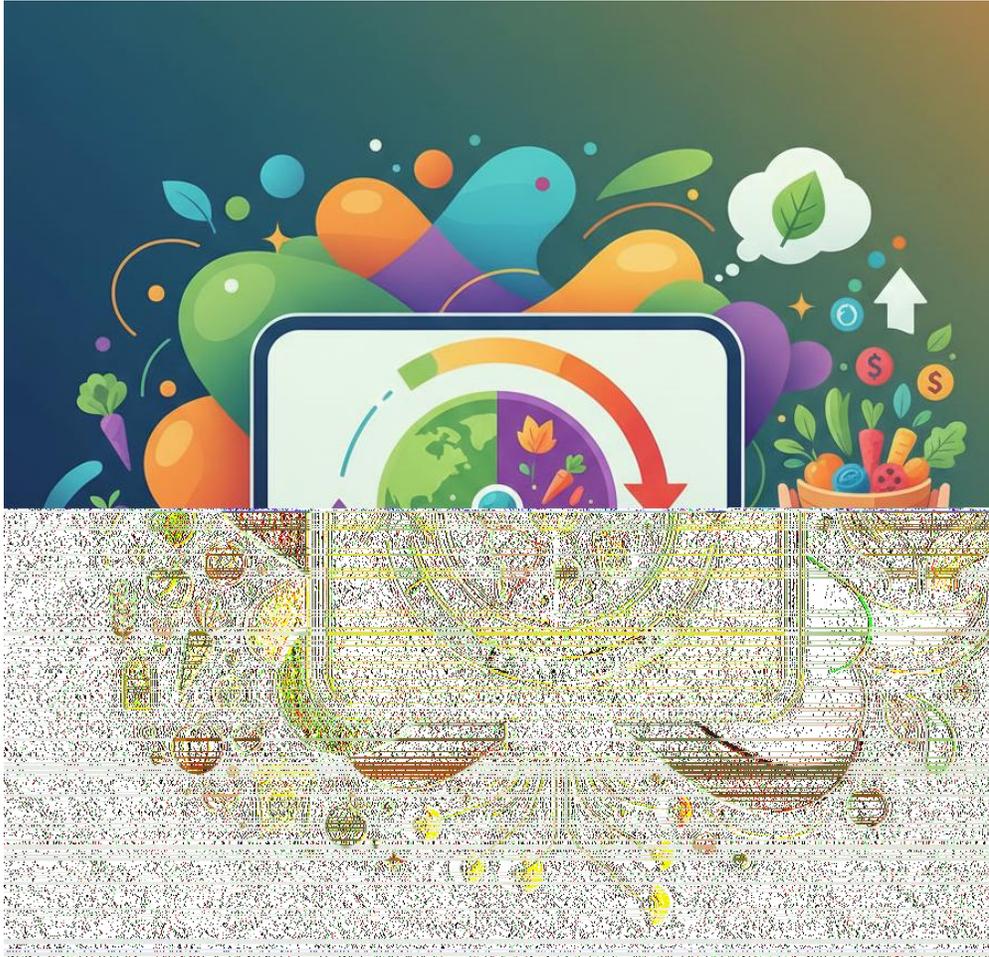
Next steps

Country	Count
Albania	1
Austria	17
Bosnia and Herzegovina	1
Bulgaria	13
Croatia	8
Czech Republic	3
Estonia	1
Finland	1
Germany	2
Greece	1
Hungary	3
Italy	3
Latvia	3
Lithuania	3
North Macedonia	2
Norway	3
Poland	1
Romania	2
Serbia	4
Sweden	3
Switzerland	5
Ukraine	1
United Kingdom	12
Sum	93

- Increase the number of European countries missing from our data to date.

- Select key food groups.

- Publish a highly collaborative paper, piece of work, demonstrating the teamwork and network that this COST Action promotes.

- Key messages:
    - *What cannot be measured at scale cannot be effectively reduced.*
    - *This work shifts the discussion from "how big might the problem be?" to "how much is it, where, and what can we do about it?"*
    - *Innovative and cohesive methodology.*

- Potential to impact policy and reduce food loss and waste with new regulations and systems at scale.

Next steps

As a highly collaborative paper, contributions are open to the whole Management Committee. We held a webinar on the 28/01/26 to coordinate the manuscript production.

Next steps

Organise a webinar with industry, academia and government to showcase the importance of quantification and policy for a real change.

Q&A