



# Reliable data for quantifying food waste in EU 28

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EPM Brussels October 31 2014

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# Outline

- Objectives and Approach
- Achievements year 2
- Upcoming work



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# To prepare for the discussions .....

What is the readiness for producing good food waste statistics within EU and what can be achieved by 2025?

What is in it for me? How to benefit from knowing the kilograms and how to use it in a proactive way?



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# Why is quantification so important?



*“You need to know where you are in order to know where to go”*

Next control point:  
30 % reduction by  
2025



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# Objectives

- Standard approach on system boundaries and a definition of food waste
- Developing standardised reporting methodologies
- Mapping existing trends in relation to food waste prevention and reduction, relevant to social innovation in the food chain,
- Developing criteria for the assessment of socio-economic & environmental impacts of food waste and providing baseline estimates
- Establishing a Food Waste Quantification Manual enabling assessment of food waste amounts and measuring progress in food waste prevention and reduction .
- Assessing current EU28 food waste arisings to improve the understanding of present patterns and causes of food waste.



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# FUSIONS criteria document provides guidance

## Overarching criteria:

- Enable evaluation and monitoring of EU / EU-nations' waste prevention initiatives and policy goals on food waste prevention.
- Take into account the way data are collected today (level of detail and kind of data) using a reasonable combination of approximations.
- Give guidance on how to move forward within the suggested framework (i.e. to progress from how / what data are collected now to more comprehensive and granular data collection in the future).
- Allow evaluation of key environmental and socio-economic impacts from waste generation.



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# Approach

**July 2015**  
Environmental and  
socio-economic  
impacts

**Impacts of food  
waste**

**January 2016**  
Report on European  
Food waste levels and  
analysis of food waste  
drivers

**Developing recommendations for EU28**

Definition of Food Waste

**July 2015: Food  
waste  
quantification  
manual**

## **Building knowledge**

FUSIONS Definitional Framework for Food Waste  
EUROSTATs reporting method and statistics  
Review of (food) waste reporting  
Food waste drivers ,and barriers and opportunities  
Standard approaches on quantitative techniques

# Reference points used for defining food waste

- Short and consistent definition for clear communication
- Applicable to all types of food
- Applicable in all segments of the food supply chain
- Applicable to food supply chains at different levels; e.g. European, national, sector or single company / households
- Should support the practical work on quantification and monitoring  
Ensuring data collected in same way over time
- Based on mass



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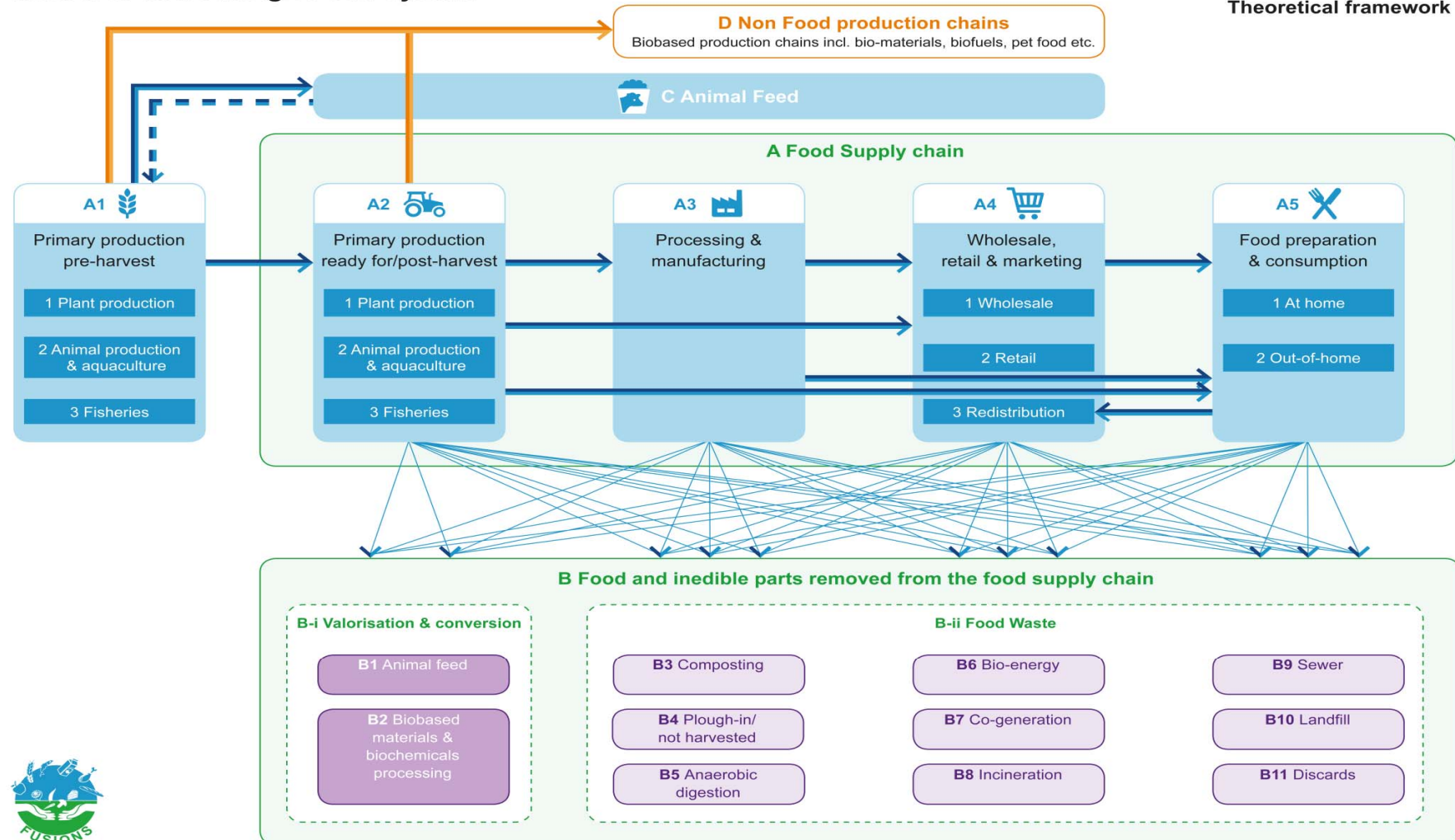




# FUSIONS framework for defining food waste

## Resource flows in Agri-Food System

## FUSIONS Theoretical framework

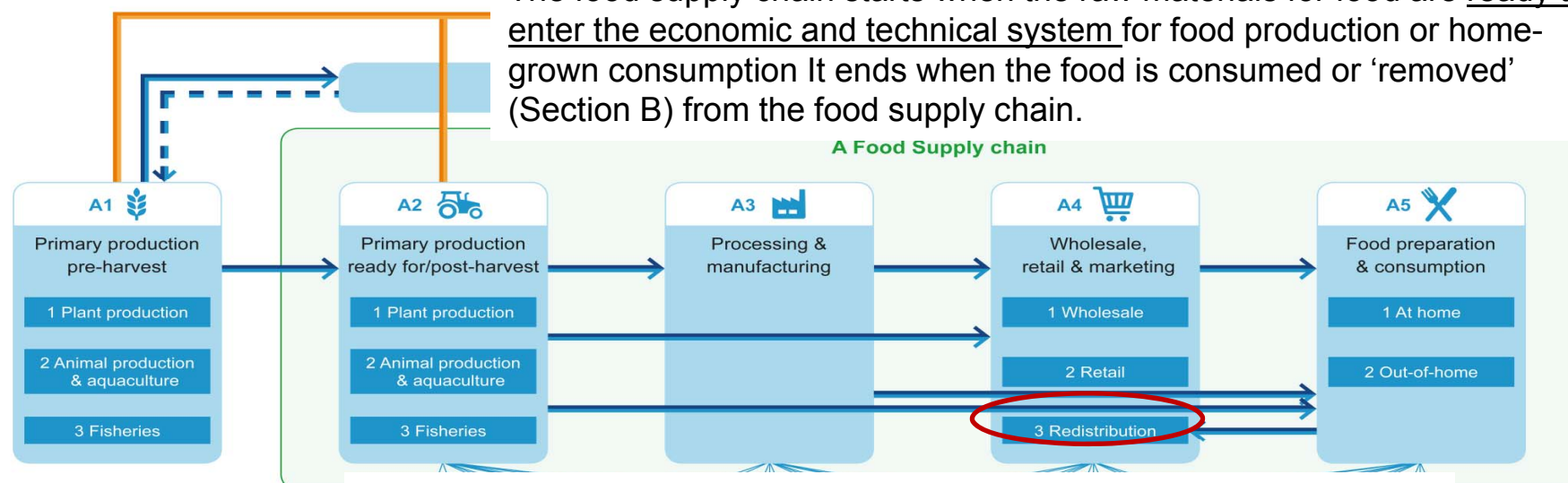


# FUSIONS framework for defining food waste

**Food supply chain:** The food supply chain is the connected series of activities used to produce, process, distribute and consume food.

## Resource flows in Agri-Food System

The food supply chain starts when the raw materials for food are ready to enter the economic and technical system for food production or home-grown consumption. It ends when the food is consumed or 'removed' (Section B) from the food supply chain.

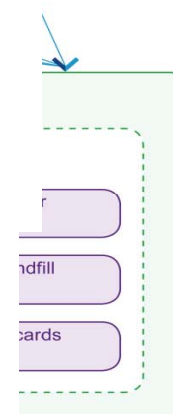


**Food:** Food means any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be consumed by humans...(EU 178-2002)..

**Food waste:** Any food, and inedible parts of food, removed from the food supply chain to be recovered or disposed (including B3-B11)

**Food:** Fraction that has or had the potential to be eaten removed from the food supply chain

**Inedible parts of food**



# One piece of a larger puzzle...



FUSIONS is an important part of developing resource efficient food production systems- but not the only part!

The scope of the FUSIONS is limited to the food supply chain

We do not consider feed production, biofuel production.



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# Quantifying food and inedible parts of food removed from the food supply chain.

- Measurement (Weighing or volume)
- Scanning (Electronically recording)
- Waste composition analysis
- "Food waste" diary
- Questionnaires
- Calculations based on statistics (at national level or at other level e.g. country, municipality, company etc.)
- Interviews and surveys
- Mass balances

Flexible

Consistent  
data

Economy

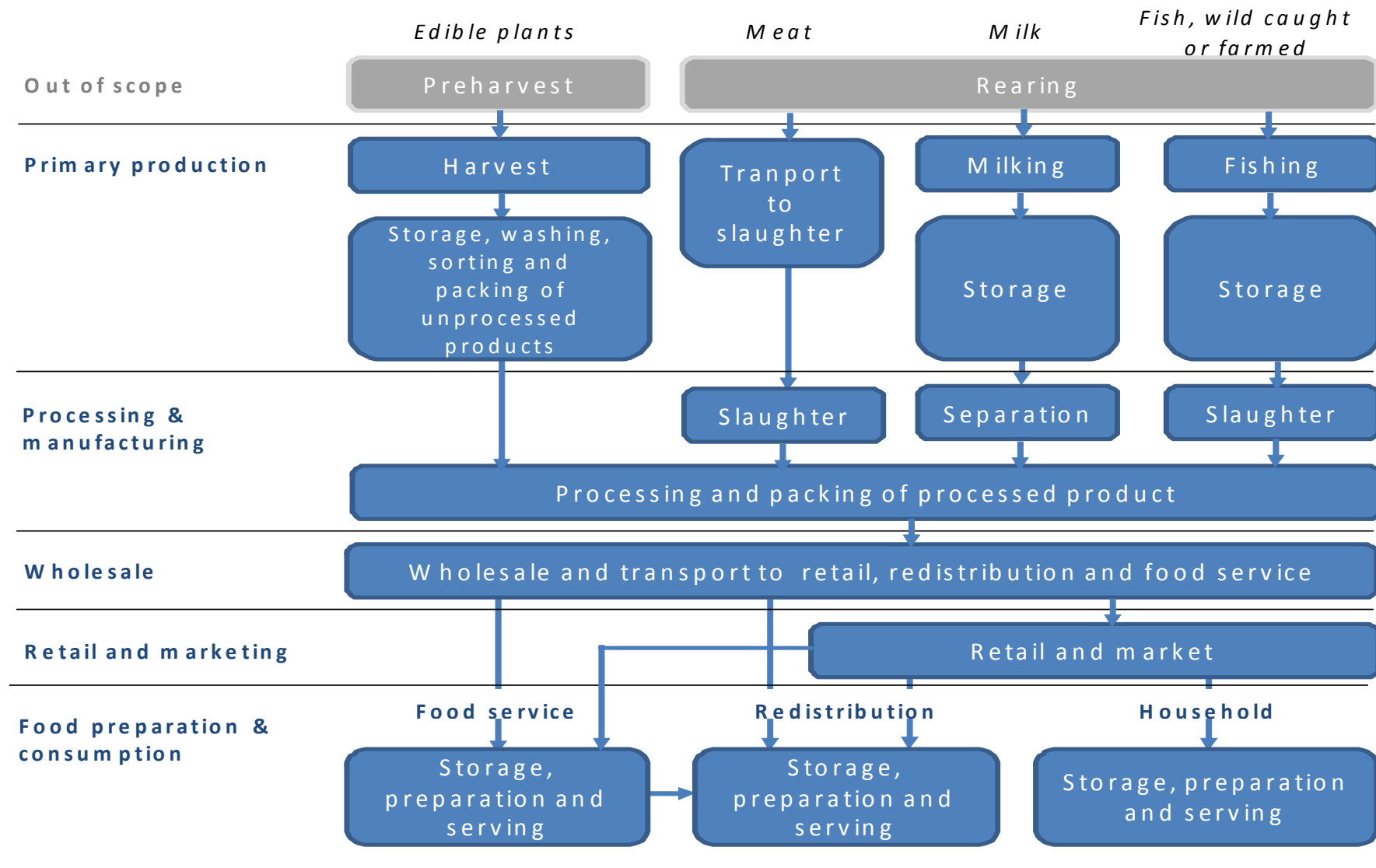
Data  
quality



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# Each sector, defined by activity, is reviewed



# Overview of “suitability” for the methods provided for each sector

- Example: Food Service

Suitability to use in:	EU- 28 statistics	Basic studies for improved insight*	Internal prevention approaches
Weighing/”food waste” diary		X	X
Waste composition analysis		X	
Interviews		X	
Statistics combined with weighing/”food waste” diary	X		
Statistics combined with waste composition analysis	X		
Data from municipal waste companies	X	X	



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# Recommendations on standard approaches to be used to estimate food waste levels

## Choice of method depends on situation

- Situation: type of food, step in the food supply chain, destination of food waste
- Problem to be solved





# Creating food statics- how to fill gaps

## **Tier 1 Simplest method.**

**For example:** *European average waste compositional figures are applied to national household waste amounts*

## **Tier 2 More specific method**

**For example:** *National waste statistics and national composition analyses are available*

## **Tier 3 Most detailed level**

**For example:** National waste statistics, several detailed waste composition analysis and supporting studies are available.

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# The report also provides advice on

- Indicators to allow comparisons and scaling.
- Classification of sector and type of food (NACE-codes, FAO: Code of Conduct for food classification)
- Data quality
- Prevention methodologies and waste treatment



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# Overall conclusions with respect to food waste quantification methods

- There is not one single method that can be recommended for all applications.
- There is a need for both top down (macro level) and bottom up (micro level) approaches to be able to produce reliable food waste statistics
- By simplified methods data gaps can be filled until better data have been obtained.



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# Wp1 Upcoming work

- Establishing a Food Waste Quantification Manual enabling assessment of food waste amounts and measuring progress in food waste prevention and reduction within EU28. (Recommendations aimed for member states)
- Developing criteria for the assessment of socio-economic & environmental impacts of food waste and providing baseline estimates of the current social & environmental impact in EU28.
- Assessing current EU28 food waste arisings using a combination of national waste statistics and outputs from selected research findings to improve the understanding of present patterns and causes of food waste (Y3-Y4)



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# Food waste quantification manual – target groups

- Aimed at Member State authorities to enable a coherent national approach to food waste quantification.
- Track of progress towards the European Commission's food waste reduction target.
- It will be written to support Member States in:
  - Choosing the appropriate methodology for data collection, based on the existing situation (FUSIONS D1.4, WRI protocol may serve as a complementary document)
  - Collating that data at national level
  - Improving data collection practices over time so as to improve accuracy
- Provide voluntary guidance on estimating the edible fraction of food waste
- May serve as a reference by researchers collecting data on behalf of national authorities and by national statistical offices.
- It will provide recommendations on connecting own food waste data collected to EUROSTAT, but this is not the main purpose of the document.



**Aim to be  
finalised  
July 2015**

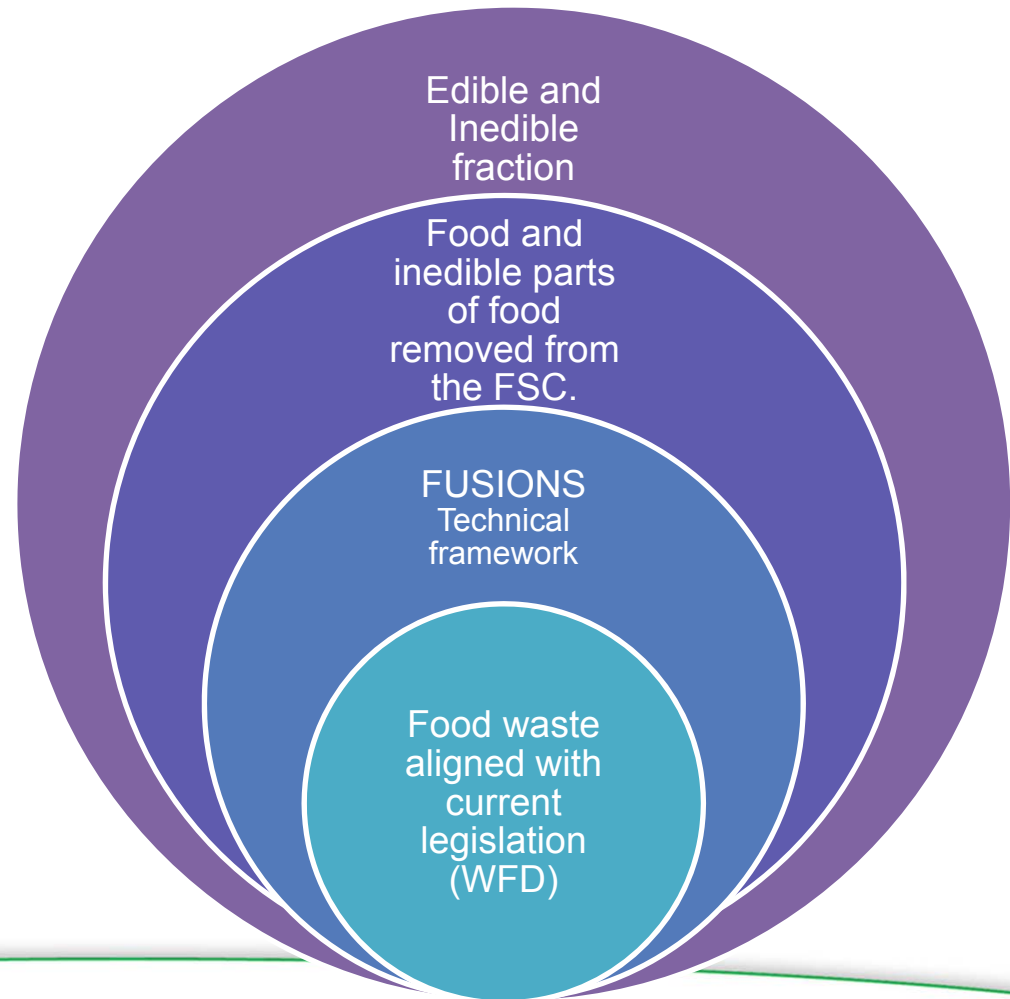


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# Food waste quantification manual- Scope and Content

- Provide an overview of currently available food waste data in the EU (D1.2)
- Main methodologies available (D1.4)
- Definition of food waste (D1.1)
- Explain how the different international initiatives to food waste quantification interact.
- Provide a recommended national approach and a detailed breakdown by sector.
- Finally it provides guidance on reporting data to the EU



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# Thank you for your attention!

## Questions?

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