

# Overview

- FUSIONS overview, project objectives, working structure, results and highlights
- Food waste technical framework
- Food waste quantification methodologies and update estimations food waste levels EU-28
- Food waste quantification manual working document







# Project objectives FUSIONS

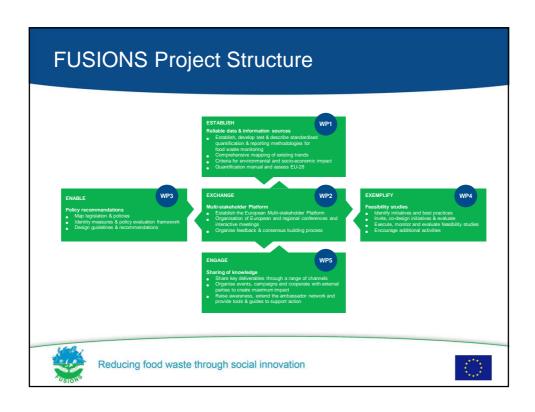
The overall aim of the project is to contribute significantly to the harmonisation of food waste monitoring, feasibility of social innovative measures for optimised food use in the food chain and the development of a Common Food Waste Policy for EU28.

Project duration: 48 months (2012 – 2016) www.eu-fusions.org













## WP1: Reliable Data & information sources

- 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

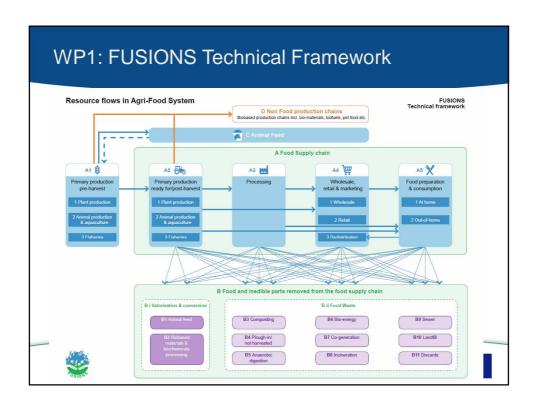




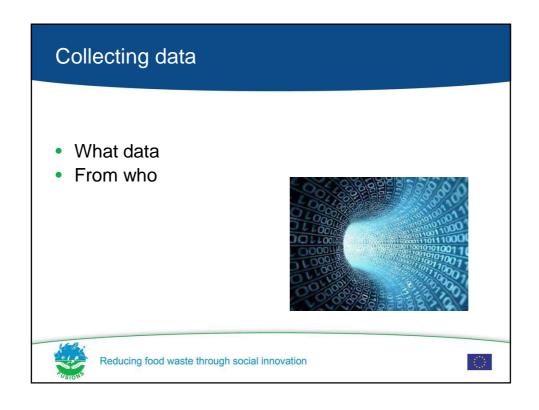
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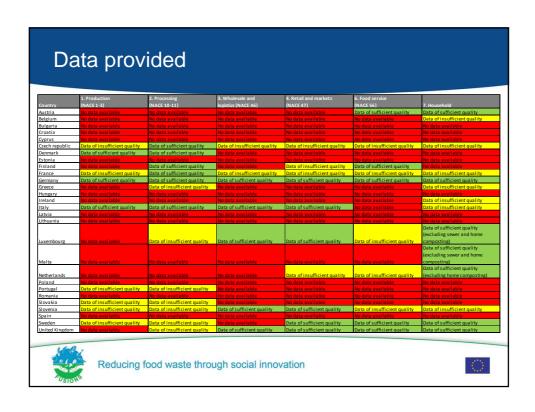


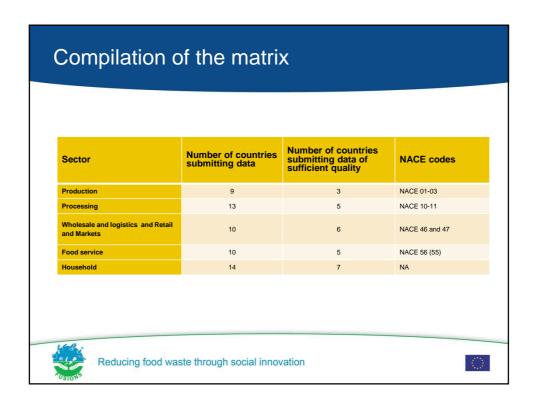
# WP1 builds knowledge, develops recommendations and explores impacts Impacts of food waste EU food waste levels Developing recommendations Food waste quantification manual Definition of Food Waste Building knowledge (background reports) FUSIONS Definitional Framework for Food Waste EUROSTATs reporting method and statistics Review of (food) waste reporting Food waste drivers ,and barriers and opportunities Standard approaches on quantitative techniques

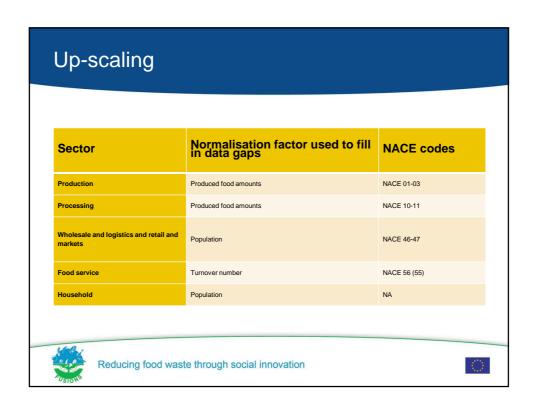


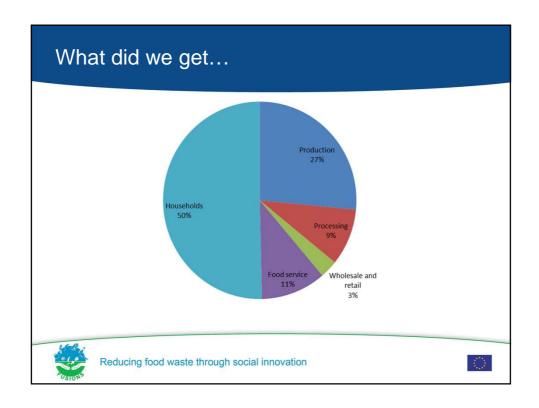


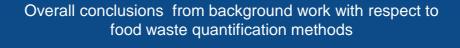












- There is not one single method that can be recommended for all applications.
- There is a need for both top down (macro level) and bottom up (micro level) approaches to be able to produce reliable food waste statistics
- By simplified methods data gaps can be filled until better data have been obtained.

Read more: Standard approches on quantitative techniques: www.eu-fusions.og





### Recommendation

### 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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# Follow up & request

Expected publication of new estimate food waste levels in EU-28: September 2015

Who has additional available information and MS data? We would like your support to increase the pan EU coverage and have the best possible latest estimate!

Please send information to:

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Åsa Stenmarck

SP Technical Research Institute of Sweden karin.ostergren@sp.se IVL Swedish Environmental Research Institute

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No.



# Food waste quantification manual: contents

- Purpose of the Manual
- Definition of food waste
- Recommended approach for national food waste quantification study
  - Why prepare a National Food Waste Quantification Study?
  - Scope of a national Food Waste Quantification Study
  - General approach for sectoral quantifications
  - Coordinating and combining sectoral food waste quantifications to perform national Food Waste Quantification Study
  - Reporting
- Recommended approach for: Primary Production, Processing & Manufacturing, Wholesale, Retail and Markets, Food services, Households



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### Overview of the Manual

Chapter 1: Purpose of the Manual

Chapter 2: Terminology

Chapter 3: Definition of food waste in this document

Chapter 4: Recommended approach for national food waste quantification study

Chapter 5: Recommended approach for Primary Production

Chapter 6: Recommended approach for Processing & Manufacturing

Chapter 7: Recommended approach for Wholesale, Retail and Markets

Chapter 8: Recommended approach for Food services

Chapter 9: Recommended approach for Other sectors

Chapter 9: Recommended approach for Households





# Scope of the Manual

The manual will provide guidelines for a <u>standard approach</u> <u>for EU Members States</u> on how to continuously measure and quantify food waste in different steps of the food supply chain.

- · Quantifying food waste in each sector of the food chain
- Combining sectoral quantifications using a common framework at national level
- · Reporting (at country level)



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# Objective

Allow Member States evaluating, in a similar manner, food waste quantities (expressed in weight) generated over one year on their national territory.

Aimed for the authorities





# Approach

- Core requirement
- Secondary objectives



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# Example (General approach)

- Core requirement: The user of the Manual shall at least quantify the overall amount of food and associated inedible parts
- Secondary objectives: The user of the Manual should quantify the amount of food and inedible parts separately and then report the results combined along with separate results for each type.





# Key aspects of NFWQS Scope

### **Timeframe**

Core requirement = period of one year

### **Material type**

- Core requirement = quantify the amount of both food and associated inedible parts. The amount reported is thus a combination of both.
- Optional recommendation = quantify the amount of food and inedible parts separately, and then report the results combined along with separate results for each type (increased granularity)



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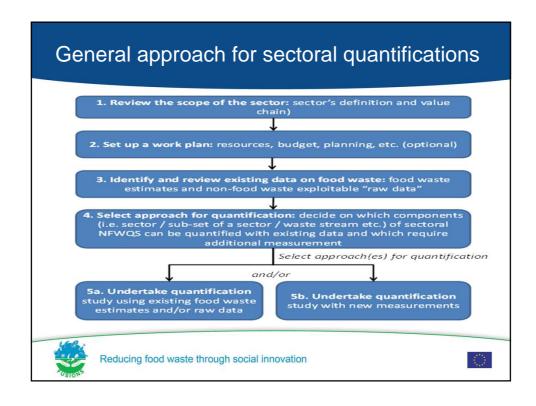
# Key aspects of NFWQS Scope

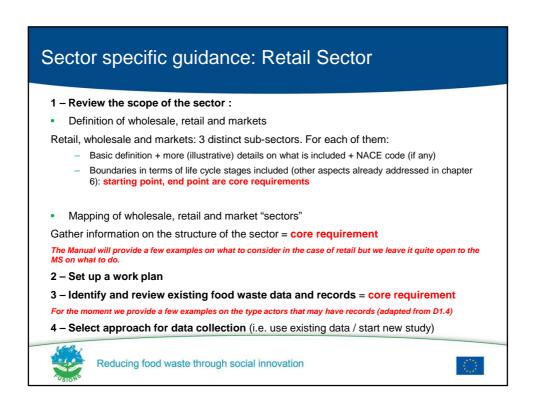
### Destination

- According to the FUSIONS definition, any food or inedible parts of food sent to animal feed, bio-material processing or other industrial uses are termed 'valorisation and conversion' and thus are not considered 'food waste'.
- 1st proposition for core requirement: quantify separately, the following amounts:
  - "Valorisation and conversion" category i.e. food or inedible parts of food sent to animal feed, bio-material processing or other industrial uses
  - "Food waste" category i.e. food or inedible parts of food sent to other destinations than those of "Valorisation and conversion" category
- Optional recommendation: quantify separately all possible destinations as defined by FUSIONS (a dozen destinations)
- → Question: What are your views on this?









# Retail Sector Launch a new study – Recommended quantification methods

Key Principle: Recommended methods are adapted from FUSIONS Deliverable D1.4

It is a core requirement to use these methods if a new data collection process is initiated.

### Specialist wholesale markets:

Same as "markets". Only one possible approach: Registration of the waste from the waste management company and conduct waste sorting analyses to determine composition and calculate amounts. For markets, the approach should not be conducted for each individual market retailer but by the responsible market authority who also has access to the necessary waste management data.

### Cash and carry wholesalers:

Same as "Modern grocery retail". Recommended approach: collection at store level of food waste data deriving from stock-keeping/book keeping tools

### Retailers

### Modern grocery retail:

Recommended approach: collection at store level of food waste data deriving from stock-keeping/book keeping tools Independent and traditional shops:

Only one possible approach: Registration of the waste from the retailer's waste management company and conduct waste sorting analyses to determine composition and calculate amounts.

### Market

Only one possible approach: Registration of the waste from the waste management company and conduct waste sorting analyses to determine composition and calculate amounts.



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# Practical example and good practices

- Good practices from collaborative approaches
   Example: Matvett & Format project Norway
- Retailers being transparant about their food waste data



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## Time frame

- A first draft beginning of May
- Aim for a final version by the end of July
- Publication of the Manual September 2015
- Consultation round: RPMs, MS (SANTE, April24), FUSIONS external advisory board May 27



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## Questions

- Who is already, or when will you start working with harmonised quantification at MS-level, based on the Manual? What would be major obstacles?
- Would the outputs of the reporting give sufficient insights to support policy needs? What more is needed?
- What would be logic next steps for interested MS to get involved in the testing and piloting of the methodology, using the Manual?





# Next steps?

- Would it be valuable to organise a specific consultation meeting about the use of the Manual with interested MSrepresentatives, to go in detail, and explore the testing and piloting of the methodology?
- How would you like to be informed about progress?



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## Further Contacts about the Manual

Please contact Clementine O'Connor for further information about the Manual or to provide more detailed comments:

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# Join the FUSIONS project

Discussion, workshops & consultation on Quantification, Policy & Innovation

FUSIONS' upcoming meetings:

- 22 April: Oslo
- 22 May: Bologna
- 26 May: Paris
- 4 June: Budapest

See www.eu-fusions.org



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# Thanks for your attention

Questions?

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# Annex Extra detailed slides Manual Reducing food waste through social innovation

### Terminology

- · Chapter 3 presents all key terms
- Terms are taken from the FLW Protocol <u>except</u> when there is FUSIONS specific terminology: e.g. Food, Food supply chain, Food and inedible parts of food, Valorisation and conversion, Food Waste

### New terms have been introduced:

- National Food Waste Quantification Study (NFWQS): "Output from the process undertaken to quantify food waste at national level as presented in this Manual". NFWQS is the equivalent term to Inventory in the Protocol.
- National Food Waste Quantification Report (NFWR): "A report that
  describes in a transparent way results of a NFWQS as well as other items
  required to be reported in conformance with the Manual". NFWR is the
  equivalent term to Inventory report in the Protocol.





# Recommended approach for National Food Waste Quantification Study

### **Key principles**

- This chapter includes all general recommendations i.e. non sector-specific recommendations
- It is harmonized with the FLW Protocol Protocol requirements and recommendations are adapted/refined to match with the context and objectives of the Manual
  - The manual fits well in the broader framework developed by the Protocol.
  - For the sake of consistency, it is crucial to adopt the same general approach otherwise it will create too much confusion for users of both documents
  - When developing methodologies, it is common practice to build on existing standards to further refine them, see for instance:
    - PEF/OEF methodology that has been developed building on the ILCD Handbook as well as other existing
      methodological standards and guidance documents (ISO 14040-44, PAS 2050, BP X30, WRI/WBCSD
      GHG protocol, Sustainability Consortium, ISO 14025)
    - GHG Protocol sectoral guidance that are supplements to GHG Protocol's Corporate Standard
- The Manual makes a distinction between "core requirements" and "optional recommendations" (see next slide)



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### Key aspects of NFWQS Requirements and recommendations

### Core requirements → One simple objective

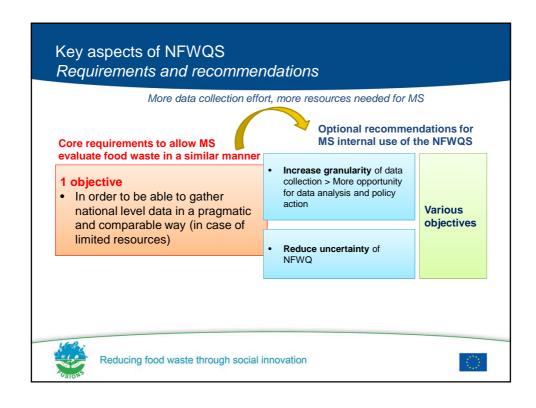
- The primary objective of a National Food Waste Quantification Study is to allow Member States evaluating, in a similar manner, food waste quantities (expressed in weight) generated over one year on their national territory
- Core requirements made in this Manual refer to the minimal conditions to fulfil this objective.
- If all MS follow the core requirements of this Manual, then it would be possible for MS to:
  - On a basic level, track food waste generation over time at national level.
  - Enable comparison between MS in order to benchmark performance and to build knowledge;
  - Consolidate MS data at EU level.

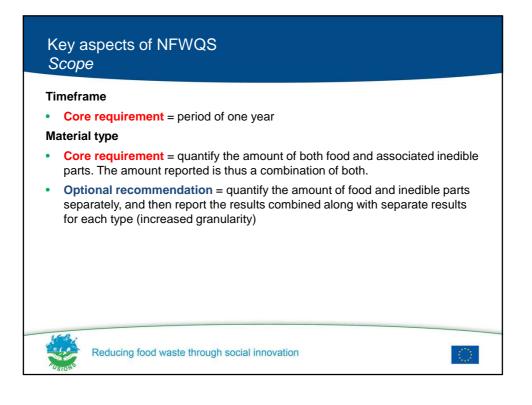
### Recommendations $\Rightarrow$ For other (secondary) objectives

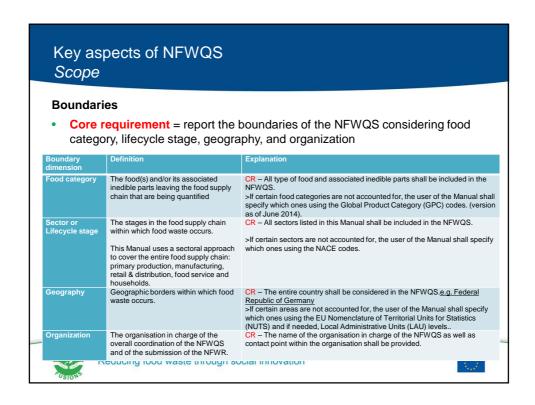
- A broader and more ambitious goal for the MS authorities may be to develop a coherent national approach to food waste reduction.
- In practice, secondary (additional) objectives of national food waste quantification could include: identifying hotspots, evaluating efficacy of prevention policies, modelling trends, etc.
- Optional recommendations made in the Manual refer to advice that can help fulfilling these secondary objectives.

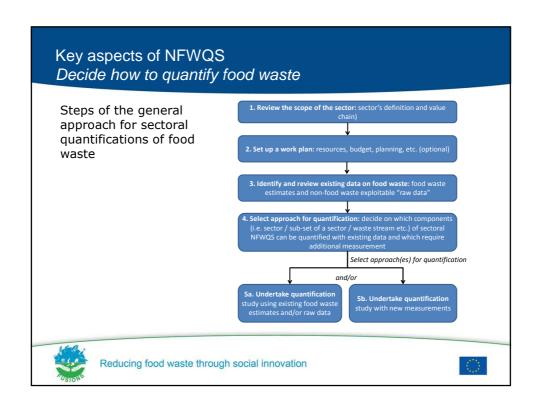












# Key aspects of NFWQS Decide how to quantify food waste

### **Key principles:**

- Understanding the definition of the sector (i.e. what is included in it or not)
  as well as what constitutes food waste in this sector (in coherence with the
  FUSIONS definition).
- Mapping of the sector The user of the Manual should carry out an initial study in order to have a general understanding of the sector's value chain.
- This can help greatly with subsequent activities for instance:
  - Identifying existing estimates and raw data;
  - Ensuring, where sampling takes place, that the sample is representative of the situation within the Member State.
- Using existing data the philosophy of the Manual is to always try to make the most of already existing data/records



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# Key aspects of NFWQS *Undertaking a study involving new measurements*

- The Manual will recommend quantification methods suitable for each sector
- Recommendations will be mostly adapted from previous FUSIONS deliverable D1.4 Standard approach on quantitative techniques to be used to estimate food waste levels
- Note that the methodologies will not necessarily to be carried out by MS authorities themselves but potentially by other operators (e.g. commissioned consultants, voluntary stakeholders, etc.)





### Key aspects of NFWQS

Coordinating and combining sectoral food waste quantifications to perform NFWQS

### Key principle

- This section provides guidance to the user of the Manual on how to consolidate the results from the sectoral quantifications into one National Food Waste Quantification Study
- The organisation in charge of the consolidation of sectoral quantifications is referred to as the "coordinating organisation".
- Core requirements in this section are not very strict and are formulated in general terms (the idea was not to put « too much pressure / frighten » the coordinating organisation.



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# Key aspects of NFWQS Reporting

### Key principle

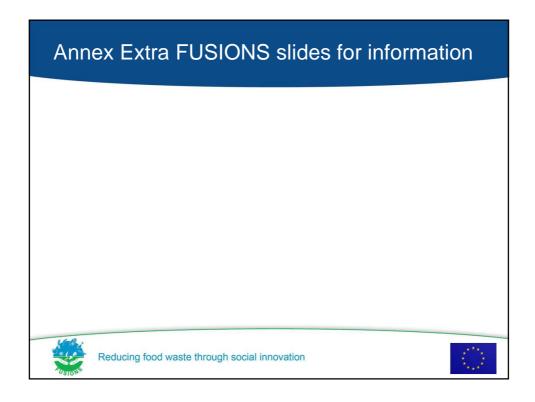
- For a MS, reporting NFWQS results may have two main objectives:
  - A first objective may be to publicly disclose the national food waste quantities in the context of developing a coherent national approach to food waste issues – i.e. voluntary national reporting aiming to build knowledge and to create best practice.
  - Another objective may be in the future to communicate the waste quantities (expressed in weight) to the European Union – i.e. EU reporting
- The Manual provides optional recommendations in relations to the voluntary national reporting

### If EU reporting is foreseen:

 The Manual could provide a core requirement that the coordinating entity report to the European Commission using a predefined template including sections to report figures and sections to qualitatively explain the methodology used for each sector, the uncertainty, reporting restrictions encountered, etc.









# WP3: ENABLE - Policy

- An extensive literature review has been conducted on legislation and policy driving food waste generation and reduction
- A database of relevant European and national legislation and policy documents was created
- Methodological review of selected EU Member States legislation and policies addressing food waste
- Quantitative Scenario Analysis (in preparation)



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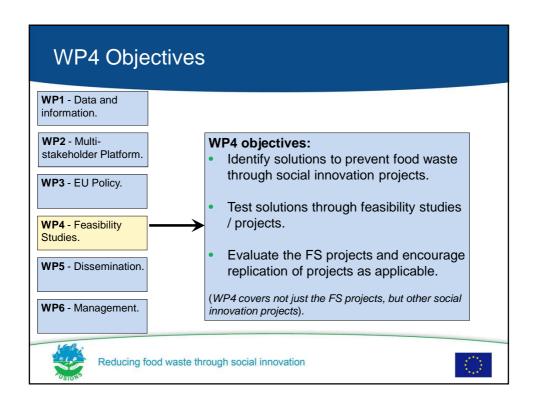
# Methodological review of legislation and policies addressing food waste

- i) the methodology, the overview matrix and the classification;
- ii) the country reports concept version, open for input by MS or other organisations to improve/add information

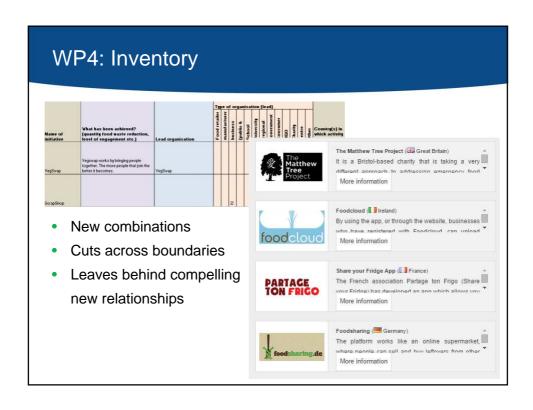














# Gleaning Network EU

- Four pilot projects underway: Belgium, France, Greece & Spain
- Pilot gleaning days started in the Autumn and will continue through to June 2015
- Case studies being developed demonstrating the different operational approaches to gleaning
- Gleaning Handbook and other web-based tools being developed
- Significant interest in gleaning from several other countries incl.
   Poland, Ireland, Czech Republic



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Gleaning Network
EU

# Creative Project - Greece

### **Project Objectives**

- Raise awareness on food waste
- Enable behaviour change towards food
- Waste reduction
  - Kindergarten children and educators
  - Parents
  - Kindergarden canteen cooks
- Reduce food waste in households with pre-school children (aged 3-5 years old)



### **Project Participants**

- 6 kindergartens
- 480 children
- 480 families
- 25 Teachers
- 7 Kindergarten Heads
- 30 parents participate in pilot actions













# Connecting food service and hospitality companies (hotels, restaurants, central kitchens, catering companies) having regular surpluses with charities ready to receive and distribute meals. On target: already saved over 15,000 meals (value 50.000 EUR) Reducing food waste through social innovation

# HFA Project - Hungary

- Legal environment for donation from the food service sector mapped
- Logistics and monitoring procedure has been developed
- Pilots launched and saved already over 15.000 meals (value 50.000 EUR)
- Preparation of a guidance document with recommendations on implementing a food redistribution programme is ongoing



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## WP5: Dissemination

# Disseminate knowledge and increase awareness of food waste and FUSIONS

- Disseminating key outcomes and deliverables of the project among relevant food chain stakeholders, policy makers and the wider public
- Raising awareness among food chain stakeholders, policy makers and the wider public on the economic, environmental and social impact of food waste, and opportunities for its prevention through social innovation







