

Waste not: food waste reduction practices and policies in the EU

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credits

Presentation prepared by

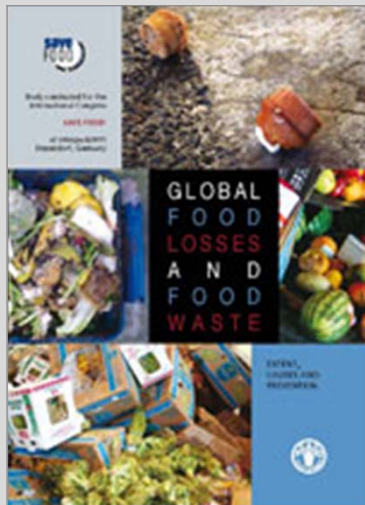
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DEFINING “FOOD WASTE”



A first definition of *food waste* was given by the UN Food and Agriculture Organization (FAO) and includes any healthy or edible substance that - instead of being allocated for human consumption - is wasted, lost, degraded, or consumed by pests at every stage of the food supply chain.

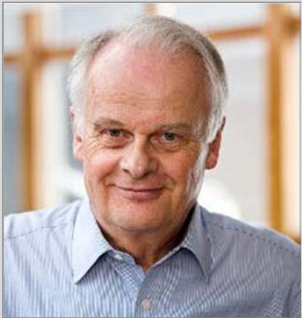


The Swedish Institute for Food and Biotechnology (SIK), in a recent study commissioned by FAO, proposed a distinction between *food losses* and *food waste*. *Food losses* “take place during agricultural production, post-harvest, and processing stages in the food supply chain,” while *food waste* occurs “at the end of the food chain (distribution, sale and final consumption)” the former is due to logistical and infrastructural limitations, while the latter is because of behavioral factors.

DEFINING “FOOD WASTE”



According to Prof. V. Smil of the University of Manitoba, over-nutrition should be also considered as “food waste” to be calculated as the difference between the quantity of food that each person consumes and what he or she really needs.



Professor Jan Lundqvist of the Stockholm International Water Institute (SIWI), speak of *field losses* and *spoilage*, referring to the loss that takes place in the fields and during transportation and storage. The SIK also points out that food that was originally meant for human consumption, but which is no longer part of the human food chain, is considered as food loss, even if it is then re-utilized for non-food use (animal feed, bioenergy, etc.)

DEFINING “FOOD WASTE”



In Great Britain, WRAP distinguishes between:

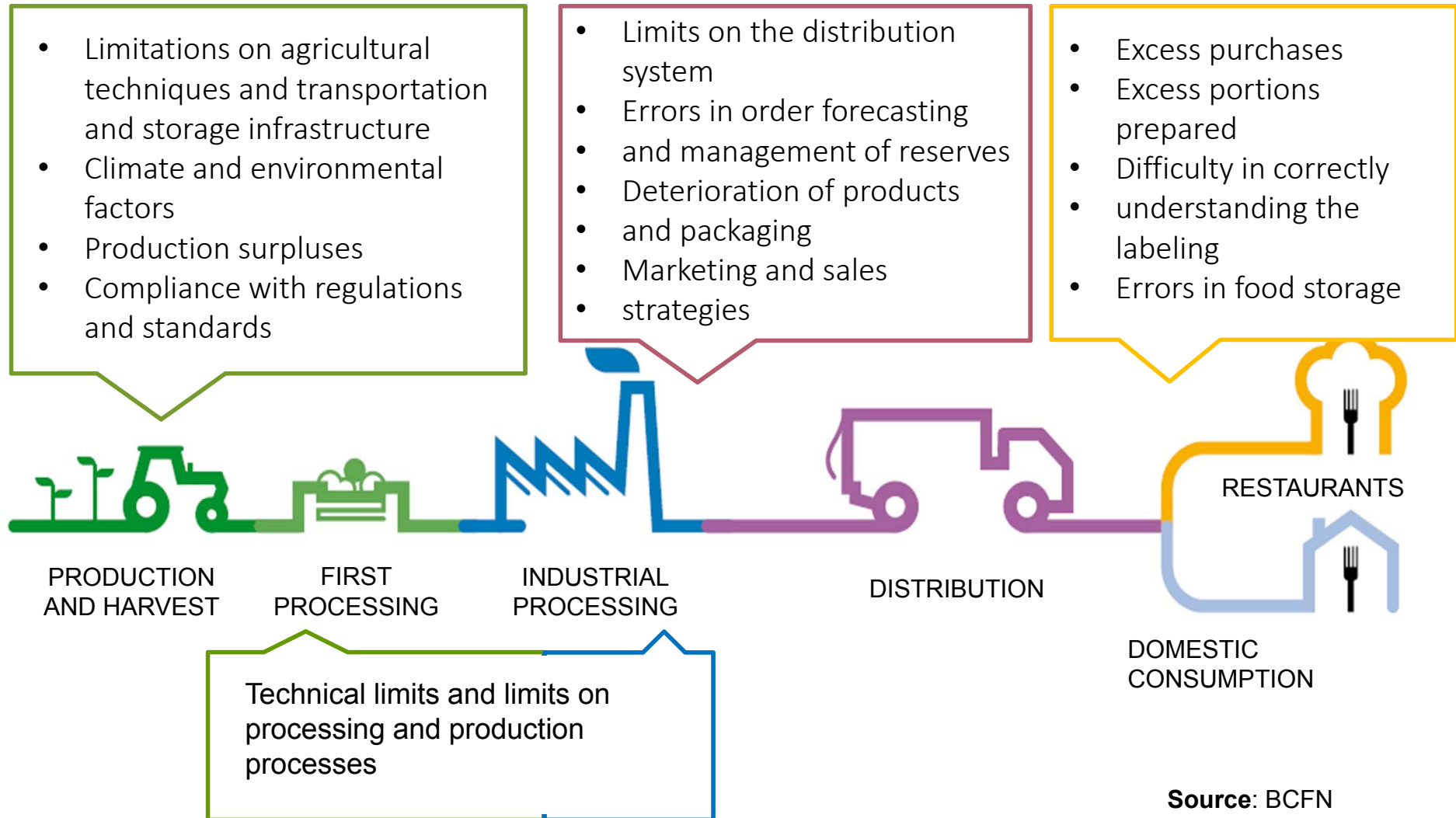
- **Avoidable:** food and drinks that are thrown away despite still being edible;
- **Possibly Avoidable:** food and drinks that some people consume and some do not or food that can be edible, if cooked one way instead of another;
- **Unavoidable:** waste deriving from the preparation of food or drinks that are not, and could not, be edible.

THE FUSIONS DEFINITION OF “FOOD WASTE”



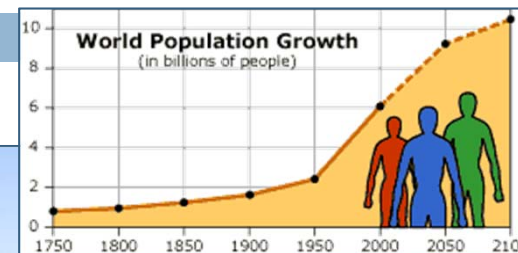
“Food waste is any **food**, and **inedible parts of food**, removed from the **food supply chain** to be recovered or disposed (including composted, crops ploughed in/not harvested, anaerobic digestion, bio-energy production, co-generation, incineration, disposal to sewer, landfill or discarded to sea).”

THE CAUSES OF FOOD WASTE



THE CHALLENGE

“Agriculture in the 21st century faces multiple challenges: it has to produce more food and fibre to feed a growing population with a smaller rural labour force, more feedstocks for a potentially huge bioenergy market, contribute to overall development in the many agriculture-dependent developing countries, adopt more efficient and sustainable production methods and adapt to climate change.”

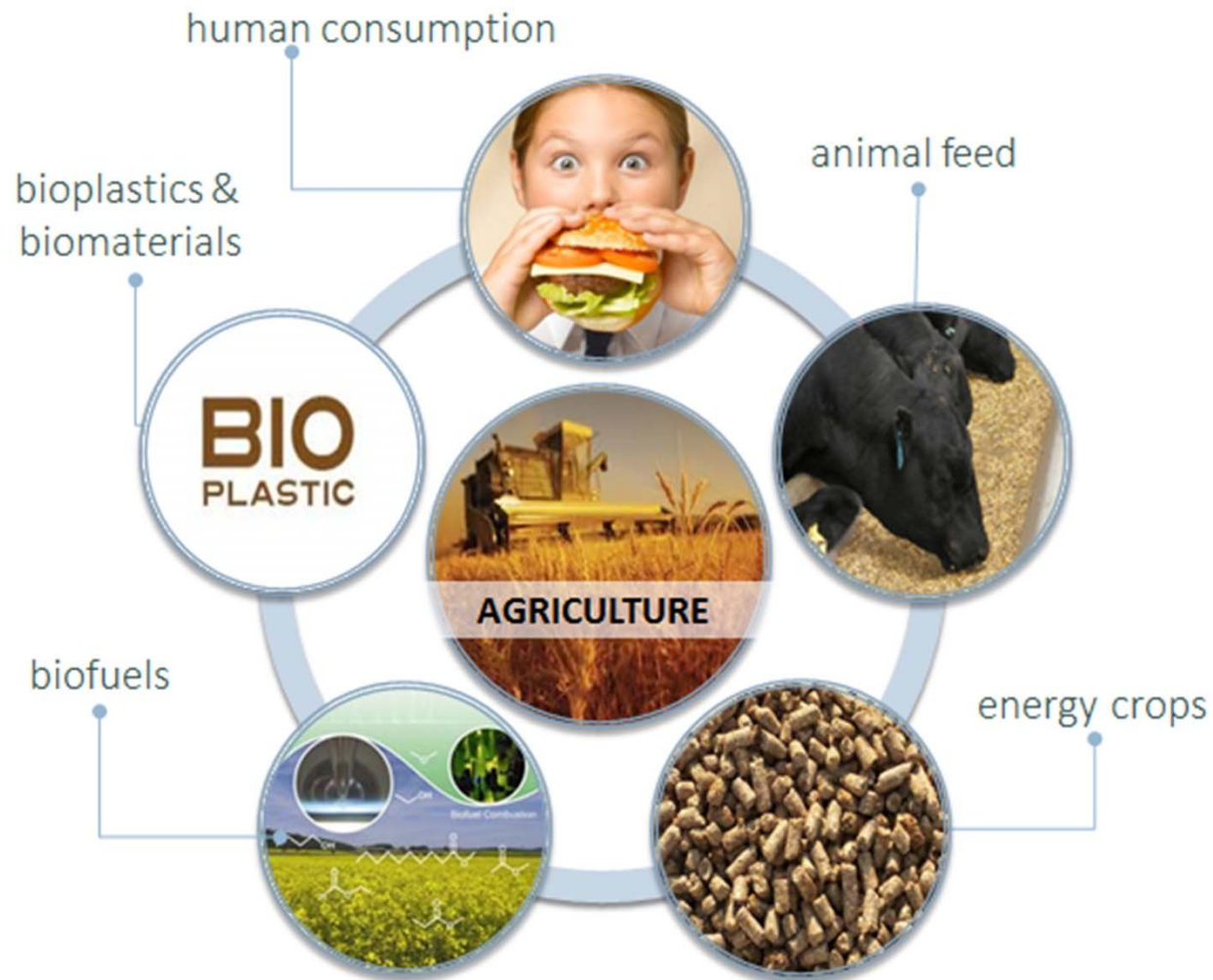


A PARAMOUNT QUESTION

How can the world adequately feed more than 9 billion people by 2050 in a manner that advances social and economic development while reducing pressure on ecosystems, climate, and water resources?



FOOD, FEED, FEEDSTOCK ?



THE FRAMEWORK

sustainability of food production & consumption



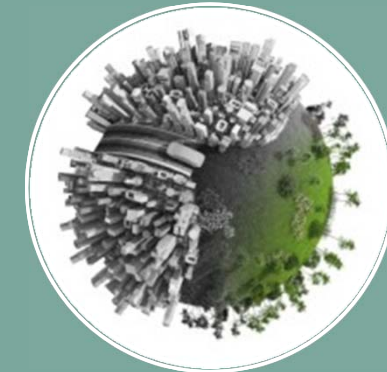
Food scarcity

- Denutrition
- Hunger
- Malnutrition
- Social injustice
- Food in-security



Resource consumption

- Soil consumption & land grabbing
- Water
- Energy



Environmental degradation

- Water pollution
- Global warming
- Soil degradation
- Desertification
- Biodiversity loss

Population growth, land competition, eating habits and behaviors

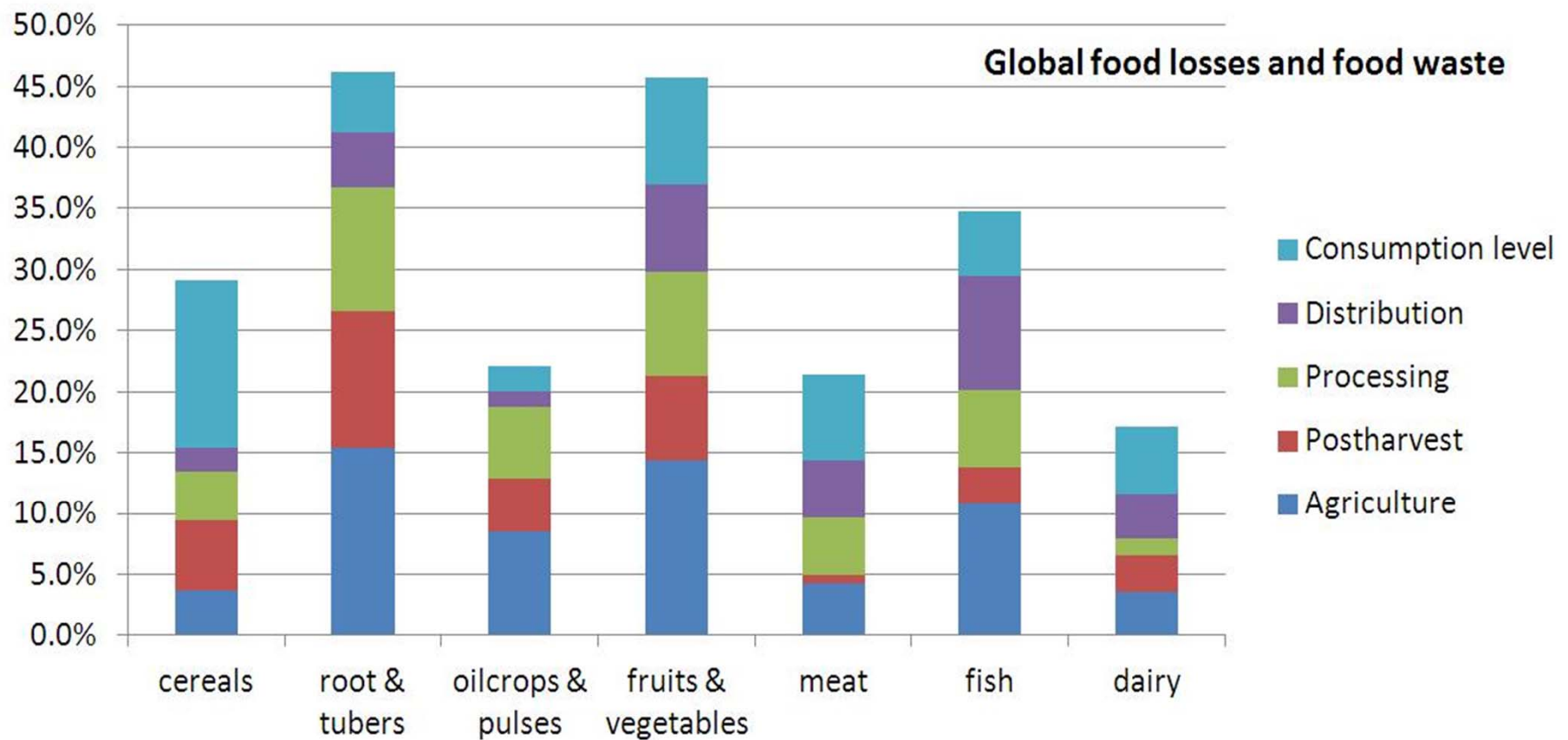
GLOBAL FLW: THE FIGURES

Global attention and concern on food waste & losses are fully justified by these staggering figures:



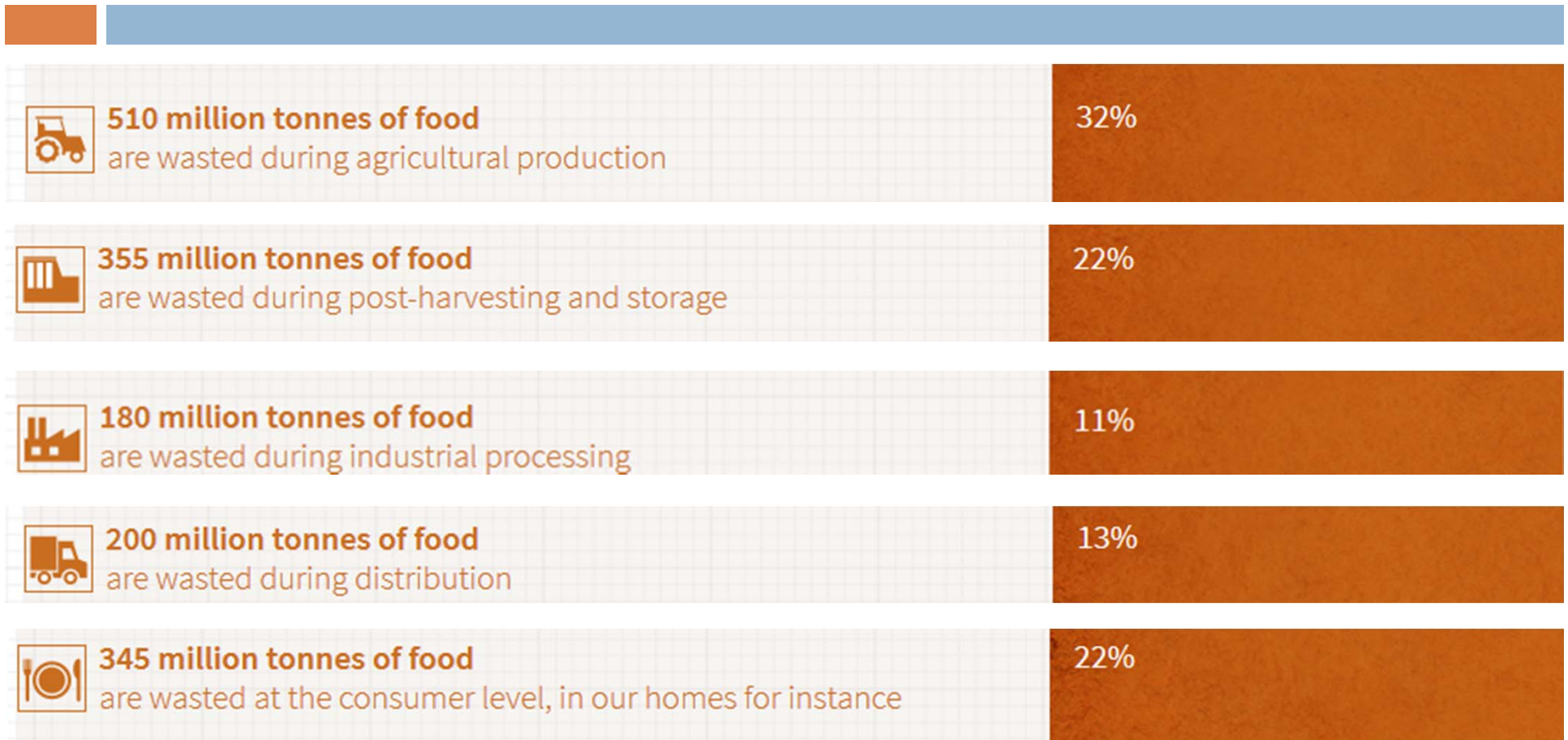
Infographic by FAO

GLOBAL FLW BY COMMODITY



Source: FAO. 2011. Global food losses and food waste

GLOBAL FLW BY SUPPLY CHAIN STAGE



GLOBAL FLW: THE FIGURES

Every year, consumers in high income countries waste almost as much food (222 million tonnes) as the entire net food production of sub-Saharan Africa (230 million tonnes)*



Household's food waste in high income countries.

222

millions
tonns



Net food production in sub-Saharan Africa

230

millions
tonns



* Source: FAO (2011), *Global Food Losses and Food Waste*



GLOBAL FLW: THE IMPACTS

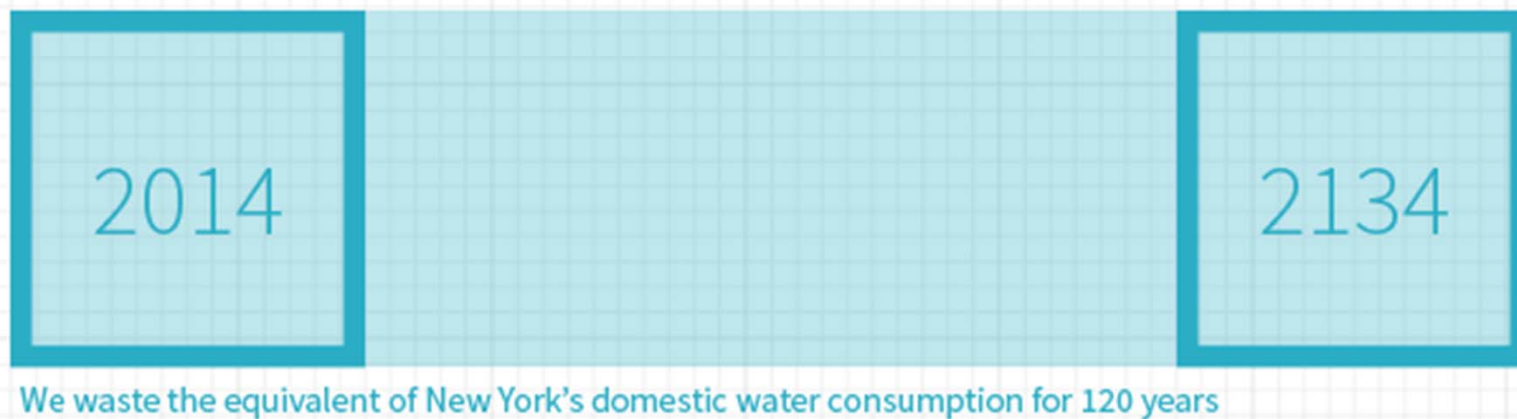


We know that throwing away food also means wasting limited natural resources - soil, water, energy - used to produce, process and distribute the products, then to dispose of the waste, thus having a negative impact from an ecological, economic and social point of view.

wasting food means

WASTING PRECIOUS WATER

The amount of water required to produce the food we waste every year on a global scale is about 250.000 billion liters. This could supply New York's domestic water needs for the next 120 years, at current rates.



wasting food means

WASTING AGRICULTURAL LAND

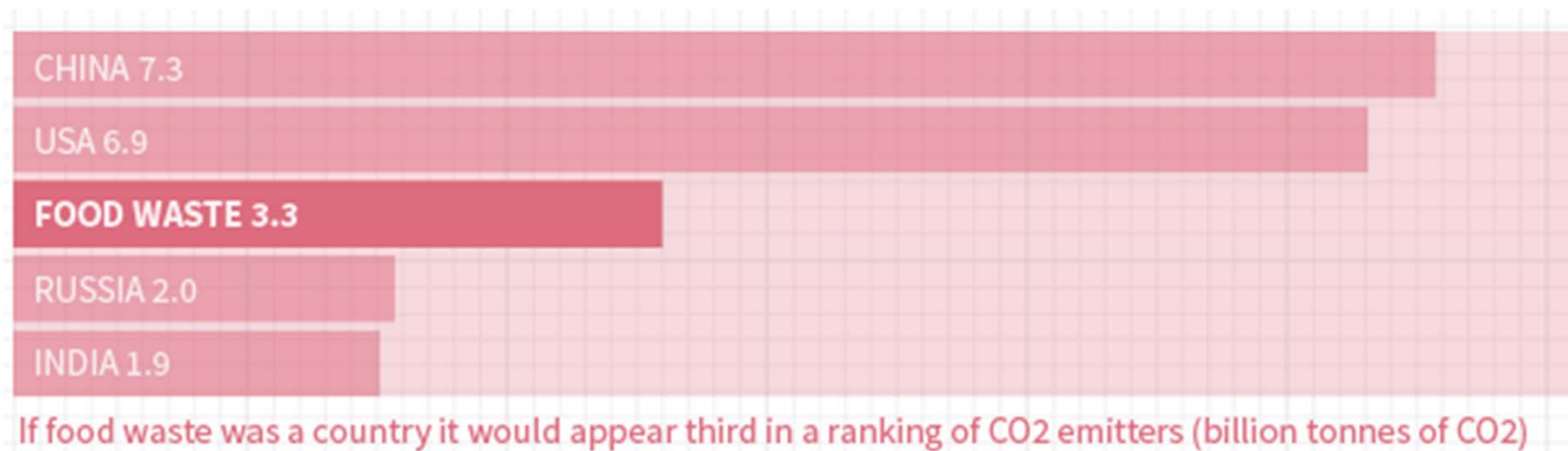
The food produced but wasted globally every year requires 1.4 billion hectares of land, which is close to 30% of the world agricultural land area.



wasting food means

CONTRIBUTING TO GLOBAL WARMING

The carbon footprint of food wasted globally every year is 3.3 billion tonnes of carbon dioxide. If food waste was a country it would be the third top emitter after the USA and China.



wasting food means
WASTING MONEY

Besides its environmental cost, food wastage also represents a loss of economic value. On a global scale, the economic cost of the overall amount of food wastage is about \$US 750 billion, equivalent to the GDP of Switzerland.



...and this is just the tip of the iceberg

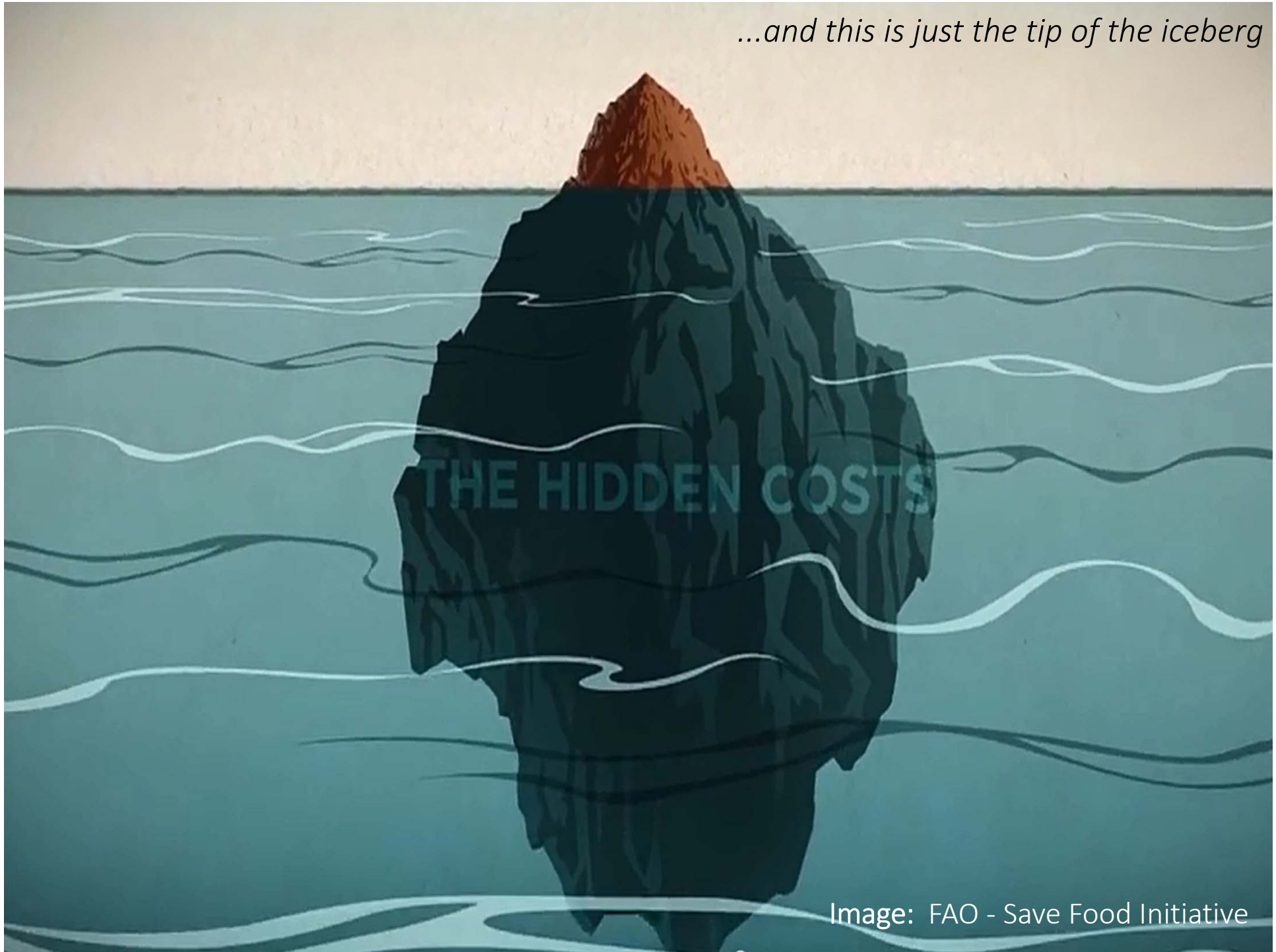
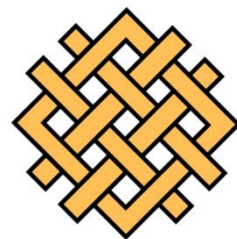


Image: FAO - Save Food Initiative

FOOD WASTE RELATED IMPACTS ARE MORE AND MORE BECOMING A GLOBAL CONCERN

main international organisations addressing the problem of food waste



WORLD
RESOURCES
INSTITUTE





WP3

EU policy measures for
food waste prevention
through social innovation

Reducing food waste through social innovation



FUSIONS_Food Use for Social Innovation by Optimising Waste Prevention Strategies

The **FUSIONS project** aims at achieving a more resource efficient Europe by significantly reducing food waste. The project runs for 4 years, from August 2012 to July 2016. It has **21 project partners** from 13 countries, bringing together universities, knowledge institutes, consumer organisations and businesses.

The project will contribute to food waste reduction through:

- the harmonisation of food waste monitoring;
- improved understanding of the extent to which social innovation can reduce food waste; and
- the development of guidelines for a common Food Waste policy for EU-27 (EU-28).

Project duration: 48 months (2012 – 2016)

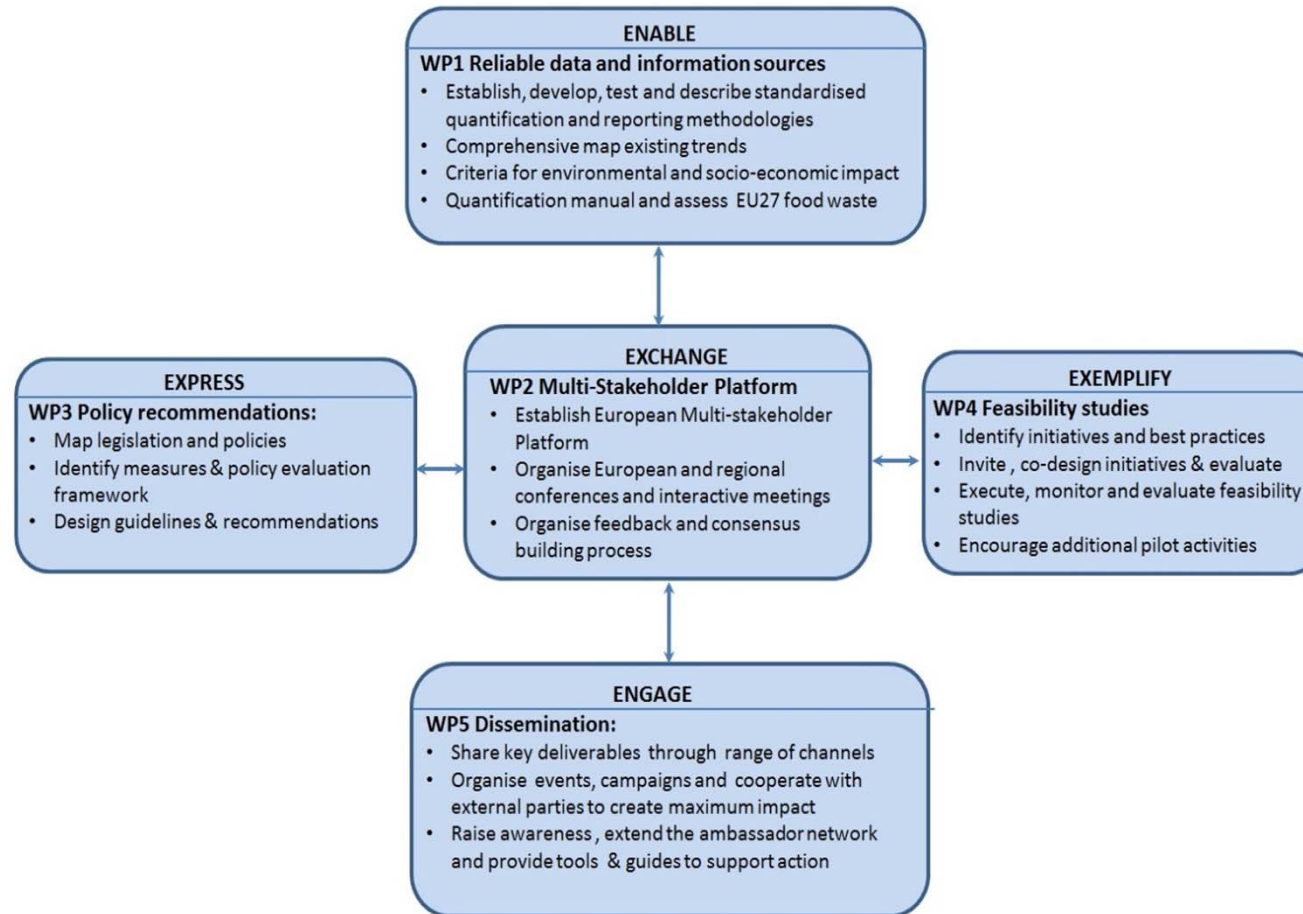
www.eu-fusions.org



Reducing food waste through social innovation



FUSIONS_Food Use for Social Innovation by Optimising Waste Prevention Strategies



Reducing food waste through social innovation



FUSIONS's policy work: Background

European policy
measures for FW
prevention and
reduction

- **Policy** is a course or principle of action, proposed or adopted by a government, party, business or individual, intended to influence and determine coherent decisions, actions, and other matters; usually with a common long-term purpose(s).

SOURCE: Australian Concise Oxford Dictionary, The Free Dictionary and FAO Corporate Document.

Through social
innovation

- **SI** has socially recognised goals (in this case, reducing food waste).
- **SI** is grounded in deep reflection on the problem & direct action from those involved in it. It represents co-creation and learning.
- **SI** is people-focused, both in terms of its delivery & its beneficiaries. This aids its diffusion or institutionalisation.
- **SI** is delivered through, and builds capacity for, relationships and collaboration – often through a multi-stakeholder approach. It affects the process of social interactions.
- **SI** is a new combination of activities and / or delivered into a new setting.

*SOURCE: «How can social innovation help reduce food waste?»
FUSIONS WP4*



Reducing food waste through social innovation



FUSIONS's policy work: Objectives

1. Contribute to policy making at both the European and Member State levels

2. Identify policy tools to stimulate socially innovative solutions to address food waste

3. Draft recommendations for a Common Food Waste Policy in the EU28 with focus on social innovation

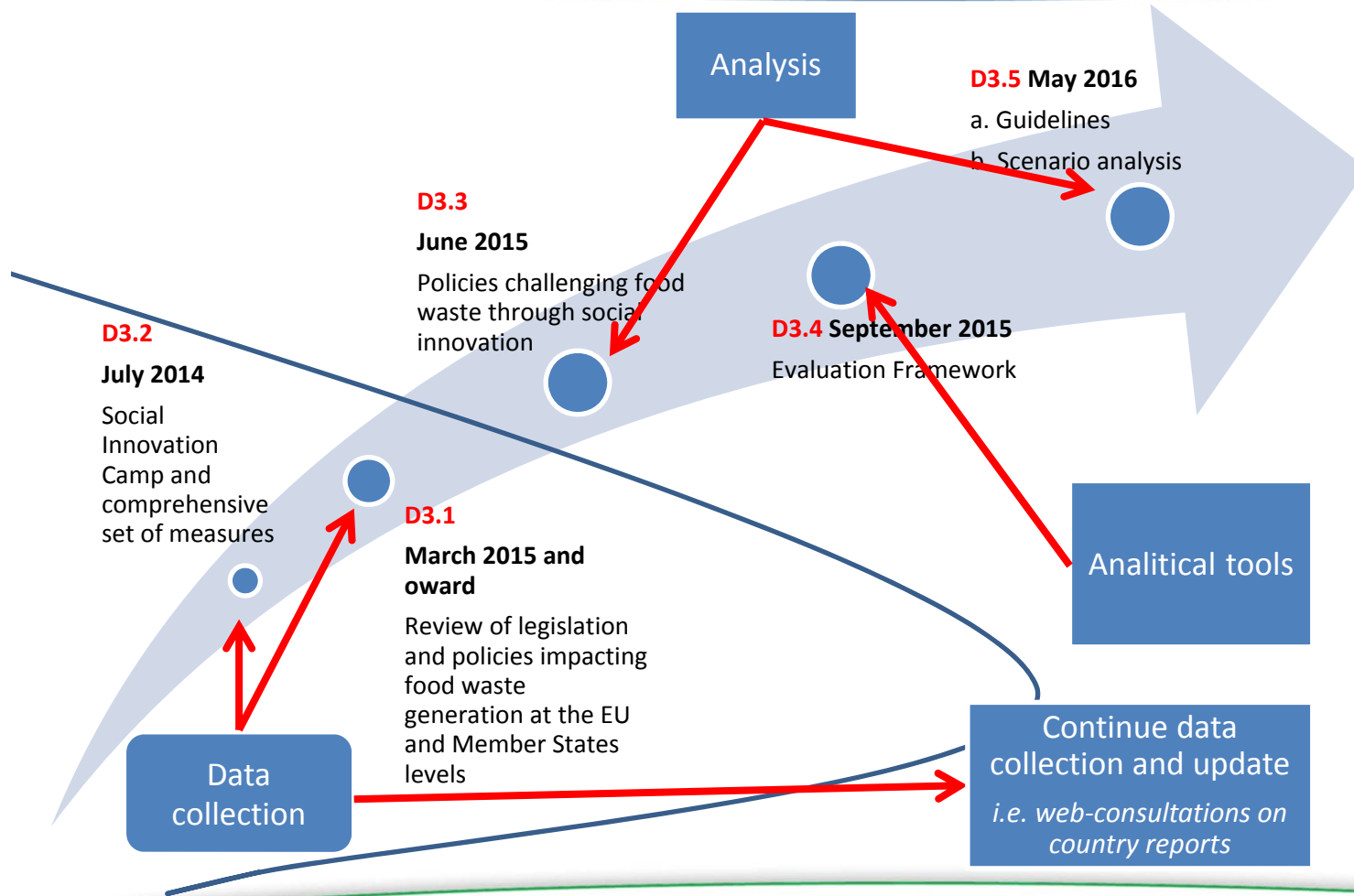
What policy changes at the EU and Member State level to deliver a 30% reduction by 2025
(or more if the new circular economy package will be more ambitious?)



Reducing food waste through social innovation



Approach



May 2016
Recommendations for a Common European Food Waste Policy with focus on social innovation

Eightfold Path

- Define the Problem
- Assemble Some Evidence
- Construct the Alternatives
- Select the Criteria
- Project the Outcomes
- Confront the Trade-offs
- Decide
- Tell Your Story

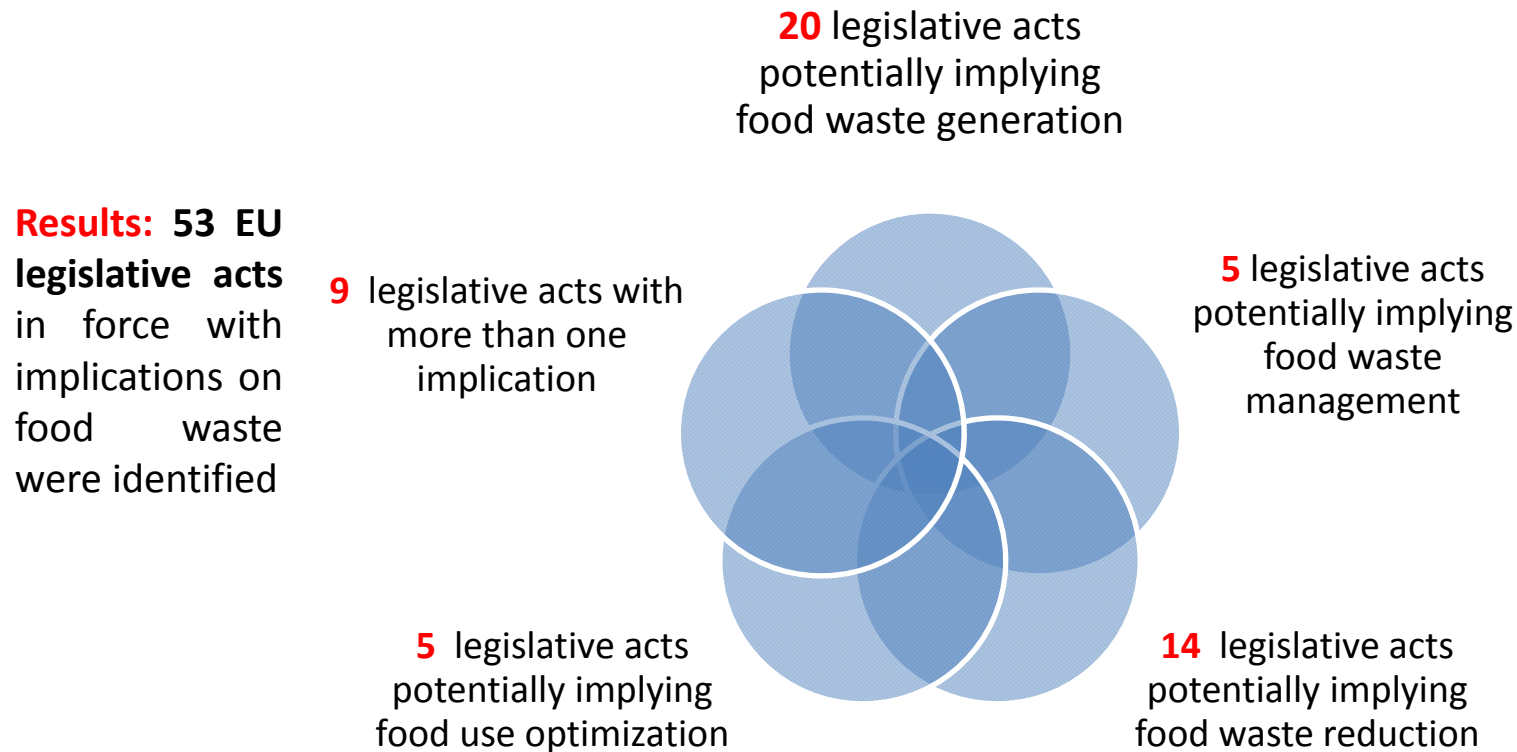


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D3.1a Review of EU legislation and policies with implications on food waste

Legislation and policies addressing food waste are multilevel and multisectoral; therefore, there are multiple - and not always explicit - policy effects to be considered...



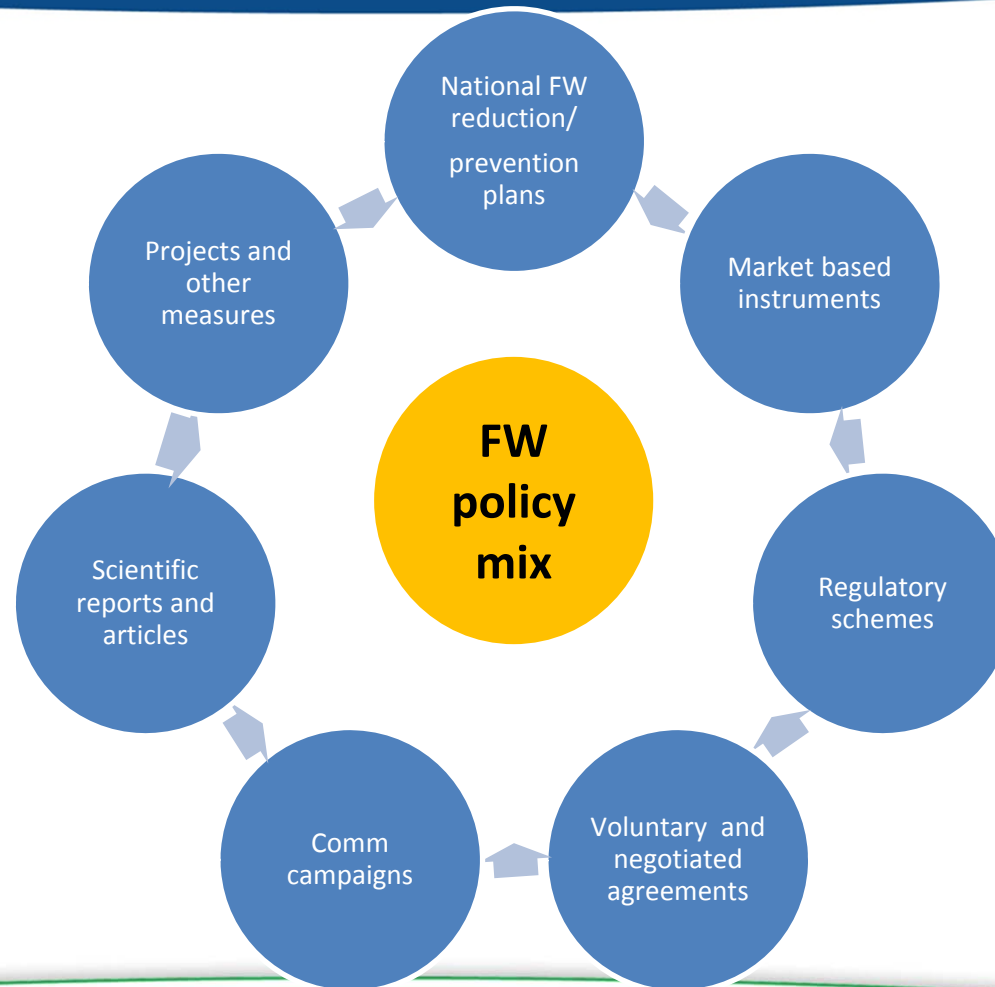
D3.1b Review of EU Member States legislation and policies addressing food waste

Country reports for all the MSs.

Policy matrix

Comparative analysis

Best practice identification



Reducing food waste through social innovation



D3.2 Social Innovation Camp and comprehensive set of measures on which to build policy strategies

Pre-Camp Survey and Pre-Camp Workshop

The Pre-Camp Survey was planned as a preparatory activity for the FUSIONS Social Camp to stimulate discussion about policies which could support social innovation for food waste reduction and prevention.

The Pre-Camp workshop was aimed to initiate a dialogue focusing on policy tools to stimulate social innovation addressing food waste prevention and reduction and to prepare and facilitate the work in the FUSIONS CAMP..

The FUSIONS Social Camp

The FUSIONS Camp was aimed at discussing with stakeholders, researchers and policy makers, how the different European policies (Social Innovation, Environment, Corporate Social Responsibility and beyond) could stimulate social innovation addressing food waste reduction.

The position paper: *Stimulating social innovation through policy measures*

The position paper was aimed to understand which policy measures might best support the *creation, use and scaling* of social innovation initiatives

Finalized



Reducing food waste through social innovation



D3.3 Policies and improved legislation challenging food waste through social innovation

Obj 1. Exploring the potential of market based instruments and socio-economic incentives as specific policy measures for stimulating food supply-chain operators, retailers, food services, and households to food waste prevention and reduction

Obj 2. To build a comprehensive set of measures to design policy strategies stimulating social innovation initiatives addressing food waste



D3.4 Indicators and criteria for a food waste policy Evaluation Framework

As policy strategies and measures and initiatives addressed to food waste reduction are growing a greater need for their analysis and for more effective monitoring and evaluation activities emerges.

Obj. Indicators and criteria to assess the effects of policy measures to prevent and reduce food waste will be formulated within a coherent Evaluation Framework aimed at providing decision makers with an effective tool for formulating and refining policies on food waste prevention through social innovation.



Reducing food waste through social innovation



D3.5 Recommendations and guidelines for a Common European Food Waste Policy

Obj1. Guidelines for a European Common Food Waste Policy enhancing food waste prevention and reduction through social innovation

Including:

- (i) General objectives and priorities for a Common Food Waste policy;
- (ii) Proposals to adapt and harmonize current legislations and food waste monitoring;
- (iii) Guidelines for new Common measures promoting social innovation in the food waste sector;
- (iv) Criteria for the Common Policy assessment.

Obj2. Scenario analysis on current trends of food waste generation

A qualitative comparative analysis will be developed to assess a number of alternative scenarios focusing on different policy interventions selected from those suggested as “best practices” in previous project activities.



REFRESH

Resource Efficient Food and dRink for the Entire Supply cHain



The overall aim of the REFRESH project is to contribute significantly towards the objective of reducing food waste across the EU by 30% by 2025 (which amounts to between 25 to 40 million tonnes of food not being wasted in 2025, worth tens of billions of Euros a year) and maximizing the value from unavoidable food waste and packaging materials. To achieve this ambitious goal, we will adopt a systemic approach and use cutting edge science to enable action by businesses, consumers and public authorities. A central ambition of the REFRESH project is to develop a 'Framework for Action' model that is based on strategic agreements across all stages of the supply chain (backed by Governments), delivered through collaborative working and supported by evidence-based tools to allow targeted, cost effective interventions. Success will support transformation towards a more sustainable and secure EU food system, benefitting Europe's economy, environment and society.



Reducing food waste through social innovation



A BRIEF INTRODUCTION ON LAST MINUTE MARKET

The research unit at the Department of Agricultural and Food Sciences of the University of Bologna works together with Last Minute Market.

1998 Research Project

2003 Cooperative

2001 No-profit Association

2008 Accademic Spin-off



Last Minute Market is an academic spin-off of the University of Bologna engaged with food waste reduction and prevention. Active for more than 15 years, it operates with enterprises and public administrations across Italy and abroad ideating, implementing and monitoring food (and non food) waste prevention and recovery projects.

LAST MINUTE MARKET: MAIN AREAS OF ACTIVITY



One year against waste

A LMM's European Campaign against food waste



Waste Watcher

The observatory is made by Last Minute Market in collaboration with SWG



PINPAS

The national (Italian) food waste prevention plan



FUSIONS

LMM is partner of the FUSIONS Project, (7th FP), the main european project in the field of food waste, involving 21 partners from 13 countries



Sprecozero.net

The Italian network of the local and regional authorities, voluntarily committed to prevent food waste on their territories.

THANK YOU FOR YOUR ATTENTION

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The logo for 'credits' is displayed in a white box. The word 'credits' is written in a lowercase, sans-serif font. Below the text, there is a faint, mirrored reflection of the word.

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