

# Private-Public Collaborations A Successful Model to fight Food Waste

Experiences from EU FUSIONS and REFRESH

Toine Timmermans, 25 October 2017

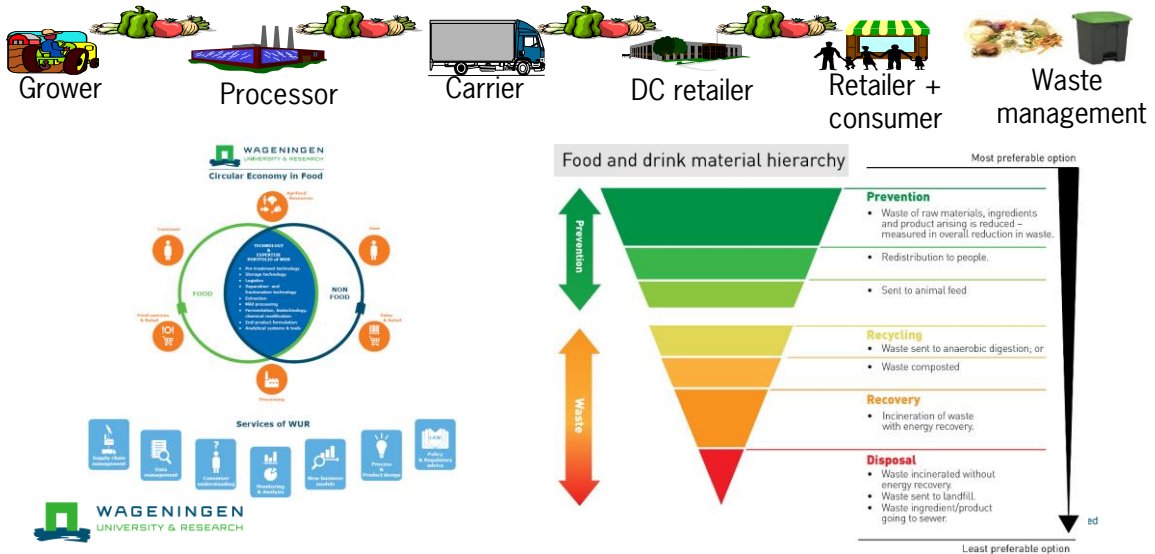


## Ambitions Wageningen University & Research

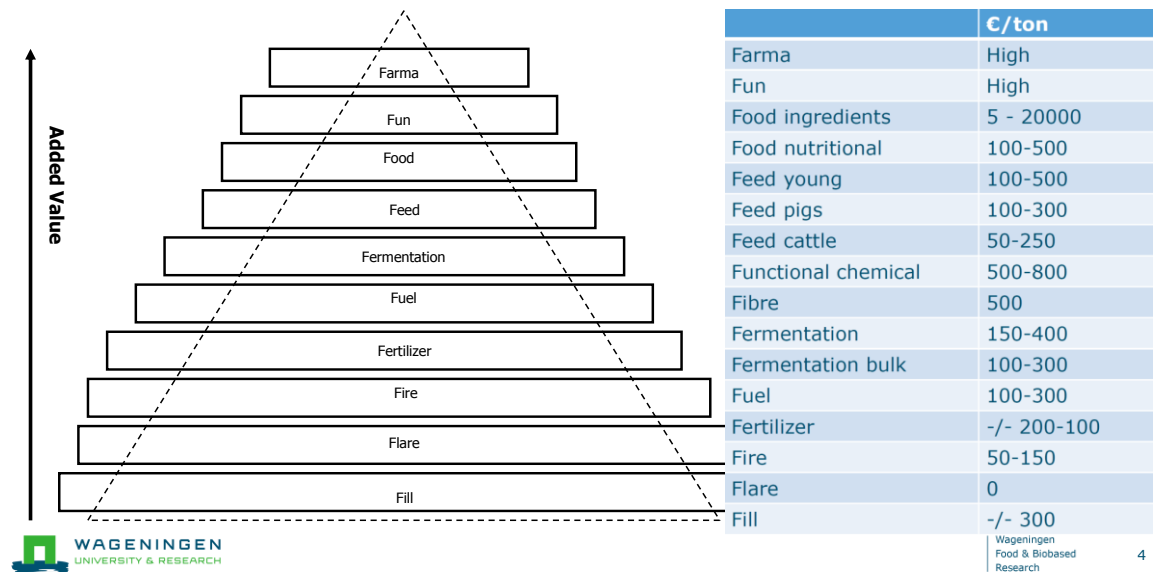
- **Optimum use of resources** in the bio-economy networks (from farm to fork). Towards a resilient & responsible food consumption & production system. Balance between "more with less" and "**less is more**" narratives.
- Food Waste **Prevention** (network/chain design), **Reduction** (innovation/intervention) & **Utilisation** of unavoidable side streams. Building on the food use pyramid (highest valorisation option) & based on circular economy principles



# Circular economy & value chains/networks



## Resource efficiency: Biomaterials Use Hierarchy



# "business case" of FLW

## 1. SAVE MONEY

An analysis of 700 companies in 17 countries found that investing in food loss and waste reduction yielded a 14-fold return.

### COMPANIES



## 2. FIGHT HUNGER

The world throws out 1 billion tons of food each year while 1 in 9 people globally remain malnourished.



## 3. CURB CLIMATE CHANGE

Food loss and waste produces 8% of global greenhouse gas emissions; if it were its own country it would be world's third-largest emitter.



## 4. CONSERVE RESOURCES

It takes a China-sized amount of land to grow food that's ultimately lost or wasted.



## 5. IMPROVE REPUTATION

Reducing food loss and waste improves relationships with customers, vendors and other stakeholders.



## 6. COMPLY WITH LAWS

Government agencies and companies sometimes must adhere to regulations on disposing organic waste, including food.



## 7. UPHOLD ETHICS

Executives, staff and consumers increasingly recognize food loss and waste reduction as "the right thing to do."



# FUSIONS & REFRESH



## European & global targets & initiatives

### SDG 12.3:

- By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- EC Circular Economy Package Target = SDG 12.3



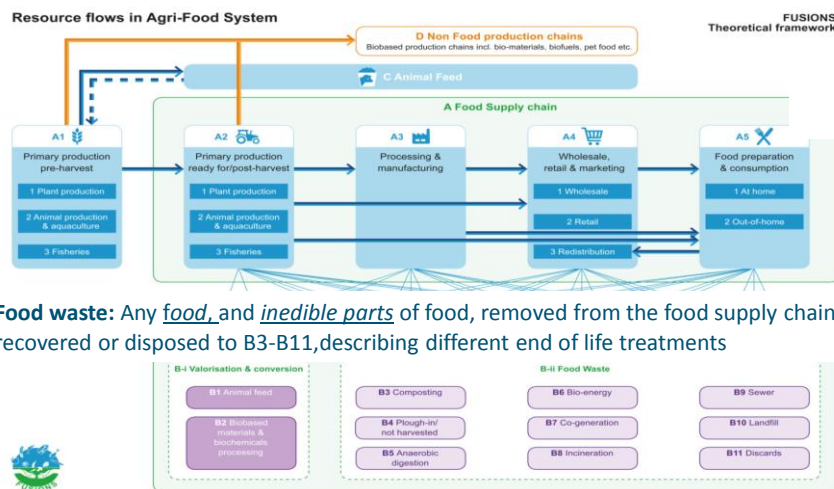
## FUSIONS Project Structure (2012-2016)



# FUSIONS multi-stakeholder platform



## FUSIONS definitional framework



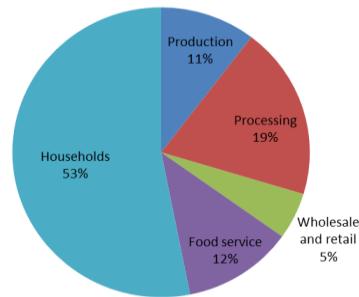


## Food waste – latest estimate EU-28



173 kg pro-capita  
food waste

- Equivalent of **20%** of all produced food in EU
- **143 billion euros**
- ~ **304 Mt CO<sub>2</sub> eq** (6% of total emissions of GHG in EU28%)



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## FLW PROTOCOL



A multi-stakeholder effort to develop a global  
*FLW Accounting and Reporting Standard*

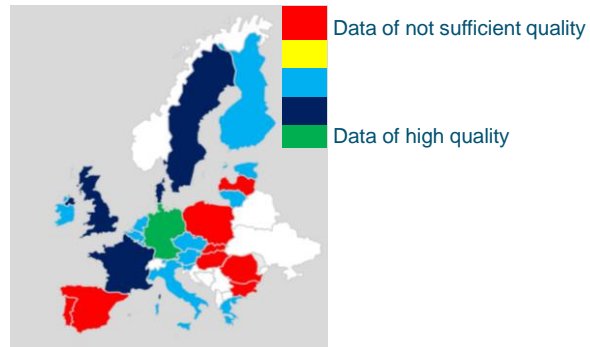


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## European policy Arena; What's happening

Policy Commitments: SDG12.3, Circular Economy Package

- Monitoring of food waste at MS level
  - Building on EU-FUSIONS, Eurostat and FLW protocol
- a new EU platform food loss & food waste (public/private)



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## European policy Arena; What's happening

- Harmonisation of food donation guidelines
- Date labelling (study private sector practices, review terminology, annex products with no expiration date)
- Support former foodstuffs utilisation as animal feed
- European Court of Auditors report



## European policy Arena, Member States actions

Collaborative models with Multiple Approaches (& mixed models)

- Enforced by legislation
  - France (law to “oblige” donation by supermarkets)
  - Italy (facilitate donation, incentives)
  - UK (Groceries Code Adjudicator, fair trading practices)



## European policy Arena, Member States actions

- Voluntary agreements (already running for some years):
  - Courtauld Agreement (UK), Sustainable Food Alliance (NL), Format/Mattvet (NO), Chain Roadmap (BE)
- Urban City (Milan Urban Food Policy Pact, Amsterdam Metropolitan Solutions)



**1.2Mt**  
Packaging and  
Food Waste  
prevented

**3.3Mt** **£1.8bn**  
CO<sub>2</sub>e saved saved



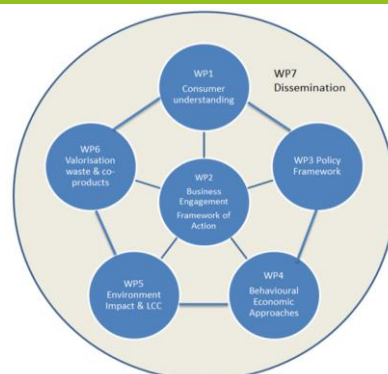




## Resource Efficient Food and dRink for the Entire Supply cHain (2015 – 2019)

**26 partners, 12 countries**

**Multi stakeholder platforms: the Netherlands, Germany, Spain, Hungary, China**



REFRESH is funded by the Horizon 2020 Framework Programme of the European Union under Grant Agreement no. 641933. The contents of this document are the sole responsibility of REFRESH and can in no way be taken to reflect the views of the European Union



## The REFRESH Project

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.



[www.eu-refresh.org](http://www.eu-refresh.org)



## The Netherlands, Cooperation with industry

- Cooperation between industry (sector organisations) and government since 2009
- Joint agenda on reduction food waste
- 2014 year against food waste



Rijksoverheid

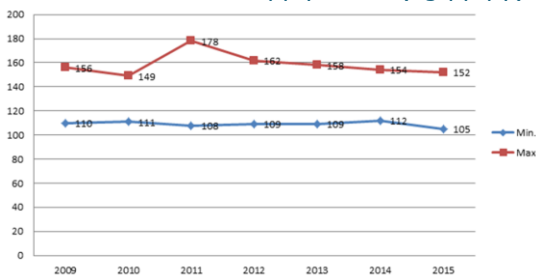
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## The Netherlands, time for a next step

Food waste across supply chain (kg.pp.py)



- Food waste losses on political and business agenda
- Awareness
- Lots of individual actions (research, campaigns, new business models)
- But: no 20% reduction
- New phase



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## Dutch Taskforce Circular Economy in Food



## Taskforce Circular Economy: Ecosystem & impact



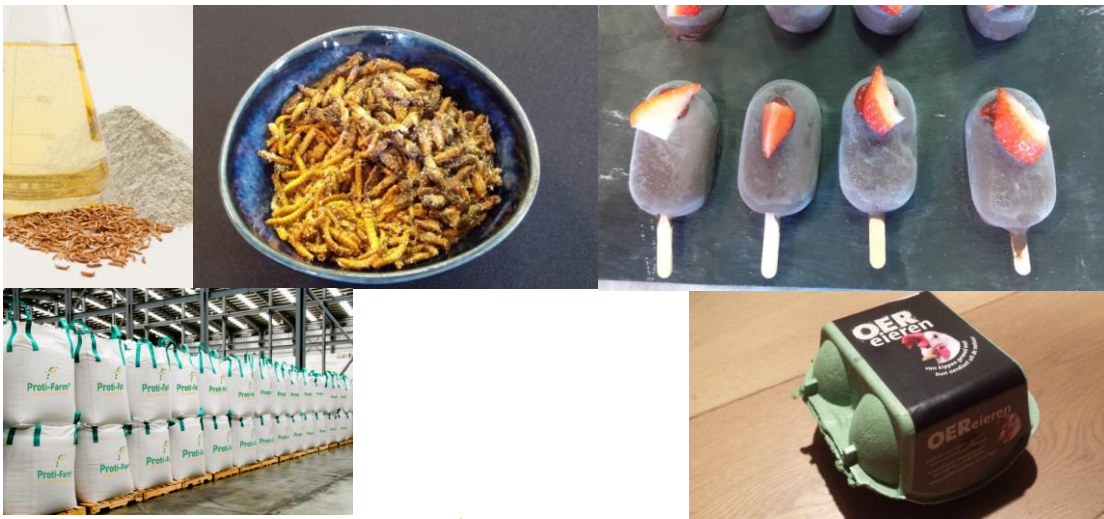


## Surplus Food Retail/Food service Category



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## Circular systems & novel products

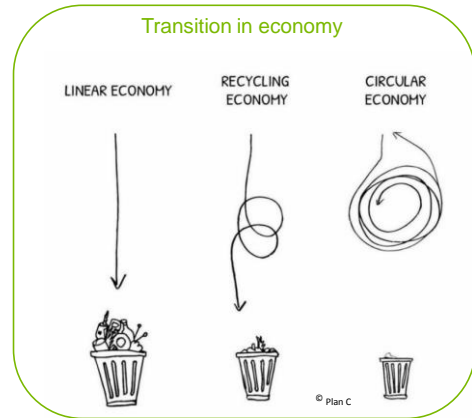


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## Data Intelligence Waste and Resource Management

### Market leader as outsourcing partner in independent waste and resource management

- Over 25 years of experience
- Core competence: data, analytics & intelligence
- Independent direction of 300+ waste processing and recycling firms
- > 250,000 tons under management
- 80 employees
- Active in 15 countries
- Market focus: Food, Logistics & Supply Chain, Automotive, Construction & Industry, Retail



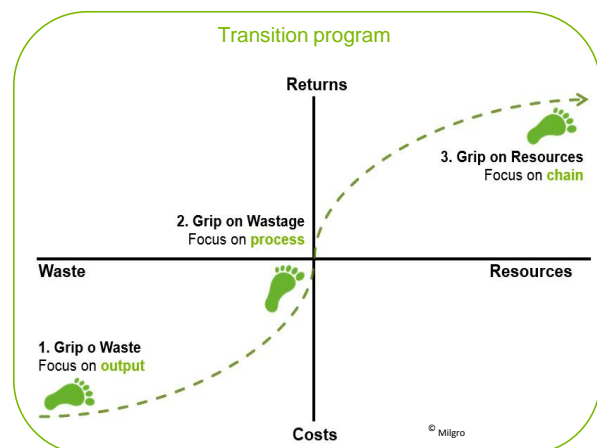
## Data Intelligence Waste and Resource Management

### Facilitate the transition toward a circular economy

Enable sustainable increase in prosperity by:

- Preservation of resources for future generations
- Responsible operational management: avoid environmental pollution
- Incorporation of ecology in economics: *'earth & earn together'*.

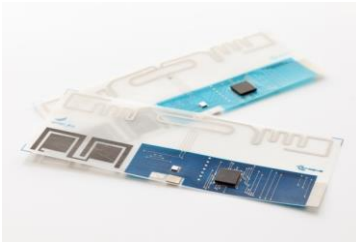
**'Waste is a resource that has gone off track'**





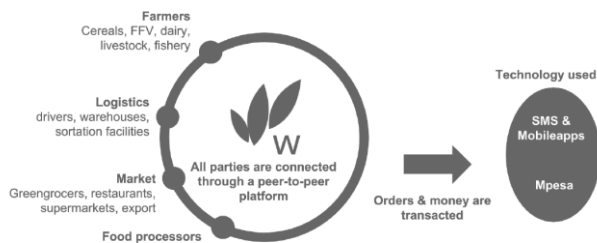
# Technology as a game changer

## Smart monitoring



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# Leapfrogging – new business models





## Frameworks for action, some systemic aspects

- **Transparency** (Target, Measure, Act), Actions & Monitoring progress
- Supply chain **collaboration** (forecasting, utilisation & circular business models), value chains & **responsibility**
- **Externalities** & balance in economic, ecologic & social-economic impacts
- **Policy coherence** (e.g. biofuels – prevention should come first)
- **Economic & legal frameworks** (food -> feed, food -> food)
- Commitment for a collective **consumer driven** action program (harmonised consumer insights research)



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Thanks for your  
attention



Knowledge and Best  
Practice on Food  
Waste Prevention

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