

Towards a circular economy in food; The role of public-private partnerships

Circularity & Resource Efficiency

Toine Timmermans, 16 October 2017

'Harnessing Research & Innovation for
FOOD 2030:
A Science Policy Dialogue'



FUSIONS & REFRESH



European & global targets & initiatives

Focus on SDG12 (Responsible Consumption and Production) and SDG17 (Partnerships).

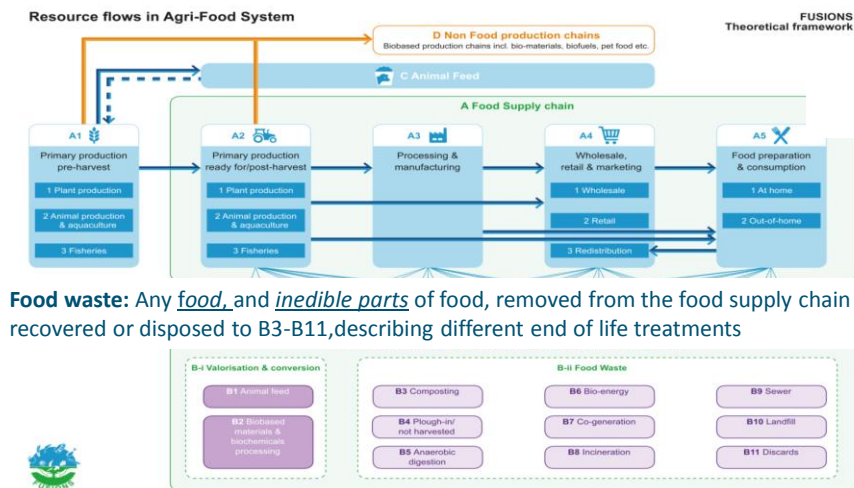
- SDG 12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- EC Circular Economy Package Target = SDG 12.3



FUSIONS multi-stakeholder platform



FUSIONS definitional framework



Food waste: Any food, and inedible parts of food, removed from the food supply chain to be recovered or disposed to B3-B11, describing different end of life treatments

Food waste – latest estimate EU-28

EU-28
PRODUCES



88 MILLION
TONNES
of food waste per year

amounting to an estimated

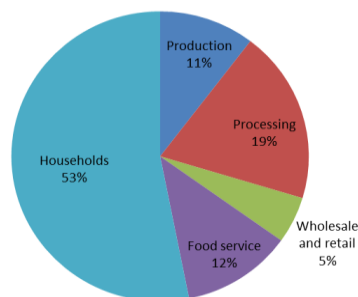
143 BILLION
EUROS



For more information on data and quantification, access the March 2016 FUSIONS reports "Estimates of European Food Waste" & "Food Waste Quantification Manual to monitor Food Waste Amounts and Progression"

173 kg pro-capita
food waste

- Equivalent of **20%** of all produced food in EU
- **143** billion euros
- ~ **304 Mt CO2 eq** (6% of total emissions of GHG in EU28%)



FLW PROTOCOL



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



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Social Innovation: feasibility support

■ Surplus Food



■ Disco Bôcô



■ Hungarian Foodbank Association



• Cr-EAT-ive



• Gleaning Gleaning Network EU

• Social Supermarkets

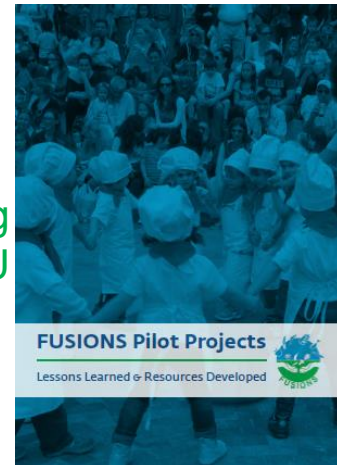


Deloitte.
Deloitte
Développement
Durable

• Order-Cook-Pay



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Cr-EAT-ive Project – Greece

Raise awareness and influence behaviour

Objectives

- **Raise awareness** on food waste and **influence behaviour** of kindergarten children, their parents, teachers & staff

Outcomes

- Food waste **diaries** (30 families)
- **Teaching materials** for children (teacher guides, fun exercises & a board game)
- Educational **guidelines** aimed at parents
- Guidance & training of canteen staff



Project Participants

6 Kindergartens
480 children
480 families
25 Teachers
7 Kindergarten Heads



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European policy Arena; What's happening

- Harmonisation of food donation guidelines; Date labelling
- Support former foodstuffs utilisation as animal feed
- Monitoring of food waste at MS level (input FUSIONS, Eurostat)
- EU platform food loss & food waste (public/private)
- European Court of Auditors report (call for increased policy coherence)



(Social) innovation & systemic causes

EAT FIVE A DAY
WEIRD FRUITS & VEGETABLES



"Fruittelers zijn pionnen van Europees stratego"

Honderdduizenden kilo's hardfruit klaar voor vernietiging

Tholen - Honderdduizenden kilo's appels en peren, uitgespreid op het Belgisch-Limborgse land, liggen klaar om vernietigd te worden. Dat gebeurt met het overaanbod fruit dat wordt 'weggehaald' om de markt te beschermen. Fruittelers Kris Franssens maakte deze week foto's van het fruit op de velden. Na de Russische boycot zorgde Eur ervoor dat er een interventieregeling kwam waardoor een bepaald deel van fruit uit de markt wordt gehaald. De appels en peren kunnen niet worden 'weggegeven', want dan komt het alsnog op de markt terecht.



Tienduizenden biologische bloemkolen halen de winkel niet

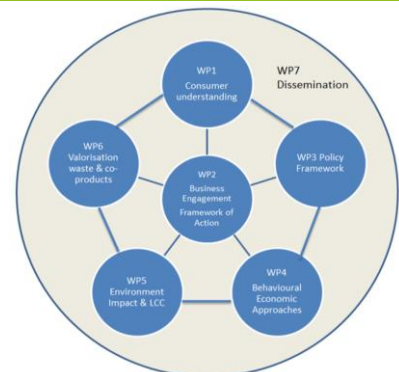
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Resource Efficient Food and dRink for the Entire Supply cHain (2015 – 2019)

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

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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

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Launch REFRESH CoE at World Food Day

Online Community of Experts helps tackle food waste in Europe

A new digital network has been launched to encourage collaboration and bring together expertise from across Europe and beyond in a focussed response to the global issue of food waste. The Community of Experts (CoE) aims to help drive action at every level of the supply chain by empowering individuals, organisations and nations through the sharing of skills, knowledge and resources needed to act against food waste.



Knowledge and Best
Practice on Food
Waste Prevention

refreshcoe.eu



www.eu-refresh.org

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Dutch Taskforce Circular Economy in Food



Taskforce Circular Economy: Ecosystem & impact





Frameworks for action, some systemic aspects

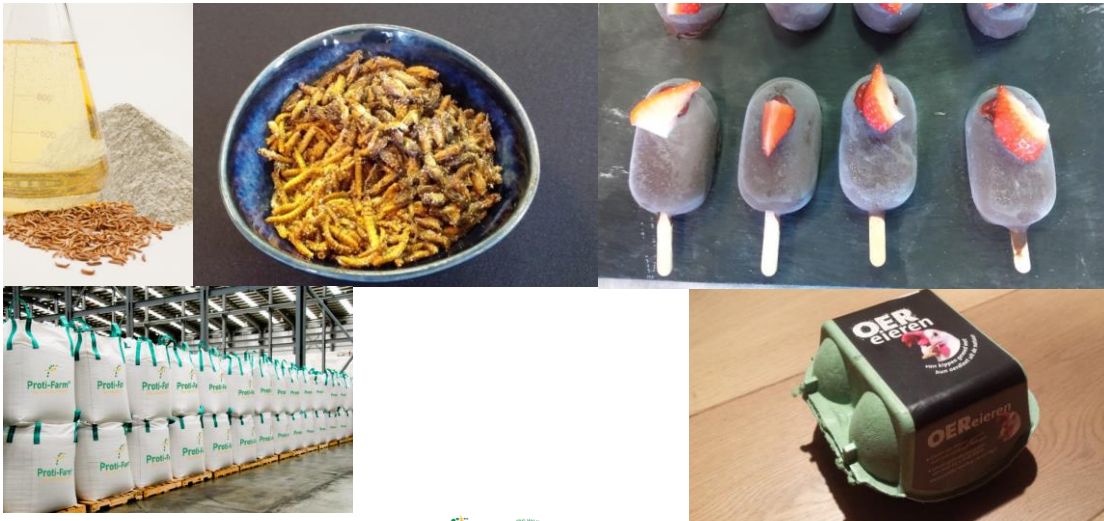
- **Transparency** (Target, Measure, Act), Actions & Monitoring progress
- Supply chain **collaboration** (forecasting, utilisation & circular business models), value chains & **responsibility**
- **Externalities** & balance in economic, ecologic & social-economic impacts
- **Policy coherence** (e.g.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



R&I needs for policy support

- **Indicators** for a circular economy and trade-off decision support models
- Strategies & business behaviour (systemic approach); private - public **collaboration** models
- **Scale size** of resources cycles (preferably local, global where needed?)
- **Consumer** focus, chain reversal, personalised & predictable
- New transformational **business models** (sharing economy, blockchain)
- **Technology** & paradigm changes break throughs: Bio-refinery, valorisation of by-products & side streams, **redesign for circularity**

Circular systems & novel products



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Proti-Farm
The Protein Company

PROTIX

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Technology as a game changer

Smart monitoring

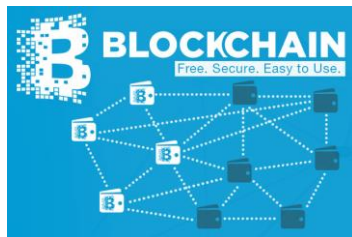
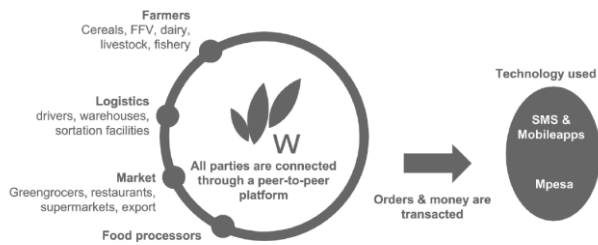


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Winner
Food Valley
Award 2013

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Leapfrogging – new business models



Thanks for your attention



Knowledge and Best Practice on Food Waste Prevention

refreshcoe.eu

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