Circular economy in food – food waste prevention in the Netherlands

Sanne Stroosnijder, 10 October 2019, Warsaw Programme manager Food Waste Prevention & Utilisation









Drivers for change



































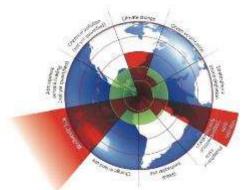














Food waste – latest estimate EU-28







88 MILLION TONNES of food waste per year

amounting to an estimated

143 BILLION EUROS

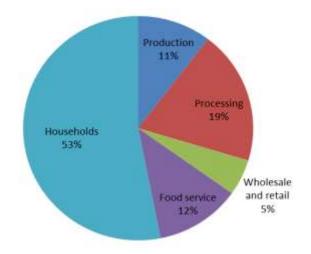


For more information on data and quantification, access the March 2016 FUSIONS reports "Estimates of European Food Waste" is "Food Waste Quantification Manual to monitor Food Waste Amounts and Progression"



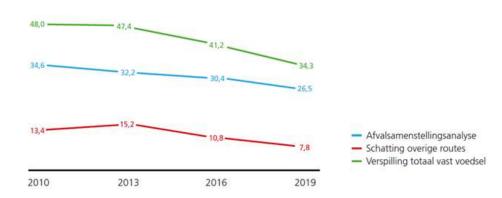


- Equivalent of 20% of all produced food in EU
- 143 billion euros
- ~ 304 Mt CO2 eq (6% of total emissions of GHG in EU28%)



Food waste in the Netherlands

- Cooperation between industry (sector organisations) and government since 2009
- Lots of individual actions (research, campaigns, pilots)
- But no real reduction... until now! What has changed?



In 2016 an average of 40 kg per person per year In 2019 an average of 34 kg per person per year





United against food waste



- Growing consortium of 60 stakeholders from farm to fork
- Large corporate, SME and start-ups + the Dutch government
- Voluntary commitment to achieve SDG 12.3

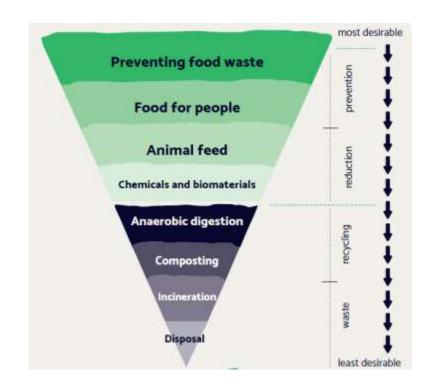






Ground rules of the Dutch approach

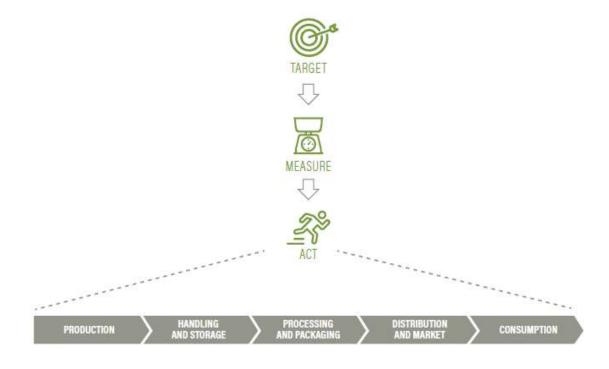
- There is a food waste hierarchy
- Focus on optimum use of resources from farm to fork
- Prevention, reduction, valorisation







Battle strategy = target, measure, act







Target (international, European, Dutch)



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























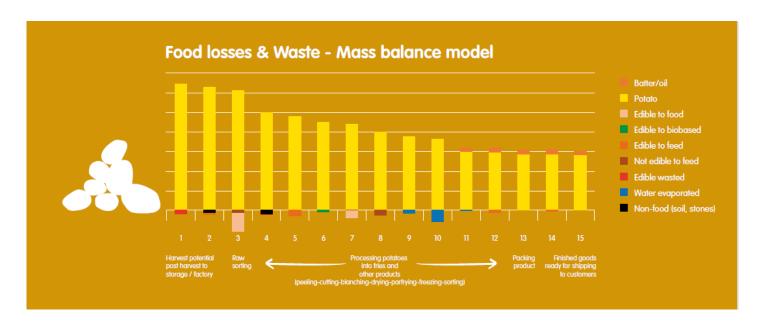








What get's measured, get's managed!



Example Food Loss Waste Mass Balance model (field to fork study)
http://flwprotocol.org/







Act

Figure 5.1 | Emerging Developments to Reduce Food Loss and Waste across the Supply Chain

PRODUCTION	HANDLING AND STORAGE	PROCESSING AND PACKAGING	DISTRIBUTION AND MARKET	CONSUMPTION
Information and communication technology (ICT) is supplying small-holders with technical information to reduce production losses. ICT platforms are increasingly being used to connect farmers with markets to respond more quickly to changes in supply and demand. Legislation is targeting contract behavior that exacerbates production losses. Imperfect produce is increasingly available for sale.	 Low-cost handling and storage technologies are gaining traction in Africa. Technology innovations to reduce losses during transportation of fresh produce are emerging. Investment in storage infrastructure is growing. 	 Unsold produce is being turned into upcycled products. Technology innovations in packaging are being used to extend product shelf life. Innovations to postpone spoilage are emerging. 	 Governments are enacting policies to encourage and even require redistribution of surplus food. Apps for redistributing surplus food from retailers are growing in number. Accelerator programs for food loss reducing technologies are being established. 	 Apps for redistributing surplus food from food service and restaurants are becoming more widespread. Retailers and food manufacturers are streamlining food date labels. Awareness-raising campaigns are being launched. The hospitality sector is starting to take action.





"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



Measuring waste

Training staff

Buying storage equipment Changing packaging **

New products

Reducing waste management costs

Avoiding cost of food not sold

Selling imperfect produce





2. FIGHT HUNGER

The world throws out 1 billion tons of food each year while I 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

5. IMPROVE REPUTATION



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



6. COMPLY WITH LAWS

Government agencies and companies



7. UPHOLD ETHICS

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



Surplus products







Get Inspired: This Dutch Supermarket Is Reinventing Food Waste Turning ugly produce into soup and food scraps into soaps!

(source: Martha Steward.com)







Circular products







Sustainable processing







Longer shelf life, better quality by using mild process technologies

Fresh, healty, tasty orange juice with a shelflife of 21 days

But does the consumer understand this product?





Date marking 'best before vs use-by'





Tesco becomes first supermarket to REMOVE 'confusing' best before date labels from fruit and veg in bid to reduce food waste





Plastics vs food waste

- Reusable, recyclable or compostable?
 Requires insight in production chain and consumer knowledge
- No packaging? Better forecasting, production based on demand, focus on seasons.









Smart technologies















New business models

















How about Poland?

- Scores relatively high on total food waste, but also a large food production industry
- Growing attention & momentum for the topic. Polish food banks as strong drivers. Who else?
- New legislation for donation in combination with educational and information campaigns

Let's discuss during our workshop!







Thank you!

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Food for thought...

- What is the most important driver for you to fight food waste?
 - It is a waste of money (business case)
 - I feel bad to throw food away (value of food)
 - I don't want to impact the climate (reduction of C02 emission)
- What does the Polish consumers need to stop wasting food?
- What can the Polish government / companies / knowledge instates do to prevent food waste (depending on your position)?



