One man's waste is another man's treasure

- finding the value in food waste

Dr Nina Sweet WRAP


WRAP works with governments, businesses and communities to deliver practical solutions to improve resource efficiency

WRAP is a not-for-profit organisation working with partners in 20 countries

## The true cost of waste

WRAP \& WRI:
\$1 invested in
food waste $\rightarrow$ prevention
realises
$\$ 14$ fina ncial
benefit
'The Business Case for Reducing
Food Loss \& Waste, WRAP \& WRI 2017'

## Invisible costs

- Lost materials
- Lost energy
- Lost labour
- Lost water

True cost of waste is $>10 \mathrm{x}$ disposal costs

## FOR EVERY 2 TONNES OF




## Food waste targets

- Courtauld 2025
- A $20 \%$ per capita reduction in post-farm gate food waste by 2025 (vs 2015)
- SDG12.3
- A $50 \%$ per capita reduction in food waste by 2030
- Farm to fork (as per Champions 12.3 best practice; but UK excludes on-farm)
- UK has set a 2007 baseline



## Developing a bioeconomy

UK strategy published in 2018
Progress stalled.....

But food industry identified as a key player




## An example from Wales

Companies House data / Data Tŷ'r Cwmnïau

SIC code category / Categori cod SIC
SIC code confidence category / Categori sicrwydd y cod SIC

- All companies in SIC code likely part of bioeconomy

Select Company Name / Dewiswch Enw Cwmni:
Highilght Company Name



## WRAP work on valorizing waste

## https://www.wrapcymru.org.uk/valorisation/list-resources

Case studies, methodologies, reports, business case tool


Wra'p Map of producers showing 60 mile radius from central Cardiff


## wrap

### 10.3 Total by-products

| Brewery wastes |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | :---: |
| Number of <br> businesses | Spent grain <br> (tonnes/yr) | Spent hops <br> (tonnes/yr) | Spent yeast <br> (tonnes/yr) | Trub <br> (tonnes/yr) |  |
| 56 | 47,864 | 179 | 6,916 | 174 |  |


| Cider |  |  |  |
| :---: | :---: | :---: | :---: |
| Number of <br> businesses | Apple Pomace <br> (tonnes/yr) | Cider lees <br> (tonnes/yr) |  |
|  | 23 | 32,242 |  |


| Number of <br> businesses | Whisky <br> (tonnes/yr) |  |  | Pot ale <br> $($ Litres/yr) | Spent lees <br> (litres/yr) | Yeast <br> (tonnes/yr) |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: |
|  | Used hops <br> (tonnes/yr) | Mash <br> (tonnes/yr) | Botanicals <br> (tonnes/yr) |  |  |  |
|  | 9 | 1,050 | $1,500,000$ | 450,000 | 0.2 | 0.2 |


| Wine |  |  |  |
| :---: | :---: | :---: | :---: |
| Number of <br> businesses | Pomace <br> (tonnes/yr) | Yeast lees <br> (tonnes/yr) |  |
|  | 7 | 0 |  |

## Wráp Biorefining



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## https://www.wrap.org.uk/food-drink/business-food-waste

FiNING OUR FOOD SYSTEM

*27\% reduction in food waste 2007-2018

