



ewaba

European Waste-to-Advanced Biofuels Association

THE DECARBONIZATION POTENTIAL OF USED COOKING OIL

THE POTENTIAL OF BIOWASTE FOR A CIRCULAR EUROPE

BIOHEC-LIFE PROJECT

15 March 2017 – European Economic and Social Committee



ewaba

European Waste-to-Advanced Biofuels Association



adriaticaoili
ECOLOGIA DELLE IDEE

MVAK

Mittelstandsverband abfallbasierter Kraftstoffe

olleco

Supply. Collect. Convert.

biocomenergia



prio

energy

Greenergy

PFP BIOFUELS

MÜNZER

BIOINDUSTRIE



REG

EVONIK

INDUSTRIES

ΠΡΑΣΙΝΑΔΔ

ALSO

Green Biofuels Ireland Ltd

vanWijk&Olthuis

oliën•vetten•vetzuren

VITAL

FETTRECYCLING



CREATING POSITIVE ENERGY

Ugly Truths...



Financial Times on Fatbergs



The screenshot shows the Financial Times website interface. At the top, there is a navigation bar with 'ft.com > life&arts >' on the left, 'Subscribe | Sign in' in the center, and a search box on the right. Below this is the 'FT Magazine' header. A secondary navigation bar lists various sections: Home, World, Companies, Markets, Global Economy, Lex, Comment, Management, and Life & Arts (which is highlighted). A third navigation bar lists sub-sections: Arts, Magazine, Food & Drink, House & Home, Lunch with the FT, Style, Books, Pursuits, Travel, Columns, How To Spend It, and Tools. The main content area features an article dated 'March 24, 2016 3:32 pm' with the headline '‘I keep London’s sewers free from fatbergs’' and the byline 'Nick Fox as told to Flora Neville'. Below the article are icons for 'Share', 'Author alerts', 'Print', and 'Clip'. To the right of the article is an 'EMAIL BRIEFING' section titled 'FT Weekend' with the text 'Sign up for our Saturday newsletter for a handpicked selection of the best life, arts, culture, property and news'.

- ***‘Thames Water spends £1m a month on fatberg clearance’***

University College Dublin research



- Cost of clearing sewer blockages for local authorities up to **79 million Euro a year** only in the UK.
- **FOGwaste Project:**
- *Critical evaluation of Dublin City Council's Fats, Oils and Grease (FOG) Programme and an investigation of the potential to implement similar initiatives internationally.*
- http://www.ucd.ie/biosystems/research/research_projects/fog/

Lack of collection equals harm!

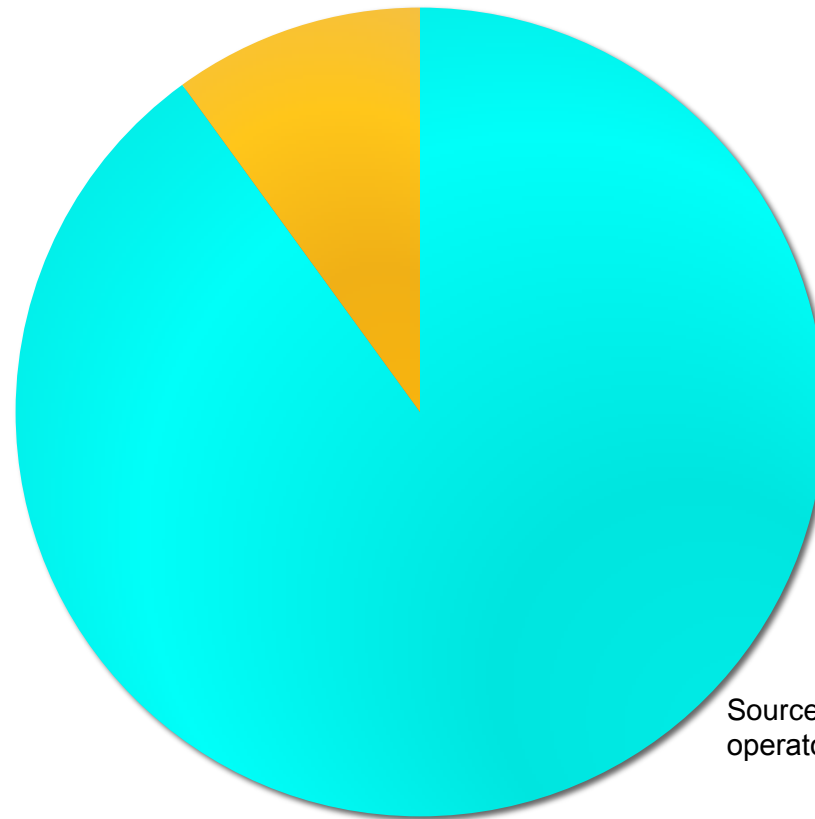
- **Budgetary** consequences for local authorities
- Potential **environmental** consequences



- Separate segregation is needed
- What to do with this waste?

Feedstock for biodiesel production

Average UCO Uses



Source: EWABA Members and industry operators' sales.

■ Advanced fuels feedstock ■ Oleochemical Industry

Definition(s) of advanced biofuels

- Recital 7 ILUC Directive (2015)

- 4 Criteria:

1. *“those made from wastes and algae,*
2. *provide high greenhouse gas savings,*
3. *with low risk of causing indirect land use change, and*
4. *do not compete directly for agricultural land for the food and feed markets.”*

- UCOME meets 4 Criteria:

1. It's a waste
2. High GHG savings
3. No ILUC emissions
4. Non-crop-based= Non-food or feed-competing

- Draft Art. 2 in RED II Proposal:
Room for improvement

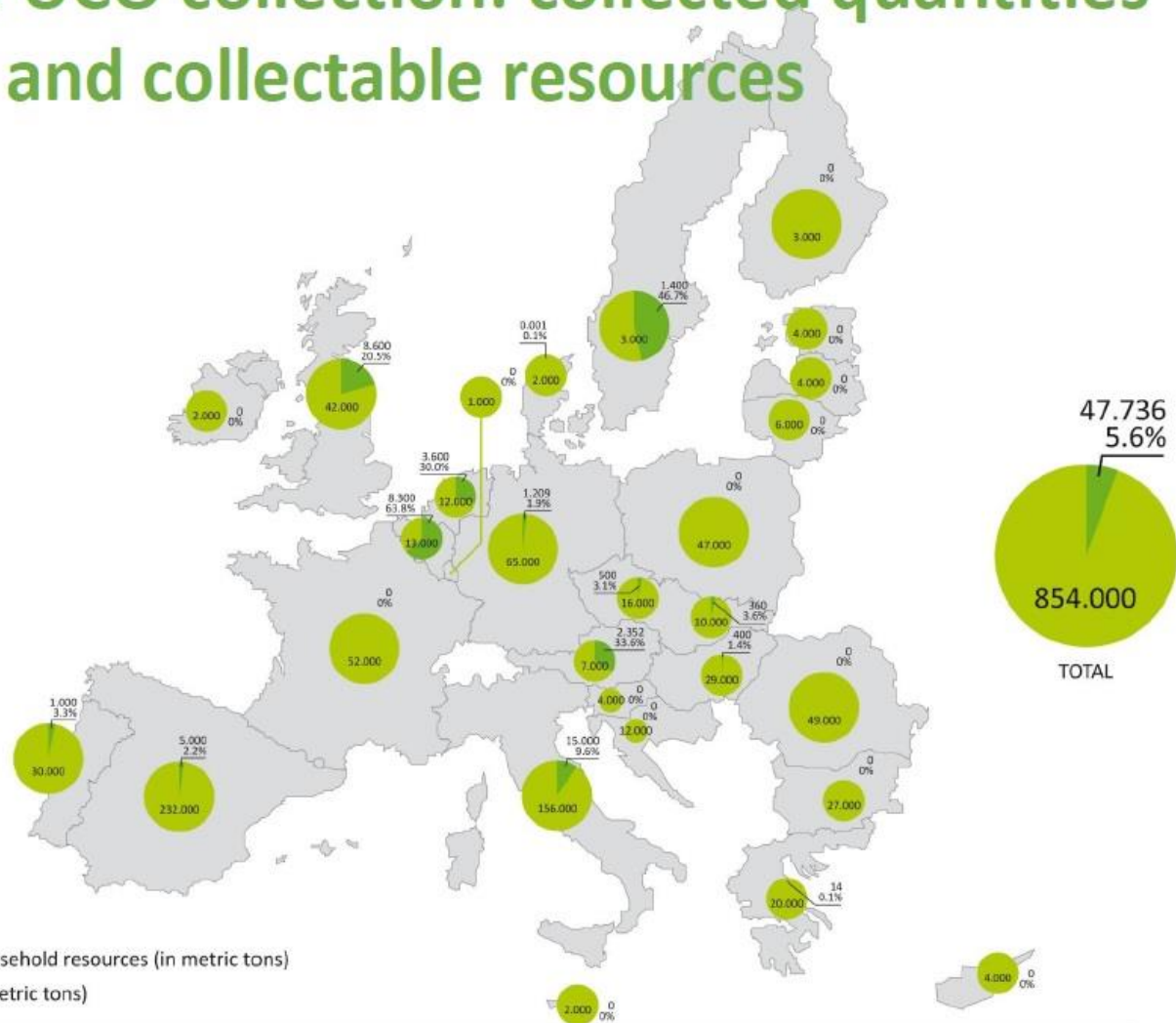
Mapping UCO Collection's potential – The Wasted Project / Greenea Research



An Assessment of Advanced Biofuels
from Wastes & Residues



Household UCO collection: collected quantities and collectable resources

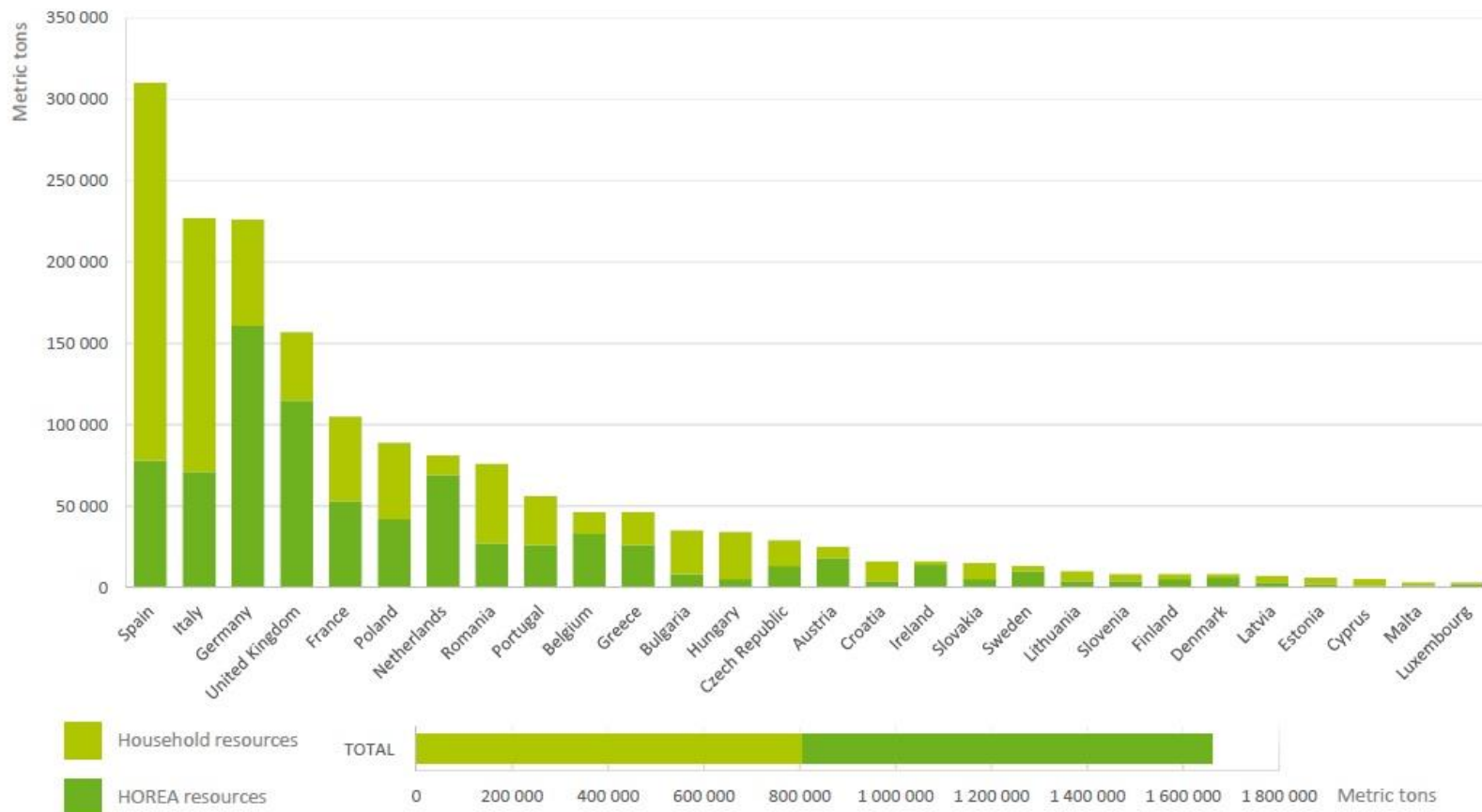


■ UCO collectable household resources (in metric tons)
■ Collected UCO (in metric tons)

Source: GREENEA analysis

GREENEA |

Resources coming from Households and Hotels, Restaurants and Catering



Source: GREENEA analysis Horeca : Hotels, Restaurants and Catering

GREENEA

Aggregated figures

Collection Type	Availability	Actual collection	Uncollected volumes
Household	854,000	47,736	806,264
Professional	806,000	675,600	130,400
Totals	1,660,000	723,336	936,664



- **However...**

- Less than a third of the EU cooking oil consumption per capita
- BioDieNet project (2009): total UCO availability in the EU-27 (Minus Croatia) is **3.55 million tonnes**
- **Range 1.660.000 to 3.550.000 t**

Identified Trends – Household collection

- **Belgium**, the **Netherlands** and **Austria** managed to develop comprehensive large-scale UCO collection systems for individual households.
- **Sweden** has widespread successful grassroots local initiatives
- Marketing /pedagogy are key factors to boost household collection
- Collection process as simple and user-friendly as possible is a priority.
- Household collection is only in its introductory stage and has big growth potential in the EU. **Currently less than 50,000 tons of UCO are collected** per year from households across Europe.

Thank you!

- Questions?
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