

An aerial photograph of a coastal city and harbor. In the foreground, a large cargo ship is visible in the water. The city extends to the water's edge, with numerous buildings and structures. The sky is hazy. The image is overlaid with a dark grey geometric shape on the left and a bright yellow diagonal stripe on the right.

## Waste-to-fuel: a case study of Europe's circular economy pioneer

- Matthew Stone
- Managing Director
- PRIMA
- 14 December 2020



Research  
Biofuels

## PRIMA's Scope

Daily pricing of EU/global wastes and low carbon intensity fuel complex

Market leading weekly fundamentals analytics for biodiesel, HVO, feedstocks Europe/worldwide

Growing sell side customer base alongside established oil/renewables/government audience

Research consultancy on trade/investment



2021: a great start for accelerated decarbonisation

Europe has already delivered the world's largest circular economy solution direct to the transport sector

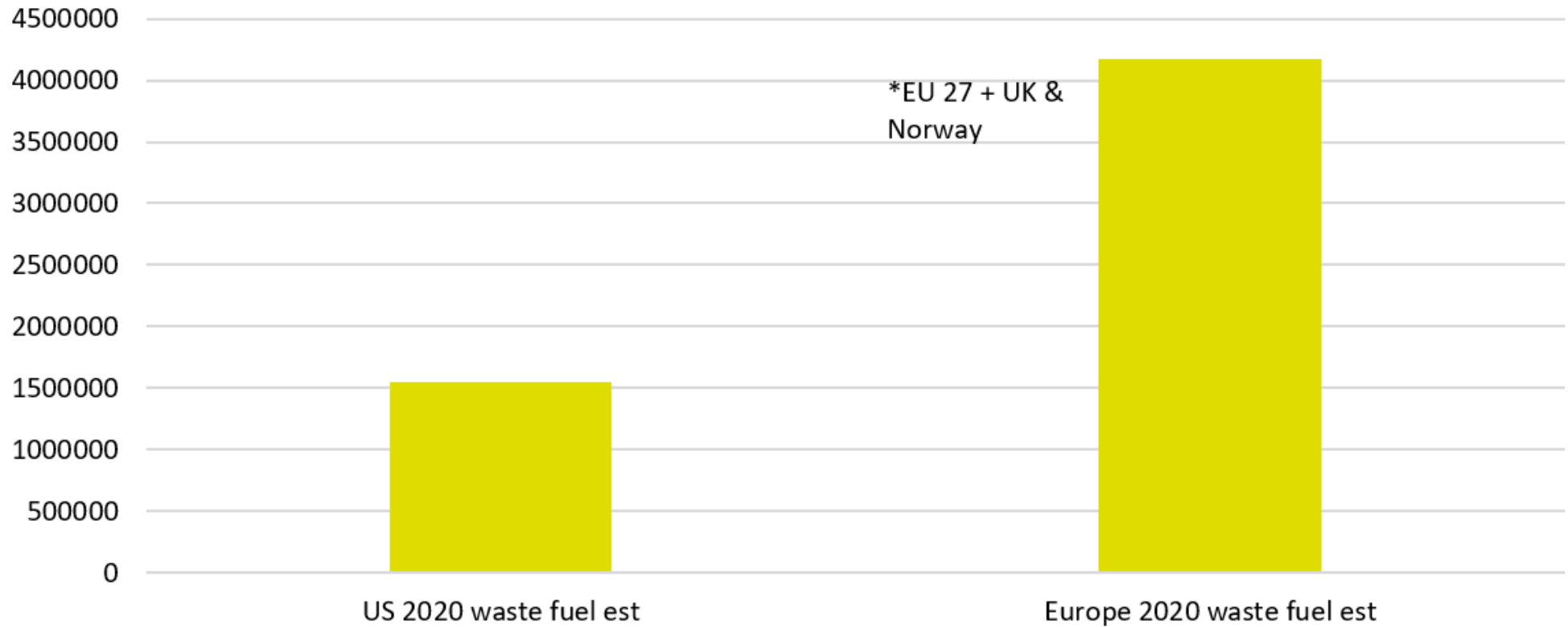
The industry is already delivering high carbon savings

It has also set sustainability standards as a template for ESG efforts across other global industrial supply chains



# Europe is the centre of the global circular energy economy

World's main liquid waste fuel markets (t)





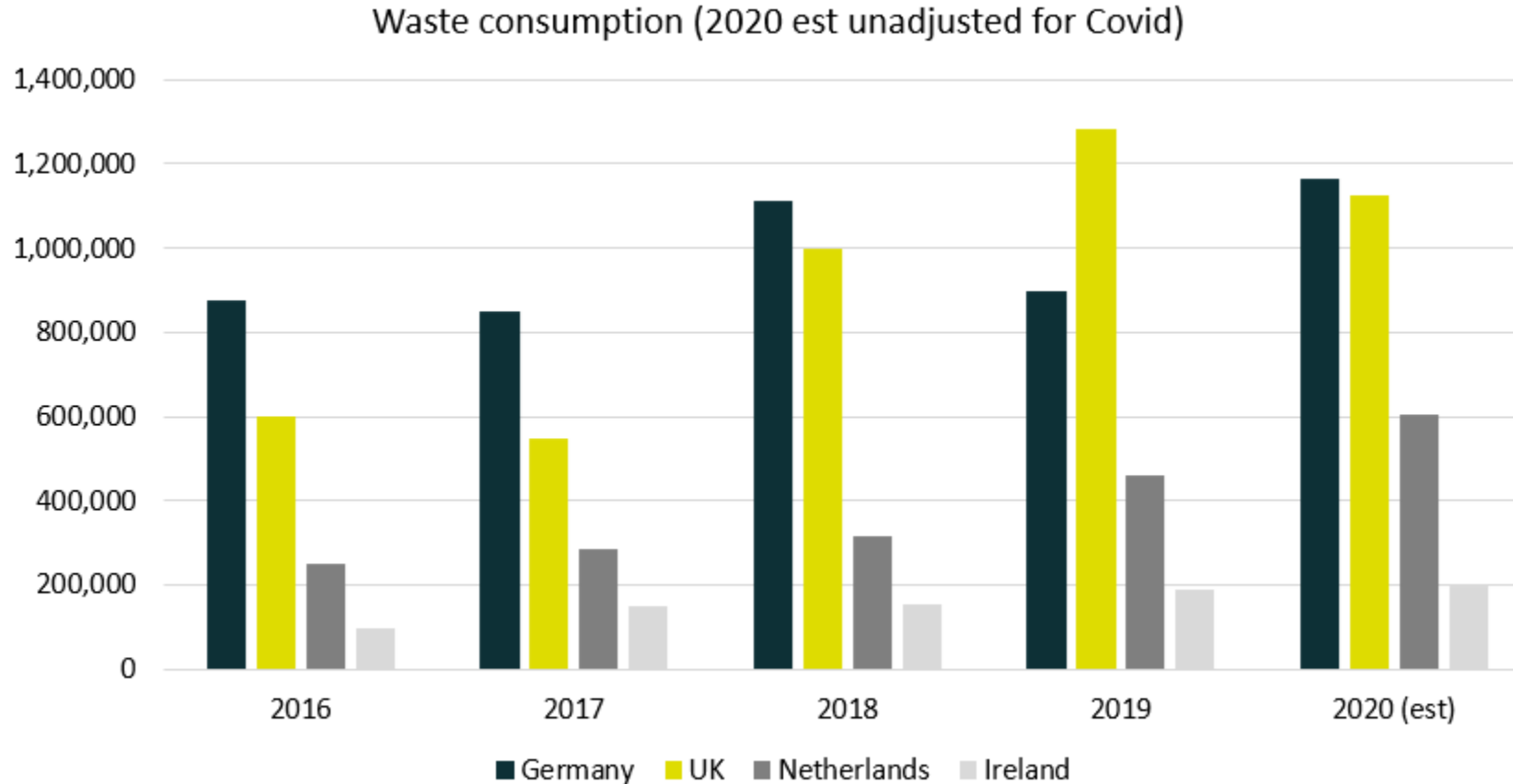
# World's first ever waste feedstock hedge arrived

## NYMEX Used Cooking Oil (UCO) futures

Contract Title	UCO T1 CIF ARA Excluding Duty (PRIMA) vs Low Sulphur Gasoil Futures	UCO T1 CIF ARA Excluding Duty (PRIMA) Futures
CME Globex and CME ClearPort Code	USG	UCE
Rulebook Chapter	1268	1267
Settlement Type	Financial	Financial
Contract Size	100 metric tons	100 metric tons
Pricing Quotation	U.S. dollars and cents per metric ton	U.S. dollars and cents per metric ton
Minimum Price Fluctuation	\$0.001 per metric ton	\$0.001 per metric ton
Value per tick	\$0.10	\$0.10
First Listed Month	September 2020	September 2020
Termination of Trading	Last business day of the contract month	Last business day of the contract month
Listing Schedule	Monthly contracts listed for 12 consecutive months. Monthly contracts for a new month will be added following the termination of trading in the front month contract	Monthly contracts listed for 12 consecutive months. Monthly contracts for a new month will be added following the termination of trading in the front month contract
Block Trade Minimum Threshold	5 contracts – subject to a minimum 15-minute reporting window	5 contracts – subject to a minimum 15-minute reporting window
CME Globex Match Algorithm	First-In, First-Out (FIFO)	First-In, First-Out (FIFO)



## Germany has lost its European waste crown



German palm ban under review for 2026



More decarbonisation is needed, fast

The market is large, but will need to grow aggressively to meet decarbonisation targets.

Transport is 33% of emissions. EU wants 55% cut by 2030.

GHG saved by transport mandate 2019	
Germany	4%
NL	5.80%
UK	4.40%

FQD is 6% GHG cut!



## Mandates fall short of Paris

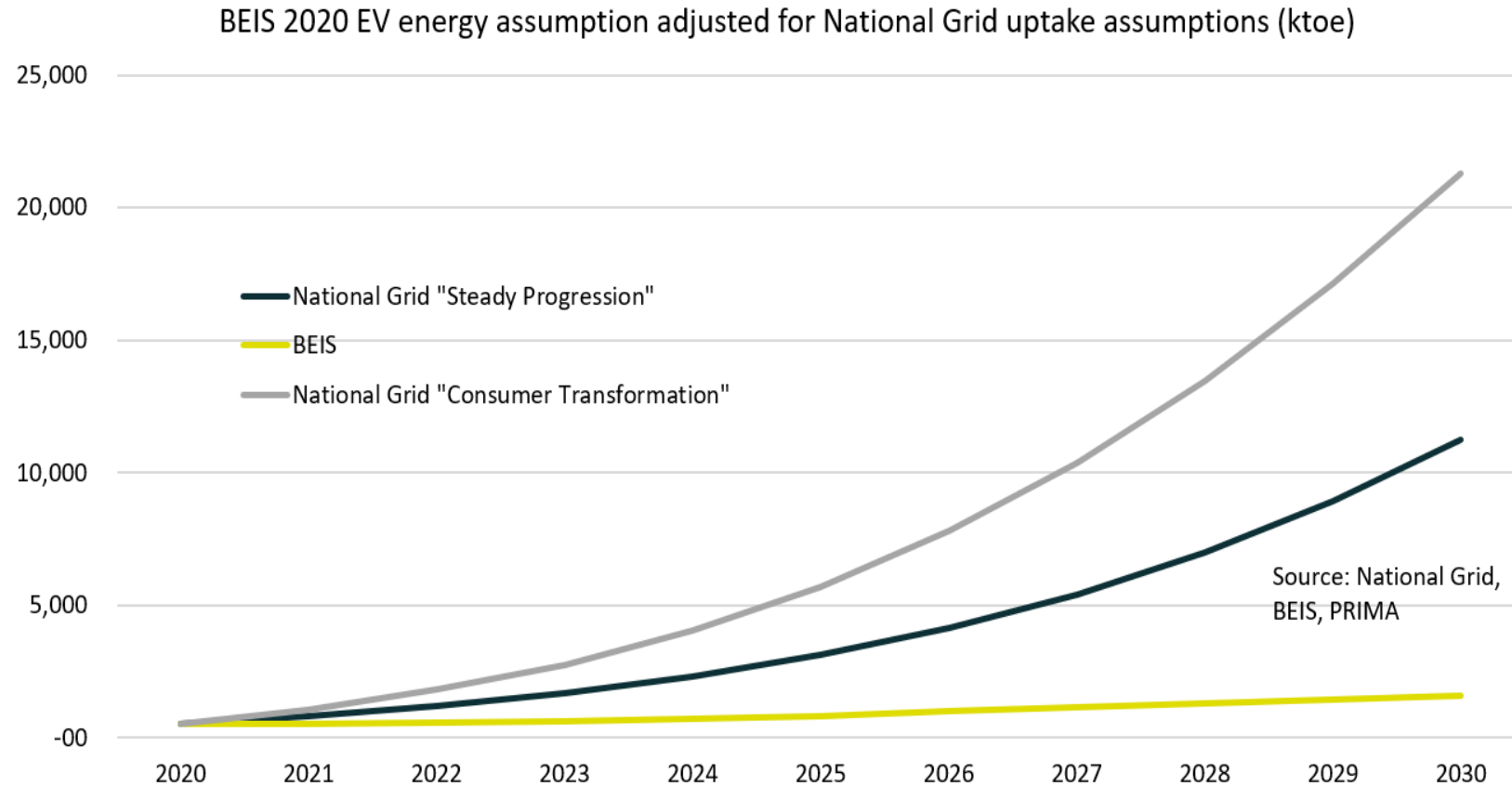
Regulators are starting to address the gulf between Paris commitments and legacy biofuel programmes. Europe needs more waste!

Annex IX part A will register in 2021. Feedstock diversification is the smart strategy for the 2020s





# Powertrain shift risks stranding low carbon assets



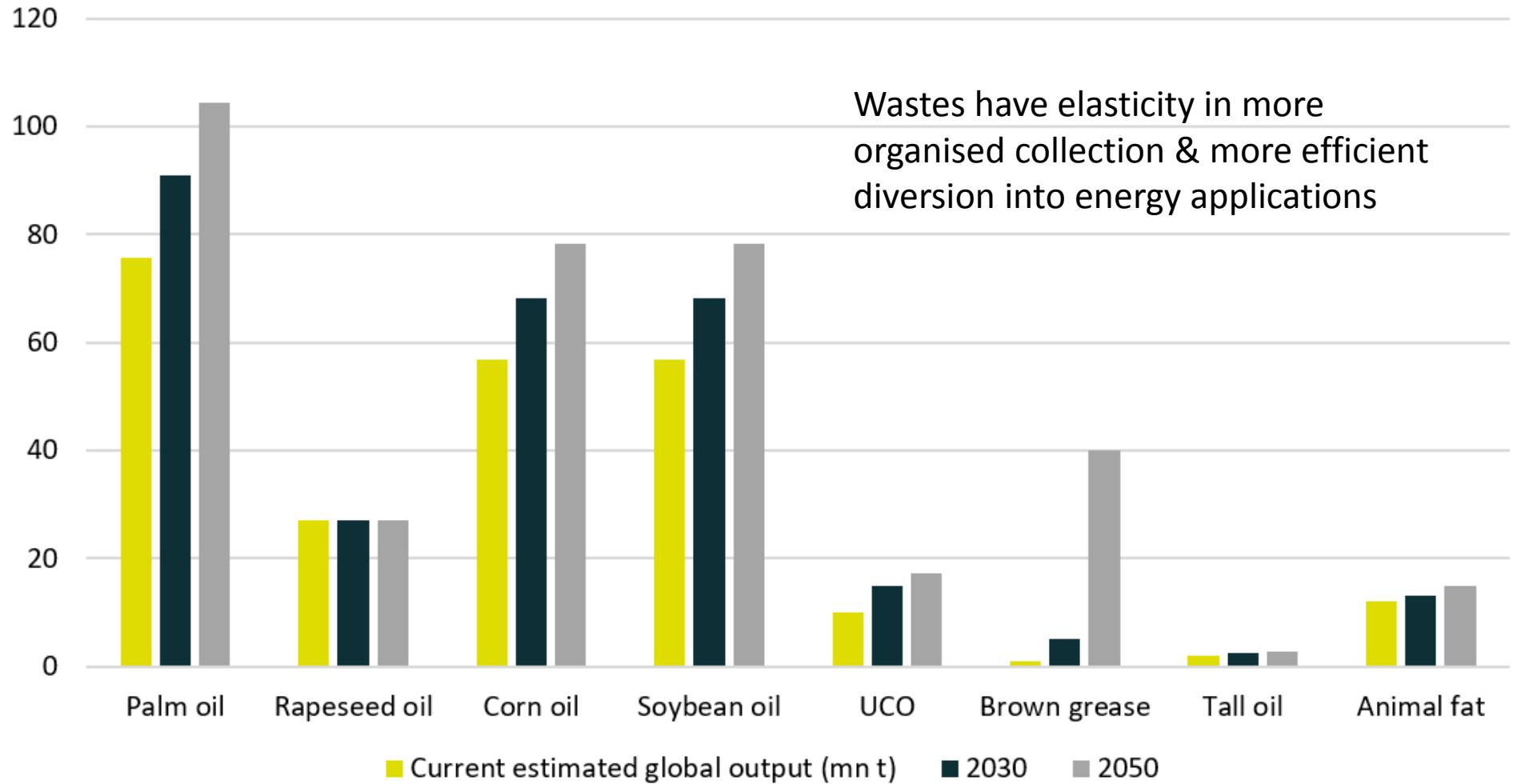


Mandates should rise as %...

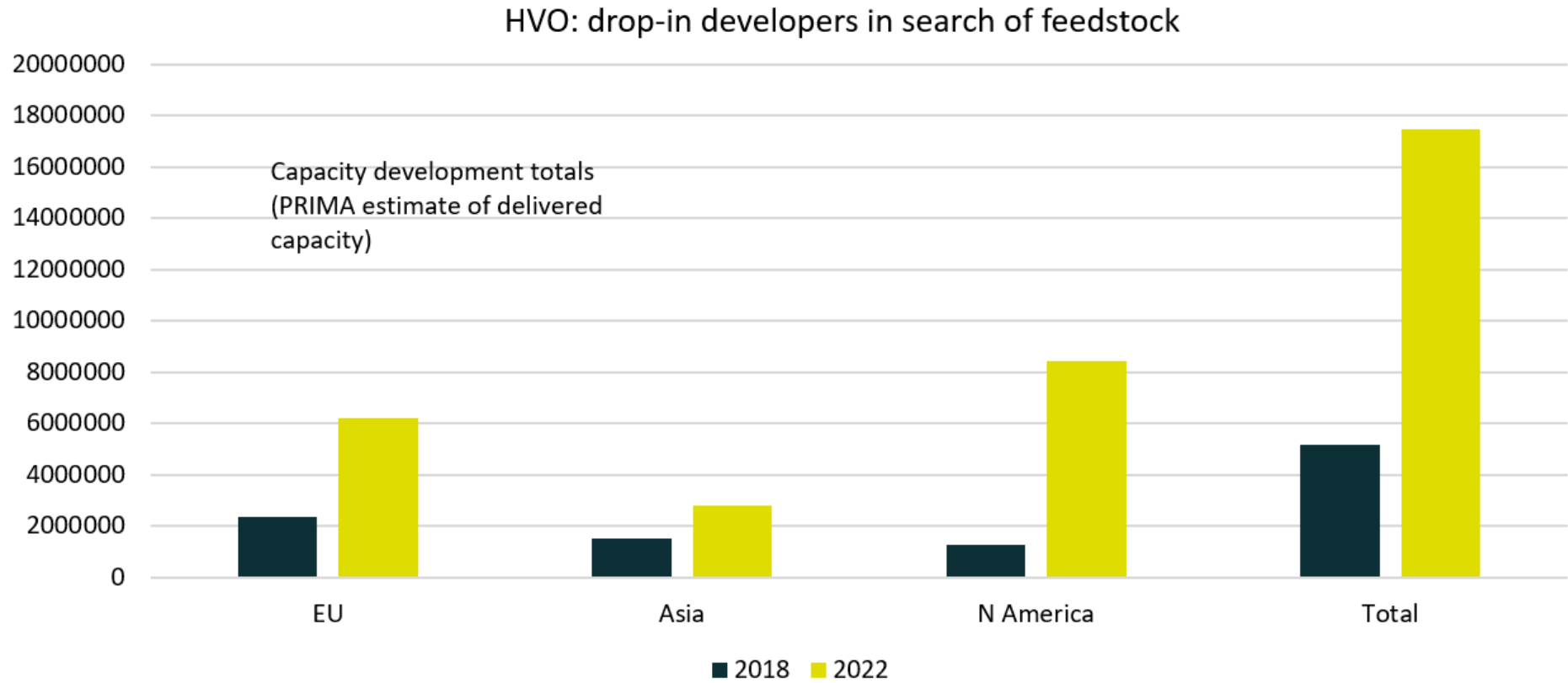
Year	BEIS Bio blend @ NG "Steady Progress"	BEIS Bio blend @ NG "Consumer transformation"	Main RTFO blend @ fuel litres adjusted for crop cap
2022	6.07%	6.18%	7.19%
2023	6.34%	6.54%	7.12%
2024	6.56%	6.91%	7.05%
2025	6.83%	7.41%	6.98%
2026	7.16%	8.09%	6.91%
2027	7.57%	9.09%	6.83%
2028	8.13%	10.63%	6.77%
2029	8.90%	13.21%	6.69%
2030	10.05%	18.43%	6.62%

## Feeds allow organic growth

Oil availability projections (t)

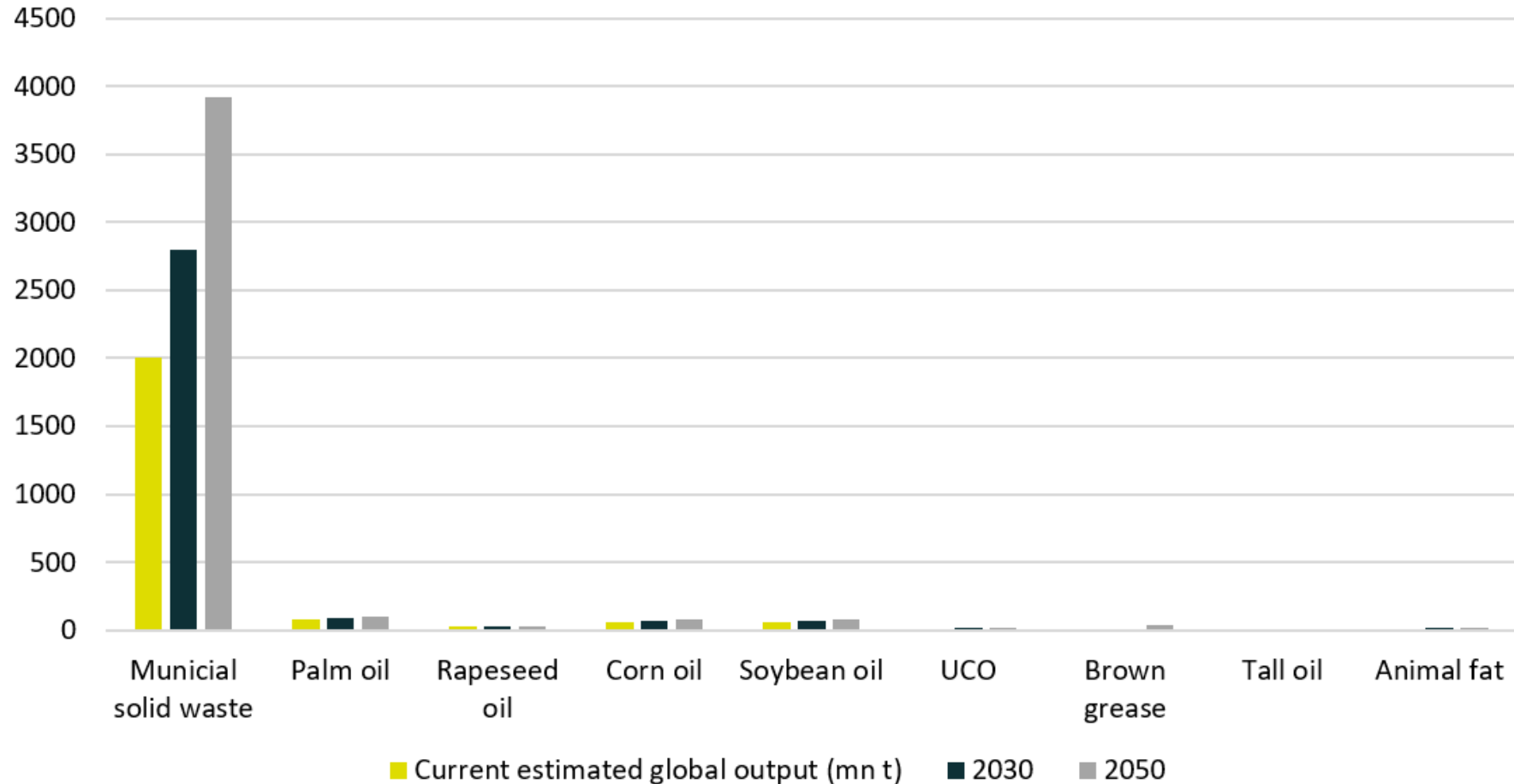


## HVO will compete hard for feed



## Energy innovation needed to treat solid waste

Circular feeds usable for liquid applications including pyrolysis (t)



## PRIMA is the information edge in decarbonisation

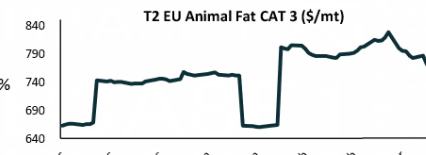
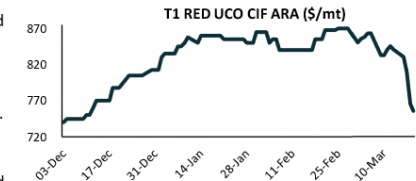
### Wastes suffer more jitters

Demand for UCO evaporated on Thursday as UCOME took another tumble, reflecting deteriorating market sentiment as Covid19 continues to spread across Europe. Gasoil perked up DoD session as a positive response to the “bazooka” stimulus announced by the European Central Bank (ECB), but this still wasn’t enough to prevent UCOME prices continuing to shed value, hampering producer margins even further.

In the T1 UCO market, participants in China are still on the fence about whether to try to keep up with the collapse on the buy-side. Offers out of China for UCO CIF ARA with 5-6% FFA content in flexis are still pegged between \$780/t and \$800/t and many on the sell-side argue that amid a lack of bids, they have no idea at what level they should be offering. On the buy-side, bids have already started to become scarcer as biodiesel producers across the continent are anticipating reduced demand for the product in the next few weeks or months, which leaves little to no interest on the buy-side left except for those willing to buy immediately to meet prompt contracts. While some bids were seen as low as \$650/t and \$710/t, the best bid seen in the session was still pegged at \$730/t, down \$20/t from the previous session. Based on the midpoint between best bid and best offer, PRIMA assessed UCO CIF ARA with 5% FFA content in flexis at \$755/t, down \$10/t from the previous session and also leaving the bid-ask spread at \$50/t, making any new trades difficult to execute.

Despite a more stable gasoil price after markets reacted positively to ECB stimulus, UCOME prices continued to tank and UCOME FOB ARA with Zero degrees CFPP was pegged at €1,000/t on Thursday, shedding another €30/t on the session. The UCOME spread to UCO was seen at \$265/t on Thursday, down 9% DoD, down 9% WoW and accumulating losses of 42% from the previous month. It is also well below the one-month average of \$359/t.

Europe			
	€/mt	\$/mt	±WoW
T2 RED EU UCO FOB ARA	752.00	808.25	-14.4%
T2 RED EU UCO FOB NWE	787.00	846.00	-14.0%
T1 Non EU UCO CIF ARA	702.10	755.00	-10.7%
UCO CIF Lisbon	760.00	817.26	-4%
T2 EU Animal Fat Cat 3	700.00	752.25	0.0%
Rapeseed Oil	670.00	720.00	-14.1%
pent Bleaching Earth Oil CIF AR	650.96	700.00	0.0%
Asia & Africa			
	RMB/t	\$/mt	±WoW
China UCO Ex-factory	5,400.00		-0.9%
UCO FOB China Main Ports bulk		785.00	-10.6%
UCO FOB China Main Ports flexi		720.00	-10.6%
UCO FOB South Korea		770.00	0.0%
UCO FOB Vietnam		760.00	0.0%
UCO FOB North Africa		800.00	0.0%
Palm Oil Futures		527.50	-2.0%
Soybean Oil CFR India		595.25	-6.4%
Palm Oil Mill Effluent (POME) FOB Malaysia		480.00	-11.1%





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Fiona.ribbins@prima-  
markets.com

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