

# Department for International Trade

Developing Global Biogas Markets

Deborah Sacks

Waste and Resources Specialist

**BUSINESS  
IS  
GREAT**  
BRITAIN & NORTHERN IRELAND



Department for  
International Trade

[deborah.sacks@trade.gov.uk](mailto:deborah.sacks@trade.gov.uk)

# Biogas is too flexible!

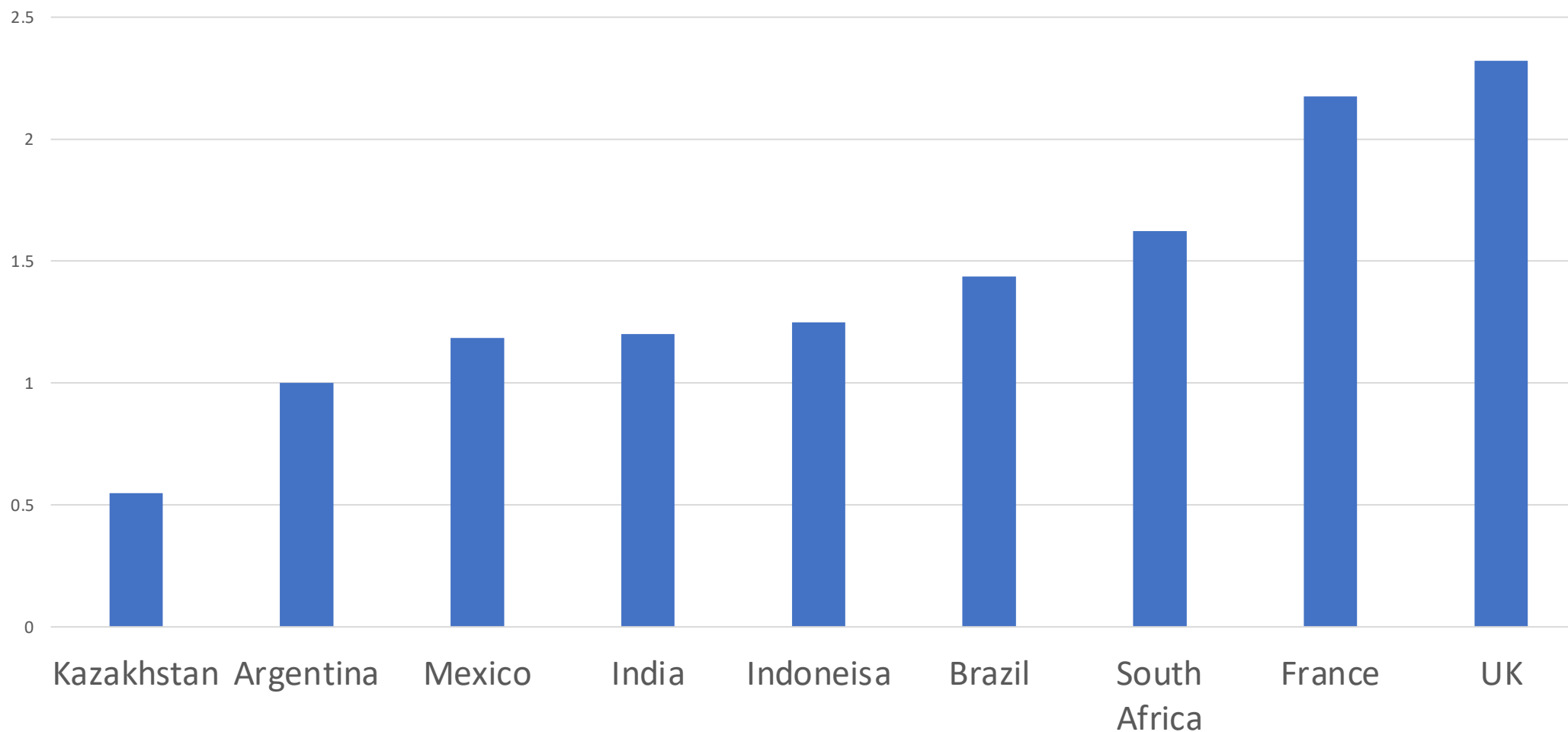
Outputs can be:

1. Power
2. Heat
3. Transport fuels (HGVs, NRMM, aviation, shipping)
4. Polymers and biochemicals (which take energy to manufacture)
5. Bio-fertilisers
6. CO<sub>2</sub>
7. Hydrogen

***Also: provision of ecosystem services including soil carbon sequestration and flood mitigation***

# The cost of diesel is a key driver

Price of diesel, USD per litre



# Finally will digestate have its day?

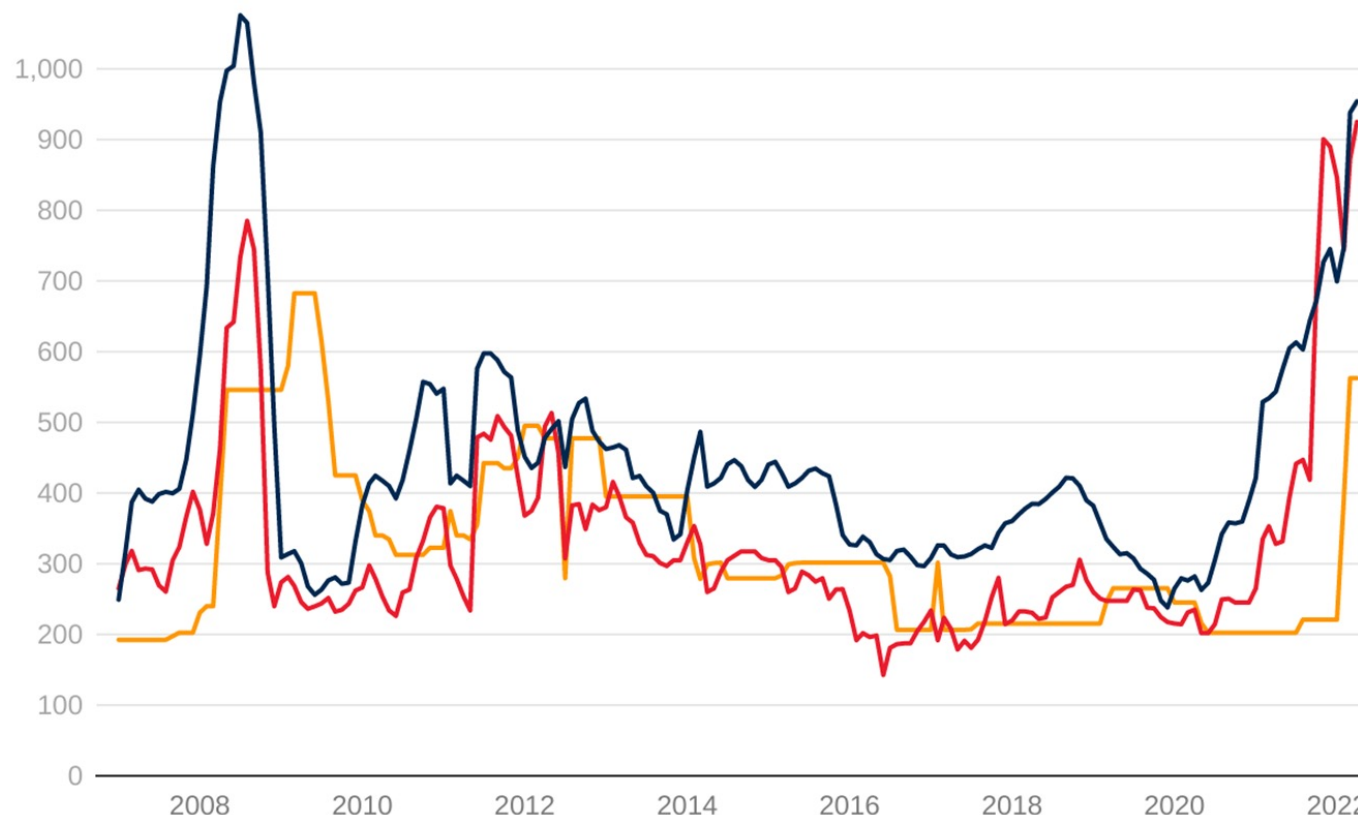
Managing digestate remains a key issue for AD operators

- Dewatering
- Transport
- Application techniques

## Fertilizer prices

US\$/mt

— DAP — Urea — MOP



Note: DAP = diammonium phosphate. MOP = muriate of potash. Last observation is April 2022.

Source: Bloomberg; World Bank.

# Sometimes reliability of supply is the driver:

At the Bronkhorstspuit biogas plant, 40,000 tonnes of cattle manure and a further 20,000 tons of mixed organic waste per annum is fed into two anaerobic digesters that produce the biogas feedstock for a combined heat and power application.

Power will be supplied from the 4.4 megawatts (MW) installed capacity Bronkhorstspuit Biogas Plant

According to the German automaker, 25-30% of the facility's electricity requirements is generated from renewable sources.





# Indonesia - Organics

Palm oil mill effluent or tapioca process residues can be treated to generate energy for local processing.

Ammonia stripping technology can also be included to ensure output of clean water.



# Kenya – Qube Renewables

A Bioenergy Action Plan is being developed by the Ministry of Energy aims at eliminating the use of wood for cooking in all public institutions by 2028.

The majority of the population in the rural area cannot afford gas or charcoal so they use wood from local trees which are not re-planted

Small, modular AD plants can be installed in remote areas



# Extraction of primary resources is damaging:

Our aim should be to preserve the materials we have, and to constrain the extraction of new ones:





# Communication is the answer

**LOVE  
FOOD**  
hate waste



The leaflet from the Council is key!

# DIT's role:

- The Department for International Trade (DIT) was established in 2016 with four priorities:
  - Promoting and supporting UK businesses and exports, including through export finance and insurance to grow an economy that works for everyone
  - Delivering the best international trading framework for the UK to maximise global trade and investment opportunities
  - UK Export Finance supports companies in their sales and growth through credit guarantees and cash flow products.

