

Who is behind the Agrofuel Industry in the UK?

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The global agrofuel industry

Globally, the agrofuel industry is a **CORPORATE ALLIANCE** of

- large multinational *agribusiness* companies
- *biotech* companies (which include agribusiness firms and their subsidiaries)
- *oil* companies
- groups representing large landowners and *plantation companies* based in the global South
- new *dedicated agrofuel companies*, which include companies based in the North which exclusively invest in plantations and/or contract farming in the global South
- *car manufacturers* and, increasingly, *airlines*
- *forestry* companies, interested in second-generation agrofuels
- *corporate funders* including venture capitalists, hedge funds, private banks and development banks, with carbon trading firms increasingly

It is one of the most powerful corporate alliances ever seen, which, for the first time ever, brings together the most powerful multinational corporations, namely big agribusiness and big oil, together with car companies, and with the forestry and aviation industries waiting for the second generation agrofuel boom.

Corporate interests groups are today driving agrofuel policies, including in the EU and the US.

However, the agrofuel industry itself is the result of **ARTIFICIAL MARKETS**, created by *governments* through biofuel targets and obligations, subsidies, including tax breaks and rebates and other incentives. Without public incentives and subsidies, most of the agrofuel industry would collapse because it is not commercially viable.

The government policies, which have created today's agrofuel industry, have been implemented in a systematic manner in most parts of the world, mainly since 2005. There is strong evidence that this was the result of a '**GLOBAL BLUEPRINT**' FOR AGROFUEL EXPANSION', which been developed and promoted internationally, through *UN agencies*, such as the International Energy Authority, the UN Framework Convention on Climate Change, the Food and Agriculture Organisation and through informal high-policy networks.

Leading lobby groups behind this 'blueprint' included *large environmental NGOs*, many of them with corporate connections (such as the United Nations Foundation, World Resources Institute, World Watch Institute and Worldwide Fund for Nature [WWF]), *US neocons* (eg the Securing America's Future Energy) and a number of *scientists/science institutes*, including the IPCC.

Who are the main players in the agrofuel industry in the UK?

Large agrobusiness firms:

(Including grain trading, agro-chemicals, seed companies, many of them involved with biotech)

ADM, Bayer, British Sugar, Bunge, Cargill, ConAgra, Du Pont, Monsanto, Syngenta, Tate & Lyle are agribusiness multinationals involved in the agrofuel industry which are represented in the UK. All of them have offices, two of them European Head Offices (Cargill and Syngenta) in the UK. British Sugar and multinational sugar corporation Tate & Lyle have their global headquarters in the UK.

The following large agribusiness firms directly invest in UK agrofuel refineries:

- British Sugar operates the UK's first ethanol refinery, a sugar beet refinery in Wissington, Norfolk. As member of Associated British Foods they are also co-investors in a wheat ethanol refinery and an experimental biobutanol refinery, both under construction in Saltend, near Hull;
- Cargill, who own 25% of shares in Greenergy Biofuels Ltd and thus in their biodiesel refinery in Immingham – their joint venture with ABF, Frontier Agriculture, holds the contract for supplying UK rapeseed to Greenergy and wheat to a large new ethanol refinery under construction by Vivergo Fuels (ABF, BP, DuPont);

- DuPont is a co-investor in the same two refineries as British Sugar/ABF;

Cargill, British Sugar and ADM provide feedstock for UK agrofuel refineries.

Oil companies:

Four oil companies invest directly in agrofuel refining in the UK:

- **BP** is a shareholder in the same refineries in Saltend as British Sugar/ABF and DuPont;
- **Greenergy International**: UK-based Oil blending and distribution company, operates biodiesel refinery at Immingham; claim to be the UK's largest biofuel supplier. Cargill and Tesco own around 25% of the shares in Greenergy Biofuels Ltd.
- According to the **Petroplus** website, their Teesside refinery supplies most of the UK's biodiesel, branded as Bio-plus, 'through an agreement with a biodiesel additive producer'. In Scotland, Bio-plus (a 4.5% biofuel blend) is distributed from Petroplus storage facilities in Grangemouth.

Other oil companies which invest in agrofuels, including agrofuel research, elsewhere in the world have offices and fuel stations in the UK: **Chevron, ConocoPhillips, Neste Oil (no petrol stations), StatoilHydro (no petrol stations), Total.**

BP has taken a leading role in shaping the UK government's biofuels policy, in particular the introduction of mandatory biofuel blending. They also invest in plantations/contract farming through their partnership with UK firm D1 Oil.

Other companies investing in UK biofuel refineries:

Whilst a significant number of companies, many of them small, distribute and supply biofuels in the UK, there has been significant market consolidation in the refining sector. At least three companies have had to drop or freeze their plans (Bioethnol Ltd, Green Spirit Fuels, Losonoco) and D1 Oils has been forced to close their refining business (two UK refineries). Biofuels Corporation, which is still operating a refinery at Seal Sands, albeit well below capacity, has ceased to operate under that name and is now known as **Earls Nook Ltd**, with 94% of shares being held by Barclays Bank.

Apart from the agribusiness and oil companies listed above as investors in UK refineries, the following companies are operating or investing in, building or planning large biofuel refineries in this country:

- The Spanish bioenergy company **Abengoa** is planning a wheat ethanol refinery in Immingham. They are understood to be amongst the top ten agrofuel producers worldwide, are a major investor in second generation agrofuel research and have been at the forefront of lobbying for agrofuel expansion in Europe;
- **ABS Biodiesel** has been granted planning permission for a large biodiesel refinery in Avonmouth Port, Bristol;
- **Agri Energy**, a subsidiary of the livestock company Irish Food Processors, are planning a biodiesel refinery in Eastham, Wirral, which would use not just on tallow but also on virgin vegetable oil;
- **Argent Energy**: They currently operate a refinery in Motherwell and are planning a larger one in Ellesmere Port, Cheshire. It is understood that their Motherwell refinery relies entirely on tallow and waste vegetable oil, however the second refinery may rely on agrofuels, too. They have close links to the livestock industry, including through the PDM Group, which describes itself as "the UK's largest processor of meat and poultry by-products";
- **Ensus Group**: This company, which is building a large wheat ethanol refinery at Seal Sands, is owned by private equity firms Carlyle Group and Riverstone Holdings.
- **Goes on Green**, a company which is receiving most of the funding from Al Tayyar (a 'clean tech power and investment company' based in Abu Dhabi) is planning a biodiesel refinery in North Shields;
- **Tesco** is currently the only supermarket which directly invests in agrofuel refining, through their 25% shareholding in Greenergy Fuels Ltd.
- **Vireol**: They have been granted permission to build a wheat ethanol refinery near Grimsby.

UK-based agrofuel companies investing exclusively in the global South:

The following UK-based agrofuel companies do not invest in UK refineries but in plantations and/or contract farming in the global South. One of them, Bronzeak Ltd, also invests in refineries in the South.

- **Bronzeak Ltd** describes itself as a “leading developer of bioethanol and bioenergy production facilities worldwide”. They invest in refinery and feedstock sourcing in Indonesia, Nicaragua the Philippines, Mozambique and Vietnam.
- **D1 Oils plc** invests in plant science / seed development, plantations and contract farming for jatropha in different countries in Africa and Asia. D1 Oils and BP have set up a joint venture, D1-BP Fuel Crops for the development of jatropha for biodiesel. D1 Oils no longer invest in agrofuel refining.
- **Equatorial Biofuels plc** (same as Equatorial Palm Oil) invests in existing and new oil palm plantations for biodiesel in Liberia. They have bought up Liberia Forest Products (LFP).
- **Kavango Bio-Energy**: UK registered firm which is planning investment in a large new jatropha biodiesel project in Namibia.
- **Sun Biofuels Ltd** invests in jatropha development, plantations and contract-farming in Ethiopia, Tanzania and Mozambique. Sun Biofuels is owned mainly by a carbon trading company, Trading Emissions plc.
- **Viridas plc** invests in jatropha planting for biodiesel (probably plantations) in Brazil.
- **Viridesco** invests in jatropha plantations in Mozambique and Zambia and hope to expand into several other countries in Latin America, Africa and Asia. They seek to sell the pure jatropha oil on the European market.

Another company, Energem Resources Inc is registered in Canada but also operate from the UK as well as South Africa. They have major interests in mining, oil and gas in Africa. Their subsidiary, **Energem Biofuels Ltd**, is majority shareholder in a sugar cane and sweet sorghum ethanol refinery in Kenya, and in jatropha plantations and contract farming in Mozambique and Malawi.

Biotech research firms:

Apart from biotech research linked to agrofuels being done or funded by several of the agrofuel and oil companies listed above, there are also a number of smaller biotech research and development companies working on agrofuels in the UK:

- **Green Biologics Limited (GBL)** in Oxfordshire (biobutanol research);
- **TMO Renewables Ltd** in Guildford (cellulosic ethanol research involving genetically modified micro-organisms).

Most of the UK’s biotech research and development linked to agrofuels is happening in universities and other science institutions who work closely with industry (see below).

Car manufacturers and airlines:

DaimlerChrysler and **Volkswagen**, who have offices and outlets in the UK are investing in agrofuel production and/or research in other countries.

Car manufacturers which have been actively promoting agrofuel expansion, through lobbying and through promoting cars running on high biofuel blends, include **Ford, Peugeot-Citroen, Porsche, Renault, Saab, Vauxhall** and **Volvo**. In the EU, lobbying by 13 car manufacturers including BMW, DaimlerChrysler, Ford, General Motors and Volkswagen led to the European Commission watering down plans for higher fuel efficiency standards and proposing that part of the standard could be met through biofuel use.

Virgin Atlantic, Boeing and **Airbus** are investing in research and development of agrofuels for aviation.

Agrofuels for heat and power in the UK:

Elsewhere in Europe, particularly in Germany, the heat and power sector, particularly CHP plants, have provided a major market for agrofuels, most of it palm oil. In the UK, liquid agrofuels have not yet been used for heat and power but there are strong indications that this will change in future and that a large new agrofuel market will develop in this sector. The 2008 programme for the European Biofuels Expo and Conference, for example advertised a session on “CHP buildings and biofuels – Home Heating Market, a 3 billion litre/year UK opportunity”.

- **BioX Group:** Dutch company describing itself as “one of Europe’s largest and fastest growing suppliers of liquid biomass to the energy sector for renewable energy production”. They primarily invest in palm oil. The BioX Group have announced plans for building what agrofuel power plants in four countries including the UK, however no further details of their UK plans are available at present.
- **Blue NG:** A joint venture between National Grid Blue Power (fully-owned subsidiary of Blue Power) and 2OC. Their chairman is also chairman of D1 Oils. They have been granted planning permission for what they state will be the first of seven CHP plants to run on crude vegetable oil. The media have reported that Blue NG ultimately plan 43 such plants in the UK.
- **OFTEC,** the Oil Firing Technical Association are involved in a joint research and development project with the **ICOM Energy Association,** to “determine how a bio-heating oil blend could replace traditional off gas main fuels for domestic and commercial heating applications.” Their website states “As our industry moves towards adopting biofuels it is important for us to align ourselves in this sector.”

Southampton City Council granted planning permission for a 50 MW CHP plant to run on agrofuels, including palm oil, in 2006, however this has not yet been built.

Corporate funders:

UK-based banks with major agrofuel investment include the **Barclays Bank** (who not only finance agrofuel investments, including in Latin America, but who currently own 94% of shares in Earls Nook and thus in their UK biodiesel refinery), investment bankers **Collins-Stewart, HSBC, Royal Bank of Scotland, Lloyds Bank/TSB,** investment bankers and stockbrokers **Numis Corporation** and the **Standard Chartered Bank.**

Other banks that provide significant agrofuel investment, which have representations in the UK but headquarters elsewhere include the **ABN AMRO Bank** (HQ Netherlands), **AXA** (HQ France), **Commerzbank** (HQ Germany), **Credit Suisse** (HQ Switzerland), **Deutsche Bank, HSH Nordbank AG** (HQ Germany), **Natixis** (HQ France), **Rabobank** (HQ Netherlands), **Société Générale** (HQ France) and the **UBS** (HQ Switzerland).

Hedge funds, private equity groups and venture capitalists have provided significant investment into the agrofuel industry worldwide. The Ensus Group, which is building a large ethanol refinery in the UK, is fully owned by two private equity groups. One of the investment banking firms that assist with accessing capital for agrofuel investments are **Matrix Biofuels LLP,** a subsidiary of the Matrix Group which manages private equity and hedge funds. Other companies give investment advice to agrofuel firms, such as **Alternative Energy Finance** and **Deloitte.** At present very little information about the investors behind the agrofuel industry in the UK is available.

Scientific institutions promoting, researching and developing agrofuels, including through science-industry collaborations:

Scientists and scientific institutes have been playing a major role in the development and promotion of agrofuels, and second generation agrofuel research is one of the main areas for biotech research at present.

Many of the scientists and institutes working on agrofuel developments are connected through the **Porter Alliance.** This alliance claims membership of “over 100 scientists, engineers, policy makers and mathematicians” and the website states that it “has been formed with the explicit objective of working in partnership with industrial collaborators to accelerate the invention and implementation of novel, sustainable biomass based processes and products.” The Porter Alliance is headed by the Imperial College of London, Rothamsted Research, the Institute of Biological Environmental and Rural Sciences at Aberystwyth University and the John Innes Centre in Norwich. Amongst their partners are - scientists at the Plants and Environment Lab of the University of Southampton, who are expected to submit the first application for GE tree trials in the UK since the 1990s, with a view to developing GE poplars for cellulosic ethanol; - biotech researchers of the Dupree Group, University of Cambridge, working on microbes for cellulosic ethanol; - scientists at Aston University in Birmingham, which hosts the Bioenergy Research Group (BERG) - scientists at the Department of Biology of the University of York

The **Royal Society,** which GM Watch identified as one of the leading pro-GM lobby groups in the UK, has been strongly involved in agrofuel promotion. For example, in 2007 they held an ‘International Biofuels Opportunities’ conference for scientists working on agrofuel worldwide. A 2008 report on ‘Sustainable

Biofuels', support government promotion of agrofuels, albeit linked to the development of 'sustainability' and 'greenhouse gas standards', investment in agrofuel-related research, including technology transfer to the global South. The Chair of the Working Group that wrote the report, as well as at least five other contributors are involved with the Porter Alliance.

Funding for agrofuel research comes from public and private sources, including through *Supergen*, funded by the government-funded research councils *EPSRC*, *BBSRC*, *ESRC* and *NERC*, and by the *Carbon Trust*, a government-funded independent company, which has also been promoting agrofuels to the public. Various other sources of public funding are available, for example through *Thermalnet*, which funds research into some forms of second generation agrofuel research through EU and International Energy Authority funds. Close links between industry and government funding bodies and policies are ensured through bodies such as *Bioscience for Business*, a 'Knowledge Transfer Network' which reports to the Technology Strategy Board, set by the government to inform policy. Bioscience for Business works in partnership with the *National Non-Food Crops Centre* which describes its remit as helping "to introduce renewable fuels and materials into the marketplace" and providing "independent information and advice to agriculture, academia, Government, industry, the media and the public".

Other lobby groups:

Many of the companies listed above either lobby directly for government support for agrofuels, or are members of industry association that do so on their behalf. As discussed above, science-industry collaborations also inform UK government policies. UK industry association that lobby for agrofuel expansion include the *Renewable Energy Association* and regional industry associations such as *Northeast Biofuels*. The *National Farmers Union* and the *National Farmers Union of Scotland* have been amongst the most outspoken lobby groups for agrofuel expansion. Both are members of the European association of farmers' groups *COPA-COGECA* which has strongly lobbied for EU agrofuel support.

A number of UK-based companies involved in the agrofuel industry are also members of European trade association and lobby groups which lobby for strong EU support for agrofuels. Those include the *EuropaBio*, a European biotech lobby group (of which the UK's *Bioindustry Association* is a member), the *European Biodiesel Board*, the *European Bioethanol Fuel Association e-Bio*, the *European Union of Ethanol Producers (UEPA)*, *Coceral* (of which the UK's *Agricultural Industries Confederation* is a member), the *European Biomass Association (AEBIOM)*, of which the UK's Renewable Energy Association is a member, *Fediol* (European federation of the Oil and Proteinmeal Industry), which includes the UK's Seed Crushers and Oil Producers Association (*SCOPA*).

More reading:

Global agrofuel industry:

ETC Group, "Peak Soil + Peak Oil = Peak Spoils", November/December 2007, www.etcgroup.org/en/materials/publications.html?pub_id=668

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Corporate finance for agrofuels:

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Friends of the Earth Netherlands, "Buyers and Financiers of the Wilmar Group", July 2007, [www.foeeurope.org/publications/2007/Wilmar Palm Oil Financers.pdf](http://www.foeeurope.org/publications/2007/Wilmar_Palm_Oil_Financers.pdf)