

Ensus Group:

How a venture capitalist firm is helping to push up the price of food

Who are the Ensus Group and who is behind it?

The Ensus Group are a bioethanol company set up to manufacture ethanol in different European countries. Their first refinery is the Wilton plant which is currently being built at Seal Sands, near Middlesbrough. It is expected to be fully operational by March 2009. The Ensus Group states that this will be Europe's largest ethanol refinery. Other refineries of approximately the same size, owned by other companies, will start production in 2009, too.

In March 2007 Ensus Group was bought by the *Carlyle Group* and *Riverstone Holdings*. This was a management buy-out, meaning that the management structure and team were retained. The Carlyle Group and Riverstone Holdings are private equity firms, i.e. investment companies. Riverstone Holdings specialise on the energy and power sector, whilst the Carlyle Group have a very wide range of investments, including military, car and transport, energy and power, healthcare, real estate, telecommunications, and media. Both firms are increasing their investment in the biofuel sector, particularly in North America but, through Ensus, also in Europe.

The Carlyle Group were founded in 1987 and, according to their website, currently have \$75.6 billion under their management. They gained media attention in 2003¹ following the publication of "Iron Triangle: Inside the Secret World of the Carlyle Group" by Dan Briody, which explores their defence investment and their involvement with US government/military contracts.

1) Observer article, 23rd March 2003, <http://observer.guardian.co.uk/iraq/story/0,12239,919897,00.html>

Company websites:

Ensus Group: <http://www.ensusgroup.com/>

Carlyle Group: <http://www.carlyle.com/index.html>

Riverstone Holdings: <http://www.riverstonellc.com/index.html>

The Wilton refinery

The refinery will have the capacity to produce 410 million litres of ethanol (which is bigger than any existing ethanol refinery in Europe) from 1 – 1.1 million tonnes of wheat a year.

Two ethanol refineries at Saltend, Hull being built by Vivergo Fuels Limited, a joint venture between Associated British Foods (of which British Sugar is a member), BP and Du Pont. These are expected to open in early 2009. One is an ethanol refinery for 1.1 million tonnes of wheat per year. The other is a smaller demonstration biobutanol refinery, taking feedstock wheat, corn, rye and barley, being built as part of research and development for the commercial development of biobutanol.

An ethanol refinery by Abengoa Bioenergy, which is to be built at Immingham with a capacity to produce 400,000 tonnes bioethanol per year. They intend to use 1 million tonnes of wheat as feedstock. Due to open in 2010.

Green Spirit Fuels are building another ethanol refinery at Henstridge, Somerset with a capacity of 105,000 tonnes of ethanol from 350,000 tonnes of wheat per year. Planning permission has been granted but investment has not yet been secured and there is no date for starting construction.

Vireol have built a refinery near Grimsby with a capacity of 150,000 tonnes bioethanol. Ethanol is produced from wheat and, according to their website, 'other grain'.

Ensus has entered into contracts with the following companies with regards to the Wilton refinery:

Shell: Shell Trading have signed a long-term contract to purchase all of the ethanol which will be produced.

Glencore International AG: They have a contract with the Ensus Group to supply all of the wheat to the refinery and to buy the ethanol by-product DDGS (dried distillers grain with solubles) which will be sold on to the livestock industry for animal feed.

Simon Carves: They are a wholly owned subsidiary of Sembawang Engineers and Constructors and a member of the Punj Lloyd Group, which holds the contract for building the Wilton refinery

Semb Corp Utilities UK: A subsidiary of Singapore-based Semb Corp Utilities, describing themselves as the “leading industrial utilities and services business on Teesside and one of the largest in the UK, providing steam and electricity to the major manufacturers on the [Wilton International](#) site, including Dow, Artenius UK, Croda, Sabic and Huntsman.”¹. They have been contracted to provide utilities at the refinery.

Royal Vopak: They describe themselves as “the global marketleader for the independent storage and handling of liquid oil products, chemicals, vegetable oils and liquefied gases”². They will provide storage for the Wilton plant and are currently expanding their Teesside terminal and building eight new tanks for this purpose.

1) Semb Utilities website: www.sembutilities.co.uk/

2) Vopak website: www.vopak.com

Ethanol in the UK:

At present, the only ethanol refinery in the UK is in Wissington, Norfolk, with a capacity of 70 million litres per year from sugar beet. It is owned by British Sugar. The main feedstock for UK refineries in planning and under construction, however, will be wheat.

Several ethanol refineries are either in planning or under construction. They include:

- An ethanol refinery at Saltend, Hull being built by Viverno Fuels Limited, a joint venture between Associated British Foods (of which British Sugar is a member), BP and Du Pont. This is expected to open in 2009 and to produce 420 million litres of bioethanol per year from wheat.
- An ethanol refinery by Abengoa Bioenergy, which is to be built at Immingham with a capacity to produce 400 million litres of ethanol from 1.1 million tonnes of wheat.
- An ethanol refinery near Immingham to be built as a joint Venture by Bioethanol Ltd together with Centaur Grain. The planning application was approved in April 2007. The plant is expected to open in 2009, initially with a capacity of 100,000 tonnes of ethanol from 325,000 tonnes of wheat per year, which is to be doubled in a second phase.
- Greens Spirit Fuels, a company which incorporates Humber Biofuels and Wessex Biofuels, have announced plans to open a bioethanol refinery near Immingham in 2008, which is to use 650,000 tonnes of wheat to produce 200,000 tonnes of ethanol a year.
- Green Spirit Fuels are building another ethanol refinery at Henstridge, Somerset with a capacity of 105,000 tonnes of ethanol from 350,000 tonnes of wheat per year. This is also expected to open in 2008.

Other plans for new UK ethanol refineries have been announced including by Losonoco and Vireol.

The total wheat required by the refineries already approved/under construction in the UK will be thus be at least 3.43 million tonnes of wheat per year, even if the Bioethanol Ltd plant was to drop its second phase of planned development and other refineries reported to be planned are not built.

What will wheat ethanol refineries mean for food prices and food security?

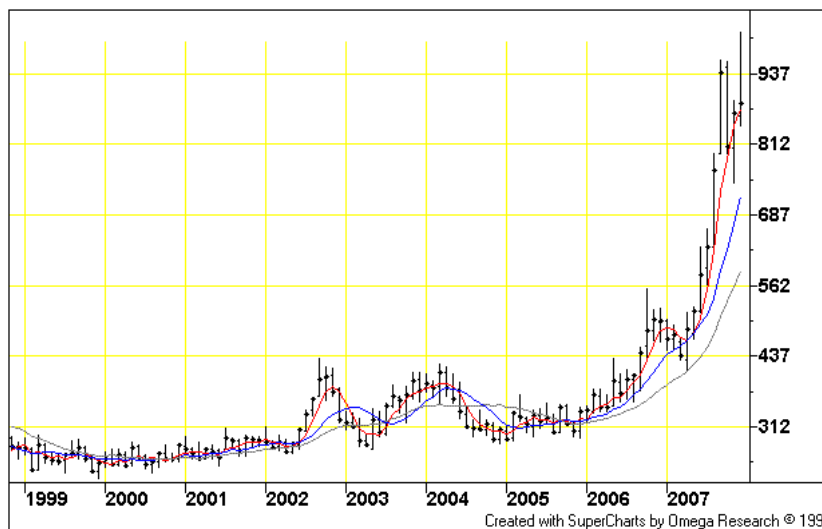
In 2006/07, global wheat prices rose by 50-65%, depending on the type and origin of the wheat¹. Global wheat stocks fell to their lowest level in 15 years. “Extreme weather” events were responsible for significant crop losses – in particular in Australia, Morocco, Canada and eastern Europe. The world’s wheat harvest fell from 624.7 million tonnes to 595.4 million tonnes. The heatwaves and droughts responsible for harvest failure are expected to become more frequent and severe a result of climate change.

Already, ethanol, and in particular corn ethanol, is having a significant impact on rising cereal prices, with the prices for different cereals being closely coupled.

In July 2007, an OECD/FAO report forecast:

“Growing use of cereals, sugar, oilseeds and vegetable oils to satisfy the needs of a rapidly increasing biofuel industry, is one of the main drivers in the outlook. Over the outlook period, substantial amounts of maize in the US, wheat and rapeseed in the EU and sugar in Brazil will be used for ethanol and bio-diesel production. This is underpinning crop prices and, indirectly through higher feed costs, the prices for livestock products as well.”²

Wheat Prices, late 1998 through December 2007



Source: CBOT; futures.tradingcharts.com

Futures prices in cents per bushel on the Chicago Board of Trade. Black points give monthly average, black lines give monthly spread, red line is four month average, blue line is nine month average, gray line is eighteen month average.

Massive European expansion of wheat for Ethanol planned

Data from <http://www.ebio.org>⁸ show that that Wheat, Mixed Cereals and Sugar beet are the current main sources of European ethanol, and that these are continuing massive expansion, particularly wheat in UK, Netherlands, France and Austria.

In Europe wheat is becoming the main source for ethanol: In 2006, 700 million litres of wheat ethanol were produced, out of a total of 3246 million litres, and refineries with a production capacity of a further 1720 million litres were under construction³. This expansion is happening at a time of rising wheat prices and falling wheat stocks and can therefore be expected to put further pressure on prices. According to the OECD/FAO report quoted above, Europe's use of wheat for ethanol is expected to increase twelve-fold by 2016.

	Maize	Wheat	Mixed cereal	Sugar beet	Wine Alcohol	Starch	Molasses	Unclassified	TOTAL
Bulgaria	10								10
Czech				20					20
France		400		595	40		45	40	1120
Germany		260	120				20	306	706
Hungary			115						115
Italy					200			102	302
Latvia								12	12
Lithuania			31						31
Netherlands							35		35
Poland		40	50			36	10		136
Romania								18	18
Spain			421		100				521
Sweden			50		100				150
UK				70					70
TOTAL	10	700	787	685	440	36	110	478	3246

Table: 2006 European Ethanol Production (Million litres)

	Maize	Wheat	Mixed cereal	Sugar beet	Wine Alcohol	Starch	Molasses	Corn	LC	Unclassified	TOTAL
Austria	36	180								24	240
Belgium		135	150	150							435
Bulgaria	30									13	43
Czech	35		235	60							330
France	125	200		50	125		50				550
Germany		100		282						102	484
Greece			50	50			50				150
Hungary	175										175
Lithuania			100								100
Netherlands		480									480
Slovakia								138			138
Slovenia		75									75
Spain		150							5	110	265
Sweden			155								155
UK		400									400
TOTAL	401	1720	690	592	125	0	100	138	5	249	

*Table: European Ethanol Production under construction in 2006 – without most of the UK ethanol refineries in planning or construction at present (Million litres)
UK – from wheat exporter to importer*

The planned UK wheat ethanol refineries are likely to turn the UK from a net exporter to a net importer of wheat. UK wheat production was 19 million tonnes in 2007, down 9% from 2006⁴. According to a Reuters report in July 2007, Britain had an exportable wheat surplus of 2.5 million tonnes which will have fallen by 750,000 tonnes following the opening of a Cargill sweetener plant⁵. Those figures would have been based on the greater 2006 harvest. The UK's wheat surplus is thus significantly lower than the capacity of the wheat ethanol refineries expected to open in the next two years.

Impacts of rising wheat prices

Rising food prices are already increasing hardship amongst low-income families in the UK and elsewhere in Europe. In poorer countries which are net-importers of grain, however, the impacts are dramatic: The World Food Programme and the Government of Afghanistan have called for emergency aid for Afghanistan so that they can supply food to an additional 2.55 million people who can no longer afford to buy sufficient wheat for baking bread, the basic staple in their diet.

As grain prices rise, the amount of food aid shrinks. Despite an increase in 'natural disasters' (including those linked to climate change), 40% less food aid was available in 2006 than in 2000⁷.

1) For 2007 wheat statistics, see <http://www.fao.org/docrep/010/ah876e/ah876e03.htm>

2) OECD/FAO Agricultural Outlook 2007-2016, <http://www.oecd.org/dataoecd/6/10/38893266.pdf>

3) eBio Production data: http://www.ebio.org/production_data_pci.php and http://www.ebio.org/production_data_pcc.php

- 4) Defra National Statistics: “Cereals and oilseeds production estimates: 2007 harvest United Kingdom – Final Results”
http://statistics.defra.gov.uk/esg/statnot/cps_osr_mincrop.pdf
- 5) Biofuels may wipe out UK wheat exports, 2nd July 2007, Reuters,
<http://www.planetark.com/dailynewsstory.cfm/newsid/42908/newsDate/2-Jul-2007/story.htm>
- 6) Soaring global wheat prices increase hunger for millions of Afghans; WFP asks for US\$77 million, 24th January 2007, <http://www.wfp.org/english/?ModuleID=137&Key=2750>
- 7) “The World Food Situation: New Driving Forces and Required Actions”, Joachim von Braun, International Food Policy Research Institute, December 2007, <http://www.ifpri.org/pubs/agm07/jvbagm2007.asp>
- 8) http://www.ebio.org/production_data_pci.php , Web page updated: 28-09-07, and http://www.ebio.org/production_data_pcc.php , Web page dated: 28-09-07

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