

17th March 2008



Commercial Solutions from Nanotechnology

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Richard Farleigh Chairman

Kevin Matthews CEO

Richard Clarke CFO

Oxonica

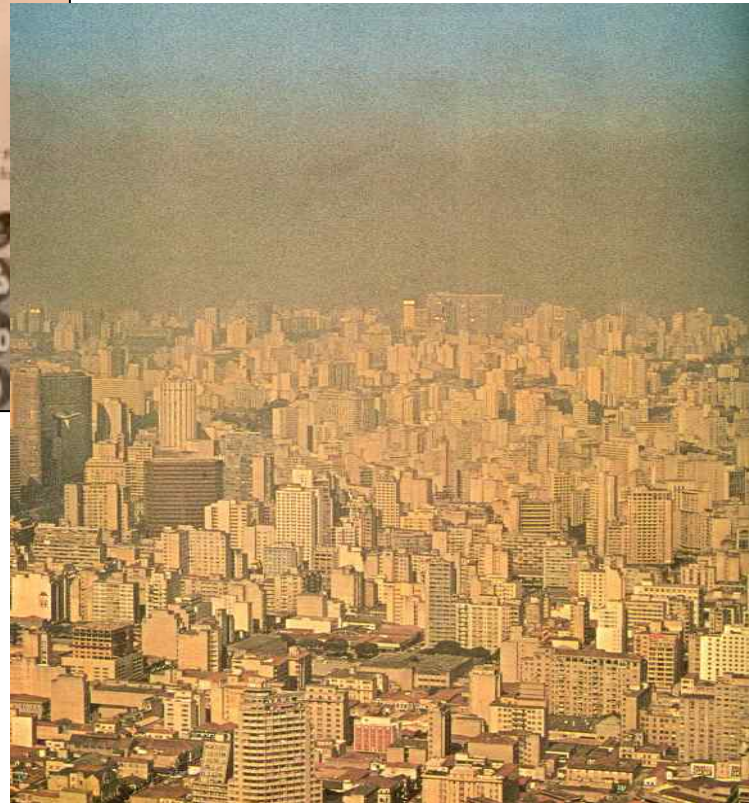
- **Nanomaterials business**

- **Continued progress in Materials and Security**
- **Envirox™ turnaround following loss of PO contract**
- **Significant restructuring and cost reduction in 2007**
- **Increasing focus on Envirox™ delivering fuel / CO₂ savings**

- **Diagnostics business**

- **Continued solid technical and commercial progress**
- **Appointed ThinkEquity Partners to review strategic opportunities**

Targeting Critical Needs...



NEWS IN BRIEF

New London Low Emission Zone

Public consultation on proposals for a London-wide Low Emission Zone began on 30 January 2006. The aim is to improve London's air quality by encouraging vehicle operators to clean up their fleets. It would mean lorries, coaches and buses that fail to meet a minimum pollution standard pay a charge if they drive polluting vehicles into Greater London. Cars would not be affected by the introduction of a Low Emission Zone. For more details see the Transport for London website.

...In Substantial Markets

Fear and greed fuel the return of \$100-a-barrel oil

The customer foots the bill while governments look at ways to put a brake on consumption, says **Roland Gribben**

PANIC has not quite gripped the oil market but the return of \$100-a-barrel oil has sent alarm bells ringing a little louder. The traditional mixture of politics, supply, demand, speculation and fear is again providing the ingredients for a surge in prices that does nothing for the health of a world economy struggling to come to terms with a credit crunch.

Price is being propelled by the uncertainty created by the Middle East crisis, the increasing oil appetite of China and India, the concern about the behaviour of Opec and more than a little touch of greed.

The customer is footing the bill while governments look at ways to put a brake on consumption, says **Roland Gribben**

For Arctic territory for example - but too close for comfort. In Paris, the International Energy Agency - the club of rich nations - has produced a depressing assessment of the outlook. Its latest world energy report estimates the world's remaining oil resources are only sufficient to meet rising demand over the next 25 years. The clock seems to be ticking faster. In short, the IEA says, the world is facing an unsustainable energy future unless its energy appetite is curbed.

China and India, the twin super powers in the world growth league, are the nations driving demand. The IEA says that their unprecedented pace of growth will require ever more energy and will transform the global energy system. In the

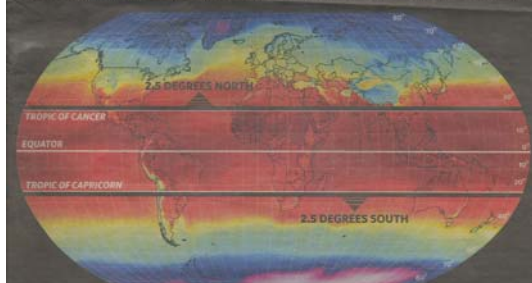
nuclear power is seen as underpinning the growth in generating capacity to meet power demand. The efforts being made to encourage a late surge in North Sea oil and gas exploration to squeeze the last drop into the tank may help offset the need to increase imports but the contribution will be modest. Britain's oil age is ending all too quickly. Oil and gas self sufficiency and a spell as one of the world's top five producers has lasted for less than 20 years. Could it have been extended? Only by government intervention that would have provided the wrong signals for oil company investment and resulted in a less attractive climate. The industry's



Cleaning up diesel exhaust for healthier air

Motor engineers are finding inventive solutions to the

Expanding tropics 'a threat to millions'



Scientists shocked by dramatic growth of Earth's tropical belt and warn of grave consequences

By **Steve Connor**
The tropical belt that defines dire consequences for large regions of the world where the climate is likely to become more arid or more stormy, scientists have warned in a new study. The impact on the tropics, in particular, is likely to be dramatic, with the number of people living in the world's most densely populated areas, which has risen

CORPORATE STRATEGY
CBI report



Industry leaders wake up to climate change threat

British business has finally woken up to the challenge of climate change, following the publication of a report from the CBI's Climate Change Task Force. A group of 14 business and civil society leaders from across the UK's largest companies, with RT chief executive Ben Vigneron acting as its independent chair.

In the past, the CBI has seemed content to sit on the sidelines, supporting government proposals and issuing industry warnings, and warning the government to act more decisively on business.

However, with former Financial Services Minister Richard Lambert now at the helm, the CBI is taking a fresh approach, taking the initiative over government and making a clear

Green experts to press for tougher targets

Britain
Patrick Wintour
Political editor

A powerful new government climate change committee will meet today for the first time to decide how ministers will meet their commitment to cut carbon emissions by 60% by 2050, and whether the target needs to be strengthened in the face of worsening forecasts on climate change.

The committee, set up as part of the Climate Change Act and chaired by the former CBI boss Lord Turner, could play an important role in ministers being hauled in front of the courts for failing to take global warming sufficiently seriously.

The committee will give advice by the end of the year on whether the emission cuts target should rise to 80%, and how ministers should set about cutting emissions in the first three of a series of five-year cycles leading to 2050. Ministers now have a legal duty to try to meet their targets.

The meeting comes as MPs on the all-party environment audit select committee warn that the Treasury is still not doing enough to face the challenge of green taxes. The MPs claim in a fresh report that green issues have been ghettoised in government and green taxes as a proportion of the tax take are continuing to decline.

In a damning assessment, the MPs write: "There is little sign the Treasury has taken on board the recommendations made in the Stern review on the economics of climate change last year in its approach to the environment."

Green taxes as a proportion of all taxes have continued to decline, falling to 7.3% in 2006 from a 1999 peak of 9.7%.

The new advisory body will set out, broadly by sector, where the burden of carbon cutting should fall in the

The climate change committee is to report annually on the government's progress in cutting Britain's carbon emissions




Ministers will have to explain why they have decided not to follow expert advice, and in theory ministers could be made subject to court action if the committee ruled they were failing in their statutory duty to reach their target.

The other members of the committee, apart from Lord Turner, are scientists Sir Brian Hoskins and Lord (Robert) May, technology professor Jim Skea and economists Dr Sam Fankhauser and Professor Michael Grubb.

The committee has also been empowered to advise ministers on whether to incorporate international aviation or international shipping emissions in the UK's targets and budgets, something that does not happen at present, and is seen as a major flaw in government reporting.



Envirox™ added to diesel fuel saves money and reduces CO₂ emissions

-  **Envirox™ is proven to improve fuel efficiency by 4-10%**
-  **Greenhouse gas reduction proportionate to fuel saving**
-  **Envirox™ reduces particulate emissions**

Envirox™ used across the UK road transport industry could cut annual diesel consumption by 1 billion litres and CO₂ emissions by 3 million tonnes.*

*figures based in UK consumption of diesel in 2004.

Envirox™
FUEL COMBUSTION CATALYST

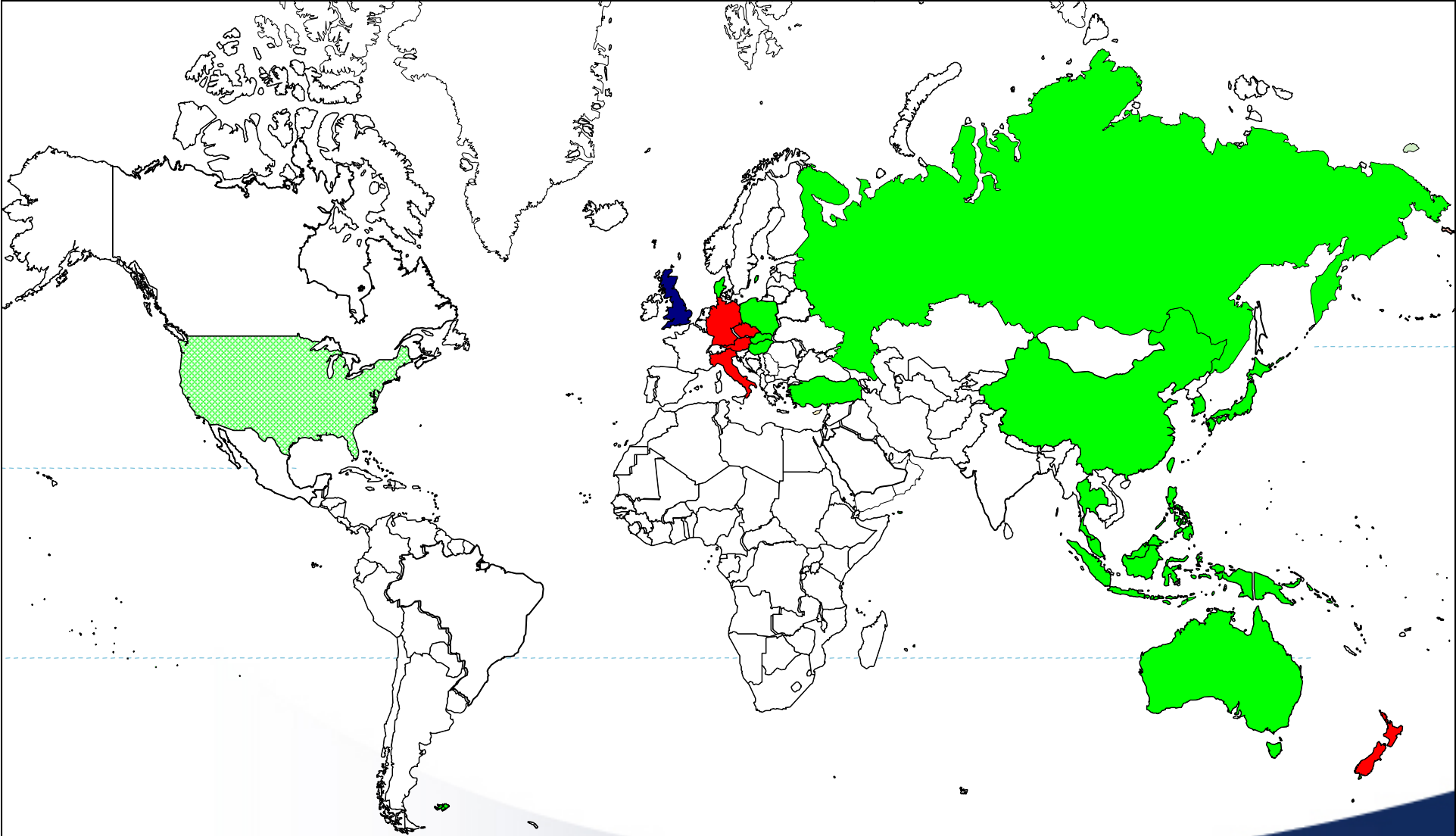
Envirox™ is easy to use and available today. Call the Oxonica helpline for further information 01865 856728.

Envirox™ Market

Envirox™ 4-10% fuel savings in diesel vehicles

- **Favourable macro-environment**
 - **Increasing fuel costs**
 - **Increasing concern over CO₂ emissions leading to climate change**
- **Estimated addressable world-wide market worth \$3bn**
- **Ongoing sales in UK, Germany, Italy, New Zealand**
- **Q1 2008 signed up distribution relationships with Germany and Russia**
- **Pipeline of opportunities re-established following Q1 2007 loss of PO contract due to trial problem**
- **Q2 2007 Patent dispute – no royalty payable on current Envirox™ product**
- **Q3 2007 Secured supply agreement and distributor relationship for Asia with Nyacol Nano Technologies Inc**

Envirox™ World-wide



Direct Sales



Distributor sales



Distributor appointed



EPA evaluation



Envirox™ Performance

Envirox™ 4-10% fuel savings in diesel vehicles

- Q1 2008 Stagecoach revalidation of Envirox™ performance
 - Stagecoach run down trial demonstrates 4.3% savings after 3 months
 - 700 million Stagecoach miles run on Envirox™
 - Product works on ultra low sulphur diesel and biodiesel
 - Estimated saving of 20,000 tonnes of CO₂ per year
- Stagecoach emissions - particulate reduction of >18% established after three months running
- Italian bus trial delivers 10.6% saving and trials in Germany savings of 5-8%

Recent data confirms and revalidates earlier results

Nanomaterial Products

Optisol™

Photostable UV protection for cosmetics

- **Optisol™ sales growth in 2007, £361k vs £175k >100% increase year on year**
- **Significant sampling levels and market interest**
- **Adoption rates being impacted by product price and review of supply chain ongoing with Umicore and Croda**
- **Optisol™ in 27 formulations, 14 customers in 9 countries**
- **Croda launched pre-dispersed form to aid customer adoption in 2007**

- **Optisol™ Sun Defence**
- **SPF 25 fully formulated product launched at the Professional Beauty Exhibition in March 2008**

Nanomaterials in the Pipeline



Photostable UV protection for industries

- **Product application to protect materials from UV/sunlight**
- **Building application data for market launch**
- **Product in long term evaluation with blue-chip industrial parties**

Nanobarcode™ technology

- **Product applications in anti-counterfeiting tags for high value documents, tax stamps, pharmaceuticals, fuel and luxury goods**
- **\$1.16m order for prototype products received in June 2007, follow-on order of \$275k in Dec 2007**
- **Good technical progress in meeting milestones to satisfy orders for prototype products**

Oxonica Diagnostics

Technology Advantages

- **Flexible** - Performs assays for both nucleic acids and proteins
- **Multiplexible** - Performs up to 10 distinct bioassays simultaneously
- **Easy to Use** - Minimal or no sample prep
- **Robust**



Nanoplex™

Two product formats



- **>\$30bn addressable total market**
- **Dual strategy – partnership and own product**
- **Developed own product through feasibility stage for rapid diagnostics**
- **Next stage is to develop diagnostics product**
 - **Product market identified**
 - **Addressable market estimated at \$2.75bn**

Breadth of Potential Applications

Veterinary



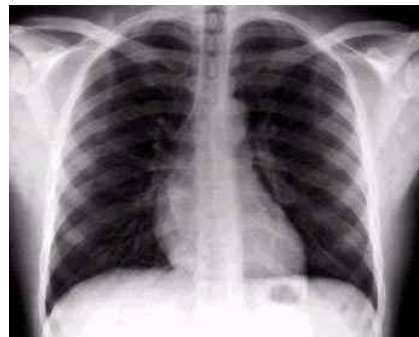
in vitro Diagnostics



Bioterrorism



Food Safety



in vivo Imaging



Agricultural

Nanoplex™ Technology Status

DNA		SENSITIVITY	DYNAMIC RANGE	TURNAROUND TIME	SUBSTRATE
	Oxonica	Sub 10 Femtomolar	> 4 logs	40 min	Digested Genomic DNA no amplification
		Attomolar	> 6 logs	< 5 hr	Isothermal amplification
	Company A	50-10000 Femtomolar	2-3 logs	24-48 hr	RNA amplification
	Company B	500 Zeptomolar	4 logs	3-4 hr	Pure Oligo, amplification Genomic DNA
50 Femtomolar		1 hr			

PROTEIN	CARDIAC PANEL LOD	cTnl	NT-proBNP	CKMB
	Oxonica	0.025 µg/L	6 ng/L	0.05 µg/L
	Company C	0.03 µg/L	18 ng/L	0.32 µg/L
	Company D	0.19 µg/L	5 ng/L	0.75 µg/L
	Clinical Cutoff	0.4 µg/L	80 ng/L	4.3 µg/L

Partnership Strategy

Size/Growth	Segment	Analysis
\$1.9B (41%)	Bioterrorism	Partner A
\$5.8B (9%)	Central Laboratory	Partner B
\$8.6B (21%)	Life Sciences	2 potentials
\$16B (20-25%)	Rapid Testing	BD, Partner C

- Initial sales of Nanoplex™ tags to support partner evaluations
- Pipeline of evaluation partners – engaged
- BD follow-on research agreement – Sept 2007
- Ready to move to product development stage for own product

Financial Highlights

- **Results**
 - Revenue down 59% v 2006 at £4.2m
 - Gross profit down 59% v 2006 at £2.4m
 - Operating loss - £5.6m
- £4.0m equity placing closed prior to year-end
- **Revenue**
 - Envirox™- Petrol Ofisi contractual issues resolved
 - Optisol™ sales more than doubled to £361,000
 - Security US\$1.4 million in purchase orders
 - Diagnostics secured follow-on research agreement with BD
- Significant reduction in operating costs in H2

Consolidated income statement

	2007 H1 £'000	2007 H2 £'000	2007 Full Year £'000	2006 Full Year £'000
Revenue	3,101	1,073	4,174	10,229
Cost of sales	(1,883)	120	(1,763)	(4,304)
Gross profit	1,218	1,193	2,411	5,925
<i>Gross profit %</i>	39.3%	N/A	57.8%	57.9%
Other operating income	852	180	1,032	377
Research and development	(1,036)	(1,563)	(2,599)	(2,384)
Sales & marketing & admin costs	(3,714)	(1,846)	(5,560)	(5,985)
Write-off of intangible asset	(135)	-	(135)	-
Share options charge	(261)	(253)	(514)	(353)
Amortisation of acquired intangibles	(107)	(119)	(226)	(221)
Operating loss	(3,183)	(2,408)	(5,591)	(2,641)
Net financial income	104	46	150	115
Taxation	(1)	3	2	114
Retained loss for the period	(3,080)	(2,359)	(5,439)	(2,412)

Balance sheet

	31/12/2007 £'000	31/12/2006 £'000
Intangible assets	13,138	13,498
Property, plant and equipment	671	731
Total non-current assets	13,809	14,229
Inventories	321	477
Trade and other receivables	702	852
Cash and cash equivalents	4,811	6,836
Interest bearing loans and borrowings	(244)	(413)
Trade and other payables	(1,610)	(3,331)
Total net assets/(liabilities)	17,789	18,650
Share capital	654	428
Share premium/merger reserve/exchange reserve	36,344	28,995
Shares to be issued	-	4,225
Retained earnings	(19,209)	(14,998)
Equity shareholders funds	17,789	18,650

Cash flow

	2007 H1 £'000	2007 H2 £'000	2007 Full Year £'000	2006 Full Year £'000
Operating loss for period	(3,183)	(2,408)	(5,591)	(2,641)
Depreciation & other amortisation	421	323	744	557
Share-based payment expense	260	254	514	353
Working capital (increase)/decrease	(1,753)	389	(1,364)	2,348
Cash flow from operations	(4,255)	(1,442)	(5,697)	617
Net interest	104	46	150	115
Tax	30	46	76	(5)
Acquisition of subsidiaries	-	-	-	(66)
Capital expenditure	(111)	(213)	(324)	(318)
Free cash flow	(4,232)	(1,563)	(5,795)	343
Share issues	64	3,983	4,047	1,117
Loans (decrease)/increase	(137)	(132)	(269)	232
Cash (decrease)/increase	(4,305)	2,288	(2,017)	1,692

Summary

- **Nanomaterials business**

- **Continued progress in Materials and Security**
- **Significant restructuring and cost reduction in 2007**
- **Following positive Stagecoach trial increased focus on Envirox™**
- **Envirox™ benefits align with customer needs - fuel / CO₂ savings**

- **Diagnostics business**

- **Continued solid technical and commercial progress**
- **Appointed ThinkEquity Partners to review strategic opportunities**