

## **Nanotech For Investors Summit**

**Christopher Moore**

**Executive Chairman Oxonica**

11<sup>th</sup> September 2006

Commercial Solutions from Nanotechnology

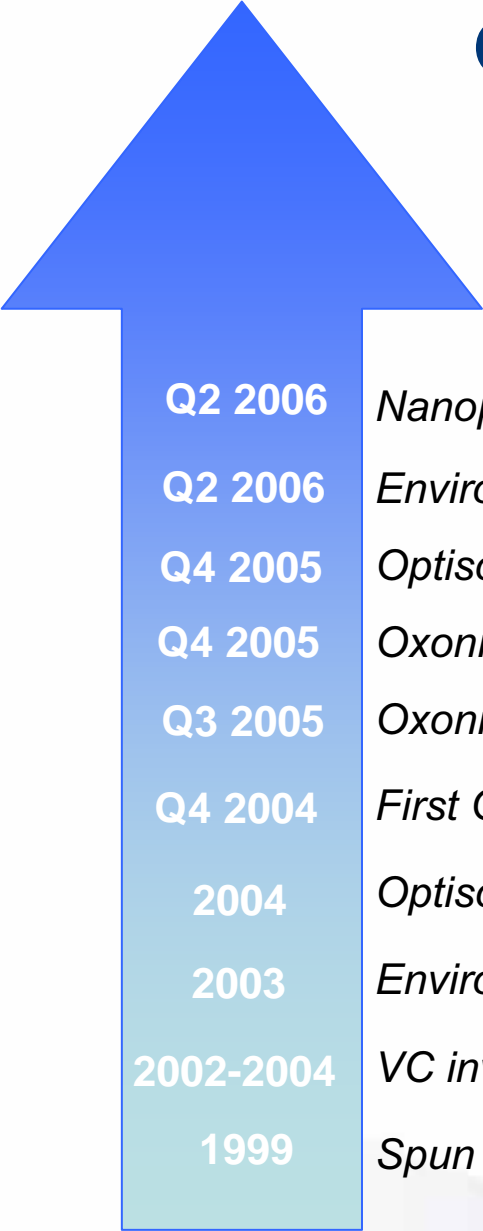
[www.oxonica.com](http://www.oxonica.com)



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# Oxonica Overview



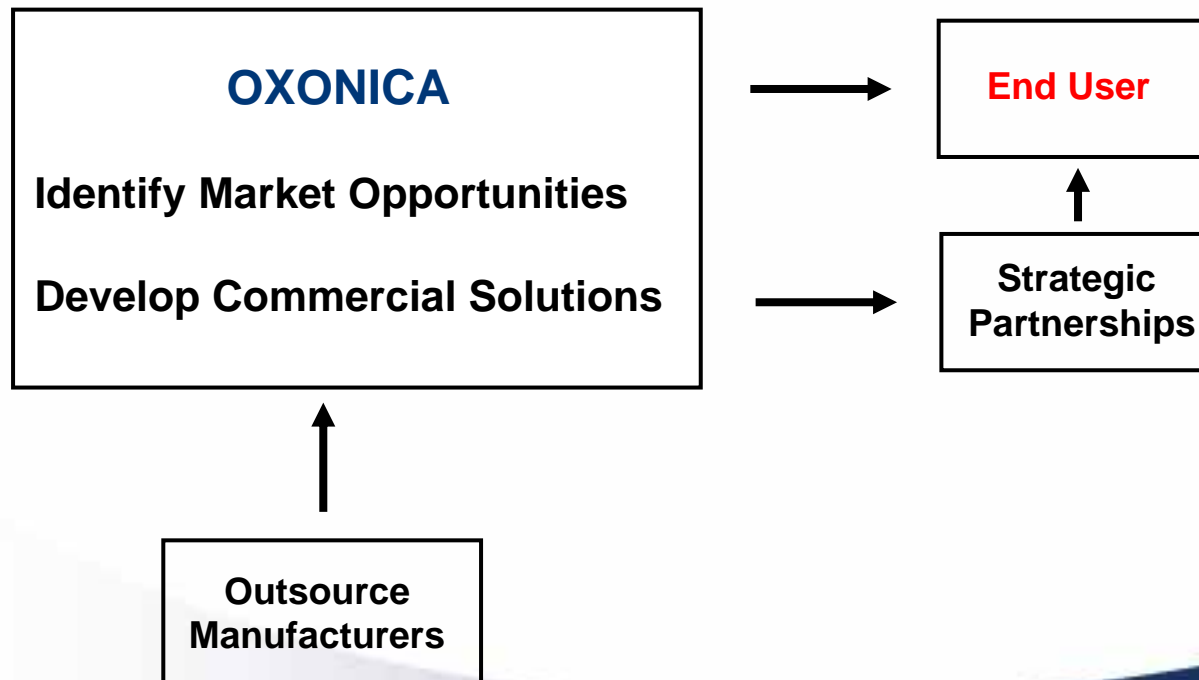
Q2 2006	<i>Nanoplex™ Licensing agreement with Becton Dickinson</i>
Q2 2006	<i>Envirox™ supply agreement with Petrol Ofisi</i>
Q4 2005	<i>Optisol™ marketing agreement with Croda</i>
Q4 2005	<i>Oxonica acquires Nanoplex Technologies Inc</i>
Q3 2005	<i>Oxonica floats on AIM</i>
Q4 2004	<i>First Optisol™ and Envirox™ customer adoptions</i>
2004	<i>Optisol™ launched</i>
2003	<i>Envirox™ launched</i>
2002-2004	<i>VC investment including BASF</i>
1999	<i>Spun out of Oxford University</i>

## Oxonica Overview

*“To build a leading, international group by developing innovative commercial solutions for global markets using Oxonica’s expertise in the design and application of nanomaterials.”*

# Oxonica's Business Model

- Develop patented product applications: 48 patent families, 198 national applications
- Outsource manufacturing arrangements in place
- Access major markets directly and through strategic partnerships with global brands



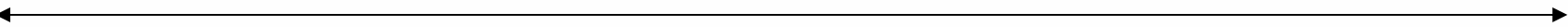
# Multi-Sector Business Concept

## Balanced Portfolio Risk Management

Lower Risk  
Shorter time to market  
Lower Rewards

Higher Risk  
Longer time to market  
Higher Rewards

*Optisol*™ *Solacor*™ *Security*™ *Envirox*™ *Nanoplex*™

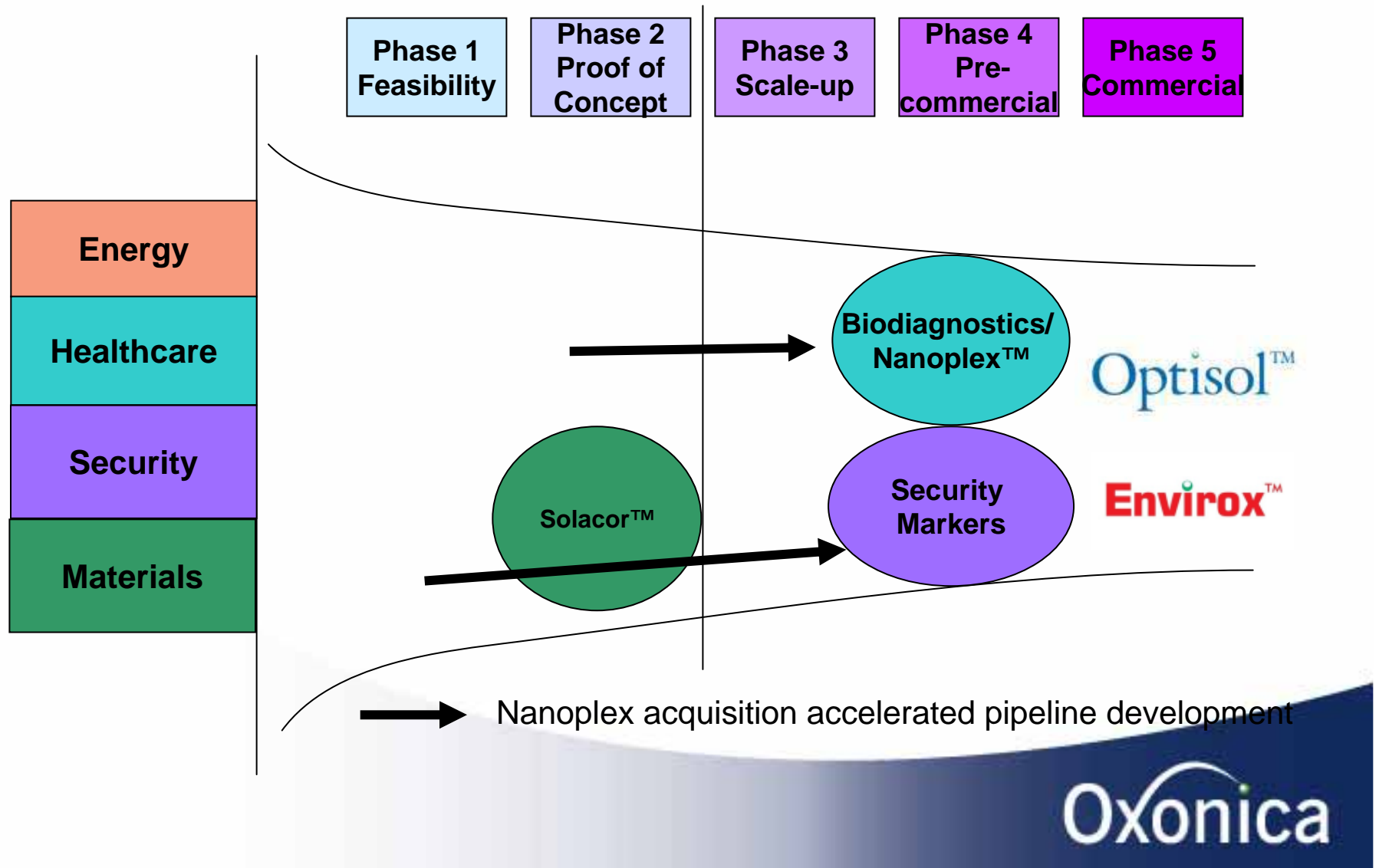


**Product  
Substitution /  
Enhancement**

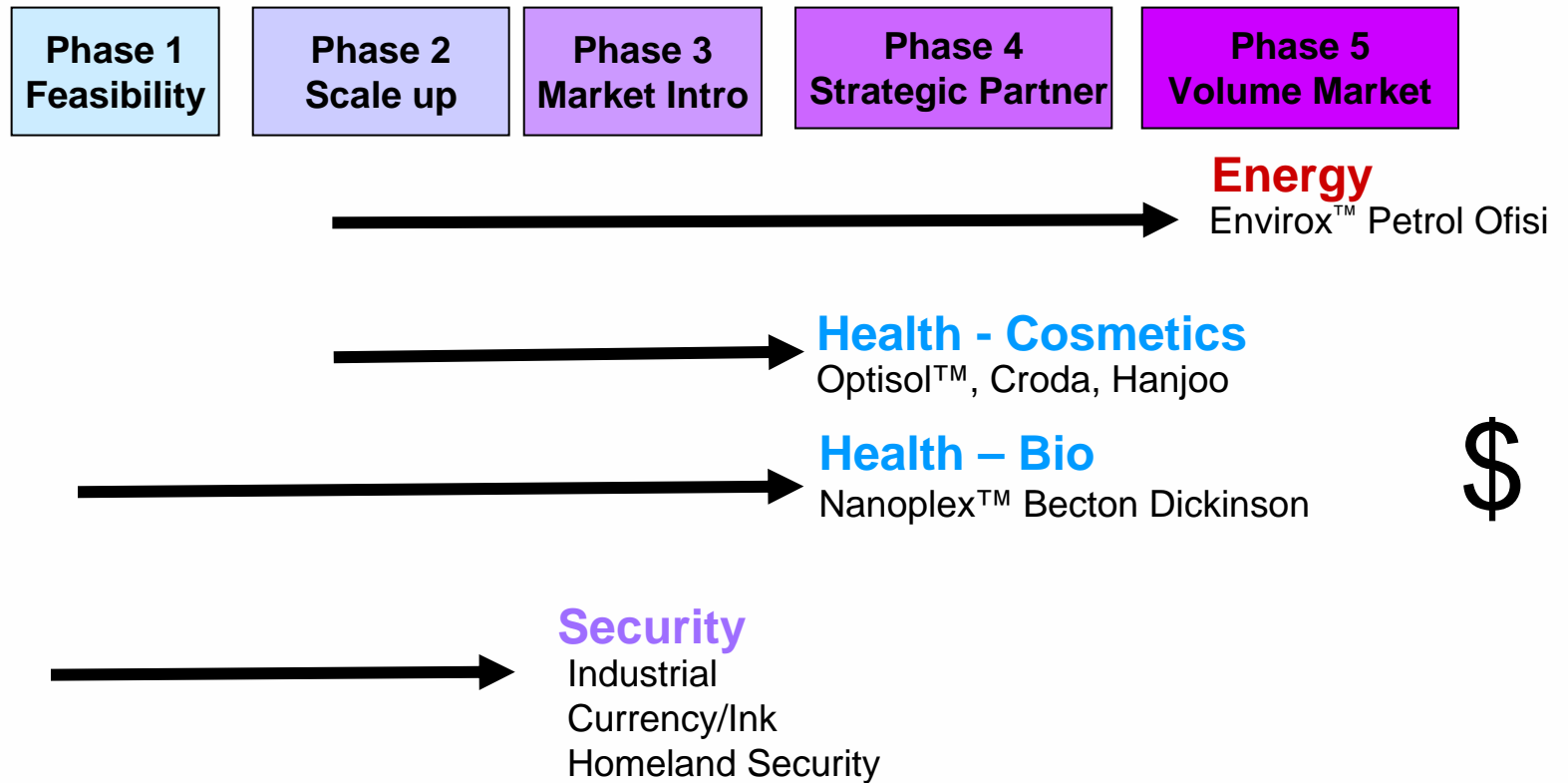
**In-house  
Applications  
& Product  
Development**

**Product Invention  
/ Supply Chain  
Re-engineering**

# Pipeline Development since admission



# Commercial Developments - 12 Months to 31<sup>st</sup> August 2006



Solacor™

Oxonica

# Profit & Loss Account

Year to 31 December:	<b>2005</b> <b>£'000</b>	<b>2004</b> <b>£'000</b>
<b>Turnover</b>	<b>1,247</b>	<b>391</b>
Cost of sales	(586)	(109)
Gross profit/(loss)	661	282
Development, sales and admin	(5,300)	(3,664)
Other income	241	175
<b>Earnings before interest &amp; tax (EBIT)</b>	<b>(4,398)</b>	<b>(3,207)</b>
Net interest	71	(85)
Taxation	(93)	131
Loss for the financial year	(4,420)	(3,161)
<b>EBITDA</b>	<b>(4,129)</b>	<b>(2,991)</b>

# Balance Sheet

As at 31 December:	2005 £'000	2004 £'000
Intangible fixed assets	173	198
Tangible fixed assets	734	568
<b>Total fixed assets</b>	<b>907</b>	<b>766</b>
Stocks	412	159
Debtors	901	502
Cash at bank	5,066	600
Creditors	(1,119)	(1,320)
<b>Net current assets/(liabilities)</b>	<b>5,260</b>	<b>(59)</b>
Long term liabilities	(168)	(2,481)
<b>Total net assets/(liabilities)</b>	<b>5,999</b>	<b>(1,774)</b>
Share capital	368	1
Share premium/merger reserve	19,452	7,626
Profit & loss account	(13,821)	(9,401)

- Balance Sheet strengthened by £2.6m rights issue in January 2005 & £7.1m private placing & £2.0m shareholder loan conversion in July 2005

# Cashflow

Year to 31 December:	2005 £'000	2004 £'000
<b>Earnings before interest &amp; tax</b>	<b>(4,398)</b>	<b>(3,207)</b>
Depreciation & amortisation	269	216
Working capital increase	(666)	(354)
<b>Cashflow from operating activities</b>	<b>(4,795)</b>	<b>(3,345)</b>
Tax recovered	-	109
Capital expenditure	(410)	(470)
Net interest	75	(85)
Loans (decrease)/increase	(2,595)	432
Share issues	12,191	3,926
<b>Cash increase</b>	<b>4,466</b>	<b>567</b>

# Oxonica Energy

## IDENTIFIED PROBLEM:

- High fuel costs
- Environmental pressures

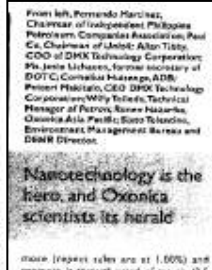


## OXONICA'S SOLUTION:

**ENVIROX™**  
Fuel borne nanocatalyst

**Diesel fuel savings: UK c.5-7%; Asia up to 11%**  
**Reduced emissions including CO<sub>2</sub> and particulates\*\***

**Customers include Petrol Ofisi and Stagecoach**



\*\* Oxford Brookes University Study, Ricardo 2003, MIRA 2003

# Oxonica Healthcare

## IDENTIFIED PROBLEM:

- Skin cancer on the increase
- Skin ageing
- Both linked to UVA



## OXONICA'S SOLUTION:

**OPTISOL™**

Provides enhanced and longer-lasting protection against UVA  
Reduces free radicals generated by UV – anti-ageing  
Stabilises other sensitive components in cosmetic formulations

Customers include Croda and Hanjoo



# Oxonica Healthcare: Bio

**“Providing simpler diagnostic tests, information in real time, bringing central lab performance to the point of use”**

2001 Diagnostic market identified as needing paradigm change

2003 SERS technology identified by Oxonica as potentially disruptive

Sept 2003 Keys SERS patents in-licensed to Oxonica

2004 / 2005 Oxonica develops Bead based systems, shows performance

Q4 2004 Key Nanoplex patents become public

Q1 2005 Oxonica commences acquisition discussions

Q3 2005 Oxonica agrees acquisition terms

Feb 2005 Acquisition completed

Key benefits:        Increase in resources to accelerate program  
                          US base with some initial relationships with US players  
                          Consolidation of IP & know-how

Feb 2005 Oxonica Inc showcases first product – multiplexed LFI device

August 2006 Nanoplex™ Licensing agreement with Becton Dickinson

# Oxonica Security

## **IDENTIFIED PROBLEM:**

- Increasing security concerns – homeland and counterfeit goods



## **OXONICA'S SOLUTION:**

### **Use of SERS technology to label items**

- Multiple markets and users from fuels to pharma
- Currently targeting the development of corporate partnerships to access full potential
  - Advanced discussions with partner for homeland security
  - Co-development activities with partners in other sectors

# Oxonica Materials

## **IDENTIFIED PROBLEM:**

- Damage to wide range of materials through exposure to UV radiation



## **OXONICA'S SOLUTION:**

**Same UV technology as used in Optisol™ can be used to stabilise plastics and coatings from UV damage**

- Key is sourcing low cost, high volume manufacture
- Multiple markets and users from paints to automotives to aerospace
- Currently in negotiations on licence agreements
- Develop corporate partnerships to access full potential

# Regulatory

- Oxonica's health and environmental testing goes considerably beyond what is required by current regulations
- Oxonica engages a number of independent external experts to advise on regulatory affairs
- National Governments are supportive of nanotechnology and hence have commissioned regulatory reviews and public engagement
- Oxonica actively involved - participated in Royal Society (UK) and Nanosafe (EU) reports
- Nanotechnology products can offer significant environmental and health benefits such as those developed by Oxonica

# To go public or not to go public?

- Previously an easier decision
- Why consider listing a business?
  - Requirement for capital
  - Need to broaden shareholder base
  - Need for liquidity: founder investors, managers can exit
  - Ability to use paper to acquire companies, management terms, technologies with common incentive
  - Ability to motivate management
  - Ability to access other forms of capital
  - Increased recognition
- The independence issue

# Some current listing considerations

- Many businesses are sound profitable businesses which are good to own, but which will never achieve a good market rating
- Size is a relevant consideration to liquidity: Many institutions tend to have ever increasing investment criteria on investment unit size and market capitalization
- Institutions want news flow. This can create pressure 'to do a deal'
- Stock markets can be prone to fashions and themes, and may not take a long term approach to the business

## Some current listing considerations (Cont.)

- Capital markets, particularly for early stage technology companies, are not always open. Intuitional liquidity has to be linked to an appetite for risk for early stage IPO's to succeed
- Even an AIM listing is a major undertaking, and can distract the management team from continued development of the business
- Non delivery will be heavily penalised

# Cost Issues

- Costs at the time of listing are not inconsiderable
- There are continuing costs:
  - Investor relations: a continuous program is needed
  - The presentation of financials and news flow is critical
  - Corporate governance compliance is time consuming
- Continuing costs comprise both cash and management time

# Oxonica and the listing matrix

- Oxonica is unique as one of the few nanotech groups with valuable I.P and with real commercial products selling in the market place. This should create an attractive valuation for the business
- Oxonica has the potential to develop into a major international business: it needs access to a wider base of capital providers, and is capable, in time, of meeting their size criteria
- Oxonica needs the option of supplementing rapid organic growth with selective acquisitions of business research teams, or technologies
- Oxonica must incentivize its key asset management and all employees
- The raised profile has been positive

# Summary

- The listing equation is much more finely balanced than it used to be
- In Oxonica's case listing has assisted delivery of the strategic plan. Cash was raised, Nanoplex was required for shares. Awareness of the group has increased
- Oxonica's listing was achieved through placement of stock to a relatively small group. Following delivery of two important commercial milestones this summer we will now implement a further program of raising our visibility and widening our institutional base
- As part of this process we are keen to attract a European shareholder base