



Orbital Corporation Ltd
24th Annual General Meeting
7th November 2012

Agenda

- Chairman's Address
- Chief Executive Officer's Address
- Formal Business
- Questions and Answers
- Poll



Chairman's Address

Financial Summary

FY 12 Financial Summary		FY12	FY11
A\$'000			
System Sales	Segment revenue	14,020	5,847
	Segment result	380	(757)
Consulting Services	Segment revenue	7,131	9,492
	Segment result	(2,259)	161
Royalties and Licenses	Segment revenue	967	1,081
	Segment result	463	610
Total Revenue		22,118	16,420
Total Segment result		(1,416)	14
Synerject - equity accounted profit		3,480	3,233
Unallocated other income		545	959
Unallocated other expenses		(4,470)	(2,809)
Foreign exchange gain		120	79
Finance costs (net)		(449)	(353)
Research and development		(954)	(1,158)
Business development costs*		-	(205)
Gain on sale of property*		-	4,237
Write-off capitalised development costs*		-	(1,065)
Provision for slow moving inventory*		-	(942)
Termination costs*		(113)	(417)
Profit/(loss) before tax		(3,257)	1,573
Taxation		204	190
Profit/(loss) after tax		(3,053)	1,763
Underlying profit/(loss) (excluding items highlighted above *)		(2,940)	155



CEO's Address

Key Milestones 2012/13

Results

Strategy Implementation

- Transitioning from IP to sales company



- “Systems Sales” up 140%
- Reducing reliance on Consulting Engineering revenue - Engineering resources redirected to manufacturing, product incubation and development

Systems Businesses

- LPG Products
- UAS Programs
- LNG
- Synerject



- Ford EcoLPi, “Best Large Car Under \$60,000 award”
- LPG businesses holding their own in tough market
- Production supply of UAS engines to AAI
- Over 2 million kms clocked up on LNG
- Synerject 5% Sales growth in FY2012

Engineering Businesses

- Consulting Engineering
- IP



- Reduction in engineering work due to high value of the Australian Dollar, and global financial situation
- IP revenue steady

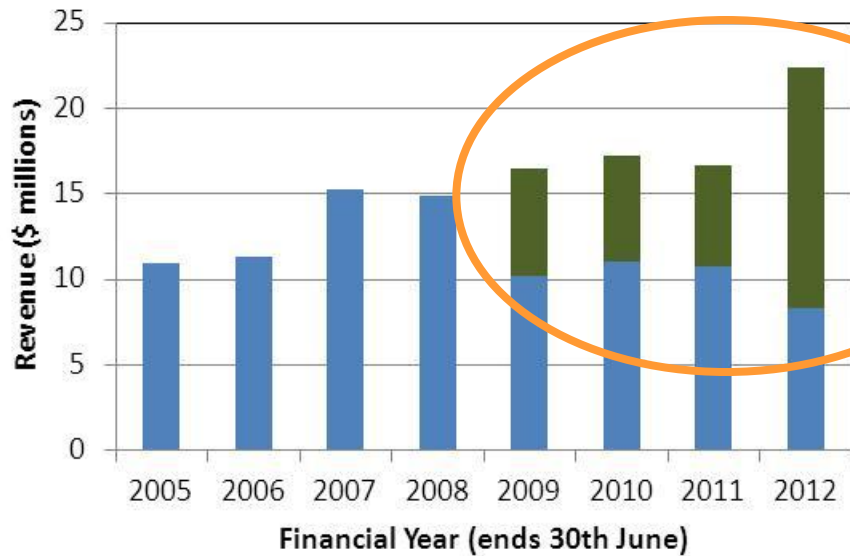
Strategy Overview and Implementation

- Transitioning to a product/systems supply company
- Reducing reliance on Consulting Services
- Engineering focused on new products
- Growing systems and components sales

Transition to a Systems Company

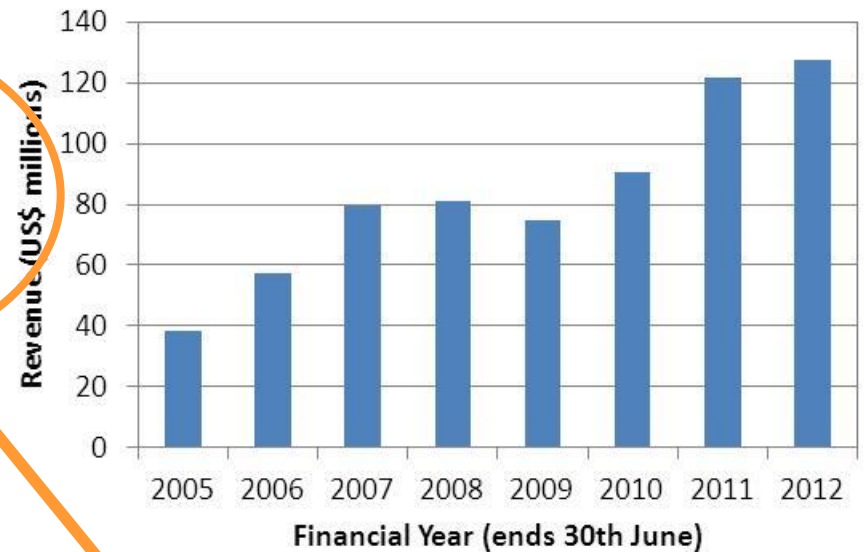
Transition

Consolidated Revenue



Model

Synerject Revenue

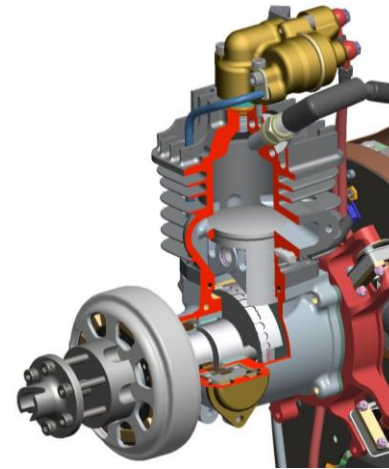


- System Sales revenue
- Engineering, IP and other revenue

- 2012 - Highest top line sales in 8 years
- 2008 – 100% Consulting, IP & other
- 2012 – 37% Consulting, IP & other

New Products since 2008

- FlexDI™ UAS engine



- Liquid LPG systems

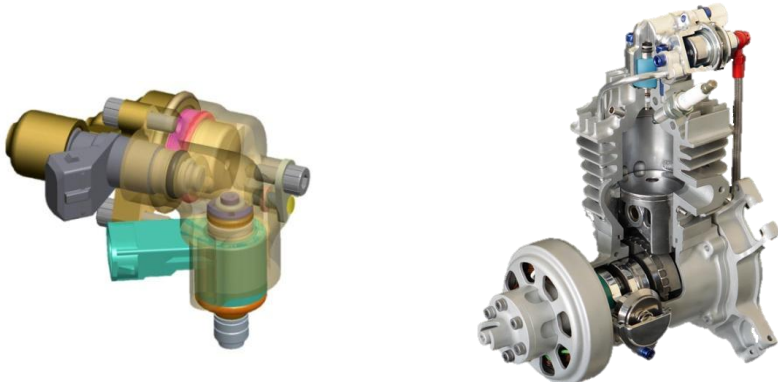


- LNG Dual Fuel (fleet trial)

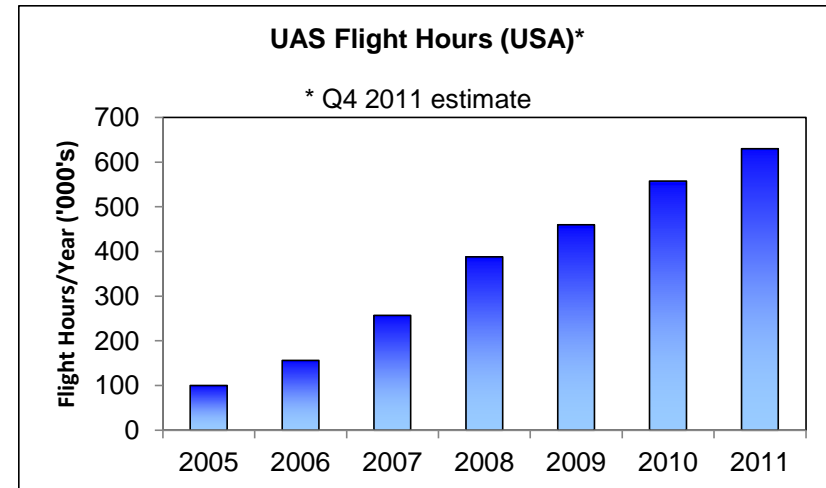
UAS – Orbital’s New Business

Orbital’s Production UAS Engine

- Light weight, up to 40% fuel economy improvement
- FlexDI™ spark ignition of JP8 kerosene fuels
- Supply Contract to AAI Corporation
- EMS supply



UAS – Growth Market



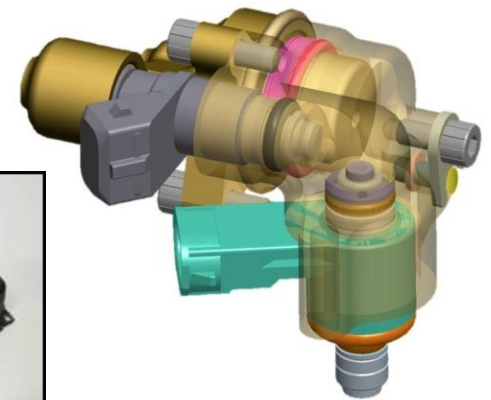
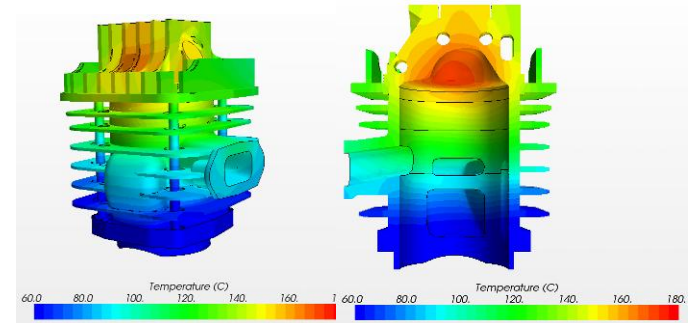
Source: <http://www.defenseinnovationmarketplace.mil/resources/UnmannedSystemsIntegratedRoadmapFY2011.pdf>

Orbital’s UAS Business

- Engine/Line Replacement Unit Supply
- Design & Development
- Fuel Systems Supply
- Engine Rebuild and Service

UAS Engine Development

- Engine design for light weight and robustness; and for heavy fuel
- Light weight and military specification components
 - ECU
 - Fuel Rail Assembly
 - Air Compressor
 - Fuel Pump
 - Exhaust System
- Unique control algorithms
- “Plug and Play” Line Replacement Unit



UAS Brochure – AUSVSI Exhibition

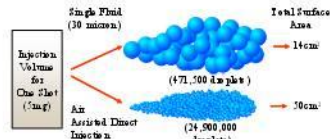
Proven UAV Heavy Fuel Engine Technology

FlexDI™ – Spark Ignited Heavy Fuels

FlexDI™ is direct fuel injection technology able to offer an advanced Spark Ignition solution for heavy fuel engines including JP5, JP8 and JetA1. FlexDI™ is also able to be used for spark ignited Diesel applications.

FlexDI™ offers:

- Unique solution applicable to both 2 & 4 strokes
- Spark ignited Kerosene and Diesel, for UAVs JP5, JP8, JetA, JetA1 and gasoline with no change to the engine calibration
- High specific power, greater than 70kW/L
- Low fuel consumption; 30%+ reduction during cruise conditions
- Cold start capability; demonstrated to -35°C
- Low engine noise; misfire free operation
- Automatic altitude compensation
- Electronic oil metering



What Orbital brings to the UAV market

More than 30 years of proven experience dedicated to engine design and prototype manufacture, EMS calibration and optimisation, testing for performance, emissions and fuel consumption.

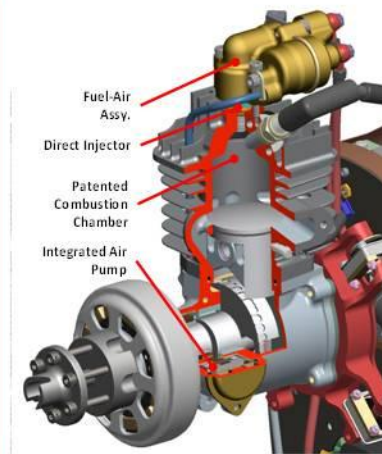
- Engine calibration dynamometers
- Propeller stand facilities
- Altitude simulation facilities; up to 20,000ft capability depending on engine capacity



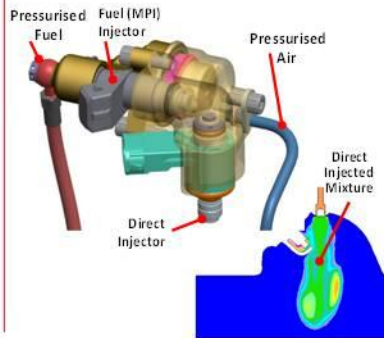
Orbital's Propeller Stand Facility

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AAI Aerosonde SUAS Heavy Fuel Engine



How does it work?



Proven UAV Heavy Fuel Engine Technology

FlexDI™ – Our Track Record

- 2002-2003
 - Initial R&D development
- 2003-2004
 - Bamus (50Hp diesel-kero-gasoline)
 - Publication of technical capability papers
- 2005-2006
 - Mercury JP Optimax released <http://www.mercurygovsales.com/technology/optimaxjp.php>
- 2007-2008
 - Polaris 4S MV800 (JP8/Gasoline)
- 2009+
 - Various UAS customers (undisclosed)
 - Internal R&D funded engine design
 - AAI/Textron: Orbital HF on Aerosonde (2012)



Textron unveils modified Aerosonde with Orbital 4hp Heavy Fuel engine - 11th Jan 2012



<http://www.flightglobal.com/news/articles/textron-unveils-modified-aerosonde-366607/>

Orbital to supply FlexDI™ engines to AAI

<http://www.orbitalcorp.com.au/industrial-document/031/orbital-to-supply-flexdi-engines-to-aaai.html> - 24th May 2012

Orbital is pleased to announce that it has been contracted to supply heavy fuel engines for use in AAI Unmanned Aircraft Systems' (AAI) Aerosonde® Small Unmanned Aircraft System (SUAS)...

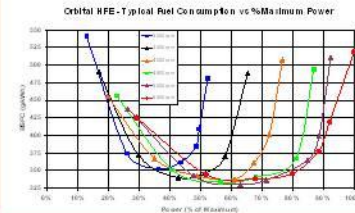
FlexDI™ 2-Stroke UAV Engine Typical Data

Configuration	Single cylinder	2-cylinder Boxer
Cooling system	Air	Air
Power range (kW) [hp]	1.8 – 3.7 [2.4 – 5.0]	3.3 – 23 [4.4 – 30]
Capacity range (cc)	35 – 85	70 – 500
Specific performance* (kW/kg) [hp/lb]	0.62 – 0.92 [0.38 – 0.56]	0.60 – 1.61 [0.37 – 0.98]
Specific fuel consumption at cruise (g/kWh) [lb/hp.hr]	330 – 310 [0.54 – 0.51]	340 – 300 [0.56 – 0.49]
Durability TBO (hrs)	250 – 500	300 – 500

* Weight calculations based on dry weight including complete engine assembly, fuel system, intake system, ignition system, on-engine lubrication system, ECU, engine electrical harness. Does not include exhaust system or generator.



FlexDI™ has Superior Fuel Consumption



3 to 250+hp
Heavy Fuel Engines

Orbital: Innovative Heavy Fuel Engines

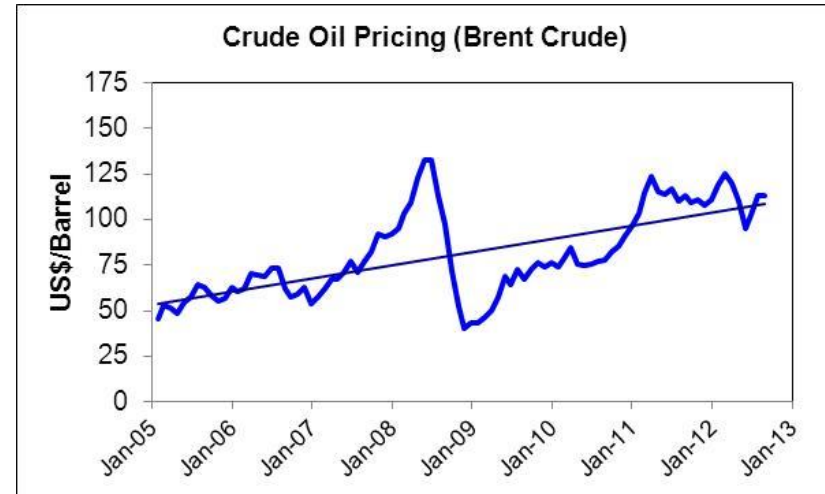
USA: Bob Schmidt
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PH: +1 810 441-1457

Australia: Geoff Cathcart
gcathcart@orbitalcorp.com.au
PH: +61 89441-2400

LPG

Liquid LPG Systems

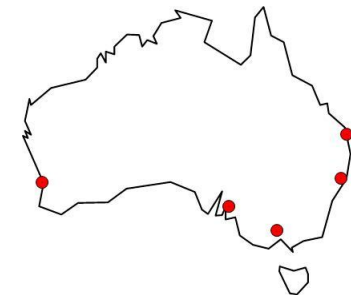
- Suppliers of Liquid LPG systems to Ford Australia and aftermarket kits for popular vehicle models
- Successful Ford EcoLPi production release - Winner of “Best Large Car under \$60,000” award
- Performance greater than the regular petrol Falcon



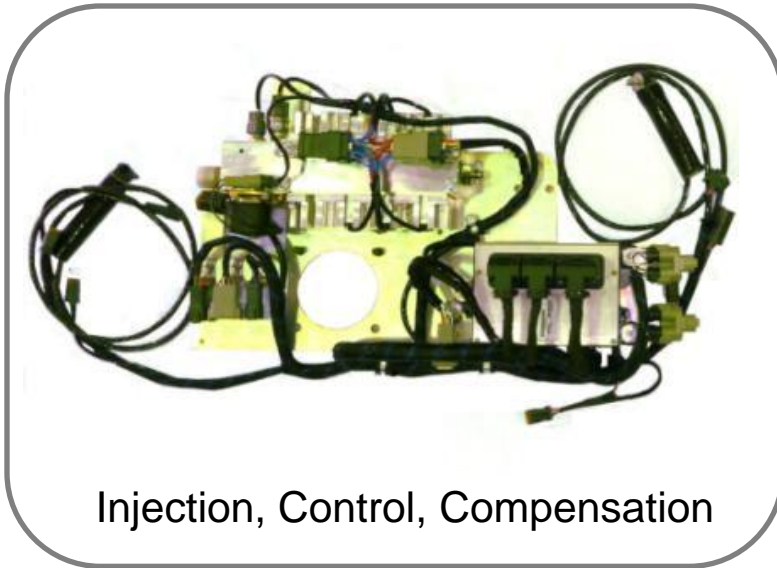
Source: <http://tonto.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RBRTE&f=M>

Distribution Business

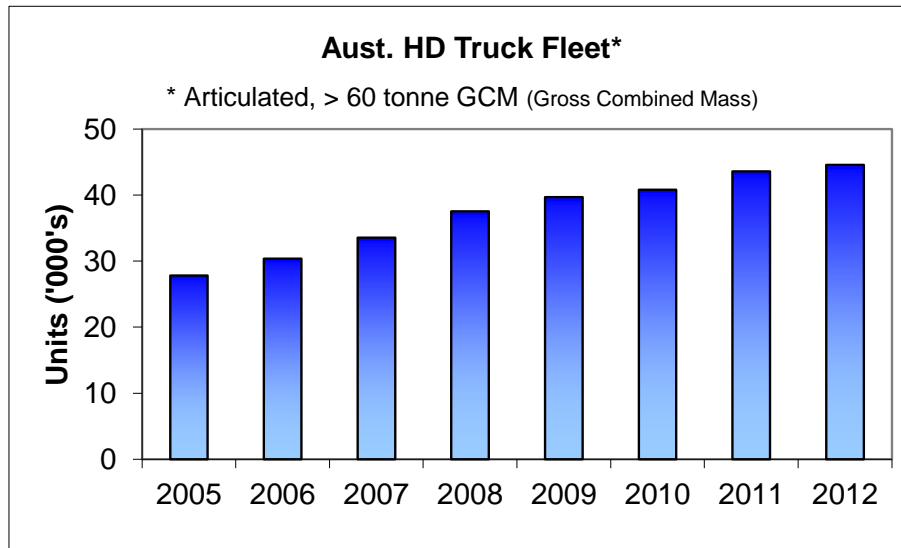
- Nationwide distribution (Sprint Gas Australia)
- Complete range of LPG systems
- Adding new product ranges



LNG – Fleet Test Program



- LNG – Diesel Substitution
- Accumulated over 2 million km
- Application on Double B and triple trailer 150 tonne road trains
- Up to 80% substitution rate (by energy)
- Meeting performance requirements
- LNG is 30 to 40% lower cost than diesel

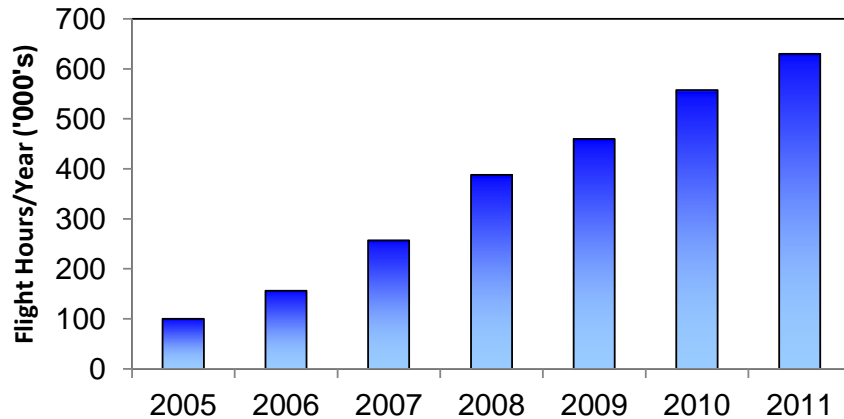


Source: ABS 9309.0

Orbital Markets

UAS Flight Hours (USA)*

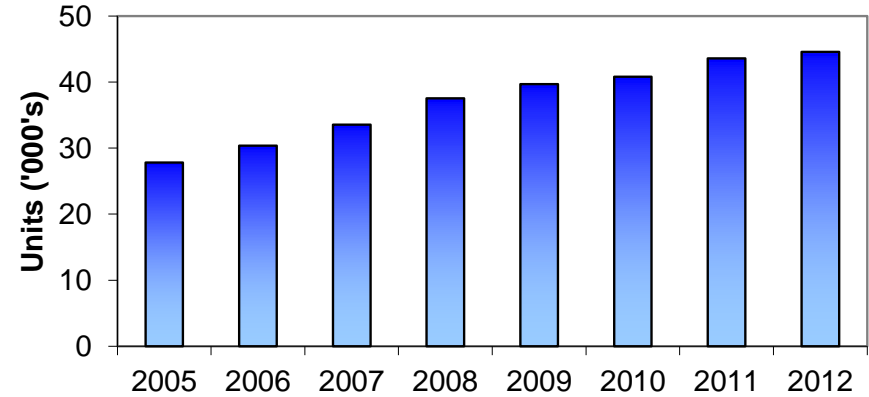
* Q4 2011 estimate



Source: <http://www.defenseinnovationmarketplace.mil/resources/UnmannedSystemsIntegratedRoadmapFY2011.pdf>

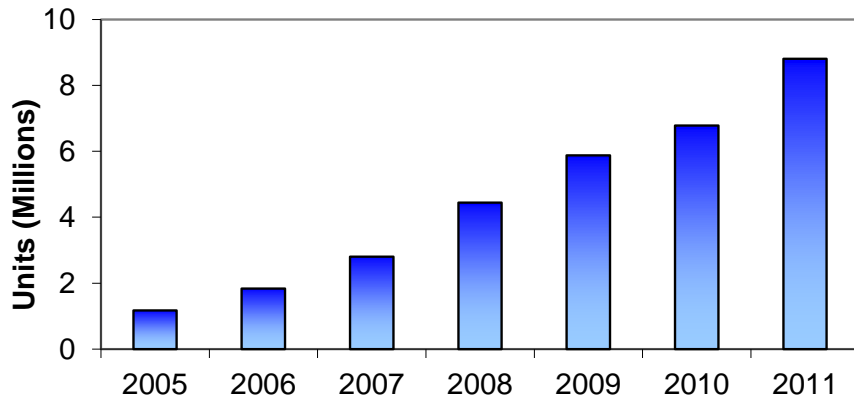
Aust. HD Truck Fleet*

* Articulated, > 60 tonne GCM (Gross Combined Mass)



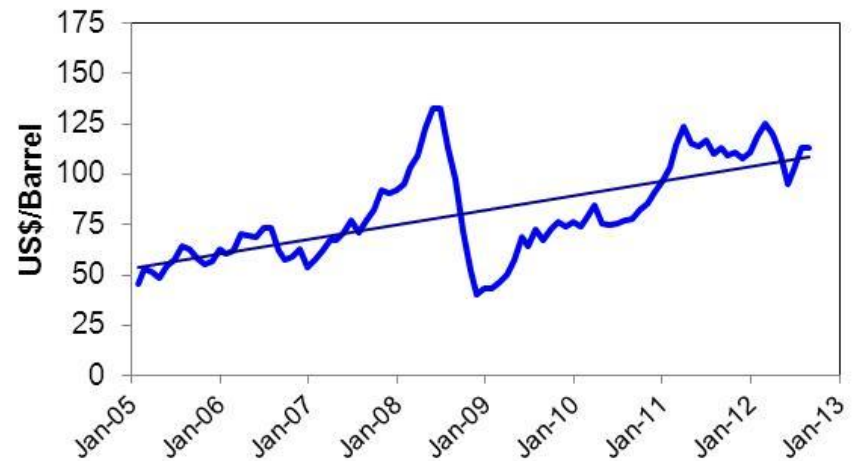
Source: ABS 9309.0

Asia-Pacific NG Car Fleet



Source: IANIGV

Crude Oil Pricing (Brent Crude)

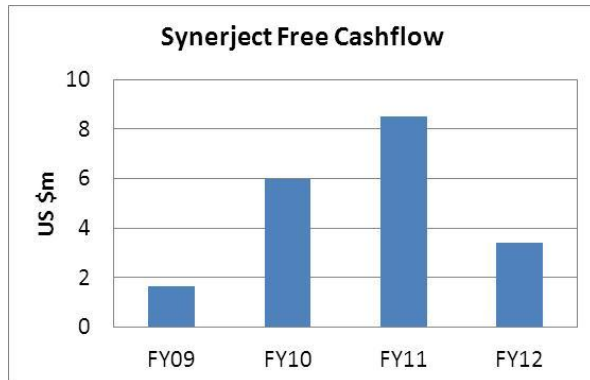
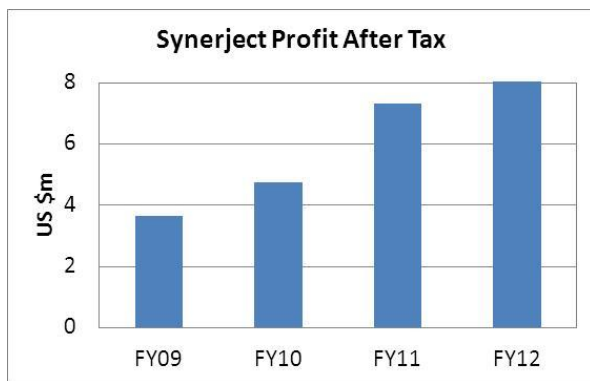
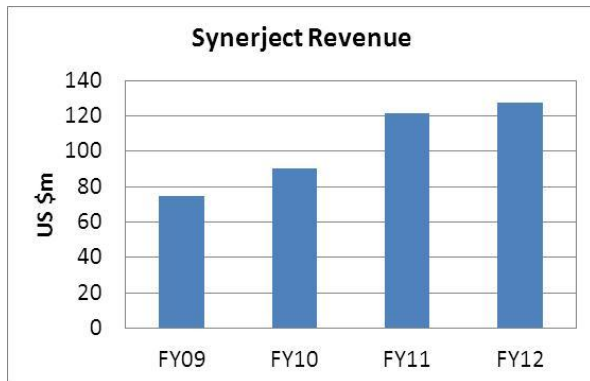


Source: <http://tonto.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=RBRT&f=M>

Orbital and Synerject – Customer Range



Business Sector Summary - 1

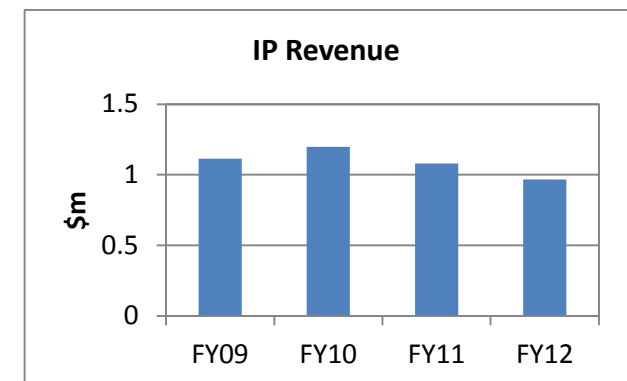
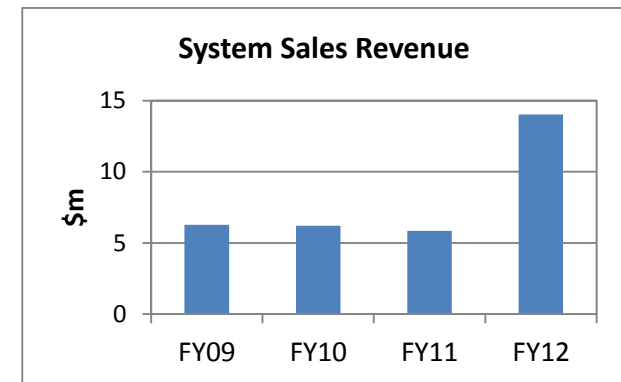
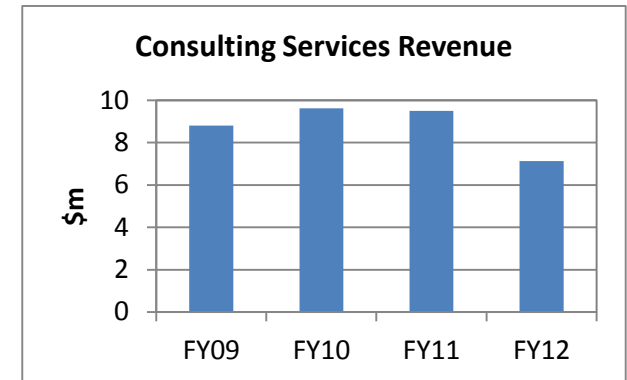


- Synerject
 - 5% sales growth in FY12
 - Approximately 15% compound average growth over the last 4 years
 - Improved efficiencies
 - Improved EBIT margins
 - 10% increase in NPAT
 - Positive cashflow

SYNERJECT

Business Sector Summary - 2

- Consulting Services
 - High Australian Dollar, and global financial situation
 - Geographic
- Orbital Autogas and Sprint Gas Australia
 - Both contributing in a very tough LPG market
 - Increasing market share
 - Controlling Costs
- Licensing and Royalty
 - Marine market steady, high Australian Dollar
 - Patents applied for in new product areas



Future Products - Samples



ORBITAL Tyre Pressure Monitoring System

Tyre costs impacting your business?



Tyre Pressure Monitoring for Low-Loader and Multi-Combination Vehicles

The benefits of Tyre Pressure Monitoring have been well known in the automotive industry for many years. These same benefits are now available to operators of vehicles with a large number of tyres such as low-loader and multi-combination vehicle configurations.

With capability of monitoring up to 180 tyres per vehicle, the Orbital Tyre Pressure Monitoring System provides a powerful yet very simple to use tool to reduce your tyre costs and increase your fleet's productivity.



- Clear Display
 - Real Time Pressure & Temperature
- Intuitive Touch Screen
- Continuous Data Recording
- Audible and Visual Alarms
 - Low / High Pressure
 - High Temperature



Benefits of Correct Tyre Pressures

- Maximise fuel efficiency
- Maximise tyre life
- Minimise risk of tyre related incidents
- Reduced equipment downtime
- Reduced emissions
- Increased vehicle productivity

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ORBITAL Fuel Quality Assurance Services

Why is having clean fuel supply important?

For your engine to operate at its optimum performance and reliability, particulate and water contamination must be controlled to acceptable limits. Equipment fuel systems are not designed to remove high levels of contamination. To ensure clean fuel is delivered to the engine, fuel cleanliness should be controlled and monitored throughout the supply chain. Cleanliness must be managed from delivery, through storage, to the dispensing bowser.



Delivery → **Storage** → **Supply**

What is Acceptable Fuel Cleanliness?

Diesel fuel cleanliness is defined by the number and size of particles in the fuel. The international standard, ISO 4406 uses a code system to quantify contamination levels by particle size in micrometres (μm) – the higher the numbers, the higher the contamination.

As engine fuel injection technology progresses, so does the requirement for cleaner fuel. Fuel would be considered dirty at ISO 22/20/17 or higher.

For electronically controlled unit injectors (EUIs), the equipment OEMs typically require a cleanliness level of ISO 18/16/13.

New high pressure common rail (HPCR) engines require significantly improved diesel fuel cleanliness, 30 times cleaner than the acceptable limit for EUIs. HPCR systems require diesel fuel cleanliness as low as ISO 12/9/6.



ISO 22/20/17 ISO 18/16/13 ISO 12/9/6

*Images of particulates at 100x magnification supplied courtesy of the Fuel Corporation.

Benefits of Clean Fuel

- Improved diesel engine performance
- Increased fuel efficiency
- Reduced engine maintenance cost
- Reduced equipment downtime
- Reduced emissions
- Increased vehicle productivity

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2012 - Positives and Negatives

- Positives

- Transition strategy from IP to system sales business
- System sales revenue increased 140% to \$14m
- Synerject JV continues to grow and is profitable
- New business streams - UAS engine/EMS products

- Negatives

- Consulting Engineering losses
- LPG market contraction
- Slow progress entering Resource Sector
- Changan Automotive – on hold
- Asia motorcycle - continued emission legislation delays

Outlook

- Revenue Growth

- Potential new revenue streams in FY13 and beyond
 - UAS Market – new markets / new customers
 - Asia Natural Gas Systems opportunities
- Existing revenue streams
 - Liquid LPG systems
 - UAS AAI
 - Sprint Gas - LPG/CNG distribution businesses



- Financial

- Targeting Profit in FY13
 - Continue to manage costs across group
 - R&D carefully targeted at highest potential revenue streams
- Funding
 - Options: Raise, Borrow, Sell Assets





Formal Business

Item 2 – Financial Reports

- *To receive and consider the financial statements for the year ending 30 June 2012 together with the directors' report and the auditor's report.*

Item 3 – Remuneration Report

- *That the Remuneration Report for the year ended 30 June 2012 be adopted by the Company.*

Item 4 – Re-election of Director

- *That Mr W P Day who retires by rotation in accordance with article 9.3 of the Company's constitution and, being eligible, offers himself for re-election, be elected as a Director of the Company.*

Item 5 – Executive Long Term Share Plan

- *That approval is given for all purposes under the ASX Listing Rules (including so as to qualify as an exception to ASX Listing Rule 7.1) for the issue of fully paid ordinary shares in the Company under the Company's Executive Long Term Share Plan.*

Item 6 – Long Term Share Plan – T. Stinson

- *That approval is given for all purposes (including ASX Listing Rule 10.14 and exception 9 to ASX Listing Rule 7.2) for the issue of up to 1,100,000 fully paid ordinary shares in the Company, directly or indirectly, to Mr T D Stinson under the Company's Executive Long Term Share Plan.*

Item 7 – Approval of 10% Placement Facility

- *That, pursuant to and in accordance with Listing Rule 7.1A and for all other purposes, shareholders approve the issue of equity securities up to 10% of the issued capital of the Company (at the time of the issue) calculated in accordance with the formula prescribed in ASX Listing Rule 7.1.4.2 and on the terms and conditions in the Explanatory Notes.*



Questions



Poll



Thank you