



CONFIDENTIAL OPPORTUNITY NOTE

Name	G-Volution Ltd	Web Site	www.g-volution.com
Sector	Technology and Transportation	Founded	1 st May 2007
Stage	Sales, 2 nd round investment \$1.25M sought	Location	Registered: London, Company Office - Wales

<p>Summary</p>	<p>G-Volution Ltd delivers multi-fuel technology through an intelligent, patented, electronic control system. It is a private company owned by its founders and in 36 months of partnership with Cranfield University, G-volution has developed the “Optimiser”. The Optimiser is an intelligent electronic control system which works alongside the existing engine management Electronic Control Unit (ECU) enabling it to use two (or more) fuel sources at the same time: a primary fuel, currently diesel and one or more alternative fuels, currently LPG, without loss of power.</p> <p>Ongoing R&D includes Bio-ethanol, Hydrogen and LNG. The target market for phase one is the HGV industry, and G-volution has many large customers using or trialing this technology. G-volution is in talks with 2 OEMs. Future iterations will include trains, ships, industry (set gens) and, in due course, OEM install.</p> <p>G-Volution Ltd can reach 100% of its market (10% of the HGV industry) now but has a conservative growth plan with \$6M turnover forecast in year 3 generating profit before tax of \$2.0m. The business is forecast to be cash generative by the end of year 2 whilst still being able to invest in R&D work. The funding being sought is \$1.25M to be invested over year 1.</p>	
<p>Product</p>	<ol style="list-style-type: none"> 1. The Optimiser actively monitors in real time how much power (combustion) is being demanded by the driver; then it intercepts the diesel injector signal and trims it accordingly. 2. This process actively controls direct, sequential, multi point fuel injection, by combining a precise mix of alternative and primary fuel to produce a more efficient, cleaner burn. 3. This cleaner burn maximises the combustion within the cylinder and reduces the consumption of primary fuel whilst never over-powering the engine (which is often the result with alternative fuel-mixing systems). 4. The “Optimiser” enables the customer to measure the cost-saving from using dual fuels. The on board computer maps the fuel characteristic across the power range allowing the customer to optimise dual fuelling and map characteristics of the vehicles performance across any journey. 5. Significantly the technology behind G-volution means it can also handle multiple fuel maps for different duty cycles. 6. Its wiring loom and harness are easily installed with the minimum of intervention. <div data-bbox="1003 1402 1469 1753" style="text-align: right;"> <p><small>G-Volution 'Dual-Fuel' System</small></p> </div>	
<p>Customers</p>	<p>G-volution is focusing its sales operation on MAN trucks equipped with the D20 engine, considered to be one of the most complex engine management systems in the industry. And DAF MX engines. Targeting large, small and medium fleet operators who understand the commercial benefits of this new technology. A significant number of</p>	

	such customers have been identified and have bought, trialed or proved the Optimiser in commercial use.
Management Team	<p>Chris Smith (<i>MD</i>) - has a track record of managing growing and successful businesses; the core team combines a wealth of technical and business skills with market experience, supported by key supplier partnerships with world-renowned companies and institutions.</p> <p>Simon Pickess, (<i>Commercial and Sales Director</i>) - has extensive experience of sales, operations and financial management with a proven track record of business development and operations within the automotive and leasing sectors within the UK</p> <p>Stephen Kimbell, Chairman, Greenspires, a solicitor with experience of investment in the green tech sector, as well as an HGV licence himself</p> <p>Gary Mullaney (Non Exec Director) The Group Managing Director and principle share holder of Aquila Truck Centres Limited a multi million pound business. He has over the last ten years built extensive working relationship with the key operators and Original Equipment Manufacturers. He is well positioned to influence the sales operation.</p>
Market Need	<p>The vulnerability of the haulage industry to fuel price escalation and the increasing difficulty of passing these costs further up the supply chain is well documented (25% increase 2011 alone). G-Volution estimates that fuel bills in the Road Haulage industry account for 35% to 40% of total costs making any proven control system that can deliver constant cost savings of 10-15% a powerful USP.</p> <p>Transport contributes 20% of carbon emissions and G-Volutions's technology has the potential to significantly reduce these emissions by 8-10% as well as reducing other harmful emissions (such as PM) which is timely given the strong environmental legacy for delivering sustainable energy, Euro 5 and 6 emissions standards, and beyond.</p> <p>Given the life cycle of the engine and access to replacement units the ability to install the Optimiser both as a retro fit and at the OEM stage, will give an operator immediate and sustainable competitive advantage.</p>
Technology with International Patent GB:2372835 GB: 0703897.9 PA: 109319GB	<ol style="list-style-type: none"> 1) Uniquely It controls two or more fuels, 2) it intercepts the diesel injector signal and trims it accordingly. 3) it actively controls the alternative, multi point sequential, fuel injection. 4) It can accurately map across the entire power range allowing the customer to optimise dual fuelling in real time – delivering enhanced performance across the power range. 5) It can handle multiple fuel maps for different duty cycles. <p>Critically in terms of product development and new markets, it can be developed at a low cost to operate with all Bosch EDC7 engine control units (ECUs), and can also be characterised for other OEM ECUs [i.e. DAF, Delphi].</p>
Competition	<p>The Optimiser is classified as an Integrated Fuel Systems (IFS) offering between 10 to 15% net fuel savings. Other solutions manage the fuel (additives, magnets – (0 to 5%) the efficiency of the engine (oil and recirculation (2 – 5%)) or the exhaust (0 to 5%). The Optimiser is compatible with all this technology, and can implement emissions enhancing technology which is being worked on.</p> <p>In the IFS category the key players are: GSPK Multi Fuel, Green Fuel Systems International (GFSI), Clean Air Power Ltd, Hardstaff Group (OIGI Technologies). None of these offer a genuine multi fuel solution or the integrated technology of the Optimiser – G-volution is focused on 10-15% net fuel savings and developing the multi fuel alternatives (with fuel companies, and OEMs).</p>
Market Strategy	<p>Year One: to deliver a credible pipeline of key strategic customers. 20 large customers customers have been selected whom G-volution has identified as being strategically interested and appropriate.</p> <p>A rental company (or lease provider) who understands the payback advantage of G-volution both in terms of lease</p>

	<p>life and residual value in the second hand fleet market.</p> <p>OEM trials in at least one OEM, to deliver a retro fit solution on the OEM price list, address warranty and R&M issues through testing at OEM HQ</p> <p>Year Two: sales generated through partnership with OEM, and key HGV dealerships. This channel changes the emphasis from direct selling to the end-user to a network sale via key strategic partners.</p>			
Revenue Model	<p>Direct Purchase: £9,000 per unit. Pay back based on 80,000 miles a year at 10-15% fuel cost savings will be 15 months, there after all fuel cost savings will have a direct impact on the client's operating costs.</p> <p>Fuel Saved Shared or rental: no upfront fee, cost of Optimiser to G-volution (installed on client vehicle) = £5,000. Actual fuel cost savings shared 50:50 on the basis of telemetric information for minimum 5 year contract. Invoiced 1-3 months in advanced on anticipated savings, balance adjustment in arrears for life time of contract. G-volution payback on 80,000miles @ 10-15% savings will be in 15 months. Total basic income over a 5 year lease will be £16,875pm. Rental = £250pcm over 3-5 year period</p>			
Status	<p>Experienced and committed management team. In service with 10 key partners with 30+ units fitted. OEM negotiations for trials (Euro 5) aim to be completed by end 2011. Pipe line of 20 targeted companies established. Easy access to LPG – bunkering and national network</p>			
Financial Projections	Financial Year	2011	2012	2013
	Number of units	24 sold, 36 rented	218 sold, 258 leased	465 sold, 1158 leased
	Revenue (£k)	\$400,000	\$3,750,000	\$8,500,000
	Profits before tax (£k)	\$(250)k	\$400,000	\$2,800,000
Funding	<p>Since 2006: \$2M From Finance Wales (Investment Fund), angels and founders, additional funding from Government grants [DTI] Carbon Trust Incubation (Fast-track) and Shell Springboard Award.</p> <p>Funds required: \$1.25M to fund operating & sales costs, rental for optimizers and R&D costs to develop mapping additional engine types in UK/EU for OEM durability and emissions testing. This includes contingency.</p> <p>R&D to develop system to OEM standard, and to research combustion of other fuels mixes: LNG, Hydrogen, Bio-ethanol</p>			