A Strong Global Heavy Duty Position 122 52 14 14 Estimated production heavy duty vehicles 2007 1,000 units A.1 Global Market Daimler W Sta • Volvo • Renault • Nissan Diesel ~1,478,000 Total sales (2007) Volvo 44 18 Tata Mack 17 £30,000 - £70,000 per vehicle • DAF Paccar Kenworth 38 Peterbilt 22 CNHTC ~£75 billion per year existing FAW 50 57 56 35 28 30 30 24 21 China India USA DongFeng plus new EV market opportunities MAN Japan Russi Kamaz Chongqing Maz Isuzu Scania China lveco 80 100 120 140 160 180 200 220 Increasing cooperation amongst the most important commercial vehicle manufacturers Participation Cooperation

Volvo Trucks Renault Mack Volvo Trucks Volvo

>>IAA

urce: Company data, Global Insight, VDA statistic

### A.2 Entrenchment

As with the \$180 million 'Super Truck' project in the US, technologies that offer potential for profit for the OEMs as well as some emissions reductions will be favoured above those that merely offer benefits to the environment, society or to the operator even if these are of greater benefit.





### A.3 Emissions forecast

The challenge to cut CO<sub>2</sub> emissions further is massive and the opportunities using the existing vehicle platforms are now very limited.

Verband der Automobilindustrie

4

VDA

#### **Road safety**

Killed or seriously

Year	2003	2004	2005	2006	2007
Pedestrians	7,933	7,478	7,129	7,051	6,924
Pedal cyclists	2,411	2,308	2,360	2,442	2,564
Motorcycles (users and passengers)	7,652	6,648	6,508	6,484	6,737
Car users	17,291	16,144	14,617	14,254	12,967
Bus/coach users	500	488	363	426	455
Other road users	1,428	1,285	1,178	1,188	1,073
All road users	37,215	34,351	32,155	31,845	30,720

-30% -20% -159 -10% -5% +5% 0% Percentage change killed or seriously injured 2003 - 2007 12.10 Pedal cyclists Car user Bus/coach users Other road All road users

# www.smmt.co.uk

# A.4 GB Road Casualties

On today's roads the more we promote cycling the more injuries and deaths are caused to cyclists - difficult issues to address.

Source: DfT Road Casualties Great Britain 2007



## A.5 Routemaster 2020

New concept shows how the manoeuvrability of a steered rear bogie can maintain a safe route for cyclists.



A standard swapbody ready to be picked up.



+10%



Wincanton Group Ltd Middle Bank House Middle Bank Doncaster South Yorkshire DN4 5PF

Tel: Mob:

14 April 2011

Dear Mr Henderson,

Thank you taking the time to present the results of your safety coupling research. I was impressed by the range of benefits beyond the stability enhancements the coupling offered. Containers are typically loaded unevenly and with heavy containers this must inevitably compromise the stability of the carrier vehicle. I am confident that your safety coupling will mitigate this uncertainty and so help reduce the number of rollover accidents on the roads.

As an operator of many such vehicles Wincanton fully supports your efforts in now bring your safety coupling to market, and I hope you are successful in building this into your concept vehicle project proposal. We look forward with interest in the outcome of the project and hopefully working with you more closely in the future.

If you need any advice or assistance please let me know.

Yours sincerely,

Dave Rowlands Technical Services Director Wincanton Group Ltd.

Registered Office: Wincanton Group Limited Methuen Park, Chippenham, Wiltshire, SN14 0WT Registered No.441712.

## **Plug-in en-route (PiER) – novel electric transporter vehicle** Silvertip Design 11602-73142

-----Original Message-----From: Garth Braithwaite [mailto:Garth.Braithwaite@morrisonsplc.co.uk] Sent: 19 April 2011 17:30 To: 'carl.henderson@silvertipdesign.com' Subject: Re: Silvertip - letter of support

Carl,

I asked for the office to forward but obviously not happened yet (draft below).

Silvertip Design Oaklea Scurragh Lane, Skeeby, Richmond North Yorkshire. DL10 5EG

Dear Mr Henderson,

We are extremely pleased with the results of past collaborations with Silvertip Design. We have together learnt a lot about how best to improve vehicle efficiencies and so cut emissions during our joint partition in tests at the yearly BTAC events. Your latest venture has many exciting possibilities in dealing with our next challenges - how we could viably utilise long-haul hybrids and, in particular, the possibility of a unique electric urban-delivery vehicle. For years A-B logistics have been refined and optimised but now a new model is emerging, what we call C-store logistics, which truly requires a dramatic rethink of vehicle design. We continue to support your ongoing efforts to change EU vehicle length legislation, a process which appears to be coming to fruition, and now add our support to your research into the viability of this new configuration.

We wish you well in writing your proposal and look forward to contributing to the more detailed discussions on what we would require from such a vehicle should your proposal be successful.

Best of Luck.

Yours sincerely,

Regards Garth

Garth Braithwaite. Engineering/Services Controller WM Morrison Supermarkets PLC Tel , 01536 421160 Fax, 01536 421154

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