

INFINEUM TRENDS *Edited by Rod Parker*

This article is a synopsis of the trends and implications for the European lubricants industry, highlighted at the latest Infineum Trends showpiece events held earlier this year around Europe. The Infineum Trends presentation covered the impact of legislation driven changes/developments on motor manufacturers, and the fuels/lubricant arena. For those who were not present at Infineum's bi-annual event, there is much to take in. Infineum highlighted a considerable number of potential industry developments; many just over the horizon and most will have significant implications for lubricant sales in our sector. Those readers, who also attended, may find this 'hard copy' article a useful reference in addition to their copy of the CD-ROM presentations.

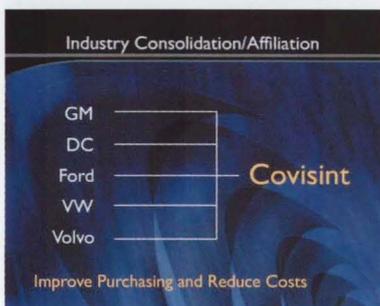
INDUSTRY GLOBAL OVERVIEW

MOTOR MANUFACTURERS CONSOLIDATION.

Today four vehicle manufacturers dominate world vehicle production. **General Motors'** interests comprise the following companies: Chevrolet, Buick, GMC, Oldsmobile, Pontiac, Saab, Cadillac, Allison Transmission, Opel, Vauxhall, GM Locomotive Group, Fiat, Fuji Heavy Industries, Isuzu and Nummi. **Daimler Chrysler** has the brands of the historic Chrysler Group as well as Mercedes, Smart, Freightliner, and Detroit Diesel, but part ownership investment in both Mitsubishi and Hyundai. **Ford** now owns the Jaguar, Aston Martin, Landrover and Volvo brands along with their historic international Brand names. **The Volkswagen Group** comprises Audi, SEAT, Skoda and even Rolls Royce until 2003, plus the upmarket Lamborghini brand.

In the heavy truck market **Volvo Heavy Truck** has acquired Renault (RV) and MACK trucks, siblings in their growing empire of heavy truck brands.

Whilst the above is certainly not by any means an all-inclusive list of automotive industry consolidations, it serves to illustrate the trend which has been ongoing for the past several years, with more consolidations and fewer but larger auto marketers. In addition to these formal consolidations auto marketers are also forming other business arrangements to help reduce costs. One of these business arrangements has been used by several major companies, General Motors, Daimler Chrysler, Ford, Volkswagen and Volvo who have joined together to form a B to B e-mail business named Covisint which has a specific goal of improving purchase and reducing costs.



OIL INDUSTRY CONSOLIDATION

On the oil company side, as many LUBE readers will know, numbers of companies have dropped over the last five years from 20 to 7. Cost effective regrouping is the name of the game. **The market oil-majors list now includes Exxon Mobil, Chevron Texaco, Shell/DEA/Pennzoil-Quaker State, BP, TFE, Repsol YPF and Conoco Phillips.**

ADDITIVE INDUSTRY CONSOLIDATION

Moving from oil companies to additive companies, we have seen a similar consolidation with 8 additive suppliers in 1990 reduced to just 4 in the year 2000. **Alphabetically, the additive companies are Ethyl, Infineum, Lubrizol and Chevron Oronite.** Unfortunately, as far as the additive industry is concerned all of these corporate consolidations have not produced the hoped for improvements in profitability from any of the industry participants.

Looking specifically at the returns in the additive industry they can see that both return on capital and return on sales have continued an unsustainable downward trend. The reasons for this situation are

complex, but at least one major portion of the problem is the cost of technology development for the additive industry. **Over the past 10 years the additive industry has spent upwards of 8-10% of its sales revenue on technology development. This is over twice the average technology investment of other specialty chemical businesses and roughly four times the spending rate of commodity chemical businesses.**

The additive industry claims it cannot continue at the current rate of technology spending with today's overly short life-cycles of each additive development, i.e. insufficient time between rollouts of new specifications and technology, to recoup the investment. As an industry, we must develop processes and working relationships to ensure timely delivery of new technology, but still allow additive companies to have sufficient return on their technology investments to allow them to continue investment in their business, thus delivering true value to the end-users.

Stakeholder Implications

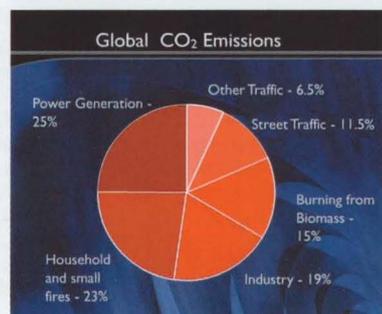
- Improved processes and working relationships required to meet stakeholder needs
- Timely delivery of new technology at acceptable costs
- Sufficient return on technology investments to support business
- Improved value for the end user

This is no surprise, as we all know. With the poor prognosis on the health of the industry as a whole, it is increasingly important to acknowledge that there are valid stakeholder needs, such as affordability, representation and active participation in the debating chamber. Concerns have been aired collectively and needs addressed in the same way.

THE ENVIRONMENT: EMISSIONS

Most people tend to take air quality for granted, until something goes wrong. One culprit among many is Ozone (O₃). Around 80 years ago, enterprising seaside resorts publicised their ozone rich air, as a source of health and well-being. Try promoting that view today in places like Los Angeles or Athens. A few decades on, opinions are completely opposite.

O₃ is generated on our streets when vehicle exhaust fumes, with their high content of Nitrogen Oxide (NO_x) react to strong light intensities. When the right conditions prevail other cities like London, Paris, Milan, Madrid and Hamburg also don't escape. Now the debate has moved strongly to the significant percentages of microscopic air borne particles, long associated with road vehicle exhaust. In the UK, the Institute of Lung Health at Leicester University has also reported that ultra-fine vehicle particulates can enter the lungs of young children. Other researchers are also investigating the problem, but despite our increasing awareness of emission control it is clear there is no easier solution to combating emissions. Maintaining air quality is going to tax the concerted brains of government, scientists and engineers for a long time to come.



Over the last 20 years or so, emissions regulations in Europe and the US have got CO, HC and NO_x emissions from petrol powered cars and trucks down by over 95%. Similar reductions are on record for particulates and nitrogen compounds produced by diesel vehicles, although emissions of ultra fine particulates remain a very real concern. In the European Union research is under way to determine whether current particle limits needs revising to take into account particle surface area. It is widely expected that future emission