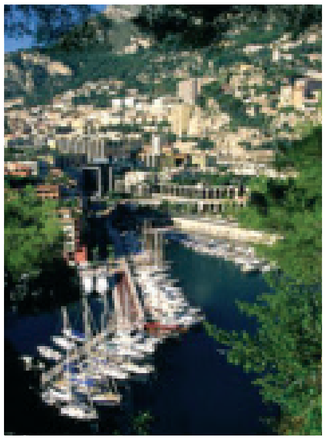
European Petrochemical Association

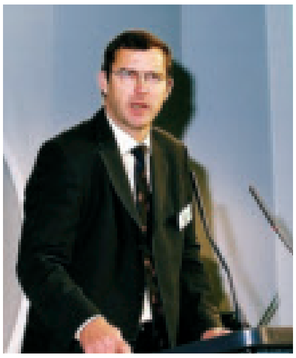
EPCA Report

Report on 30th Logistics Meeting



Monaco 25-29 October 2003

Introduction



The EPCA's 30th Logistics Meeting was held at the Monte Carlo Grand Hotel in Monaco on 25-29 October, 2003. Delegates were welcomed by the new EPCA Logistics Committee Chairman, **Denis Tual** of **Atofina**, his predecessor, Niels von Hombracht, having had to step down due to a career change.

Denis Tual pointed out that the **celebration of the 30th anniversary** of the EPCA Logistics Meeting provided an opportunity to consider the remarkable achievements of both this event and EPCA itself in the field of logistics over the past three decades. Not only is the Logistics Meeting the oldest event of its type and still a key gathering, it is also growing, as evidenced by the official attendance of 420 delegates. More importantly, it provides a key forum where chemical producers and their logistics service providers (LSPs) can meet to discuss topical issues of common concern to mutual benefit.

The chairman then passed proceedings over to the very capable hands of **Michael Buerk**, the well-known BBC TV news anchorman and good friend of EPCA, now in his 10th year of moderating the Association's Annual and Logistics Meetings. Michael Buerk promised that the 30th Logistics Meeting, like previous events in the series, would provide delegates with much food for thought. Focusing on the theme of chemical logistics as a driver for change, the meeting - by means of two keynote presentations, two panel sessions and two workshops - would inform delegates of the latest industry initiatives in this field and how they are impacting chemical producers and their LSPs.

A producer's view of the future

The first speaker was **Dr Werner Prätorius**, President of the Petrochemical Division at **BASF AG**, who provided a sobering insight into the future challenges facing European chemical producers, and hence also their LSPs, in his keynote presentation "The Chemical Business in Europe 15 Years From Now".

Despite the great successes achieved, and the leading positions still held, by the chemical industries in the US and Europe, the global chemical market is in a state of flux and European producers, in particular, are ill-placed and ill-prepared for the major changes now taking place. Although member states of the European Union were responsible for 28 per cent of global chemical production in 2001, that share has been falling steadily from the 32 per cent share held in 1990. During that period, the Asian contribution to world chemical production has increased from 12 to 18 per cent.

These trends will accelerate in the years ahead as Asia's rapid development into a powerhouse of chemical production and consumption proceeds. In contrast, the EU share of global output will continue to shrink for several reasons, including the slowing internal demand due to low economic growth in the region; the burden of over-regulation; and declining global competitiveness due to European cost structures.

Despite some consolidation in recent years, the European chemical industry is still very fragmented, while its production facilities are not as efficient as the new worldscale plants being built in the Middle East and Asia and its feedstock prices are relatively high. From a logistics point of view, European production centres are effectively isolated islands with poor connectivity between locations and only limited buffer capacity to cope with short-term supply/demand fluctuations.

Middle East and ethylene

The Middle East is another chemical-producing region of growing influence, as Gulf nations seek to add value to their valuable oil and natural gas resources. Although the Middle East only accounted for 2 per cent of global chemical manufacture in 2001, said Dr Prätorius, it is

rapidly becoming a strong force in petrochemicals. Ethylene production capacity in the Gulf is forecast to grow at a rate of 10.1 per cent per annum over the next 12 years, in contrast to figures of 4.2 per cent for Asia, 1.2 per cent for Europe and 0.5 per cent for North America. By 2015 the Middle East ethylene production capacity, at 33 million tonnes per annum (mta), will have overtaken that of Europe (28 mta) and closed in on the North American figure of 38 mta. By that time Asia will be a clear leader in ethylene production potential, with plant in place capable of supplying 47 mta.

With a limited local market, the majority of the Middle East's expanding production volumes will be exported. Asia - "the infinite sponge" - will continue to be the primary import market for the next decade as the region will not be self-sufficient in chemical production for the foreseeable future, despite the new plants being constructed in China and elsewhere in Asia. Europe will be the next biggest purchaser of Middle East exports, followed by the US.

Time for European action

While the growing volumes of Middle East petrochemical exports will benefit those LSPs providing intercontinental services, those serving only the intra-Europe trade face a much less buoyant future due to the uncompetitive position of the European chemical industry and its less-than-promising prospects. "European chemical producers need to stop talking about possible solutions to the problem, and start acting," said Dr Werner Prätorius. "We need to scrap old plant and replace it with new, more efficient production facilities. Furthermore, we need to take this action on a pan-European, cooperative basis to ensure that supply and demand is kept in balance and that the new facilities are optimally located from a logistics point of view.

"This means shared investments; innovations in technology, applications and business models; supportive legislation; and proactive, coordinated restructuring in which optimised logistics is given top priority," continued Werner Prätorius. "Supply chain costs will become a decisive factor in the future success of the our industry in Europe and LSPs have a key role to play in securing our future. Another essential ingredient in this revitalised European chemical scenario of 2015 is the need to have the public on our side. We have to continue to work to ensure that the man and woman in the street perceive chemicals as beneficial and essential to our modern lifestyles."

PANEL DISCUSSION

BUSINESS CHANGE AND THE CHALLENGES FOR LOGISTICS

Following his presentation, Dr Prätorius was joined at the top table by four other speakers for a panel discussion on "Business Change and the Challenges for Logistics". The participants were as follows:

Moderator:

- Michael Buerk, BBC TV

Panellists:

- Philip Browitt, **Agility Logistics**
- Dr Werner Prätorius, **BASF AG**
- Thomas Hoyer, **Hoyer GmbH**
- Dr Stefan Tostmann, **European Commission, Transport & Energy Directorate (DG TREN)**
- Kent Dolby, **Elemica**

To get the ball rolling, **Philip Browitt**, in his position statement, confirmed that there are still plenty of opportunities for making improvements to Europe's supply chain management practices and that making use of these opportunities offers the best hope of meeting the challenges facing Europe. The supply chain improvements to be sought include increased collaboration amongst producers, LSPs and customers; improved global integration; greater levels of transparency; and the utilisation of modern IT systems.

Thomas Hoyer told delegates that there is a basic contradiction in industry attitudes to LSPs. On the one hand, enlightened producers regard them as partners and key to solving the problem of inefficient supply chain management while, on the other, many producers still see LSPs as being at the tail-end of the supply chain, there only to effect the delivery of chemicals at the most competitive price. "It is still the case that very few producers get the best out of their supply chains," stated Mr Hoyer. He also pointed out that while the number of LSPs serving Europe may have come down from 365 about 15 years ago to 200 today, the sector is still too fragmented and needs to be further consolidated.

Dr Werner Prätorius agreed, saying that there needs to be more standardisation and harmonisation amongst the ranks of chemical industry LSPs to make them as efficient as the LSPs serving the automotive and retail sectors. The BASF Petrochemicals Division president also admitted that there is room for improvement in the attitude of Europe's chemical producers towards their LSPs. It stems, in part, from the past when manufacturing costs were relatively high and distribution costs were low. Now, supply chain costs are a major item on the balance sheet and there needs to be closer cooperation between producers and LSPs to manage logistics more efficiently.

Dr Stefan Tostmann told delegates not to be too gloomy when considering the role of the European Union. Rulemakers in Brussels realise that chemical producers must maintain a manufacturing base in Europe; that infrastructure must serve industry and be the recipient of much more investment; and that strong competitive pressures can help bring about change. Industry must participate fully in the rulemaking process, including at a national level where social policies are decided, in order to ensure that any changes bring maximum benefit. The process of change for the better would be assisted, said the DG TREN representative, if chemical producers managed the demand for logistics services more wisely and provided their LSPs with a vision of exactly what is needed from them.

Kent Dolby pointed out that one of the major challenges is the need to integrate information systems. Too many companies have effectively become isolated fortresses because they believe their IT system is best and they are not willing to work towards connectivity with other industry participants. Individual companies need to take an holistic approach and due note of what others are doing. A good example of learning from others is Proctor & Gamble, a company which has brought new logistics solutions into play as a result of analysing the practices of some of their outlet customers such as Wal-Mart.

All the panellists agreed that the European chemical industry and its market possess unique strengths and that the logistics solutions they identified will help Europe maintain its competitiveness. The challenge will be to work together to implement these solutions effectively.

WORKSHOP

CHEMICAL LOGISTICS DRIVERS THAT WILL IMPACT THE FUTURE

The first day of the 30th EPCA Logistics Meeting concluded with a workshop entitled "Chemical Logistics Drivers That Will Impact the Future". The participants were as follows:

Moderator:

- Michael Buerk, BBC TV

Panellists:

- Dr Hans-Jörg Bertschi, **Bertschi, AG**
- Joachim Prengel, **BASF**
- Jeffory Frayser, **Chemical Industry Data Exchange (CIDX)**
- Denis Tual, **Atofina**
- René Rostant, **Iver Ships**

Joachim Prengel led off the workshop with a description of separate brainstorming sessions held in December 2002 by the Logistics Committees of EPCA and the European Chemical Industries Council (CEFIC) to identify the key drivers that will shape chemical logistics over the next 10-15 years. This was followed by a collaborative session earlier this year in which both sets of ideas were collected and the drivers ranked according to impact and degree of consensus.

Six key drivers were identified. Three - **innovative business models, consolidation/collaboration** and **IT/technological innovation** - can be shaped by industry, i.e. chemical producers and their LSPs, itself. The other three - **legislation/taxation**, **infrastructure/congestion** and **safety/security/environment** - depend upon the action of legislators. For the latter it is incumbent upon industry to participate in the rulemaking process to ensure, as much as is possible, solutions compatible with the goals of industry supply chains.

"Against this background," said Joachim Prengel, "if Europe's chemical industry is to be competitive with producers in other parts of the world in future, it will have to continue to cut costs out of its supply chains and increase the level of service offered to its customers." He urged delegates not to forget one important detail -

logistics is not the only driver within a chemical production company. Logistics solutions have to be established with the cooperation of all the other departments within a chemical company as part of an overall business strategy.

Denis Tual said that this spirit of cooperation needed to be extended out beyond the chemical producer and LSP envelope to also encompass the **needs of the end customer**. The optimum solution may be one that includes helping customers upgrade their infrastructure to accommodate new product flows. **Hans-Jörg Bertschi** pointed out that committed **LSPs** have considerable experience and are in a position to suggest, encourage and **offer innovative supply chain management solutions to their chemical producer customers**.

Speaking on behalf of chemical tanker shipping companies, **René Rostant** explained that a number of the leading ship operators within his sector had invested heavily over the past decade in infrastructure, including storage terminals and fleets of tank containers as well as ships, in order to be able to offer full service packages on a partnership basis.

“Despite this, the share of turnover stemming from the door-to-door services offered by the major chemical tanker operators has never topped 6 per cent,” said Mr Rostant. “**There is a credibility gap between what chemical producers say they want and the relationships they are prepared to enter into**. Producers need to realise LSPs are a resource, not a cost. There is much to be gained from closer relationships.” **Hans-Jörg Bertschi** agreed with the observation but pointed out that, from the Bertschi AG experience, such deeper relationships take time to develop.

Representing the IT sector, **Jeffory Frayser** told delegates that the **integration of IT into its systems** offers the chemical industry a means of reducing costs, simplifying business, increasing product performance, enhancing service levels and boosting safety. IT also streamlines communications across external interfaces, such as those linking with LSPs. Global business and technology standards need to be established if the full potential of IT is to be realised.

In response, Joachim Prengel agreed that IT is an important and useful tool but it is not, in itself, the key to success. In general, IT is not well-liked due to its cost, the perceived complexities and the fact that people are still unsure whether it will yield the promised benefits. Denis Tual added that IT connectivity has still not reached a sufficient level to enable discernible benefits. The cause of transparency is not aided by the incompatibilities between the various IT systems in use, added Hans-Jörg Bertschi.

Looking at consolidation as a driver, all delegates agreed that the process has slowed to a trickle in the past two years. René Rostant said that the strong egos of the leading shipowners have not helped the consolidation process but, in any case, it is difficult for shipowners to plan ahead because chemical producers as a whole have not been clear in what they they require from their LSPs in the sea transport sector. Joachim Prengel conceded that in the past producers engendered an extremely competitive market by making cost the decisive factor when choosing an LSP. However, with margins pared to the bone, it is no longer possible to effect further savings in this way. Producers need to adopt a new mindset, said Joachim Prengel, and look at ways of cooperating with LSPs to make the supply chain more efficient.

Safety, health and environmental (SHE) legislation has always been a key driver in chemical logistics, and will remain so in the years ahead. **Joachim Prengel** told delegates that logistics costs in Europe were some 10 per cent ahead of those in the US, primarily due to the added complexity of safety legislation. It is incumbent upon industry not only to participate in the rulemaking process but also, wherever possible, to pre-empt the need for further legislation by implementation of its own good practices. The recent work by the European Chemical Transport Association (ECTA) on behaviour-based safety was highlighted as one of the latest in a long line of important transport safety-based initiatives taken by the European chemical logistics industry. **Dr Tostmann** said that some legislators are unaware of the chemical industry’s safety commitment and the good transport safety record that has been established. Industry must be proactive in carrying this message out to a wider audience which includes rulemakers and the general public.

In summing up their session, the workshop panellists acknowledged that identifying the outstanding chemical logistics problems and the most reasonable solutions was relatively easy. There was even broad agreement amongst the supply chain participants as to what these solutions should be. **The main challenge is in implementing these solutions**. Effecting the necessary change in management attitudes is perhaps the greatest single stumbling block. However, new market pressures will serve to drive the industry towards the solutions that will yield the greatest benefit for all concerned.

Paint industry experience

Keynote speaker on October 28 was **Pierre-Marie De Leener**, Chief Executive Officer of **SigmaKalon**, who discussed the customer as driver for change in chemical logistics, using his own paint industry as an example. Like many downstream markets in the chemical industry, the $68 billion global paint sector is changing rapidly. This is true not least in Europe which accounts for about one-third of the world market.

The $13.2 billion European non-decorative (industrial) paint segment is fairly consolidated, while a considerable degree of fragmentation exists in the $10.8 billion decorative sector. The variation is geographical, with most consolidation in Scandinavia and Northern Europe and a multitude of decorative paint companies supplying the Southern Europe/Mediterranean markets. The other geographical split is an east-west one, with the Western Europe market a mature, slow-growth area and Eastern Europe poised to grow rapidly from a low base.

Supply chain pressures

The challenges facing Europe's paint industry are considerable. Customer requirements are diverse and demanding, while pressures for more environment-friendly products are increasing, as are overheads. As industry consolidation proceeds apace, private equity funds are showing a growing interest in paint manufacturers. **As the private equity companies seek to achieve best-in-class operating performance from their new acquisitions, logistics is a prime focus**. The need for improved supply chain optimisation has to be seen in the context of the typical paint company which handles up to 400 raw materials, markets 800 formulations and supplies in excess of 4,500 stock-keeping points, all the while dealing with seasonal demand fluctuations.

At the same time the major DIY chains are exerting greater pressures on prices and seeking greater control of the supply chain, consumers want more customised products and shorter product cycles. The paint companies which will be successful, said Mr De Leener, are those able to differentiate themselves from the competition; shed unprofitable product lines; concentrate on their strengths; and move swiftly to take advantage of opportunities as the agreed business strategy is implemented. Part of this implementation process involves close cooperation between paint manufacturers and their LSPs in the drive to streamline complex product flows, continue to reduce costs and meet demanding customer requirements. **The paint manufacturers' preference is, and will continue to be, LSPs with global capabilities and good local reputations.**

PANEL DISCUSSION

THE CUSTOMER AS DRIVER FOR CHANGE IN CHEMICAL LOGISTICS

Pierre-Marie De Leener's presentation was followed by a panel discussion on the same theme, i.e. "The Customer as a Driver for Change in Chemical Logistics". The participants were as follows:

Moderator:

- Michael Buerk, BBC TV

Panellists:

- Pierre-Marie De Leener, **SigmaKalon**
- Johannes Fritzen, **VW**
- Phil Allen, **MarketAbility**
- Thomas Bode, **Degussa**
- Didier Baudrand, **BP Chemicals**

Leading off, market consultant **Phil Allen** informed delegates that, based on his company's study of 125 leading chemicals and plastics producers, even the top ten performers from a customer value management (CVM) perspective are under-performing industry-wide CVM best practice. In fact, only about 10 per cent of companies across the board comply with the CVM best practice model established by MarketAbility after many years of analysis. **The inability to identify and quantify customer needs and value as a basis for customer strategies has been identified as the chemical producers' primary weakness.** The overcoming of this weakness provides a positive challenge, and many opportunities, for LSPs serving the chemical industry to propose solutions geared to meeting precise customer needs.

Didier Baudrand admitted that his company and other chemical producers had not done enough to ensure their marketing activity is as cost-efficient as it could be. The large number of rush orders that have to be handled is a major problem in this respect. Only greater cooperation with customers and LSPs can help alleviate this problem. Pierre-Marie De Leener commented that SigmaKalon generates a significant amount of its revenue by being able to supply rush orders in a planned way.

Cooperation was a theme reinforced by **Thomas Bode**. Degussa has found that the best way to serve its customers is to concentrate on **core competencies and products**. The approach necessitates working closely with its LSPs, the outsourcing to which includes administrative tasks and functions such as filling and packaging. The choice of the right LSP is critical and Degussa does its homework in this respect prior to making a choice. LSPs are asked to make the necessary investment in ensuring the compatibility of their own IT systems with those of Degussa. Despite the extent of the outsourcing and the high degree of cooperation, Degussa is responsible for overall management of the supply chain. Although there is a certain amount of bundling done in the purchasing of services, each of the 21 business units in Degussa retains responsibility for the management of its own supply chain.

Johannes Fritzen pointed out that logistics in the automotive industry is truly global and has been developed into a sophisticated process in order to meet the rigorous demands of the customer in terms of vehicle delivery times, performance and personal preferences. A number of auto manufacturers have toyed with the idea of a standardised, "world" car but this concept has now been abandoned, as drivers in different parts of the world want, for cultural reasons as much as anything, different things from their cars. VW operates 55 factories worldwide and markets 75 different models. The Golf, for example, is comprised of some 1,700 parts but VW maintains a pool of 5,000 different parts to cater for customer preferences in various regions of the world.

ECTA WORKSHOP

PRODUCTIVITY IMPROVEMENTS THROUGH ANALYSIS OF BEST AND BAD PRACTICES

The 30th EPCA Logistics Meeting concluded with a workshop which briefed delegates on a recent productivity improvement initiative carried out by the European Chemical Transport Association (ECTA), an organisation with close affiliations to EPCA. The theme of the workshop was "Productivity Improvements Through Analysis of Best and Bad Practices" and the participants were as follows:

Moderator:

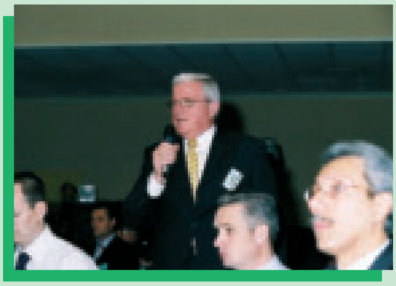
- Michael Buerk, BBC TV

Panellists:

- Paul Evertse, **ExxonMobil Petroleum & Chemical**
- Luc Haesaerts, **Haesaerts Intermodal**
- Martin Verbrugge, **Verbrugge International**
- Jos Verlinden, **CEFIC**

Martin Verbrugge set the scene for the workshop discussions by describing the purpose and findings of ECTA's recent Productivity Improvement Survey. In all continuous improvement programmes it is useful to carry out periodic reviews of progress to date and analyse where effort would be best directed in the pursuit of short-term, intermediate and long-term goals. Against this background, ECTA, by means of a productivity survey questionnaire, compiled an inventory of best and bad industry practices as experienced daily by LSPs. The aim of this information gathering project is to inspire joint productivity improvement projects amongst chemical producers (shippers) and their LSPs.

"With European chemical logistics experiencing steady negative growth in productivity over the last five years, the best practice exercise proved to be a wake up call for us all," said Martin Verbrugge. "We found that immediate productivity improvement potential is available to both shippers and LSPs. Perhaps more importantly, the initiative reinforced the belief that the current modus operandi for chemical logistics in Europe is not sustainable."



The productivity survey identified industry best practices for five separate functions - information sharing; order lead time and payment; loading/unloading; safety, health and the environment (SHE); and continuous productivity improvement. If all shippers and their LSPs adhered to these best practices, immediate and significant progress in overall industry productivity would be made.

In the area of **continuous productivity improvement**, for example, benefits would quickly accrue if shippers and their LSPs cooperated in terms of long-term contracts, forecasting and information sharing. Furthermore, all participants would gain if **harmonised EDI systems and standard (ECTA) key performance indicators** were used, and if **regular tripartite meetings**, involving shippers, LSPs and customers, were held at decision-making and operational levels. Such meetings would focus on productivity improvements through optimum planning and addressing problems as they arise.

Martin Verbrugge told delegates that as a result of this work on productivity improvement, ECTA in December 2003 will recommend to the EPCA Board that the findings be considered and taken up by top management at member companies. In addition, EPCA will explore with CEFIC the best way to pursue the opportunities which have been highlighted. The intention is that the results of the EPCA/CEFIC discussion will be reported back to ECTA as soon as possible.

When Michael Buerk asked what was the difference in monetary terms between the best and worst performance in European chemical logistics, **Paul Evertse** said that **savings of 30 billion € are possible if all industry adhered to best practices**. Unfortunately, the high degree of fragmentation that characterised the European chemical industry in the second half of the 20th century has engendered a competitive culture in which price rules, and trust and cooperation amongst shippers and LSPs do not feature prominently. Paul Evertse cited the example of his own company where cooperation had yielded dividends for all participants. Some five years ago a group of LSPs was formed into an alliance to handle some 70 per cent of ExxonMobil's bulk liquids distribution in Europe, and all parties adhered to the industry best practices listed in the ECTA survey. The ExxonMobil initiative took two years to develop acceptable levels of trust between the players but after five years, all participants have agreed that the approach is a good one and that they would like to continue with it.

Despite this success story, the panellists agreed that such "connectivity" is rare and that the bulk of the industry still labours under the old regime where less-than-optimum practices persist. **Jos Verlinden** said that one particularly frustrating problem is the fact that a small minority of committed LSPs and chemical producer logistics specialists develop a range of fine standards and promote industry best practices and then are the only ones that implement them. **These standard setters need to raise awareness and obtain a commitment to best practices from the wider industry, including from sales and marketing personnel at the chemical producer companies, end customers and subcontractors.**

Luc Haesaerts highlighted some problems faced by LSPs, including the proliferation of approaches to order placement and loading and unloading amongst the chemical producers they serve. "In addition, drivers are in short supply and within a year the European Union will comprise 25 countries, with almost as many working languages," said Mr Haesaerts. "How can we expect our drivers to understand all the different rules, codes and guidelines that might be applicable at a particular site? **We need clear, simple, pan-European standards, not least covering SHE matters.**"

Luc Haesaerts mentioned that the ECTA productivity improvement initiative had identified some 30 specific industry best practices. There is a danger that industry may try and implement all 30 simultaneously and end up making little progress on any due to the sheer scale of the commitment required. It might be a good idea, he said, to choose only, say, two projects deemed to be the most important to start with and make discernible progress with them before moving on to tackle further batches sequentially.

In conclusion

Summing up the wide-ranging proceedings of the 30th EPCA Logistics Meeting, Denis Tual said that the discussions not only highlighted the considerable progress that has been made but also identified those areas in which further progress needs to be made. In this respect the meeting served to promote the improved communications and cooperation which everybody agrees is needed if this further progress is to be achieved. Important action has been targeted and Denis Tual looked forward to making an upbeat progress report at the 31st Logistics Meeting in Monaco in 12 months time.

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