



Private Equity

Chemistry CEOs have to quickly adapt new business requirements

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Biofuels

How will biofuels impact petroleum-based fuel suppliers?

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Newsflow



Eggert Voscherau
Vice Chairman of BASF

For the first time, BASF has presented a comprehensive carbon balance for its operations. The balance shows emissions from BASF's production, but also takes into account emissions from raw materials and precursors as well as the disposal of all products. In addition, the company has looked at the product lifecycle of 90 key products that save carbon dioxide emissions when used in end products. An independent third party, the Öko-Institut in Freiburg, has reviewed and confirmed BASF's calculations.

"In areas such as construction, automobiles and industrial production, our products help our customers to save more than 250 million metric tons of carbon dioxide worldwide. This is three times as much as is emitted through the production and disposal of all our products. We want to maintain or even improve this factor through new products and innovations and by continuing to reduce our own emissions," said Dr. Harald Schwager, member of the Board of Executive Directors of BASF.

By 2020, BASF aims to reduce its specific greenhouse gas emissions by 25% compared with 2002. In addition, BASF has set a quantitative goal for improving energy efficiency. "We have made significant progress and have continuously improved BASF's energy efficiency in recent years. We want to become even better and aim to increase the specific energy efficiency of our production processes by 25% by 2020 compared with 2002," said Schwager. "We see energy efficiency as the key to combining climate protection, conserving resources and achieving a competitive advantage."

To emphasize the strategic importance of climate protection, BASF will appoint a Climate Protection Officer. "Climate protection is an integral part of BASF's sustainability strategy and is increasingly becoming a long-term strategic issue," said Eggert Voscherau, Vice Chairman of the Ludwigshafen based company.

Motivation – Saltigo's road to becoming a successful fine chemicals company hasn't been easy.

Carved out of Lanxess' struggling fine chemicals business unit at the beginning of 2006, the company has taken measures to come out of the red. While the name Saltigo has only been on the market for two years, the company's history goes all the way back to the early days of the Bayer Company. Saltigo's parent company, Lanxess, grew from a strategic realignment of the Bayer Group's chemical and plastics businesses at the beginning of 2005. Armed with a new CEO and a new site in the U.S., the company has a positive outlook for 2008. Brandi Schuster and Dr. Michael Reubold spoke to Saltigo CEO Wolfgang Schmitz about his vision for the company.

CHEManager Europe: You've been CEO of Saltigo for over half a year now. Any thoughts on your first six months?

W. Schmitz: What has intrigued me the most was finding a team dedicated to making Saltigo a success story. These people have gone from working in the former fine chemicals business of Bayer – a department of a huge organization – to working in an independent, mid-sized company. This experience has helped us all to have a better understanding of what the markets are and how we have to move. I am fascinated by the spirit that the people at Saltigo have.

What do you perceive as being the most appealing about Saltigo's business?

W. Schmitz: The speed of this business; there is always a changing environment of new projects coming in and old projects going out. This requires enthusiasm and strength in order to realize all the challenges that come across our desks month after month.

What knowledge were you able to carry over from your time as

Dedication To Success

Two Years in, Saltigo is Gaining Ground



Wolfgang Schmitz
CEO Saltigo

head of Lanxess' Inorganic Pigments business unit?

W. Schmitz: There are almost no links between the business models, but as the head of Inorganic Pigments, I worked in the Lanxess business environment, which means I am very familiar with the overall structures. Also my commercial background in organic chemicals helps me tremendously with the issues we have here.

Lanxess will be establishing a new site in Redmond, Washington in order to serve Saltigo's growing pharma business line. What advantages will this new site bring to you?

W. Schmitz: This location is where development is taking place; its clientele is mainly new and upcoming start-ups, particularly those with a focus on the pharma industry on the west coast. Having such a facility over there operated by our affiliated company Lanxess enables us to come very early into contact with potential future

partners and eventually to accompany those molecules also into the more mature stages of their lifecycle. We are at the right place at the right time – with the right offerings.

The site was formally used by ICOS, which is a subsidiary of Eli Lilly. What can you tell us about their motivation for leaving a site that has, as you've described, so much to offer?

W. Schmitz: Of course, they didn't tell us what their reasons were, but one can imagine that, with Lilly's huge set-up in Indianapolis, the probably have everything they need there. The obvious is that whatever the reason was, there was no interest in continuing use of the site. This was a great opportunity for us, because we had been considering the advantages of having a location in the U.S. amongst start-up companies.

How important is the American market for Saltigo?

Continues Page 5 >>

Health Food

Consumer Demands Fertilize Brenntag's European Food Business

Distribution – The European food industry logs one of the highest turnovers worldwide, providing fertile ground for manufacturers and suppliers of goods needed to produce and process food products.

Brenntag Food Europe has a strong local presence and provides the largest distribution network for food ingredients and additives in Europe. Michael Reubold asked Margit Lindermuth, Business Development Manager Brenntag Food Europe, about her goal to be the first-choice partner in food ingredients distribution and the prospects for growth in a market that is fundamentally responding to consumer trends.

CHEManager Europe: Ms. Lindermuth, when did Brenntag start with the distribution of ingredients for the food industry

and how has the business developed within recent years?

M. Lindermuth: Brenntag has been supplying the food industry in Europe for years with numerous essential products for Food Safety and Shelf Life and, for quite while, with additives for speciality applications. We recently enlarged our portfolio with nutraceutical ingredients that are natural substances with medicinal properties to treat or prevent certain diseases. Nutraceuticals can increase the nutritional benefits of end-use products or they can be taken as nutritional supplements.

This being said, our teams continuously conduct detailed market and product analyses focussing on all European food areas. The teams provide results reflecting international trends and volumes that are the basis for the development of a strategic marketing plan for Brenntag Food Europe accordingly.



Margit Lindermuth
Business Development Manager
Brenntag Food Europe

You mentioned the nutraceuticals. What other trends in the food industry do you see?

M. Lindermuth: The food industry is responding to consumer

desires for healthier foods through new products and changed ingredients. In response to governments, health organisations and consumers, food companies are producing more foods with lower salt, less unhealthy fats, more grains and fibers and also more functional ingredients.

In this sense, one major trend is definitely the development of nutraceutical ingredients. Here our comprehensive product portfolio includes vitamins, fibers, proteins, and trace elements. In addition to the overall food industry's expansion the market shows an additional growth rate of roughly 5% in the area of nutraceutical products in the beverage and dairy industry.

Speaking of growth rates, your business has nicely expanded

organically and through acquisitions in recent years.

M. Lindermuth: Yes, Brenntag's European food business accelerated growth in the past years and we could increase our sales by roughly 12% on average year by year and, needless to say, we are convinced to do so in future. Beside our organic growth, one 2007 highlight was the acquisition of the Italian food ingredients and raw materials distributor Natural World which distributes in particular ingredients and formulations to the bakery and dairy segment. The Italian food market is one of the largest in Europe and the acquisition was a further step also to enhance our existing product portfolio with new specialty chemicals and application know-how.

Besides Italy, what are the most important regional markets for Brenntag Food in Europe?

M. Lindermuth: The markets in Poland, Austria, France, Spain

and Germany contributed significantly to our growth during the past years.

Where do you want to grow?

M. Lindermuth: With acquisitions such as Natural World in Italy or Albion Chemicals in UK and Ireland, we see high potential for growth in the food sector. But Brenntag supplies also the rapid growing markets in Russia, Turkey and Eastern Europe.

What was pivotal for the growth in the past, and what do you believe will be critical for future success in this market?

M. Lindermuth: Brenntag's sustainable growth performance in the food sector is the result of many factors. Essential is the aforementioned European marketing plan. Besides that, let us take our wide product range, strategic sourcing relationships, 165 food professionals as sales

Continues Page 16 >>

The Non-EU Point of View,
Best Practices

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Kindle Leaves ABB



Fred Kindle
ABB

ABB announced the abrupt departure of its chief executive, Fred Kindle, because of "irreconcilable differences" after he helped the company recover from near bankruptcy. The announcement overshadowed the company's strong fourth quarter results; ABB reported that its net income increased to a record \$3.8 billion in 2007 from \$1.4 billion a year earlier. Kindle took over as the company's president and CEO in January 2005, helping the company to restore growth and stability after it nearly collapsed under the burden of heavy debts. During Kindle's three years in charge, ABB

"The board is very thankful to Fred Kindle for driving the company to the extraordinary level of performance it achieved over the last three years,"

ABB board chairman Hubertus von Grünberg said.

resolved \$1.43 billion of asbestos claims, revived profits and sold units after coming close to bankruptcy in 2002. Many analysts believe Kindle's surprise departure could signal the start of a new round of takeovers, but warned that the company's woes in the past were caused in part by an aggressive acquisition spree during the 1990s that went off course. The chief financial officer, Michel Demaré, serve as the company's interim CEO.

► www.abb.com

Healthline Sells Pharmaceuticals Business

Nicholas Piramal India and Healthline have signed a definitive agreement for purchase of Healthline's Pharmaceuticals business by Nicholas Piramal India for INR150 million. Healthline has a modern injectables manufacturing unit at Bangalore for small and large volume products. The current facility was commis-

sioned in 2004 and has a capacity of 10 million vials p.a. on a single shift basis. Nicholas Piramal India will invest additional resources at the facility to expand capacity and secure U.S. FDA standards.

► www.healthline.com
www.nicholaspiramal.com

Albion Purchases Euroresins UK Business

Albion Chemicals, part of Brenntag Group, has purchased the Hexion specialties UK distribution business from Euroresins, the distribution subsidiary of DSM Composite Resins. Euroresins is the UK distributor for the Hexion Speciality Chemicals range of epoxy resins and curing

agents for coatings, civil engineering and formulating applications. With this purchase, Albion Chemicals said it aims to expand their geographical reach.

► www.albionchemicals.co.uk
www.hexionchem.com

Lonza Sells Majority of Polynt Shares

Lonza said it has signed an agreement to sell approximately 90% of its holding in Polynt for €3.67 per share to Polimeri Speciali, an Italian company indirectly controlled by Investindustrial. Lonza

remains shareholder of Polynt with a stake of total 3.39%. After the successful listing of Polynt on the Milan bourse in October 2006, Lonza had kept a minority stake of 31% in Polynt. The transaction is

expected to close after regulatory reviews in the second quarter of 2008.

► www.lonza.com
www.investindustrial.com
www.polynt.it

Dow Continues Growth in Asia Pacific

Dow Polyurethanes, a business group of the Dow Chemical Company, has announced it is to acquire the remaining shares of Pacific Plastics (Thailand). A joint venture between Dow, Siam Cement Group and two other partners,

Pacific Plastics (Thailand) represents ownership of the polyols and polyurethane systems facility located in Map Ta Phut, Thailand. Dow acquires the remaining 51% ownership in the joint venture directly for an undisclosed sum. Once

the transaction is completed, the polyols and polyurethane systems facility will be wholly owned by Dow.

► www.dowpolyurethanes.com
www.siamcement.com
www.pacificplastics.com

Kemira Focuses its Business in Japan

Kemira has announced it will sell its 50% ownership in a Japanese hydrogen peroxide joint venture company, Kemira-Ube, to the other joint venture partner, Ube Industries. Ube will form a new hydrogen peroxide joint venture company together with the Japanese Mitsubishi



Photo: Mequa (Photocase)

Coporation. Kemira-Ube's net sales are about €20 million. Kemira said it aims to enforce its services to Japanese pulp and paper chemicals customers and is focusing its business in Japan into fully owned Kemira Japan KK.

► www.kemira.com
www.ube.com

Cambrex To Acquire Pro Syntest

Cambrex Karlskoga, a subsidiary of Cambrex Corporation, has entered into a purchase agreement for all of the stock of Pro Syntest, a privately held active pharmaceutical ingredients research and development company. Pro Syntest employs approx. twenty five

chemists located within the Tallinn Technology Park in Tallinn, Estonia. Pro Syntest, formed in 1990 as a spin off from Tallinn University of Technology, has strengths in cost effective chemical route selection and sample generation, rapid scale up of prod-

ucts at kilo lab scale, as well as chiral and organometallic chemistries. The business will be renamed Cambrex Tallinn after completion of the acquisition.

► www.cambrex.com
www.prosyntest.com

Chemtura Sells Business



Photo: Womans - photos (Photocase)

and other conditions including customary closing conditions. The transaction includes Chemtura's production facility at Memphis, Tennessee. Proceeds from the sale will be used primarily for debt reduction. The transaction is expected to close by the end of the first quarter. In 2007 the oleochemicals business had revenues of approximately \$175 million. Chemtura's Memphis facility has about 260 employees, who are expected to transfer to PMC.

Chemtura has announced that it has reached an agreement to sell its oleochemicals business to PMC for an undisclosed amount, subject to financing

► www.chemtura.com
www.pmc-group.com

Brenntag Acquires BASF Center

Brenntag Mexico, subsidiary of Brenntag, has acquired the BASF distribution center in Querétaro, Mexico. With this step Brenntag Mexico is now able to move from the former main distribution center in Tultitlán to the BASF facility, located in the industrial park of Querétaro, 200 km north of Mexico City.

The site has 14,000m² of warehouse space including 1,000m² of temperature controlled rooms for fine chemicals and vitamins. The site is located on 77,000m² and has capacity to receive and park up to 80 railcars simultaneously.

► www.brenntag.com

Malvern Acquires Viscotek

Materials characterization company Malvern Instruments has acquired Viscotek Corporation, provider of chromatography solutions for the characterization of natural and synthetic polymers and proteins. According to the company, the acquisition of Viscotek brings new and

complementary technologies and expertise, adding gel permeation chromatography, flow injection polymer analysis and dilute solution viscosity and extending the range of characterization solutions offered.

► www.malvern.com
www.viscotek.com



COLLABORATION

Alvigo and Süd-Chemie: Joint Venture Süd-Chemie and Alvigo have jointly formed Süd-Chemie Alvigo Catalysts. Based on the financial investment contributed by Süd-Chemie, they holds a 60% share in the joint venture, which has taken over Alvigo's entire catalyst business. The main activities acquired include the catalyst production site and related research operations in Severodonetsk, Ukraine, and the sales office in Moscow, with a total of more than 300 employees. The purchase price will not be disclosed.

► www.sud-chemie.com
 ► www.alvigo.ee/eng

Gazprom and Dow Sign Memorandum of Intent Dow Chemical and Gazprom said they are examining perspectives for a joint venture and have signed a memorandum of intent in the area of hydrocarbons processing. The memorandum refers to the evaluation of perspectives for a joint venture creation based on expanded petrochemical production facilities of Dow Chemical in Germany; to the joint development of natural gas processing of Valangin deposits in Yamalo-Nenets autonomous area; and the evaluation of potential cooperation in other areas. The parties said they will establish a joint working group to preliminarily assess the economic suitability for the formation of a joint venture and to finalize further joint technical and economic studies.

► www.dow.com
 ► www.gazprom.com

Atotech, CNSE Form R&D Partnership Atotech, a developer and manufacturer of chemical applications for the nanoelectronics industry, has announced it will conduct its next-generation research and development in copper-plating technology in partnership with the College of Nanoscale Science and Engineering (CNSE) of the University at Albany. R&D activities will target chemistry development, mode of operation and analytical techniques, including online technologies, usable for computer chip, chemical and biological sensors for the health and energy industries, and biochips for medical applications. The agreement between Atotech and CNSE also includes the potential for further R&D initiatives in future.

► www.atotech.com
 ► www.cnse.edu

Gazprom and BASF to Operate Gas Storage Gazprom and BASF announced plans to jointly operate up to 8 billion m³ of gas storage capacity in Europe and to develop other joint projects. The storage capacity target is likely to be achieved by 2010-12 and will include existing facilities in Haidach in upper Austria and Rehden in Germany, as well as two new planned projects, one in Germany and one in the UK. The two companies participate in Haidach and Rehden through their joint venture Wingas, in which Gazprom holds about 50%, with the remaining interest held by BASF's subsidiary Wintershall.

► www.basf.com
 ► www.gazprom.com
 ► albany.edu

Agrofresh, Syngenta: Strategic Alliance Agrofresh, a subsidiary of Rohm and Haas and agribusiness company Syngenta have signed a letter of intent to enter into an exclusive global strategic alliance to develop and commercialize Invinsa technology, a product for crop stress protection in field crops. Invinsa technology, a sprayable formulation of 1-methylcyclopropene, will be the first product introduced into field crop markets to specifically protect crop yield during extended periods of high temperature, mild-to-moderate drought and other crop stresses.

► www.syngenta.com
 ► www.agrofresh.com

Sartorius, Paul Mueller: Supply Agreement Sartorius Stedim Biotech's subsidiary, Sartorius Stedim North America, and Paul Mueller Company have entered into an exclusive cooperation and supply agreement covering the U.S., Canada, the U.S. Virgin Islands and Puerto Rico for manufacturing biopharmaceutical production systems. Both companies will continue to offer their own traditional products in addition to the products jointly offered under the agreement. Within this framework, Sartorius Stedim Biotech will be closing its production facility in Bethlehem, Pennsylvania, and will be focusing on customer-specific application engineering, installation and servicing of its stainless steel systems.

► www.sartorius-stedim.com
 ► www.mueller.com

DSM and Roquette to Collaborate Royal DSM, headquartered in the Netherlands, and the French starch and starch-derivatives company Roquette have concluded to jointly work on implementation and commercialization of the fermentative production of biorenewable succinic acid, which, amongst other applications, opens the possibility to produce bio-based performance materials. By the end of 2009, a demonstration plant in Lestrem (France) will be operational. The bio-based succinic acid will be produced in a fermentative way, developed by DSM and Roquette, using of renewable resources.

► www.dsm.com
 ► www.roquette.com

Prosonix and Rafeal Enter Agreement Prosonix of Oxford, UK, and Rafael of Haifa, Israel have partnered in a worldwide exclusive license for the exploitation of Rafael's ultrasonic particle engineering process technology in the pharmaceutical and fine chemical markets. The license deal is the culmination of almost 18 months of collaboration between Prosonix and Rafael, and follows demonstration and enhancement of the Rafael process technology on a range of active pharmaceutical ingredients and key excipients using Prosonix Prosonitron ultrasonic reactors.

► www.rafael.co.il
 ► www.prosonix.co.uk

Athenix, Syngenta in R&D Partnership Athenix has entered into an agreement with Syngenta for the discovery of novel corn insect and soybean cyst nematode resistance genes. The agreement allows Syngenta access to novel gene leads to develop advanced generation corn and soybean products. Under the agreement, Athenix will screen its microbial strain collection for the identification and initial development of novel gene leads in the targeted areas of corn rootworm, European corn borer, broad lepidopteran, and soybean cyst nematode control. The resultant gene leads will be provided to Syngenta for further development. Syngenta will have exclusive global ownership on any corn and soybean transformation events developed using Athenix lead genes, excluding Australia and New Zealand.

► www.athenixcorp.com
 ► www.syngenta.com



Roche Invests in Germany and Switzerland Roche said it is investing CHF430 million at sites in Germany and Switzerland for research, development, production and filling of innovative biopharmaceuticals. The Swiss pharma group said CHF280 million will be invested in biotechnology drug research and development activities in Penzberg, while CHF150 million will be invested in Mannheim and Kaiseraugst in modern syringe filling capacities for drugs. The move means that the group's investment in pharma production equipment in the last five years reached CHF1 billion each in Germany and in Switzerland.

www.roche.com

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Firms Cannot Plan Due to EU Emission Plans

The German Chemicals Industry Association VCI said the EU Commission's proposals on emission trading after 2012 have made companies uncertain about the regulatory rules and prevent them from making plans for the future. A VCI

statement said the EU proposals to auction the certificates for energy-intensive segments are tied up with conditions which make the regulatory framework for investments after 2012 full of uncertainties on what the future will look like. "On this

basis, it is extremely difficult for the chemical industry to make sufficiently solid plans," VCI said. "We need right from the start transparent and clear rules in emission trading."

► www.vci.de

Eli Lilly Denies New York Times Report

Eli Lilly said it "strongly objects" to a recent article published in the New York Times that said the maker of Prozac, and other pharmaceutical companies, withheld results from a third of drug trials they conducted in order to win regulatory approval for their antidepressants. The

article, which quotes a report in The New England Journal of Medicine, said the companies didn't publish results from less positive trials that would have shrunk the pills' seeming advantage over placebos. While the drugs still outperformed the placebos in general, they would

only have been shown to do so by a "modest margin," the Times said, and the omission "misled doctors and consumers about the drugs' true effectiveness."

► www.lilly.com

Chemtura Reviews Strategic Alternatives



Robert Wood
Chemtura

Chemtura has announced that its board of directors has authorized management to consider a wide range of strategic

alternatives available to the company to enhance shareholder value. In support of this ongoing initiative, a special committee of independent directors of the board of directors has been formed to oversee the process. To assist in this process, Chemtura said it has retained the services of Merrill Lynch, which is acting as its exclusive financial advi-

sor. Strategic alternatives to be considered may include select business divestitures, value-creating acquisitions, changes to the company's capital structure, or a possible sale, merger or other business combination involving the entire company.

► www.chemtura.com

Chlorine Production Climbs to New High

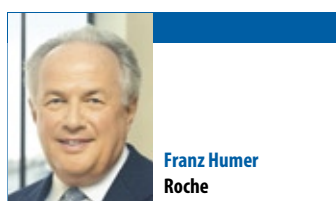
European chlorine production reached 10.61 million t in 2007, which also increased demand for chlorine's essential co-product, caustic soda. Chlorine production was 2.9% higher than 2006 (10.31 mil-

lion t) and marked the fourth successive year of strong and steady demand. In December 2007, European chlorine production totalled 905,130 t, an increase of 2.0% on the same month in 2006 (887,195 t). In

terms of average daily production, December output was level (-0.1%) with the previous month (December 2007: 29,198 t).

► www.eurochlor.org

Roche To Acquire Ventana



Franz Humer
Roche

Roche, a provider of pharmaceuticals and diagnostics, and Ventana Medical Systems have signed a definitive merger agreement. Under the terms of the agreement, Roche will increase the purchase price in the tender offer for Ventana common shares to \$89.50 per share in cash, and Ventana's Board of Directors will recommend that Ventana's shareholders tender their shares to Roche. The merger agreement has been approved by the boards of Ventana and Roche. This offer represents a premium of 4.9% to Ventana's closing price on Jan. 18, a 19.3% premium to Roche's initial offer on June 27, 2007, and a 72.3% premium to Ventana's closing price on

June 22, 2007. "Our combined company will be uniquely positioned to further expand Ventana's business globally and together develop more cost-efficient, differentiated and targeted medicines," Franz B. Humer commented, Chairman and CEO of Roche. Christopher Gleeson, Ventana's President and Chief Executive Officer, will continue as CEO of Ventana's business following completion of the transaction and become a member of the Roche Diagnostics executive committee. Commenting on the transaction, Gleeson said, "After a full evaluation of its strategic alternatives and thoughtful consideration, as well as consultation with our outside financial and legal advisors, our Board believes that the transaction with Roche at \$89.50 per share is in the best interests of our shareholders."

► www.ventana.com
► www.roche.com

Ciba: Trend Toward Specialization



Brendan Cummins
Ciba

Ciba Speciality Chemicals sees an industry trend towards further specialization, making a takeover bid from large chemicals group less likely, accord-

"We are witnessing a trend towards a stronger focus."

ing to Chief Operating Officer Brendan Cummins.

"We are witnessing a trend towards a stronger focus," Cummins said. "Not only in terms of the product portfolio, but also in terms of clients." He said that a strong focus is necessary to understand the clients' needs and the applications of their products. Asked whether large chemical groups have shown an interest in Ciba, Cummins said that it was difficult to integrate speciality chemicals into the broader chemicals business.

► www.ciba.com



SALES & PROFITS

Glenmark: Q3 Results Glenmark Pharmaceuticals announced consolidated revenues of INR6850.77 million in third quarter fiscal year 2008, compared to INR4461.23 million for the third quarter of the previous year, recording a growth of 53.56%. Revenues from generics business that the company intends to spin off into a 100% subsidiary and subsequently listing in first quarter fiscal year 2009 were INR2678.41 million, compared to INR1308.96 million which was reported in the same quarter of the previous year. The company reported a growth of 104.62%. The speciality business that will continue to be a part of Glenmark Pharmaceuticals, had revenues of INR4172.36 million compared to INR3152.27 million for the quarter of the previous year, recording a growth of 32.36%.

► www.glenmarkpharma.com

Weak December Decreased Earnings Kemira warned that a weak December performance pushed its 2007 operating earnings lower year-on-year. Kemira will write off assets by €47 million as part of a strategic review of the business. The chemicals group earlier had proclaimed an increase in full-year sales, operating profit and earnings per share for the full year. It attributed the earnings shortfall to several factors, among them industrial action at its Pori plant, a weak dollar and disappointing sales. Kemira's specialty chemicals unit generated an operating loss during the fourth quarter not including the division's €9 million write-down, while earnings for pulp and paper chemicals showed a profit, but fell short of the 2006 level, excluding a €17 million write-down.

► www.kemira.com

Nicholas Piramal India Reports Q3 Net Profit Indian pharmaceutical company Nicholas Piramal India posted a 31% rise in third quarter net profit driven mainly by higher revenues. For the quarter ended Dec. 31, 2007 the company registered a net profit of INR727.6 million, up from INR555.5 million a year earlier, as total revenues increased to INR7.36 billion from INR6.49 billion driven by growth in sales in the domestic branded formulations. Domestic branded formulations grew 15.6% to INR3.4 billion and the company grew well in dermatology, ophthalmology and over the counter segments.

► www.nicholaspiramal.com

Roche and Genentech Report Financial Results Roche Group and Genentech have announced financial results for third quarter of 2007. Sales of Roche Group increased to 12% in local currencies to CHF33.9 billion. As anticipated, Tamiflu sales declined significantly in third quarter following completion of outstanding pandemic stockpiling orders. Genentech's key results for the third quarter of 2007 include: U.S. product sales of \$2.155 billion, an 18% increase over U.S. product sales of \$1,830 million in the third quarter of 2006.

► www.roche.com
► www.genentech.com

Genzyme: Earnings Growth Genzyme has reported a significant increase in third-quarter non-GAAP profit. Revenue grew 19% to \$960.2 million from \$808.6 million in the same period a year ago. GAAP net income rose to \$159.3 million, or \$0.58 per diluted share, compared with \$16.0 million, or \$0.06 per diluted share, in the quarter a year ago. Non-GAAP net income grew 23% to \$241.3 million, or \$0.90 per diluted share, from \$195.9 million, or \$0.73 per diluted share, in the same period last year. Non-GAAP figures for this year's third quarter exclude pre-tax stock-compensation expenses of \$44.4 million, amortization of \$49.8 million, a charge of \$19.2 million related to the acquisition of Bioenvision, a manufacturing-related charge of \$11.8 million, and the effect of contingent convertible debt.

► www.genzyme.com

Pfizer: Q4 Report and Full-Year 2007 Results For the fourth quarter 2007 Pfizer recorded revenues of \$13.1 billion, an increase of 4% compared with \$12.6 billion in the year-ago quarter. The company reported net income of \$2.9 billion, a decrease of 70% compared with \$9.4 billion in the prior-year quarter. Pfizer also recorded full-year 2007 revenues of \$48.6 billion, an increase of 1% compared with \$48.4 billion in 2006. Chairman and Chief Executive Officer Jeff Kindler said, "With strong product performance, cost reductions, improved productivity and the benefits of foreign exchange, we achieved both revenue and adjusted diluted EPS growth despite losing US market exclusivity for Norvasc and Zolof."

► www.pfizer.com

Genzyme Posts Sales Growth Genzyme has reported fourth-quarter revenues for 2007 rose 21% to \$1.04 billion while full-year total sales reached a record \$3.8 billion. Total ethical sales have increased by 20% over last year's. Genzyme also announced it has signed a licensing deal for the cholesterol-lowering RNA antisense drug, mipomersen, from Isis Pharmaceuticals. The companies have entered into a strategic alliance in which Genzyme will develop and commercialize mipomersen. Currently in Phase III, Isis states that the drug has shown in Phase II trials to reduce cholesterol and other atherogenic lipids more than 40% beyond reductions achieved with current standard lipid-lowering therapies.

► www.genzyme.com
► www.isispharm.com

A Few Words from the Staff



Dr. Michael Reubold

The Pursuit Of Change

In these days, the eyes of the world are focusing on the 2008 presidential election in the United States. With Election Day (Nov. 4) still more than eight months away, the primaries and caucuses in more than half of the 50 states of the union have already cast some light on the possible presidential candidates. On Super Tuesday earlier this month, 24 states held polls to assign the delegates who will elect the candidates of both, the Republican and the Democratic Party at their respective national conventions. And since then, more states have held their polls, leaving virtually three candidates as most promising nominees.

The race for the presidential candidate of the Republican Party seems to be developing in favor of John McCain who already received more than 60% of the delegates needed and has a clear lead over his biggest rival Mike Huckabee. Thus, McCain is the likely Republican nominee.

The Democrats, by contrast, seem to be in a stalemate situation for the party's presidential nomination. Hillary Clinton is running neck and neck with Barack Obama in the number of delegates. The race is so tight; it is close to impossible for either candidate to win a majority before the Democratic National Convention in August.

What is becoming an increasingly fraught battle between Clinton and Obama, to many reveals an alarming racial gap separating supporters of the two candidates: while Obama gets huge support from African-American voters, the Hispanic population favors Clinton.

So, is the nomination all about race (and gender) of the candidates or is it rather about real political, social, economical, and environmental issues?

It is about both. Since the programs of both Democratic candidates, Clinton and Obama are similar, race and gender are apparently among the most distinctive features: Obama would be the first black president, Clinton the first female president. The Republican candidate, on the other hand, is the traditional archetype of a president: white elderly male, more or less conservative. No wonder that the rallying cry of both Democratic candidates' election campaign is "change."

But the broad movement for change in the U.S. in the winter of 2008 is not built around personalities, not even around parties! That's the good thing, so no matter who will become the next president, the world will see some significant changes in quite a few issues of U.S. politics. The areas where change is needed most are the war in Iraq, the economy, taxes, the healthcare system, education, energy policy and climate change.

In regard to the national economy, public views are now more negative than at any point in nearly 15 years. Higher energy prices, the subprime credit crisis, the downturn in housing, and other factors present strong headwinds for the economy.

Each of the candidates agree that climate change is real and that greenhouse gas emissions need to be limited. Each of them have plans to fund the development of energy-efficient technologies and sustainable energy resources.

Clinton has placed healthcare at the top of her domestic agenda, but her challengers have made it a priority for their campaigns as well.

On the issue of stem cell research, the presumptive GOP nominee McCain is even closer to the Democratic candidates than to his fellow party members. Many Republicans oppose McCain's plan to lower the restrictions for funding stem cell research as being too liberal and think he should be more conservative in other areas, too.

In about eight months from now we will know if the United States is ready for either a female or a black Democratic president, or if the Grand Old Party with a somewhat liberal candidate has not yet become too old for a young America on the pursuit of change.

Michael Reubold

chemical reaction

Dedication To Success

Two Years in, Saltigo is Gaining Ground

← Continued Page 1

W. Schmitz: With America having the biggest market for pharmaceuticals, the region is very important for us. There are so many new developments coming from there as well, which makes it a very attractive market; however, this is not to downplay the importance the European market plays for us as well. The Redmond activity simply shows our interest in further exploration in this market.

What other regions are of interest?

W. Schmitz: If we take all three of the company's business lines into consideration – Pharma Chemicals, Agrochemicals and Specialty Chemicals – the lion's share of our activities are concentrated in the Northern Hemisphere. We are interested in active ingredients or active pharmaceutical ingredients that are still IP-protected, which makes the Northern Hemisphere kind of a natural market

How do you plan establishing a presence in new markets?

W. Schmitz: Region doesn't make a lot of sense because most of our products belong to customers with the respective IP-protection. We are mainly working for innovators, and basically we don't care where

What has intrigued me the most was finding a team dedicated to making Saltigo a success story

they are located. Historically, a lot of these innovators have been in the U.S., Europe and Japan. If China develops in to a new hub of innovation, then we will be there. However, for the time being, our strongest regions are in Western Europe, North America and Japan.

Is this how the situation is going to stay for the foreseeable future?

W. Schmitz: This really depends on how the markets in China and India develop. However, for the time being, our focal point is in the regions I mentioned.

How important is it for companies to have a regional concept?

W. Schmitz: Well, if you look at big pharma companies, they don't really care about regional concepts, because they are all over the place. It makes no difference to them if their products are shipped out of Europe, Asia or the U.S.

One year ago, €30 million was earmarked for plant modernization in Dormagen and Leverkusen. How will these investments be spread across the three business units?

W. Schmitz: I would not distinguish now between the three business lines, because they all are utilizing the same asset base.

What kind of modernization is planned?

W. Schmitz: We are looking to reduce downtimes between productions in order to offer more capacity to the market when demands are high. We are also investing in new drying technologies; industry demand is changing, going away from handling liquids and more into handling AI and APIs. These are upgrades that affect all of our business lines; we are improving the infrastructure of the whole asset base.

How far along are you now with this infrastructure updating?

W. Schmitz: The preparations have been completed, and we are currently in the process of making the updates.

With Saltigo Redmond, we are at the right place at the right time – with the right offerings.

Of course, these upgrade are taking place while production is rolling at full speed. We plan on completing



NETWORKING – Saltigo CEO Wolfgang Schmitz (right) engaged in discussion with colleagues at the Informex USA in New Orleans.

these projects by the end of this year and beginning of the next.

Can you give us a rough number about your average capacity consumption?

W. Schmitz: We normally don't disclose those figures; we have different plants with different technologies, and some

university people. We have a number of things in the pipeline, but not all of them are mature at this time.

In April, Saltigo implemented a new human resources concept, which called for more flexibility and included negotiations on increasing the work week

to 40 hours without a raise in pay. How did employees react?

W. Schmitz: This was certainly a challenge for all people involved. When Lanxess was founded, there were two business areas that were struggling – Lustran Polymers, which were

brought into a joint venture with Ineos last year; and fine chemicals, which was in the red for many years. It was really a question of being able to produce fine chemicals competitively at what is normally considered to be a high-cost site. We are now working with less people; concentrating on our core competencies; exiting out-

pharma outsourcing more and more, waiting to concentrate on their core strengths.

Are there any synergies between the three business units?

W. Schmitz: If you look from the market approach, there are very few

If China develops in to a new hub of innovation, then we will be there.

dated technologies; and asking our employees to invest also from their side. This model proved to be successful in developing a sustainable business environment for Saltigo.

In which of your three business units do you see the most potential for growth?

W. Schmitz: It is always difficult to select one and to leave the others aside. Right now, I would say that the market environment is very positive for agrochemicals and pharmaceuticals. This comes from the increasing demand and interest in biofuels and changing eating habits, particularly in Asia. On the other hand, I see also very good growth potential in the pharmaceutical sector, because big

synergies between the three business lines; each is working in its determined environment. The main synergy is our asset base.

How does the future look for Saltigo?

W. Schmitz: Saltigo is making its way, and we are improving year after year. Our 2007 numbers were up over 2006, and we expect this trend to continue into 2008. We are considered to be a core business of Lanxess, and we have a board standing behind us. After having completed most of the restructuring we had planned, we are now in the mood for looking into more cooperations and perhaps even acquisitions.

► www.saltigo.com

Good thing you don't hear anything of our ideas.

Wherever noise and wind protection are called for, Evonik defies conventional thinking with an exceptional product idea: PLEXIGLAS SOUNDSTOP®. This transparent material—the result of continual fine-tuning of our classic PLEXIGLAS® product—is weatherproof, break-resistant and highly efficient. As a noise barrier suited to large-scale use, it blends in with the landscape inconspicuously. PLEXIGLAS SOUNDSTOP® is just one example of the many innovations that make Evonik, formerly well-known as Degussa, the creative force in specialty chemicals.

We mastermind groundbreaking solutions at over 50 research and development sites worldwide, inspiring customers with our ideas in such diverse markets as automotive, coatings, cosmetics, plastics and pharmaceuticals. See for yourself: www.evonik.com/ideas

Evonik. Power to create.



Reacting To Reach

European Chemical Industry Committed to Making Legislation Work

Smooth Implementation – Quite possibly no other industry council is as effected by Reach as Cefic. The European Chemical Industry Council is involved in several initiatives to help make the legislation work for all involved.



Lena Perenius
Cefic

Even before the introduction of Reach back in 2001, the industry agreed there was a need to overhaul the existing chemicals legislation and supported the objectives of the legislation. Reach has now entered into force and Cefic – the European Chemical Industry Council – wants to make it work. We are undertaking a wide range of activities to help companies comply with Reach.

Among other things, we regularly organize Reach Implementation Workshops for our members, and issue Reach Industry Preparation Letters that give very practical guidance to companies on how to meet Reach requirements. Besides these two initiatives, I should like to highlight some of the key contributions we are making to assist companies in fulfilling their Reach obligations.

Reach Implementation Projects (RIPs)

The technical guidance documents needed for industry and authorities to comply with Reach are developed in the RIPs. The European Commission is developing the guidance together with the stakeholders and has outsourced some of the work.

The chemical industry has contributed extensively to the RIPs ever since they started. The legislative text leaves margin for interpretation on how to meet the requirements of Reach on several aspects. The ultimate goal of all the RIPs is to develop the guidance on many practical steps in order to achieve a truly workable Reach.

Cefic took the lead in some of these projects, e.g. on RIP 3.2-2 (Developing a Guidance

Document on Chemical Safety Assessment and Chemical Safety Report (CSA/CSR), and 3.3-2 (Developing a Guidance Document on Information Requirements on Intrinsic Properties of substances).

Cefic also contributes to some other RIPs (RIP 2 on Reach IT developing the IT support tools for Reach, and RIP 3.4 on data sharing), and gives input to several other RIPs via their so-called Stakeholder Expert Groups (SEGs) organized by the Commission.

The RIP programme is making good progress and several Technical Guidance Documents (TGDs), resulting from the RIPs that have been finalized, are now available on the website of the European Chemicals Agency (ECHA) at http://ec.europa.eu/echa/reach_en.html.

IT Tool for Substance Information Exchange Forum (SIEF)

The new Reach legislation includes an obligation to share animal data and to provide a joint registration with one agreed set of data (the one substance, one registration concept). The regulation requires the formation of Substance Information Exchange Fora (SIEFs) to fulfill these obligations. Information submitted by the companies in the pre-registration will be made available by the European Chemicals Agency (ECHA) to help companies to get in contact with each other to start the process of identifying and agreeing on the sameness of the substances and to form SIEFs.

The process to organize these SIEFs is under full industry responsibility with little support from the ECHA. As companies have to cooperate in more than 30,000 SIEFs, this first step of Reach risks to be a very cum-



bersome, time consuming and chaotic process. An industry-wide IT system that facilitates communication between companies and provides a structured framework for working in the SIEFs is an absolute must in order to manage this Reach requirement.

The SIEF IT system is voluntary, but is being strongly recommended to our membership since a single, coherent system would avoid fragmented and inconsistent IT systems being used by companies. SIEF IT will be up and running on June 1. It will make SIEF formation more workable and thus registration requirements easier to fulfill.

Reach Experts Network

Cefic has established a Reach Experts Network consisting of

Cefic and the national chemical associations in order to provide harmonized answers to frequently asked questions in a coordinated manner. The aim is to avoid duplication of answers, as well as to provide support to those associations which do not have sufficient Reach expertise or capacity to develop their own support function.

The network will also contribute to commonly agreed interpretation of the Reach legal text and to achieve consistency amongst industry in the many facets of the Reach implementation. The network started its work in February 2007.

Reach Centrum

In summer 2006, Cefic launched ReachCentrum, an independent professional services body to

help companies all through the value chain initially with preparation and then with implementation of Reach. ReachCentrum provides three key services:

General training and workshops: Open workshops, IT training, access to a Q&A database

Consultancy and bespoke training: In-company training sessions and consultancy service to companies to review Reach preparation and planning (ReachCentrum facilitating tools), including Reach Readiness Review, which is a joint service with PriceWaterhouseCoopers.

This service involves a complete review of the company's product portfolio, internal organization and related business implications of the Reach legislation. The whole process starts with a self-assessment questionnaire and interviews resulting in a proposed review scheme. The review itself will then be made by a multi-disciplinary team of specialists and advisors with sector knowledge, Reach expertise and performance improvement excellence.

Facilitation and management support to companies and consortia: Management and guidance through Reach process; tools & standard formats; dossier review and quality assurance taking into account confidentiality aspects.

ReachCentrum holds regular workshops on both on the basics and on the more in-depth aspects of the legislation. Participants representing all steps of the supply chain and the lively debate in the Q&A sessions clearly indicate that companies have a lot of open questions about Reach, the necessary inter-company interaction and the practical way to organize the work within companies.

More information on Reach and on how to subscribe to ReachCentrum is available from the ReachCentrum website at <http://www.reachcentrum.eu>.

Conclusion

Without any doubt, our industry faces a gigantic task in imple-

How to be prepared

In order to help registrants to be prepared, Cefic has created a "12-step program" as a check-list for companies to implement.

- Step 1:** Produce your company inventory of chemical substances and preparations
- Step 2:** Define for each substance & preparation your status (M/I, distributor, DU, legal entity) and your position in the supply chain
- Step 3:** Establish whether individual substances & preparations fall into following categories:
 - Manufactured by your company in the EU
 - Imported by your company to the EU
 - Purchased by your company from a supplier established in EU
- Step 4:** Establish for manufactured and/or imported polymers from which monomers they are made
- Step 5:** Establish for manufactured or imported substances and preparations also their composition, i.e. the substances contained in each preparation
- Step 6:** Identify the CAS numbers of manufactured and imported substances and, if possible, the EINECS or ELINCS number
- Step 7:** Identify and list your customers (per substance and/or preparation)
 - If you are Manufacturer/Importer (Registrant): Go to step 8
 - If you are a Downstream user: Go to step 11
- Step 8:** Collect all available information regarding intrinsic properties
- Step 9:** Ensure that data/information owned by your company remains the property of the company
- Step 10:** Establish which legal entity of your group of companies is involved as a manufacturer or importer or both for which substance/preparation
 - If you are Manufacturer/Importer (Registrant): Go to step 12
 - If you are a Downstream user: Go to step 11
- Step 11:** Identify and list your suppliers (per substance/preparation)
- Step 12:** Compile readily available information on uses and conditions of uses

After these 12 steps, the initial inventory is complete.

The next steps are the following:

- If unclear about how the raw materials need to be registered, the registrant must contact the supplier to find about its intentions regarding pre-registration and registration
- Communicate user and exposure information through the value chain
- Communicate draft exposure scenarios for final confirmation through value chain to check that all their uses are covered

menting the new legislation. Companies will have new tasks and responsibilities under Reach. There is a need to find new ways to interact with the authorities, competitors as well with customers.

Hurdles are bound to crop up along the way and to a certain extent the exercise is about learning by doing. In order to meet the challenge and to be successful as an industry, we

need to join forces, share best practices and to be well prepared for the implementation.

Contact:

Lena Perenius
The European Chemical Industry Council, Cefic
Brussels, Belgium
Tel.: +32 2 676 7211
Fax: +32 2 676 7332
lpe@cefic.be
www.cefic.org
www.reachcentrum.eu

An All Rounder

First European Study on Economic Benefits of Formaldehyde

Broad Scope – While few people know about the wide range of everyday products that contain formaldehyde, the chemical can be safely used in different industries, from healthcare to construction materials and innovation.

The European Formaldehyde Industry Association, Formacare, recently presented the first European study ever to be conducted on the socio-economic benefits of formaldehyde to the economy. The analysis quantifies the value of formaldehyde to society and the contribution of the formaldehyde industry to the EU and Norwegian economies. It provides data on all formaldehyde derivatives including detailed evaluations of major applications.

"Few people know that formaldehyde is safely used in a wide range of everyday products and that insulation materials based on formaldehyde are indispensable for an energy efficient, low carbon economy. When discussing benefits and risks of formaldehyde, like for any other chemical substance, the public expects regulators and experts to act on the basis of valid information," said For-



Rigid polyurethane foams (MDI) are used in construction applications for their superior insulating and mechanical properties.

macare Chairman Lars Erik Johansson. "Our study helps to close this information gap and contributes to a fact based and balanced evaluation of formaldehyde."

The analysis conducted by Global Insight covers more than 95% of the formaldehyde consumption in the EU. It focuses

Melamine formaldehyde (MF) resin is used in laminates and surface coatings. Phenol formaldehyde (PF) resin is used as an insulation binder, in wood products and laminates, in high-tech automobile and airplane applications and in foundry binders. Rigid polyurethane foams (MDI) are used

European formaldehyde-value chain.

The analysis explains the socio-economic benefits of the products from the formaldehyde-value chain and attests a pronounced consumer preference for these products: "Consumers value our products, because they are stronger,

Formacare has commissioned the study "Socio-Economic Benefits of Formaldehyde to the European Union (EU 25) and Norway" in cooperation with the European Panel Federation (EPF), the International Methanol Producers and Consumers Association (IMPCA), the European Phenolic Resins

No less than 1.7 million people are directly employed throughout the European formaldehyde-value chain.

Formaldehyde chemicals play an essential role in achieving the excellent qualities of products

Ron Whitfield, Global Insight Inc

in depth on four major products for which formaldehyde is essential during manufacture. The four main products that account for 80% of Europe's formaldehyde consumption are urea formaldehyde (UF) resin that is used as a binder or adhesive in particleboard and medium-density fiberboard (MDF) for composite panels.

in construction applications for their superior insulating and mechanical properties. Using formaldehyde and its derivatives in Europe rather than alternative products saves more than €29 billion per year (not taking account of huge technical and supply issues). No less than 1.7 million people are directly employed throughout the

lighter, easier to install or use, longer-lived, or more resistant to high temperatures and environmental stresses than those made of substitute materials. Formaldehyde chemicals play an essential role in achieving the excellent qualities of these products," said Ron Whitfield, Global Insight Inc., lead author of the study.

Association (EPRA) and the European Federation for Construction Chemicals (EFCC).

Formacare, representing the European formaldehyde industry, is a sector group of the European Chemical Industry Council, Cefic. Formacare aims to promote the sustainable use of formaldehyde and formaldehyde based products among its members and their customers, with due regard to health and environmental care.

What is Formacare?

As a sector group of Cefic (the European Chemical Industry Council), Formacare represents key European producers of formaldehyde, aminoplast glues and polyols. Formacare aims to promote the sustainable use of formaldehyde and formaldehyde based products among its members and their customers, with due regard to health and environmental care.

► www.formaldehyde-europe.org

The four main products that account for 80% of Europe's formaldehyde consumption are:

- Urea formaldehyde
- Melamine formaldehyde
- Phenol formaldehyde
- Rigid polyurethane foams

Contact:

Franco Bisegna
European Chemical Industry Council, Cefic
Brussels, Belgium
Tel.: + 32 26767394
fbi@cefic.be
www.cefic.be

Thinking Outside The Box

The Helsinki Model for Non-EU Manufacturers

Reach Hub – Born as a picturesque Baltic Sea port, the present day booming Finnish capital in the northeast of the European Union, Helsinki has experienced a rapid build up around Reach during the past year. The European Chemicals Agency (ECHA) has been recruiting experts from all corners of the union to join in its ranks. At the same time there has been a steady influx of new and existing service providers who have come to set up their offices and to mingle with the others before pre-registration begins.

Industry associations from several non-EU countries are establishing subsidiaries in Helsinki to have a presence close to the ECHA as the best vantage point in guiding their members through the different stages of the registration process. With the experts, service providers and now the industry associations taking their places the 10 year registration marathon is about to begin.

Registrations By Remote Control

Reach presents a major challenge for industry in the EU, but the challenge outside the EU is even more complex. As is carefully pointed out in the ECHA guidance, the primary responsibility for registration does indeed lie with the EU importer. Yet, in the registration process the importer submits information that can only come from the non-EU manufacturer. In practice therefore, the non-EU manufacturer can often, and quite justifiably, find

Reach presents a major challenge for industry in the EU, but the challenge outside the EU is even more complex.

themselves uneasy to part with this necessary information going to the registrant. The information flows seem to have the unintended effect of strengthening the registrant's position, providing them with increased control over the competitive dynamics of the import supply chain. In essence there are four strategies for the non-EU manufacturer with different outcomes.

Firstly, the non-EU manufacturer can choose the "reactive strategy" of relying on the importers to register and only providing information when requested. Even here the non-EU manufacturer needs to part with the 100% formula to the registering importers for identification purposes to keep their product on the EU market. Further, the non-EU manufacturer risks damaging their market position if only a limited number of the importers actually do register the product (substance or preparation) in question. In this case the non-EU manufacturer is limited to using just the importers who possess the necessary registration number. This appears to boost the importer registrants' competitive position as gatekeepers. The importer registrants are not limited in their choice of manufacturers outside the EU in finding a matching product but the non-EU manufacturer can only get their product to the market through them.

Secondly, the non-EU manufacturer can adopt the "pick one strat-



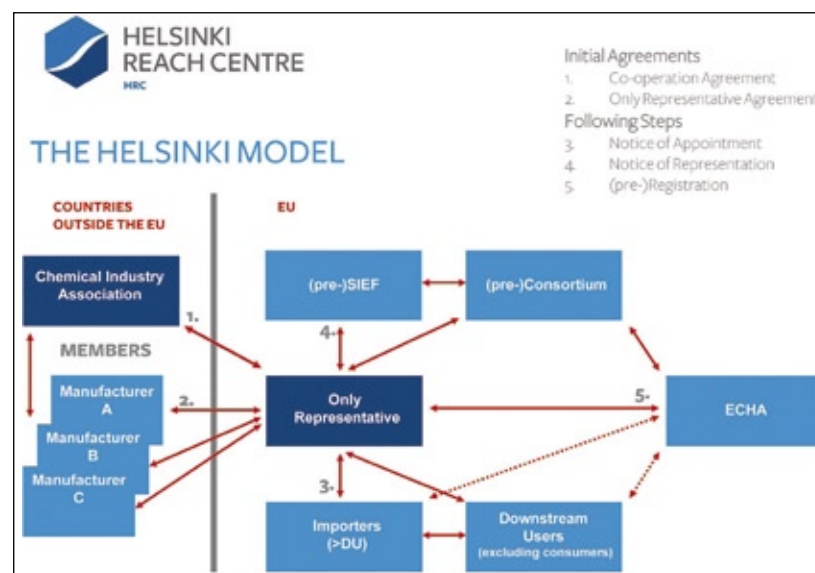
Riku Rinta-Jouppi
Acting program manager
for the Helsinki Reach
Centre

egy" of appointing one of the importers as their only representative. The position of the only representative is inherently difficult because under Reach, the only representative holds confidential information from up and down the supply chain, both from the non-EU manufacturer and the downstream users in the EU. Here, the non-EU manufacturer needs to trust the chosen importer with the substance related information and, in addition, the names of their other EU importers with the corresponding sales volumes. The only representative is then also expected to collect use and exposure related information from the other importers (who assume the Reach role of downstream users). Attempts to collect this information, however, may raise these other EU importers' eyebrows because of competition law concerns about providing their competitor with such information about themselves and from actors down the supply chain. Any prospective EU importer of the non-EU manufacturer in question would also need to approach the only representative first. As a whole, it seems again to be potentially pointed out in the ECHA guidance, the primary responsibility for registration does indeed lie with the EU importer. Yet, in the registration process the importer submits information that can only come from the non-EU manufacturer. In practice therefore, the non-EU manufacturer can often, and quite justifiably, find

Thirdly, the non-EU manufacturer may appoint their own EU subsidiary as the only representative by taking on the "keeping it in the group" strategy. This arrangement is likely

to work well with larger subsidiaries with their own production in the EU who are therefore well accustomed to dealing with EU environmental and safety regulation. However, for small and medium sized subsidiaries, the added regulatory burden and therefore the need of specialist personnel and other resources may be substantial. This strategy also effectively rules out the possibility of using the same only representative for other non-group manufacturers of the same product.

Finally, there is the strategy of "hiring the independent third party." Here the role of the only representative is taken on by a third party who does not play a role in the chemical supply chain. The use of such an independent party opens the way for several non-EU manufacturers to contract the same only representative for the same substance (following procedures for adherence with confidentiality obligations and competition law), as a cost saving opportunity offered by the Reach text. For this strategy to work, it is paramount to establish good lines of communication among the non-EU manufacturers and onwards from them to the only representative. This is necessary for the sub-consortia to come together and the non-EU manufacturers to be able to provide the information safely in the required format to the only representative. With the non-EU industry associations also playing a role in this



Non-EU industry associations are establishing their own only representatives or entering into cooperation with selected only representatives to support their members. The only representative is then appointed by the non-EU manufacturer. Several non-EU manufacturers can appoint the same only representative.

work, this particular strategy is the basis of the Helsinki Model.

The Challenge for Non-EU Industry Associations

Where the EU manufacturer can call up their national helpdesk for guidance in their own language and their industry association for services available in their own country, many non-EU manufacturers looking to prepare their dossier and to appoint an only

representative are finding that there are no such support systems available for them.

A major obstacle in the development of suitable Reach support for non-EU manufacturers has been the absence of a coordinating body similar to the European Chemical Industry Council, Cefic. Such an entity, the Chemical Industry Council of the Non-EU Countries, simply does not exist. So, starting from their par-

ticular national circumstances industry associations in different countries have chosen quite different strategies in supporting their companies in dealing with Reach, not all of them proving workable.

With the six month pre-registration period soon upon us, it is evident that particularly the small and medium sized manufacturers from around the non-EU world do not yet have the necessary level of awareness to get through pre-registration. These companies will almost certainly miss the deadline without co-ordinated and innovative support from the concerned non-EU industry associations.

However, since the autumn of 2006, Helsinki Reach Centre has taken on the role of bringing the different interested parties together: the non-EU industry associations, service providers and the Reach experts from in- and outside the EU together to co-ordinate the previously missing Reach support functions for the non-EU manufacturers. The support has been organised to be available through a single point of contact, the Helsinki Reach Centre electronic service.

The participants will assess the business impact of Reach and the different strategies on the EU import supply chain. The ECHA will also take the opportunity to present the complete guidance on registration in the

The work is culminating on May 20 – 22 in HICCS 2008 i.e. Helsinki International Congress on Chemical Safety 2008.

import supply chain and on only representatives. Finally, representatives of the major source countries join in a round table discussion to finalise their strategies for supporting their members through the registration process. There will be opportunities to meet the people behind the ECHA and also their counterparts, the people running the non-EU industry association Reach operations. If the only representatives and their principals rise up to the challenge to play an active part in the Reach registration process there are several positive effects. We will see substantial inclusion of new hazard data in the SIEFs, a much better balanced division of registration work between only representatives and importers and better communication in the import supply chain.

Contact:

Riku Rinta-Jouppi
Helsinki Reach Centre
Helsinki, Finland
Tel.: + 358 9 3193 6541
Fax: + 358 9 3193 6554
riku.rinta-jouppi@helsinkireachcentre.eu
www.helsinkireachcentre.eu

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SPECIALTIES

A WORLD OF INGREDIENTS

Brenntag is one of the most experienced partners of the food industry, offering you a reliable supply of ingredients from all the world, consistently high product quality, plus short delivery times. From product development, through on-site technical support, to logistics, marketing and distribution, Brenntag provides attractive tailor-made service packages that sharpen your competitive edge.

Leadership by performance.
Brenntag sets benchmarks in quality and safety – and ensures compliance with these high standards. Whatever is on your shopping list, you can count on our ingredients to help you create perfect structure, appetising colours, better taste and flavour whilst optimising your production process and assuring consumers healthy, attractive nutrition. We supply you with individually developed innovative blends, or any of our more than 450 products... just the way you like it, and backed by comprehensive information and application support.

A worldwide network that works for you.
The more than 150 Brenntag professionals on the European Food Team speak the language of their customer and are well informed about products and application areas. Their know-how is kept at state-of-the-art level via ongoing education and training. Moreover, Brenntag passes on timely and detailed information to customers and suppliers concerning latest market and product trends in the food industry. This enables many companies to tap new, lucrative sales opportunities for their raw materials and products.

**Brenntag Holding GmbH
Brenntag Food Europe**
Stinnes-Platz 1
45472 Mülheim an der Ruhr
Germany
Phone: +49 (0)208/7828-7015
Fax: +49 (0)208/7828-149
email: food-europe@brenntag.eu
www.brenntagfood-europe.com



The information flows have the unintended effect of strengthening the registrant's position, providing them with increased control over the competitive dynamics of the import supply chain.

Pre-registration as a Reach Safety Net

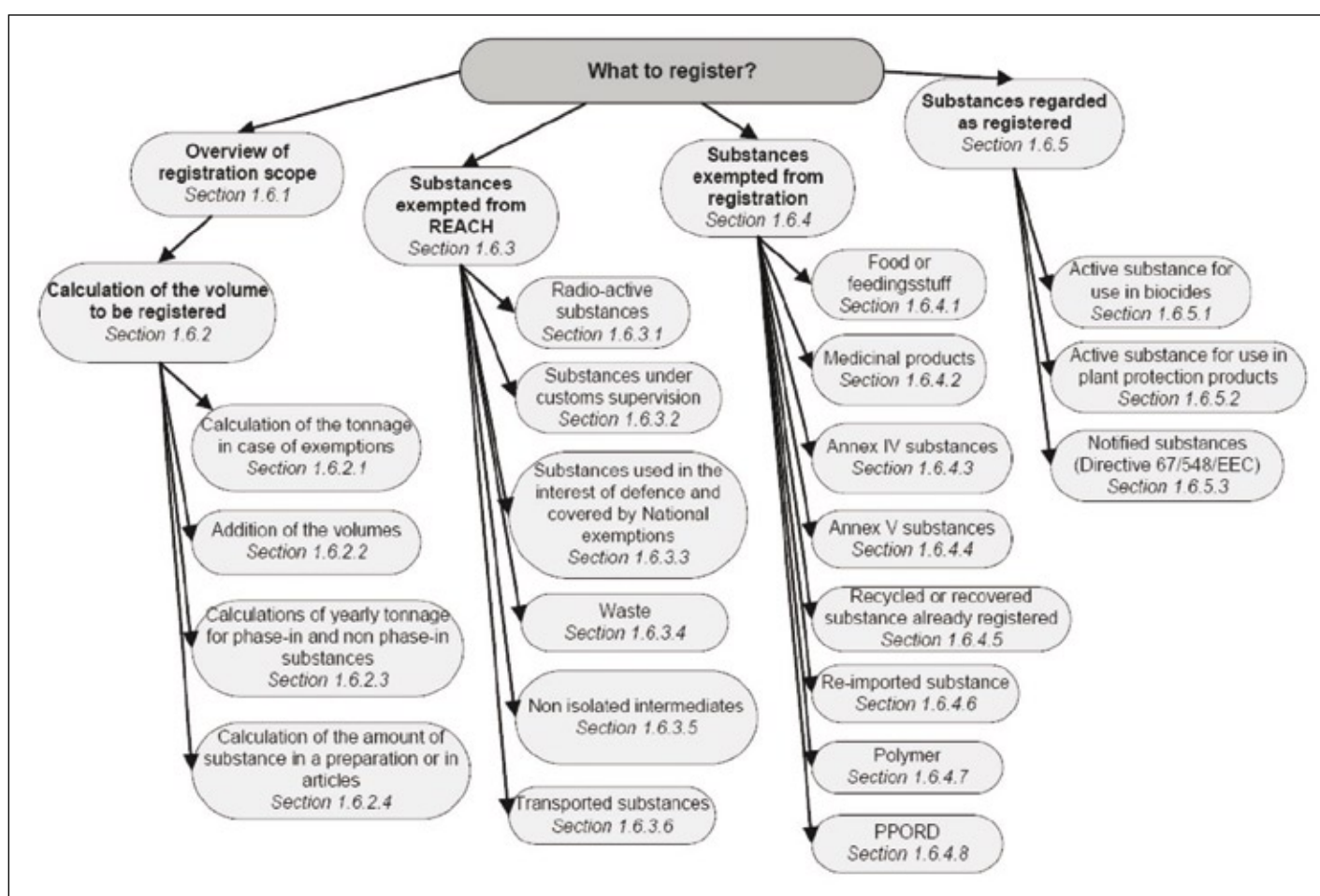
Making Sense of the Requirement to Pre-register to Protect Phase-in Status

To Pre Or Not To Pre – That is the question. With Reach coming up, many companies are not sure which substances they should pre-register.

With the opening of the six month pre-registration period only a few months away, companies are understandably trying to finalize their respective Reach strategies. Since there are no precedents to follow, there are many questions which are, as yet, unanswered – particularly in respect of ultimate registration obligations. Rightly, the strategy of “if in doubt, pre-register” has emerged. Since pre-registration is relatively straight-forward and can be done at no apparent financial cost, it is very tempting to rely on it for virtually every substance that impinges on a company's business. However, is this a wise strategy; or will there be hidden costs that begin to emerge further down the track?

The Pre-eminence of Pre-registration

It is very difficult to overstate the significance of pre-registration in respect of its overall impact on chemical companies that currently have interests within the EU. It is the first regulatory requirement in living memory that requires, in such a widespread way, an action to maintain the status quo. As



simple as that action is, its significance is huge. Understandably, management teams across the industry are being told that if they don't pre-register, they cannot lay claim to phase-in status and, more importantly, the time to register. The mantra “no data, no market” warns everyone that being left out has catastrophic short-term consequences. Although limited pro-

visions exist for late entrants, these are not targeted at those who say, “I forgot.” The prospect of market interruption therefore hangs over any company that takes its collective eyes of the ball. In addition, failure to pre-register would be a clear sign to a company's customer base that it had no long-term (or even short-term) interest in the chemical. This is not normally an advisable marketing strategy.

With all this said, the well-organised, forward-thinking company will want to identify with certainty its registration needs and therefore define unambiguously its pre-registration requirements. Sounds easy! So why isn't it?

Grappling with the Identification of Substances

Most companies, and particularly their sales, marketing and manufacturing operations, deal in products. However, Reach deals specifically in substances. This puts a significant burden on the interactions between business and technical staff within an organization and can be in danger of exposing short-comings which need to be fixed rapidly if registration needs are to be defined in time. A systematic approach to the subject is required in all but the simplest of cases and an externally-sourced Reach Impact Assessment can often be the most efficient way of breaking the log-jam and achieving a quantified list of registration obligations.

If such a process is not carried out in a timely fashion (i.e. before Dec. 1), the temptation is to pre-register everything without consideration of the total costs of registration and its commercial implications to the business just to buy time. But how expensive might this purchase of time prove to be?

What To Pre-register?

In a previous article (Dealing with Complex Registrations, CHEManager Europe, May 2007) we outlined some of the problems that can exist with respect to substance description and identification, particularly with more complex chemistries. Without seeking to repeat those examples again in this article, it is clear that, even if a description can be developed at company level, some sectors will have difficulty in reaching agreement on that description on an industry-wide basis – particularly ahead of such a tight pre-registration timeline. The likelihood is, therefore, that the same substance will be pre-reg-

istered by different companies using non-matching descriptions. If many of these companies were only pre-registering just in case, the complexity of sorting this out could be massive when some pre-registrants might only have a passing interest anyway.

Even if substance identification is clear, the number of considerations about the need to register is still vast. The diagram below is taken from the Reach Guidance on Registration (RIP 3.4) and illustrates this point:

Even under these major headings, there can be a number of hidden additional registration obligations. For example, monomers that are used (not necessarily still present) in polymers imported into the EU will require registration.

However, even if we successfully solve the question of what to register, the next question is whose responsibility is it to register?

Can We Rely on Suppliers?

The pre-registration period is likely to be fraught for everyone. However, it will particularly be so for the importer of a polymer who has to ensure that the monomers are registered. In the absence of confirmation from up the supply chain that the monomer has been (or will be) pre-registered, the importer will need to make provision themselves. Since this matter is still subject to legal clarification, it is not yet even clear how a non-EU supplier of monomer would secure its registration (since it would be the EU-based importer or Only Representative that would hold the parallel registration for that monomer

in practice). Accordingly, all importers of polymers are likely to need to pre-register all of the monomers – just to be safe.

On this basis alone, we anticipate that there will be numerous redundant pre-registrations. There could be a risk of the number of pre-registrations being doubled, tripled or even quadrupled for some regularly used monomers just on the basis of nervous importers covering the possible inability of their polymer suppliers to gain confirmation of registration from their non-EU monomer suppliers.

For downstream users the situation will be even tenser. Only when pre-registration is closed will a downstream user know for sure whether the substances they use have been pre-registered. Even then, it will not be evident whether their own supplier has pre-registered, since the identity of pre-registrants is only disclosed to other pre-registrants. If no pre-registration has occurred the only option will be to declare an interest to the European Chemicals Agency (ECHA) who will display this interest on the central website. Even this does not guarantee that registration will take place, so continued use of the substance cannot be assured. Similarly, the pre-registration of a substance by one or more suppliers does not guarantee that final registration will take place. It would be quite legitimate for a pre-registrant to withdraw from the registration process if costs were becoming too high or their commercial circumstances changed.

In order to keep a track on these developments, downstream users might believe that the only realistic strategy

The potential chaos of the SIEF

Additional members of a SIEF, over and above the legitimate manufacturers and importers, could arise from:

- eligible registrants who had not yet decided whether they really wanted to register or not
- potential registrants who had incorrectly described their substance (identified during an initial ‘sameness’ check)
- polymer importers who were unsure whether their monomers would be registered ‘up the supply chain’
- downstream users anxious to ensure that their use is covered in the exposure scenarios included within the Chemical Safety Report (CSR).

would be to join the relevant SIEF as a data holder just to be sure. This is permissible under Reach, primarily to allow the downstream user to represent its downstream use adequately and thereby ensure the application of an appropriate exposure scenario.

The early stages of a SIEF are going to be quite cumbersome and inefficient (see infobox). Those that have pre-registered everything just to buy time will mop up plenty more time in investing in so many SIEFs before deciding finally what to do. Those that have wrongly identified their substances are going to have to switch SIEFs. Those that have pre-registered all their monomers just to be safe will find that they have a number of time-consuming SIEFs to attend to even though others might ultimately be attending to their registration obligations. Those downstream users that have joined as data holders just to be sure could find at an early stage that their use was already catered for and that there was no need to engage at all.

All of this rationalization will take time. At best we might assume that it could be completed by mid-2009. This could leave registrants seeking to meet the >1,000te (or CMR) deadline with only 18 months to share data, come up with plans for filling the remaining gaps and writing the relevant Chemical Safety Reports. Most commentators realize that this will be an unachievable objective without work going on in parallel with a smaller, more focused group – the consortium.

The Comparative Sanity of the Consortium

Some more advanced industry sectors have already formed consortia to address the core data requirements of registration. Although any consortium would be unwise, for competition law reasons, to restrict its potential membership to less than those eligible for the SIEF, it is unlikely that all of potential SIEF members listed above would join, since there would be some cost implications for doing so. This being the case, the consortium activity will naturally be more focused. In addition, the opportunity exists

to engage those non-EU manufacturers with an interest in a substance directly into the process of data evaluation, data-gap filling and initial CSR development. This approach cuts out the need to deal through intermediaries, such as importers, whose interests in the substance may be more tangential. Again, on-lookers can see that a fully-functioning consortium could be a much more efficient means of achieving the objective of developing a joint dossier. The consortium itself can then be represented in the SIEF as a bona fide data holder in its own right. Equally, potential registrants do not then need to wait until the early part of 2009 to begin exchanging information.

The Specific Case of the Non-EU Supplier

For the non-EU supplier, the consortium is clearly the only way of engaging directly in the registration process, unless it can make a case to the SIEF as a legitimate data holder in its own right. Again the focus and efficiency of the work in a consortium will be a significant benefit over and above that of a SIEF and would be a better investment of time than multiple SIEFs for the reasons described earlier.

However, there are further disincentives for those seeking to act in a SIEF through either importers or Only Representatives. These relate to the management of longer communication lines on the one hand and cost of representation on the other. It is clear that a non-EU manufacturer will not want to be exposed to unnecessary pre-registrations in view of this amplification of the costs and business disturbance. This makes it all the more critical to carry out a proper Reach Impact Assessment prior to the pre-registration period in order to focus on those substances that are critical to register and the costs related to them.

Contact:

Paul Ashford
Caleb Management Services Ltd.
Cromhall, UK
Tel.: +44 1454 269330
Fax: +44 1454 269197
reach@calebgroup.net
www.calebgroup.net

VANADIUM CONSORTIUM

The Vanadium Consortium was established by a group of international industry companies to organize the registration data for Vanadium and some of its compounds.

On behalf of its members the Vanadium Consortium aims to encourage and manage the sharing of resources, co-ordinate the evaluation of existing data and the generation of new data, offer support to members with knowledge and information on REACH, liaise with other REACH consortia and provide a structured and cost effective approach to supporting the REACH obligations.

For the management and coordination of the Consortium we are looking for a

REACH MANAGER

Responsibilities:

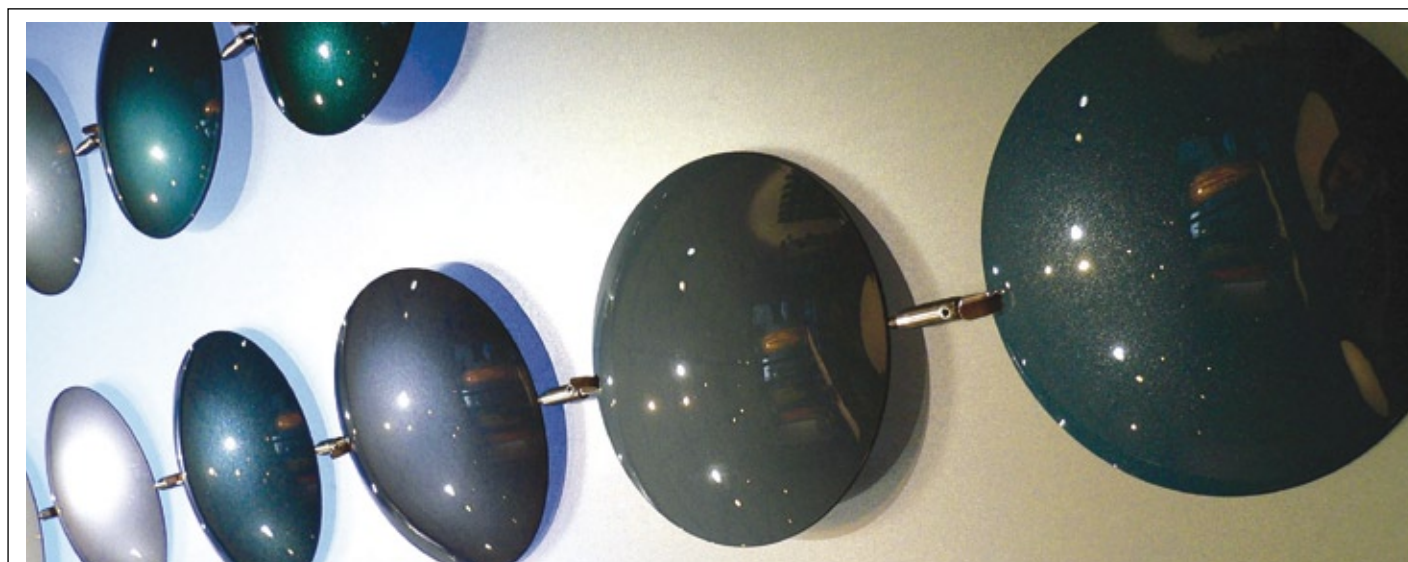
- Coordination of the day-to-day management of the Consortium
- Supervision of the organisational, administrative and financial matters relating to REACH Compliance under the guidance of the Steering Committee
- Preparation and organisation of the pre-registration for all relevant substances
- Coordination and accomplishment of the registration
- Preparation of work plans and implementation of agreed strategies
- Preparation and maintenance of the budgets for each calendar year
- Organisation and accomplishment of the data collecting process and the research program according to agreed strategies
- Organisation of the necessary communication
- Preparation for eventual authorisation for the particular V-compounds

Requirements:

- A sound knowledge of REACH regulation and REACH implementation projects
- Consolidated scientific knowledge (ideally in the field of ceramics, but also chemistry, toxicology or related fields)
- Excellent written and oral communication skills in English
- Project management experience
- Readiness to travel internationally

The position will be based in Althofen, Austria

Please send your application (cover letter and a CV in English) via e-mail to Georg Zimmermann, Egon Zehnder International, georg.zimmermann@ezi.net



Environmental Awareness Impacts Car Color The debate on climate protection and heightened environmental awareness is impacting color trends for cars. The worlds of color reflect a sustainable symbiosis of nature and technology, said BASF coatings color designers Michaela Finkenzerler and Mark Gutjahr (Europe), Chiharu Matsuhara (Asia/Pacific), and Sandra Mathia (North America) at the presentation of the 2008 colour trend forecast for the automotive industry. The new palette of colours, inspired by ecological developments, ranges from new blacks, the trend colour white in its multifaceted variations, rich blues and greens, all the way to pastel colors. www.basf.com

Between Skylla And Charybdis

Modern Solvent Recycling

Between a rock and a hard place – While wind and water are traditional sources of energy and are re-emerging today with new technologies, energy may also be derived from bio-waste including foodstuffs. Energy from waste is a matter of growing interest to society but it does give rise to some contentious considerations. Can we afford to ignore energy resourced from the disposal of used and contaminated solvents? The question we must ask ourselves: "Is solvent-recycling keeping up with the times?"

Immediately post the World War II the need for solvent recycling was driven as a result of a high demand for solvents on the one side and a low production capacity and prime material shortage on the other. Nowadays and thinking about globalization, enough new production capacity is available and the supply of raw material (such as oil) is still reasonably assured, even if we ignore its high cost, we must ask ourselves why recycle?

The first priority after the war was to use simple methods and with little effort in order to make contaminated oils and solvents "reusable." The consequence was the creation of an industry sector that is now comparable in scale to the original early industrial production. In current terms, the raw materials for virgin quality solvent production are mostly petrochemicals derived from commodity feedstock and these may result in the production of a range of solvent materials of known purity and consistency covering for example hydrocarbons, alcohols, ketones, esters and halogenated materials. Turning to used solvents, the input raw materials for solvent-recycling are classed as discarded or technically waste matter and are as different as the aims they were originally used for, and, in respect of the range of impurities they may contain. While the exact analysis and control of the incoming raw-material is cost-effective, it is however an absolute and necessary step on the road to recycling in order to achieve a high-value recovered final product of known quality.

The Modern Recycler's View

In respect of original industrial solvent manufacture this normally follows the strict chemical and physical laws of science and is optimised in terms of efficiency. A new product can arise out of one or more substances. According to what is required, the



In Greek mythology, sailors had to choose between the two monsters Skylla and Charybdis. Nowadays, many see the recycling industry in a similar position, stuck between Charybdis (Reach) and Skylla (waste).

production sites are thus target-oriented and usually work to economies of scale. Solvent-recyclers do not create "new" products. They aim to separate the already existing solvent from associated unwanted materials or contaminants, with the prime aim of re-use. With the specialised knowledge of the properties of the solvent in mind as well as its historic application and the properties of the inherent contamination, a recycler who uses a modern, flexible, multipurpose plant is by fractional distillation able to recover an ideal quality recycled product.

When considering recycling, it is necessary to understand that collection of waste is also an important part of the cycle and a recycler can not always make use of standardised collection techniques. For example, a significant problem of the need for separation may occur when managing different waste streams from various waste-producers.

From a different perspective, this is not a significant consideration for someone who favours energy recovery over recycling, as their interest is in the calorific value of the waste and that does not usually require sepa-

rate collection. A recycler is interested in the specific substances and in separate collection in well defined systems. The range of collection facilities can thus easily cover a need for containers from 30 l drums up to 30 m³ bulk tanks. Partial-transport-trucks with secure bottoms and multi-compartmented trucks are needed to transport the contaminated incoming waste and on return to customers, the regenerated products.

The management and handling of all chemicals has to meet the requisite national and European Union (EU) or UN laws designed to provide for the safety of humans and the environment; recycled products are no exception. The trade of recycled products requires special attention for all concerned parties as it traverses both waste and product legislation. Before using regenerated products their suitability for reuse needs to be carefully considered and a full dossier of information about the material has to be communicated from the waste producer to the recycler to the next user and if necessary, to any end-consumer.

Compared to this complex procedure, an energy recovery opera-

tion, unlike recycling, comprises a 'one-time' concept: i.e. recovering the energy which is inherent in the solvents intrinsic chemical properties, though this route is subject to strict laws too. A degree of complication may occur here because certain countries traditionally have used discretionary taxes in order to direct wastes to either energy or recycling operations and this may easily lead to market distortion. Gradually however, EU law is moving to a system of greater transparency and is discouraging this approach. For example, in respect to waste oils the EU has just decreed that the traditional duty derogation, allowed in some countries when used oils are combusted, must now end.

Modern EU thinking encourages Europe to become a recycling society but it recognises that a strict prescriptive doctrine on waste management will not work on a "one size fits all basis". The pros and cons of what should be a sensible waste management solution will only be found by considering a number of features about the specific waste, be it recycling or energy recovery, and that involves many considerations.

Setting Out the Legal Framework

The fundamental legal considerations are set for most substances by the Reach Regulation and for waste in the Waste Framework Directive. Nowadays, the recycling domain is seen as being in between Charybdis (Reach) and Skylla (Waste) – (see the paper by Dr. J. Fluck "Reach und Abfall", Abfall R 1 2007). In order to address these issues, the ESRG (European Solvent Recycler Group) took on the role of initiating discussions and making the necessary inputs to both waste law reviews and that of the Reach legislation, too.

Legally, if something is waste it does not fall under the Reach Regulation. However, ESRG lobbied hard to show that waste can be fully recovered as products and thus stop being waste and Reach now fully reflects that situation. In recycling where a substance is being recovered (therefore it is not new) re-registration can be avoided. A difficult and important debate has to consider the issues concerning "by-products" and "secondary raw-materials". However, this is largely a matter when something is not waste or ceases to be waste. This

requires careful interpretation of the law. Further, in the Waste Framework Directive review ESRG has lobbied to support the waste hierarchy condition that effectively positions (after waste avoidance) reuse above recycling, that is above energy recovery, that is finally above disposal. ESRG does not declare that recycling is necessarily always the best means of achieving recovery, but it is the priority and should be considered first.

So in order not to be in the dangerous position between Skylla and Charybdis, ESRG supports the opinion that under defined circumstances it should be possible to establish such priorities. Today, the principle concept which is supported is that life cycle thinking should be used to help judge what is a suitable approach to waste management within the overall available options.

Solvent recyclers do not see the links between Reach, the Waste Framework Directive and New Waste Strategy as a difficult and treacherous sea, in which one has to carefully navigate in, but rather as a natural link between waste and recovered product. Currently, many of these points require finalisation into law and a number of detailed points still have to be clarified, including the proposed waste hierarchy.

Moreover, one of the oldest problems that has still to be solved is the language. Reach as well as the Waste Framework Directive gives detailed definitions or terms including substances, products, preparations, articles, by-products, intermediates and so on, but unfortunately they are not always applied consistently. These words can readily confuse someone in his/her mother tongue but the problem is easily exacerbated when translated into the many languages of the European Union. There is still a huge effort needed to encourage all participants to agree to use the same meaning of the various terminologies.

In summary, in its Thematic Strategy on Waste the EU has declared that Europe should become a Recycling Society. ESRG solvent recyclers support this principle and are working to ensure that a set of reasoned but flexible approaches are adopted in the framework of laws, including that of Reach, to underpin the concept.

Contact:

Jens Raheise
Chairman ESRG, Köln
Rabochem AG, Murten, Schweiz
Tel.: +41 26 672 9010
Fax: +41 26 672 9019
jraheise@rabochem.com
www.rabochem.ch

Dow Exits Hydroxyalkyl Acrylates Market

The Dow Chemical Company has stopped producing and marketing hydroxyalkyl acrylates by the end of 2007. The hydroxyalkyl acrylates product line includes hydroxyethyl

acrylate and hydroxypropyl acrylate. These products are sold largely to major coatings formulators for use in automotive topcoat applications. This decision has no impact on Dow's

standing as an acrylic acid and acrylic ester producer.

▶ www.dow.com

Bristol-Myers Squibb Company announced it will cease operations at its Barceloneta, Puerto Rico manufacturing plant by the end of 2008.

The closure of the Barceloneta site is a result of the decrease in market demand for a number of the mature products produced at the site and the

optimization of the company's manufacturing network.

▶ www.bms.com

DSM Invests In Novomer

DSM Venturing, the corporate venturing unit of Royal DSM, said it has made an investment in the company Novomer. Financial details will not be disclosed. The companies said they also intend to sign a cooperation agreement that will support DSM's ambitions to develop bio-based per-

formance polymers to meet growing needs for materials performance and environmental benefits. Novomer is developing a technology platform to use carbon dioxide and other renewable materials to produce performance polymers, plastics and other chemicals. The company's products

can be used in a range of applications, from injection molded parts for electronics to paper coatings and medical implants.

▶ www.dsm.com
www.novomer.com

Recognizing the business planning issues resulting from Reach (Regulation Evaluation and Authorisation of Chemicals) Refac has developed a structured Only Representative (OR) service. This will enable manufacturers and distributor companies working outside of the EU to com-

ply with the EU Reach regulation to ensure business continuity. Through the OR service, Refac will take on the responsibility of the registration process for the non-EU company. It will collect, prepare and submit the required pre-registration information to the European Chemicals

Agency (ECHA) to meet the December 2008 pre-registration deadline and provide the subsequent services to comply with the full Reach registration process.

▶ www.refac.eu

Halocarbon Registers Growth and Expands

Halocarbon, a producer of specialty fluorochemicals and inhalation anesthetics, has experienced sales growth, notably in China and India. The growth has led to the company expanding its manufacturing complex

yet again with new reactors and ancillary equipment. Another production facility may soon follow. Exports accounted for 60% of the company's 2007 sales, with an increasing percentage from the East. Popular

products continue to be hexafluoroisopropanol, trifluoroethanol and trifluoroacetic acid.

▶ www.halocarbon.com

Two New Epoxy Curing Agents

PRODUCT Air Products has introduced Anquamine 721 and 731 epoxy curing agents, two new waterborne epoxy curing agents for the flooring and concrete coatings markets. The new products provide environmental

benefits in a cost effective way to protect concrete. Anquamine 721 and Anquamine 731 epoxy curing agents give users the ability to use less binder, more filler and water as a diluent, which translates to cost savings to

formulators. The curing agents feature adhesion to concrete, rapid hardness development and concrete protection properties.

▶ www.airproducts.com

Businesses Benefit from Foreign Language Skills

PRODUCT Small and medium-sized enterprises (SMEs) in the European Union lose contracts worth several millions each year due to language and culture barriers. An ELAN study published by the European Union in December 2006 shows clearly that investment in foreign language skills has a significant positive impact on the competitiveness and commercial success of a company. The ELAN study uncovered a link between the foreign language skills available within European companies and their success in the export market. A sur-

vey among nearly 2,000 exporting SMEs in 29 European countries was carried out. It appears that about 11% of the surveyed enterprises were unsuccessful in their bids for contracts due to the lack of foreign language skills within their organisation.

Admundi Language Services based in Bremen, Germany, offers its international business customers a range of intercultural services that could best be described as foreign language management services. They include various components from

translation and interpretation to foreign language training and co-presence at trade fairs and other events. Admundi Language Services also coaches individuals for negotiations or presentations. Companies avail of native speakers of their customers' languages to establish initial contacts and to look after their customer relationships.

▶ [Admundi Language Services GbR](http://www.admundi.com)
Tel.: +49 421 560125
brigitte.focke@admundi.de
www.admundi.com

Making Change Happen

Private Equity Changes the Face of Chemicals Leadership

Leadership Skills – The pace of change in the chemical industry is accelerating: Private equity is playing an increasingly influential role in the overdue adjustment and consolidation process of a fragmented industry. Mergers and acquisitions are no longer only driven by major corporations in the sector such as BASF, Akzo Nobel or Dupont, but also by private equity companies such as Blackstone, Apollo Management, Advent, Carlyle and Asian States Funds. A recent study by Spencer Stuart shows that this consolidation process is shaped by a new breed of committed executives, as new leadership skills are required in a changing environment.

Private equity has a long history of investment in the chemicals industry. Private buyers, including private equity, have driven roughly one quarter of the acquisitions in the industry in recent years. Among industry leaders, it is widely expected that the level of activity of private equity will further increase. Why? The study "Private equity: Changing the face of the chemicals leadership" shows that the concept of pri-



Dr. Wolfgang Zillesen
Spencer Stuart

Private equity is achieving greater efficiency and is thereby accelerating the value creation plan of chemical companies. The study is based on interviews with executives from portfolio companies and private equity firms.

Overall, private equity has brought a new set of investors to the industry, which broadens the base of sources of funds. Private equity increased the industry's ability to fund incremental projects accepting and enforcing the unique parameters guiding the industry. Typical investments are embedded into a three- to five-year time frame which is in line with the time span for major transformations. Experts agree that portfolio company CEOs typically take a longer-term view on the firms' strategy without having to meet quarterly financial requirements and expectations. This is of importance for an industry which is characterised by long development periods for its products, and that is at the same time – due to the nature of the business – very capital intensive. The private equity approach in the chemical industry is clearly focusing on the strategic side (e.g. also envisioning acquisitions)

in comparison to rather short-term engagements in other sectors.

With consolidation gaining momentum in the chemical industry, large corporate businesses are under pressure to react. BASF is a good example for a company responding strongly to the opportunities for industry consolidation and to the driving force of private equity. The world's largest chemicals producer is constantly transforming its platform through acquisitions – industry observers point out that BASF itself performs like a private equity firm.

How do They do it?

Due to the high degree of fragmentation, the chemical industry as a whole is of great interest for private equity companies. Long-term investments focusing on consolidation, particularly in the specialty chemical industry, offer plenty of opportunities for strong returns and enable investors to take out overhead and to create market leaders which are able to raise pricing levels in their segments. Private equity is helping companies to restructure, revitalize and relaunch in the public setting, by taking them off the market and putting them into an environment where significant change can occur. The focus is on top line revenue increase as well as on efficiency and cost control in order to generate real economic value. In the majority of situa-



Dr. Günter von Au (Süd-Chemie), Volker Trautz (Lyondellbasell) and Antonio Trius (Cognis) have at least one thing in common: As CEOs, they lead chemical companies owned by private equity companies. A study from Spencer Stuart indicates that such CEO's need new leadership skills to be successful.

tions, portfolio companies have high levels of debt, requiring the boards' constant attention to cash flow, spending levels, debt repayment and financial targets. Typically, a portfolio company will pay closer attention to cash, EBITDA, capital expenditure and capital structure.

Executives consulted in the study emphasise the role that debts can play as a burning platform for change. It is important to understand that

private equity firms deploy a high degree of focus and a significant sense of urgency in making a transformation happen now. Debt-loaded companies are under pressure to improve their situation quickly, namely to perform better. Clearly it is not in the interest of the investor to starve the company of capital or R&D spending as the declared intention remains a high priority: to exit and sell the business in three to five years' time.

By placing representatives on the board, private equity is helping portfolio companies succeed in implementing their strategy. Board members of portfolio companies are significantly more involved in the operation of the company following a broader supportive course. Their engagement is about helping to develop the right strategy, build the right team and focus on the right objectives, but not about micro-managing the company.

The Brains Behind the Plan

The intense focus on results and the consequences of portfolio companies' leveraged position present some unique opportunities and challenges for the leaders of these companies. It is essential for executives accepting a portfolio company role to realize that a specific mindset is required in order to succeed in a private equity environment. This mindset includes never being satisfied with the status quo, being aggressive in a positive sense, being readily accessible and visible to the organisation, as well as being a good communicator able to explain a company's goal. A good CEO must also be a forceful, good decision-maker who is strongly driven by performance metrics. In the private equity environment, CEOs have to focus constantly on improving EBITDA, bearing in mind profit and loss, managing cash to reduce debt and building the business with a focus on increasing the multiple that a buyer will be willing to pay for the company in the future.

An enormous commitment is required as the CEO must be working at the same pace as the private equity team. Underlying the nature of the leadership in a portfolio company is a frequent and clear-cut communication between the board and the CEO. Transparency is a must: Status of the business and arising problems must be visible to the board at all times. After all, the firm and the CEO share the same aspiration for the success of the company.

Making Change Happen

So who should consider an executive role in private equity driven chemical companies? Clearly the top job is not for everybody. The study suggests that leading a portfolio company is for CEOs who are more entrepreneurial than the average public company CEO. The assignment is to create value by driving dramatic changes in the organisation. The candidate should embrace his or her role as a change agent with passion and indefinite energy. A portfolio company CEO is always on call and needs to be even more knowledgeable about and involved in the details of the business than a CEO of a public company. When private equity deals fail, it is mainly because CEOs continue to act in the same way as they did during their tenure in a public company, namely delegating too much and not getting sufficiently involved in the key issues and the daily operation of the business.

Most of the time, a significant amount of the executives' personal wealth is tied up in the portfolio company and the professional reputation is consequently at stake. It does not come as a surprise that their interests are closely aligned with the interests of the shareholders resulting in a fully engaged attitude towards the assignment. The good news: Potential rewards for a successful private equity venture are greater than with a public company.

When considering an engagement in a chemical com-

pany run by private equity, potential executives should assess the private equity firm's track record. Is the firm entrepreneurial, aggressive, high pressure and nurturing? Does it comply with your comfort zone? Acting as a CEO means becoming a deeply integrated team player, so do get to know the strengths and styles of the people you will be working with. In view of the challenge ahead, executives should also evaluate the envisaged strategy and make forecasts for potential upsides.

It goes without saying that the candidate should also thoroughly conduct due diligence of the portfolio company. Research the markets and the economic drivers that do reflect on the company. Analyse the company's recent performance considering the fact that it is highly leveraged. Collect reviews of lenders – ask questions on the company performance and obtain their view on the company's ability to continue to pay. At the end of the day the candidate should answer with a clear "yes" when asking: "Would I buy this company?"

Conclusion

Private equity will continue to influence the chemical industry. The focus on results and the consequences of portfolio companies' leveraged position offer unique opportunities for committed executives. These change agents are hands-on problem solvers thinking in entrepreneurial categories. They do have balance sheet savvy, coupled with a sense of urgency. These executives adapt quickly to new leadership requirements and are comfortable with having a close working relationship with the board.

Contact:

Dr. Wolfgang Zillesen
Spencer Stuart
Frankfurt am Main, Germany
Tel.: +49(0)69/610927-20
Fax: +49(0)69/610927-50
contact@spencerstuart.com
www.spencerstuart.com

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Editor-in-Chief
Brandi Schuster
Tel.: +49 6151 8090 166
b.schuster@gitverlag.com



Editor/Key Account Manager
Dr. Michael Reubold
Tel.: +1 201 748 8810
m.reubold@gitverlag.com



Media Consultant
Miryam Preusser
Tel.: +1 201 748 8886
m.preusser@gitverlag.com



Media Consultant
Corinna Matz-Grund
Tel.: +49 6151 8090 217
c.matz-grund@gitverlag.com

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Felcht Joins Süd-Chemie's Supervisory Board

Prof. Dr. Utz-Hellmuth Felcht, a partner of the private equity group One Equity Partners, has been appointed to the supervisory board of Süd-Chemie, with effect from Feb. 4. The private equity company holds 50.4% of Süd-Chemie's voting rights. Felcht has formerly been CEO of Degussa and CEO of SKW Trostberg. In addition, he holds seats on several supervisory



Prof. Dr. Utz-Hellmuth
Felcht
Süd-Chemie

and administrative boards, including at SGL Carbon and Ciba Spezialitätenchemie. Prof. Dr. Utz-Hellmuth Felcht completes the Super-

visory Board of Süd-Chemie AG together with Dr. Dietrich Schulz (Chairman), Christoph Giulini (Vice Chairman) and Dr. Peter Schweighart, Dr. Dolf Stockhausen and Konstantin Winterstein as shareholder representatives. The employees are represented in the Supervisory Board by Johann Meier, Rainer Seufert and Peter Simon.

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chemanager@gitverlag.com

A Bumpy Ride Ahead

Pharma Hits Turbulent Times

Choppy Waters – Restructuring will continue in 2008 for pharma's top 10, as regulatory uncertainty and generics continue to upset best laid plans.

Roche

Roche once again outperformed the sector in 2007, achieving double digit growth for the seventh year in succession – but this remarkable growth spurt looks likely to slow down in 2008.

Roche chairman and chief executive Franz Humer said: "In 2007 our operating businesses continued to post healthy growth and excellent results. Sales increased by 10% to CHF46 billion and have thus shown double-digit growth for the seventh year in succession. In the pharmaceuticals division, sales increased at almost twice the global market growth rate. The diagnostics division maintained its lead in in-vitro diagnostics with above-market growth. Additional operating improvements have enabled Roche to achieve an increase in earnings per share double that in sales."

The main drivers behind Roche's growth have been the products coming out of its semi-independent biotech arm Genentech, but the Californian company and its Swiss parent are unlikely to match the string of groundbreaking cancer drugs launched in the late 1990s and early years of this decade.

The company is now looking to maximise the potential of these top earning products, and has been able to achieve a stream of extended indications for many of them, mostly in oncology.

In January Mabthera's use as a first line treatment for indolent lymphoma was extended to include its use with any chemotherapy combination, increasing its market reach significantly.

But Roche's prospects for short-term growth took a hit in December when an FDA committee recommended Avastin be rejected for use in breast cancer.

The drug was rejected for use in breast cancer last year. An FDA panel voted narrowly against recommending the drug in combination with paclitaxel, citing safety concerns about toxicities and little evidence of extended survival in patients.

Already approved for colorectal cancer and lung cancer, a licence to treat breast cancer would hugely expand Avastin's sales potential.

During 2007 the drug received approval from European regulators for indications in breast cancer and renal cell carcinoma, expanding its use to



some of the most important and dynamic cancer therapy areas.

Over in the key U.S. market, February 23 is the date for the FDA to make its decision, one that will be of key importance for the growth prospects of the drug and the company as a whole.

In terms of new launches for 2008, there is just one new Roche drug which could hit the market – the novel monoclonal antibody treatment for rheumatoid arthritis Actemra (tocilizumab). The drug, developed by Roche's Japanese subsidiary Chugai targets the IL-6 receptor, and could eventually eclipse TNF-blockers as the treatment of choice for RA.

Meanwhile, Roche's takeover of diagnostics firm Ventana looks set to go ahead this year after a protracted struggle. The US-\$3.4 billion deal will help make Roche an out-and-out leader in diagnostics. The company is anticipating the move could put it at the forefront in a new era of 'personalised medicine' where drugs are tailored to different patient sub-groups.

J&J

Pharma sales rose 6.9% to US-\$24.9 billion for the full-year 2007, with operational growth of 4.3% and a positive impact from currency of 2.6%. Domestic sales increased 3.4%, while international sales increased

13.3% (5.9% from operations and 7.4% from currency).

The figures were inflated by the company's recent acquisition of Pfizer's Consumer Healthcare division, while growth in global pharma sales was just 2% when adjusted for currency fluctuations.

Sales of its antipsychotics portfolio rose by 11%, with Remicade rising more than 8%.

Invoga (paliperidone), the company's prolonged release follow-up to Risperdal, was launched in 2007, hitting European markets in July.

Janssen-Cilag, as the company's European pharma operations are known, announced in September the cutting of 688 jobs, part of global cuts announced in July. Like other companies, it is looking to shave costs because of generic pressure on leading brands, namely Procrit as well as the impending expiry of Risperdal's patent, expected in 2008.

The company announced in November that it is to remodel its business operations into more customer-focused units, including a 'comprehensive care' arm that will bring together drug treatment, medical devices and diagnostics.

The company filed a number of products with regulators in late 2007, and it expects to launch these during the coming year.

These include paliperidone palmitate in the U.S. – a once-monthly atypical antipsychotic intramuscular injection for the treatment of schizophrenia; Ustekinumab (CNTO 1275) in the U.S. and Europe – a new, human monoclonal antibody for the treatment of adult patients with chronic moderate to severe plaque psoriasis; dapoxetine in Europe for the treatment of premature ejaculation in men.

Meanwhile use of Velcade will be expanded in Europe into treatment of patients with previously untreated multiple myeloma.

Astra Zeneca

The Anglo-Swedish company achieved sales growth of 12% in 2007, despite a worrying decline in sales from its biggest seller, the anti-ulcer drug Nexium.

Worldwide Nexium sales declined 2% to US-\$5.2 billion, reflecting a 4% drop in U.S. sales due to the encroachment of generics in the class, as well as lower than expected prices for the drug.

Continued decline in its leading brand will be a concern during 2008 for Astra Zeneca, but the company hopes to offset this with growth elsewhere in its portfolio.

Anti-psychotic drug Seroquel fared much better over the year, up 15% to just over US-\$4 bil-

lion, while sales of cholesterol treatment Crestor rose 33% to US-\$2.8 billion.

The company also plans to continue its internal re-organisation and cost cutting programme in 2008, while also investing more in R&D. It says it will launch an average of two new medicines each year from 2010 – bringing forward the previous target, which was for this to happen from 2013. David Brennan, chief executive, said the company now had "a larger, stronger and less risky phase III portfolio" of new drugs.

One of the most significant product developments for the company in 2008 will be the expected filing of saxagliptin, its new diabetes drug co-developed with Merck. The drug is due to be filed in the second quarter, with approval expected within the following 12 months. The drug will compete with Merck's Januvia and Novartis' Galvus, both in the same class and already launched.

Abbott

Abbott outstripped all other companies in pharma's top ten in 2007, its sales rising nearly 19%.

Humira is the company's star product, and is about to be launched in its new indication of psoriasis in both the U.S. and Europe. Psoriasis is the drug's fifth indication and will help

it keep up with rival products. Wyeth/Amgen's Enbrel and Schering-Plough's Remicade.

The drug is also awaiting approval to treat juvenile RA and is currently in phase III trials for ulcerative colitis.

Abbott submitted two new drugs to regulators towards the end of 2007, ABT-335 and controlled-release Vicodin. ABT-335 is a next-generation fenofibrate to treat triglycerides. Controlled-release Vicodin is an extended-release formulation of the pain medication Vicodin. TAP, Abbott's joint venture with Takeda Pharmaceutical, also submitted to the FDA its new TAK-390MR, a proton pump inhibitor to treat digestive disorders.

"The strength and balance of Abbott's broad mix of businesses helped us to deliver another year of consistent performance," said Miles White, chairman and chief executive of Abbott. "Both our sales and earnings per share increased double digits. Given the leadership positions of our major businesses, and the new products launching over the next year, we expect another year of strong results in 2008."

GSK

Glaxosmithkline's chief executive-in-waiting Andrew Witty faces a difficult first year at the helm of the company after

sales growth was pinned back by generic competition and declining Avandia sales.

Witty (pictured) takes over from Jean-Pierre Garnier as chief executive in April, and will inherit a well-stocked pipeline of promising drugs, but also problems with generic competitors and continuing doubts about Avandia's safety.

Sales of Avandia fell 34% over the full year of 2007, dragged down by a 40% fall in the most important market, the U.S. While the rate of decline in sales of the drug has slowed, it looks unlikely to recover lost ground in 2008, seriously undermining earnings.

Meanwhile, antidepressant Paxil CR and epilepsy treatment Lamictal are among a handful of GSK drugs facing new generic competition, which will wipe billions off earnings in 2008 and beyond.

Outgoing chief executive JP Garnier did have some good news to announce in his final results presentation, with solid earnings per share and a maturing pipeline helping to appease investors.

"Despite a significant setback on Avandia, good sales performance from other areas of our broad portfolio enabled GSK to deliver 10% EPS growth in 2007 – at the high end of our guidance," he said.

"The shadow of Avandia will continue over us in 2008 and make life a little bit more difficult for us," Garnier conceded. "But underneath all this, you have a very strong business. In fact, without the Avandia incident, the company would have grown 19% in 2007."

Strong growth in its vaccines business, a 'resurgence' of the consumer healthcare division and sales increases in top earning drugs (Advair/Seretide up 10%, Lamictal up 18%) brought good news, but could not prevent the year's turnover slipping 2% and operating profit falling 3%.

Last year GSK received a record 10 product approvals and this year expects regulatory decisions on more than 10 new product opportunities, which will be crucial to the long-term health of the business.

Following its debut in the U.S. in March 2007, breast cancer drug Tykerb (known as Tykerb in the U.S.) will be launched in Europe in early 2008 and is expected to gain approval in Japan toward the end of the year.

Allergic rhinitis product Varamyst/Avamys was launched in the U.S. in June and is expected to be launched in Europe within the next few months, while a new skin infection treatment Altanax/Altargo has also recently hit the market.

Continues Page 12 >>



Photos by Kicker, Maren Kicker, Stig Hau, Mario Heilmann / Pictio

Continued Page 11

But the progress of cervical cancer vaccine Cervarix is not so promising in the U.S., where the FDA continues to hold up its approval. The regulator is demanding further clinical data, which could delay its launch until 2010.

Andrew Witty indicated his early priorities would be to ensure strong expansion into emerging markets, consolidate its consumer health activities and further 'rejuvenate' the company's research and development.

Merck + Co.

U.S. pharma company Merck has had a shaky start to 2008, with safety doubts hitting its highly successful cholesterol drug franchise while massive legal costs wiped out four quarter earnings for 2007.

After years of legal wrangling, Merck finally agreed to settle with claimants seeking damages from its Vioxx painkiller drug, paying out US-\$4.85 billion to 50,000 claims from patients.

While the end of the legal battle was welcome, the settlement meant the company recorded a loss of US-\$1.63 billion in the fourth quarter. Profits were also hit by a US-\$671 million charge for settling government investigations into serious misdemeanors in its U.S. sales and marketing practices.

To make matters worse, the U.S. Congress has launched an inquiry into the delayed publication of trial data

for cholesterol drug Vytorin, which is co-marketed with Schering-Plough. Analysts say the data on Vytorin does not carry any worrying safety results, but the doubts have nonetheless hit U.S. prescriptions and the company's share price. Despite the run of bad news, the outlook for Merck's business looks good in the medium term, with a number of new products helping to deliver growth. Cervical cancer vaccine Gardasil is now well-established in Europe and the U.S., and will benefit from delays to GSK's rival Cervarix. Meanwhile new diabetes drug Januvia may similarly benefit from safety fears surrounding another GSK drug, Avandia.

Merck is expected to file two new drugs with regulators in 2008 - MK-0524B, a pill combining extended-release niacin with laropirant and simvastatin, and MK-0364 (taranabant) a new obesity drug in the same class as Sanofi-Aventis' rimonabant.

The company is due to push ahead with phase III research on cholesterol candidate MK-0859, anacetrapib. The drug is in the same class as torcetrapib, which Pfizer was forced to discontinue in 2006 because of safety and efficacy problems. Merck's drug hasn't been shown to produce cardiovascular side-effects like Pfizer's candidate, but it remains a high risk drug nevertheless.

Pfizer

Pfizer's pharmaceutical sales fell slightly for 2007, hit by patent expiries and difficult market conditions for its leading drug Lipitor.



It was a time of wide-ranging change at the world's largest pharma company, with headcount cut by more than 11,000 and the closure of six manufacturing sites and two R&D sites during 2007.

The measures are of a package aimed at refocusing the company and Pfizer expects to save at least US-\$1.5 billion this year as a result.

But the upheaval combined with a challenging environment saw the company's 2007 pharmaceutical sales fall by 1% to US-\$44.6 billion.

Sales of its blockbuster anti-cholesterol treatment Lipitor dropped by 2% to US-\$13 billion, mainly due to competition in the U.S. statin market, and two other top-selling drugs lost U.S. patent protection.

Antidepressant Zoloft and hypertension and angina treatment Norvasc (known as Istin outside the U.S.) almost halved their sales during 2007 as a result, wiping US-\$3.4 billion

from the company's balance sheet in the process.

In the face of these challenges chief executive Jeff Kindler said the company was following a broad plan to re-position itself to deliver long-term value. "We are shifting investments into high-priority therapeutic areas, revamping our R&D operations and acquiring new compounds and technologies that we believe are especially promising. These actions taken together have made Pfizer a stronger company than it was a year ago, and we look forward to continued progress in 2008," he said.

Overall revenue was up 1% to US-\$48.6 billion in 2007, but the situation is not expected to improve much this year. Pfizer's revenue guidance for 2008 predicts it will finish the year at US-\$47-US-\$49 billion.

The company is already warning the first-quarter may not compare well to last year's because of the continued impact of Norvasc's U.S. patent

expiry and forthcoming loss of exclusivity on cancer drug Camptosar and allergy pill Zyrtec.

Pfizer hopes to mitigate the impact of the latter by launched an OTC version. Nevertheless, the two expiring patents put at risk quarterly U.S. sales of over US-\$1 billion.

The company took another hit last year when it was forced to abandon Exubera, the first inhaled diabetes treatment. The cost of abandoning and managing the product's withdrawal is expected to run to a huge US-\$2.8 billion.

Keen to maintain its reputation for innovating in marketing as well as R&D, Pfizer signed a deal late last year with Sermo, the fast-growing U.S. networking site for doctors. The enterprise will operate much like popular social networking sites Facebook and Bebo, and enable Pfizer to communicate with doctors online.

Pfizer has had two recent European approvals - a new indication for Lyrica in generalised anxiety disorder, and a first approval for Toviaz (fesoterodine) for the treatment of overactive bladder. Its new HIV treatment Celcentri (maraviroc) was launched in January.

Dalbavancin, a new antibiotic for skin and skin structure infections and lasofofifene for osteoporosis are both awaiting approval regulators this year.

Novartis

The entry of three generic competitors and the withdrawal of irritable bowel drug Zelnorm wiped billions off Novartis' revenues in 2007, and are set to undermine performance in the first half of this year as well.

Blood pressure combination drug Lotrel, anti-fungal Lamisil and epilepsy drug Trileptal all suffered at the hands of new U.S. generic competitors and, combined with Zelnorm, represented a fall in revenue of nearly US-\$4 billion over the year.

Despite the problems in its most important business sector, the Swiss company recorded total sales growth of 8% (3% in local currencies), thanks to solid pharma growth outside the U.S. and in its generics division Sandoz.

Profits for the whole of 2007 came to nearly US-\$12 billion, a 66% increase on the previous year, but the final quarter of the year saw profits dip 45% because of restructuring costs and weak performance in the U.S.

The company's vaccines and diagnostics division enjoyed the greatest growth in 2007, with sales rising by over 50%, but remains a modest contributor to the group, with total revenues of US-\$1.5 billion.

Chief executive Daniel Vasella (pictured, left) admitted that the company would have a further US-\$1.4 billion in revenues lost to U.S. generic competition to overcome in the first half of the year before the outlook would improve.

The company expects low single digit growth for the whole pharma division, and its new head Joe Jimenez says the first half of the year will be particularly tough. Formerly head of Heinz's European operations and with experience in private equity, Jimenez's immediate priority is to maximise cost savings and to rejuvenate its marketing strategy.

Novartis launched a record eight products last year, including Exforge (a 2-in-1 blood pressure combination of Diovan and amlodipine) and first-in-class hypertension drug Tekturna/Rasilez.

While Exforge has performed well, Tekturna has made less headway into the market, earning just US-\$40 million since its launch in March. The company is hoping the forthcoming launch of Tekturna HCT, a combination of the drug with a commonly prescribed diuretic, will help increase its uptake.

The company's diabetes treatment Galvus is still being held up with U.S. regulators over safety concerns, but is now ready for launch in Europe, following quickly behind another new launch, leukaemia drug Tasigna.

Amgen

After years of surging growth, 2007 saw the world's biggest biotech company experience problems more familiar to big pharma.

The company's biggest headache was the flurry of U.S. safety warnings, and a dosing restriction, on anaemia

treatments including its biggest selling product Aranesp.

U.S. sales of Aranesp dropped 17% for the first nine months of 2007, while its other anaemia drugs Epopen and Neulasta also fell back.

For the full year, total sales rose 3% to US-\$14.3 billion, helped slightly by currency fluctuations. Although international sales increased by 17%, U.S. sales were virtually static at US-\$11.4 billion.

In response to its worsening performance Amgen announced plans to reduce its global workforce by 14%, with the U.S. bearing the brunt of cutbacks.

"2007 was Amgen's most challenging year," said the company's chief executive Kevin Sharer. "Despite the unexpected reduction in revenues of our erythropoietin products, we delivered earnings per share very close to the low end of our original guidance. I am also encouraged by our recent denosumab trial results and the potential of our pipeline. 2008 presents challenges and opportunities and while we are optimistic, we are ready for whatever might come our way," he concluded.

During 2007 Amgen opened its new European development centre in Uxbridge in the UK, but decided to shelve its plans to build a new manufacturing plant in Ireland. Although its future looks secure, belt tightening is to be expected in 2008.

There was an unsteady start for the company's new colorectal cancer treatment in the U.S. market. Vectibix (panitumumab) sales for the fourth quarter of 2007 dipped back to US-\$33 million compared to US-\$41 million in the third quarter. Worldwide Vectibix sales for 2007 were US-\$170 million. Amgen says the decrease was primarily due to a decline in segment share, and to a lesser extent a decline in segment size.

The company is also fighting a rearguard action against the entry of generic competitors into the erythropoietin market in Europe. Biocrit is the new generic version of epoetin alfa marketed by Sandoz and although it doesn't challenge Amgen's Aranesp directly, the company is anticipating an impact on its product in the near future.

Sanofi-Aventis

Judged against its peers among the top ten companies in terms of sales growth, Sanofi-Aventis stood in seventh place for the first nine months of the year, achieving an underwhelming growth of 4.5%.

Sales for its pharma division were affected by generic competitors and grew just 2.4%. Major factors for this were the loss of the U.S. patent on sleeping pill Ambien in April, Eloxatin's patent expiry in Europe, and the slow recovery of Plavix after 2006's temporary but wounding generic onslaught.

Insulin brand Lantus continues to provide good news for the company, posting a 17% rise in European sales in the first half of 2007, and is expected to continue its growth in 2008.

There were further problems with Acompla, the weight loss pill the company had touted as a leading product, but which looked increasingly shaky as 2007 wore on. The FDA continues to be wary of the depression side-effects seen in some patients, and has yet to approve it. In Europe, stronger label warnings did little to convince doctors it was a strong option for treating obesity.

In December, Sanofi-Aventis increased its stake in U.S. biotech Regeneron, in tandem with a new collaboration on antibody research.

Following the common strategy of diversifying research into Asia, Sanofi announced its first ever R&D base on the continent would be sited in Goa, India.

The company has a number of important drugs in phase III development which are expected to produce key data during 2008.

Among these are teriflunomide, a new oral treatment for multiple sclerosis, sarendutant for depression and anxiety and idraparinux for long term use for prevention of deep vein thrombosis/pulmonary embolism.



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Editorial
Sergio de Oliveira
Tel.: +49 6151 8090 206
s.deoliveira@gitverlag.com



Biotech & Life Sciences
Osman Bal
Tel.: +49 6151 8090 197
o.bal@gitverlag.com



Key Account Manager
Michael Reubold
Tel.: +1 201 748 8810
m.reubold@gitverlag.com



Biotech & Life Sciences
Andreas Zimmer
Tel.: +49 6151 8090 178
a.zimmer@gitverlag.com



Industrial & Chemical
Corinna Matz-Grund
Tel.: +49 6151 8090 217
c.matz-grund@gitverlag.com



Industrial & Chemical
Thorsten Kritzer
Tel.: +49 6151 8090 246
t.kritzer@gitverlag.com



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GIT VERLAG

A Wiley Company

Contact:

Andrew McConaghie
Pharmafocus, Chichester
Tel.: +44 1243 772 048
amcconag@wiley.co.uk
www.pharmafocus.com

chemanager@gitverlag.com

A Rocky Road

Development of Biopharmaceuticals is a Journey

Upgrade – Contract manufacturers are increasingly key players in the development of biopharmaceuticals, but industry trends are flagging the need for an updated business model to serve the CMO/product owner relationship.

The complexity of manufacturing development in biopharmaceuticals means the historical transaction-based business model between developers and their contract manufacturers is not suitable as the default basis of the relationship. In its place, there is an increasing need for a journey-based approach, with a clearer understanding of the relative contributions from each side, the management of risk and the desired rewards of each party. This is best described as a collaborative approach (see diagram at end).

This should not be confused with the often-trumpeted and over-played partnership between customer and supplier, which really is not appropriate for relationships where there are clear differences in each party's drivers and expectations.

Mapping The Route

As with any journey, the travellers need to be clear on their destination, have a good route map, choose their companions wisely and be prepared for inclement weather. A frequent challenge on journeys in drug development is that the destination can change rapidly and unexpectedly. Clinical trial ambiguity or failure often leads to a detour as a minimum, and – more likely – the journeys end. In addition, funding problems can often lead to the need to change the route map as companies look for alternative directions to drive their product to market. A strong collaboration and visibility of the programme between CMO and product owner is needed to overcome these challenges.

Unfortunately, the manufacturing journey is generally considered dull and boring – a wearying trek through the desert – relative to the rarefied atmosphere and excitement of scaling the peaks to secure financing and deliver positive clinical results. Consequently, manufacturing development is frequently undervalued and under-funded.

However, recent regulatory trends in both the U.S. and Europe towards quality-by-design, leading to improved continuity and a more risk-



based approach will demand that the route map of process development and manufacturing is better defined, better recorded and more effectively implemented. Furthermore, the increasing complexity of products targeted towards smaller or orphan indications, coupled with the ever increasing need for speed, will inevitably lead to manufacturing straying onto the critical path.

Investors are increasingly attuned to these trends and

an in-depth assessment of the supply route and the travelling companions is becoming a regular feature of due diligence – even for early stage products.

A poorly thought out manufacturing strategy will destroy value.

Close Relationships Must Be Flexible

Given these trends, the transaction-based business model prevalent in the pharmaceutical industry is just no longer fit for

purpose. It is increasingly important for travelling companions to co-design and implement a new business model geared to critical success factors other than dollars per gram. Close relationships must start further upstream, be flexible to development uncertainties and avoid the surprises that always eat time and cost – but add no ultimate value to either side.

Successful relationships need to look at the relative contribution of each party in adding value to the program. In purely transactional relationships, the supplier may never know the value of its contribution and therefore the potential impact of failure to deliver. By taking a collaborative approach, the parties can make best use of each others competencies and deploy appropriate resources to best effect, by agreement. It is important, however, to ensure clarity of the contribution from each side so that the route map is seamless. Technical agreements (not to be confused with commercial and quality agreements) are increasingly the norm; addressing relative contributions in the full development journey rather than just focusing purely on elements of QA.

It is also important to understand and accommodate each others desired goals. These will not be common goals, as might be expected in a partnership, as the business drivers for a CMO are entirely different to those of a product owner.

Typically, a CMO needs to optimize use of resources at all stages and will desire to work towards long term commercial supply, whereas the product owners strategy might define, but sometimes conceal, their destination as being some earlier stepping-off point. For exam-

ple, out-licensing or joint development with a pharmaceutical company. Lack of clarity on the destination could lead to significant differences of opinion on which route to take, endangering both value and trust.

Mitigating Risk

A rocky road is fraught with risk – by definition. Identifying the potential risks and contingencies is therefore a prerequisite for a successful journey. However, each party must take accountability for risks within

their direct control. For example, the product owner will not expect to be unduly burdened by product quality and compliance issues and conversely, the CMO must be able to mitigate program delays or stoppages resulting from clinical or financial uncertainty, which significantly impact its efficient use of resources. The concept of shared risk, usually assumed in a partnership, is unworkable when the rewards for each party are so different in time and magnitude.

Finally, storms are forecast. To overcome the inevitable issues, true engagement must occur between the collaborators; requiring sustained interaction and (very) open communication at all levels in both organizations. Those in process development, analytical and manufacturing must be up-front about process, manufacturing and capacity issues, compliance and timescales. Product-owners also need to be transparent on clinical progress/delay, product need, regulatory feedback and the financial climate. Regular senior management involvement is also beneficial to help overcome the inevitable road blocks. This approach is essential if the overall program is to respond flexibly to change, resolve conflicting priorities and be underpinned by a realistic and living plan.

The biotech business forecast includes rising demand for smaller quantities of more complex biologics, with CMOs being responsible for a growing percentage of the capacity that delivers these future products. This journey promises to be exciting, but not without risks crossing difficult financial terrain... so choose your travelling companions and 4x4 business model wisely!

Contact:

Dr. Kevin P. Cox
Proteus Transitions Management, Hale
Tel.: +44 161 927 7186
kevin.p.cox@btinternet.com

Relationships

Transactional	Collaborative	Partnership
Role clarity	Competency	Relationships
Risk defined	Risk managed	Risk shared
Fee for service	Mutual reward	Reward sharing
Imposed erpobints	Complimentary goals	Common goals
Contract	Guidelines	People



Astrazeneca Plant Sold The pharmaceutical company AstraZeneca sold its plant in Plankstadt, Germany, to the investment group ICIG (International Chemical Investors Group). The plant is now called Corden Pharma and serves as a contract manufacturer for AstraZeneca. In addition, ICIG plans to strengthen the sales performance of Corden. The transaction is part of AstraZeneca's initiative to reduce the production costs.



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Sharpening The Legal Eye

Tips for Improving the Pharmaceutical Outsourcing Contracting Process

Outsourcing – Every outsourced relationship depends, in turn, on the contract that underlies it. Accordingly, contracts and the contracting process are important components of the pharmaceutical industry today. Whether you are a pharmaceutical company or an outsourcing partner, your company's skill in negotiating, closing and administering good contracts in a timely manner is likely a key to your success.

Outsourcing has become a way of life in the pharmaceutical industry. From research, to clinical development, to manufacturing, to sales and marketing, virtually every phase of the pharmaceutical pipeline is susceptible to being outsourced – and often is. This article analyzes the different elements in the contracting process (how the deal gets done) and key contractual provisions (how the deal is documented in the final contract).

What Is A Contract?

Before analyzing the process of entering into a contract and its key terms, it is helpful to have in mind what exactly a contract is. The terms "contract" and "agreement" are often used interchangeably. But they

are not the same. A "contract" is a legal construct and has strict requirements (at least under U.S. law). In particular, a contract is a promise or set of promises for the breach of which the law gives a remedy, or the performance of which the law in some way recognizes as a duty. While you might recover damages for breach of contract, you would not generally be able to recover damages for breach of an "agreement" that does not satisfy the requirements of a contract. Elements of a contract under U.S. law include: capacity (legal age and mental ability to contract), mutual assent (offer, acceptance, and meeting of the minds), consideration (something bargained for and received by each party), and a lawful purpose (an agreement that violates applicable law is not enforceable).

The Contracting Process

Entering into a contract, particularly in the context of a pharmaceutical outsourcing arrangement, does not happen overnight. Rather, the contract is typically the result of a process – often a long and painful one. We outline below certain aspects of that process and tips for facilitating the negotiation and completion of complex contracts.

Negotiating Team: Assume you are a pharmaceutical company and want to outsource the

manufacture of a new product. Once you select a manufacturer and are ready to start the negotiation process, one of the first steps should be identification of your negotiating team. In establishing the team, we believe it is important to have legal involvement from the beginning. Attorneys can provide valuable insight at the beginning of the negotiations – often the most important point in the negotiations because key parameters are often established early. It can be difficult and time consuming for the legal team to be brought in at the end of the process. For example, if legal suggests changes to previously agreed points, you may have a hard time re-negotiating those points with the other side. At a minimum, you are likely to burn valuable negotiating capital in the process.

After choosing a negotiating team, it is imperative everyone be on the same page. You do not want to negotiate against yourself. For example, it is not advantageous if members of the sales team agree to a certain aspect of the deal, while the legal team is advocating a different position. In addition, all key decision-makers should be involved in the process. As important aspects of the deal are negotiated and agreed upon by those actively participating in the process, they should not have to be approved later by executives up the chain of command.

Document Management/Control: One should never forget the power of the pen. It is important to take responsibility for drafting whenever possible. The person who drafts the agreement will typically have an advantage in being able to choose (at least in the first instance) the contractual language. Most contracts are in writing and depend on carefully constructed language. Accordingly, the party dictating the language generally has the upper hand.

Another decision is to decide whose forms will be used. Most contracts are not drafted from scratch. One of the parties will start with a form, which is normally based on a contract that the party used in the past. Accordingly, a form is generally biased in favor of the party providing it. Further, both parties should be careful to avoid slavish adherence to a form – every contract is different and the parties should be careful to ensure that all aspects of the form are appropriate (and if not, modified appropriately).

When a long-term relationship is expected to exist between a sponsor and manufacturer, the parties may prefer to have a "master agreement" and a short addenda added each time a new project is launched. Although this structure can be advantageous over time, master agreements are typically more complex than "one shot" agreements and can be more difficult to negotiate up front. The

potential long-term benefits of a master agreement structure should always be weighed against the initial extra burden of putting it in place.

Today, most contract negotiations involve the passing back and forth of electronic versions of the document via email. While this process can facilitate contract negotiation, it can also result in excessive document "churn" – that is, excessive minor revisions of the document. It is often more efficient to negotiate all or a material portion of the document before "turning" the next draft back to the other side with revisions. Multiple iterations of the document that include only minor changes can bog down the process.

Using draft stamps, which list the date of the document, will help with organization and prevent confusion. Document identification numbers should also be included so the most recent version is evident. Simultaneous multiple drafts can cause inefficiency and headaches. To avoid this, if you have sent a revision to the other side, do not send a further revision unless you check with the other side first and confirm that they do not already have a revised draft in process.

Redlining (i.e., marking the document to show changes from the last draft) is a very useful tool and is commonplace in contract negotiations. However, be aware that redlining can create problems. For example, during the negotiation, you do not want to show the other side your team's internal thought process. If the primary draftsman on your team circulated an internal draft that added a certain provision (redlined using the "track changes" function in Microsoft Word) and then someone else on the team struck or modified that provision (again using "track changes"), you do not want these internal changes reflected to the other side. Revealing internal changes like this can reveal a lot about your strategy and give the other side a negotiating advantage. Accordingly, use care to only send a final version of a redline, preferably in PDF (rather than "track changes") format.

Negotiation Logistics: Negotiations typically occur via telephone, supplemented by emailed com-

munications and revisions. Less often, negotiations occur in person. Consideration should be given to the best approach in a given situation. Conference calls are certainly convenient; however, the face-to-face dynamic can improve and speed up negotiations. If there is a pressing need to conclude negotiations swiftly, consider using a SWAT-team approach. With this approach, each party commits to meet in person and ensure that all decision-makers are at the table with "sign off" authority. With this level of commitment, parties can often negotiate and finalize the most complex deal in a very short amount of time.

Email can be a quick and efficient way to exchange documents. Plus, it provides a level of documentation regarding the negotiations, which could come in handy down the road in the event of a dispute about what an ambiguous provision in the contract means (subject to complex evidentiary rules). However, care must be taken to strike the right tone with messages conveyed via email. Emails are often drafted in informal, shorthand approach, can come across as terse, and therefore have a high propensity for being misconstrued. A misguided and/or misunderstood email can quickly damage the tone of otherwise positive and productive negotiations.

Negotiation Techniques: Negotiating is far more art than science. That said, there are some tried and true techniques that can be employed to your advantage. One approach is good cop/bad cop, where someone on your team is the conciliatory peacemaker and someone else (often the lawyer) takes a hard line on the hard issues. Another approach involves imposing deadlines for reaching certain negotiating milestones (e.g., a letter of intent) and pressing the other side to meet those deadlines. Yet another approach is "splitting the baby" where you meet in the middle of two disparate positions (with careful positioning, the "middle" ground should be one that you can gladly accept). A thorough review of different negotiating techniques is well beyond the scope of this article. However, if your job calls for you to regularly engage in contract negotiations, an investment in learning and practicing

various negotiating techniques would be worthwhile.

Key Contractual Provisions

Outsourcing contracts are complex documents. Lawyers need to have a keen understanding of all of the terms and conditions – that is what they are paid to do. However, everyone participating in the negotiation needs to have some level of familiarity with the key terms and conditions. While terms vary from contract to contract, certain categories of terms are fairly common across all outsourcing contracts. These include:

- Description of the products/services (including specifications and specification change procedures)
- Minimum quantities and/or payments
- Ordering procedures (including lead time requirements)
- Forecasts
- Pricing
- Payment
- Exclusivity/competition
- Warranties
- Indemnification
- Term
- Termination
- Remedies/damages (including limitations, disclaimers and caps)
- Dispute resolution
- Regulatory provisions
- Quality provisions (often set forth in a separate quality agreement)

Many companies do a good job educating employees regarding contract terms and conditions, and their importance. Take advantage of opportunities to learn as much as possible. While you probably do not need to become an expert in contract law or terminology, knowing generally what "indemnification" means (for example) will help you understand important risk allocation implications under a contract and will help you negotiate that and other related contract issues more effectively.

Contact:

D. Scott Coward and Carolyn M. Gillikin
Kennedy Covington Lobdell & Hickman, LLP
Raleigh, North Carolina, U.S.
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Safer Water Treatment

PRODUCT Electro-deionisation (EDI) and electrolytic ozone generation are now widely used for water treatment since they require no chemicals. However, both of these processes generate hydrogen and, since mixtures of air and hydrogen with a wide range of relative concentrations are explosive, the exhaust gas must either be diluted sufficiently by means of efficient ventilation or must be vented into the open air via an explosion-proof exhaust-gas duct. With the patented catalytic exhaust-gas converter Hydrokat, Christ now offers a safe solution to this problem. The heart of this device is a catalytic combustion element with automatic supply of oxygen and an integrated temperature regulator. The Hydrokat is capable of completely converting hydrogen-oxygen mixtures with any relative concentration in a controlled manner.

The electrolytic ozone generators of the Steritron series which are used, for example in the Loopo compact racks for pharmaceutical distribution systems can be retrofitted easily with the Hydrokat converter.



For treatment of the exhaust gases from Osmotron systems, a Hydrokat degassing unit is needed. This has two functions: it separates the gases from the rinsing water of the EDI electrodes and it converts the explosive gas mixture into water vapour in a controlled manner.

The Hydrokat concept offers many advantages over the commonly used ventilation systems. Firstly, the installation location for the water treatment system can now be selected freely without having to worry about special ventilation systems. The lack of moving parts ensures

safe and reliable treatment of the explosive gas mixture. Since the Hydrokat is designed as an independent component, it can be installed without intervention in the piping or the controller of the water treatment system. This, in turn, means that it can be retrofitted easily on existing systems. Maintenance of the Hydrokat is restricted to replacement of the catalytic cartridge at regular intervals, which can be done as part of the annual inspection of the water treatment system.

► www.christwater.com

Pharma Under Suspicion

EU Competition Commission Launches Sector Inquiry

Patent Protection – Neelie Kroes, the EU's competition commissioner, surprised the pharmaceutical industry with unannounced inspections in January. Her aim is to uncover any anti-trust infringements which may be distorting competition. The EU believes that pharmaceutical companies may be using anti-competitive practices, such as illegal collusion and abuse of their dominant market positions, to prevent cheaper generic alternatives from reaching the market. Dr. Andrea Gruss spoke to Marc Besen, partner and antitrust specialist at Clifford Chance in Düsseldorf, about these recent developments.

CHEManager Europe: Does the EU actually have concrete suspicions for launching this inquiry?

M. Besen: The European Commission has the right to launch sector inquiries under Article 17 of EU Regulation 1/2003. It does not require concrete suspicions against a company. A belief that anti-competitive practices may exist in a particular sector, however, is enough for it to start an inquiry in the relevant sector.

Why does the EU believe this is the case in the pharmaceutical sector?

M. Besen: The European Commission has taken a closer look at the EU pharmaceutical market and discovered that there has been a significant decrease in the number of innovative drugs being registered. This seems to be one of the main reasons for launching the inquiry, which is intended to determine whether artificial barriers exist preventing new drugs from penetrating the market. The Commission also refers to the Astrazeneca case in 2005 when the company was fined €60 million. Astrazeneca was accused of having unlawfully extended the patent protection on its stomach ulcer treatment, Losec, in order to prevent – amongst others – generic alternatives being produced. However, this ruling has not yet become final.

When does extending patent protection become illegal?

M. Besen: Clearly, companies are allowed to apply for the patent protection of their intellectual property to be extended, but



Marc Besen
Partner at Clifford
Chance

this must always be in line with any patent law provisions. Companies, and particularly those with a dominant market position, may not artificially extend a patent by making misleading statements or by engaging in manipulative or discriminatory practices. This was the allegation Astrazeneca has been facing. The Commission made clear that the duration of any patent protection

can only be determined by law.

Why are generics manufacturers also being included in the inquiry?

M. Besen: This is because the European Commission also discovered that fewer and fewer generic products are reaching the market and that, in some cases, their launch is being delayed. The European Commission considers it possible that the manufacturers of generics and the manufacturers of the branded products are entering into so-called non-aggression pacts – e.g. by reaching their own settlements in patent disputes. This would be an agreement between two competitors and would therefore be likely to constitute an antitrust infringement.

Isn't the Commission just making the underlying problem worse, that companies are afraid of innovation not being worthwhile any longer with the consequence that even less innovative drugs enter the market?

M. Besen: The Commission has to manage a difficult balancing act. It is crucial to have incentives for innovation and new products, but at the same time we need a healthcare system that works, without patients paying extra because of anti-trust infringements.

What measures is the Commission likely to take?

M. Besen: The Commission will analyse the results of its inspections and use surveys to test its conclusions. Over the coming months, it will build up a picture of the sector. It will probably publish a preliminary report in the third quarter of this year, which will give the pharmaceutical companies and other relevant parties a chance to comment on the findings. The final report can be expected early in 2009. The Commission published similar reports on the energy and financial services sector at the beginning of 2007. These reports are not binding judgements in any way, but simply provide a detailed overview of

the antitrust situation in a given sector at a given time.

Does that mean that there won't be

any fines in case of infringements being found?

M. Besen: There won't be any fines as a direct result of the report, but separate proceedings could arise for individual issues. If competing companies are then found to have entered into anti-competitive arrangements or to have abused a dominant market position, they may be subject to severe fines of up to 10% of their overall turnover. The inquiry and the report should therefore be taken very seriously indeed.

How should the affected companies react?

M. Besen: Firstly, they shouldn't panic, but they should realise that the inquiry could have very serious consequences. Companies which are subject to the inquiry will have to complete detailed questionnaires. They will be required to cooperate with the inquiry and to ensure that any information they provide is accurate. Any failure to do so would result in a separate fine. However, the most important aspect, and the one which poses the greatest risk to the companies concerned, is the risk of separate proceedings being initiated in the event that concrete suspicions of anti-competitive activities are revealed in the sector inquiry. The

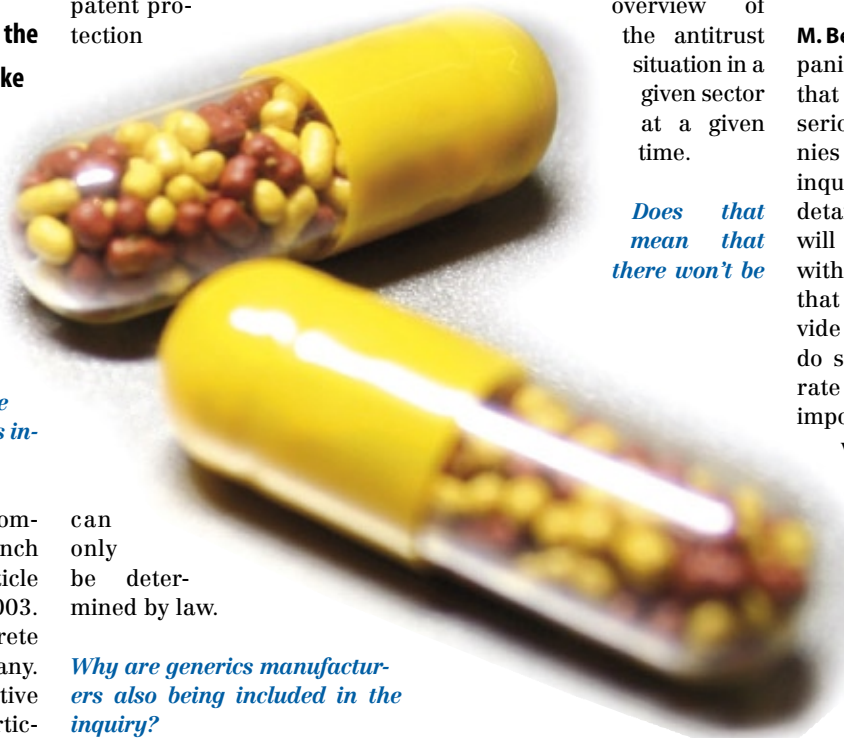
Commission has always done this in previous proceedings in other sectors.

There is also the possibility that the inquiry will unveil something which a company did not realise was an infringement of antitrust provisions, such as imprudent corporate communications, or sensitive agreements which were not approved by their legal department.

Do you think that the inquiry will actually improve competition in the pharmaceutical sector?

M. Besen: Neelie Kroes had made clear that her intention is to promote innovation and research in the pharmaceutical sector. She does not appear to want to use antitrust legislation as a stick with which to beat the big pharmaceutical companies. Therefore, I very much hope that the Commission will proceed sensibly and cautiously. The key, however, is the balancing act I already mentioned. Patients need to get the best possible value for money but, at the same time, this should not affect the quality of the products on offer. An appropriate compromise will have to be found between competition and intellectual property law. However, most importantly, it must be ensured that the pharmaceutical industry's eagerness to innovate is not hindered.

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Banner Uses WAM Systems

Banner Pharmacaps, a drug delivery and specialty pharmaceutical company headquartered in High Point, North Carolina, has selected WAM Systems to support a process and toolset improvement initiative targeting production scheduling, operational visibility, efficiency and collaboration. Central to the

project is WAM's picaso supply chain planning solution, a fully-integrated suite of planning and optimization modules, which will integrate with Banner's ERP/MRP systems and support real-time collaboration, scheduling and reporting. The company will employ picaso's supply chain event monitor,

demand planning, production scheduling, procurement planning, customer service workstation, inventory targeting and S&OP modules.

► www.wamsystems.com
www.banpharm.com

Merck & Co, Schering-Plough Face Lawsuit

U.S. drug makers Merck & Co and Schering-Plough are facing legal action in the United States over their cholesteral drug Vytorin. The lawsuit alleges the companies made misrepresentations and withheld significant information in approval submissions and filings

with the U.S. Food and Drug Administration. In a statement released by Parker Waichman Alonso, one of the six law firms to have filed the lawsuit, the firms are seeking, in part, to refund individuals who were prescribed and purchased Vytorin. It is also claimed the companies

made misrepresentations to the general public about the drug's effectiveness in its marketing of Vytorin.

► www.sch-plough.com
www.merck.com



UNDER CONSTRUCTION

BASF Expands Tetrahydrofuran Offer

BASF is to expand its offer for the chemical intermediate tetrahydrofuran (THF), initially for its customers in Europe. The package offering, to be marketed under the heading "THF Solutions," will include the elements "THF Pharma," "THF Pharma super dry" and "THF life-cycle solution." In addition to the THF pharma grade already available, the package will thus comprise a modified THF with a reduced water content ("THF Pharma super dry") as well as an initiative aimed at taking back used THF ("THF life-cycle solution"). According to the company, BASF is now able to meet the demanding requirements for THF, in particular made by customers in the pharmaceutical industry. www.basf.com

UOP Technology Licensed to Eurochem

UOP, a Honeywell company, has announced that Viva Methanol, a subsidiary of Eurochem, has selected the UOP/Hydro MTO process technology and the Total Petrochemicals/UOP Olefin Cracking process technology to produce light olefins from natural gas-derived methanol at a new Viva Polymers facility in Nigeria. The new facility, located in the Lagos Free Trade Zone, Nigeria, will produce 1.3 million mt of ethylene and propylene annually for the production of polyethylene and polypropylene, which are used in the production of plastics. UOP will provide technology license, basic engineering, catalysts, adsorbents, specialty equipment, and technical support. The new plant is expected to come online in 2012. www.uop.com, www.eurochem.com

Novasep Extends its Le Mans Facility

After setting up a second kilo-lab for highly potent substances synthesis and purification, Novasep has installed and validated a new industrial highly potent active ingredient manufacturing plant in its facility in Le Mans, France. This €8 million investment has been made to meet increasing demand for multipurpose chemistry and purification of highly potent molecule in a confined cGMP environment. All investments made at Le Mans site represent an estimated value of €50 million. www.novasep.com

SAFC Expands Sites

SAFC, a member of the Sigma-Aldrich Group has announced plans for a US-\$12 million expansion at its niche biologics production facility in Carlsbad, California. Two new fully segregated state-of-the-art viral product manufacturing suites will be built to employ the latest in disposable bioreactor technologies. Due to become operational in the second half of 2009, the new suites will add 743m² of manufacturing space and enable 100L batch production in stirred tank bioreactors and 1,000L batch manufacturing in disposable bioreactors. Furthermore SAFC is in the second phase of a US-\$600,000 expansion of its solid-state services Pharmorphix research facility in Cambridge, UK, adding 697m² of laboratory capacity. As part of a multi-phase development program the additional, fully refitted space is scheduled for completion in the first quarter 2008. www.safc-pharmorphix.com, www.safc.com

Lanxess Expands Plant in Jhagadia

Lanxess said it will move the production of rubber chemicals within India from Thane to Jhagadia. Production at the site will begin in two years at the same time as the launch of a new local ion exchange resin plant, the company has announced last August. The total investment for both the relocation and the new plant is about €50 million. Previously, the company said investment for the new ion exchange resin plant would be about €30 million. www.lanxess.com

Headwaters and Evonik Increase H₂O₂ Production

Headwaters and Evonik have increased production capacity for hydrogen peroxide at the facility operated by their joint venture in Ulsan, Korea. HeadwatersEvonik acquired this facility from the Finnish company Kemira Oyi in 2006. Using proprietary technology from Evonik, it has more than doubled capacity from the original level of 34,000 mt/y. The hydrogen peroxide produced in Ulsan will be supplied to customers in Korea and to the adjacent facility operated by the Seoul-based company SKC. www.headwaters.com, www.evonik.com

Dow Corning to Extend Indiana Site

Dow Corning has announced it will invest approx. US-\$5 million to expand its manufacturing operations in Kendallville, Indiana. The investment, which is expected to create more than 20 jobs by 2010, will be used to build and equip a 464m² addition to the site. The Kendallville facility serves as the company's principle compounding unit that supplies thermoset products to the North American market. The company plans to begin hiring additional machine operators, maintenance technicians and quality assurance specialists in 2008. www.dowcorning.com

DSM Invests in German Plant

Royal DSM has announced it will invest nearly €15 million in the construction of a new plant for the production of wet polyesters and other specialty resins in Meppen, Germany. The new production line will be built at the existing site of DSM NeoResins. The plant will be completed in the first half of 2009 and will allow for further expansion in the future. www.dsm.com, www.neoresins.com

Continued Page 1

force in more than 28 countries who offer premium services in a very dynamic market and, last but not least, an effective European network with cross-cultural exchanges for the leverage of ideas and talents.

Brenntag Food Europe sets benchmarks in terms of quality and safety and ensures compliance with the high standards. Europe wide we deliver to the food industry high-quality raw materials and additives as well as individually created blends.

What is your unique selling proposition compared to your competitors?

M. Lindermuth: First, let us focus on our techno-commercial sales force in Europe. This dedicated know-how is kept at state of the art level through continuous education and training. Our business partners profit from an excellent international network, which means we can rapidly exchange information on market development, and thus operate successfully.

Secondly, our customers appreciate our sound and efficient logistics concept combined with a strong local presence in the countries we serve.

All in all, key benefits are reliable supply of food ingredients and additives from all over the world, consistently high product quality and short-time deliveries. From product development through on-site technical support, to logistics, marketing and distribution, we offer tailor-made service packages. Moreover, we pass on timely and detailed information to customers and suppliers concerning latest market and product

Consumers desire healthier foods.

trends in the food industry. This enables many of our business partners to tap new and profitable sales opportunities for their raw materials and products.

What are the most important product segments in terms of volume and revenue?

M. Lindermuth: One third of our product portfolio consists of basic chemicals that our customers source from more than 150 local Brenntag sites in Europe. The remaining food ingredients are defined by strategic product portfolio such as products for Food Design, Food Safety & Shelf Life, Food Technology and Health & Nutrition. Our goal is to be the first-choice partner in food ingredients distribution for customers and strategic suppliers. To accomplish, we have a fair mix of both commodity and specialty chemicals meaning that we represent high-class suppliers in Europe.

Product quality as well as safety, health and environmental protection are fundamental prerequisites in food distribution. What measures do you take to guarantee full compliance with requirements and regulations?

M. Lindermuth: Our aim is to do what ever it takes to meet or even better to exceed the requirements of our business partners. State-of-the-art facilities with extensive quality programs enable us to succeed. We are preparing for future needs by continuous quality improvements.

Backbone of this quality policy is the widespread implementation of ISO 9001. In Europe 75% of our sites are

Health Food

Consumer Demands Fertilize Brenntag's European Food Business



covered by the ISO 9001 certificate. Above that warehouses carry additional quality systems complementary to their product groups. These are good manufacturing practice (GMP) or good trade and distribution practice (GTDP) quality management systems. In addition, 24 of our European sites have implemented Hazard Analysis

M. Lindermuth: Taking into consideration the range of process chemicals that we distribute, Brenntag Food Europe is committed to meet the requirements of Reach, and we do this in close cooperation with our customers and suppliers.

On the one side, customers want to be sure that all substances Brenntag Food Europe supplies will be pre-registered under the Reach regulation and will continue to be available and registered. We offer our customers Reach-trained technical sales force, information on suppliers' intentions regarding the pre-registration, pre-emptive pre-registration and assistance about imported substances with strategic relevance and support in developing exposure scenarios for formulators.

Our suppliers and manufacturers of substances on the other side know that we are able to ensure an effective communication along the supply chain. We offer Reach-trained product

managers, backing regarding the compilation of downstream users and imported substances, and help in developing exposure scenarios for formulators

instance, the groups test how different sugar substitutes and fibers react during bakery. The programs include in addition expert lectures on new legisla-

Our goal is to be the first-choice partner.

and many other Reach-related areas.

How important is technical support for your customers and what other added value services are critical in the food distribution sector?

M. Lindermuth: Brenntag Specialties has its own application laboratories in which we develop innovative and tailor-made solutions for the future. Every year we organise industry specific seminars for selected customers that consist of a theoretical and a practical part. Those seminars are very popular. For

tion or product labelling. Participants can also experience in the features of ingredients such as fiber and inulin for intestinal health, polydextrose and sterolesters.

Additionally, our know-how can be relied on to optimise operating sequences and save administrative, storage and production costs. Furthermore, our more than 15,000 dedicated food customers in Europe appreciate our specialty focus and comprehensive product portfolio.

www.brenntagfood-europe.com



New Plant – Saltigo, a subsidiary of Lanxess, has officially inaugurated a multi-purpose unit for the production of active pharmaceutical ingredients and intermediates. In total, the four production modules of the cGMP facility enable Saltigo to produce more than 200 t/y. The plant is equipped with apparatus for performing reactions, work-up, crystallizing and recrystallizing under cGMP conditions. www.saltigo.com

License To III

Partnerships Should be Evaluated Before the Ink Dries

Filling the Pipeline – With pharmaceutical companies struggling to maintain pipelines and portfolios with products developed in-house, organizations are increasingly turning to licensing to bolster profits. However, both the advantages and disadvantages of each proposed partnership must be evaluated fully before the deal is signed, because the failure to do so will greatly compromise the success of a deal.

Several key factors are currently negatively affecting pharma R&D productivity and sales, including: the reduction in the number of innovative drugs being approved; increasing cost of developing new drugs; increasingly harsh pricing and reimbursement environment and regulatory pressures; shorter periods of exclusivity; patent expiries on a number of key drugs; historical over-reliance on blockbusters and increasing internal pressures.

Consequently, pharma is increasingly turning to licensing products developed by third parties as a means of filling the gaps within its collective pipeline. However, with the constant demand for late-stage product candidates resulting in spiraling licensing deal costs, companies are now looking to in-license earlier-stage compounds, demonstrated by the recent resurgence in preclinical and Phase I licensing deals made by the top 20 pharmaceutical companies.

Licensing: The Earlier The Better

Although the level of licensing observed in the pharmaceutical in-

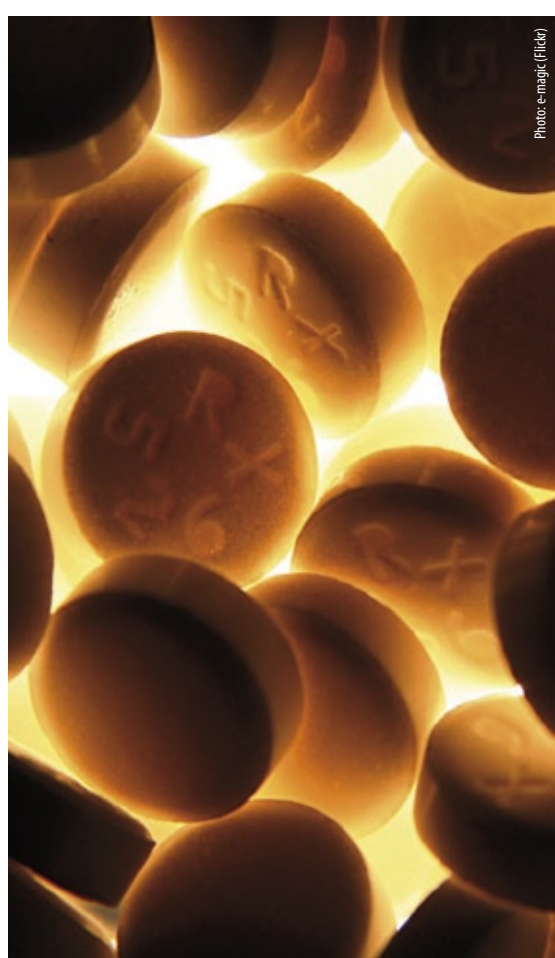
dustry is on the increase, the fact that in-licensed drugs produce a lower return-on-investment (ROI) than those developed in-house implies that the growth of licensing is not sustainable. Pharma companies therefore need to make significant internal changes if they are to continue to remain profitable.

By 2012, Datamonitor forecasts the top 20 pharmaceutical companies will derive one third of their ethical revenues from licensed products. However, while companies facing the patent expiries of key revenue drivers between 2006 and 2012 have in-licensed products to counteract the ensuing sales erosion, this tactic, for six of the leading top 20 companies at least, is not expected to produce positive growth in the short term, although it will at least offset part of their revenue deficit.

Biologics Will Drive Market Growth

Oncology is becoming a popular therapy area for pharma to target in licensing deals, given the increasing longevity of the population, with the prevalence of cancers also growing due to lifestyle factors such as smoking and obesity. The approval of high-value biological therapies such as monoclonal antibodies (mAbs) for the treatment of various cancer indications is a further incentive for manufacturers to enter this market, given the increasing pressures faced by genericization of small molecule products. These factors are set to drive the oncology market from the fourth largest sector in the pharma market at \$27 billion in 2006 to the third largest in 2012 (\$55 billion).

In fact, while biological product licensing and co-development deals



companies (the remaining attributed to small molecule products), the biologics sector is forecast to grow by 10% year-on-year through 2012, while sales of small molecules will remain relatively flat. However, despite the increasing interest in the biologics market, questions have been raised as to whether companies looking to enter the market now have already missed the window of greatest opportunity. Consequently, manufacturers now wishing to enter this lucrative and fast-growing market face considerable competition if they wish to generate any significant market share.

Biotech: Flexing Bargaining Power

only make up a quarter of total product deals made by the top 20 pharma

deal structures increases, licensors, emboldened by the knowledge that

By 2012, Datamonitor forecasts the top 20 pharmaceutical companies will derive one third of their ethical revenues from licensed products.

pharma companies are increasingly reliant upon licensing deals to ensure their future profitability, are demand-

ing more in the negotiation stage, while major pharmaceutical players are conceding more. Licensors now prefer to retain certain rights to the future development, manufacturing and product marketing. However, this ultimately means that while licensors increase their potential ROI, they also increase their burden of risk.

In order to prevent overlap of responsibilities between companies, licensing deals now need to be sufficiently flexible to minimize the duplication of activities by each party, which can cause confusion, while also wasting time and money and putting the deal itself in jeopardy. Such plans should be formed at the outset of an alliance, and if successful may facilitate future synergies that arise, which can be exploited downstream in the relationship.

Contact:
Matthew Dick
Datamonitor
London, UK
Tel: +44 (0)20 7551 9387
mdick@datamonitor.com
www.datamonitor.com

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Contact:



Dr. Margareta Dellert-Ritter
(Editor-in-Chief)
Tel.: +49 6151 8090 136
m.dellert-ritter@gitverlag.com



Dr. Katja Habermüller
(Sales Manager)
Tel.: +49 6151 8090 208
k.habermueller@gitverlag.com

Andreas Zimmer ■ Dr. Margareta Dellert-Ritter ■ Dr. Stefanie Krauth ■ Jutta Jessen ■ Tina Weber ■ Dr. Frank Volz ■ Osman Bal ■ Oliver Gerber ■ Dr. Katja Habermüller ■ Dr. Michael Leising ■ Martina Wolkenfeld ■ Andreas Groesslein ■ Birgit Megges ■ Dr. Martin Friedrich (f. l. t. r.)

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RESEARCH & DEVELOPMENT

More Security For Medicines Safety labels on medicine packaging make forgery difficult. Whether consumer goods, spare parts or medicines – counterfeit products cause huge turnover losses worldwide. Not only this, but in the case of medicines, pirated products can be downright dangerous. In response to this phenomenon, scientists at the Fraunhofer IGB have developed a process to make safety labels on medicine packaging more forgery-proof. Scientists at the Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB in Stuttgart (Germany), together with its industrial partner identif (Erlangen, Germany), have developed a new approach for the anti-forgery security of packaging. They coat plastic films with fluorocarbon nano-layers, on top of which the metal layer generating the colour effect is applied. The advantage is that the basic characteristics of the material remain unaltered, while the surface of the film is optimised by the nano-coating for further processing.

www.igb.fhg.de
www.identif.de

Intracellular Transport: New portals of Entry into Cells for Pathogenic Agents and for Medicinal Products How does the cell membrane capture pathogenic agents bound to its surface? Surprisingly, the membrane invaginates through a spontaneous and autonomous movement and swallows pathogens. This mechanism has been demonstrated in cells, and also in a minimal artificial membrane system. An international collaboration between physicists, including Patricia Bassereau and her CNRS team, chemists, and cell biologists at the Institut Curie, has observed this process at work with a particular pathogen, Shiga toxin. The results shed new light on unexpected aspects of a fundamental process in biology – endocytosis. They also point to new leads in the search for the portal of entry of certain pathogenic agents, or to expedite the entry of drugs, therapeutic vaccines, or diagnostic agents in cancer cells. This work was published online in Nature on Nov. 29, 2007.

www2.cnrs.fr/en

Scientists Strike Blow in Super Bugs Struggle Scientists from the University of Manchester have pioneered new ways of tweaking the molecular structure of antibiotics – an innovation that could be crucial in the fight against powerful super bugs. The work, led by chemical biologist Dr. Jason Micklefield in collaboration with geneticist Prof. Colin Smith, was published online (Dec. 5, 2007). Using funding from the UK's Biotechnology and Biological Sciences Research Council (BBSRC), scientists working in The School of Chemistry and the Manchester Interdisciplinary Biocentre have paved the way for the development of new types of antibiotics capable of fighting increasingly resistant bacteria. Micklefield, Smith and colleagues were the first to engineer the biosynthesis of lipopeptide antibiotics of this class back in 2002. They have now developed methodologies for altering the structure of these antibiotics, such as mutating, adding and deleting components. This innovation provides access to thousands of lipopeptide variants that cannot be produced easily in any other way.

www.pubs.acs.org/journals/jacsat/index.html
www.bbsrc.ac.uk

Passing The Tipping Point

Biofuels Gaining Popularity Amongst Governments, Industry

The New Old Trend – Biofuels are not new; a century ago, Henry Ford designed cars to run on them. But what is new is biofuels' growing momentum. Driven by political backing, it seems certain that biofuels will become a significant part of the transportation energy mix. But how big? How fast will this growth happen? And how will biofuels impact petroleum-based fuel suppliers?

The rise of biofuels on the global agenda reflects various factors, from climate change to energy security to a desire to foster local agriculture. This confluence of diverse interests – economic, political, environmental, consumer – may appear both confused and confusing. But their effect is crystal-clear.

With governments, including the U.S. and EU, now setting aggressive policies and targets for reducing carbon emissions, even the most skeptical energy companies are developing biofuels strategies. In parallel, private investors, private equity firms and financial institutions are fueling the boom by investing in biofuels ventures.

Why Biofuels – And Who Wins?

Why are biofuels gaining such momentum so fast? A primary reason is energy security. With global oil consumption at around 82.5 million barrels per day (b/d) and demand rising, the potential market for alternatives is quickly expanding. The U.S. target for cutting gasoline usage announced in 2006 would create a 35-billion gallon market for alternative road fuels by 2017. Such figures suggest that transportation will drive a fundamental shift, as we move from an era dominated by petroleum into a period of intense innovation and diversity.

As the energy, automotive and airline sectors consider their next steps, and the global biofuels supply market starts to emerge, a number of players are seeking to become the supply-side winners. It could be agribusiness companies such as Archer Daniels Midland Company (ADM), already the biggest producer of bioethanol in the U.S. and biodiesel in Europe. It could be National Oil Companies (NOCs) such as Petrobras, a clear leader in bioethanol. It could be the International Oil Companies (IOCs) that currently dominate retail distribution and fuels marketing. Or it could be one of the Independents – such as Biopetrol Industries, which is 100% focused on biofuels and is increasing capacity steadily while optimising its distribution network; or a cooperative-backed company such as Tereos, which has an upstream advantage.

What is clear is that governments' aggressive emissions policies and targets are creating the momentum, which is being sustained by capital flowing in from private investors. As Figure 1 shows, the International Energy Association (IEA) is forecasting that both ethanol and biodiesel production will reach three to four times their current levels by 2020.



The U.S. target for cutting gasoline usage announced in 2006 would create a 35-billion gallon market for alternative road fuels by 2017.

Market Dynamics

Given this background, we believe that there will be a global biofuels (bioethanol and biodiesel) industry by 2012. By global, we mean an industry in which:

With global oil consumption at around 82.5 million barrels per day (b/d) and demand rising, the potential market for alternatives is expanding apace.

- There is price transparency – that is, product flows to the market where it adds the most value.
- Producers with a cost advantage in producing biofuels are net exporters.
- Countries that may also produce biofuels meet some proportion of their demand with imports.
- Markets exist where many buyers and many sellers spanning multiple geographies can connect and transact.

So biofuels are here to stay. However, as with the Internet, we believe there will be a boom and then the dust will settle. There will also be new entrants alongside the agribusiness, traditional oil companies and NOCs already playing in this market. The winners will be those companies whose strategies cater to (or are flexible enough to deal with) the uncertainties inherent in this evolving market.

These uncertainties include the emergence of second-generation technology such as cellulosic ethanol, the development of hybrid cars that

only rarely switch to gasoline, and the feasibility of sustainably scaling and storing feedstock supply. It is also hard to foresee the extent to which governments will meet their emissions targets, or what actions heavy energy-consuming countries such as

the US, China, India and Japan will take.

A Patchwork Approach

While the biofuels market will be global, the drivers shaping it are localized. Our study found that although most governments support the creation of a global market for biofuels, policy will continue to be dominated by domestic priorities such as energy security, local agriculture and the environment. Feedstock choice will also reflect local supply opportunities. This focus on growing domestic biofuels markets has resulted in a patchwork of targets, incentives, import tariffs and tax structures.

In addition, the dynamics of the market, with production occurring in countries other than those with the demand, will create supply/demand imbalances. If enough countries have complementary shortages and surpluses, then a global market will emerge, encouraged by ambitious international players.

In the study, we assessed each of the 20 countries on the sophistica-

tion of its domestic biofuel industry and the level of international activity (separately for biodiesel and ethanol). Our comparative analysis shows that although countries vary in their speed and approach, they are largely moving in the same direction – towards the creation of a global supply market. This drive is supported by advancing technology that will make the biofuels industry more competitive, and by the use of imports to stimulate the development of a local industry.

The Implications for Players in the Supply Market

So, what does this analysis mean for biofuel suppliers? These players generally fall into four categories:

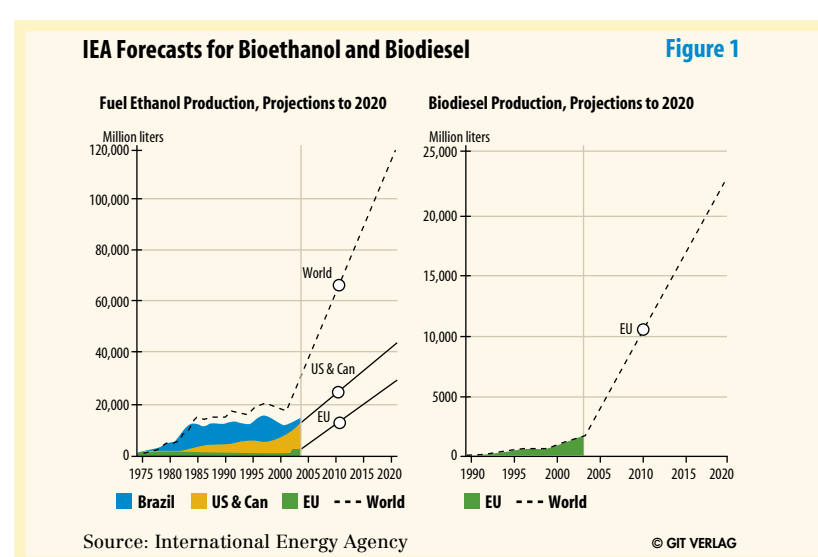
- Farmer (cooperative) producers
- Agribusiness/agriculture supply chain and food producers
- IOCs and NOCs
- Independents

Each group has different sources of competitive advantages and challenges. Farmer producers benefit from government support and the natural hedge that biofuels provide against feedstock price fluctuations, but also face challenges around scale, skills and securing demand. Players in the agribusiness/agriculture supply chain and food producers are better positioned to benefit from the global push toward biofuels, given their large-scale production and transportation, vertical integration across food, feedstock and biofuels, global reach, and trading expertise. But they do run the risk of cannibalizing their food business.

Turning to the oil industry players, IOCs and NOCs have the advantage of distribution, but face having to "buy" the biofuels, thereby cannibalizing their gasoline and diesel volumes. For IOCs, the big decision is whether to buy into the increasingly crowded first-generation market, or continue investing in second-generation technology research. For NOCs, the key questions are around growing and integrating this new business into their downstream businesses, and managing new stakeholders from the agriculture sector (including governments).

The IOCs and NOCs will influence the shape of the biofuels market in two main areas. One is distribution – as owners of the infrastructure, they can influence how quickly (and easily) the biofuel market scales. The other is second-generation bets. The IOCs in particular are major investors in second-generation technology, and have the resources and capability to scale up if commercial opportunities emerge.

In contrast, independents can move more quickly, can focus exclusively on biofuels, and are attractive to private investors. However, most lack scale and do not have feedstock supply or demand. The independents are following various strategies, including selecting locations with optimal connections to transportation routes and oil facilities, integrating vertically and planting jatropha, or – in the case of ASAlliances Biofuels (ASAB) – setting out to create a "best of breed" biofuels company through industry collaboration. Whatever the



strategy, the challenge will be to get the returns before the big agribusiness and IOC players.

Attributes For High Performance

As the biofuels market evolves over the next five years, Accenture believes the feedstock mix will move towards

Biofuels are here to stay. However, as with the Internet, we believe there will be a boom and then the dust will settle.

one that makes economic sense on a country-by-country basis. The current patchwork of government incentives is creating market inefficiencies, but the market is starting to work to balance supply and demand while standards and financial markets are being established. Domestic agendas will continue to drive countries' policies, but the use of imports is creating durable international trade links. And technology will continue to accelerate industry efficiency, while simultaneously disrupting assumptions on supply, yield and cost.

The bioethanol market is already international and moving towards becoming global. Producers of bioethanol feedstock will actively push international trade, supported by second-generation technology. Biodiesel, in contrast, will take longer, because it has no "sugarcane solution." How-

Key Factors

Four key factors will shape the emerging biofuels market over the next five years. These are:

Supply: The creation of a global supply market for biofuels driven by policy makers, farmers, agribusiness and producers.

Demand: The extent to which governments, automotive factors, blenders and retailers support biofuels as a viable alternative to petroleum.

Scale Markets: The challenges in creating scale markets in biofuels feedstock, product, transport and distribution.

Technology: Technologies in each part of the biofuels value chain may change the game (such as seed and fertiliser yield, flexible fuel vehicles, and hydrogen).

ever, our research confirms that the desire for biodiesel is even bigger than for ethanol, so we believe the global market will develop.

Although the various players entering the biofuels supply market have differing views and approaches, we have identified seven capabilities that we believe are key to high per-

formance in this sector. These are:

- An effective non-market strategy – navigating the patchwork of regulation, tariffs and incentives, and managing consumer perception.
- Superior investment evaluation – choosing the right mix of investments and the amount and type of capital to invest, and understanding when to consider mergers and acquisitions.
- Partnering – finding and keeping the right partners to share risks and access markets, skills and financing.
- Supply chain – aligning and optimizing the cross-border feedstock and biofuel supply chains.
- Customer/contract management – managing portfolios of bilateral long- and medium-term contracts.
- Trading and risk management – using the financial markets to manage risks and surplus/shortfalls in contract positions.
- Portfolio of investments in various technologies – using diversification to manage the uncertainty of which technologies will prevail.

Supply, however, is just one aspect of the emerging global biofuels market. Given the trend towards vertical integration and collaboration/partnerships across the value chain, a high-performance player also needs to tackle the issues of demand, scale markets and technology trends.

Contact:
Henning Müller
Accenture GmbH
Munich, Germany
Tel.: +49 175 5768180
Fax: +49 6173 94 48180
henning.mueller@accenture.com
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PEOPLE



Patrick Jeger

Carbogen Amcis Creates New Position Swiss-based Carbogen Amcis has announced that Patrick Jeger, manager of R&D at the Bubendorf facility, has been appointed to manager Scientific Specialties for the company. In recognition of the increasing importance of a diverse technology base, Carbogen Amcis created the position to manage responsibility for the ongoing implementation of company's micro-reactors, lab automation, crystallization, supercritical fluid technologies and further additions to the technology portfolio.

► www.carbogen.com



Michael Schade



Dr. Michael Preuss

Bayer: New Head of Communications Effective May 1, 2008, Michael Schade, currently head of Corporate Policy & Media Relations, will become the new head of communications at Bayer, responsible for the group's global communications activities. Schade's predecessor Heiner Springer will start his pre-retirement leave after more than 35 years of service to Bayer, 22 of these as head of communications. On joining Bayer as head of publications in July 1980, Schade became editor-in-chief of all Bayer's external publications. Succeeding Schade as head of Corporate Policy & Media Relations at Bayer from May 15, 2008, will be Dr. Michael Preuss, currently head of Media and Public Relations at Robert Bosch in Stuttgart.

► www.bayer.com



Folker Ruchatz

Folker Ruchatz Gains New Positions Dr. Folker Ruchatz has been given global responsibility for the custom synthesis business within BASF's business unit Pharma Ingredients & Services. He has also been appointed managing director of BASF Orgamol Pharma Solutions. Ruchatz joined BASF in 1996 and held various positions in marketing and product development. Most recently, he was responsible for the Pharma Solutions and Dietary Supplements business unit in North America. Ruchatz studied pharmacy at the University of Kiel, Germany, and was awarded a doctorate in natural sciences.

► www.basf.com



Pierre Chanoine

Changes in Arkema's Executive Committee Pierre Chanoine has been appointed member of the Executive Committee of Arkema succeeding Philippe Goebel. Since 2004, Chanoine has been group president of Arkema's Fluorochemicals business unit. He will remain in charge of the Fluorochemicals business unit and will supervise the Technical Polymers and Specialty Chemicals business units. He is a graduate of Ecole Supérieure de Commerce in Reims and also holds an MBA from Sherbrooke University (Canada).

► www.arkema.com



John Berridge

ISPE Names European Regulatory Affairs Advisor John Berridge, PhD, has been appointed European regulatory affairs advisor for ISPE, a global not-for-profit association of 25,000 pharmaceutical professionals. In this position Berridge assists ISPE in its interactions with European regulatory authorities as well as helping to move ISPE's new product quality life-cycle implementation forward. Berridge retired from Pfizer Global Research and Development at Sandwich, England at the end of January 2006 as European vice president of Pharmaceutical Sciences.

► www.ispe.org



Lorenzo Delorenzi

Executive Vice President, Polyolefins Borealis, a provider of plastics solutions, has announced the appointment of Lorenzo Delorenzi as executive vice president for its Polyolefins Business group and member of the executive board, effective immediately. Delorenzi vacates the position of vice president for the Business Unit Pipe, where he led a successful turnaround of the business. Prior to joining Borealis, he held senior commercial and management positions within Tetrapak including global director for strategic marketing and managing director of the PET Division.

► www.borealisgroup.com



Uwe Wöhner

New CEO for Trevira Uwe Wöhner took over as Trevira's chief executive officer. Before joining Trevira he was as a member of the board of Grammer in Amberg, Germany, responsible for the automotive products sector. He held this position from February 2001 to September 2007 and in addition assumed responsibility as labour director for the whole Grammer group.

► www.trevira.com

Alcoa Appoints New Directors Alcoa's board of directors has appointed Stan O'Neal, former chairman and CEO of Merrill Lynch, and Michael G. Morris, chairman, president and CEO of American Electric Power Company to its board of directors. The appointments are effective immediately.

► www.alcoa.com

Aker: New Name, New CEO

Simen Lieungh
President and CEO of
Aker Kvaerner

Simen Lieungh, former Aker Kvaerner executive vice president and 20-year company veteran, has been appointed to President and CEO of Aker Kvaerner. Lieungh will succeed Martinus Brandal, who will be nominated as new Chairman of the Board, and has been appointed Executive Vice President responsible for the energy technologies sector. Lieungh will assume his responsibilities as President and CEO in March. From 1988, Lieungh held several positions within Aker Kvaerner and he served as executive vice president of field development from 2002 to August 2007. He is a Norwegian citizen and a graduate of the Norwegian University of Science and Technology.

Meanwhile, the board of directors plans to propose to change the company name to Aker Solutions at the annual general meeting. During 2007 a long-term and stable ownership structure was established for Aker Kvaerner, as more than 40% of the shares in the company were transferred from Aker to Aker Holding, a holding company controlled by Aker. The owners of Aker Holding have mutually agreed that the company will keep its Aker Kvaerner shares for at least 10 years. The board of Aker Holding has already discussed and concluded in favour of the proposed name change.

► www.akerkvaerner.com

Erratum

In CHEManager Europe's January issue we misspelled the name AllessaChemie. We apologise for this error. The roots of AllessaChemie, founded in 2001, go back to the year 1838, when Leopold Cassella started the lucrative business as a wholesaler of precious dyes.

His successors in the dye business were the founders of the company Cassella, which by 1900 had become the largest azo dyestuff producer in the world. The name AllessaChemie, hence, has been chosen to honor the company history.

Unlock The Value Program

Barrick Gold Corporation is looking for scientists to propose solutions to an earthly conundrum. The Unlock the Value program offers scientists, engineers and other inventors \$10 million if they can increase silver recovery from Barrick's Veladero gold mine in Argentina. The deadline for applications is April 30.

Geologists have determined there are 180 million ounces of silver contained in gold reserves in the ore at the Veladero mine. Because the silver particles are encapsulated in silica, current processing methods are recovering very little of the silver.

The Unlock the Value program invites proposals for an economically viable way to significantly increase silver recovery from this type of ore.

After April 30, all proposals will be assessed by a team of experts and evaluated on their technical viability and ability to be safely implemented at Veladero. For proposals judged to have merit, Barrick will fund further research and development. For a technology that is successfully implemented at Veladero, the company will pay a performance bonus of \$10 million.

► www.unlockthevalue.com

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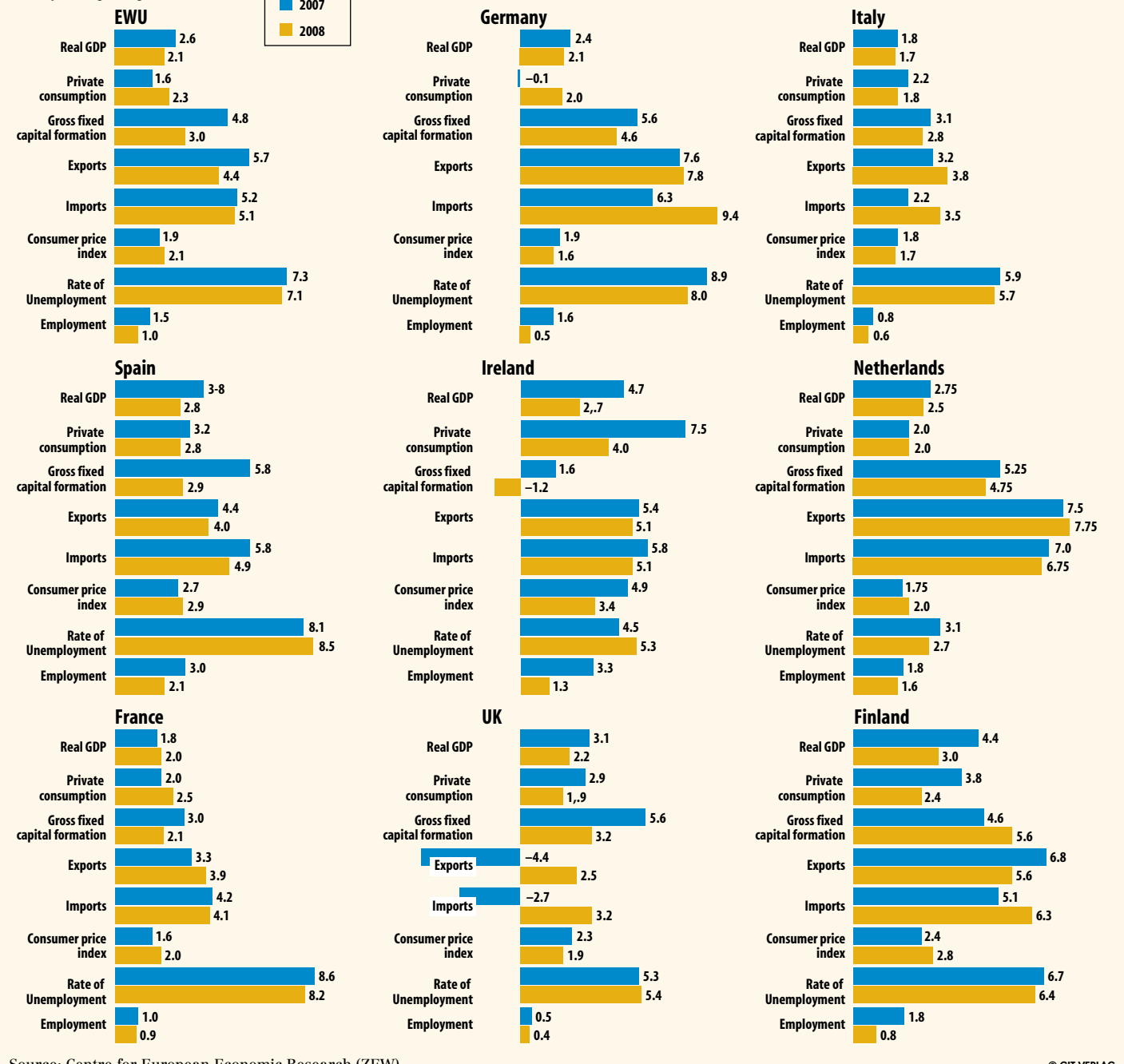
GIT VERLAG GmbH & Co. KG
 Roesslerstr. 90
 64293 Darmstadt, Germany
 Tel.: +49 6151/8090-0
 Fax: +49 6151/8090-168
 info@gitverlag.com
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State of Economics in the Eurozone

Economic outlook
(annual percentage change)

Legend: 2007 (blue), 2008 (yellow)



Source: Centre for European Economic Research (ZEW)

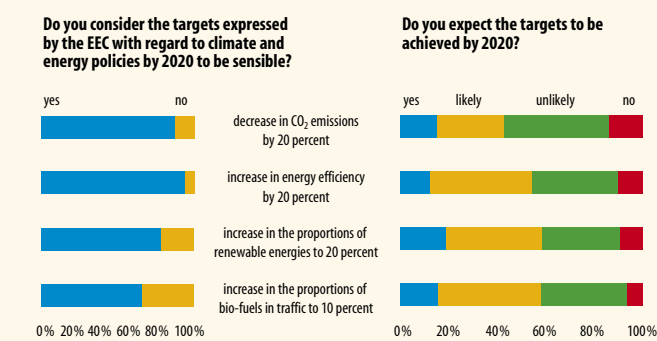
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In the third quarter of 2007, the economic development in the Eurozone was able to live up to the high dynamic seen at the beginning of the year. This came on the tail of a disappointing second quarter. According to Eurostat estimates, the real gross

domestic product rose 0.7% in the third quarter, compared to a mere 0.3% in the second quarter. In spite of the positive development, economic forecasters agree that the economic vitality in the Eurozone is well past its prime.

Experts Support EEC Climate Targets

EEC Climate and Energy Policy Targets

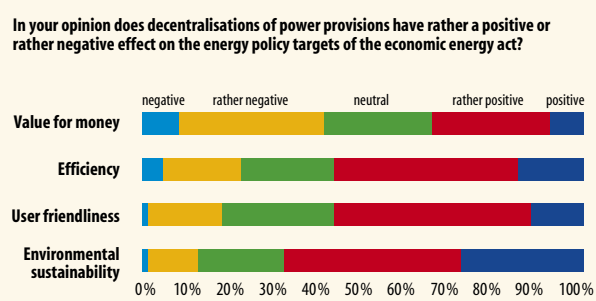


Source: ZEW

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A large majority of the respondent experts of the current Centre for European Economic Research (ZEW) energy barometer support the plans of the EEC in climate policy. Around 80% of them deem the target of decreasing CO₂ emissions to be sensible. The target of increasing energy efficiency was in fact supported by 94%. About 78% are in favor of increasing the proportion of renewable energies to 20%, and 67% deem the

Decentralization of Power Provision



Source: ZEW

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target of increasing the proportion of biofuels to be sensible. As clearly as the experts are in favour of the EEC targets, they are also skeptical about their implementation. Only 14% replied yes to the question of whether the decrease in CO₂ emissions could be really decreased by 20% while 28% thought it may be possible. On the other hand about 58% of the experts replied no.

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Publisher:
GIT VERLAG GmbH & Co. KG
Roesslerstr. 90
64293 Darmstadt
Tel.: +49 6151 8090 0
Fax: +49 6151 8090 168
info@gitverlag.com
www.gitverlag.com

Managing & Publishing Director
Dr. Michael Schön

Head of Sales & Marketing
Anna Seidinger

Product Management
Dr. Michael Klinge
Tel.: +49 6151 8090 165
m.klinge@gitverlag.com

Editor-in-Chief
Brandt Schuster
Tel.: +49 6151 8090 166
b.schuster@gitverlag.com

Editors
Dr. Michael Klinge
Tel.: +49 6151 8090 165
m.klinge@gitverlag.com

Dr. Roy Fox
Tel.: +49 6151 8090 128
r.fox@gitverlag.com

Editorial
Wolfgang Sieß
Tel.: +49 6151 8090 240
w.sieess@gitverlag.com

Dr. Dieter Wirth
Tel.: +49 6151 8090 160
d.wirth@gitverlag.com

Dr. Birgit Megges
b.megges@gitverlag.com

Media Consultants
Thorsten Kritzer
Tel.: +49 6151 8090 246
t.kritzer@gitverlag.com

Miryam Preußer
Tel.: +49 6151 8090 134
m.preusser@gitverlag.com

Dr. Michael Reubold
Tel.: +49 6151 8090 238
m.reubold@gitverlag.com

Roland Thomé
Tel.: +49 6151 8090 238
r.thome@gitverlag.com

Corinna Matz-Grund
Tel.: +49 6151 8090 217
c.matz-grund@gitverlag.com

Team Assistants
Lisa Rausch
Tel.: +49 6151 8090 263
l.rausch@gitverlag.com

Christiane Rothermel
Tel.: +49 6151 8090 150
c.rothermel@gitverlag.com

Freelancers
Dr. Sonja Andres

Production Managers
GIT VERLAG GmbH & Co. KG
Dietmar Edhofer (Management)
Claudia Vogel (Advertising)
Matthias Funk (Layout)
Elke Palzer, Ramona Rehbein (Litho)

Reprints
Christine Mühl
Tel.: +49 6151 8090 169
c.muehl@gitverlag.com

Subscription/Reader Service:
Tel.: +49 6151 8090 115
readerservice@gitverlag.com

Bank Account
Dresdner Bank Darmstadt,
Germany
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RESEARCH & DEVELOPMENT

How the Anthrax Bacterium Eludes Our Immune Defenses After having demonstrated the protective role of one of the enzymes of our natural immunity of against B. anthracis, the anthrax bacterium, researchers from the Institut Pasteur, INSERM, and the CNRS explain how the bacillus is capable of evading the bactericidal action of this enzyme: the bacterium produces a toxin that inhibits the enzyme synthesis. This research, published in PLoS Pathogens, reveals potential new therapeutic avenues against anthrax. It is supported by a grant from the French Foundation for Medical Research (Marianne Josso Prize).
www.pasteur.fr, www.cnrs.fr

A Newly Identified Genetic Variation May be Linked to Aggressive Prostate Cancer A research group has shown that single-nucleotide polymorphism in a known tumour suppressor gene may be linked to aggressive prostate cancer in patients of both African and European descent. Reference: Two genome-wide association studies of aggressive prostate cancer implicate putative prostate tumour suppressor gene (DAB2IP), J Natl Cancer Inst (2007) 99:1-9, online 11 December 2007.
www.ki.se

Discovery of Malaria Parasite Escape Technique Leads to New Drug Target This is a breakthrough in understanding how the malaria parasite passes from cell to cell in the bloodstream has provided a new target for improved anti-malarial drug design. Scientists led by Dr Mike Blackman of the Medical Research Council's National Institute for Medical Research (NIMR) have identified an enzyme that if inhibited stops spread of the parasite. The team discovered that the enzyme, named PISUB1, triggers release of the parasite from infected red blood cells thereby enabling it to invade new cells. Original research paper: Subcellular discharge of a serine protease mediates release of invasive malaria parasites from host erythrocytes is published online in Cell.
www.nimr.mrc.ac.uk

Promising Cholesterol-lowering Drug Scientists at Karolinska Institutet have achieved new advances in the fight against cardiovascular disease. A new drug has been shown to reduce levels of harmful blood cholesterol in people, without producing the serious side-effects associated with previous medicines. Scientists at Karolinska Institutet, in association with pharmaceutical company Karo Bio and researchers from the University of California San Francisco have now studied the effects of a thyroid hormone mimic compound in humans for the first time. The results show that it gave a significant drop in LDL cholesterol in a small group of patients with heightened cholesterol levels without causing any of the adverse reactions associated with conventional thyroid hormone treatment. This findings were published in PNAS, Early Edition 17–21 December 2007.
www.ki.se

A Faster, Simpler Test for Disease Biomarkers In an advance toward earlier diagnosis of cancer and other disorders, scientists are reporting development of a potentially fast, simple and inexpensive blood test to detect disease "biomarkers." The study was scheduled for the December issue of ACS' Journal of the American Chemical Society, a weekly publication. The study describes development of an integrated serum biomarker detection system for the folate receptor and testing of blood samples from patients with different types of cancer. Researchers captured the folate receptors - proteins that are biomarkers for the growth of cancer cells - with microscopic magnetic beads and assembled them to form a structure termed a "diffraction grating." Journal Article: "Immunomagnetic Diffractometry for Detection of Diagnostic Serum Markers".
www.portall.acs.org

First Biogenic Therapeutic Protein from Fraunhofer Institute Introduced to the Market An interferon-beta protein developed at the Fraunhofer Institute for Interfacial Engineering and Biotechnology IGB, Stuttgart, Germany, in collaboration with CinnaGen company, Tehran, Iran, is now the first therapeutic protein from a Fraunhofer laboratory to be approved as biogeneric/biosimilar medicine. Multiple sclerosis (MS) is the most common disease of the central nervous system. Estimates put the number of people suffering from multiple sclerosis at about 2.5 million worldwide. The only therapeutic successes achieved so far have been with interferon-beta, a protein produced naturally in the body. It slows down the progression of the illness and reduces the relapse rate. Biotechnological techniques make it possible to engineer this endogenous protein in bacterial or mammalian cells.
www.igb.fraunhofer.de, www.cinnagen.com

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