



ICIS TOP 40 POWER PLAYERS

We unveil the movers and shakers who are making their mark on the global chemical sector. It has been a turbulent year, with a slow economic recovery weighed down by the European debt crisis, high levels of US unemployment and slowing growth in China. But these leaders are guiding their companies through the challenges, and mapping out an exciting course for the future

LyondellBasell's Gallogly on top

The head of one of the world's largest polyolefins producers has led the company out of bankruptcy and transformed it into the most financially robust player in the space



1

JIM GALLOGLY
CEO
LYONDELLBASELL

"We intend to be the top petrochemical company in the world"

NIGEL DAVIS LONDON

Taking the lead position in this year's ICIS Top 40 Power Players ranking is Jim Gallogly, CEO of the world's foremost polypropylene (PP) producer as well as a major olefins and polyethylene (PE) manufacturer and refiner, LyondellBasell.

Gallogly has led Netherlands-based LyondellBasell through a troubled period. Using his solid industry expertise from more than 30 years in oil and petrochemicals, he has left his mark on the company. He is a worthy winner, voted into the top slot by ICIS journalists.

Jim Gallogly has applied strict management discipline at LyondellBasell to great effect. Financially, it is performing remarkably well, and in the 18 months since emerging from Chapter 11 bankruptcy protection in 2010, has become net debt free. Gallogly joined LyondellBasell as CEO in May 2009, just a few months into the 16-month Chapter 11 period.

Cash flow has been such that in November the firm said it would give investors a \$2.6bn (€1.9bn) special dividend, financed from cash and the recent placement of new debt.

Gallogly and his team are laying the ground for the future, and in the US are seeking to capitalize on North America's shale gas advantage. Some investment projects have been deferred or abandoned during the tough times since the Chapter 11 period, but its cracker debottlenecking plans in the US put the company firmly back on the path to growth.

LyondellBasell senior management says it will give more details of growth projects at an upcoming investor day.

Core to the Gallogly philosophy is the "back to basics" strategy adopted by LyondellBasell. Since emerging from bankruptcy protection, the company has been focused on "operational excellence; cost reduction and revenue enhancement; capital discipline; portfolio management; performance culture; and technology-driven growth."

The cost reductions have hit hard and caused disquiet in the workforce on both sides of the Atlantic, but the company has delivered impressive financial results. By the end of the

third quarter, which Gallogly described "as our best quarter ever," it had \$6bn in cash and no net debt. "Strict cash management is an integral part of our strategy and success," Gallogly told financial analysts. "We intend to be the top petrochemical company in the world," he added, noting that the company had already outperformed industry benchmarks.

If the firm's assets can be operated well, the LyondellBasell CEO believes it has a good chance of weathering whatever economic storms may be ahead – although LyondellBasell takes the widely held view that olefins chain margins will tighten in the next few years as fairly limited supply side additions are made to the system.

A DEVELOPING GROWTH STRATEGY

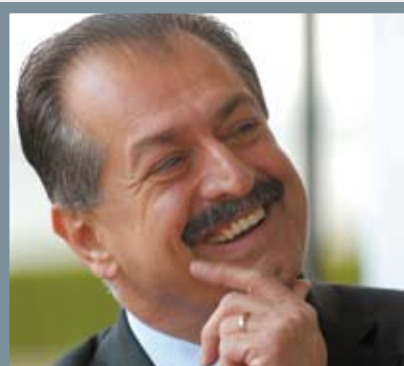
Gallogly, assisted by a chief financial officer brought back from retirement, Kent Potter, appears to have hit the right time to address the capital structure of the company, issue new debt and reward shareholders with the special dividend. Now a clear enunciation of growth strategy is needed – one that can be achieved within the financially disciplined approach adopted by the current management team.

Gallogly started his career in petrochemicals at US-based Phillips Petroleum, where he rose to become senior vice president of chemicals and plastics, vice president of olefins and polyolefins, and vice president for North America production.

He was president and CEO of US-based Chevron Phillips Chemical from 2000–2006, and until 2008 was executive vice president of Refining, Marketing & Transportation for US energy company ConocoPhillips. Prior to joining LyondellBasell in 2010, he was executive vice president of Exploration & Production for ConocoPhillips.

Given his background, he is a petrochemical man through and through. Operational excellence is in his blood.

Challenging times bring him to the point where he must help the company grow and adapt in an uncertain operational and demand environment. Gallogly has the task of taking LyondellBasell on to the next phase. ■



2 **ANDREW LIVERIS**
CHAIRMAN, PRESIDENT, CEO
DOW CHEMICAL

JOSEPH CHANG NEW YORK

Few can boast the game-changing project slate of the head of the world's second largest chemical company.

This year, Dow Chemical CEO Andrew Liveris has signed a watershed joint venture deal with state-owned oil firm Saudi Aramco to build the world's biggest single petrochemical project in Al-Jubail, Saudi Arabia, as well as announced a slew of major olefins expansions on the US Gulf Coast.

The capacity expansions are a cornerstone of Dow's strategy to build on advantaged feedstocks – cheap oil and gas in Saudi Arabia, as well as abundant shale gas in the US.

The 50:50 Sadara joint venture project in Saudi Arabia will cost about \$20bn (€15bn) and the first production units are expected to come on stream in the second half of 2015.

The complex will comprise 26 manufacturing units producing over 3m tonnes/year of products and include a worldscale cracker and downstream production units.

Sadara is expected to generate about \$10bn in annual sales within five years of start-up with earnings before interest, tax, depreciation and amortization (EBITDA) of around \$500m for each venture partner. It will crack both light and heavy feedstocks.

Liveris said: "We believe this is not only a feedstock advantage, but also an energy advantage, in terms of pricing structures in natural gas and fuel oil used for power."

He is also taking advantage of the US shale gas phenomenon, building a new ethane-based cracker in Texas for start-up in 2017, restarting a cracker in Louisiana by the end of 2012 and also building an on-purpose propylene facility using ethane feedstock by 2015. ■



3 **BEN VAN BEURDEN**
EXECUTIVE VICE PRESIDENT
SHELL CHEMICALS

JOHN BAKER LONDON

In close to five years as head of Shell Chemicals, Ben van Beurden has steered the business towards a strategy of investment based on upstream integration and feedstock advantage, with a global spread. Shell's overall strategy under his tenure is based around delivering bulk petrochemicals to large industrial customers, through standardized global processes and at the lowest possible total cost.

Van Beurden has been quick to stake a claim to exploit US shale gas this year, with the announcement of a cracker plus polyethylene (PE) and monoethylene glycol (MEG) units in the Marcellus fields, probably in Pennsylvania, West Virginia or Ohio.

"Building an ethane-fed cracker in Appalachia would unlock significant gas production in the Marcellus region by providing a local

outlet for the ethane," said van Beurden in June this year. "This fits well with our strategy to strengthen our chemicals feedstock advantage and would be another step in growing our chemicals business to meet the increasing demand for petrochemicals."

Shell is also pursuing a mixed-feed ethylene cracker complex in Ras Laffan, Qatar, with Qatar Petroleum, also with MEG capacity, of 1.5m tonnes/year; a refinery and petrochemical complex in China, with PetroChina and Qatar Petroleum; and an expansion of its recently built cracker capacity in Singapore on Bukom Island.

Outside Shell, van Beurden plays a public role as a member of the board of the International Council of Chemical Associations (ICCA) and as chair of Europe's chemical trade association Cefic's Program Council for Communications. ■



4 **JIM RATCLIFFE**
CHAIRMAN
INEOS

WILL BEACHAM LONDON

Switzerland-headquartered INEOS has continued to be reshaped by Jim Ratcliffe in a highly innovative way during 2011. In January he signed a deal with state-owned energy firm PetroChina that paid \$1bn (€750m) to purchase a 50% stake in INEOS' European refining operations. The deal, which was completed on July 1, includes refineries in Grangemouth, Scotland, and Lavera, France.

The Styrolution joint venture was another example of innovative thinking. By combining styrene assets with Germany's BASF, the two groups have created a global leader in the production of styrene monomer (SM) and polystyrene (PS), with 17 production plants in 10 countries. It claims to have the broadest portfolio of commodity and specialty styren-

ics in the industry. Pro forma 2010 earnings before interest, tax, depreciation and amortization (EBITDA) before exceptionals for the newly-launched group is €407m.

INEOS is also involved in active discussions on possible joint-venture projects in the Middle East and is seeking further investment opportunities in China.

In June, Belgium-based Tessenderlo agreed to sell its polyvinyl chloride (PVC) and chlor-alkali businesses to INEOS ChlorVinyls for €110m.

INEOS was one of the first global players to reveal that it was severely cutting production in response to the recent slowdown in Europe. In November it revealed plans to make hefty cutbacks on polyethylene (PE) production in Europe for the remainder of 2011. The assets will be running at minimum rates averaging 50% of capacity. ■



5 ELLEN KULLMAN

CHAIR AND CEO DUPONT

The head of the US-based chemical giant has engineered a remarkable turnaround since taking the reins in January 2009 in a period of economic turmoil. Kullman kept costs under control, simplified the management structure and maintained financial flexibility. The latter enabled the company to pull off its \$6.3bn (€4.7bn) acquisition of Danish enzymes and food ingredients producer Danisco in June 2011. DuPont is also undertaking a titanium dioxide (TiO₂) expansion that will boost its capacity by 350,000 tonnes/year by the end of 2014, equivalent to 29% of its TiO₂ capacity and 9% of global capacity. This will include \$550m for a new 200,000 tonne/year TiO₂ line in Altamira, Mexico, plus upgrades at five of its sites in the US, Mexico and Taiwan that will yield an additional 150,000 tonnes/year.



6 KHALID AL-FALIH

PRESIDENT AND CEO SAUDI ARAMCO

A 30-year veteran of Saudi Arabia's state-owned oil, gas and refinery company, Al-Falih joined the board in 2004 and took the top role in 2009 – the year it brought on stream its first major petrochemical investment – the Petro Rabigh joint venture with Japan's Sumitomo Chemical. This year, Al-Falih sealed a deal with US-based Dow Chemical to build a \$20bn (€15bn) complex at Al-Jubail, Sadara Chemicals. It will be the largest complex ever built in one stage, with 25 units downstream of the ethylene cracker. First production is expected in the second half of 2015. Also this year, Saudi Aramco signed a huge expansion of refinery and aromatics capacity at its S-Oil joint venture in South Korea. The \$1.2bn project doubles capacity to 1.7m tonnes/year and benzene to 560,000 tonnes/year.



7 FU CHENGYU

CHAIRMAN SINOPEC

Fu, who took over as chairman of Sinopec in May of this year, has taken the helm of China's largest refining and petrochemical company at a pivotal time for the company. The 60-year-old was formerly the head of China National Offshore Oil Corp. (CNOOC). Traditionally, Sinopec has been run as a utility company with low return on capital compared with its international peers. The priority has been security of supply of refined products and petrochemicals to industry. As the company aims to become more international, the big question among investors is whether priorities will change – or whether Sinopec will continue to add capacity for the sake of overall national objectives. The Chinese major will be the world's biggest ethylene producer by 2015, according to some estimates.



8 KHADEM AL-QUBAIS

MANAGING DIRECTOR IPIC

Al-Qubaisi leads the Abu Dhabi sovereign wealth fund, International Petroleum Investment Company (IPIC). Under his leadership, IPIC has continued to expand its holdings in petrochemical companies as it expands internationally. During 2011, IPIC raised its stake in Spanish oil and chemical group CEPSA from 47% to 100%. Al-Qubaisi then became CEPSA's chairman and managing director. Al-Qubaisi is also chairman of the supervisory board at Austria-headquartered Borealis, in which IPIC has a 64% stake. In 2011, IPIC increased its stake in Austria's oil and chemical group OMV by 4.5 percentage points to 24.9%. OMV owns the other 36% in the Borealis joint venture. IPIC also owns Canada's NOVA Chemicals and is developing the vast Chemaweyaat petrochemical site in Abu Dhabi.



9 STEPHEN PRYOR

PRESIDENT EXXONMOBIL CHEMICAL

Pryor is overseeing ExxonMobil Chemical's huge petrochemical expansion in Jurong Island, Singapore, the company's largest ever chemical project. All the plants are due for start-up in the second half of 2012. The project will have a 1m tonne/year cracker, two 650,000 tonne/year polyethylene (PE) plants, a 450,000 tonne/year polypropylene plant, and a 300,000 tonne/year specialty elastomers plant. Pryor is focusing on the Singapore expansion, as well as the company's 400,000 tonne/year elastomers and carbon black expansion in Al-Jubail, Saudi Arabia, with local petrochemical giant SABIC. He is also mulling petrochemical projects in Tianjin, China and Qatar. In the US, he has thus far resisted jumping on the new-cracker bandwagon based on growing supplies of shale gas.



10 YOSHIMITSU KOBAYASHI

PRESIDENT AND CEO MITSUBISHI CHEMICAL

Heading Japan's largest chemical firm, Kobayashi has expanded abroad through joint ventures. Tie-ups include those with China's Sinopec for bisphenol A (BPA) and polycarbonate (PC); Thailand's PTT Chemical for sugar-derived polybutylene succinate, a biodegradable aliphatic polyester with similar properties to polyethylene (PE); and Saudi Arabia's SABIC for methyl methacrylate. After the March earthquake, Mitsubishi Chemical brought its badly damaged Kashima plant back on line and worked to maintain supply. Kobayashi has restructured the company's polypropylene (PP) business, and left businesses where it was not competitive, such as styrene, polyvinyl chloride (PVC) and nylon. In April, it integrated its ethylene operations with those of Asahi Kasei in Mizushima.



11 CARLOS FADIGAS

CEO
BRASKEM

Fadigas has led the Brazil-based company through a global growth spurt, cutting deals to acquire capacity in Germany, the US and Mexico. Braskem bought the polypropylene (PP) businesses of US-based firms Sunoco in 2010 and Dow

Chemical in 2011, acquiring plants in the US and Germany. Late last year, Braskem created a joint venture with Mexico-based IDESA to build an integrated ethane cracker and polyethylene units. The joint venture started site preparation in October and front-end engineering and design work is nearly complete. Braskem is considering a cracker and polyethylene (PE) projects in Peru and the US. Meanwhile, the company continues to review expansion into renewable plastics. These would use sugarcane-based ethanol as a feedstock.



12 MOHAMED AL-MADY

VICE CHAIRMAN AND CEO
SABIC

Al-Mady remains an important focus of attention at Saudi Arabia-based SABIC as he helps steer the company and maintain its influence in a changing chemicals landscape in Saudi Arabia. He has been vice chairman and CEO since 1998.

SABIC is generating strong financial results as it ramps up new joint-venture production capacities. It is a low-cost, industry leader. The company's management was criticized by some when it went downstream into advanced plastics, buying US-based GE Plastics in 2007. But SABIC's business portfolio is being tuned for the long term. Clearly, SABIC's newer ventures are designed to capitalize on opportunities in fast-growing chemical markets, particularly in China. Its polymer exports from the kingdom have been ramped up.



13 DMITRY KONOV

CHAIRMAN AND CEO
SIBUR

This year Konov has made significant progress in disposing of non-core downstream assets as he focuses the Russia-based group on petrochemical production. He is also growing Sibur organically with new projects. These include the

RusVinyl joint venture that Sibur has funded through loan agreements for the construction of a new 330,000 tonne/year polyvinyl chloride (PVC) plant. In 2011 he has steered the company through an ownership change that resulted in two new investors taking control of the company from Russia's Gazprombank. Leonid Mikhelson – CEO of Russian gas group Novatek – took a 57.5% stake in Sibur, with 37.5% going to energy trader Gennady Timchenko. Sibur's management will own the remaining 5% through investment vehicle Dellawood Holdings.



14 ALOKE LOHIA

VICE CHAIRMAN AND CEO
INDORAMA VENTURES

Indorama Ventures is Thailand's largest family-led petrochemical firm and its market capitalization has risen fivefold since its listing in February 2010. Lohia's growth strategy has prominently featured mergers and acquisitions. The company

has bought the polyethylene terephthalate (PET)/polyester assets of larger firms such as US-based Eastman Chemical and South Korea's SK Chemicals globally to become the world's largest manufacturer in the polyester value chain. Lohia has set his sights on ranking in the top 20 chemical firms and a step in this direction is his Aspiration 2014 plan, which budgets \$3.8bn (€2.9bn) in investments and targets capacity of 10m tonnes/year. He believes the core PET segment growth at 7%/year is defensible because of its affordability.



15 AXEL HEITMANN

CHAIRMAN AND CEO
LANXESS

Heitmann has led the Germany-based company through the downturn with a strong financial performance in 2011. LANXESS announced a 31% year-on-year increase in its net income to €154m (\$205m) in the third quarter this year, boosted by

strong demand for the firm's synthetic rubbers and high-tech plastics. The company has continued its emphasis on innovation, green chemistry and addressing global "megatrends." It has been leading the charge in bio-based rubber intermediates and took a 10% stake in Gevo, a US renewable chemical and biofuels start-up that is making bio-isoprene for rubber production. It is also investing in a massive butyl rubber expansion in Singapore. In August, the board appointed Heitmann as chairman for a further five years, extending a reign that dates to 2004.



16 KURT BOCK

CHAIRMAN
BASF

Bock has a hard act to follow, having taken over leadership of the world's largest chemical company from Jurgen Hambrecht, who led it from success to success, cementing top position. Bock became chairman of the board of executive direc-

tors at Germany's BASF in May 2011, having served as CFO. He took over just before the European debt crisis hit growth across the continent and in other regional markets. BASF enjoyed a strong second quarter, but during the third-quarter results conference call, Bock noted that turbulence on the international capital markets had impacted BASF's growth prospects as customers were being forced to reduce inventories and delay orders in anticipation of falling prices. He added: "We remain cautious... as economic growth is likely to slow further."



17 JEAN-PIERRE CLAMADIEU

CEO-DESIGNATE SOLVAY

Clamadieu took the helm of ailing France-based chemical company Rhodia and pulled it from the brink of bankruptcy. The turnaround of the company was due to strict financial and operational discipline from the top. Rhodia's portfolio was greatly simplified under Clamadieu's tenure and its strategy clearly laid out. The reward has been an industry-defining merger with Belgium's Solvay that should establish the combined group as a much stronger international, as well as European player. Clamadieu is CEO-designate (currently deputy CEO) of the new Solvay and will take over when Solvay CEO Christian Jourquin retires. The new player on the European chemical scene is expected to produce significantly higher operating earnings than its predecessor companies from a global chemical base.



18 VEERASAK KOSITPAISAL

CEO PTT GLOBAL CHEMICAL

Kositpaisal successfully maneuvered Thailand-based PTT Chemical and its subsidiaries through a Supreme Court ruling that halted many of its projects at Map Ta Phut. Now most of its projects at the site have resumed normal operations, Kositpaisal is focusing his efforts on integrating the upstream and downstream businesses of the newly formed PTT Global Chemical as its new CEO. PTT Global Chemical can count on its low-cost structure, economies of scale and product variety to cushion its earnings from the global economic slowdown. The company's competitiveness lies in the use of natural gas, a cheaper feedstock than oil-based naphtha, in petrochemical production. In southeast Asia, only PETRONAS Chemicals of Malaysia has the same production advantage.



19 PETER CELLA

PRESIDENT AND CEO CHEVRON PHILLIPS CHEMICAL

After serving with Germany's BASF, UK-based firms INEOS Nitriles, Innovene and BP, Cella was selected in February as president and CEO of US-based Chevron Phillips Chemical (CPC), which was named ICIS Company of the Year for its stellar financial performance in 2010. Under Cella's guidance, the 50:50 joint venture by US-based oil and gas companies ConocoPhillips and Chevron seems to be heading for another solid year. For the first three quarters of this year, CPC has already seen net income of \$1.6bn (€1.2bn) on \$10.8bn in revenue, compared with profits of \$1.4bn on \$11.2bn in revenue for all of 2010. CPC has continued with an aggressive growth strategy. In March, it revealed plans to study a new cracker project along the US Gulf coast linked to shale gas.



20 MOHAMMED BIN SALEH AL-SADA

CHAIRMAN AND MANAGING DIRECTOR QATAR PETROLEUM

Mohammed bin Saleh al-Sada has an interesting dual role as Qatar's Minister of Energy and Industry and chairman and managing director of Qatar Petroleum. He therefore has oversight of the overall priorities for Qatar while striving to maintain growth at Qatar Petroleum (QP). And within QP, he needs to balance liquefied natural gas investments with ambitions to grow petrochemicals. At one stage, there were three cracker projects in Qatar. This appears to have been whittled down to one because of reduced gas allocations from the country's North Field gas reservoir. The other focus is overseas. In October, QP Shell and PetroChina signed a framework agreement to build a refining-petrochemicals complex at Taizhou in Zhejiang province, China.



21 ABD HAPIZ ABDULLAH

PRESIDENT AND CEO PETRONAS CHEMICALS GROUP

Malaysia-based PETRONAS Chemicals Group (PCG), with a total combined production capacity of more than 11m tonnes/year, is one of the largest producers in southeast Asia. The company appointed Abd Hapiz Abdullah, a former managing director of DuPont Malaysia and regional director for Asia Pacific Glass Laminating Solutions, as its president and CEO in April. PCG will now play a key role in parent firm PETRONAS's plans for a new \$20bn (€15bn) integrated refinery and petrochemicals complex at Pengerang in southern Johor. PCG is investing in a new world-scale fertilizer plant in Sipitang, Sabah. It would potentially make PCG the second largest producer of urea in southeast Asia. PCG is also conducting a feasibility study with Germany's BASF for new specialty chemical capacities.



22 JIANG JIEMIN

CHAIRMAN CHINA NATIONAL PETROLEUM CORP.

Jiang became chairman of China National Petroleum Corp. (CNPC), the oil producer and parent company of PetroChina, the refinery and petrochemicals major, in November. Jiang was general manager of CNPC. The move comes at a time of overseas focus for both companies. First came the refining and trading joint venture, established this year, between PetroChina and Switzerland-headquartered INEOS. This involves production from INEOS refineries in Scotland and France. Progress has also been made on a technology agreement between CNPC and INEOS that should enable the latter to pursue chemical investments in China. In October, PetroChina signed a framework agreement with Qatar Petroleum and UK-based Shell Chemicals for a refinery-petrochemical project in China.



23 FEIKE SIJBESMA

CEO
DSM

The head of Netherlands-based DSM has been at the forefront of the green chemicals revolution. DSM is working with France-based starch and derivatives firm Roquette Freres to build a commercial-scale, bio-based succinic acid plant in Cassano Spinola, Italy, with 10,000 tonnes/year of capacity by the second half of 2012. Bio-succinic acid is a bio-based building block for applications including packaging and footwear. In October, the company announced its entry into the bio-adipic acid market. It is looking to commercially produce drop-in bio-based adipic acid (ADA) through several partnerships that will span the value chain. Around 60% of the global ADA market is consumed for polyamide 6,6 (nylon 6,6) production, where DSM is a major player.



24 STEVE HOLLAND

CEO
BRENTAG

Holland, formerly chief operating officer of Germany-based Brenntag, the world's largest chemical distribution firm, took over from Stephen Clark as CEO on June 22, 2011. Holland has continued to drive Brenntag's expansion program, which is focused on the expanding markets of Asia and Latin America, but also includes targeted acquisitions in its core markets of Europe and North America. Key purchases have been made this year in China, South Africa, the UK and the US. Brenntag also opened its first office in the Middle East in March, in Dubai. Holland is also pushing to strengthen Brenntag's position in specialty chemicals, particularly in emerging markets. Brenntag's financial performance has been strong, with a healthy level of cash available for more acquisitions.



25 JOHN ZILLMER

CEO
UNIVAR

Zillmer has continued to drive a strong growth campaign for US-based Univar during his second year at the top of the world's second-largest chemical distribution company (Germany-based Brenntag is the largest). Latin America and Asia

top the list of emerging markets, where Zillmer is focused on increasing Univar's presence. A key acquisition this year has been that of Brazilian distributor Arinos Quimica, which Univar will use as a gateway to building a presence in South America. Other purchases during 2011 include Quaron, a distributor in Belgium, France and the Netherlands, and Eral-Protek in Turkey, which gives Univar a bridge between its activities in Europe and its growing business in the Middle East and Africa.



26 DANIELE FERRARI

CEO
POLIMERI EUROPA

With Ferrari at the helm, Italy's Polimeri Europa is embarking on a radical new strategy to move away from its traditional commodity sector and focus on a more sustainable, bio-based future.

He has said the producer will instead focus on elastomers, licensing its technology and using the equity to invest in joint ventures. Polimeri is closing its 250,000 tonne/year steam cracker as well as its downstream aromatics and polyethylene (PE) units at Porto Torres, Italy, replacing them with a 350,000 tonne/year bio-processing complex due on stream in 2013-2014. It aims to replace other aging assets and technologies in a similar fashion. Several joint ventures are being considered outside of Europe during 2012 – in China, Latin America and, potentially, the Middle East.



27 PATRICK THOMAS

CEO
BAYER MATERIALSCIENCE

Whereas Germany's Bayer recorded strong financial results in the third quarter, higher energy and raw material costs were attributed to the 24% year-on-year slump in operating profit for its MaterialScience segment. Nevertheless, Thomas

has overseen the successful commissioning and trial production at its 250,000 tonne/year toluene diisocyanate plant in Shanghai, China. Commercial production is expected to start early next year. The facility uses new gas-phase phosgenation technology, a world first. Bayer MaterialScience is investing €1bn (\$1.3bn) to expand its methyl di-p-phenylene isocyanate, polycarbonate and coatings production. This forms part of the plans by parent group Bayer to lift its sales in China to €5bn by 2015, MaterialScience expected to contribute at least half.



28 JOSE SERGIO GABRIELLI

PRESIDENT AND CEO
PETROBRAS

Gabrielli has said Brazil-based petroleum and chemical giant Petrobras expects to more than double its oil production to 4.9m bbl/day by 2020 from 2.1m bbl/day this year. The state-operated firm is developing oil and gas reserves in

the deepwater "pre-salt" formation, and this is expected to lead to the development of competitive raw materials for petrochemical production. Petrobras, which owns a major stake in Brazil-based petrochemical company Braskem, is developing a refinery and petrochemicals project in Rio de Janeiro. The project, known as Comperj, was reconfigured this year so it could receive pre-salt natural gas as feedstock, in addition to refinery feedstocks. Petrobras intends to invest \$3.8bn in petrochemicals and \$4.1bn (€5.5bn) in biodiesel and ethanol in 2011-2015.



29 DING JIANSHENG

CEO WANHUA INDUSTRIAL GROUP

Wanhua Industrial Group is gradually making its presence felt in the global chemical industry. Led by Ding Jiansheng for the past 30 years, the group bought Hungary's BorsodChem in 2011, to emerge as one of the world's top three isocyanates manufacturers. The company continues to build on this position, with plans to double its methyl di-p-phenylene isocyanate (MDI) capacity at Ningbo, China, and for a new world-scale propane dehydrogenation plant in the same country. In Europe, Wanhua aims to make BorsodChem its manufacturing base with the most cost-competitive MDI and toluene diisocyanate (TDI) plants. To achieve this, it plans to leverage on its technical strength to improve BorsodChem's MDI capacity and quality. New TDI and nitric acid plants have also been identified.



30 THIERRY LE HENAFF

CHAIRMAN AND CEO ARKEMA

Under Le Henaff, France-based Arkema is changing into a specialty chemical producer by investing in acquisitions and organic growth to cement its leadership positions in areas such as specialty polyamides, fluorinated polymers and functional additives. Here it holds the number one or two position globally, says the company. On November 23, Arkema announced the sale of its vinyls business to Switzerland-based investment group Klesch so it can focus on its industrial chemicals and performance products segments. The vinyls business has polyvinyl chloride (PVC) capacity of 700,000 tonnes/year. "This project is based on our firm belief that our specialty activities require today a differentiated strategy for each of these activities," said Le Henaff.



31 ALVARO FERNANDEZ

PRESIDENT ALFA

Fernandez is leading the charge in expanding Mexico-based ALFA's polymers footprint in North America, with the acquisitions of US-based firms Eastman Chemical's and Wellman's polyethylene terephthalate (PET) businesses through the company's DAK Americas subsidiary. Before joining ALFA, Fernandez was president of Mexico-based food firm Sigma. He held executive positions in ALFA before becoming president. The acquisition of Eastman's PET business in February positions ALFA as a major PET solid-state resins producer with three manufacturing units in Columbia, South Carolina, US, and rights to the *IntegRex* PET and purified terephthalic acid technology. The Wellman business brings ALFA's PET production capacity to more than 1.9m tonnes/year, including a PET plant in Bay St. Louis, US.



32 MICHAEL McDONNELL

PRESIDENT AND CEO TPC GROUP

McDonnell became US-based TPC Group's president in March 2011, when butadiene (BD) prices were hitting record highs on the back of firm demand and tight global supply. TPC is one of the world's leading BD producers. Under McDonnell, TPC Group will start increasing its BD capacity, which will result in an extra 600m lb/year of new supply coming into the US market by 2015. TPC is restarting a plant to make isobutylene, using cheaper natural gas liquids as feedstock for its performance products and fuels products businesses. Scheduled for start-up in 2014, the plant will have a capacity of 645m lb/year of isobutylene. McDonnell was president of Pregis, a US-based provider of protective, flexible, and food service packaging and hospital supply products, with facilities in 18 countries.



33 RAFAEL DAVALOS

CEO MEXICHEM

Under Davalos, who became CEO in January, Mexichem is continuing its ambitious plans to expand through acquisitions and backward integration up the vinyls chain. The Mexico-based company announced an ethylene and vinyl chloride monomer joint venture with Mexico's state-owned oil company Pemex at the Pajaritos complex in Coatzacoalcas, Mexico, and is also seeking to integrate into ethylene by taking a stake in one of the proposed cracker projects in the US. Discussions with potential partners for a US cracker project are in the preliminary stages, but the move demonstrates Mexichem's intention to extend its production base beyond Latin America. The company has also revealed plans to add around 460,000 tonnes/year of polyvinyl chloride capacity by 2014.



34 JAMES O'BRIEN

CHAIRMAN AND CEO ASHLAND

This year, US-based Ashland has established an even firmer footing in the specialties marketplace with its \$3.2bn (€2.4bn) acquisition of US-based International Specialty Products (ISP). The deal was a prime example of CEO O'Brien's tenacity as ISP had been closely held by the Heyman family for many years. Ashland integrated ISP into its Ashland Aqualon Functional Ingredients unit, which was renamed Ashland Specialty Ingredients. The newly acquired business will give Ashland greater entry into personal care and pharmaceuticals. With the ISP purchase, specialty chemicals are now 79% of Ashland's sales, out of 2011's adjusted \$7.6bn. Under O'Brien's watch Ashland bought Hercules for \$3.3bn in 2008. That year also saw the divestiture of Ashland's distribution segment.



35 HARIOLF KOTTMANN

**CEO
CLARIANT**

The head of the Switzerland-based specialty chemicals firm is moving it into the catalysts and energy market, and functional materials segment following its €1.9bn (\$2.5bn) acquisition of Germany's Sud-Chemie. This brought the high-margin catalyst and adsorbents businesses into Clariant's portfolio, with the possibility of growing in technologies including lithium-ion batteries and bioethanol. Clariant is also focused on expanding its presence in China, India and Latin America, where there is significant growth. Kottmann says he is confident of doubling revenue in China and India by 2015-2016. Next year, the restructuring of its UK operations and closure of the Pontypridd site will be completed, with savings expected in 2014.



36 JAMES ROGERS

**CEO
EASTMAN CHEMICAL**

Flush with cash from the \$600m (€450m) sale of its PET business, and tracking sustainability megatrends, Rogers continued Eastman's strategic shift toward high-growth regional markets and high-value specialty markets led by innovation.

Exiting phthalate plasticizers, he added production capacity for its benzoate and dibutyl terephthalate alternatives, buying US petrochemical producer Sterling Chemicals. With the acquisition of Brazil-based plasticizer firm Scandiflex, the company strengthened the position of these products in the growing Latin American market. Eastman doubled capacity for its Tritan copolyesters – a BPA-free alternative to polycarbonate – and built a facility for the launch of a new wood acetylation technology.



37 MICHAEL CREEL

**PRESIDENT AND CEO
ENTERPRISE PRODUCTS PARTNERS**

Creel's first full year as CEO of US natural gas processing and pipeline firm Enterprise Products Partners has been a busy one. In addition to completing a merger with US-based Duncan Energy this year, the midstream services company has secured deals and expanded infrastructure to accommodate growing production in shale gas plays across the US under Creel's leadership. The company partnered Canada-based oil and gas transporter Enbridge and US-based oil and gas company Anadarko to jointly develop a new natural gas liquids pipeline linking several key basins to the Gulf Coast. The company announced a deal with US-based Chesapeake Energy to transport ethane from the Marcellus shale formation in the northeast US, to the Gulf Coast.



38 JEFFRY QUINN

**CHAIRMAN, PRESIDENT AND CEO
SOLUTIA**

Quinn has overseen solid financial performance at US-based Solutia since its emergence from bankruptcy in 2008. Through the first three quarters of 2011, the company posted a 26% gain in earnings per share on 8% higher sales of \$1.57bn (€1.18bn). Quinn has built up the company's presence in ethylene vinyl acetate (EVA)-based solar encapsulants, advanced interlayers and performance films through acquisitions and expansions. It is building capacity for EVA and polyvinyl butyral (PVB)-based solar encapsulants in Suzhou, China. It is also a leading producer of PVB interlayers for automotive and building applications. In October, Quinn announced the \$113m acquisition of US-based Southwall, which produces energy-saving films for the automotive and architectural markets.



39 PETER HUNTSMAN

**PRESIDENT AND CEO
HUNTSMAN**

It has not been the easiest time for the head of US-based Huntsman, as his company's stock price was hit hard after a second-quarter earnings miss. But Huntsman is pushing forward with his plans for a 240,000 tonne/year methyl di-p-phenylene isocyanate (MDI) project in Caojing, China, and is debottlenecking titanium dioxide capacity to the tune of 40,000 tonnes/year from current capacity of about 560,000 tonnes/year. In April, the company bought India's Laffans Petrochemicals to add ethylene oxide (EO) derivatives capacity for surfactants. Huntsman aims to double sales in India from a current level of \$400m (€300m) within five years. The company is also undergoing a major restructuring of its struggling textile effects business, and executing a \$100m stock buyback program.



40 JOSE LUIS URIEGAS

**CEO
IDESA**

The head of Mexico-based petrochemical and polymers producer IDESA is helping lead the charge in boosting polyethylene (PE) production in Mexico to meet local demand. IDESA is building Mexico's \$3.6bn (€2.7bn) Ethylene XXI project through its 35% stake in Braskem IDESA, which is 65% owned by Brazil-based petrochemical firm Braskem. The project, expected to come on line in mid-2015, will consist of a 1.05m tonne/year cracker and an equal amount of PE capacity. Uriegas said IDESA is willing to participate in building another cracker in Mexico through its joint venture, provided that the state oil and gas company can provide enough ethane feedstock. "In the next five years, we should see that availability of ethane, which I'm sure is abundant in Mexico," said Uriegas.

ONES TO WATCH

These up-and-coming industry leaders will have their work cut out guiding their businesses through the turbulent macro environment in 2012



**MARK
ROHR**

**CHAIRMAN-ELECT AND CEO-ELECT
CELANESE**

Rohr will oversee Celanese's next big step – large investments in coal-to-ethanol projects in China. It plans to build two coal-to-ethanol plants – each with 400,000 tonnes/year of capacity. It is also retrofitting its Nanjing Chemical Industrial Park plant in China, to produce 200,000 tonnes/year of coal-based ethanol by mid-2013. Rohr has been on US-based Celanese's board since 2007.



**PATRICK
GRUBER**

**CEO
GEVO**

Gruber, co-founder of US bioplastic company NatureWorks, led US renewable chemicals and biofuels firm Gevo in an initial public offering (IPO) early this year. Gruber is fighting a bio-butanol patent lawsuit from US-based biofuels company Butamax, a joint venture between US-based DuPont and UK-based BP. Gevo is also suing Butamax for patent infringement.



**DAVID
CONSTABLE**

**CEO
SASOL**

The future success of South Africa's Sasol rests heavily on its gas-to-liquids (GTL) and coal-to-liquids (CTL) technologies and how those processes are leveraged into opportunities worldwide. New Sasol CEO Constable got off to a flying start by telling investors in October the company would pursue new GTL and chemical opportunities in the US and by giving details of these projects in the US and Canada.



**LEONID
MIKHELSON**

**CHAIRMAN AND CEO
NOVATEK**

Mikhelson appears in the list for the first time because of his ownership of Russia-based petrochemicals major SIBUR. In October, he took a 57.5% stake in the company. The CEO has said he plans to take SIBUR through an initial public offering within the next two years. He has served as a member of the board of directors and chairman of Russia-based natural gas producer Novatek since 2002.



**TON
BUCHNER**

**CEO-ELECT
AKZONOBEL**

Buchner is scheduled to take over as AkzoNobel CEO in January 2012. He will see the Dutch firm through plans to boost revenue in high-growth markets India, Brazil and China and to expand operations in the Middle East. He will oversee a major performance improvement program, announced in October, to deliver €500m (\$667m) in earnings before interest, tax, depreciation and amortization in 2014.



**CATIA
BASTOLI**

**CEO
NOVAMONT**

Bastoli's Novamont and Eni subsidiary Polimeri Europa signed a joint-venture agreement in May to build and manage a biorefinery at Porto Torres, Italy. Novamont will provide its proprietary technologies for the design, building and operation of the facilities. The initial investment will be the building of facilities to produce biomonomers for bioplastics, biolubricants and biointermediates/additives for elastomers.



**DAVID
BRADLEY**

**CEO
NEXEO SOLUTIONS**

The head of newly launched US-based chemicals distributor Nexeo Solutions has a lot on his plate. Bradley, in charge of the world's third largest chemicals distributor (the former Ashland Distribution), aims to first focus on internal efficiencies rather than mergers and acquisitions. We will spend 100% of our time, talent and resources on getting our value proposition right, he said.



**ROBERT
HANSEN**

**PRESIDENT AND CEO
DOW CORNING**

Elected CEO of the US-based silica materials firm in May, Hansen took over a growing business. As head of the joint venture between US-based Dow Chemical and US-based glass maker Corning, Hansen will oversee a company with a history of strong innovation-led growth. Solar materials will feature prominently in Dow Corning's growth plans, along with its traditional business in silicones.