

How M&A will shape the competitive landscape



#### **Contacts**

#### **Berlin**

#### Matthias Bäumler

Partner +49-30-88705-852 matthias.baeumler @strategyand.pwc.com

#### Chicago

#### Eduardo Alvarez

Senior Partner +1-312-578-4774 eduardo.alvarez @strategyand.pwc.com

#### **Dallas**

#### John Corrigan

Partner +1-214-746-6558 john.corrigan @strategyand.pwc.com

#### DC

#### Peter Bertone

Senior Partner +1-703-682-5719 peter.bertone @strategyand.pwc.com

#### Dubai

#### **Andrew Horncastle**

Partner +971-4-390-0260 andrew.horncastle @strategyand.pwc.com

#### Dubai

#### **David Branson**

Executive Advisor +971-4-390-0260 david.branson @strategyand.pwc.com

#### Düsseldorf

#### **Joachim Rotering**

Senior Partner +49-211-3890-250 joachim.rotering @strategyand.pwc.com

#### Sven Vallerien

Partner +49-211-3890-260 sven.vallerien @strategyand.pwc.com

#### Frankfurt

#### **Marcus Morawietz**

Partner +49-69-97167-467 marcus.morawietz @strategyand.pwc.com

#### **Hong Kong**

#### Krishnan Narayanan

Senior Executive Advisor +852-3182-7192 krishnan.narayanan @strategyand.pwc.com

#### Houston

#### **Jayant Gotpagar**

Partner +1-713-650-4107 jayant.gotpagar @strategyand.pwc.com

#### Juan Trebino

Partner +1-713-650-4151 juan.trebino @strategyand.pwc.com

#### London

#### Andrew Clark

Partner +44-20-7393-3418 andrew.clark @strategyand.pwc.com

#### **New York**

#### **Richard Kauffeld**

Partner +1-212-551-6582 richard.kauffeld @strategyand.pwc.com

#### São Paulo

#### **Arthur Ramos**

Partner +55-11-5501-6229 arthur.ramos @strategyand.pwc.com

#### About the authors

**Dr. Marcus Morawietz** is a partner with Strategy& based in Frankfurt. He focuses on growth strategies, business model design, innovation, supply chain optimization, and transaction support for the chemicals industry.

Iris Herrmann is a principal with Strategy& based in Munich. She has broad experience in strategy development and implementation, as well as operations, combined with a perspective on organizational transformation and change management.

This report was originally published by Booz & Company in 2013.

## Executive summary

&

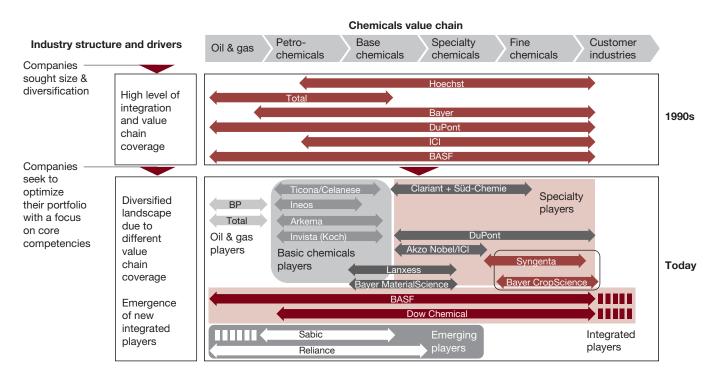
**M&A activity has** significantly shaped the chemical industry landscape in the recent past, and it will continue to do so. Chemicals companies are constantly in quest of growth in an industry that offers ever-fewer and ever-smaller attractive growth segments and where incumbents face greater competition from upstarts in developing markets.

Companies will need to execute strategic transactions in order to quickly enter into and occupy new market segments that enable bursts of growth, rather than opting for organic growth in a given market. M&A will remain a strategic instrument in the industry; however, chemicals players need to make it an integral part of their business strategy. To succeed in this environment, they must build the right capabilities along the full M&A life cycle and move toward the largely unknown territory of cross-regional deals.

## Strategic activity but little consolidation

In the 1990s, many chemicals companies operated with a high level of integration along the value chain. Over the last two decades, however, the industry has faced sizable challenges due to globalization, margin pressure, commoditization, and a reduced ability to innovate. In the aggregate, these trends have led to greater complexity. Companies have responded through M&A activity with three goals in mind: focusing the business around core competencies, reshaping the business portfolio, and selectively entering new markets or regions (*see Exhibit 1*).

Exhibit 1
Structural changes since 1990 have led to a more segmented industry, simplfied



Source: Strategy&

This trend was driven by the major oil and gas operators, many of which divested their chemicals operations. For example, BP sold its petrochemicals business unit, Innovene, to privately owned U.K. company Ineos in 2005. Similarly, the industrial chemicals player Arkema was created in 2004 when French oil major Total restructured its chemicals business.

At the same time, formerly integrated chemicals players have reshaped their business portfolio to become more focused on specific segments. For example, Dow Chemical's acquisition of Rohm & Haas in 2009 was targeted at enhancing the company's specialty portfolio. Similarly, Akzo Nobel purchased ICI in 2008 as part of its strategy to gain market share in the architectural paint sector and to expand its geographic presence, especially in China.

Hoechst is another, even more striking example: The company has undergone a series of mergers and acquisitions in the effort to restructure its business portfolio and overcome structural weaknesses in innovation capabilities and economic resilience. Starting in the 1990s, Hoechst sold a range of business units, such as lab and industrial chemicals, cosmetics (Schwarzkopf sold to Henkel, Jade Cosmetics to L'Oreal), and engineering company Uhde (bought by ThyssenKrupp). To put a stronger emphasis on pharmaceuticals, Hoechst acquired Marion Merrell Dow for US\$7.1 billion in 1995. In the following years, the company's remaining chemicals activities were bundled and spun off into Celanese. Having focused its portfolio on pharma and agrochemicals activities through these restructuring efforts, Hoechst merged with Rhône-Poulenc to found Aventis, which finally disappeared as an independent company through its merger with Sanofi in 2004.

Emerging markets have also impacted M&A strategies recently. Chemicals companies from the Middle East, China, and India are now among the largest chemicals players in the world by sales. The rapidly expanding economies in these regions, along with pressing demand for chemicals products, have driven the growth of these companies, even as the economic downturn and lackluster recovery in the U.S. and Europe have reduced the growth rates of players in developed economies (*see Exhibit 2, next page*).

This growth has been mirrored by a corresponding shift in transaction activity among regions. China played an insignificant role in the chemicals M&A market 10 years ago, yet it currently accounts for roughly 30 percent of the transactions in terms of deal numbers. Deal value has increased over the same period (*see Exhibit 3*, *next page*).

The number of cross-regional deals, however, is still surprisingly low. Targets are mostly located in the same region as the acquiring company (see Exhibit 4, page 7).

Emerging markets have impacted M&A strategies recently.

*Exhibit 2* **Chemicals operators from emerging markets are climbing the ranks** 

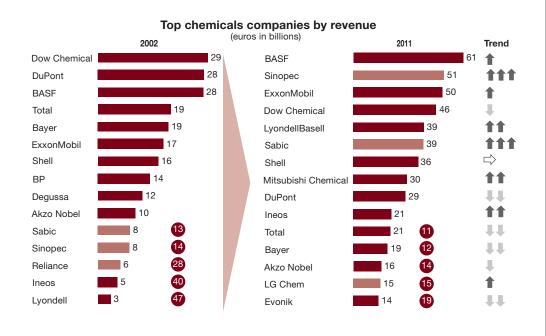
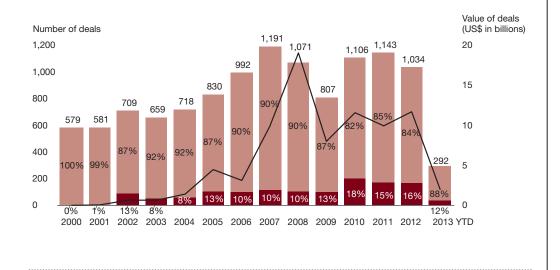


Exhibit 3

Chinese chemicals companies have been increasingly in play



Emerging player
Traditional player

Note: Chemicals revenue only. Based on constant 2011 dollar-to-euro exchange rate.

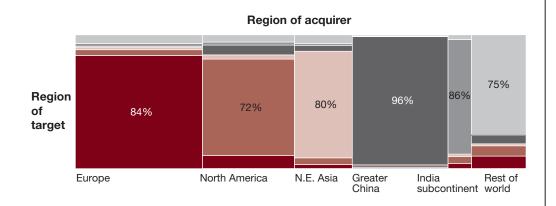
Source: Chemical & Engineering News; ICIS; Bloomberg; company information; Strategy&

Number of deals:

Non-Chinese acquirer
Chinese acquirer
Value of deals Chinese acquirer

Source: Bloomberg

Exhibit 4
Most deals involve an acquirer and target in the same region



Rest of world India subcontinent Greater China N.E. Asia North America Europe

Source: Dealogic

Looking at China, this disparity — greater deal activity but fewer cross-border deals — mirrors the ongoing consolidation and emergence of strong national players across almost all major industries and sectors. Though this is a natural effect in a maturing industry, it is strongly accelerated in China. The Chinese government is pushing for industry consolidation and sets high requirements (regarding the use of state-of-the-art technology, and minimum scale of assets, for example) for new and even existing players. Thus, it is driving the development of national champions that will be able to compete effectively in global markets. State-controlled access to capital and control over operating licenses further drives the government-favored industry structure.

The agrochemicals industry is one clear example of this. A period of somewhat chaotic development led to high numbers of small and medium companies, but the Chinese government is now putting pressure on the sector to consolidate. The "China Pesticides Industry Plan" aims to reduce the number of firms and ensure that the 20 largest hold a market share of around 80 percent, primarily to increase scale and efficiency in operations, processes, and R&D.

Besides the local consolidation, Chinese players are also becoming increasingly active in cross-border deals to capture opportunities in key market segments. Recent examples of acquisitions undertaken by Chinese companies are polyurethane/isocyanate player BorsodChem, agrochemicals company Makhteshim Agan, and Elkem, one of the leading producers of solar-grade silicon, silicon, and special alloys for the foundry industry.

Strategy& I

#### Realignment in areas where scale matters

Globally, chemicals M&A activity in the past decade focused on realigning business portfolios, and as a result, the level of consolidation in the industry has remained relatively constant. The 10 largest companies had a joint market share of roughly 11 percent in 2002 and 13 percent today, according to ICIS/Cefic. However, the recent M&A activity has helped companies systematically consolidate segments along the value chain.

Regarding R&D, crop protection is a good example. Growth opportunities result from two key levers: (1) developing new active ingredients, seeds, or traits, which in turn requires building biotechnology research capabilities; and (2) capturing growth and access markets in emerging countries. Monsanto's expenses for research and development more than doubled from 2005 to 2010 (from \$600 million, or 9 percent of net sales, to \$1.2 billion, or 11 percent of net sales, excluding the acquisition of in-process R&D). As investments in highly specific fields get bigger, the risk associated with these investments increases as well, and exploring new fields in research might become a big bet for a company. This uncertainty makes buying capabilities or development pipelines and/or building alliances more attractive to players searching for growth.

As a result, the agrochemicals sector has shown significant consolidation in the past 15 years (*see Exhibit 5, next page*). Together, the top three players currently control more than half of the market. In fact, there are few M&A opportunities in crop protection left — antitrust regulations would likely play a factor in any remaining deals across major agrochemicals companies.

Accordingly, recent deals of agrochemicals majors have focused on smaller biotech and seed companies to participate in seed market growth and complement the portfolio in this area. In this environment — where M&A opportunities are scarce — alliances and cooperation between major agrochemicals players are increasingly relevant. Recent examples include Syngenta's partnerships with DuPont, Bayer CropScience, Dow, and others to complement its crop protection and seed portfolio. In addition, the combination of scarce potential targets and well-capitalized, growth-aggressive strategic buyers has raised the median transaction multiples to record levels.

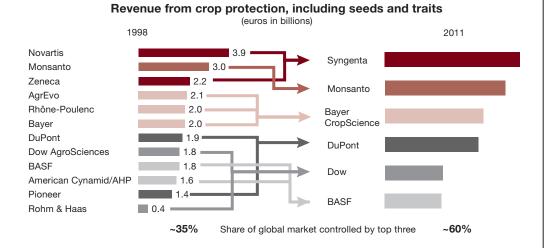
The other principal area of consolidation due to M&A activity in the recent past has been in asset and cost-effectiveness, as well as gaining feedstock access. In petrochemicals, for instance, cost competitiveness is crucial to operate global-scale production plants supplying downstream businesses. Reducing operating costs requires both economies of scale and better utilization of assets. The recent merger of Thailand's PTT Chemical with its affiliate PTT Aromatics and Refining (PTTAR) shows

There are few M&A opportunities in crop protection left.

this trend. The deal created one of Asia's leading petrochemicals and refining companies. According to statements from the PTT group, the move improves the company's competitiveness by leveraging significant economies of scale and thus reducing unit costs. The announcement of interest from Reliance Industries in buying Haldia Petrochemicals in India is in a similar vein, and would consolidate a large share of the Indian polyolefins market.

The pressure to get larger and generate economies of scale increased tremendously with the market entry of companies from regions that have advantages in hydrocarbon feedstock, such as Sabic and Sipchem. These players have built world-class plants using modern technology and brought them online, significantly raising the stakes for established players. In particular, smaller and older assets, such as the remaining European crackers, struggle to stay commercially viable for the future. M&A among such companies is thus designed to combine assets, improve upstream integration, and create greater scale and access to markets along the relevant value chains.

*Exhibit 5*The agrochemicals sector has shown significant consolidation



Note: Excluding conventional seeds market. Fixed exchange rate of US\$1.33 per euro; Swiss and British company reports calculated in US\$.

Source: Analyst reports; annual reports; Strategy&

# The current landscape: transactions gaining momentum again

Today we see M&A regaining momentum. After a period of economic crisis, with a strong focus on cost-cutting and efficiency strategies in the chemicals industry, the economic rebound and a more positive industry outlook have created a more encouraging climate for mergers and acquisitions. Chemicals companies are performing strongly again, as demand recovers. Now, despite the still pending debt crisis and uncertainty regarding macroeconomic factors, M&A activity levels are high, as strategic buyers are well capitalized and aggressively searching for growth.

This favorable earnings and cash situation allows players to use strategically motivated M&A with the following goals:

- To further reshape their businesses and portfolio structure toward a growth agenda
- To acquire attractive targets before emerging players snap them up
- To gain size compared to Asian and Middle East competitors in their home markets.

The acquisition of Danisco by DuPont for \$6.4 billion in 2011 was a "reshaping" example. According to DuPont, Danisco's assets fit well with the company and provide a number of growth opportunities, especially in the energy and food sector. Furthermore, Danisco's strong R&D portfolio and its specialty food ingredients business are seen as long-term growth drivers for DuPont. The deal is in line with the company's strategy to move beyond its classic chemicals focus toward the sectors of alternative energy and agriculture that have been identified as rapid growth markets.

Recent deals aiming at participation in emerging markets include Eastman Chemical's acquisition of Solutia for \$4.7 billion — a big move intended to expand Eastman's geographic footprint in emerging regions. Lonza's integration of Arch Chemicals is another example, building up

Chemicals companies are performing strongly again.

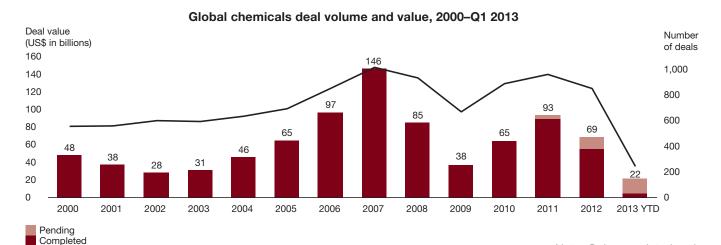
the company's presence in China, Brazil, South Africa, and India and forming a world-leading company in microbial control.

Though strategic investors are dominating the deal landscape, financial and institutional investors discovered the attractiveness of the chemicals sector during the last decade and are showing continued interest, due in part to favorable debt market conditions. One of the largest deals in the past few years was the acquisition of specialty chemicals company Lubrizol, the world's largest producer of lubricant additives, by Berkshire Hathaway, Warren Buffett's investment company, for more than \$9 billion. Exposure to emerging markets and economic recovery, as well as the company's proven pricing power, made Lubrizol an attractive investment. Another sizable transaction was the acquisition of Taminco by Apollo Global Management, which bought the Belgian-based company from CVC for \$1.2 billion.

Overall, M&A activity is likely to continue at a high level during the coming years, especially as a strategy for transforming the business (see Exhibit 6).

Exhibit 6
After a post-crisis dip, M&A activity has been rising

Deal number



Note: Only completed and pending deals captured, for all industry groups (target, acquirer, seller) on a global basis; no minimum deal size.

Source: Bloomberg; Strategy&

#### M&A as an instrument for competitive edge

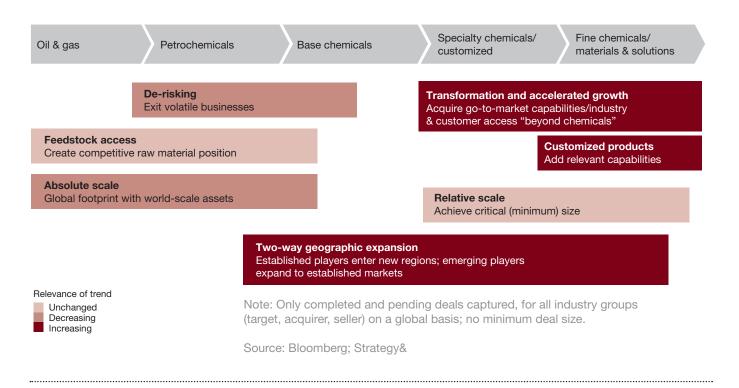
Given the changing dynamics of the industry, chemicals companies are focusing on restructuring and realigning their business portfolios and assets in order to stay competitive in an increasingly uncertain future. M&A in this context is a strategic means of shaping the business portfolio during strategic transformation and avoiding the problems of commoditization.

Accordingly, there are some common themes behind the moves of chemicals players: feedstock access; absolute versus relative scale; transformation and accelerated growth; and two-way geographic expansion (*see Exhibit 7*).

#### Feedstock access

Western companies in particular are using M&A to improve their access to feedstock in terms of both volume (by establishing a more secure supply) and cost. This is clearly the motivation behind the vast majority

 ${\it Exhibit~7} \\ {\it M\&A~themes~and~applicability~along~the~chemicals~value~chain}$ 



of activities targeted at establishing a footprint in the Middle East, which offers significant hydrocarbon feedstock advantages. Beyond the petrochemicals sector, however, the same logic of upstream integration applies to other strategic raw materials as well. For example, players like Dow Corning and ChinaChem are integrating backward in silicon metal or establishing positions in bio-based feedstock, a promising new field.

Dow Chemical, for instance, studies bio-based ethylene and propylene routes to produce its key feedstock from renewable resources. The first commercial priority is producing polyethylene from Brazilian ethanol, and backward integration into sugarcane is seen as key to the project. Dow believes that through integration, this new feedstock will be competitive with hydrocarbon-based feedstock. To support this initiative, the company may consider acquisitions or partnerships.

#### Absolute versus relative scale

The importance of scale for chemicals operations depends on the targeted position along the value chain. For large integrated players, scale will remain a primary focus. Moving downstream in the value chain, additional criteria such as proximity to customers and industry insights become more important for success. This is especially true with commodities like petrochemicals and base chemicals, for which scale of assets and operations is a decisive factor. In some regions these industry segments are still highly fragmented. For example, in Eastern Europe, many petrochemicals players are still too small to effectively compete on their own, which will likely make them potential targets for consolidation. A Hungarian producer of plastic raw materials and isocyanates, BorsodChem, was integrated into Wanhua Group to form the third-largest isocyanate player in the world, transforming two regional players into a world-scale company.

However, the goal is not just scale in absolute terms but the appropriate relative scale for a given market in order to achieve significance, particularly in downstream businesses. New markets may require a critical mass to get into the game. Examples include R&D capabilities for highly innovative products in the nutrition area or customized products for industrial applications. In this realm, success will come from determining market needs and working backward to clearly define the optimum size to address current needs and leave the company positioned to compete and grow. DSM, for example, completed a buyout of Ocean Nutrition in order to add omega-3 fatty acids to its portfolio. This was one of several acquisitions on DSM's path to grow its nutrition segment, which was declared to be a strategic growth platform in the corporate strategy of 2010. Since then, DSM has become one of the biggest names in the human nutrition business.

The goal is the appropriate scale for a given market.

Strategy& I 13

#### Transformation and accelerated growth

When Akzo Nobel announced its acquisition of ICI in 2007, it emphasized the transformational character of the deal, which was to create a market-leading position in decorative coatings. The company exited pharma and focused on coatings and chemicals, and it wanted to form strong growth platforms in both segments. Furthermore, geographic expansion and product innovation were core topics on the strategic agenda. The deal is an example of strategic M&A to strengthen the core business and drive the transformation of the company, allowing Akzo Nobel to participate in growth opportunities, tap into new products and technologies, and accelerate its transformation.

An even better example might be LG Chem: The company's strategic imperative is to transform from a petrochemicals player to a globally leading IT component provider. On this path, LG Chem relied heavily on acquisitions and also used strategic alliances and joint ventures, such as its arrangement with Philips Electronics, to drive its transformation.

The industry trend toward more market-facing and customer-centric business activities implies a change of current business model for most established players. In fact, changing the business model alone is not enough — these fields require a different skill set and altered capabilities. M&A can be the means to enter new business fields, in which companies acquire not only assets, technologies, and a customer base, but also critical capabilities and insights into alternative operating models. In this context, the right target is determined not by its physical assets, but because its capabilities are optimally complementary to the buyer's capabilities system. Systematically buying the right skill set for customer-centric businesses will help a company attract new customers and penetrate target markets.

#### Two-way geographic expansion

A significant share of recent M&A deals have been aimed at increasing a company's global footprint, but despite these ambitions, truly transregional deals have been relatively scarce so far. Typically, Western companies have sought to strengthen their portfolio by buying other Western companies with (slightly) better or complementary regional footprints — an overly cautious M&A approach. Despite this limited progress, geographic expansion will continue to drive deals in the sector, as the regional scope broadens beyond home regions. The theme will impact both established and emerging players.

For the first group — established competitors — the demand shift toward emerging regions promises new growth opportunities. However, the M&A options are rather limited in at least some developing countries, especially in Asia and the Middle East. Potential targets are often part of large conglomerates, or they are state-owned (fully or partially), making them either unavailable or largely unattractive. The government in some countries, like China, poses an additional hurdle through restrictions on the share of local companies that foreigners are allowed to own. These rules apply to most of the sectors that China deems strategically relevant to its economic progress — including chemicals. Given such challenges, it's not surprising that there are limited sizable transactions in which a Western player has taken over a Chinese competitor.

On the other hand, there is a good chance that "reverse" takeovers will play an increasing role in the future, as new players from emerging countries seek to establish a foothold in established Western markets and open the gate for driving their export business. PetroChina's venture with Ineos is in this category. In Europe, there is additional value in acquiring companies that are already in compliance with regulatory requirements, such as the Reach standards currently being implemented.

Similarly, Sabic demonstrates the efforts of Middle East players to move beyond their home turf of feedstock-related businesses and diversify with value-added downstream activities. Founded in 1976 to process the natural resources of Saudi Arabia — mainly natural gas and crude oil — Sabic did not expand from that base until it acquired the petrochemicals business of DSM in 2002, followed by the buyout of British Huntsman Petrochemicals in 2006. Sabic's acquisition of GE Plastics in 2007 can be seen as a starting point for diversifying its activities and moving more downstream. Given the huge capital resources and investment plans in the region, we expect further transactions from Sabic aimed at accelerating its business transformation.

There is a good chance that "reverse" takeovers will play an increasing role in the future.

Strategy& I 15

#### The rise of strategic alliances and partnerships

In addition to outright acquisitions, partnerships and joint ventures are becoming an increasingly important means for chemicals players to reshape their activity portfolio, especially in Asia and the Middle East. One example is Sabic and Sinopec's 2009 established joint venture SSTPC in Tianjin, China, valued at \$2.7 billion with a capacity of 3.2 million tons of chemicals, including polyethylene, ethylene glycol, polypropylene, butadiene, phenol, and butene-1. The latest joint investment in this complex is a polycarbonate plant costing \$1.7 billion and expected to be operational in 2015, with a capacity of 260,000 tons per annum. The venture will allow Sabic to supply polycarbonate as feedstock to its other plants in China and the Pacific region, and is seen in China as a cornerstone of building up a state-level petrochemicals industry base.

But Western players have also discovered the opportunity to participate in the demand growth via joint ventures with Chinese companies (such as Eastman Chemical and Sinopec YPC for their hydrogenated hydrocarbon resin plant in Nanjing), or to utilize feedstock advantages from partnerships in the Middle East (such as Borouge, formed by Borealis and Adnoc).

Such partnerships add value not only on the feedstock and upstream side, but also when companies move downstream and engage in the materials and solution business. The venture between Evonik and Daimler to develop next-generation lithium-ion batteries for electric vehicles is a good example. As chemicals players typically don't possess all the capabilities needed to execute downstream activities on their own, engaging with partners to complement the skill set makes sense. Joint ventures and other forms of alliances are expected to further increase in the coming years.

## The future chemicals landscape

As a result of this M&A activity, the chemicals industry will see an evolution toward further segmentation along the value chain. As the two ends of the value chain call for very different operating models and capability sets, each company will need to focus on a very specific segment (*see Exhibit 8*).

## *Exhibit 8*The future chemicals landscape will require focusing on a specific segment of the value chain

#### Chemicals value chain Industry structure & drivers Fine chemicals/ Specialty Base in segment consolidation, Oil & gas Petrochemicals chemicals/ materials & solutions chemicals portfolio focus, and customized market orientation Integrated players Straightened - High integration level up to feedstock segmentation - Some new large players Upstream players holdings **Future** European focus Increased - Regional feedstock players (based in - Portfolio manager transformation emerging countries) of chemicals companies - Backward integrated Transformed specialties Regional niche players - Small to medium Industry specialists size - Focus on few, large Narrow focus segments

Strategy&

Source: Strategy&

#### These clusters can take various forms:

- Upstream players need to constantly assess their position in light of
  the rise of new companies with structural advantages. Scale,
  feedstock access, and cost are their main concerns, so the pressure to
  consolidate will persist as long as small, nonintegrated assets are still
  in the game.
- Integrated players will gain importance for the global chemicals landscape. In particular, companies that are headquartered in the Middle East, China, or India will emerge as new integrated majors. But these players will face a growing challenge in managing diverging businesses with increasingly different key success factors a commodity game on the one hand, and a specialty business on the other and with completely different market dynamics and business model requirements. Some integrated majors may opt to leave the commodity game and move downstream to profit from less cyclical and even less competitive specialty markets. In any case, the development of new capabilities will be key, and M&A will be a major determinant of whether these moves succeed.
- Transformed *specialty players* that focus on a few selected segments have the potential to transform into highly market-oriented industry specialists, able to serve their respective customer industries with dedicated platforms, unique technologies, or customized solutions. Typically, we expect those companies to be global champions in their specific niches. These players will use M&A to integrate into adjacent value chains and segments even moving beyond chemicals to absorb additional capabilities as needed and establish required activities that arm them with the competencies to best serve their target industry. Examples of this trend are companies like Akzo Nobel and PPG, which already put a strong emphasis on a selected industry—coatings—and take dedicated steps to enhance their portfolios around that segment.
- Specialty holding companies will also take a very active approach toward M&A and use transactions to constantly shape and develop their portfolios. Rockwood Holdings is an example the company has grown through acquisitions and expansion to its current portfolio of 10 individual business units serving diverse niche businesses. Specialty holding companies actively plan acquisitions and divestitures to maintain a balanced and profitable portfolio of markets and technologies. They are different from private equity players, however, in that they typically adopt a longer-term view, aiming to leverage M&A to cross-fertilize businesses, adding advanced technology and innovation portfolios, and maintaining leading-edge capabilities in their specific fields.

Specialty
holding
companies will
take a very
active approach
toward M&A.

• Another industry cluster, *regional niche players* will continue to focus on selected market segments or technologies, where they will always have a right to win as those markets are either too small or too unattractive for larger players. These midsized players are likely to take a very selective approach to M&A. Because they are technology-centered, organic growth is their preferred development mode, so they will likely consider M&A only selectively in niche markets to complement their technology portfolio.

Beyond the variety of players, regional differences will also impact M&A as well as the integration of the targets. For example, it is likely that companies in emerging markets that have been involved in recent deals will follow a similar life-cycle path when it comes to portfolio development. After these companies have created sizable operations and broadened the scope of their activities, one can expect a consolidation wave a decade or so from now, aimed at aligning portfolios and regaining focus. These companies will need to optimize the complex portfolios they have built up over time, triggering a new divestment wave and a new consolidation cycle.

Furthermore, emerging players in Asia and the Middle East will likely implement ways of doing business and underlying commercial philosophies that are not always compatible with Western practices. For example, cash-rich companies may not abide by investment rules and valuation methods used by established players. Similarly, management methods and corporate cultures might be hierarchical instead of cooperative, and information flows and decision making many not seem transparent by Western standards. An understanding of these differences will be especially crucial for successful integrations.

It is critical not to underestimate the cultural aspects of management and integration. Ignoring different cultural backgrounds when bringing companies together puts the success of the deal at risk. Even though this already applies to cross-border deals — such as those within Europe or between the European Union (E.U.) and the U.S. — it has even greater relevance in deals involving more broadly disparate countries and cultures. As a consequence, capability building and integration management of the newly formed companies will prove a significant challenge for industry players engaging in cross-regional deals.

Emerging
players will
likely implement
ways of doing
business that
are not always
compatible
with Western
practices.

Strategy& I 19

## The capabilities challenge

M&A is challenging throughout the entire life cycle: developing a clear strategic perspective on M&A, smart target selection, developing a rationale for assessing the value proposition, executing deals, and integrating new assets for sustainable success. The same applies for divestment cases.

Given the current business environment, chemicals players will have to use M&A as an integral part of their strategy to enable and accelerate growth and retune their portfolios. Accordingly, these companies need to build specific M&A capabilities along the complete life cycle of deals in order to actively manage their portfolios.

#### Segment-specific M&A capability needs

As outlined above, specific segments in the industry require different sets of core competencies. This implies corresponding capabilities when it comes to M&A as well. Management at all companies throughout the value chain must consider the nature of business to be acquired, potential synergy levers from different sources, and the key success factors to ensure a successful transaction. However, some segments will entail more specific M&A capabilities.

For upstream and base chemicals players, M&A is mainly a means to achieve scale and build up favorable market positions. This often requires an ability to quickly apply the current business model to the target and leverage classic cost synergies during the post-merger integration phase (PMI). Early identification and quantification of synergy targets is the starting point, and a disciplined approach to implementing them during the integration process is vital. Companies need to eliminate costs quickly by streamlining redundant processes while leveraging economies of scale or operating cost advantages targeted by the merger.

For specialty holding companies, by contrast, M&A is a constant theme and deals are more tactical. As a result, they need to "industrialize" the related processes to build strong internal capabilities and a close link to external market sources. These companies are typically looking for

Chemicals players will have to use M&A as an integral part of their strategy to enable and accelerate growth.

focused, self-sufficient, and viable businesses that are adjacent to their current positioning to complement their portfolio, and a deep understanding of those businesses and differentiating capabilities is required. Maintaining or developing required capabilities and realizing M&A benefits requires clear customer-centricity, a commitment to sales and marketing excellence, and cash generation. (The synergies mainly result from top-line effects, by combining different businesses within the overall portfolio to create value.)

Finally, customer-centric companies or those that sell to a specific industry need to focus on enhancing their capability set around their chosen target segment. As they strive to move further downstream toward materials and solutions businesses, they can use M&A as an instrument for selectively adding missing capabilities. As these segments are typically innovation-driven, targets need to add value through either access to existing technology or a strong R&D pipeline. Also, brand image and customer access are highly valuable for this business model, making such features appealing in M&A targets. This approach requires that due diligence processes take place through a capabilities lens, and that the companies can smoothly integrate and leverage new capabilities.

#### Capabilities-driven M&A strategy

Depending on the target's position in the value chain, the capabilities and success factors are different: The more upstream a company sits, the more assets, scale, and technologies are crucial. Conversely, the more downstream a company is in the value chain, the more innovation, customer-centricity, sales and marketing, and complexity management become important.

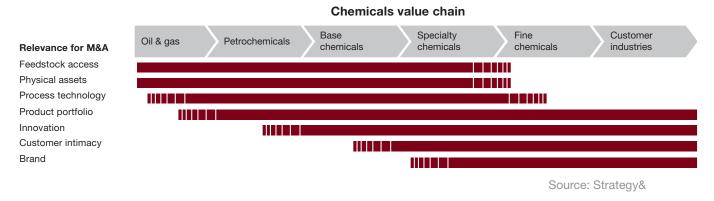
Thus, chemicals players should follow a capabilities-driven M&A approach that stringently focuses on the segment-specific success factors.

Strategy& research shows that the most successful M&A strategies are those centering on building and leveraging capabilities.1 In fact, these strategies can create significantly more value than comparable transactions targeting diversification or size. This observation tracks logically, as it is a natural follow-on from the idea that companies with a differentiating and winning set of capabilities are able to create more value than their peers. For these companies, M&A is simply an additional means to develop this capability set. For companies operating at different positions along the chemicals value chain, specific capabilities will have varying levels of relevance (*see Exhibit 9, next page*).

Considering the relevance of the capabilities along the chemicals value chain, due diligence and post-merger integration need to be applied using a capabilities lens as well.

Targets need to add value through access to technology or a strong R&D pipeline.

Exhibit 9
The relevance of capabilities across the value chain



#### Due diligence

In order to lay the foundation for a successful deal, target selection and due diligence need to go beyond the classic finance and legal scope. Indeed, it is crucial to look at the differentiating capabilities system of the potential new entity. Would the combined capability set give the company a competitive advantage, or enhance the potential to differentiate itself in the long term? Capabilities are not always as visible as physical assets — and do not appear on the balance sheet. Because of this, it is important that potential deal partners apply concerted efforts to identify key capabilities within the staff, culture, processes, technologies, or systems during the due diligence phase.

#### Integration challenges

Companies in the chemicals industry are finally understanding the role of post-merger integration in ensuring the success of a deal. Still, however, PMI is where companies usually struggle most, and where the risk of destroying value is highest. Besides following PMI best practices, companies can minimize this risk by designing an integration approach that actively considers and maintains key capabilities. PMI approaches will differ widely according to the characteristics of a deal — for example, to respect regional and cultural differences in cross-border transactions, or to account for divergent business styles arising from occupying separate positions along the value chain.

This is true for deals in both directions: Western players acquiring those in emerging markets and vice versa. Having local competencies available in the target company's region is a prerequisite to integrating the companies, but this set of competencies needs to include cultural capabilities. As most companies are unlikely to have these readily available, both sides must adopt a structured approach to building the relevant capabilities between their respective organizations.

### **Conclusion**

Consolidation has been — and will continue to be — a major theme for the emerging markets, as competitors in those regions mature. However, it is not as much of a driving force in established regions, where concentration will take place in industry segments that started to develop during the last decade. As a result, the industry landscape will be even more segmented in the future than it is today.

Chemicals companies are constantly in quest of growth — in an industry that offers ever-fewer and ever-smaller attractive growth segments. All measures taken by these companies—shifting the business toward downstream activities, repositioning along the value chain, enhancing the regional footprint — must aim at capturing growth and enhancing their competitive advantage.

These efforts are fueling sizable activities, and M&A will continue to play a significant role in the transformation of the chemicals landscape. It is the major means of quickly entering and occupying new market segments and thus spurring growth in bursts, rather than opting for organic growth in a given market.

However, to succeed in using M&A as a strategic instrument, chemicals players need to make it an integral part of their business strategy and fulfill a range of prerequisites:

- Establish a standardized, "industrialized" M&A approach.
- Prepare to execute even more complex deals.
- Always apply a capabilities lens.
- Embrace cross-border mergers and master cross-cultural integration.

Over the longer term, having the right capability set available to execute M&A in the chemicals industry will become the differentiating factor for success.

Strategy& is a global team of practical strategists committed to helping you seize essential advantage.

We do that by working alongside you to solve your toughest problems and helping you capture your greatest opportunities. These are complex and high-stakes undertakings — often game-changing transformations. We bring 100 years of strategy consulting experience and the unrivaled industry and functional capabilities of the PwC network to the task. Whether you're

charting your corporate strategy, transforming a function or business unit, or building critical capabilities, we'll help you create the value you're looking for with speed, confidence, and impact.

We are a member of the PwC network of firms in 157 countries with more than 195,000 people committed to delivering quality in assurance, tax, and advisory services. Tell us what matters to you and find out more by visiting us at strategyand.pwc.com.

This report was originally published by Booz & Company in 2013.