

# *New opportunities in China for the chemicals industry:* What foreign investors need to know

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*November 2011*

## **At a glance**

Specialty chemicals are in  
high demand.

New opportunities abound.

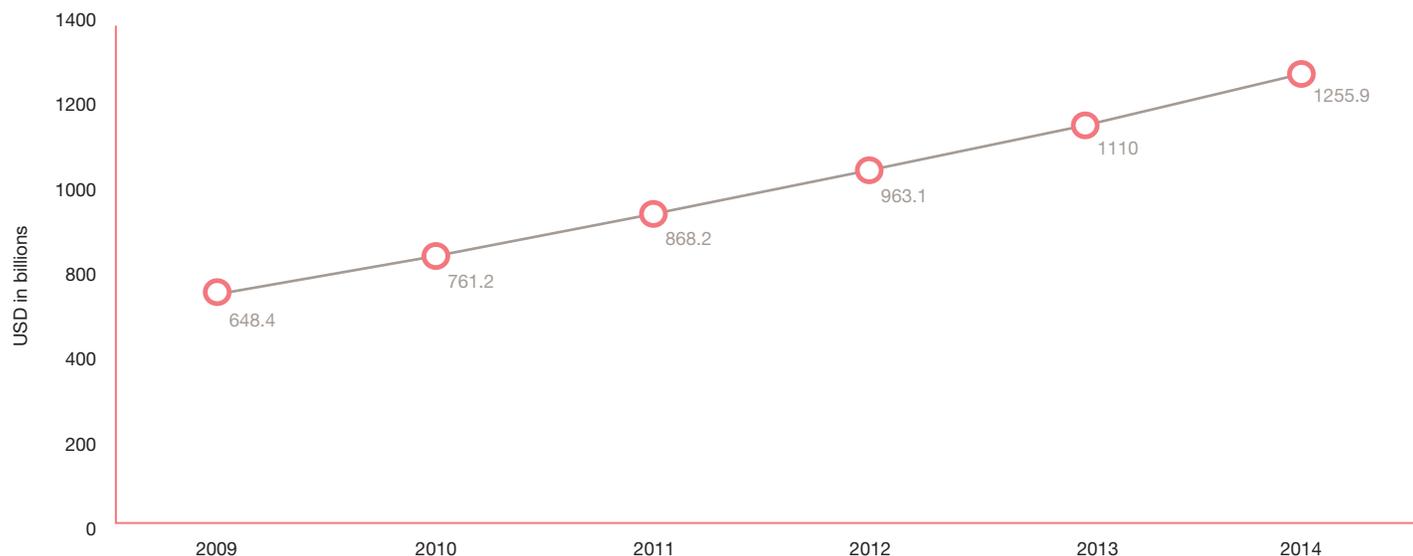
Success depends  
on preparation.

# Move over commodities, specialty chemicals are the new frontier

Construction, car manufacturing, computers, and cosmetics: each of these sectors is thriving in China, and each relies on chemical inputs. At this rate, China could bypass the United States to become the world's largest chemicals market as early as next year. As it stands, China already accounts for more than half of Asia's chemicals sales.

While base substances, such as petrochemicals and polymers, currently comprise the most lucrative segment of China's chemicals market, demand for specialty products is rising exponentially. Datamonitor predicts the market value of China's specialty chemicals will increase by 44% to USD 81.6 billion from 2009 to 2014. Figure 1 illustrates the projected market value

**Figure 1: Market value of chemicals in China will double in five years**



Source: Datamonitor (2009 figures), 2010

*Intelligent planning and a clear understanding of the market can go a long way toward realizing the potential in China's shifting chemicals focus.*

of Chinese chemicals over a five-year period. Multinational companies (MNCs) that currently have operations in the Chinese chemicals industry and those interested in expanding into this market can take advantage of this shifting chemicals focus to enter into profitable business ventures.

Chemicals such as surfactants, photovoltaics, and butadiene rubbers are used in the production of a wide range of products that are in high demand in China, from foam insulation and wind turbines, to substances used to thicken shampoo. The specialty segment in China is getting an added boost from global demand for innovative, lightweight chemicals, such as polymers and

specialty coatings used in a variety of consumer products ranging from cars to computers.

For MNCs in the chemicals industry, these shifts in market demand come at an opportune time: MNCs are being edged out by competitive Chinese manufacturers in the commodity chemicals sector, and growth in many Western markets is slowing. MNCs with operations in China are well placed to respond to rising Chinese demand while also developing new types of specialty chemicals to serve both global and China-specific markets.

These opportunities come with challenges. As MNCs expand in China, they must find and team with new

partners in a fragmented market, foster talent in a highly competitive environment, manage increasingly sensitive intellectual property issues, and comply with tightening government regulations. But these challenges are not insurmountable. Intelligent planning and a clear understanding of the market can go a long way toward realizing the potential in China's shifting chemicals focus.

PwC and The Economist Intelligence Unit worked together to offer insight into these new market opportunities and their challenges. We set out to highlight the factors that international companies should consider in order to successfully expand operations into the Chinese chemicals market.

# New strategies pave the way for new opportunities

## *The changing chemistry of China's investment environment*

Most major chemicals companies established manufacturing operations in China decades ago and continue to be big players in the market. The top 10 global chemicals companies currently represent nearly 20% of total foreign direct investment (FDI) in China's chemicals sector.<sup>1</sup> But major players such as Bayer, BASF, Dow Chemical, and AkzoNobel are changing how they operate. They are increasingly investing in R&D and design and development (D&D) operations to better serve the Chinese market. The annual number of design and development projects with foreign investment has risen four-fold since 2003, while the number of new manufacturing projects has declined from 118 in 2003 to just 16 in 2011.<sup>2</sup>

This shift represents a significant opportunity for MNCs looking to follow suit or expand into the Chinese chemicals sector. But before moving forward, it is imperative to understand the driving forces behind this change.

<sup>1</sup> "FDI Intelligence from the Financial Times: China Chemicals, January 2003 to March 2011," fDimarkets.com (Financial Times Ltd.-owned business information website).

<sup>2</sup> Ibid.

## *Specialty chemicals attract attention*

Many recent investments have focused on the development of specialty chemicals. Some of the most notable examples include:

- Dutch firm DSM recently opened an R&D center to develop composite resins near Shanghai.
- The Netherlands' AkzoNobel plans to double its staff at a laboratory near Shanghai. The company spends more than 11% of its R&D budget in China, with much of that budget targeted toward developing specialty chemicals.

The focus on specialty chemicals and increasing demand for these products for use in China requires chemical companies to work more closely with their Chinese customers. Most MNCs are developing products that cater to the Chinese market, ranging from chemical inputs in personal care products to high-performance tires to healthcare, as illustrated in Figure 2. As with any other market, proximity to customers is essential to ensure innovations are driven by customer requirements. As a result, we are seeing a large increase in investment in R&D capabilities in China. Products

*“We’re seeing more and more chemicals companies opening or expanding R&D centers in China, with the focus on the D.”*

~ Yuan Peng, the Shanghai-based partner at the Valence Group, an investment banking boutique specializing in advising on chemical mergers and acquisitions (M&A) transactions.

generated by these activities can have broader global application, but the center of activity for R&D is shifting east to Asia and, specifically, to China.

“We work in very close collaboration with our customers in China to ensure the innovations we develop match local market needs, and our Chinese R&D capabilities have increased dramatically as a result,” said Peter Sykes, president of Greater China for Dow, at the recent Chemical Week conference in Tianjin, China.

**An enticing environment for mergers and acquisitions**

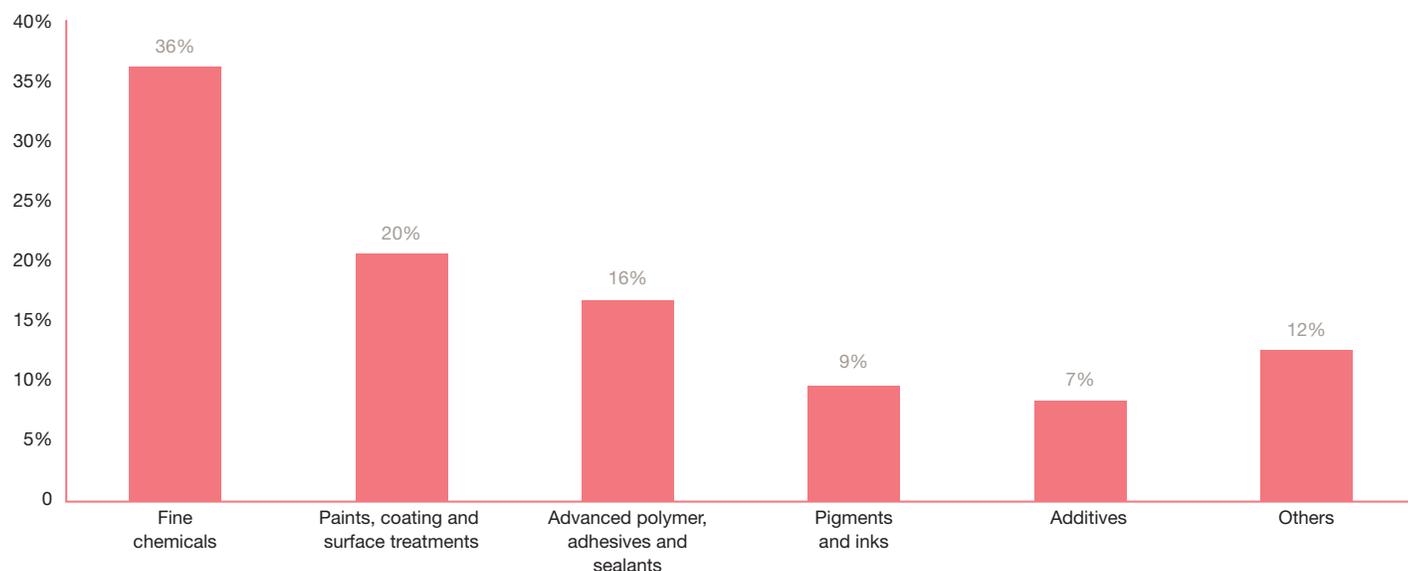
The growing interest in the development of specialty chemicals has created another opportunity for MNCs looking to expand or enter the market. An emerging contingent of private domestic chemicals companies has started pursuing research and development in the specialty market, a realm historically dominated by academic and government institutions. This, in

turn, has positioned the companies as attractive acquisition targets for MNCs.

For instance, some of the biggest deals of the past year include Rhodia’s recent USD 489 million acquisition of Feixiang Chemicals, which makes amines and surfactants, and PPG Industries’ purchase of Bairun, a privately held packaging coatings company, for an undisclosed sum.

According to Roland Xu, a partner in the PwC Transactions Services team in Shanghai who is responsible

**Figure 2: China's specialty chemicals market: percentage share of segments**



Source: Datamonitor (2009 figures), 2010

for serving clients in the chemicals industry, interest in chemicals and chemical-related materials sectors has increased over the past year. In particular, specialty chemicals related to high-growth industries, including electronics, automobiles, and wind and solar power, make attractive acquisition targets.

“The race in specialty-chemical-related new materials has started. MNCs are leading the way and seeking to expand organically and via M&A activity as quickly as they can. But the local state-owned and privately held enterprises are also increasingly focused on the higher-value sectors within the industry, which is also driving domestic and outbound M&A activity,” Xu said.

For example, Chemchina announced two large outbound deals in 2010-2011, each exceeding USD 2 billion. Additionally, large Chinese chemical companies are even considering mid-cap chemical MNCs for acquisitions.

### **Government policies impact investment flows**

China’s 12th Five-Year Plan, which was published in March 2011 and forms the blueprint for economic development for the next five years, has some key factors that will help shape the future direction of the industry in China. Industry activity that aligns with the plan can expect greater success in terms of government support and regulatory approval. Strong themes

in the plan that will help shape the chemicals industry and its associated technologies going forward include a focus on energy efficiency and reduced environmental impact. The plan also highlighted seven strategic emerging industries, four of which have ties to the chemical industry:

- New materials
- New energy
- New energy automotive
- Energy saving and environmental

In the past, Chinese government policies focused on attracting foreign investment through a series of favorable tax and incentive policies that enabled low-cost production for export. These were largely abolished at a national level because of the Chinese government’s change in focus to ensure that local companies and MNCs are governed by the same tax regulations.

However, opportunities for favorable tax treatments still exist and certain local (i.e., provincial or municipal) government policies in China are designed to attract foreign companies willing to establish development hubs and bring intellectual property onshore. Some of these policies, including corporate tax incentives and logistics support provided by dedicated chemicals-sector zones, encourage partnerships and acquisitions that will enable the local production of higher-

value-added products. This will move China up the manufacturing value chain and help upgrade manufacturing processes to meet environmental and energy-efficiency targets.

This support extends not just to the specialty chemicals sector, but also to R&D partnerships in China’s huge state-owned enterprise (SOE)-dominated petrochemicals industry, where foreign investment is restricted. The government intends to harness the relatively strong R&D capabilities of MNCs as it improves its own domestic industries. The recently announced deal between INEOS AG and China’s state-run Sinopec Yangzi Petrochemical Company to build a phenol/acetone plant in Nanjing points to increasing interest in transactions between upstream and downstream segments of the sector. The deal gives INEOS access to Sinopec’s local feedstock, while Sinopec will have access to INEOS’s phenol technology used for the creation of plastics, solvents, and synthetic fibers such as nylon.

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# Navigating the challenges of the shifting chemicals strategy

The growing demand for specialty chemicals, the increase of attractive acquisition targets, and the Chinese government's support of these ventures creates a seemingly perfect backdrop for business expansion for MNCs in the chemicals industry. But foreign companies face various challenges—from talent to logistics—as they expand their operations. To succeed, they must adapt to the new landscape.

## ***Successfully merging cultures***

The key for any MNC seeking to expand its operations in China through an acquisition or partnership is finding a worthy candidate. Many niche-oriented Chinese companies lack the scale or expertise that an MNC would need to grow. Large state-owned companies are not for sale, so joint ventures or licensing deals are the only ways to partner with them. However, many still contend with internal management that may not be prepared to deal with considerable expansion, cross-border issues, as well as an excess legacy labor pool. To compound matters, Chinese companies with relatively well-positioned capacity

or market share may prefer to list shares on a domestic exchange for higher valuation.

Privately owned companies in China will be comparing the offers they receive from MNCs to invest in or acquire their business to the earnings multiple potential from an A-share listing. A-share multiples are relatively high, so MNCs will find it challenging to complete a deal if they want to contribute only capital.

“These days the MNC investor has to be willing to contribute significant intellectual property or access to global markets for a Chinese seller to consider them an attractive partner,” said Xu.

Whichever approach to growth MNCs take, whether organic or through M&A, they will face one common challenge: the war for talent. Rapid economic growth has outpaced the maturation of middle and senior management resources, leading to intense competition between firms for good people. “The battle for talent in China is even more intense than the battle for technological innovation,” said Roger Ng, a PwC partner for the People and Change division in

Beijing. China's skilled labor market is notoriously tight; by some accounts, turnover in the chemicals sector can surpass 20%.<sup>3</sup> And skilled managers—particularly those who combine deep sector knowledge, a capacity for innovation, and a willingness to change the way they do business—are scarce. The high degree of migration between companies in the sector inhibits growth and increases costs and the risk of IP leakage.

These factors are leading to increasing interest from overseas Chinese scientists and managers who are eager to return home and take advantage of the market's growth. To mitigate labor challenges, MNCs find they have to provide additional incentives to potential employees by offering global training, rapid promotions, and attractive remuneration.<sup>4</sup>

Another option for companies seeking to avoid the hassle of finding a Chinese partner is to join or acquire

another foreign company with operations in China. OMNOVA Solutions, a producer of specialty chemicals such as styrene butadiene emulsion polymers, which are used in coatings, adhesives and construction materials, acquired France's Eliokem, which included latex manufacturing plants in China. OMNOVA intends to expand these plants to produce other specialty products based on styrene butadiene and acrylic emulsion polymerization technology.

### ***Expansion's effects on logistics and operations***

Whether they expand through M&A, organic growth, or joint ventures, many MNCs are scaling up or restructuring other business operations. In doing so, they must deal with new demands.

MNCs looking to expand operations in China must grapple with increasingly complex supply chains. China currently operates in a bi-modal

manner, as MNCs are subject to different rules than their domestic counterparts. As a result, the supply chains for MNC-to-MNC sales are different than the supply chain and distribution networks for MNCs selling to domestic companies. Likewise, the method for setting up a legal entity differs for MNCs that manufacture for export and those that focus primarily on domestic distribution. Companies originally geared toward export manufacturing that are now establishing distribution and sales networks in China and greater Asia need to plan how to integrate pan-Asian facilities and ancillary R&D facilities within the overall manufacturing and distribution footprint.

Qatar Petro Chemical and Exopack Advanced established logistics and distribution facilities earlier this year. Strategies like this offer companies new ways of taking advantage of the market.

<sup>3</sup> Stremme, Hans. "Retention in China: Lack of Talent or Lack of Leadership?" Neumann International. <http://www.neumann-inter.com/reports-media/reports/retention-in-china-lack-of-talent-or-lack-of-leadership/>.

<sup>4</sup> Schmidt, Conrad. "The Battle for China's Talent." Harvard Business Review. [hbr.org/2011/03/the-battle-for-chinas-talent/ar/pr](http://hbr.org/2011/03/the-battle-for-chinas-talent/ar/pr).

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### **Accounting for changing cost considerations**

Companies must also consider the cost implications of their changing business structures, such as the tax consequences of whether they are producing materials for domestic use or for export. Similarly, companies need to determine where to locate manufacturing and logistics operations—such as in chemicals-centered free trade zones or logistics-based offshore facilities—which will depend on material flows.

Perhaps the most significant additional cost for companies is that of complying with China's tightening regulatory environment. At a high level, direction for improving standards is a core part of the five-year planning process, but responsibility for implementation falls to relevant government bodies. For example, the Ministry of Environment Protection (MEP) adopted a new framework for registration, evaluation, and authorization of hazardous chemicals, replacing looser guidelines laid

down by a predecessor agency many years ago.<sup>5</sup> These new regulations have been nicknamed China REACH, after the REACH (Registration, Evaluation, Authorisation and Restriction of Chemical substances) legislation enacted by the European Union in 2007. Companies that take the necessary steps to adhere to these regulations are not only demonstrating their commitment to compliance, but also alignment with China's twelfth Five-Year Plan.

In China, there is a new level of red tape—and costs—for companies importing or manufacturing chemicals.

According to REACH24h, a consulting firm that advises on chemical regulatory compliance, about 100,000 chemical substances are commonly used in manufacturing worldwide, but less than half (45,000) are registered for use in China. MNCs introducing substances that are not registered must endure a process that can take anywhere from four to 18 months, depending on the quality of scientific research behind the chemicals.

In May 2011, the Chinese government implemented regulations requiring all chemicals companies that manufacture or import into China to classify products in accordance with 26 of the 29 safety standards listed under the United Nations Global Harmonized System (GHS). In contrast, the EU requires companies to classify substances according to only 16 of the 29 GHS standards. The classification requires testing of chemicals for environmental and health risks as well as the risk of explosive hazard. Companies developing new chemicals must use one of nine government-authorized laboratories to obtain safety data. The quality of each laboratory varies, however. According to REACH24's Deputy General Manager Nathan Chen, laboratories in Shanghai and Shenyang are the most experienced, while newer labs, such as one that recently opened in southern Guizhou province, offer cheaper but less tested services.

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<sup>5</sup> "Enforcing New Regulations, Discarding Old Practices, Controlling the Risks and Meeting the Challenges—Interpretations on the Measures of the Environmental Management of New Chemical Substances: 2010-10-15." The People's Republic of China Ministry of Environment Protection website. Accessed August 18, 2011. [http://english.mep.gov.cn/Policies\\_Regulations/interpretation/201011/t20101102\\_197029.htm](http://english.mep.gov.cn/Policies_Regulations/interpretation/201011/t20101102_197029.htm).

If similar government mandates are any barometer, then implementation of the new regulations will vary by region. What will initially pose a challenge to MNCs are the regulators implementing the enforcement programs. In the past, regulators favored domestic companies and focused their enforcement efforts on MNCs. However, the tides are turning. There have been several examples, particularly in southern China, in which Chinese chemicals companies have been shut down by the local government due to environmental factors and concerns. Before engaging in deal activity, it is critical that MNCs evaluate whether any past environmental liabilities exist.

In the meantime, one of the leading practices for MNCs for dealing with increased regulatory scrutiny is to work closely with representatives from the local Environmental Protection Agency (EPA) and communicate the actions they are taking to comply with regulations. Transparency is vital

and will provide the EPA with good examples of preventative actions it can share with other organizations.

### ***Continued risk for intellectual property rights protection***

Intellectual property rights (IPR) protection has long been a headache for any MNC operating in China, and it's a particularly sensitive issue in the field of innovation. Chemicals companies that are expanding D&D operations, or even distribution chains, may need to reconsider how they enforce IPR protection.

One way MNCs are managing their IP is by acquiring chemical inputs in China for end products manufactured at plants in markets with more reliable IPR protection. Alternatively, a US company might create a chemical "kit" in the United States for use in end-product manufacturing in China. Often a company's best defense is to take a proactive stance to protect IP management.

The Chinese government has taken steps to improve IPR protection. In February 2011, for example, it clarified the patent law implementing regulations (Implementing Regulations of the Patent Law of China).<sup>6</sup> Efforts may already be making an impact. According to a survey by the US-China Business Council, about 40% of its 220-plus members have reported improvements in IPR protection each year since 2006.<sup>7</sup>

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<sup>6</sup> China's Intellectual Property Protection in 2010. <http://ip.people.com.cn/GB/152255/14588024.html>.

<sup>7</sup> "2011 Special 301 Review". The US-China Business Council. [www.uschina.org/public/documents/2011/ustr\\_special\\_301\\_review.pdf](http://www.uschina.org/public/documents/2011/ustr_special_301_review.pdf).

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# Stake your claim to begin your journey toward long-term growth

How a company proceeds in the Chinese chemicals market depends on its experience conducting business in the country. Experienced MNCs are familiar with the nuances of doing business in China. But as the environment changes and matures, the traditional strategies pursued over the last two decades will no longer apply. To remain successful, these experienced companies should:

- Re-evaluate sector market and distribution strategies and objectives, particularly within the commodity space. Competition will intensify as Chinese companies mature and globalize. There are significant opportunities to expand capabilities into the specialty sectors, where experience is vital.
- Focus on the development of human capital. Mature MNCs need to develop talented middle management and leadership qualities within their staff in order to grow successfully.

- Take advantage of China's drive to localize IP development and align your Chinese strategy with the 12th Five-Year Plan. With the right approach, companies can reap numerous benefits from establishing R&D capabilities in China.
- Evaluate China's place within an expanded pan-Asian supply chain. Many companies are rethinking their organizational and process structures so they can expand into other emerging Asian markets more efficiently.

Certainly, the rising quality of China's chemicals companies will intensify competition in areas where MNCs now enjoy an advantage, such as high-margin chemicals involving advanced technologies and strong manufacturing capabilities. Now is the time to stake out a position.

For MNCs new to the Chinese chemicals market, there is still ample opportunity to be successful.

Before moving forward, companies should be sure to:

Develop a thorough entry or expansion strategy. Select portfolio areas where the organization possesses solid knowledge and IP and use it as a lever for organic and inorganic growth.

- Evaluate target companies for potential joint venture and acquisition plays. This is a long-term process that requires actively fostering and developing relationships. It is imperative that you understand the competition, as well as the Chinese companies that are in ancillary specialty categories used as additives in current product lines.
- Put the right type of leadership in place on the ground. Poor leadership can set back strategies. It is important to strike the right balance between domestic and foreign leadership and implement talent development programs to position local staff for future growth and leadership positions.

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