

Converging Developments?

The Transformation of Chemical Parks in Europe and in China

In Europe as well as in China, chemical parks host the most important production plants of the chemical industry. Although the reasons for their emergence and their development paths were different, their destination might coincide due to the dynamics of the industry and the financial markets.

In the early days of the Chinese chemical industry, many chemical plants were built more or less randomly at individual locations throughout the country. However, with the rising importance of both safety and environmental issues in China, there has been a strong trend to move chemical production into dedicated chemical parks. This is one of the key points in the current Five-Year Plan for the chemical industry (for the period of 2016 – 2020).

The concept of chemical parks originated in Europe in the 1990s. European chemical companies started to focus their huge business portfolios on higher margin businesses by divesting commodity businesses and acquiring specialties. In that transformation, former single-user sites became multi-user sites as plants belonging to a specific business changed ownership. The resulting challenge was how to deal with infrastructure and service operations used by all chemicals companies on site. The answer was to transfer those activities to separate site operating companies which were either owned by the incumbent producer or by the major users on site.

Thus, a new business model, the dedicated site operating company, was established. There were three major reasons for that:

- Cost and risk related to infrastructure and service operations were shared between major users either through ownership or through service pricing
- By establishing more neutral and transparent service relationships, pressure

was to be exerted on the site service organization to become more efficient

- The site operating company was to render the site more attractive for new tenants by — ideally — offering a “plug and play” environment to facilitate new plants without additional infrastructure investment

The first objective was achieved just by organizational nature of the new business. To achieve the second objective of optimizing cost was sometimes a long and painful way. But after two decades, site operators are now much leaner and more responsive to customer requirements. The third objective, to attract new investments, was the most challenging one. The construction of new plants shifted to East Asia and, fueled by shale gas, to North America while the chemical industry in Europe saw considerable restructuring. That caused underutilization in some chemical parks. On the other hand, building new plants outside chemical parks becomes more difficult due to environmental and safety regulation. So, instead of enticing new tenants, chemical parks are now primarily vying for replacement or enlargement



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investments from incumbent players.

The risk of stagnating or even shrinking chemical production volumes in European chemical parks

“The next step in the transformation of chemical site operations may well be triggered by mutual inspiration.”

may also explain why many chemical companies still tend to hold their shares of site operating companies. Their reluctance to completely release chemical park operations to independent players might seem paradox, as they willingly become tenants at chemical parks in East Asia. But Asia, and China in particular, are growth markets, whereas plant closures and

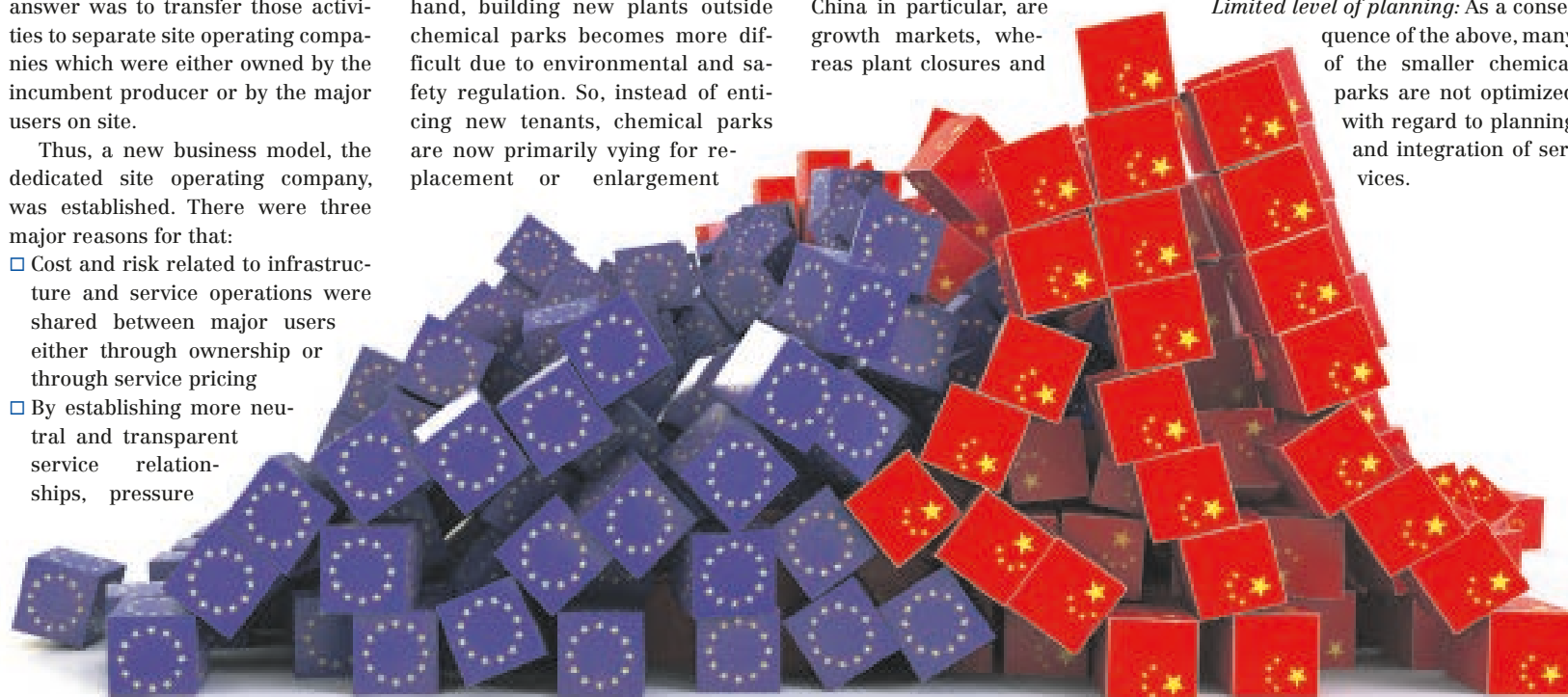
related idle infrastructure cost are a challenge for many European chemicals parks. The incumbent players apparently prefer to manage those restructuring processes themselves instead of relying on third parties that might exploit their dependency on monopolistic infrastructure and services.

Compared to Europe, in China the situation is quite different. Most chemical parks in existence now have expressly been established with the goal of attracting multiple chemical companies. However, this has not led to an ideal situation either. Some of the issues currently encountered with regard to chemical parks include

Large number of parks: There are currently 381 national key chemical industrial parks and probably at least the same number of local parks — in total, this is more than 10 times the number of parks in Germany. This means that many of them are still fairly empty and lack the critical mass to gain real economies of scale from shared services.

Low management skills: While a number of national-level parks have highly professional management, many smaller ones particularly in Western China are run mainly by government officials with limited experience regarding the needs and requirements of chemical companies.

Limited level of planning: As a consequence of the above, many of the smaller chemical parks are not optimized with regard to planning and integration of services.



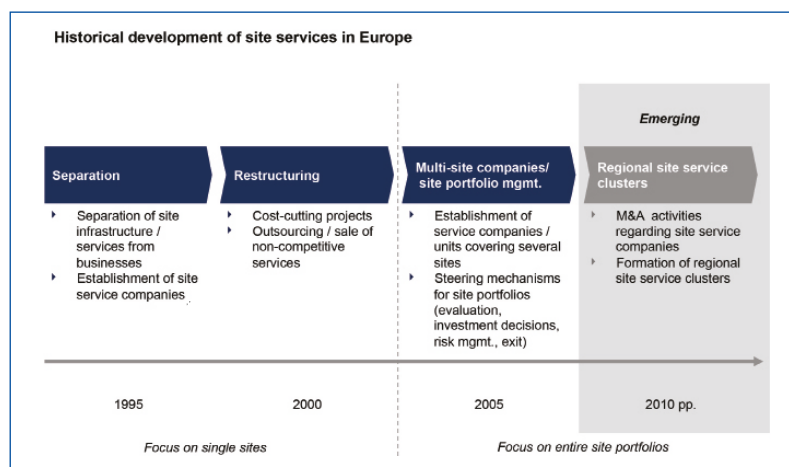
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However, these limitations of current Chinese chemical parks also highlight the benefits that may be gained from utilizing Western experience. This is particularly relevant as there is strong government support for establishing a common standard for chemical parks, and to create an independent service infrastructure for the chemical industry.

In this regard, China can benefit from the experience gained at European chemical parks. While no truly standardized operating model for chemical parks has emerged yet, the existing proven models show significant similarities and thus allow identification of key factors that render chemical parks successful. Site service companies would be the most effective if they could roll out their blueprint across multiple sites and thus realize synergies in terms of cost and know-how. This perspective should be even more appealing for China. Chemical parks might even become a new asset class that is attractive for industrial infrastructure investors.

Here East and West may be complementary: in Europe, chemical



parks are rarely for sale as the owners are reluctant to sell, but also because no potent strategic or financial investors have uncovered the value of those assets so far. In China and East Asia in general, there are entrepreneurial infrastructure investors looking for opportunities, but targets in the shape of independent chemical park operating companies do not exist.

What are the potential combinations? Established European site service companies can support Chinese

chemical park owners in establishing site service companies. The opportunities range from mere consulting to co-branding. The European know-how may be leveraged by Asian infrastructure investors who acquire chemical park operators and transfer their expertise to China. Chemical park owners in China can develop their own model of site operating companies, roll it out across Asia and acquire European chemical parks later. Last but not least, Chinese chemi-

cal parks can use European experience to improve their attractiveness for new tenants, whether through specialization and improved service offerings or through more professional site marketing.

It is time for the next step in the transformation of chemical site operations. And this may well be triggered by mutual inspiration — by combining know-how and financial power across two continents. If and when this happens, the provision of chemical site services in China and in Europe may well converge — hopefully allowing China to bypass some of the painful steps Europe had to go through.

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