

FOAM EXPO
North America

**ADHESIVES &
BONDING
EXPO**

**EXPLORING
OPPORTUNITIES
FOR FOAM AND
ADHESIVES IN
CHINA'S DOMESTIC
MARKETS**

THE **LEADING** EVENTS FOR TECHNICAL FOAM AND
ADHESIVES INNOVATION AND TECHNOLOGY IN
EUROPE AND NORTH AMERICA

EXPLORING OPPORTUNITIES FOR THE EUROPEAN AND UNITED STATES FOAM AND ADHESIVES SUPPLY CHAINS IN CHINA'S DOMESTIC MARKETS

Following disruptions to both global and domestic supply chains as a result of the COVID-19 pandemic, **waterway blockages** and **natural disasters** many companies are reportedly keen to look at new avenues for expansion. One way of doing so is to look at the world's second largest economy, China. Based on interview research conducted with a cross section of companies from the supply chain (15 companies of varying size and function) this article will examine how businesses are already investing in China if at all, whether they see it developing in the future and identifying any barriers of entry. The research suggests that China presents a wealth of opportunity. The rapidly expanding economy is competitive but large enough to accommodate companies who wish to sell their products in the Chinese domestic markets. However, there are some barriers of entry which must be overcome in order to do business in China which will be explored in this article.



GROWTH AND ACCESSIBILITY OF THE CHINESE ECONOMY

The Chinese economy (nominal GDP of 9.2 trillion USD in 2019) is **second only to the United States** and has witnessed tremendous **growth over the past 30 years**. In line with the rest of the world's economies COVID-19 did have a negative effect on China's growth. During the first three months of 2020, **Chinas economy shrank by 6.8%** due to factory shutdowns as a result of the pandemic. However, as Vahid Salamat the Sales & Business Development Director at Erlenbach Machines points out the "Chinese market has placed itself as a manufacturer for a range of different industries and was the only one to see significant growth in 2020". Vahid is highlighting that due to the sheer breadth of the economy and range of industries it is able to serve, China was able to bounce back more effectively than other nations and **even see some limited growth**. The country is expected to see growth of 6% to their GDP in 2021. Not only is the GDP growing but between **60% and 70%** of the growth is domestic consumption. Contributing to the domestic market therefore holds significant opportunity. **Foreign direct investment** (FDI) is also growing to match the upswell of the domestic markets which demonstrates confidence from international companies in China's economy.

This economic growth has not gone unnoticed by the foam and adhesives supply chains. Michael Chan the Managing Director of Kurtz Ersa explains, "Of course, everyone is talking about size of the market and yes, it is very attractive. Our company has been there for a long time. Originally we would have only supplied to the Chinese markets but now we are seeing the trend of products [foam manufacturing machinery] being exported". For a machinery supplier like Kurtz Ersa the move to China proved so lucrative, that in addition to supplying the markets they have even opted to move some manufacturing operations to Asia from Europe. This demonstrates the company's commitment to China's economy.

With the expansion of the economy, it is gradually becoming easier for international companies to do business with Chinas domestic markets. Having signed a trade agreement with China, European Union (EU) member states will now have greater access. **The Comprehensive Agreement on Investment (CAI)** presents an opportunity for collaboration and strengthening geopolitical ties between the EU and China based businesses. Previously there were stringent regulations on EU-China investment which often involved partnerships between Chinese and the foreign company. These will now be eased, and

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Technical Director
JSP

EU companies are already beginning to take notice. Michael Chan explains that business in China has changed: “It used to be [that] the bureaucracy surrounding business in China made international business more complex – today it’s totally different”. As the economy has grown, so too has the countries accessibility. Michael goes on to say “[China] used to have currency, logistics and language barriers – now I don’t see these as barriers. They can be overcome very easily”. Michael is pointing out how well acclimatised the country has become to accommodate outside business.

For companies based in the United States who are looking to export to China the geopolitical landscape presents a challenge. Increased tariffs exist on exports to China from US companies who end up **absorbing the extra cost**. In early 2018, China’s tariffs on US goods were an average of 8% whilst Chinese goods entering the US were at 3.1%. **As of early 2021** China’s tariffs on US goods are averaging 20.7% whilst Chinese goods in the US 19.3%. The hike in tariffs was implemented under the previous administration and it is yet to be seen what changes may be enacted under their successors. If the tariffs do subside, collaboration between the Chinese economy and US companies could be mutually beneficial.

IMPROVING QUALITY REQUIREMENTS IN CHINA’S DOMESTIC MARKETS

The prosperity associated with a rapidly developing economy has bolstered China’s markets and if the apparel market is any indication the country has seen a rise in the demand for quality products in the **past decade**. While the size of the Chinese market ensures a steady supply of low cost products, the rise in disposable income has meant that domestic consumers are willing to pay a premium for better quality products. According to a survey conducted in 2019, as much as **61% of Chinese consumers** would choose a premium product to ensure superior quality.

This marks a shift in perception which is mirrored by the demands of the market. As consumers are willing to pay a premium, the industry is setting higher standards: “years ago, companies would see the Chinese quality standards as lower [than those in countries in the US and Europe] but now we are seeing very good standards which are being accepted in markets such as Europe and the United States”. Michael Chan is touching upon a perception of Chinese quality standards which he no longer sees as pertinent. From a manufacturing perspective this changes a company’s approach to Chinese end users. Steve Sopher the

Technical Director at JSP explains “What we are finding is there use to be [with packaging or automotive] China specific standards but over the past few years it [JSP] made these standards global”. Where previously a distinct standard would be set for China based customers, JSP are now able to address their standards globally because of the demand from China’s domestic markets. For JSP “the standards and regulations are much more accepted globally. We call it harmonization, using each region to learn lessons and move towards problem solving on a global scale”. Harmonisation allows for companies like JSP to standardise their products and not have to worry about varying specifications across different regions which may require different methods and resources.

Not only does this indicate that business in China is becoming easier for international companies who can consider global as opposed to regional standards it also means that the higher quality standards associated with Europe and the US are more applicable to China’s domestic market. The regulation of volatile organic compounds (VOC’s) is a key example of China leading the way with regulatory standards. The adoption of low-VOC coatings for example has been driven by **regulation enacted by the Chinese government** due to concerns over pollution levels in China’s cities. In an effort to tackle pollution, VOC use is being restricted even further after the **factory shutdowns caused by COVID-19**. The lull in production for China’s industrial sector demonstrated just how much pollution was produced. The government decided to make a change and bring in fines for companies not abiding by the latest regulations. International companies are now looking at standardising their VOC requirements globally to be in line with China’s regulation.

SUPPLY CHAIN DISRUPTIONS AND THE POST-COVID-19 RECOVERY

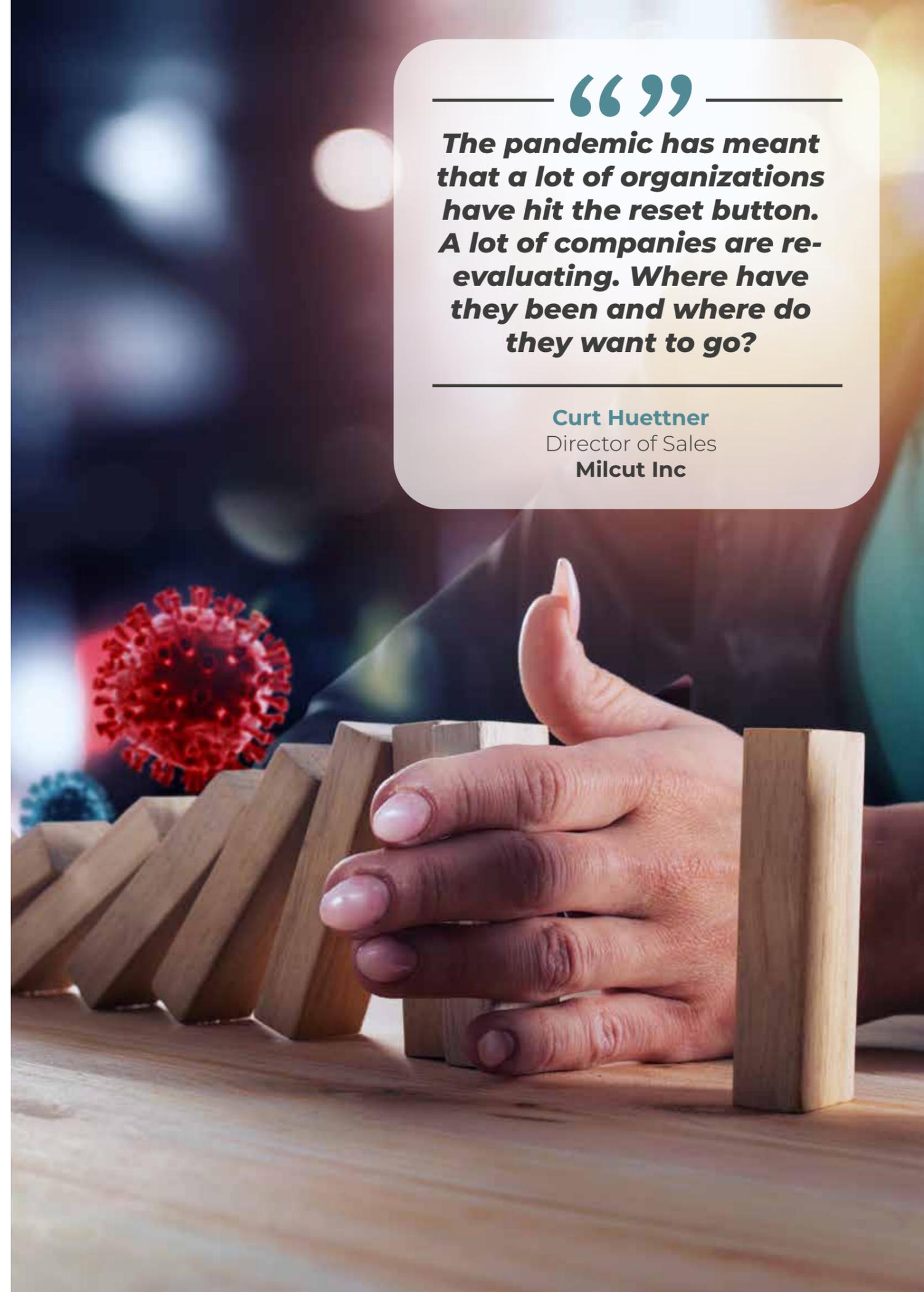
Growth is important to business continuity and international markets are of interest, according to the interviewees from the foam and adhesives supply chains. What remains challenging is the state of both global and domestic supply chains which have been drastically affected by the **efficiency and cost of transporting goods**. The price of transportation has increased to reflect the scarcity of containers available. According to the majority of conversations with the supply chain, the strain of reduced efficiency of supply lines and additional costs have affected companies all over the world who have had trouble not only procuring products but in selling their end-product also.

While businesses are interested in exploring international markets

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Director of Sales
Milcut Inc





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James Bridges
Director of HPP Business Units
Zotefoams plc

and taking advantage of opportunities for growth, they are somewhat prohibited in doing so under current conditions. Curt Huettner the Director of Sales of Milcut Inc, based in the US, explains “it’s hard to predict involvement with China given the effects of COVID-19 on the supply chain. There is a lot of pent-up demand which looks great for business but [In terms of meeting that demand] we don’t know what to expect as long as material shortages last”. This suggests that the question is not merely around noting the opportunity present in China but simply the lack of means to supply to it. This raises an additional question regarding the way in which global and domestic supply chains currently operate. The Suez Canal incident, COVID-19 and extreme weather conditions in Texas have led to re-examination of what has been referred to as the **just-in-time supply chain** which will require much reorganisation to solve on a global scale.

In the wake of COVID-19 and the **consequent disruptions** caused to supply lines and transportation of goods and materials it is important to re-examine how supply chains currently operate and look to disaster proof from future incidents. Curt explains “The pandemic has meant that a lot of organizations have hit the reset button. A lot of companies are re-evaluating. Where have they been and where do they want to go?”. If an adequate solution can be found to address the current state of the global and domestic supply chains, companies have the potential to expand their business to China’s markets. The appetite exists, the means must follow.

OPPORTUNITIES IN THE MARKET

With the world’s second largest economy come a range of exciting developments that are worth paying attention to; “China was historically viewed as a low-cost manufacturing location for the global supply chain, but it is now a world player in its own right,” says James Bridges, Director of HPP Business Units at Zotefoams plc, “with markets such as automotive and electric vehicles (EVs) expanding rapidly”. James is alluding to the fact that in 2010 China overtook the United States as the largest single-country new-car market and is predicted to **continue to grow**. Such rapid expansion requires a supply chain that is equipped to meet the demands of the market. For European and US suppliers to the automotive market this could present an opportunity to satisfy demand and compete directly with domestic Chinese companies.

The Chinese government have grown increasingly conscious of the side effects from fossil fuel usage as the automotive market continues to expand. As the number of vehicles on the roads increase, so to does the CO2 output. In a bid to reduce carbon emissions, tackle pollution



and avoid dependence on oil, the government have set the ambitious target that by 2030, 40% of all vehicles sold in **China will be electric**. The Chinese government has supported this endeavour with both regulation and investment. In subsidising the private sector and investing in infrastructure projects such as charging stations the **government hope to lower production costs** and incentivise private investment.

As of January 1st, 2021 three **national safety standards** have come into effect to ensure the transition to electric vehicles is a smooth one. Of particular interest to the foam and adhesives supply chains are the regulations concerning battery safety. Thermal management is key to the viability of the EV market. Battery systems are the primary power source for EVs and are notoriously **sensitive to temperature fluctuation**. If the temperature is too high, it can cause battery cell decomposition with potentially hazardous consequences. Ensuring public safety has led to a set of testing standards being put in place to control waterproofing, insulation and system control. Battery systems also perform optimally when they remain above a certain temperature. Lower temperatures can reduce battery reaction time and, consequently, vehicle efficiency. For the foam and adhesives supply chain, meeting thermal management requirements is a key priority. Constructing highly durable and heat resistant materials to

be utilised both in and around the battery cells is essential to meeting the new regulatory standards. **Thermal management and heating, ventilation, and air conditioning (HVAC)** systems designed for batteries are therefore an important area of exploration for the materials industry. Technical foams and adhesives that are capable of withstanding high temperatures to safely manage the heat dissipation from battery cells could offer much to the Chinese EV market.

To further combat greenhouse gas emissions, China has been investing in renewable energy projects to help phase out **coal usage** and meet its carbon neutrality target of 2060. China is central to the growth of the global renewable energy market, **accounting for over 40% of its growth** over the last few years. As well as applications for foams and adhesives for structural use in both solar and wind energy systems, as with the EVs, will be the thermal management of their energy storage systems. Similarly to EV batteries, being able to manage the temperature of battery cells for renewable **energy projects is imperative** but on a grander scale as the energy density is far higher.

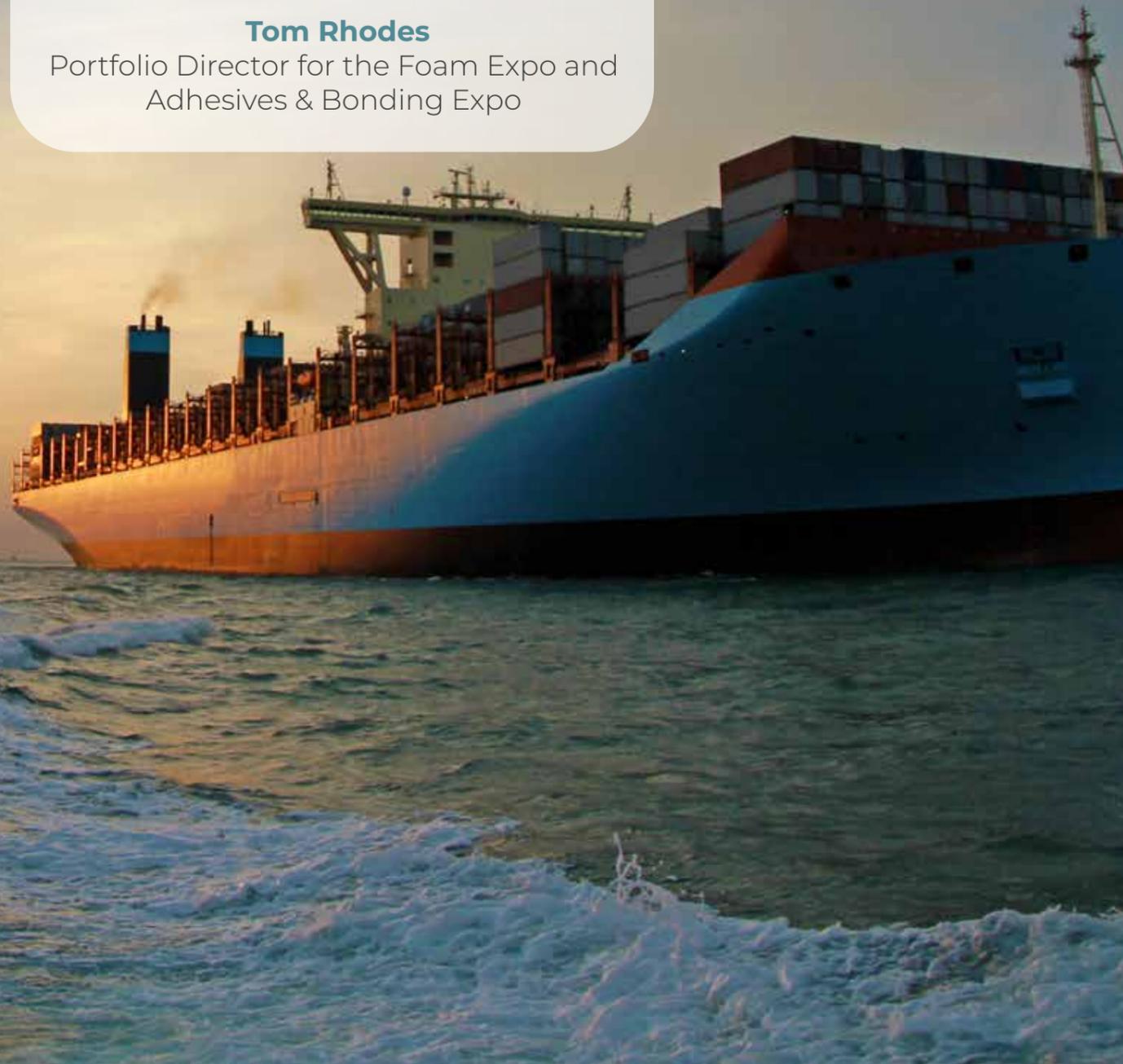
Automotive is not the only form of transportation to be growing in line with the Chinese economy. As of April, 2020 China has the world's **largest commercial aerospace market** which means a surge in demand for aircraft. Currently, the majority of aircraft is provided to the

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Following the continued growth of the Foam Expo brand the decision to launch Foam Expo China allows our international client base to develop their business operations in the fastest growing technical foam market in the world

Tom Rhodes

Portfolio Director for the Foam Expo and Adhesives & Bonding Expo



Chinese market by Boeing and Airbus, but the Airbus CEO has made it clear they expect to see Commercial Aircraft Corp. of China (**COMAC**) as a direct competitor **by as early as 2030**. James describes the growth being seen already as “staggering”. He explains that the “Commercial Aircraft Corporation of China, Ltd., who are producing for companies including the ARJ [Advanced Regional Jet], are aiming to radically increase the number of aircraft produced each year”. These aircraft will need cabin interiors, seating, composite panels and adhesives to keep it altogether. It is not only passenger aircraft that have increased demand in China. Following the shipping **disruptions caused by COVID-19**, air freight has become a prized service also. This can only serve to help drive the production of aircraft.

Furthermore, in 2019 China overtook the United States as the **world’s largest apparel market**. Despite COVID-19, in 2020 **China’s retail sales increased** by 33.8% and online clothing sales grew by 44.3%. for the foam supply chain this presents an opportunity to provide goods for the production of footwear. For the adhesives supply chain, the apparel industry requires bonding for a plethora of substrates to one another.

Whilst China has a number of exciting opportunities across the various markets explored above, the geopolitical landscape does limit foreign business from selling to all domestic markets. The defence and space sectors are not as accessible according to research conducted with EU and US companies. Despite the limitations of these two markets, the number of applications in the aerospace, automotive, renewable energy and apparel industries still present a compelling opportunity for Western businesses.

GET INVOLVED WITH THE WORLD’S SECOND LARGEST ECONOMY

China has a rapidly expanding economy, a good proportion of which is driven by domestic markets. Whilst competitive, there is certainly plenty of opportunity available for companies based out of Europe and the United States. Supported by recently signed trade agreements and China’s adaptation to make business more accessible, this is the time to be looking at business development in the region. Increased quality requirements for the domestic market mean that the demand for products already ratified in Europe or the US is growing. Companies operating internationally can now work to standardise their global product portfolio. This means they no longer have to produce multiple versions of a single product which is far more resource intensive.

For all companies but especially SMEs the biggest barrier of entry into the

Chinese market is the current state of global supply chains. Companies are happy to supply goods but the rise in cost for transportation makes this challenging. There is also the matter of trade tariffs between China and the United States to consider. The costs associated with exporting goods from the US to China are inflated and make the process less profitable for all involved. If resolved, China offers a wealth of key markets such as automotive, electric and hybrid vehicles, renewable energy projects, aerospace and apparel which all present countless applications for the foam and adhesives sectors.

“Following the continued growth of the Foam Expo brand the decision to launch Foam Expo China allows our international client base to develop their business operations in the fastest growing technical foam market in the world.” Tom Rhodes, Portfolio Director for the Foam Expo and Adhesives & Bonding Expo

The Foam Expo and Adhesives & Bonding Expo events currently facilitate business for the foam adhesive & bonding supply chains in both the United States and Europe. The free-to-attend exhibition and conferences cater to the entirety of the supply chains from the raw material and technology suppliers through to the end user market. In addition, they provide a space for businesses to interact with the events set up to facilitate growth for the foam and adhesives supply chains. Tom Rhodes, the Portfolio Director for the Foam Expo and Adhesives & Bonding Expo explains

Foam Expo China will be launched in December 2021 which will not only provide a meeting space for Chinese businesses but also international companies who are looking to expand their business. As Tom highlights “Forecasts predict the market size in China to grow to \$3.7 billion by 2027, with many leading global names already making concerted efforts to grow their presence in the region. Through Foam Expo we will support the continued growth of the industry and provide a valuable steppingstone for international organisations throughout the value chain to enter this buoyant market.”

Don't forget to register for the interactive webinar entitled Exploring Opportunities for the European and United States Foam and Adhesives Supply Chains in China's Domestic Markets. Find out more about this topic directly from the experts. Taking place on August 24, 2021 11:00am Eastern Time.

For more information please visit our websites:

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