



Article by  
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China Inroads supports innovative European high-tech companies with a firm foothold in the Chinese market. Whether you need support in accelerating your existing cooperation with your Chinese partner, or wish to enter the Chinese market, China Inroads is your local strategic partner in developing a successful business venture.



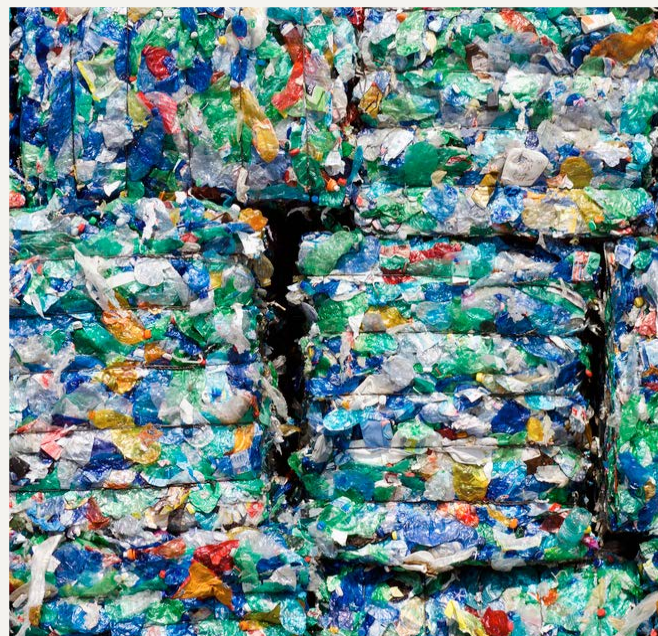
## → BUSINESS OPPORTUNITIES FOR FOREIGN PLAYERS IN CHINA'S PLASTIC WASTE INDUSTRY

The plastic waste recycling sector in China is booming and continues to deliver double-digit growth. This is due to the high demand of recycled plastic from Chinese plastic producers. There has been a shift in plastics production from the West to Asia: 24% of the world's plastic production is now produced in China. Scarcity of plastic raw material has been a continuing problem in China, and recycled plastics are a valuable source to meet the demand from plastic producers. Therefore, plastic recycling technology is in high demand. China Inroads has been active in several waste management projects over the past years, and therefore would like to give some insight in the plastic waste market in China.

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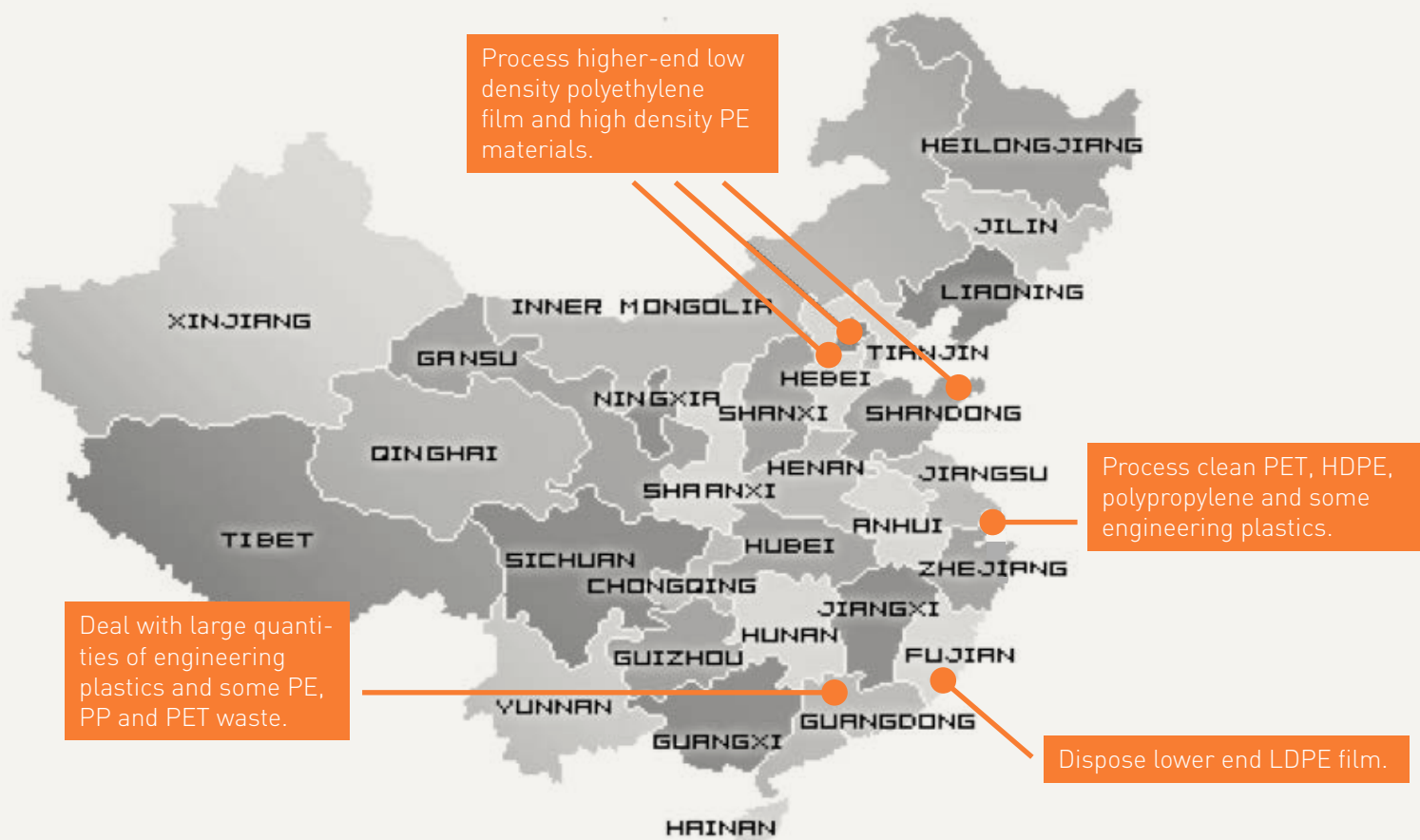
### The plastic waste market in China

The majority of domestic Chinese recyclates are perceived as of poor quality and end up at low-tech, uncontrolled plants and energy from waste plants. Because the quality of domestic recyclates is not up to standard, it cannot be used for recycling purposes. Therefore, China is now the number 1 importer of waste plastics. Importing good quality material is necessary for capital-intensive, better quality plastics manufacturing. China receives 56% (by weight) of the global imports of waste plastics with a value of EUR 5.75 billion. Europe also ships large amounts of plastic waste to China: 87% of EU plastic waste exports (by weight) go to China. Furthermore, these numbers are increasing. Between 2006 and 2012, plastic scrap imports in China increased from 5.9 million tons to 8.9 million tons. However, domestic plastic waste is still almost double that amount. The consumption of plastic products



grew rapidly in China, from 22kg per capita in 2005 to 46kg per capita in 2010. The large amount of plastic scrap imports combined with the domestic waste, makes that China annually recycles around 30 million tons of plastic waste, according to official statistics from the Chinese government. This shows that plastic waste recycling is a big market, with a lot of potential.

Within the Chinese plastics recycling industry, more than 40 percent of the total waste plastics is handled by mid-size or large companies located in the coastal regions. Guangdong, Zhejiang, Fujian, Shandong and Hebei are the primary distribution and processing centers of recycled plastics. Most of the companies in these regions have developed import/sourcing and sales channels and have relatively high margins. Recyclers located in the central and western areas of China are mainly engaged in recycling of domestic plastic.



### New government policies influence the market for sorting & recycling companies

New regulations regarding plastic waste treatment came into force at the beginning of this year. It sets forth the following requirements regarding the annual waste plastic processing capacity of firms:

	Newly established companies	Existing companies
Manufacturers of PET bottles	At least 30.000 tons	At least 20.000 tons
Plastic crushing, cleaning and sorting enterprises	At least 30.000 tons	At least 20.000 tons
Plastic waste recycling companies	At least 5000 tons	At least 3000 tons

Thus there are not only rules for plastic manufacturers, but also for sorting and recycling enterprises.

This regulation is the first detailed regulation that puts forward requirements specifically for companies active in the plastic waste industries in China, and was sparked by the Chinese efforts towards a circular economy. Before there were no requirement for companies in this field at all. The new regulation explicitly states that if companies cannot meet the requirements, the government will impose sanctions, which can ultimately lead to revoking the business license. **Under this regulation, smaller companies with outdated technology and treatment capacity will find it difficult to match the standards.** They will become obsolete and forced to shut down if they don't take adequate measures. On the other hand, it is also quite challenging for the big players to compete in this market and increase their market share and profits. Therefore, more and more Chinese companies active in the plastic manufacture industry or plastic waste recycling field expand their capacity for the treatment and recycling of plastic waste, for example by acquiring more advanced technology.

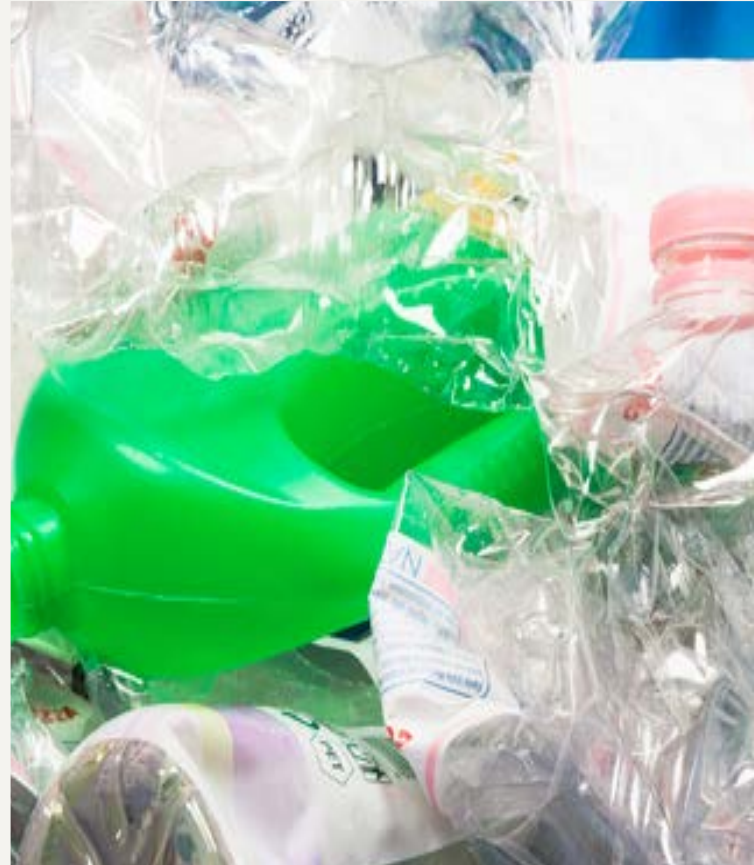
### **What does this mean for European firms?**

China's large plastic waste recycling market creates great opportunities for European businesses with plastic recycling technology. Germany-based Neue Herbold GmbH has been active on the Chinese market for over twenty years, supplying all kinds of recycling technology for the processing of plastic waste. This includes size reduction technology, such as granulators, shredders and pulverizers for production scrap, and washing and recycling systems for contaminated post-consumer plastic scraps. In China, Neue Herbold's clients are plastic manufacturing companies, such as pipe, profile and film manufacturers. These companies demand recycling technology in order to reuse the plastic. This is not only environmentally beneficial, but also economically, as it replaces the virgin materials and saves money. Mr. Helall Firouzie, responsible for the Chinese market at Neue Herbold GmbH, mentions that he has seen the market change over the years. He believes that plastic waste is becoming more of a problem in China due to the increase in plastic production. However, there is still less knowledge and sensitivity than in Europe regarding plastic recycling, making it difficult to recycle the plastic in the proper way. This brings opportunities to European firms, especially now that the recycling sensitivity in China is increasing.

**‘This is not only environmentally beneficial, but also economically as it saves money.’**

Sharpvision is a local Chinese company which is active in the designing and producing of sorting machines for the treatment of plastic waste. Their machines sort the plastic waste based on its color, using CCD (Charge Coupled Device) technology. After the sorting process, part of the waste is melted in order to be recycled. Mr. Qian, the General Manager of Sharpvision, mentions that there is a high demand for sorting technology from Europe, as the technology is more advanced than the local Chinese technology. **Currently, a lot of local companies still use chemicals to sort and separate the plastic waste which causes pollution issues.** Thus, Chinese companies are looking for automatic classification and separation equipment,

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which is suitable for all kinds of mixed plastic waste. According to Mr. Qian, specific sorting technology is still missing in the industry. For example, CCD technology is not efficient to sort plastic waste with similar colors, such as plastic bags and mineral water bottles. Furthermore, technology is needed to sort very light material. This light material floats easily which makes it difficult to sort.

Besides size reduction and sorting technology, there is also demand for the following technologies:

1. Technology and equipment for the production of alloy materials, composite materials and functional materials from waste plastics.
2. Knowledge regarding quality control for recycled plastic products.
3. Technologies concerning pollution control of plastic waste recycling.

## 'Chinese companies demand advanced technology to increase their market share'

Mr. Qian notices that the plastic waste market has become more competitive. Therefore, Chinese companies are looking for advanced technology to increase their market share. Furthermore, Mr. Qian mentioned that the Chinese government provides support to waste management companies, such as tax deductions. Many local companies have benefitted from these policies. The increased competition on the plastic waste market and the government policies bring opportunities to European firms with plastic recycling technology.



### What challenges are companies facing?

For European companies, it is difficult to find the right sales channels in China. In such a competitive industry, it is crucial to cooperate with a local partner and to set up a carefully considered entry strategy, before entering the market. A Chinese business partner will be interested in being the first to introduce advanced technologies to the market. Not surprisingly, Chinese firms will look for low-cost solutions at all times. Once the agreement with the local business partner has been signed, **it is important to continuously consider how to maintain a win-win cooperation.** European firms do not want their technology to be copied and want to profit from the market growth in the long term as well. Chinese suppliers aim to develop their business to maintain a strong market position. In addition, European technology suppliers must tailor technologies to the local needs in China. This can for example be the case because of the different quality of the plastic recyclates, or because the waste is more mixed and demands better sorting technology. Finally, it's all about timing. Insight in market trends and support from local governments allows European firms to grasp new opportunities on the Chinese market.

China Inroads supports innovative European high-tech companies with the realization of such sustainable cooperation in China. For more information on our services, please visit our website: [www.chinainroads.com](http://www.chinainroads.com)