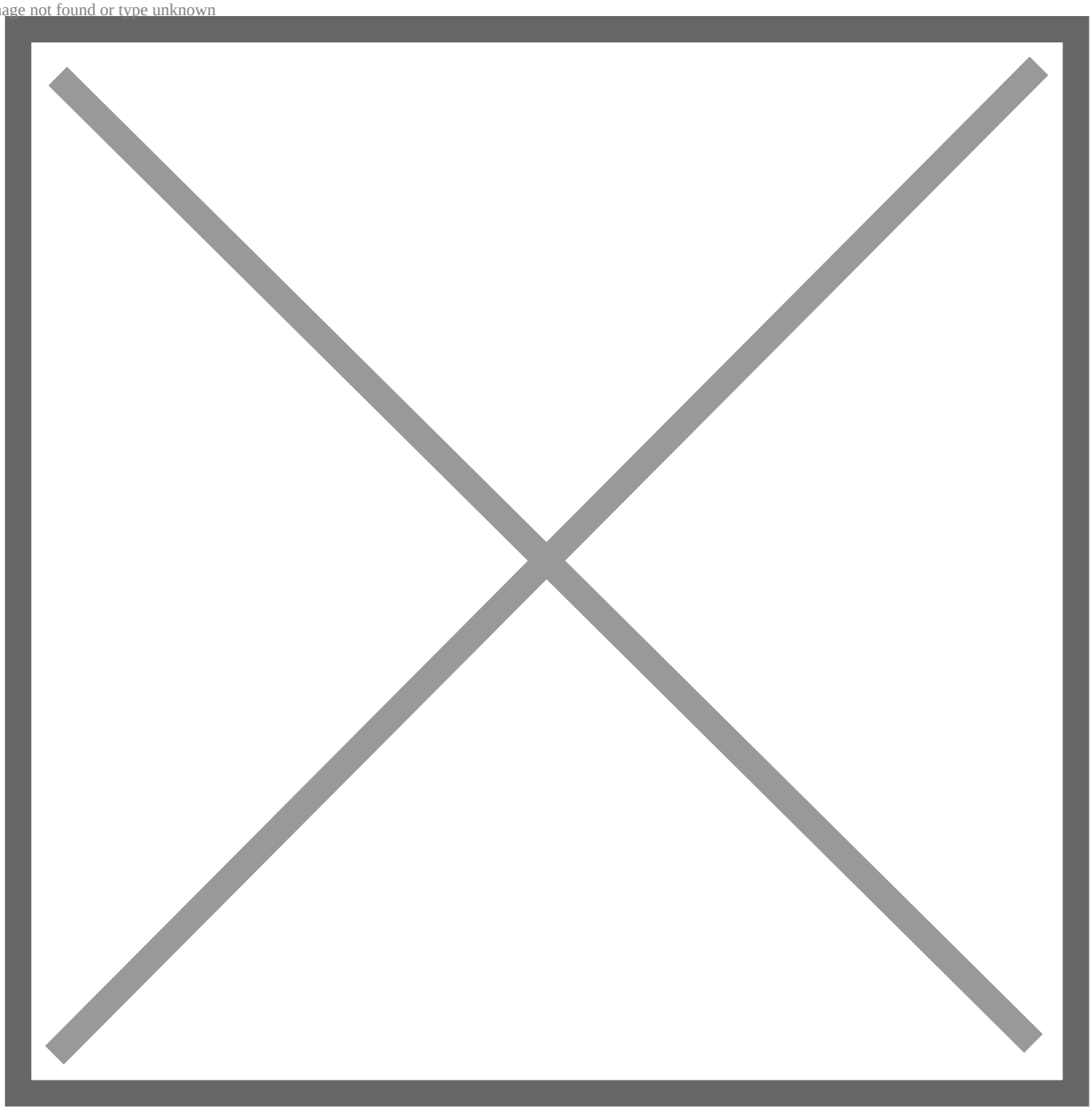
China's Green Tech Market: Business Opportunities and Market Access Advice for EU SMEs

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Since its foundation in 1949, China has relied heavily on fossil fuels to provide energy to its citizens and to power its Industry.

Coal, in particular, served the country as the main source of power for more than half a century. Due to its vast availability and low price, it rapidly became the core of the national's energy policy. Today, almost forty years after the launch of the economic reforms of the late 70s, coal still provides for the 64% of the domestic energy demand[1].

The effects on the environment of such a massive use of fossil fuels, however, have revealed devastating.

Chinese Government Policies

In 2006, China overtook the US as the world's largest emitter of CO2[2], a position it still holds firmly some ten years later[3]. Domestically, the quality of the water, soil and air is severely compromised: around 80 per cent of groundwater in the mainland's major river basins is unsafe for human contact[4]; the latest figures from the Ministry of Environmental Protection and the Ministry of Land and Resources tell that 16.1% of China's surveyed land is polluted by heavy metals like cadmium, arsenic, lead and mercury[5]; Chinese cities, especially in the northern part of the country, are more often than not surrounded by toxic smog resulting, among the others, from industrial discharges, coal burning and car emissions.

The combined costs of pollution are huge, approaching 10% of gross domestic product (GDP) per year over the past decade, with air pollution accounting for the most of them (approximately 6.5% of China's GDP), and soil degradation for the 1.1%[6].

The good news is that the Chinese government has declared war on pollution as part of its broader plan to promote the country's transition toward a low carbon economy. In fact, China commitment to a low carbon future started just before the Copenhagen summit in 2009, where the country pledged to cut its carbon intensity by 40-50% compared to 2005 levels by 2020. Recently, in the XIII Five Year Plan (2016-2020), Chinese authorities reaffirmed their commitment by introducing targets of 15% reduction of energy intensity and 18% reduction of carbon intensity relative to 2015 levels, down the path paved by the previous XII Five Year Plan[7].

These measures, together with all the other policies and campaigns Beijing has launched to strength and extend its efforts to promote environmental protection, energy efficiency and low carbon growth, are expected to unlock opportunities for domestic and foreign players in the green tech sector, especially in the areas of conventional and renewable energy, water, air and soil pollution and waste management.

Naturally, not all the segments are equally accessible to foreign companies.

Factors such as market structure, degree of competition, barriers to entry etc. will determine the degree of openness, the real opportunities and, ultimately, the ways of accessing the market, from the supply of components and spare parts to technology transfer, services, or long term partnership with local players.

Business Opportunities for European SMEs

Based on our analysis, which can be found in our 2017 update of the China Green Tech Report [8], we have detected opportunities in the following areas:

- **Conventional Energy:** the coal industry welcomes technologies able to improve water efficiency in mining and wastewater treatment after usage. Moreover, advanced technologies, such as turbine bypass systems or fault monitoring systems will be in great demand in China's next-gen power plants. The gas, oil and nuclear sectors will also offer niches where SMEs can offer their products and services;
- **Renewable Energy:** SMEs should be looking at areas such as waste to energy and waste to heat, which is where the main opportunities are. In those industries that have reached a more mature level of development, like wind of solar, SMEs shall leverage on their engineering knowledge and know how to find prospects;
- **Water:** Innovative urban water design, energy-efficient water saving technologies, secondary water supply systems, water reclamation technology and other solutions has seen growing demand in China and are expected to continue growing in the future. On the other side, when it comes to the rural and agricultural sector, SMEs might find it difficult to enter the market as it is still under strict governmental control, it relies heavily on national funds and, due to the location of the project, EU SMEs might need to cooperate with local governments with limited experience in project management or technology innovation;
- **Environment:** air, soil and waste management, especially in the industrial sector, can bring opportunities to companies offering engineering and mechanical solutions able to increase resource use efficiency and to reduce polluting emission in compliance with the new and more stringent standards recently approved by the government.. Engineering and mechanical solutions, for example, will find demand especially in segments such as air pollution control, operations and compliance, energy recovery, increasing capacity and upgrades and retrofits. In sectors such as construction and smart cities SMEs will find potential leads in specific key areas such as top-level design, green buildings, green transportation, recycling systems for industrial parks, comprehensive governance of urban environment etc. Soil pollution, on the other side, although potentially rich in opportunities, is still at its infantry stage with the most of the business in the hands of domestic players. Similar reasons make the industrial hazardous waste sector not particularly appealing to EU SMEs. Nevertheless, potential leads can be found in hazardous waste classification, collection and management,

Market Access Advice

Finally, prior to their access in the market, SMEs shall take all the necessary steps to ensure their readiness for the Chinese green tech sector. Conducting a thorough market research to identify the real opportunities and build awareness of the potential threats, understanding the local competition, protecting the Intellectual Property Rights, profiling potential partners, adapting the products and services to the local requirements are all fundamental aspects to consider on the route to the China's green tech market.

References

[1] National Bureau of Statistics of China, 2016.

[2] Source: http://www.nytimes.com/2007/06/20/business/worldbusiness/20iht-emit.1.6227564.html

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[6] Knight Z., Robins N., Chan W., Natural Capital – Identifying implications for Economies, HSBC, 2014.

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The EU SME Centre in Beijing provides a comprehensive range of hands-on support services to European small and medium-sized enterprises (SMEs), getting them ready to do business in China.

Our team of experts provides advice and support in four areas – business development, law, standards and conformity and human resources. Collaborating with external experts worldwide, the Centre converts valuable knowledge and experience into practical business tools and services easily accessible online. From first-line advice to in-depth technical solutions, we offer services through Knowledge Centre, Advice Centre, Training Centre, SME Advocacy Platform and Hot-Desks.

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