

MARKET OPPORTUNITY

CHINA



OVERVIEW

- China continues to invest to protect the environment and improve quality of water, air and soil. The total investment will reach € 2.15 trillion¹ in the next five years according to Chinese government's estimate, a significant growth (20%).
- Waste water treatment, waste management and air pollution control are the biggest 3 sub-sectors by market value, which together will take about 40% of the total investment in the environment sector or € 837.5 billion¹ by the end of 2020.
- China has also tightened the standards in water treatment, sewage discharge and emissions. Advanced and suitable technologies and solutions are in urgent demand to increase the capacity and professionalism of environment management in municipality and industries. Private capital is welcomed and new business model and innovation is encouraged.



Market potential exceeds € 2 trillion

Key sectors:

- Waste water treatment
- Waste management
- Air pollution control

Drivers

1.	Strong governmental influence on the environmental protection market over the 13 th five year plan.
2.	Huge domestic market that is underdeveloped, offering rapid achievement of economies of scale.
3.	Chinese government has raised the standards of emissions permission, bringing forth a huge demand for technologies upgrading and the adoption of efficient technologies.
4.	Public-Private Partnership models and foreign partnerships are highly encouraged to accelerate the pace of innovation.

Barriers

1.	Industrial entry regulation poses strict restrictions on the qualification of the service providers.
2.	The price of energy, water, raw materials, and natural resources remain heavily regulated.
3.	Arbitrary government interference and excessive dependence on government policies.
4.	Other fiscal and regulatory incentives for environmental protection are either weak or weakly enforced.

Market Characteristics

■ FOCUS AREA OF THE 13TH FIVE-YEAR-PLAN

Green growth comes across strongly as China's top priority. The 13th Five-Year-Plan set goals and plans for emissions reduction, ecological conservation including targets to reduce carbon and energy, and regulations to tackle air, water and soil problems.

■ MORE MARKET DRIVEN AND OPEN

China is moving away from being government driven to being more market driven (e.g. some renewable FIT expect to be removed by 2020). This is a positive sign for all market players. Government now encourages foreign companies to introduce leading environmental technologies to China and welcomes inbound and outbound investment in environmental sectors.

■ COMPETITION FROM LOCAL PLAYERS

Despite great potential of the market size and investment opportunity, China's clean-tech sector is not an easy playing field. Local market players are quickly adopting leading technologies by investing heavily in R&D and acquiring foreign technologies by M&A, which will pose pressures for new foreign entrants.

■ SEGMENTED MARKETS REQUIRE A PRECISE TARGET

China's clean-tech market should be viewed as a conglomeration of multiple sub-markets across different provinces and industrial sectors. This poses both difficult barriers for European firms to enter, as well as great opportunities if they can target beyond already well-exploited sectors and regions, focusing instead on, for example, Western provinces.

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Opportunity ranking criteria

1. Market size
2. Growth potential
3. Technology gap
4. Profitability
5. Industry barriers

Key Business Opportunities for EU Companies

1.	Waste water treatment technologies, including agriculture waste water treatment, vacuum evaporator technologies, organic fertilizer and pesticide, sludge treatment, industrial water treatment, and underground water pollution monitoring, etc.
2.	Fresh water treatment technologies, including ultraviolet water treatment, domestic and urban water purification technologies, disinfection of water from industrial processes and ultra-pure water, treatment of legionella technologies, purification of fresh or salt water in aquariums and aquaculture, disinfection technologies applied in swimming pools and spas.
3.	Waste management and recycling ² technologies, including clean incineration technologies, monitoring technologies on the emissions of incineration process, municipal waste sorting and recycling technologies, biological treatment on kitchen waste, non-membrane treatment technology and concentration technologies for landfill leachate, industrial hazardous waste treatment technologies, and soil pollution monitoring, etc.
4.	Air clean technologies, including low concentration VOCs treatment technology, biological treatment for organic pollutants, efficient VOCs purifying materials, and advanced air quality monitoring technologies, etc.
5.	Soil remediation technologies, such as low cost bioremediation and polluted farmland remediation technology, oil and chemical polluted remediation technology, remediation evaluation technologies and soil pollution monitoring technologies
6.	Biogas and Biomass technologies, including Aviation biofuel, Biomass pellet fuel, and Bio ethanol, Biomass Power
7.	Noise protection ³ technologies, including array muffler and other energy efficient noise reduction technology, new sound-absorbing materials and sound insulation materials, noise vibration control technology

Key local players



- Notes:**
1. Source: www.xinhuanet.com
 2. Waste management & recycling is the largest sub-sector by estimated market value (about € 569.6 billion). However, the unestablished waste collection and sorting system, public pressure on site selection and unclear pricing scheme will pose uncertainty for the future growth of this sector.
 3. The noise protection industry in China mainly focuses on noise and vibration control in infrastructure, manufacturing and electricity. The Chinese government has not yet implemented industrial standards or technologies transformation targets in this area.