China's ICT Market

Overview

IDC estimates that the Chinese ICT market will grow by 7% annually until 2025, when the market will exceed $6 trillion. The key factors driving this growth are increased consumption by China's burgeoning middle class, policies to upgrade China's industrial infrastructure, and an increasingly innovative tech ecosystem.

China currently has 721 million internet users and 46% mobile penetration. Improving mobile coverage in rural areas and continues urbanisation is driving technology adoption among lower-income groups. Around a third of all internet users live in rural China (approximately 200Mn people).

Government Policies

China has a number of key policies supporting the development of ICT market in China. These include:

13th Five Year Plan (2016-2020)	• Focus on innovation & entrepreneurship • Green Development • Big Data, Cloud Computing, IoT, Smart City technologies
Made in China 2025	• Upgrading China's industrial infrastructure • Intelligent manufacturing, Industrial automation, Energy and the environment, ICT, Fintech, data analysis and safety control.
Internet Plus	• Integration of Internet technologies with industry/business • 3 network convergence, fibre optic network construction, improving speeds
One Belt, One Road	• Policy to develop silk road economic belt • Development of the Digital Silk Road

China has a number of key Ministries with responsibility for implementing these national industrial strategies. Each of these Ministries has sub-administrations at a provincial or city level:

National & Development Reform Commission (NDRC)	• National industrial strategy and planning; Investment & infrastructure • Smart Cities Development
Ministry of Industry and Information Technology (MIIT)	• Main regulatory for ICT markets • Issues licences and approvals • Standards research and development
Cyberspace Administration of China (CAC)	• Reports to Central Leading Group for Internet Security and Informatization • Censorship, internet monitoring and cybersecurity
Ministry of Commerce (MOFCOM)	• International trade & investment • Regulation of general business

Local provincial and city-level government are also critically important in terms of local city planning, investment and infrastructure development. Local governments are responsible for implementation of national policies at local level, and critical stakeholders in terms of gaining access to government led projects (such as Smart City projects).

Industry Structure

China's Internet industry is dominated by three main players: **Baidu**, **Alibaba** and **Tencent** (referred to as 'BAT'). With Google, Facebook, Twitter and several other global tech players absent from the market, foreign SMEs have to adapt to a very different internet ecosystem. These internet giants span a wide and integrated range of of services, from eCommerce, search, social and gaming, through to personal finance, banking, and taxi-booking Apps.

The ICT sector in China is spread across a number of key cities. Shenzhen is major tech hub (particularly for electronics and hardware manufacturing), and is home to leading telecoms firms Huawei and ZTE. As key first tier cities Beijing and Shanghai also have significant technology parks and clusters as well as HQ locations of numerous domestic and international tech companies. Hangzhou is home to Alibaba, while Chengdu and Dalian have both developed important centres for software, cloud computing and outsourcing.

China also has a thriving ecosystem of technology incubators, science parks and investors helping to fuel ICT innovation. China has more than 1,600 technology incubators across the country, more than 750 government-guided funds, and a number of large private equity and venture capital funds helping to fund innovation in the technology space.

China's Key Tech Clusters

Opportunities for Foreign ICT Firms

As China moves up the value-chain and looks to foster an innovation-based growth model, opportunities look set to strengthen for overseas ICT vendors. Business-to-business ICT sub-sectors tend to offer the most promising opportunities for UK tech firms - especially in tech areas where China lacks indigenous vendors/solutions. Sub-markets with regulatory restrictions on foreign technology or with strong local Chinese incumbents (such as the telecommunications market) continue to remain challenging for British tech firms.

Niche areas where UK tech has seen some success in recent years include: hardware (such as core IP, semiconductor chip design), enterprise software/SaaS, Internet of Things (IoT) technologies, data analytics/big data, and healthtech. Fintech, gaming, and virtual/augmented reality are areas where further opportunities for close collaboration between the UK and China are expected in the future.

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Cultural Challenges

Chinese culture acts as a significant market barrier, particularly for consumer tech firms, where products (such as Apps and Games for example) may not resonate with local preferences or lifestyles. Equally, foreign tech firms often have to adapt to a very different business culture and invest time in building strategic relationships with commercial partners and government.

Regulatory Barriers

Regulatory restrictions are often the biggest market barrier for foreign ICT firms. For example, foreign companies are prohibited from providing basic telecom services (BTS), and while restrictions on foreign vendors providing Value-Added Telecom Services (VATS) have been relaxed, obtaining licences remains a challenge. Similarly, any UK firms exporting electronic equipment to China may need to obtain China Compulsory Certification (CCC), or network access licences. Some technologies and services are prohibited altogether for foreign ICT firms, or may require a majority Chinese joint venture partner.

There are also restrictions on online publishing for foreign companies, and Apps cannot be distributed in China without a local publishing partner. There are strict rules on censorship of content distributed online or via apps, and a strict reporting process that all vendors must adhere to. Similarly, any software imported into China should first be registered with the authorities. Foreign vendors are prohibited from hosting Software as a Service (SaaS), and may need to consider licensing to third parties instead.

Hosting barriers also pose a significant challenge. Any company looking to host a website in China has to apply for an Internet Content Provider (ICP) licence, which in turn requires a local business licence from a PRC registered entity. Only companies with an ICP licence can apply for local hosting in mainland China, or set-up a local Chinese website. The problems associated with the 'Great Firewall of China' and poor internet functionality in China means that using servers hosted overseas leads to poor download speeds or performance. There are also some restrictions on what data can be hosted overseas, and some enterprise clients may insist upon local hosting.

Intellectual Property

Protecting intellectual property is still a major challenge for foreign ICT companies in China. While IPR legislation in China continues to strengthen (with China accounting for the largest number of patent applications worldwide), there remain inconsistencies in IP enforcement across the country. Registering IP in China, carrying out due diligence on local partners, and innovating to stay ahead of potential infringers are all requirements for tech & digital firms wishing to protect IPR when entering the market.

Further Support

CBBC can provide advice, bespoke research and introductions to potential partners. Visit the CBBC website at www.cbbc.org to download the following reports:

- **China Business Handbook**
- **EU SME Sector Report - The ICT Market**
- **EU SME Sector Report - Smart Cities in China**

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