CHINA
TOP SECTOR HIGH TECH: ICT SECTOR
OPPORTUNITIES FOR DUTCH COMPANIES

Holland
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1.

INTRODUCTION OF CHINESE IT INDUSTRY

Information technology has made great changes to our world, and it will move on to every corner of our society and daily life in the long term, and naturally we find this same trend in the Far East. China's IT industry has been expanding very rapidly over the last two decades and it has become a key industry in the country's overall economy. In the current 5-year plan the Chinese government stresses IT as one of the seven strategic industries that needs to help China to move from a cheap-labor manufacturing outsourcing location to a world-class innovation-driven high-tech society. Stimulated by foreign investors and many (small) domestic private players the sector has already proven to be highly creative and innovative over the past years. The road for China may still be long, but the country's impressive development over the last few decades and the growing importance of IT, seem to indicate that the conditions for entrepreneurial opportunities in this sector are promising.

The Chinese government stresses IT needs to help China to move to a world-class innovation-driven high-tech society

We write this report for Dutch SMEs in the IT industry, which are interested to look into the opportunities China could offer them. The Chinese IT Industry offers many opportunities for these enterprises, especially in some sub-sectors and regions, which we will try to point out in this report. Although setting up an enterprise and operating in China has its difficulties, we believe researching opportunities that China offers are interesting for all Dutch IT companies. In this report we will first give a brief introduction on the industry and share some insights on the opportunities and difficulties for foreign parties that wish to enter the Chinese market. Secondly we will discuss three different cases of Dutch companies that have been active in different regions in China, and whom will share their lessons learned. After we provide some more practical information and attention points related to 'doing business in the Chinese IT Sector'. We hope that this report will help to gain a first understanding of the industry, and provide you the background needed to make a good judgment on the potential for your company in
China.

1.1   THE IT MARKET AND ITS FOUR SUB-SECTORS

China's IT industry is large and complex. It covers a wide range of products, companies and sub-sectors. China is considered the manufacturing hub of the world's most electronics. Considering the size of the country numbers are impressive. The country has the most Internet users worldwide (500+ million, rising from a mere 22 million in 2000). The number for mobile phone users reached an astonishing one billion earlier this year, and the amount of social networking users (200+ million) and smart-phones (70 million) continue to grow unabatedly. China's IT market by spending (excluding telecom) is the fourth largest market worldwide (after US, Japan and Germany) with USD 104.5 billion according to Business Monitor International (BMI). China employed 2 million people in the software industry and now ranks as the second largest software-outsourcing destination (after India). The IT industry as a whole is expected to grow about 15% annually over the coming five years.

We can divide the IT industry into four main areas:

1.   Telecom
2.   Hardware
3.   Software
4.   IT services

The telecom part is a 'restricted' industry, which only allows foreign participation through Joint Ventures with dominant Chinese players (either large SOEs or private players that have very strong ties with the government). The hardware market is 'not restricted', but has already become a very 'mature' market with small margins and constant pressure on prices and profits. China is now the world's largest exporter of IT hardware such as laptop computers, mobile phones, and other electronic devices. Lenovo, Founder and Tsinghua Tongfang are currently the most famous Chinese PC makers. The last two sub-sectors 'Software' and 'IT Services' are much smaller than the previous two. China's Ministry of Industry and Informational Technology stated in 2010 that 'Software' covered only 8% and 'IT services' a mere 4% of China's total revenues in the ICT Market, but the last two sub-sectors provide more potential for foreign companies that wish to enter the Chinese market, since there is in principle no restriction on entering the market. Foreign companies can find their own niches, based on their experience and expertise. Software and IT-services now even fall into the 'encouraged industries', and can apply for preferential tax treatment in China, if a number of conditions are met.

1.2   OPPORTUNITIES IN SOFTWARE AND IT SERVICES

As outlined above, China (especially the eastern coastal provinces) has the ambition to become an innovative world player in the field of IT. New technological developments like next-generation mobile communications, next-generation Internet equipment, smart devices, Internet of Things, cloud computing and new displays are 'hot topics' in China. Expertise in these fields is needed, so foreign cutting-edge technology and knowledge is welcomed into China.

Expertise is needed, so foreign cutting-edge technology and knowledge is welcomed into China

Currently in China there are a large number of investments made into the development of new IT technologies. In the field of cloud computing for example, recently KPMG reported that China Mobile has planned investments of USD 52 billion over the next years to expand cloud services. Next to this, Chinese companies in other sectors like finance, healthcare, logistics, etc., are increasingly needing stabile and strong IT backup for their activities and start to be willing and able to pay premium prices for high-quality products.

Software outsourcing and IT services

China aims to become a hub for IT outsourcing. BMI predicts that outsourcing could rise significantly and account for more than 30% of China's IT services spending in 2013. China's government is pushing the development of this industry and has designated 20 cities as China Outsourcing Model Cities including Beijing, Shanghai, Dalian, Shenzhen, Tianjin, Hangzhou and Wuxi. Most major outsourcing companies and IT service providers are located in these cities; the revenue accounted for about 90% of the total in 2008. A majority of 47% of the revenues came from domestic buyers and only 21 percent from Japan and Korea, and 29 percent from U.S. and EU.

Although Information Technology Outsourcing (ITO) business accounted for over two thirds of the total outsourcing revenue, Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO) business are growing and it is anticipated that they will continue to grow. Most buyers come from the manufacturing and financial services industries. Furthermore, Chinese government agencies and the telecom industry are the largest domestic customers. In particular, Accenture (2009) notes: "…while the government is cited as most important source of business in next 3 years." China's advantages are that it is leveraging its relatively low labor costs, large supply of human resources and widespread high-quality telecommunications infrastructure. However as mentioned before, labor cost is rising significantly, particularly in the China Outsourcing Model Cities. It is therefore possible that outsourcing will focus further on the more high-end of the market.

However it is important to note that Chinese clients still frequently need to be 'educated' before they can fully embrace the solutions which foreign IT companies are offering them. Foreign companies that are looking for opportunities in the Chinese market should remember the following four points. First, it is important to focus on the small niches where they can leverage their quality and technological expertise.

Second, the company should be able to adapt its knowledge and solutions to the needs and characteristics of the local market. Third, many enterprises in China will require IT services in different geographical locations, enabling them to provide consistent service throughout China. Last, a 'famous' (international) brand name can be a crucial aspect in the final decision for Chinese clients.

1.3   THE CHINESE INTERNET

Next to opportunities for Software and IT Services, the Chinese web with its half a billion users impresses many people in the West. Yet foreign activity on the Chinese web is surprisingly low. One reason for this is that international giants like YouTube, Twitter, Blogger and Facebook are blocked in China, while other famous international sites like Google, Wikipedia and LinkedIn are (still) accessible in China. In general, the Chinese government prefers Chinese people to use Chinese portals and websites, since these are better controllable. Currently, many Chinese domestic users also prefer to access information, connect with friends, shop and play games through Chinese domestic sites and portals, since they have gotten used to these channels. Most of the current very successful Chinese Internet sites started off as 'copy-cats' from their Western equivalents, but over the years they have fine-tuned and tweaked their sites/features to optimize themselves for the domestic users, and in this way have won their hearts.

China aims to become a hub for IT outsourcing and has designated 20 cities as China Outsourcing Model Cities

Travel booking portal Qunar.com and the video site Tudou.com (which merged in early 2012 with long term rival Youku) are two of the few examples of Chinese web start-ups with foreign (co-)founders that made it 'big' in China. Qunar.com was co-founded by the American Fritz Demopoulos; Tudou was co-founded by the Dutch Marc van der Chijs, but both Van der Chijs and Demopoulos started together with Chinese partners. Meanwhile, the Chinese web is dominated by thousands of domestic players, of which Baidu, Tencent (QQ), Sina Weibo and Taobao (Alibaba) are currently

the four most powerful ones. In the gaming online industry we find some more foreign successful stories like the American Blizzard entertainments "World of War craft" that has been one of the top online games in China since it has been released in 2005 (even though it has faced multiple license problems over the years, and is forced to offer its game through a Chinese game-portal).

Online Gaming

Online gaming is one of the largest and fastest growing Internet businesses in China. With over 500 million Internet users, the largest online user base in the world, and two-thirds engaging in online game playing, the industry is one of the drivers of online business. Online gaming in China is a young industry, which grew from nothing in 2000 to a booming mature industry with a size of about USD 3 billion (2010) and expected to top USD 8 billion in 2014. The industry started when local companies became distributors and importers of Korean games to China. Primarily driven by China's growing Internet and broadband penetration, these early movers quickly became the major industry players with the largest revenues. By 2012 the industry has become a mature industry in which local companies encompass all elements in the value chain, from developing, publishing and distributing to selling. More than 65% of the online game market belongs to local software producers. In 2010, Tencent saw revenues push USD 1.4 billion, followed by NetEase at USD 749 million, Shanda Games at USD 680 million, Perfect World at USD 374 million, and Changyou with USD 327 million.

The industry can be divided into first and second tier local game companies. Large-scale industry players such as The9, Shanda and NetEase are the first tier companie,s which have the majority of the total industry profit. Specialized companies such as NineYou, 17Game, Kingsoft, Tencent and Perfect World are second tier players. Second tier players are often distributors or portal operators, releasing foreign games or producing local MMORPGs (Massive Multiplayer Online Role Playing Game). MMORPGs have developed a mature business model that has allowed them to dominate the Chinese market over other types of online games. Casual games such as online poker and Majiang are much less popular. One of the key success factors of companies such as Tencent and Shanda is that they follow a rule of simplicity; their games can be played with just a web browser and do not require specialized software, attracting a wider audience.

When researching the Internet Economies of the G20 Boston Consultancy Group reported that they expect the Chinese 'Internet economy' to grow to a size of USD 852 billion (catching up with the USD 1000 billion and the EU USD 1133 billion in 2016), and with that it counts as one of the top industries of the country. The Internet economy will grow from 5.5% (2010) to 6.9 % (2016) of the total GDP, and is larger than 'traditional' big industries like Real Estate, Education and Logistics. Online retail will grow from USD 72 billion (2010) to an astonishing USD 422 billion (2016). Even though growth in Internet economies can be found in all G20 countries, the growth

in China in absolute numbers is the highest (USD 526 billion). Therefore due to the continuing strong growth of the number of Chinese Internet users, money spent in e-commerce and online-gaming the Chinese Internet will surely provide interesting opportunities for everyone that can manage to get involved (both domestic and foreign).

1.4   CHALLENGES FACED WHEN ENTERING THE CHINESE MARKET

When planning to enter the Chinese market, one should not underestimate the entry cost in any way. Firstly, entering the Chinese market means being confronted with an enormous amount of competitors both international and domestic. Almost all the larger multinational software companies already have a presence in the market, and account for over 60% of the software market. Next to this you may never have heard of some of the dominant players like Neusoft, HiSoft, Kingsoft and Kingdee, but these companies are huge in China. Combined with thousands of smaller domestic players, these companies have a powerful grip on the domestic market. Secondly, the ambition to sell in the Chinese market mostly means a great deal of local customization is required (for instance Chinese language interfaces and different usage preferences). And next to this China is increasingly trying to implement some of its own 'new' (digital) standards such as the TD-SCDMA standard for third generation mobile telecommunications, which also requires investments in local customization.

You may never have heard of some of the dominant players

Thirdly, the Chinese market is very fragmented in many aspects, and sometimes it turns out to be very difficult to connect to clients and business partners in other cities/provinces. Most of the action is still in the coastal provinces, but there is a trend for companies and economic activity to move land inward. This inward 'push' is stimulated by the steep rising of the costs (both labor and operational costs) in the big cities and the rest of the coastal areas. Finally, entering an unknown market such as China will confront a company with huge difference in language, culture, society, legal system, etc. That will prove it difficult to make your business success. Therefore in order to enter the Chinese market successfully, Dutch companies will need to be able to point out their unique selling points, knowledge and experience together with the willingness to bring in their cutting-edge knowledge and technology from Europe.
Entering the Chinese market, as entering any market, brings along questions of protecting your competitive advantage. In IT sectors most competitive advantages are derived from intellectual property, such as patents,

trademarks, copyrights, trade secrets. On the books Intellectual Property Rights (IPR) protection in China is as complete and coherent as in most OECD countries - so-called law on the books. However, compliance to these laws and regulations is limited and enforcement is hardly effective. Nevertheless, many improvements have been made in the recent years, as evidenced by the increasing number of court cases and rulings not only in favor of Chinese firms or state but also to foreign firms. Furthermore, pressure from underneath, i.e. Chinese firms with increasing need for protecting their own intellectual property, are pushing improvements of enforcement of the law and prosecution of offenders. Last of all, formal legal IPR protection never was and still isn't the only way to protect intellectual property. Many would argue that it is hindering innovation. Open innovation movements, business model innovation and joint-innovation initiatives and practices prove there's a whole world beyond legal IPR protection, also in China.

E-commerce

The Chinese e-commerce market is with 173 million online shoppers (CNNIC 2011) only second to the US online shopping market. For many Chinese consumers the Internet is already an important daily part of the buying decision. In 2010 the e-commerce market had RMB 467 billion as transaction value, up from RMB 128 billion in 2008, doubling Japan and the UK. Every year 30 million new online shoppers are adding to these numbers. BCG predicts, "Online shopping will see exponential growth through 2014, with spending that could make China's e-commerce market worth more than RMB 2 trillion and possibly surpass the size of US market." While at present e-commerce is 3.3% of total retail value, it is expected to grow with 33% annually to 7.4% in 2015. The key players in the market are Tencent, Baidu, Alibaba, Sina. In particular Taobao is dominant (79% market share!) with 370 million registered users buying and selling on Taobao.com's C2C platform, 70.000 international and Chinese brands selling via Tmall's B2C shopping platform. An astounding 800 million products are listed and every minute 48.000 sales are made.

One success factor is the size and diversity of the Chinese market. Where top physical retailers just cannot reach enough customers via physical stores in hundreds or thousands of cities, Internet access is widespread. Online companies can outpace physical retailers. For instance, Vancl.com has become China's top-ten casual apparel brands (excl. sportswear) while selling exclusively online with expected 2011 sales of RMB 8 billion. Tmall is now even opening up physical stores so that customers can view the product before buying it online. You will see a shift from digital retailers to physical retailers. For example, Wall-Mart is trying hard to build up their digital retail division in order to secure their physical locations. The Chinese e-commerce market will continue to grow rapidly but may not ensure the profitability of leading e-commerce websites. Margins are tight because of high operational costs and intense price competition. The market is likely to form around top players, although smaller ones may survive in particular market niches.

1.5   OVERVIEW OF IT REGIONS IN CHINA

Since China is such a big country it is important to understand more about the different regions. In all the big Chinese cities you will find software parks and high-tech parks. These parks locate clusters of local and foreign IT companies combined mostly with a number of technical universities and other research centers. Currently the top six provinces/municipalities in terms of output, numbers of companies and sales revenue for the ICT sector are all based on the east and south parts of China: Guangdong, Jiangsu, Shanghai, Shandong, Zhejiang and Beijing. Although most of the actions are still in the coastal provinces, there is a trend for companies and economic activity to move inwards and following the 'Go west' policies introduced by China's central government a little over a decade ago. China's IT market is slowly entering a new phase, with growth driven to other place than the big coastal cities. Since 2009, the growth of ICT sales and investment in the mid-west region has surpassed the east region. Sichuan, Shaanxi, Henan, Hunan and Anhui provinces have seen an increase of over 35% in ICT investment. From a high technology perspective the coastal areas in China will remain dominant for now.

PRC, provinces and strongest IT areas in China

Overview and description strongest IT areas in China

Region	Description
Guangdong Consulate-General Guangzhou	In recent years, the main development in ICT industry has focused on computer, television and mobile phone. Guangdong is an important manufacturing centre of electronic and information products, with the headquarters of two giant companies, namely Huawei and Foxconn. Huawei is the largest China-based networking and telecommunications equipment supplier and the second-largest supplier of mobile telecommunications infrastructure equipment in the world. The Taiwanese Foxconn is the world's largest maker of electronic components and the largest exporter in Greater China. As the top telecommunication province, Guangdong is contributing to 11% of national telephone users as well as the Internet users in 2011. Guangdong is contributing to 1/3 of China's ICT revenue. Guangdong accounts for 49% of China's software export, covering over 100 countries, which makes it no.1 in China.
Jiangsu NBSO Nanjing	The ICT industry is one of the six focus sectors of Jiangsu province and has developed rapidly in recent years, making the capital Nanjing one of the top destinations for software development and service outsourcing in China. Focus is on outsourcing, software development and the Internet of Things. Currently some large projects such as Nanjing Software Valley are under construction in an attempt to further strengthen Nanjing's national and international position in this sector. As one of the top 3 academic centres in China, Nanjing benefits from having a large young and educated workforce, while costs are still lower than in first tier cities like Shanghai and Beijing.

Region	Description
Shanghai Consulate-General Shanghai	IT investment is seen as a key part to build Shanghai into a world-class financial and shipping center, and it is likely to generate spending in areas such as energy-efficient datacenters, cloud computing, mobile Internet, advanced software and supply management systems. In Shanghai, ICT development zones and industry parks are mainly located in Pudong District and Yangpu District. Famous industry parks include Fudan Software Park and the Knowledge and Innovation Community (KIC). In August 2010, the Shanghai Cloud Computing Industry Base has been established in Shanghai Shibei High-Tech Park in Zhabei District as part of Plan for Promoting Cloud Computing Industry in Shanghai 2010-2012. It will build the first domestic commercial public platform of service based on cloud computing, and it forecasted to reach a turnover of RMB 5 billion within 3 years.
Shandong NBSO Jinan NBSO Qingdao	Capital Jinan is "China's second Software City", honored by China Ministry of Industry and Information after Nanjing in 2011. Strong ICT sub-sectors in Jinan are outsourcing, software development and cloud computing. In Jinan, a talent pool has been built with around 50,000 graduates from Jinan universities and institutes in the field of software development, computer technology and finance. Costs are 1/3 lower compared to Beijing and Shanghai and employee loyalty is among the lowest in China with less than 5% compared to 25% nationwide. Jinan government executes a preferential policy for investors in the ICT sector. In Qingdao, software parks (e.g. Qingdao Software Park and Qingdao International Animation and Game Industrial Park) are established to attract national and international well-known software and animation companies are located there.

Region	Description
Zhejiang Consulate-General Shanghai	Today, the key drivers of economic growth in Hangzhou, the capital of Zhejiang Province, are creative industry, e-commerce, software, IT services and Internet of Things ("IOT") industry. Hangzhou is the "Capital of e-Commerce" in China, and more than half of the total revenue from e-commerce services in China is coming from this city. Chinese online shopping giant Taobao is also headquartered in Hangzhou. By the year of 2009, Taobao had 170 million members and was expecting many more registrations. According to statistics, Taobao processed RMB 20.83 billion worth of payment during 2009 and the transaction increased to RMB 40 billion in 2010, standing out as the giant of retail platform in Asia.
Beijing Embassy of the Kingdom of the Netherlands Beijing	Beijing, especially in Zhongguancun, hosts a range of international top universities as well as a high concentration of R&D organizations. Zhongguancun Science and Technology Zone is also known as the Silicon Valley of China. This was the first officially acknowledged high-tech development zone. Nowadays research is not only conducted and subsidized by the Chinese Academy of Sciences (CAS), but also by R&D-centers of multinationals as Nokia, Ericsson, Motorola, Sony Ericsson, Microsoft, IBM, Sun, Oracle, BEA, etc. The government wants to improve the investments climate for high-tech companies in Beijing and therefore stimulates cooperation with research institutes. Opportunities in Beijing are predominantly in the Telecom sector.
Liaoning NBSO Dalian	Harbor city Dalian has developed itself into one of the most dynamic and prosperous cities in the Northeast China. Today, Dalian is the most established information technology outsourcing (ITO) and business processing outsourcing (BPO) city in the PRC and among the top ITO and BPO destinations in the world. Since the 1990s Dalian City has emphasized the development of the IT industry, especially in Dalian Hi-Tech Zone and Dalian Software Park in the western suburbs, which is near Dalian University of Technology. Most of the high-tech companies are located in the Dalian High-Tech Industrial Zone. Dalian has remarkable strong business relations (also concerning IT export) with both Korean and Japanese markets due to its location and history. Shenyang is the capital of Liaoning province and also has a fast growing IT industry.

Region	Description
Sichuan NBSO Chengdu	The ICT industry in Chengdu (capital Sichuan) covers ICT design, software outsourcing, applications, digital entertainment and information security. As one of the top national software bases in China, currently over 700 enterprises and 150,000 employees are active in the software sector in Chengdu. Most of the software companies are located in Tianfu Software Park (launched in 2008), which is part of the state-level Chengdu Hi-tech Development Zone. Chengdu is currently attracting large investments in the service-outsourcing sector. It has a huge talent base in software engineering and the local government is deeply involved in developing this sector. According to several Dutch entrepreneurs, the city's living environment and young workers' force makes it a preferred city for setting up a company.
Hong Kong Consulate- General Hong Kong	Hong Kong (HK) is a regional centre for international media and multimedia data centers. Recently HK, Chinese and western companies are investing heavily in data centers in HK. Major ICT infrastructure such as data centers supports the operations of Financial Services, Trading, Logistics, IT/Telecommunications and Content/Media. Under the 'one country, two systems' policy, HK has a distinctively different judicial system than the mainland of China, based on rule of law. This makes HK attractive for companies in patent and copyright sensitive industries, as they have stronger judicial protection. Although Hong Kong has excellent university programs, there is a lack of experienced IT service specialists.

1.6   CONCLUDING REMARKS

To summarize, the Chinese IT industry is already extremely large, it enjoys quick developments and plenty of government investments and preferential policies that stimulate growth. For Dutch companies there are profitable projects to be found in the coming years, especially in the field of software development and IT services.

The competition in the market should not be underestimated in any way

However the (inter)national competition in the market should not be underestimated in any way. A clear strategy and understanding of what added value you bring to China is needed to success in the market.

Cloud Computing

Cloud computing is a recently emerging sector (since 2007), which increasingly becomes a source for economic growth in the IT industry in China. With a growing number of cloud computing service providers, solution providers, system integrators, infrastructure and devices providers, a dynamic cloud computing ecosystem is gradually forming. Companies like Huawei and ZTE also Alibaba, Sina, Baidu and Kingdee are providing cloud based and SaaS solutions. China Mobile, Alibaba and Lenovo along with Microsoft and IBM are offering consumer and business cloud services in China. For instance, Microsoft has established a Cloud Computing training center in Hangzhou, IBM has set up a Cloud Computing center in Wuxi and Dell has signed an MOU with Chinese Infobird to develop cloud based services. Recently Chinese start-ups such as ChinaNetCloud are developing server management and operations services.

The growth prospects of this industry vary widely but are promising. The Asia Cloud Computing Association project owns an expected possible market of USD 154 billion over several years; KPMG reports that China Mobile has planned investments of USD 52 billion over the next years to expand cloud services. In 2010, cloud computing was an important reason to list 'New IT' as one of the new strategic industries in China's 12th Five Year Plan. The government has established a Cloud Computing Special Fund, which, as of October 2011, had made an initial investment of RMB 660 million in 15 pilot projects in Beijing, Shanghai, Shenzhen, Hangzhou and Wuxi. In June 2010 President Hu Jintao called Cloud Computing a "powerful tool".

A recent survey by Accenture, however, shows that the developments are moving slowly. Less than half of the companies they surveyed are exploring cloud computing, with only a small percentage actually using cloud computing. However, the expectation is that within two years more than 80% of companies will have started exploring the cloud. The main obstacles are inexperience of users, lack of knowledge and limited infrastructure to support, security fears, waiting for regulation from government. Moreover, whereas cloud computing is often seemed as a new source for innovation, in China the main drivers are mostly efficiency and cost reduction.

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For those Dutch companies who are interested to explore their opportunities in the Chinese market, in the second part of this report we represent three stories of Dutch companies that successfully entered the Chinese market, and we will list a number of practical issues foreign companies have to take into account when considering the Chinese IT market.

2.   DUTCH IT COMPANIES AND PRACTICAL ISSUES

Companies or individuals who are considering founding a company in China will deal with a range of questions varying from choosing a location, ownership form, labor cost and recruitment. We interviewed three Dutch entrepreneurs who started up an IT company in China. In this chapter you can read their stories, what challenges they faced and how they managed them. In the last part of this chapter we provide some more general insights and tips useful for those interested in setting up an IT business in China.

2.1   WEBPOWER, FROM ZERO TO HERO IN CHINA IN SIX YEARS

Based on an interview with CEO Jacco Bouw

Webpower is a Dutch email marketing company founded in 1999 as a small two-man business. In 2006 Webpower started to focus on the Chinese market. In total Webpower has now five offices in Europe and is planning to open its fourth office in China by the end of 2012, where it is now the market leader for email marketing.

In 2005 Webpower was a market leader in the Netherlands, but it foresaw that the small Dutch market would not be enough for them to stay in business on the long term. You need big volumes to be able to offer the low prices needed to stay competitive. Beginning of 2006, Webpower opened up two new offices. One in Sweden, because it is an innovation hot spot in Europe, and one in China, because of the huge potential the company saw in this market. CEO Jacco Bouw hired a Chinese born student in the Netherlands, Jay Xie, to help him set up the business in China. After a quick scan they chose Shanghai as the initial city to focus on.

In the beginning a lot of time was spent on educating the clients about the services Webpower could offer them

The first 14 months in China were very difficult for Webpower. The company found that clients misunderstood them for 'spammers'. In the beginning a lot of time was spent on educating the clients about the services Webpower could offer them. During the first year the company also experienced a lot of 'technical' problems in China, like for example web-servers that didn't work properly, or cables were removed without prior notice, causing many emergency calls to the Dutch headquarters in the middle of the night.

The company opened initially as a Representative Office (RO), because this was the cheapest company structure. This turned out to be a mistake. After

the business slowly started picking up, a Wholly Foreign Owned Enterprise (WFOE) -structure was required to issue invoices. To set up a WFOE the RO needed to be officially closed down first. This process was bureaucratic and time consuming. The opening of the WFOE was another struggle, since the 'business scope' needed to be written down perfectly, which was very difficult since Webpower is operating in a new market. International consultants were struggling on the paperwork of the WFOE for months without success. In the end a local Chinese office was able to do the job. Bouw: "It is the Chinese that really know how to deal with the Chinese law and regulations".

The opening of the WFOE was a struggle, since the 'business scope' needed to be written down perfectly

In 2009 Webpower bought a Chinese email marketing company in Beijing, and in 2012 one in Xiamen. The WFOE in Shanghai remained the main office in China. In both Beijing and Xiamen Webpower has opened up RO's, supporting the business development in China. All the invoices have to be sent from the Shanghai WFOE.

In cities like Shanghai and Beijing the competition is getting fiercer, and profit margins smaller

On the HR side Webpower is completely Chinese. All the 75 staff is Chinese and Jay Xie (the Chinese student hired in the Netherlands in 2006) is still the General Manager of Webpower China. In 2008-2010 Bouw spent more time in Shanghai then in the Netherlands. But now he stays less time in China. His experience with Chinese staff is very positive. Everybody can speak English (which is the corporate language). Besides, all the people with a managing function in the company studied in Europe (four of them studied in the Netherlands). At the same time Webpower is proud to be a company run by local Chinese, and likes to refer to itself as 'a Chinese company with Dutch roots'.

The six years in China have been very good for Webpower. In 2012 they plan to open up an office in a second-tier city in the middle of China. In mid and western China Webpower sees a whole new market ready to be conquered, while in cities like Shanghai and Beijing the competition is getting fiercer, and profit margins smaller. Another advantage of having an office in a second-tier city is that it gives a positive signal to (especially Chinese) clients, showing them that you are preparing for the future and looking beyond what is happening at the coast.

Last year, together with Marijn Driessen, Bouw wrote the book 'Face IT', about digital marketing to China's Netizens. Moreover, Webpower won the Cathay Pacific China Business Award. Bouw's advice for Dutch IT companies that are looking at the Chinese market: "China is more than a location for outsourcing, Chinese companies nowadays have the need and also the capital to invest into good software and IT services, don't miss out on this opportunity!"

2.2 NOLDUS INFORMATION TECHNOLOGY, ACADEMIC RESEARCH SOFTWARE IN BEIJING

Based on an interview with president of Noldus Information Technology, Lucas Noldus

Noldus Information Technology is a company that develops and markets software for animal and human behavioral research. The software programs of Noldus are used, among others, for pharmaceutical research in the field of psychiatric and neurological diseases. Lucas Noldus, founder of Noldus Information Technology, made his first steps in China in 1984 as a fresh graduate in Biology from Leiden University, the Netherlands. He worked as a researcher for Beijing Normal University. After a while he returned to the Netherlands to do his PhD in Animal Behavior at Wageningen University. In 1989 Lucas Noldus established Noldus Information Technology in the Netherlands. In 2008 Noldus started a Representative Office (RO) in Beijing and in 2011 the company changed its legal entity to Wholly Foreign Owned Enterprise (WFOE). Currently the company employs six people.

Lucas Noldus made his first steps in China in 1984 as a fresh university graduate

The process leading to the establishment of the Chinese company took several years. Building up a good network and good personal relationships are the key success factors in this process, according to Noldus. These relations are needed before any business can be done. It is a long process and Noldus perceives it as rather inefficient; "In the Netherlands, we are much more direct and uncomplicated". In the years before starting his own business in China Noldus visited China several times. He always kept in touch with the relations from the time he used to work in Beijing. Since the Dutch mother company has been doing business with China already for several years, they had built up their network before they actually started the Chinese branch. Noldus focused on Beijing and Shanghai for the base of the company. Both regions have a strong pharmaceutical industry, which is important for Nol-

dus' business. Besides that Noldus' most important clients were academic institutes. The top universities, CAS institutes (Chinese Academic of Science) and other research centers are located in Beijing. This made him decide to choose Beijing as a location.

In the interaction with Chinese people, misunderstandings and cultural differences are still daily problems

The setting up of the RO was a bureaucratic process. Through the Netherlands they hired a law firm, which was able to handle the Chinese/Dutch language and arrange all the paper work in these procedures. The process went smoothly yet took a very long time. Also the procedure to transfer from RO to WFOE took several months. At the time of setting up the RO, Noldus had only one employee in China, the Chief Representative who later became the General Manager. Gradually the company hired more staff, all trained in the Netherlands for a period of three months. During the training Noldus was able to get to know the people very well. Until now, this method has worked out quite well. However, in the interaction with Chinese people, misunderstandings and cultural differences are still daily problems for him. For example, on management issues the General Manager only takes approvals by Noldus and not by the financial controller. Hierarchy is more stringent in China. The communication could be more efficient.

Over the last years Noldus's business in China developed well. In the list of highest revenues China went up from being number 10 to the fourth largest country, after the United States, Germany and France. In the coming years Noldus will focus on direct sales through the newly established WFOE and wants to extend the activities from research institutes to the industry.

2.3   BLUE MARLIN, A SMALL GAMING START-UP IN CHENGDU

Based on an interview with CEO Walter Tak

Blue Marlin is a very 'young' company in China, which develops internet-based games for desktop (Flash), mobile (iPhone, Android) and tablets (iPad, Android). It has clients in the US and Europe. Walter Tak took four years of gaming software development experience and 15 years of general internet and IT development experience with him to Chengdu when he started to work there for a Dutch IT company in 2010. One year later, fascinated by the speed, the dynamics, IT developments and opportunities, he decided to start his own company Blue Marlin.
The first step for him was to formally set up the company. Blue Marlin is

registered as a Wholly Foreign Owned Enterprise (WFOE), which is the most popular and common form nowadays for foreign investments in China. In order to understand the local market conditions better, Tak cooperates with a Chinese business partner. The business partner is his former colleague who has a valuable local business network and understands how to get things done in the area. The actual registration process for setting up the company was very bureaucratic. Tak and his business partner did as much as possible by themselves. It took them four months to get their business license. "With hindsight I would have outsourced more", he says. Tak set up a holding company based in Hong Kong. It was easier to deal with the HK laws (based on the British law) compared with the Chinese laws. "Chinese law is hard to understand. Very often different interpretations are possible, which can make operating in China risky."

Blue Marlin is registered as a WFOE, which is the most popular and common form nowadays for foreign investments in China

The second step was recruiting employees. Blue Marlin uses the Internet to find their candidates. There are many websites that you can use, such as www.zhaopin.com and www.51job.com. Chinese people expect the recruitment process to be fast and thorough as people find jobs within a week time. To hire one person you need to invite at least 10 to 15 people for a vacancy. Although on paper the candidates all look qualified for the job, in practice this is not the case. You definitely need to check their technical skills during the interview. The employee turnover rate is high, so you constantly have to be able to temporarily take over someone else's job, if he/she leaves unexpectedly. However, working with Chinese employees also has its advantages: (1) in general people are highly educated, (2) wages are much lower compared to the Netherlands (normally about four times lower and about 50% lower for top-talents), and (3) Chinese are very ambitious.
Blue Marlin's goals for the future are: (1) gradually grow the company to around 20-30 employees and (2) start serving the Chinese domestic market. For the second goal Blue Marlin already has to review the 'business scope' as registered by the Chinese authorities of the company, because WFOE's do not automatically have the right to distribute their products in mainland China. It will probably be another difficult bureaucratic process before this will be possible.

2.4   PRACTICAL ISSUES

From the experience of these entrepreneurs and a wider understanding of the business environment, we identified a set of important considerations for IT entrepreneurs in China.

a. Choosing a business structure

Wholly Foreign Owned Enterprises (WFOEs) are the most common vehicles used by foreign companies when setting up a manufacturing company in China. It is easier to protect intellectual property rights using a WFOE rather than a riskier joint venture. The advantage of owning your own company is: complete control. From the interviews with the Dutch companies we can also find that all three operate as a WFOE, even after starting out as a Representative Office at first. Notice that the costs for setting up a WFOE are higher than a joint venture and certain requirements have to be met.

When setting up a company, it is extremely important to know the relevant industry regulations before you start the registration process. When registering a WFOE, the key is to get a wide scope of operation when you apply for a license. This can keep future costs down and allow you to run other operations as your business changes. The worst-case scenario is a company finding itself unable to perform some 'assumed' functions. It is very difficult to change the business scope or articles later, so it is essential to get this right from the start. Blue Marlin's experience clearly indicates that it is advisable to seek help from professionals who understand the registration process and your particular needs.

Forming a joint venture (JV) is a complicated process and it can be difficult for foreign companies to negotiate a favorable position. You need to have a very good strategic or regulatory reason to go down to the JV path.
It is notoriously difficult and if you can use a WFOE, do so. The past has shown many JV failures because of mismatches in expectations, concerns over conflicts of interest, violations of intellectual property rights, difference in business culture, poor checks and balances in the organization or poor choice of JV partner (do due diligences checks before going into business). There are however also some very successful JVs.

Another company structure mentioned in the interviews is Representative Office (RO). This structure has as main disadvantage that you are not able to issue invoices (for the simple reason that you are not allowed to make money in China with this company structure). The interviewed Dutch companies in the end all set up WFOEs, because that way they are able to issue

invoices and receive payments in RMB that can then be remitted back to the Netherlands after taxes have been paid.

b. Human Resources

Human resources is often seen as the number one challenge for foreign companies in China. The most important aspects of employment are to hire and to retain loyal and dedicated staff in key positions. Talent recruitment and retention, high turnover rates, shortage of managerial talent and lack of availability of skilled, technical or professional workers are among the top concerns of foreign companies in China across virtually all sectors of business and industry. Companies need to take into consideration the amount of time that is needed to find experienced and capable managers/staff for the local entity.

It is of great importance to have an experienced and capable manager for the local entity. This can be a foreign or a local Chinese person - both will have advantages and disadvantages. A foreign manager will be more expensive and might not have the necessary experience in China. However, he/she might have a better understanding of the product and the companies' needs. Communications with the HQ abroad goes smoother, simply because there are no language and cultural barriers. A Chinese manager can be an excellent choice to sell the products in the market and will also be less expensive. He or she will know how to manage Chinese employees, though in many cases lacks transparency and the ability to work in a matrix mentality. Furthermore, differences in work culture will put a strain on communications with the HQ abroad. Webpower chose a young Chinese GM with a very Western mindset who studied in the Netherlands, which was an important foundation for the later success of Webpower. Blue Marlin works as a partnership between a Western IT-expert and a local Chinese, with the relevant network and understanding of the local market.

Labor costs for skilled professionals in China are not as cheap as they have been in the past. Competition for retaining skilled employees has risen, which has resulted in higher salaries, especially for experienced programmers, sales managers and General Managers.

c. Intellectual Property Rights

IP protection begins with the investing foreign company itself. Whether you are involved in hardware, software, telecommunication, value added

services, IT services or any other ICT company a well-planned and executed IP strategy is the first step towards overcoming this challenge of the Chinese market. European companies who do not think carefully about how to guard against IP risk when transferring technology to China may unwillingly suffer a loss of competitiveness and market share as a result of losing their IP to Chinese competitors.

Several types of IP can be registered in China including trademarks, patents and copyright. Trademarks and patents must be registered to be protected and although copyright is an automatic right, registering is highly recommended. Some of your technology and know-how can be protected through these rights while some aspects of your business will be better protected as a trade secret.

Note that software is considered as "technology" in China. The most common way for European companies is to transfer their technology by licensing or by transferring of the IP rights, such as patents, designs, software, trade secrets and know-how. Technology imports in China are divided into 'freely importable', 'restricted' and 'prohibited'. Check the Catalogue for Prohibited and Restricted Technology Imports and the Foreign Investment Catalogue to ensure your proposed technology can be transferred to China.

Software developed in China will be owned by the person or the company who developed it. If a European company wants to get the ownership rights of such software developed by a Chinese company, it should be assigned back to the European company. If the software is designed for sale or distribution in China, further requirements must be fulfilled, among others the recordal (if non-profit purpose) or approval (profit purpose) by the Ministry of Industry Information.

For more information contact China IPR SME Helpdesk:
www.china-iprhelpdesk.eu

3.

IN CONCLUSION: CHINESE IT MARKET SWOT-ANALYSIS

To conclude we can say that the Chinese IT market has potential for Dutch companies, but we need to acknowledge regional diversity. We emphasized the particularly interesting emergence of certain sectors in the first chapter. Please find below our SWOT-analysis for the Chinese IT sector.

Strengths
Firstly when looking at the strengths of the Chinese IT market we can say the following:

- China has a huge domestic market and high and sustainable growth can be expected in the Chinese ICT market.
- China is still a low cost country for manufacturing of hardware and electronics, China nowadays is an experienced manufacturer and many of the first-tier and second-tier suppliers are based (or at least have a base) in China.
- The emerging middle class has money to spend.
- An increasingly sophisticated consumer market demands for new and better products/services.
- Strong local IT companies providing opportunities for cooperation that are more or less fair (not only about the transfer of technology of the foreign party to the Chinese party) and for localization and market access.
- The software parks, high-tech parks and other similar parks located in first and second-tier cities in China help you to find clusters of (high-tech) IT companies, mostly combined with research centers and universities. These 'hubs' make it relatively easy to choose the right location to set up shop in the city of choice in China.
- The digitalization requires a new type of labor to meet future demands of the IT companies. Chinese universities have abundance (in volume) of graduates in the field of technology and computer science. This secures Chinese companies with an inflow of technical labor. US and EU companies are already recruiting from all around the world to find programmers to support the growth of their business.

Weaknesses:
- Legal and regulatory framework is still in development, which could have unexpected consequences for the business licenses/scope of the company or other key areas affecting the business model (tax, HR, etc.). For the legal and regulatory framework the differences between the various regions can also be large.

- There is a strong unbalance in regional development, making the choice of your location crucial.
- The IPR law might already look sufficient, but the enforcement is still relatively weak. The good news is that the number of patents hold by Chinese companies is growing rapidly (the number of Chinese patents applications in 2009 was almost 3 times that of foreign applications). The fast growth in Chinese ownership of patents will probably create more pressure for improvements in the enforcement of the IPR laws. Moreover, Chinese government and companies have a stake in a well-functioning IPR law. With the increasing rise of the digital retail industry, protecting and enforcing IPR are becoming crucial to attract foreign content providers and producers.
- Poor management and marketing skills of domestic companies, and also local hired staff can create problems.
- The Chinese IT sector has a large government market, which is dominated by large domestic players (that tend towards offering fully vertically integrated solutions to their clients). Generally the Chinese government is biased to work with Chinese companies.
- Even though there is a growing surplus of young high educated Chinese graduates, experienced IT-professionals and high-quality programmers are not easy to find, to retain and definitely not cheap.
- The development of the Chinese web is affected by the strong censorship opposed by the Chinese central government. Both by 'blocking' certain sites and information online, as well as 'internal measures' that companies need to follow to comply with the censorship rules.
- The development of Chinese domestic standards (e.g. SCDMA) makes the Chinese market less accessible for foreign parties, and could in some cases require more costs for customization when entering the market.

Opportunities:
- The IT Sector has been declared one of the seven Strategic Emerging Industries in the 12th Five-Year-Plan (2011-2016) and strong government support and investment can be expected. The goal set for these seven strategic emerging industries is to grow from 2% GDP (2011) to an impressive 8% GDP by 2015, mostly in the coastal areas. This will generate strong support and investment in cutting edge IT developments, and both foreign and Chinese companies in these industries can apply for tax benefits.
- Opportunities for large expansion in under-penetrated rural and western areas.
- A growing need amongst Chinese companies for an advanced and stable IT backbone. Chinese companies are more and more willing and able to pay for high-quality software and IT services.

- In January 2011 the government made a 50% cut in import tariffs on some electronic products such as laptops, digital cameras and computers. This move helps foreign players to compete against the Chinese domestic players.
- In 2010 Chinese government initiated the second phase of a subsidy program to support the usage of computers and other consumer electronic devices by people in the rural areas. This stimulates the large growth of the Chinese web and IT usage.
- The Chinese gaming industry and e-commerce are booming. More and more Chinese people are enjoying leisure activities on their mobile phone wherever they go.
- Although the low costs advantage of China is slowly disappearing (at least on the more developed East coast), there is still a large supply of relatively 'cheap' labor, if compared to the situation in EU or US. This creates opportunities for profitable business models in the field of labor intensive IT products and solutions. For example, the transformation of physical books into digital books (Epub format) requires huge amounts of labor.

Threats:
- Software specialists brain drain to hot spots in Singapore, Japan and elsewhere.
- The alarming stages of some of the country's internal problems/challenges on issues such as inequality, environment, inflation, unbalanced development, could bring the country's economic and political stability in danger, affecting the opportunities and success for all businesses.
- Currency appreciation, making outsourcing activities and other business investment in China more expensive for Dutch companies. However for selling software to Chinese companies a stronger Chinese currency could help to make foreign companies more competitive.
- Steep increases in salaries and operational cost on the coastal areas.

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