APRIL 2012

Technology investment report
Unlocking growth potential in emerging markets

Contents

Foreword

As financial advisers to the technology industry, one of the most common questions we're asked is "How can my business expand into new markets?" Every business that asks this question has varying challenges, but their ambitions are the same – growth.

To help respond to this question we conducted research to investigate the strengths and weaknesses of some of the UK's top current countries for investment, including our own domestic market, through the eyes of mid-sized businesses and our own specialist sector experts. As part of this, we explore the level of appetite and the encouraging factors such as the opportunities offered by the R&D conditions, the confidence of the equity support and available tax breaks, whilst also examining the potential pitfalls.

The findings of the report highlight that both the hurdles of the UK downturn and the Eurozone crisis have contributed to planned investment by UK technology companies in global markets proving low, with three quarters of our survey respondents having no plans at all to push beyond existing markets. This is a concerning statistic, however, when you consider this against the comparatively huge opportunity in the fast-growing, tech-friendly economies of India, China, Brazil and Israel. As the case studies cited in this report identify, international expansion into these countries, approached in the right way and with the right support, can pay off.

Furthermore, the US, Australia, Germany and the Netherlands have come consistently top for international expansion in comparison to other markets and there remain some attractive business cases hinting opportunities for growth. For example:

- US technology jobs in the past year, have outpaced the overall rate of new employment nearly four times.
- In 2010, investments totalling 26 billion euros were made in Germany's renewable energies sector, presenting great opportunities for innovation and R&D.
- The report identifies that these markets remain attractive to UK technology companies because they offer a familiar business environment, language commonalities and access to high skills.

Many of our clients have international operations or aspirations. With the right advice, funding and local support, there are opportunity areas that offer some solid foundations for overseas expansion. With expertise across 100 countries, Grant Thornton International Ltd member firms specialise in supporting technology companies to assess when the time is right, prepare and to implement their expansion plans.

We hope that you find this report useful and look forward to supporting you in your ambitions for growth.

Wendy Hart
Head of Technology Sector Group
Grant Thornton UK LLP

Technology Expansion Index

The Grant Thornton Technology Expansion Index has been constructed to cover the most important aspects of what a country can offer in terms of investment opportunities ranging from the ease of starting a business to the strength of political and legal systems.

Prepared by Experian using a range of data sources, the Index compares and ranks ten countries selected by Grant Thornton's Technology team.

The ten countries comprise a mix of those with high GDP forecasts, countries considered emerging technology markets and more traditional markets where respondents to our primary research survey (see page four) are planning to acquire.

For the Index, 41 variables and four themes have been weighted to take into account how important they are relative to a technology business making a decision to invest or expand into an overseas market.

The final outputs for the Index provide a ranking for each of the selected countries at an aggregate level as well as a ranking within each theme to give an assessment of each country's relative strengths and weaknesses.

A full list of the variables, weightings and source data is available on request.

Country Index Scores by Category / **Country Index Ranking by Category**

Country	Political/ Legal	Infrastructure/ Technology	Business start-up	Economic	Total	Political/ Legal	Infrastructure/ Technology	Business start-up	Economic	Rank
Total Weight	0.15	0.30	0.10	0.45	**1.00**					
USA	0.11	0.25	0.06	0.35	**0.76**	1	1	2	1	**1**
UK	0.10	0.20	0.08	0.27	**0.65**	3	4	1	4	**2**
Mainland China	0.03	0.21	0.03	0.33	**0.60**	9	3	7	2	**3**
Germany	0.09	0.22	0.04	0.24	**0.59**	4	2	6	7	**4**
France	0.06	0.17	0.05	0.26	**0.54**	5	6	3	6	**5**
India	0.03	0.18	0.02	0.30	**0.53**	8	5	9	3	**6**
Brazil	0.03	0.16	0.02	0.26	**0.46**	10	7	10	5	**7**
Netherlands	0.10	0.14	0.05	0.17	**0.46**	2	9	5	9	**8**
Italy	0.05	0.16	0.03	0.17	**0.41**	7	8	8	8	**9**
Israel	0.06	0.06	0.05	0.16	**0.33**	6	10	4	10	**10**

Source: Experian

Key findings

- At an aggregate level, the **United States of America** is identified as the most attractive country for technology business expansion. It ranks top for economic, infrastructure/technology and political/legal factors and ranks second for business start-up factors. Its key strengths lie in having the largest economy in the world, a strong infrastructure, a stable political environment and being time efficient when it comes to starting a business.
- The **United Kingdom** is ranked second at an aggregate level and has performed strongly across all four themes. It ranks first for business start-up by having one of the fewest start-up procedures and is a relatively easy place to do business with. It is the highest scoring country for quality of research institutions and also performs well for physical and intellectual property rights. The United Kingdom also has the second highest internet penetration rate of the selected countries (83%) after the **Netherlands**.
- **Mainland China** ranks third at the aggregate level with a strong economic and infrastructure/technology performance. With the second largest economy in the world and the largest population, China has the largest market to target and the highest growth forecast over the next four years. This would suggest it is an ideal location for expansion. However, China has the second largest number of start-up procedures and scores amongst the bottom countries in relation to how much investors are protected through disclosure of ownership and financial information, indicating that there are likely to be barriers to expanding here.
- **Germany's** position in fourth place at an aggregate level is due to its average overall performance across all four themes, but in particular due to infrastructure and technology performance. It has the strongest score for logistical performance which takes into account efficiency of the clearance process (ie speed, simplicity and predictability of formalities) by border control agencies, quality of trade and transport related infrastructure and competence and quality of logistics services.
- Within the political and legal environment, the **Netherlands** also scores strongly and this is backed by perceptions that its government is the least likely to be destabilised as well as one with the highest quality of public and civil services, policy formulation and implementation.
- The rankings for **France** at five and **Italy** at nine tend to reflect their middle to low rankings in most of the four themes. France scores highly for business start-up, where, notably, it has the second lowest number of days (seven) required to start a business, behind Italy (six). However, other start-up factors, for example the ease of doing business index, mitigate against Italy building on its swift-start-up process to improve its ranking. France's political and economic performances are reinforced by its attitude to press freedom and its spending on education. In contrast, Italy's economic troubles have contributed to its low overall ranking.
- For infrastructure and technology, the **United States of America** ranks top whilst **Israel** ranks bottom of the selected countries. **China** ranks third, largely due to the technology aspects of this theme having more than 450 million internet users and over 740 million mobile phone subscribers. It is worth noting that, whilst the number of internet users is greatest, the internet penetration rate is only 36% indicating there is huge potential for further expansion in this area. The **Netherlands** scores highly in terms of digital accessibility which is related to the overall ability of individuals in a country to access and use new ICTs.
- **India** offers significant potential for the future, but its position in the overall rankings is hindered by low ratings for both its political/legal infrastructure and the ease of being able to start up a business. These are offset by a high economic ranking and recognition that although infrastructure and technology issues remain, they are being addressed as the country's technological and economic capacity develops.
- It is worth noting that whilst **Brazil** is ranked bottom for business start-up theme, it is amongst the top countries for new businesses registered, indicating that businesses are setting up in Brazil even though it is some way behind other countries relating to the other business start-up factors. In contrast to Brazil's low overall start-up rating, **Israel** scores highly, reflecting, with 1,800 active start-ups, that Israel is poised for significant growth as a venture-backed economy with the appropriate start-up environment to match.

Investing for growth

The current economic climate seems pretty dire. 'Gloomy', 'unpredictable', 'volatile', 'bleak' – we're running out of words to describe the outlook for the economy. The Q4 2011 results from Grant Thornton's International Business Report (IBR[1]), showed business confidence across all sectors in Europe fall from a net 0% to -17%. In the Eurozone, confidence fell from two per cent to -16%. Across Europe, more businesses expected a decrease in profitability, revenue, employment, exports, sales and investment in new building and equipment, than expected an increase. For UK businesses the challenging condition of the Eurozone, where many of our top trading partners reside, is a great concern for order books.

The outlook

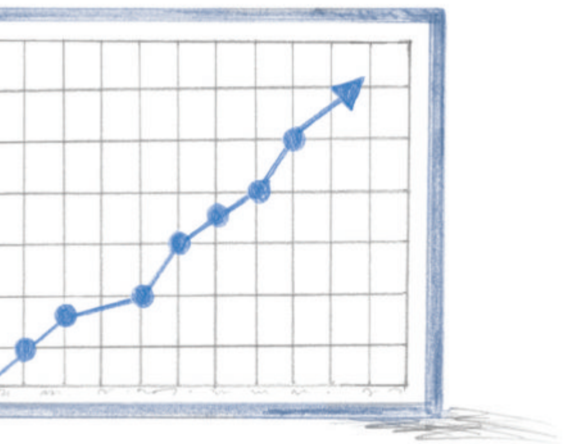
The miserable outlook in Europe contrasts starkly with a far more positive outlook in other regions. The IBR indicated that optimism in North America rose three percentage points to six per cent, while in the BRIC economies – Brazil, Russia, India and China – confidence rose from net 25% to 34%. This confidence is an indicator of the increasing economic strength of emerging markets and of the vast opportunity they present to those able and willing to invest.

Where are UK Technology companies investing?

Over the last five years, volatility in the global market has inevitably had an impact on the volume of cross-border deals taking place. Furthermore, the volume of investment by UK technology companies into emerging technology markets such as India, China, Brazil and Israel has remained relatively low, dropping off entirely in 2010, however returning with renewed vigour in 2011. Our analysis of reported deals show the US, Germany and Australia have consistently placed as the most popular countries for outbound M&A (see chart on page five).

Plans for future expansion

As part of our Technology Expansion Index research, we asked 50 UK mid-market technology companies about their plans for future investment. 26% planned to invest in countries where their business already has a presence and a further 50% have no plans for investment at all. The remaining 24% planned to branch out into new markets. In practice this means that three quarters of those surveyed have no plans at all to push beyond existing markets. This is a concerning statistic when you consider the comparatively huge opportunity in the fast-growing, tech-friendly economies of India, China, Brazil and Israel.



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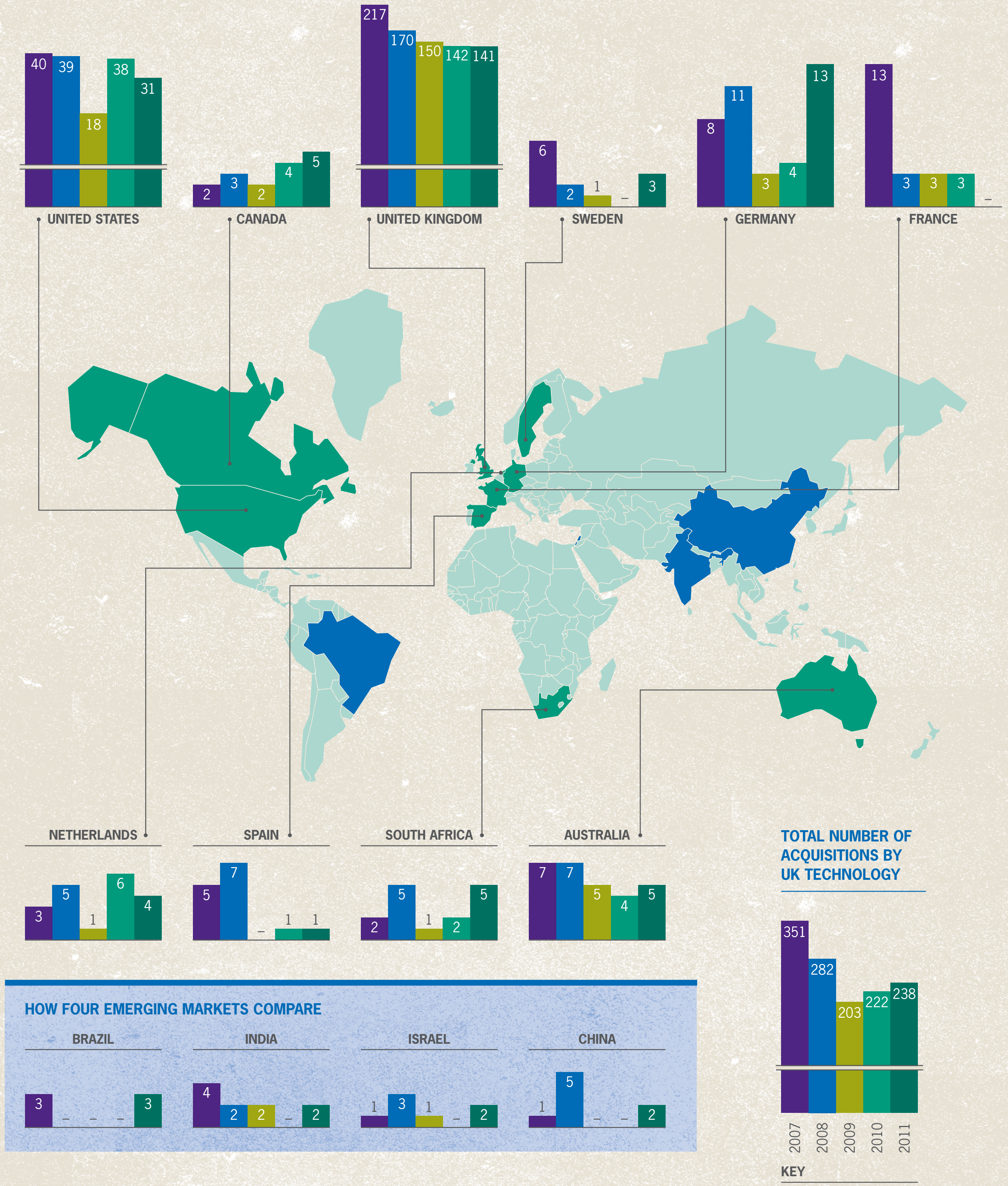
[1]Source: http://www.internationalbusinessreport.com/Press-room/2012/Jan_update.asp

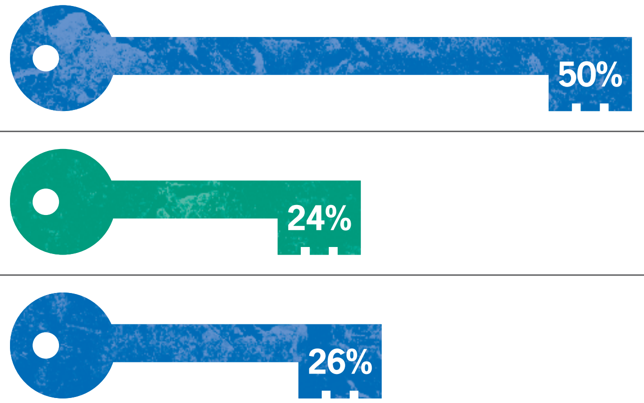
Where are UK Technology companies investing?

Top ten countries for acquisitions made by UK Technology companies 2007–2011 (Source: Thomson Reuters)



Investing for growth (continued)

Where UK mid-market technology companies plan to invest in the next 12–18 months



Source: International Technology Expansion Survey 2011

- Of those with plans to invest 18% were planning domestic investment (**UK**).
- The **Netherlands** is the most likely country to be invested in over the next 12 to 18 months by respondents who at present do not invest there (33%).
- The **United States of America**, **Italy**, **Germany** and **France** are also likely to be investment targets (all at 25%).

Challenges and opportunities

Our Technology Expansion Index (see page two), based on economic data sourced and analysed by Experian, demonstrates that the markets with the highest growth also have the most challenging environments in which to conduct business. Take mainland China for example; ranked second only to the US in the Index for economic strength but coming a mere ninth for political and legal infrastructure and a hostile seventh for business start-up environment. Throughout the Index, this pattern is a theme, with the weakest countries in terms of economic growth scoring higher for their comfortable, familiar business environments. Ultimately, investors looking to make a quick buck will be rapidly disillusioned by hard realities.

In reality there is not a lack of appetite for or interest in high-growth markets. The low M&A figures represent deals that have actually come to fruition, but in our experience there is no shortage of interest in India, China and Brazil as potential places to invest. It's the 'in practice' part that prevents a higher volume of investment. In our research, the majority of respondents cited red tape and high levels of taxation as the main barriers to investment in unfamiliar territories. Another reason that many aspirations to break into fast-growing economies fail is a lack of financing options for overseas acquisition or investment strategies. As this report will show, in overcoming these challenges, there is a multitude of opportunities out there for the taking.

In our experience there is no shortage of interest in India, China and Brazil as potential places to invest. It's the 'in practice' part that prevents a higher volume of investment.

In the next section, you will find country profiles with commentary from local Grant Thornton partners and case studies featuring UK clients who have already achieved, or are looking to achieve, growth in overseas markets.

Country profiles and client case studies

IMF GDP Growth prediction 2012: 8.2%

Grant Thornton expansion index: 3

Opportunity: Huge economic growth potential, tax incentives in tier II cities

Challenges: Complex for start-ups, low rank for investor protection

Country profile

Mainland China

Grant Thornton's Technology Expansion Index ranks China second for economic growth and third for infrastructure and technology. On the flip side, China is one of the lowest ranked markets for political and legal landscape and has one of the most complex systems in the world for business start-ups. It is this dichotomy, paired with the complexities of Chinese culture, that best explains the lack of UK businesses looking to enter the Chinese market.

However, great returns are never easily achieved. The opportunity in China is huge, not just in terms of salary arbitrage and tax incentives. Despite the recent slowdown in China, growth is still upwards of 8% and this high growth potential means that those companies able to access the Chinese market will be better at meeting consumer needs and faster to market, leaving those who shied away from early investment trailing in their wake.

One of the reasons that UK technology businesses are reluctant to enter China is a fear of copying or reverse-engineering of their products. Though this is still a risk, as China's patent system evolves there are increasing opportunities for businesses to protect their intellectual property (IP). These opportunities are being noticed. Recent research by the China-Britain Business Council showed that 59% of UK businesses with a presence in China want to increase their R&D activity there[1].

"There is an argument that it's better to enter China with IP safeguards in place than not to enter it, and find that your products have been copied anyway, reinvented and eventually patented in China by someone else so that you can't sell them at all. China is rapidly becoming a major hub for IP and research."

Nick Farr, Head of China Britain Services Group, Grant Thornton UK LLP

Where to locate?

Chongqing – Chinese states are providing tax breaks to attract high tech businesses to poorer western provinces. In Chongqing plans are underway for a Government funded $154m 10sq km cloud computing centre for hi-tech and start-up firms.

Shanghai, Beijing, Guangzhou and Shenzhen – these East Coast cities are well developed and are saturated with foreign investment. UK businesses looking to invest here may find their competition is already here or may find a better deal elsewhere.

Hong Kong – Hong Kong is a good launchpad for many technology companies. For new starters in the East, Hong Kong's western style Asia with English still as a primary business language may suit. Hong Kong is also a low tax haven that attracts many global technology companies to place their APAC headquarters there.

Chengdu, Qingdao, Zhenzhou and Zhejiang – fourteen second tier cities such as these offer cheaper labour, low rent and energy costs, favourable local policies and a steady flow of workers.

In 2010, UK companies made 2,087 patent applications in China, of which 1,164 were granted[2].

[1]Source: China Business Climate Survey, November 2010 http://www.cbbc.org/guide/downloads/china_business_climate_survey
[2]Source: State intellectual property office of P.R.C, http://english.sipo.gov.cn/statistics/

Case study

Galleon Holdings

Galleon Holdings is an entertainment media company with two principal businesses operating in different markets. Galleon Entertainment publishes digital content in China across both online and mobile platforms and also develops and exploits its multi-platform branded formats to establish a direct, interactive relationship with users. It also has a product business, Croco Worldwide, which makes promotional toys to foster brand loyalty for snacks such as crisps and cereals.

Listed on AIM since December 2001 and with offices in London, Hong Kong and China including Beijing, Galleon is a leading publisher of digital content on both mobile and online platforms with distribution across the whole of China and more than nine million registered users on its online platform.

It is also a wireless short-messaging service (SMS) and multimedia messaging service provider in China, holding nationwide SMS billing codes for major groups such as China Mobile and China Unicom. In October 2008, Galleon acquired this operation to strengthen the Group's media infrastructure in emerging markets and to provide complete multi-platform media solutions to Chinese broadcasters. The company has now evolved into online games to exploit the significant growth opportunity in this sector in China.

Galleon's business is unusual in that, rather than developing its business in Europe and then taking the concept to China, it went there to prove its interactive media model worked, with Chelsea Football Club its first partner in a reality television venture. Now it is exporting its business model successfully into other worldwide markets.

Galleon has benefited from using Grant Thornton's local audit expertise in Beijing. It has also successfully struck up relationships with third parties to help develop its business. As Galleon's Chief Financial Officer Hayden Eastwood explains: "There are lots of companies that will say they have expertise in China. We used a third party based in China and we have used Grant Thornton's local office to do our auditing because they have a good Western understanding. When you're investing in China, it pays to use local people. You cannot expect to move into China remotely from the UK. We found Hong Kong and China to still be worlds apart in many aspects. What has been most effective for us is to have someone from mainland China in place to develop the business. Our day to day operations are also run by local staff.

"The overriding factor for success in China is communication. You need to go and spend time there and build relationships, otherwise things can get lost in translation. It also helps to develop the business if you have a partner who is as committed as you are to the project. Sometimes you'll find 'partners' who want to take your money to fund their business. If they put up hard cash, they're more likely to be wedded to your idea. It does take time at first to get things done in China, but then they will suddenly take off, because the Chinese are very good at making things happen."

"The overriding factor for success in China is communication. You need to go and spend time there and build relationships, otherwise things can get lost in translation."

IMF GDP Growth prediction 2012: 7.0%	**Grant Thornton expansion index:** 6	**Opportunity:** Huge long-term growth potential and potential customer demand	**Challenges:** High levels of complex bureaucracy, no quick return, sensitivity of local business culture

Country profile

India

Taking India into the future

- **India has more than doubled its hourly wage rates during the last decade.**
- **India's burgeoning middle classes with disposable income are projected to number 580 million by 2030.**

India is one of the world's fastest-growing economies. However, GDP per capita is still relatively low and, there is plenty of room for tapping into the unlocked disposable income generated by the middle classes. To support this strong domestic demand for goods and services, the Indian government is investing heavily in infrastructure projects to facilitate the GDP growth, but it's been a bumpy ride. In late 2011, India's telecom networks finally rolled out 3G when the rest of Asia was moving on to 4G. The Indian Government's new ICT policy aims at speeding up development, including plans for fibre optic cable installation and aggressive broadband implementation[1].

"Previously, agriculture would have been the highest contributor to GDP growth in India – but this is no longer the case. IT and telecoms are very much enablers for future growth."

Anuj Chande, Head of South Asia Group, Grant Thornton UK LLP

A strong driver for IT investment is India's own Generation Y who are primed to become hungry consumers, particularly of IT, consumer technology and social media. India's consumer market, currently the world's thirteenth largest, is expected to become the fifth largest by 2025[2]. Its telecommunication industry, the world's fastest-growing, added 227 million subscribers during the period 2010–11[3].

A developing business culture

Although dealing with the larger IT services companies in India is little different from large companies elsewhere, smaller businesses can be less professional, with delays in getting deals completed and getting people to adhere to agreed contractual terms.

"When investing in India you need to be there for the long term, ie at least two business cycles (ten years). You have to be visible and work collaboratively with local business people."

Anuj Chande

40% of India's population is younger than 35 years old.

Where to locate?

Special Economic Zones (SEZ) – India's states are home to numerous specially allocated areas created specifically to attract investment. As of October 2010 there were 114 operating SEZs in India with the most being in the state of Tamil Nadu (20), followed by Karnataka (18). Approximately 500 more new SEZs have been approved throughout the country with the most in the state of Andhra Pradesh (109).

Vibrant economic areas excluding SEZs are:

West Bengal – for three decades under a Communist regime, this state saw little growth. Economic reform was introduced in the mid-1990s and the state is now a beacon for ICT investment with tax exemptions for investors.

Gujarat – arguably India's most economically proactive and reform-minded state, Gujarat is planning a new city, the Gujarat International Finance Tech-City (GIFT), to attract finance and technology firms to relocate from Mumbai and Bangalore.

There are 37 Indian cities among the world's 300 fastest growing urban centres, according to the City Mayors Foundation, a global think tank on urban affairs.

Cities that have benefited from technology investment include:

Pune – emerging as a technology hub and home to a number of large software companies such as Wipro, Infosys, Satyam, Tata Technologies and Veritas.

Nagpur – The US airliner-making Boeing, in partnership with Air India, is building a maintenance, repair and overhaul facility here.

[1]Source: http://www.mit.gov.in/content/public-consultation-2011
[2]Source: http://www.indembassy.co.il/Trade%20and%20Commerce.htm
[3]Source: http://www.stockmarketindian.com/diversified_section/2011/10_facts_about_India.html

Case study

IDEAL INDUSTRIES

IDEAL INDUSTRIES is a 100 year old family-owned manufacturer of tools and supplies for electrical, data, telecommunications, low voltage and security installations. Over the last decade it has expanded into environmental monitoring through its acquisition of Casella Measurement and into the automotive sector through its acquisition of SK Handtools. Its connection with India began through a joint venture established by another IDEAL company, Trend Communications, acquired in 2004.

In early 2011, the rules on requiring a No Objection Certificate from Indian joint venture partners changed and the original joint venture was dissolved. A new direct Indian subsidiary has been set up, focusing on network installation and management, the professional electrical channel, and the supply of environmental devices and equipment. The new office is based in Gurgaon, one of Delhi's four satellite cities in the National Capital Region.

The development of infrastructure in India is a critical government goal, and one of IDEAL's key business opportunities is to address this development through an initial three platforms that it is establishing in the market.

The creation of trust is critical in establishing an Indian investment, and IDEAL's new operations have benefited from professional advice on the most appropriate structure provided by Grant Thornton India LLP and by the appointment of an Indian entry development firm. Lee Thomas, IDEAL INDUSTRIES' Group Finance Director EMEA, explains: "When you set up operations in India, everything is based on trust. If you want to employ quality people, how do you attract someone unless the local trust is there? Our use of an Indian entry development firm has helped increase our local credibility in entering the market.

"It was soon clear how important trust was and that the customer always looks for local support, so you need to have a base within India. Customers want to know that you are a trusted brand and that you're committed to the market."

"It was soon clear how important trust was and that the customer always looks for local support, so you need to have a base within India. Customers want to know that you are a trusted brand and that you're committed to the market."

To develop IDEAL's Indian presence, the business has put in place a country manager, and a financial controller to deal with legislation and compliance issues and to establish robust systems. One of the issues the company has had to consider in developing its pricing and offer model is India's import duties, which can be as much as 25%. IDEAL plans to use an indirect channel to market and will sell through local dealers and distributors.

For UK technology companies planning to invest in India, Thomas recommends using a reliable entry strategist to help engender local trust because trying to go it alone is a long haul.

Lee says: "Be prepared for a lot of investment of time and money, but principally time. You have to understand the culture. And don't forget the opportunity cost of the time difference crossover, which is five and a half hours. We have found using IP telephony and video conferencing is particularly helpful in working closely together with our colleagues in India."

IMF GDP Growth prediction 2012: 3.6%

Grant Thornton expansion index: 10

Opportunity: Favourable climate for entrepreneurs and innovators

Challenges: Bureaucracy and red tape can be a significant burden

Country profile

Israel

Israel is well known for its entrepreneurial spirit, enabling it to quickly transform start-ups into profitable and competitive companies. Out of the top technology investment regions highlighted by Grant Thornton's Technology Expansion Index, Israel is ranked fourth for business start-up, after the UK, US and France.

"With 1,800 active start-ups – the highest seed stage investment levels since the 1990s – and a diversified high-tech pipeline spread out over life sciences, semi-conductors and Internet technologies, Israel is poised for significant growth as a venture backed economy."

Ilanit Halperin, Partner, Head of Technology and Life Sciences Department, Fahn Kanne & Co. Grant Thornton Israel

Israel has the largest number of NASDAQ listed companies outside the United States and an increasing number listed on the London Stock Exchange.

Apart from Silicon Valley, the highest concentration of high-tech companies is found in Israel.

Foreign technology companies investing in Israel can access a number of financial incentives such as:

- tax reductions
- exemptions on capital gains and infrastructure investments
- credit lines for business and export credit
- funds to hire workers and for retraining
- support for R&D.

Large multinationals that have already invested in Israel include a number of technology companies such as: Microsoft, Motorola, Intel, HP, Siemens, GE, IBM, Philips, AOL, Cisco and Applied Materials.

Technological incubators

As part of a drive to strengthen Israeli export power, the Government has developed a programme of support corporations to give fledgling entrepreneurs an opportunity to develop their innovative technological ideas and start to build a business. The incubator programme is applied in all parts of Israel, under the guidance, and with the support, of the Office of the Chief Scientist of the Ministry of Industry and Trade.

Advanced Technologies Park at Ben-Gurion University (BGU)

A key example of the Israeli Government's desire to attract new inward bound technology companies is this new facility in Negev. Designed to enhance the economy of the region, to provide world class facilities for BGU researchers and nurture start-up companies, including incubators, this programme presents a great opportunity for foreign investors.

"Though Israel has many opportunities for foreign investors, the challenge presented by bureaucracy can be as significant as the encouragement offered by the Israeli Government's innovation policy. To avoid unnecessary market restrictiveness, potential investors would be advised to seek local consulting services to fully understand both risks and opportunities."

Ilanit Halperin

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Case study

Mobile Tornado

Mobile Tornado is a provider of next generation instant messaging solutions which serve the market of mobile data services in the mobile communications industry. These services include a group of services generically termed 'Push to x' services, of which 'Push to Talk' (PTT) is the most commonly known.

Mobile Tornado is seeing increasing interest in PTT in developing countries, and has been approached by a number of potential partners who are well placed to address significant market opportunities.

PTT turns a mobile phone into a walkie-talkie but with a global range. Instead of transmitting/receiving radio frequencies, PTT uses the GPRS data connection on mobile phones to send and receive calls using VOIP technology.

In the last year, Mobile Tornado has closed deals with two mobile operators in India for over 200,000 licences, and signed partnership agreements in South Africa and Guatemala. That has raised Mobile Tornado's profile and it is now discussing further partnership opportunities in Mexico and Brazil. It has also deployed technical resources across Israel, UK and India to maximise its business efficiency.

Its preferred way of working in developing markets like India is to partner with local operators where it supplies its technology platform and provides professional services to install and configure the system into the operator's own network. It has also concluded a similar deal with a mobile operator in Israel, which has embraced PTT with around 500,000 users.

Mobile Tornado has a strong base in Israel which doubles as its research and development arm and as the management base for its Indian operations.

Mobile Tornado Chief Executive Jeremy Fenn says the company has received significant support in Israel: "We have worked closely in partnership with the Israel Mobile and Communication Association (IMA) which helps connect Israeli product companies with global operators and network and handset vendors. We are a British company but we have received significant support in Israel from the IMA which helps Israeli mobile and communications companies succeed and grow by providing them with strategic and practical assistance."

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IMF GDP Growth prediction 2012:	Grant Thornton expansion index:	Opportunity:	Challenges:
3.0%	7	Second most favoured destination for PE in emerging markets; large IT market; technology driver for future global sporting events	Greater innovation; restrictive labour laws; IT skills shortage

Country profile

Brazil

At 8.5 million square kilometres, Brazil is the size of a continent, and currently accounts for 40% of Latin America's economy. IMF GDP growth forecasts through 2013 are strong at 4%, potentially underpinned by the impact of the 2014 World Cup and 2016 Olympic Games, which will drive technology investment. The domestic market for IT in Brazil is now the seventh largest in the world. $165.7bn was spent on ICT in 2010 with only $2.4bn of services exported.

Brazil is a potential technology investment hotspot because of its large, stable, growing economy; a modern financial system that has largely escaped the global financial crisis; a strong base of local investors; and robust capital markets and a middle class of almost 100 million people as potential technology consumers.

China is already targeting Brazil's technology sector and plans to invest US$4.5 billion this year, shifting investment in Latin America from agriculture and mining. Apple's Chinese manufacturing partner Foxconn is reported to be considering Brazil as an assembly site for the iPad. Moreover, the Brazilian government is granting relevant tax incentives for the manufacturing of tablets within country lines. The Manaus Free Zone is an interesting option for those seeking such opportunities.

Brazil accounts for nearly half of all IT spending in Latin America; prompting the government to introduce a plan to expand broadband infrastructure throughout the country. The results are beginning to be apparent. The first all-Brazilian semiconductor manufacturing facility is now in production, and IBM has selected Brazil for its first new research facility in 12 years.

Apart from the World Cup and the Olympics, opportunities exist in areas such as the broadcast and health sectors, in industrial automation, mobility solutions for retail and commercial sectors, and partnering for corporate IT opportunities. There is a large private health sector due to the pressure on Brazil's public health service, and both sectors want to use the latest technologies, including e-health and remote diagnostic tools.

However, Brazil faces some challenges which could hinder technology investors, including a shortage of trained IT labour. According to predictions, by 2020 the country will be short of about 750,000 IT workers. Brazil payroll costs are also amongst the highest in the world, and the overall expense for employers, including taxes and benefits, supported by protective local labour laws, is significant, A company can be started quite easily, but the process is very bureaucratic and requires at least 15 documents and many visits to a notary.

Brazil has a need for greater technology innovation. One bright spot is an innovation cluster, Porto Digital, in the Recife area of North-Eastern Brazil which employs around 6,500 IT professionals and now has an annual turnover of around US$431 million. The cluster includes CESAR, which has created innovative solutions for Intel and IBM as well as successful spin-outs such as Silicon Reef which provides mixed signal integrated circuits.

Including telecommunications, IT end-user spending in Brazil is expected to approach US$134.2 billion in 2014.

Where to locate?

Key tech locations

- City of Sao Paulo and Sao Paulo state.
- Recife in the North East – Brazil's 'China'.
- Porto Alegre (in the South of Brazil).
- Belo Horizonte/Minais Gerais (South Eastern Brazil).

Emerging tech – Porto Digital

- A fast growing tech cluster in Recife, North Eastern Brazil.
- Vision to be leading centre for innovation and enterprise for ICT and creative sectors in Brazil.
- Cluster includes CESAR which has created innovative solutions for Motorola, Intel, Dell, Samsung and IBM.
- Successful spin-outs include Silicon Reef (mixed signal ICs).

Source: UK Trade & Investment

Case study

Kelkoo

Kelkoo is a price comparison shopping and travel website which helps consumers to get the best deals by comparing the prices of retailers and travel suppliers. It currently operates in 12 countries across the world, mainly in Europe, but also now extending to the US and Brazil.

Kelkoo's move into Brazil takes it into a large, growing market where it has a very strong opportunity to compete with an existing comparison shopping site. A benefit for Kelkoo is that, as a site offering comparison shopping, it can enter a market virtually and does not necessarily need a physical presence. However, as with its existing European operations, a virtual presence is likely, in time, to become a physical presence. Its main challenge in entering the Brazilian market is to drive traffic to its site which it does by search engine optimisation and through paid search in Google.

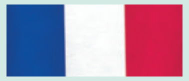
Kelkoo has also looked closely at other emerging markets that might offer a competitive opportunity, including China and India.

"We looked at India, but there is only a small market for online purchases. There isn't a lot of online spend. The big opportunity in India is mobile," says Craig Dixon, Kelkoo's Chief Financial Officer. "We are not a large company and there are regulatory issues in China which would mean we'd need to find a local partner. We were looking to get into a market more easily than that, which is why Brazil offers such a good opportunity."

One of the issues in Brazil is the considerable cost of import duties, which can be up to 20%. For that reason, Kelkoo has utilised Grant Thornton's expertise in delivering local compliance and auditing advice.

"We've benefited from Grant Thornton's help. Because we're not large in size, ease of market entry, the overall size of the market, and the number of competitors are important criteria for us. I'm very optimistic about the Brazilian market. It is a large market and we've found that people are very savvy, so you have to be aware of the regulatory environment and the cost and complexity of doing business there."

One of the issues in Brazil is the considerable cost of import duties, which can be up to 20%. For that reason, Kelkoo has utilised Grant Thornton's expertise in delivering local compliance and auditing advice.



IMF GDP Growth prediction 2012:	Grant Thornton expansion index:	Opportunity:	Challenges:
0.2%	5	Supportive of R&D and innovation; tax incentives; labour reforms	Complexity of labour laws

France

In the last couple of years, French reforms have made the country more attractive to technology investors, notably by investing in innovation, changing labour regulations and instituting more attractive tax policies for those setting up businesses.

One key focus is research and development. A growing area twenty miles south of Paris, Plateau de Saclay, dubbed 'Europe's Silicon Valley', accounts for 10% of all research personnel in France, providing a base for 43,000 people, covering scientific disciplines as broad as nano-science, climate and the environment, and IT.

France has also created a Strategic Investment Fund to support the development of small and medium-sized companies, particularly those with scope for innovation and market leadership. Its ongoing investments include Bull and YouTube rival Dailymotion.

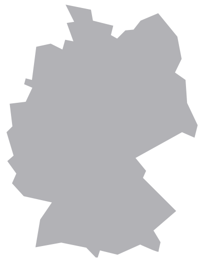
France's labour laws remain complex, although reforms now enable companies to better tune employment contracts and working hours to their business requirements. National Insurance contributions in France, however, are greater for both employers and employees than in the UK. Companies investing in France should take advance advice on contract and employment practices and perhaps consider outsourcing to local specialists.

France has also introduced tax credits exempting new investments from local business tax and providing up to 50% tax relief on R&D costs.

Gross domestic R&D spending exceeded $42 billion in 2008, placing France second only to Germany in Europe.

IMF GDP Growth prediction 2012:	Grant Thornton expansion index:	Opportunity:	Challenges:
0.3%	4	Strong technological base; well-qualified workers; compelling market breadth	Language and cultural barriers; weaker growth

Germany



Although Germany is facing comparatively weak growth of just 0.3% in 2012, rising to 1.5% in 2013, its strong technological base ensures a high quality of research and development, a clear prerequisite for technology investors. Well qualified workers and a constant strive for innovation are key drivers. As a further incentive, companies investing in Germany can address the German-speaking market of 100 million people and springboard into the growing markets of Central and Eastern Europe.

Investment incentives can reach up to 50% of the cash needs for small investors. Maximum investment support can be obtained if a business is located in the new federal states that previously belonged to Eastern Germany. Subsidies are most generous for technology start-ups in the Berlin area.

Germany has a strong focus on renewables with solar companies established in the federal states of the former Eastern Germany and wind companies located in north western Germany, close to the North Sea. The automotive industry in the south has created several local, innovative companies.

In 2010, investments totalling 26 billion euros were made in Germany's renewable energies sector.

IMF GDP Growth prediction 2012:	Grant Thornton expansion index:	Opportunity:	Challenges:
-2.2%	9	Strong Biotech and Cleantech sectors; innovative heritage	Weak growth and unclear financial outlook; bureaucracy and funding hurdles

Italy

Despite its recent financial problems, which are likely to culminate in economic shrinkage of 2.2% in 2012 and a further 0.6% in 2013, Italy's IT market is the fourth largest in Europe, its mobile wireless market is a world leader and Italy ranks third in Europe in the field of wind energy.

Companies investing in Italy will find bureaucractic barriers being steadily lifted but not completely removed. There have been some marked changes in tax legislation and investor funding for technology ventures is not easy to find. Funds are available for research in some regions, notably in Southern Italy.

Thriving areas for technology start-ups include the Lombardy region, home to Milan, and the area around Pisa. Both have strong university links that have created numerous start-ups. Italy is strong in life sciences and is committed to innovation with over a billion euros from a mix of funding sources spent annually on research and development, notably in biotechnology.

The Italian marketplace is dominated by small and medium sized enterprises. There are only 3,500 companies with more than 250 employees. 95% of companies have less than nine staff.

Renewable energy is a growing sector with solar and wind power prominent areas. Southern Italy provides an ideal hot, windy climate to attract cleantech interest, especially in regions such as Apulia and Calabria.

Entrepreneurship among scientists and researchers is increasing. In the last few years more than 800 university spin-outs were created.

IMF GDP Growth prediction 2012:	Grant Thornton expansion index:	Opportunity:	Challenges:
1.3%	8	UK-friendly environment to target the rest of Western Europe; health technology specialism; tax advantages	Restrictive labour laws; small domestic market

Netherlands

Raising finance in the Netherlands is a straightforward process and there is a well-trodden path of Anglo-Dutch joint ventures, particularly in the oil industry.

The labour market, however, lacks flexibility. 'Older' European countries like the Netherlands suffer from restrictive legislation with strong redundancy protection.

The Netherlands has a strong focus on health technologies, with the universities of Groningen in the North and Leiden in the province of South Holland spawning a number of health-technology spin-offs.

Groningen and Assen are both in the sparsely-populated North-East, which provides incentives to attract foreign investment in the form of tax breaks and grants. Groningen in particular has a reputation for entrepreneurialism. Tax advantages for foreign investors are also offered in the South East, around Maastricht.

Comparatively, the Netherlands offers significant tax advantages. Many companies use a Netherlands base to avoid double taxation on profits whilst an 'innovation box' provides a special tax regime where all income to be allocated to qualifying intellectual property (IP) is subject to an effective Dutch corporate income tax rate of 5%.

The digital divide is barely noticeable in the Netherlands where 88.6% of the total population is online.

IMF GDP Growth prediction 2012:
0.6%

Grant Thornton expansion index:
2

Opportunity:
Strong technology infrastructure, innovation at relatively low cost, familiar legal and financial landscape

Challenges:
Nervousness in the market caused by poor economic conditions and lack of available funding

Country profile

United Kingdom

According to our survey, 18% of UK technology companies plan domestic investment in the next 12–18 months. Despite the economic downturn, or perhaps because of it, many technology companies are still looking to consolidate and strengthen their presence at home rather than seeking out riskier, but potentially more rewarding climates.

The UK's high ranking on the Grant Thornton Technology Expansion Index, second only to the US, is reflective of the fact that the UK is still an attractive market to grow a business. For investors, of course, domestic acquisitions are more straightforward, with less risk, and a known legal landscape. Access to finance, however, is one of the most consistently mentioned barriers to growth – and with growth predictions for the UK continuing a steady decline, there seems little respite on the horizon.

"There is a trend in the UK technology market where large corporates are increasingly looking to acquire companies that provide specialist services or offer some innovation that addresses a niche they want to reach. Importantly, the current state of the overall market means that these companies can be acquired more cheaply than might have been possible pre credit-crunch."

Wendy Hart, Head of Technology, Grant Thornton UK LLP

Technology infrastructure in the UK

At 83% broadband coverage, the UK is already one of the most well-connected countries in the world. The government has further plans for investment, announcing a commitment of £530m in funding to extend superfast broadband coverage across the country. Further, the government has committed to establish a new urban broadband fund that will create up to ten 'super-connected cities' across the UK, with 80–100 megabits per second superfast broadband, including Edinburgh, Belfast, Cardiff and London.

"A symptom of the current UK marketplace is nervousness from funders, acquirers and sellers alike about potential deals. Even with a sophisticated, large and committed vendor, a deal will typically take six months at minimum to complete. The most frequent cause of delay in deals is postponed funding, for example by something unearthed during due-diligence."

Wendy Hart

Services that attract high interest from investors in the UK include:

- IT services
- mobile applications
- IT security
- mobile data management
- cloud computing
- digital convergence
- services which specialise in a growth market such as financial services or healthcare.

Many technology companies are still looking to consolidate and strengthen their presence at home rather than seeking out riskier, but potentially more rewarding, climates.

IMF GDP Growth prediction 2012:
1.8%

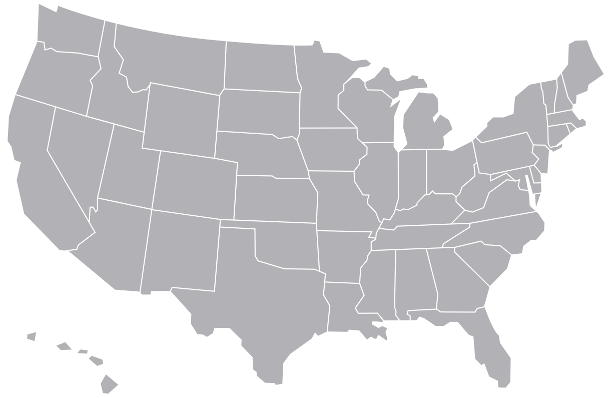
Grant Thornton expansion index:
1

Opportunity:
A supportive technology investment environment, accessibility of talent, and a large potential customer base when products are developed

Challenges:
Economic uncertainty, decline in smaller IPOs

Country profile

USA



For UK technology companies looking to invest overseas, the US remains a magnet – 25% of survey respondents planning investment in new markets were considering the US. Going some way to explain this, the Grant Thornton Technology Expansion Index demonstrates the continuing strength of the business environment which has a powerful mix of infrastructure, support services, venture capital, access to finance and legal services, smart potential employees and, not least, a huge number of potential customers.

In attracting investment, Silicon Valley is a Mecca, and an ecosystem for technology investment, with 40 years' experience in creating and nurturing technology companies. California is a very progressive state in its attitude to low carbon and Cleantech, but is becoming expensive in terms of regulation.

That is persuading other US cities to put themselves up as alternative locations for new and growing companies by offering favourable incentives.

Areas trying to lure interest include: Georgia, which wants companies to set up some of their operations in the state; New York, which claims to have surpassed Boston as the second largest centre after Silicon Valley for start-ups; and San Diego, which has attracted biotech and life sciences companies (with lots of infrastructure to support early stage businesses).

In all of these areas, a key criterion to attract investment is the accessibility of talent, which is the lifeblood for technology organisations.

2012 will be a major political year in the US, with a battle for the White House and elections to the Senate and House of Representatives. The elections' outcome may have a significant impact on the future of Dodd-Frank legislation intended to reform Wall St. The Dodd-Frank Act spans over 2,300 pages and affects almost every aspect of the US financial services industry.

"Apart from the supportive environment for technology companies in the US and an environment in which jurisdictions across the country are competing to try to replicate the successes of Silicon Valley and Boston, there are two compelling reasons to invest in the US: the access to talent and a large potential customer base for new technology products."

Cal Hackeman, Technology Industry Partner, Grant Thornton USA

Where to locate?

US hot beds include:

- **Madison, Wisconsin**, has attracted a number of life sciences companies.
- **Detroit**, now targeting biotech and life sciences, cleantech or alternative energy companies to take up slack from the automotive industry.
- **Atlanta, Georgia** one of the leading metropolitan areas in the far south of the country.
- **North Virginia and Baltimore and the suburbs of Washington DC**. Companies previously part of the US defence research industry, are now using their electronic warfare expertise to create online games companies.
- **Austin, Texas** – strong in semiconductor, biotech and some cleantech.
- **Chicago**, an old city, but now attracting new industries. Groupon is based here.
- **Seattle and Portland** – many spin-off businesses in Seattle close to Microsoft, while Portland is very friendly to alternative energy companies.
- Other areas of interest are **North Carolina, Florida and Denver, New Jersey and Philadelphia.**

In the US this past year technology jobs outpaced the overall rate of new employment nearly four times[1].

[1]Source: High Technology Industry, US Office Outlook, Jones Lang La Salle, Fall 2011

Case study

Tessella

Founded in the UK in 1980, Tessella is an international provider of science powered technology and consulting services. Its customers are world-leading organisations who choose its unique blend of scientific thinking, sector knowledge and software expertise to help deliver innovative, cost-effective solutions to complex business and technical challenges.

Tessella adds value to clients' operations through the application of IT and consulting services based on scientific methods and rigorous quality procedures.

Its biggest asset is its people. Projects tend to be fast moving, uncertain and complex, so Tessella employs scientists with first class academic minds; over 50% of Tessella staff hold PhDs, and are fully trained and experienced in software engineering.

Tessella has invested in operations in the Netherlands and in the US, creating its first overseas branch in The Hague in 2000 and then opening its first US branch in Boston in 2003. Both moves were led by sales opportunities which led to a requirement to base staff in overseas locations rather than specific corporate decisions to invest overseas in specific countries.

The US venture was led by a leading UK salesman who wanted to go and set up the US office to take advantage of sales opportunities offered by pharmaceutical companies based on the US East Coast. Pharmaceutical companies are significant customers of Tessella and account for a sizeable amount of its business.

Further US sales opportunities arose with oil customers in Houston and Tessella sees the US driving further growth beyond the 15% slice it currently represents of the company's overall business. Its current plans involve building up its resources in the Houston area to service the business as it arises.

“When it comes to overseas investment, we take one step at a time. We could have sent more resources to the US when we set up our operations there, but we have had 31 years of profitable growth where the company's culture has been a key driver for success.”

For that reason, and because Tessella provides a services-led solution rather than developing new products, it sees its overseas business being driven from the US rather than investing in China or India.

Tessella's founder and managing director Kevin Gell, says: “We are scientists and engineers and we offer a specialist approach to solving business problems. Our winning advantage comes from our people. We're not offering a unique product but a service that helps our customers solve their problems. One customer once said that it was ‘great having people on board who are geophysical engineers'. We're not actually. But what we have are academically very bright people who pick things up very quickly, and can deliver risk assessment and, for example, create consoles for monitoring drilling operations. We help them make better decisions about what they're doing”.

“When it comes to overseas investment, we take one step at a time. We could have sent more resources to the US when we set up our operations there, but we have had 31 years of profitable growth where the company's culture has been a key driver for success. Had we had more resources in the US, we could have grown more quickly, but equally the company's culture could have changed. Often in the US, they want to hire through networks, looking for specific skills. When Java was developed, they were looking for five years' experience in it. But there weren't any people with five years' Java experience, because it was so new. What we provide for our clients are clever people who can learn things on the go, apply their minds and solve the client's problems.”

Further information

About this report

Primary research
In the autumn of 2011, Grant Thornton UK LLP engaged Experian to survey 50 UK headquartered mid-market technology companies with turnovers between £5 and £200 million on where they currently owned businesses outside of the UK and their plans for acquiring overseas businesses in their sector in the next 12–18 months.

Secondary research
Experian was engaged to build the Grant Thornton Technology Expansion Index, comparing and ranking ten countries, selected by Grant Thornton's technology experts. Evidence from the primary research undertaken as well as consultation with Grant Thornton's technology experts has helped to inform the weightings with some variables having been identified as being more important to the technology sector.

IMF GDP Growth Prediction 2012 data source:
http://www.imf.org/external/pubs/ft/weo/2011/02/weodata/index.aspx
http://www.imf.org/external/pubs/ft/weo/2012/update/01/index.htm
http://www.economywatch.com/economic-statistics/year/2013/

Country profiles
Information for the country profiles featured is based on research conducted independently using various external sources and interviews with clients of Grant Thornton UK LLP and colleagues from Grant Thornton International member firms in the UK, USA, China, Germany, France, India, Brazil, Netherlands, Italy and Israel.

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Grant Thornton wishes to thank the 50 survey respondents and the following individuals who took part in one of our client case studies:

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- Jeremy Fenn, Chief Executive, Mobile Tornado
- Craig Dixon, Chief Financial Officer, Kelkoo
- Kevin Gell, Founder and Managing Director, Tessella.

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About Grant Thornton

Grant Thornton UK LLP is a leading financial and business adviser, operating out of 27 offices. Led by 215 partners and employing nearly 4,000 of the profession's brightest minds, we provide personalised assurance, tax and specialist advisory services to over 40,000 individuals, privately-held businesses and public interest entities.

Our clients, whether local or global, consistently tell us that we work with them in a very different way. We make sure our clients receive what they need – award-winning audit, tax and advisory expertise that's responsive and insightful, in-depth sector knowledge and a relationship that's built on their agenda not our own.

Grant Thornton UK LLP's technology practice has national strength, but local presence, with our specialists operating from key centres across the UK. We have an enviable track record of working with successful technology companies at all stages of their lifecycle, providing a complete range of services, including:

- accounting services
- audit and tax compliance
- business and strategic advice
- commercialisation of intellectual property
- corporate finance including M&A
- employment issues
- fund raising and flotations
- PPP/PFI schemes
- private client services
- risk management and internal audit
- Sarbanes Oxley review and compliance
- specialist tax advisory services, including R&D tax credits advice
- transfer pricing
- valuations.

We support the UK technology industry as members of Intellect and TIGA.

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