

DLA PIPER

2014 GLOBAL DATA CENTRE MARKET REPORT





THE GLOBAL DATA CENTRE MARKET REPORT

Our inaugural report highlights the current key trends and themes in the global data centre industry and provides an outlook for the data centre market in 2014.

We asked people from across the industry (including data centre customers, investors, co-location providers, hosting services providers, telecoms providers, IT consultants, outsourcing providers, real estate advisers, developers and owners), a series of questions about trends in the sector, how they see the outlook for the industry in the next 12 months, what the key concerns and challenges are, where the major opportunities will be and what they have learnt in the last 12 months.



Paul Jayson
Partner, Real Estate
DLA Piper
T +44 (0)7968 558751
paul.jayson@dlapiper.com



Anthony Day
Legal Director, Technology & Sourcing
DLA Piper
T +44 (0)7738 295237
anthony.day@dlapiper.com

“What is clear from our results is that the Data Centre market is currently undergoing a seismic change driven by a combination of consumer behavioural, technology and data centre procurement led change.”

Anthony Day, Legal Director, Technology & Sourcing

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FOREWORD

The current macro trends driving the growth of data, and in turn the data centre industry, are incredible. The recent proliferation of tablets and smartphones, coupled with the content required to satisfy the (seemingly insatiable) end user needs, has led to an increased demand on data centre services, which only appears to be heading one way. Across the globe billions of dollars are spent on data centre infrastructure in order to meet the growing demands of businesses and their customers. Having the right data centre infrastructure has become the new “arms race” for companies trying to differentiate themselves in this crowded, technology driven world.

Aside from the macro trends, and even taking into account the current turbulent economic climate, the demand for data centre services has continued to rise and this is clear from our survey results. There are a number of factors driving this: (i) many companies have taken the decision to consolidate their collection of server rooms and data centres into centralised regional sites; (ii) virtualisation and compression technology

are enabling companies to do more with their technology assets, which means that companies are able to deploy more (and use more) data heavy applications, thus increasing demand; and (iii) the relatively recent exponential growth of Cloud based solutions (and cloud vendors) which require more data centre infrastructure to support their offerings.

What is particularly interesting though is how this all plays out in the local markets. Analysing the data supporting the global themes, we can see clear regional variations driven by relative market maturity, customer demand, investor appetite and the strength of the local economy, which are the real factors driving or inhibiting growth. It is clear that data centre customers and suppliers that understand the local market differences, but recognise the importance of data centre infrastructure being core to their own/ their customers’ business; and can reposition data centre strategy as a central enabler to digital growth, will be the companies that flourish over the next few years.



GLOBAL OUTLOOK

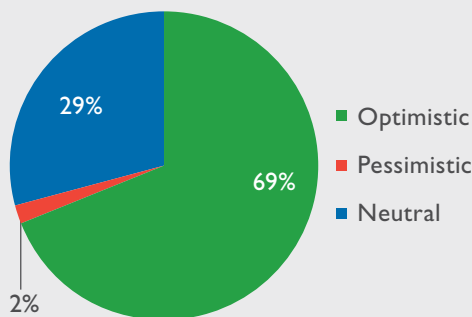
The evolution of technology and IT is placing ever increasing pressure on businesses. How and where to store data remains a key question for many CIOs and CTOs. As the need to increase storage capacity escalates, driven by the growth of data hungry customers and applications, the continued prevalence of cloud and the explosion of “Big Data”, the need for data centre services continues to grow to new heights. The race to stay ahead of the game has meant that many online businesses such as Google, Facebook and

Amazon have had to invest heavily in their data centre infrastructure to enable the launch of new products and services.

Although prospects for the global economy remain uncertain, indications from our survey suggests that those central to the data centre market continue to feel positive about the prospects for the industry as a whole, and in line with the macro trends, expect growth in the data centre sector over the next few years.

THE STATS:

Global Confidence

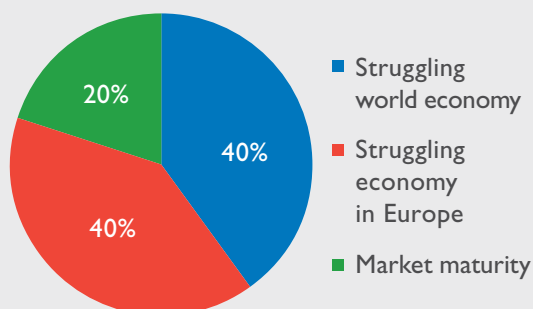


Globally 69% of respondents felt optimistic about the data centre industry. This optimism comes from global developments in online, digital and mobile technology, as well as improvements to service provision.

In terms of feedback from different categories of respondents, the following groups all felt overwhelmingly positive in respect of the outlook for the global data centre industry:

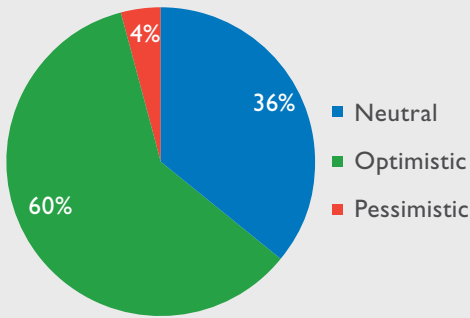
- Financiers are largely positive – 76% were positive about the outlook for global data centre industry
- Customers – 62% were positive about the outlook for the global data centre industry
- IT/Telecoms Consultants – 65% were positive about the outlook for global data centre industry

Global Pessimism



Although the clear majority of respondents remained positive about the data centre industry, the struggling global economy, combined with the weak European economy, has left some respondents feeling pessimistic about growth across the globe.

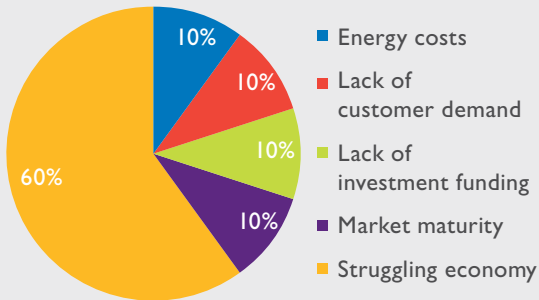
Domestic Confidence



Positivity was also seen regionally, with 60% of respondents outlining that local market growth had allowed for on-going developments in the industry. 93% of these respondents also outlined that technological developments in storage and virtualisation software in their local markets, had led to increasing demand and growth.

Technology development and advances in digital, online and mobile businesses also created a positive outlook for many.

Domestic Pessimism



Similar to the global results, the biggest factor for pessimism in domestic markets was struggling local economies hindering growth.

In certain domestic markets there is also a view that lack of investment and lack of customer demand for data centre services are inhibiting growth.



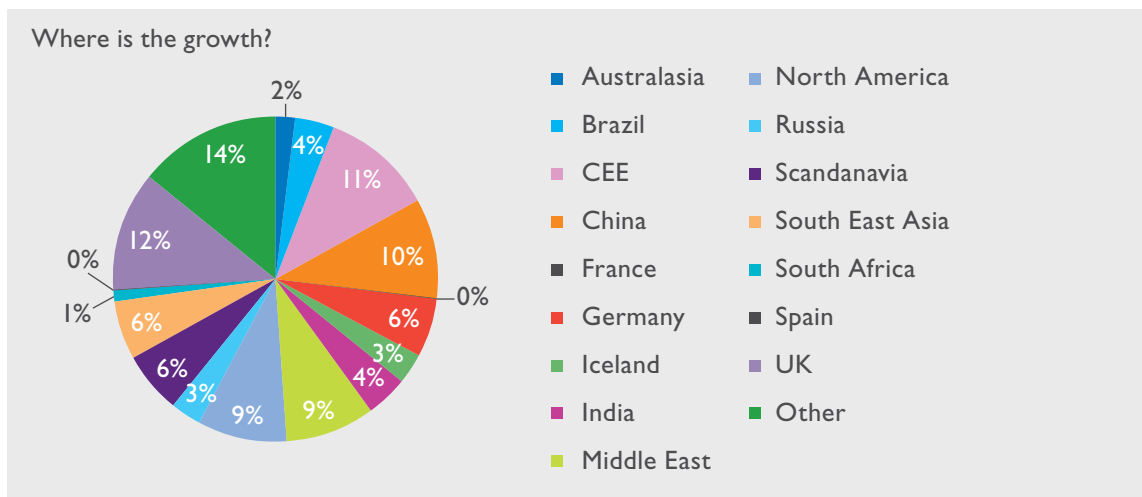
WHERE IS THE GROWTH COMING FROM?

It is evident from our findings that over the next few years the data centre industry is set to grow dramatically. However, the more interesting question is where will the growth come from and which are the “hot markets” right now.

Although negativity has been seen largely across Europe due to the weakened economy, green shoots are starting to appear in these domestic markets, with many large organisations set to expand their data centre capacity across European markets in the next 12 months.

Continued growth is also expected to be seen across Asia-Pacific, as many businesses express their interest in data hub locations such as Hong Kong, Singapore and Tokyo. This, combined with the continued increase of infrastructure and data centre outsourcing by major Indian and Chinese technology players, is all contributing to growth in the Asia-Pacific region.

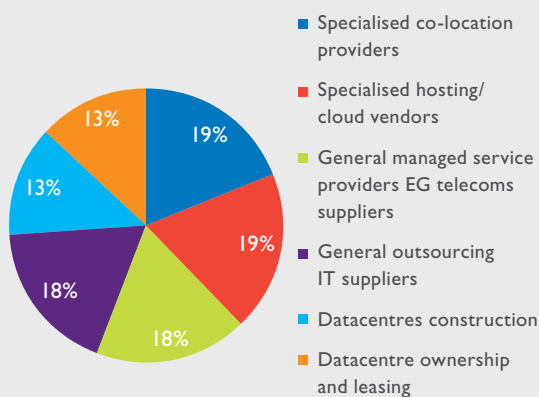
Of our respondents, (12%) felt that the UK offered the most opportunity for growth in the data centre industry in the next three years, followed by Central and Eastern Europe (11%) and China (10%). The Nordic region was identified as another area for growth, particularly for data centre build activity.



Peter Iherfelt, Partner, DLA Nordic
One area where we are seeing particular growth at the moment in terms of data centre build activity is in the Nordics region. This is primarily due to the cool temperate climate and access to renewable energy sources (such as geo-thermal and wind power) reducing on-going energy costs, the relatively safe geo-political environment and resilient infrastructure in the region.

Our respondents also outlined that they too expect to see specialised co-location providers to be one of the most active in developments in the sector over the next 12 months, this was followed by data centre construction and then managed service providers. This rings true with what we are seeing with certain co-location providers trying to re-position themselves as more central to the IT strategy of an organisation, rather than being viewed as a traditional real estate play.

Which market segment?



When asked which type of business in the data centre industry was most likely to grow in the next 12 months, our respondents outlined specialised hosting/cloud vendors and co-location providers as the most likely to see growth, followed by managed service providers such as telecoms suppliers.

“Overall, this data aligns strongly with the key messages that we are receiving back from our clients, whereby lack of data centre capacity in certain markets, the proliferation of mobile and “data heavy” services, the growth of Cloud and the convergence between key players in the market (e.g. telecoms suppliers, outsourcing suppliers and hosting providers all offering different flavours of data centre services) are all contributing to growth in the sector.” –

Anthony Day, Legal Director, Technology & Sourcing



WHO IS FUNDING THIS GROWTH?

Respondees expect to see specialised data centre providers and developers more active over the next 12 months, as well as an increase in the volume of private equity (PE) backed data centre projects emerging. We are increasingly seeing new funders and players moving into the market as they look for a new (and relatively secure) asset class to invest in, or to broaden their investment portfolio.

In terms of the key players who are funding growth our results show that they are broken down as

follows (i.e. those funders that respondents believe are likely to be most active in 2014):

- Specialised data centre developers/owners – 32% (and of those who felt specialised data centre developers would fund growth, 30% were from the UK, 8% from the UAE and 8% from Germany)
- Private equity – 22% (and of those who felt that PE would fund growth in the sector 61% were based in the UK)
- Specialised real estate investors – 12%
- Traditional real estate investors – 6%



“The last 18 months has seen a huge improvement in the global commercial real estate market. Pension funds and other institutional investors are increasingly looking at alternative asset classes, such as data centres to provide higher yielding income returns.” – **Paul Jayson, Partner, Real Estate, DLA Piper**



OPPORTUNITIES

A recent IDC report notes that data storage requirements by 2020 are set to reach 40 zettabytes (i.e. 40,000,000,000,000,000,000 bytes of data). This, along with the other macro trends identified, is going to have a massive impact on the data centre industry. However, set against this positive backdrop, there is still huge financial pressure on businesses to reduce their IT spend and be more creative in the way that they use and purchase data centre services (and how they approach their data centre infrastructure). With a key emphasis being on demand driven or consumption based models, so that customers

only pay for what they use. Companies that are able to harness these competing factors and recognise the seismic change that is taking place in terms of how customers procure (and wish to use) data centre services, will be better placed to leverage the current opportunities in the data centre market and achieve growth.

Respondents outlined a number of interesting responses in terms of the key factors they believe will create growth in the global data centre sector in 2014.

- Big data and virtualisation
- Africa is a massive frontier for growth and infrastructure development
- As technological issues become more complex the demand for professional guidance increases
- Business digitalisation
- All things “cloud computing”
- Data Centre Infrastructure Management (DCIM)
- Emerging markets
- Green IT
- New technologies
- Mobile technology
- New datacentre builds
- The opportunity to cut costs

It is interesting to note the wide range of responses, suggesting that rather than viewing data centres as one homogenous category there is a diverse spectrum of requirements depending on which part of the market you are aligned with, and this is a key theme that we have seen come through from the analysis of our survey results. This is why local knowledge is so important in this sector (and why our clients appreciate the ability for us to advise on, and differentiate between, the global and local drivers) to understand how this will impact the way the industry develops from country to country, and how this will shape the manner in which data centres are located, financed, built and marketed in each country.

“This macro trend for data centre growth are compelling but the market must now be seen as a component of an IT solution, rather than the property where the IT solution resides. Influences such as virtualisation and Cloud mean end users can get more IT out of less physical data centres.”

Andrew Roughan – Commercial Director-Infinity SDC

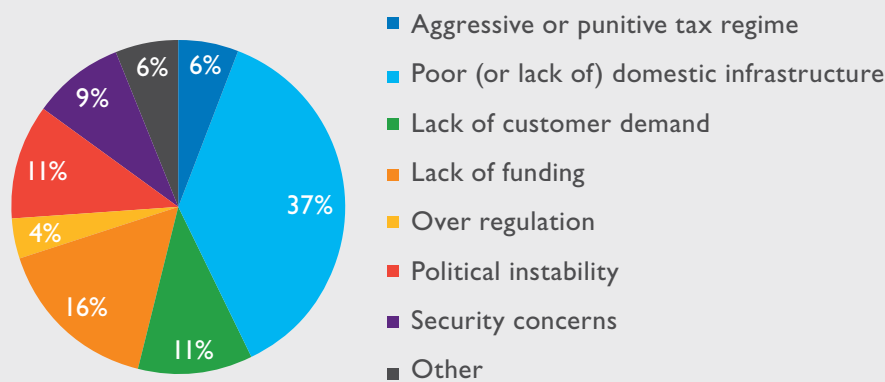
CHALLENGES

Generally, IT/Telecoms consultants felt that lack of domestic infrastructure was a key challenge in particular markets. IT/Telecoms consultants, real estate developers and hosting services providers all felt that over-regulation was another crucial challenge. For data centre customers, security was the main challenge. Hosting services providers often felt that a punitive tax regime (or lack of tax incentives) was hindering growth in certain countries.

Particular challenges and inhibitors to growth in new and emerging markets were: (i) poor in-country infrastructure (37%); (ii) lack of funding (16%); and (iii) political instability (11%).

We are seeing the effects of the global Big Data boom across the Middle East region, leading to rapid investment in the data centre industry over recent years. This is especially true in those Gulf countries, like Qatar and the UAE, which are positioning themselves as major business hubs focused on supporting the growth of digitally enabled and high-tech business. Despite this investment, there are still some key challenges in the region for data centre owners, operators and users, including uncertainty regarding relevant data protection and cybercrime laws applicable to information access, collection, disclosure and transfer. Clarification of such issues could help to speed up the adoption of outsourced data centre and cloud based solutions in the region.” **Paul Allen, Head of Intellectual Property & Technology, DLA Piper Middle East**

What are the key challenges in the data centre sector in your country?



“Other” key barriers by respondents were outlined as:

- Lack of capex investment
- Budget constraints
- Complexity
- Training staff
- Data protection regulation
- Laws & regulations
- Not being a part of our core business
- Perception of safety and security/data security
- Skilled resources
- Keeping up with the speed of technology change

THE IMPACT OF REGULATION AND LEGISLATION

Trying to tackle the impact of regulation and legislation was identified as one of the main drivers for customers making the decision to use data centre services. 25% of respondents felt that this was in the top three most important drivers (putting it at number 2).

This chimes with what we are seeing in respect of the increasing burden of data protection, data security and cybercrime legislation that apply to international businesses, and how they are looking to use their data centre strategy to help shape compliance. Keeping key customer data secure is of paramount importance to businesses in the digital age. This is even more complex for organisations operating in regulated sectors (e.g. financial services, pharma, healthcare, aviation, public sector, utilities and defence, etc) and across multiple geographies who have an ever increasing burden of regulation to comply with.

For data centre providers, offering solutions that are regulatory compliant, can be a key factor in driving growth in their markets as it helps to ease

the compliance burden for their customers. It is in this space that there is still huge potential for Cloud vendors to better develop their solutions in order to meet the requirements of their regulated customers and unlock greater value from this slice of the market.

Some respondents also pointed to regulatory concerns in terms of investment or operation in an overseas jurisdiction (including from a tax perspective), regulation as to construction of data centres and the myriad of local laws to do with zoning/planning requirements, particularly in respect of data centre build activity.

Many of our data centre operator clients are looking to create a common 'look and feel' across their global data centre portfolio. Divergent local law and regulation impacting on data centre design, build and operation does inhibit this however.

"Do not underestimate the amount of work related to new regulations",
CIO, DC Customer, Sweden

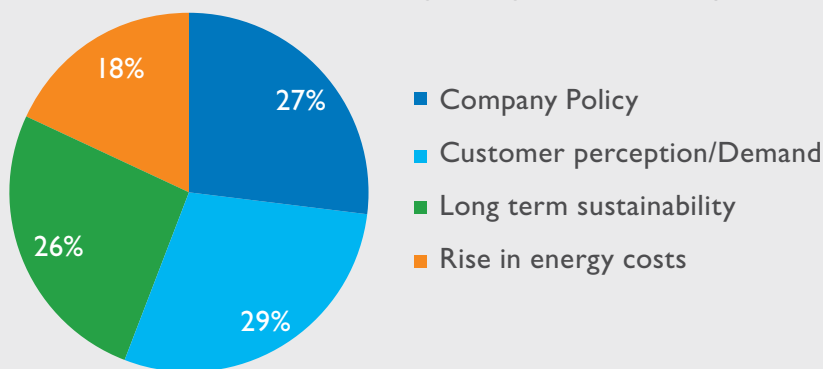


SUSTAINABILITY, CLEAN-TECH AND CONTROLLING ENERGY COSTS

Despite the current growth in the global data centre market, we anticipate that greener, more efficient facilities may act as a catalyst for expansion. Innovative design and the use of more efficient technology will also enhance development in the sector. Anecdotally this is apparent just from the creative range of buildings that have already been used in recent years to house data centre facilities, such as ex-military bunkers, churches, caves, old shopping malls and even cargo tankers.

An overwhelming 74% of respondents felt that having a recognised sustainability or clean-tech accreditation increased the appeal of a data centre facility. The main drivers for seeking such accreditation were response to customer perception and demand (29%), in response to a company’s own sustainability policy or agenda (27%) and to help achieve long term sustainability (26%). Another key factor cited was trying to tackle the ever-rising energy costs (18% placed this as second most important), due to power and cooling costs being the single most expensive run cost for data centre facilities.

What are the main drivers for seeking a recognised sustainability or clean-tech accreditation?



As identified by the survey respondents, sustainability and green accreditation are gaining increasing prominence. Whilst a more efficient building will result in lower energy costs, the badging of a facility with a recognised accredited scheme such as LEED (US), BREEAM (UK) or other local versions is important for stakeholders such as customers, shareholders and investors.

As mentioned previously (in the impact of Regulation and Legislation section) a lack of a common approach acts as inhibitor or at least a “negative” in terms of data centre expansion. The same applies with green accreditation. Our clients often seek our advice on the similarities and differences between the various international accreditation systems, in what is a fast-changing and dynamic environment.

CASE STUDY:

We recently advised O2, a leading Nordic wind farm developer and operator on their strategic deal with Google, whereby Google will buy the entire electricity output of a new wind farm, in northern Sweden, for the next ten years. This power purchase agreement (PPA) will enable Google, which is already a carbon neutral company, to run its Finland data centre using only renewable energy.

NEW BUILD ACTIVITY

Most respondents (57%) felt that there would be a slight increase in new build data centre activity in 2014. Specialised co-location providers and specialised hosting services providers/cloud vendors were expected to see the most new build activity in the next 12 months. Some respondents also expect to see some new build activity from very large regulated customers, such as banks and in the public sector.

31% of respondents expect specialised data centre owners and developers to be most active in developing and acquiring assets in the next 12 months. Private equity (PE) is also expected to make a play with 22% of respondents stating that the PE houses would be active in developing and acquiring assets in the data centre sector in the next 12 months. There is also expected to be some activity from specialised real estate investors, and investment banks (18%).

Our view is that much of this demand is driven by the maturing nature of the cloud computing market, with cloud based suppliers and other hosting service providers increasingly developing their own data centre capabilities or relying on the infrastructure of specialist data centre providers to create the platform to launch their new product and services.

Anthony Day – Legal Director, Technology & Sourcing UK



DATA SECURITY

With businesses producing increasing amounts of confidential information and critical data on a daily basis, data security demands are high on the agenda.

Data security and integrity was identified as one of the main drivers for customers making the decision to use data centre services, with 19% of respondents noting this as the most important factor to consider.

This is not particularly surprising, as for many customers by selecting a specialist third party data centre provider you are simply buying the security

of that provider. Similarly, for organisations that tend to build their own data centre, this is often driven by a decision to have a greater level of security and control over their data centre infrastructure and key customer data.

For many clients in the financial services sector and certain other highly regulated sectors one of the key reasons why clients build new data centres rather than outsourcing this activity, is due to security concerns (particularly in respect of the security and control of their core customer data).

“Data security is the number one agenda item for many data centre customers in the Asia-Pac region, partly driven by the patchwork quilt of data protection legislation in the region, but also bore by an often ill-conceived view of vendors not approaching these risks with the same degree of importance as compared to other markets.” **Scott Thiel, Head of Intellectual Property & Technology, DLA Piper Asia**



“Security is crucial” **Manager, IT Consultant, Italy**

KEY DRIVERS FOR DATA CENTRE ACTIVITY

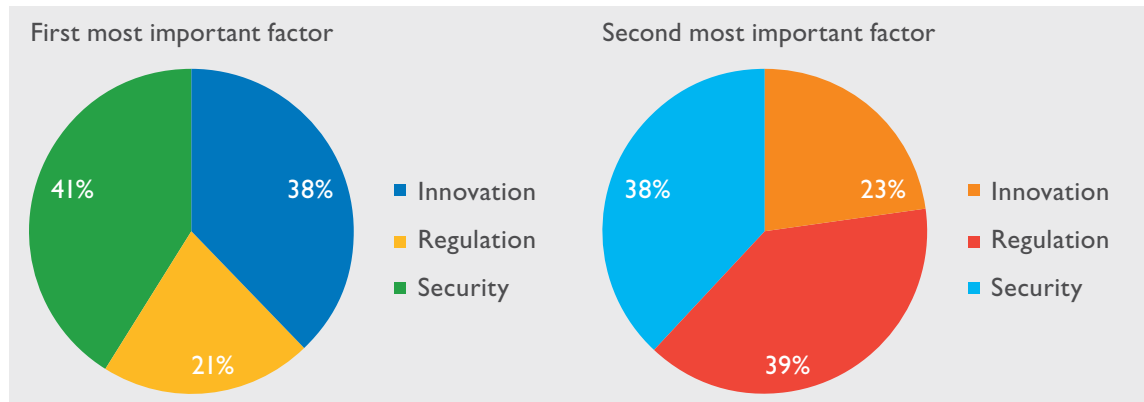
The main drivers for customers to use data centre services as outlined from our survey results are helping to achieve cost savings, security concerns and managing compliance with legislation/ regulation. Other drivers cited include flexibility, developments in technology, increase in digital and mobile business, as well as general economic growth.

Unsurprisingly, cost is one of the most critical factors affecting the adoption, use and purchase of data centres and data centre services. Customer organisations seeking to reduce both Opex and Capex costs by outsourcing all (or a critical component) of their data centre operations was another key trend that has emerged.

Finally, it was clear from respondents that flexibility is a major factor affecting the sector – to allow businesses to focus on their core activities (e.g. by outsourcing non-core activities) and to allow for a more flexible approach in terms of data centre usage, which is driven by the demand and needs of the business was of paramount importance for many respondents. Clients often look to us to advise on structuring and implementing their third party data centre arrangements to provide them with the flexibility that they need to support their rapidly changing business.

OTHER KEY GLOBAL FINDINGS

As well as data security and legal regulation being key decision points (as expected), what was particularly interesting to note was that innovation was seen as a key driver when making the decision to use a data centre facility.



WHAT DO CUSTOMERS WANT?

We asked respondees to specify what they were looking for from their data centre projects and what their most important business lesson was from the last 12 months.

Based on feedback from the respondents and feedback from our own customer clients, the key drivers for most data centre projects tend to be:

- achieving significant cost savings (including reducing both Capex and Opex spend);
- flexibility/scalability to allow usage based on business demand or consumption;
- predictability in terms of price;
- robust and secure service, including a resilient set of service legal agreements and remedies for service failures or outages; and
- ensuring the security, integrity and availability of the data stored.

MOST IMPORTANT BUSINESS LESSON IN THE LAST 12 MONTHS

"Quality is much more important than price",
CIO, IT Technology Consulting Firm, Brazil

"Sweden is a great country for Data Centers to establish",
Real Estate Developer, Sweden

"There is a demand for faster delivery of IT services"
Chief IT Infrastructure Specialist, Financier, Denmark

"The most important business lesson of the last 12 months...Trying to deal with cloud evolution and volume of providers for each application type",
Systems Analyst, Customer, UK

"The speed of technology improvements and changes can lead to new business models"
Director, Hosting services provider, Germany

"The most important business lesson of the last 12 months...how to prove Rol to customers which demonstrate the necessity of working with data centers",
Senior Sales Manager, Outsourcing Providers, Israel

"We are not yet over the downside in business attitude to investment",
IT Manager, Customer, UK

"You need good infrastructure to support a growing business",
Managing Director, Hosting Services Provider, UK

"The European market is declining more than expected",
Sales Manager, Outsourcing Provider, Netherlands

"Get the infrastructure fit for purpose and the skills to maintain it",
IS Manager, Hosting Services Provider, UK

"China is an incredibly difficult market to succeed in",
Segment Director, Vendor, United States

CONCLUSION

So what does this all mean for businesses and the data centre sector? The key theme of growth and overall positive outlook that pervades this report is obviously encouraging for the data centre market as a whole. However, what is more interesting is how fragmented the local markets are, and the opportunity that this creates for businesses that understand the local market drivers and are able to leverage this to their advantage (and also a word of warning for companies planning to use the same approach in multiple markets, that may be disappointed). This also explains the sense of pessimism in certain domestic markets in Europe, that have had to weather the storm of the recent Eurozone economic problems.

It is positive to see that new players are moving into the data centre investment market (even if this is driven in part by a general sense of lack of opportunity in certain other traditional investment markets) and as this segment of the market continues to mature, we will see greater creativity and complexity being used in terms of the investment structures and options available. Whilst data security and regulatory concerns still pose a headache for many in the global data centre industry, again this is creating opportunity for those that are able to help their

customers manage the compliance risk and shape this through their data centre strategy. Also it is encouraging to see that sustainability and clean tech (and the clear impact this can have on rising energy costs) are starting to gain importance on a global stage.

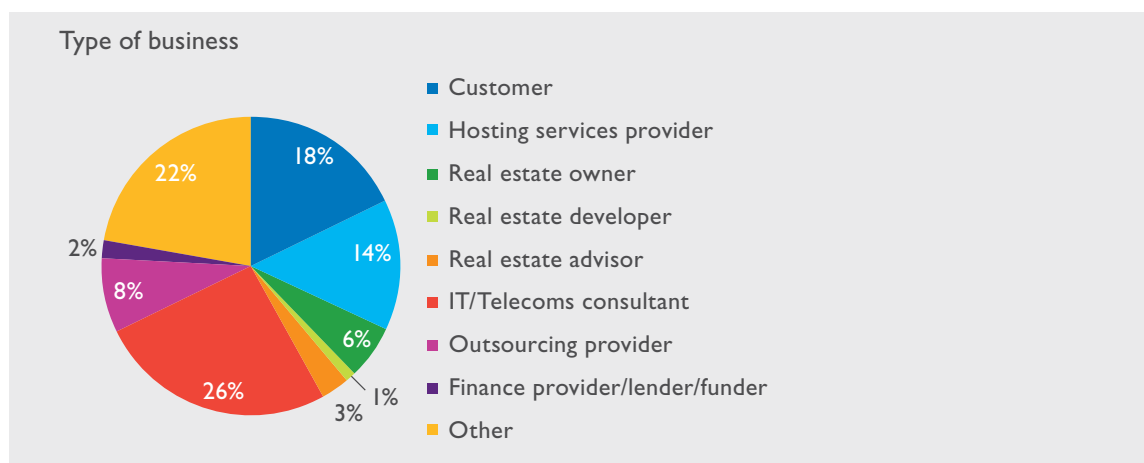
However, the most important “take away” has to be understanding how to cope with technology change and the impact that this is having on the market. We can see that technology change is dramatically changing the way end-consumers use and consume data (and has contributed to the prolific data growth we are seeing), Cloud, Big Data, virtualisation and changes to storage technology are all hugely disruptive and having their own impact on different aspects of the market. Finally, customers now procure data centre services in a very different way, focusing on flexibility and being “demand driven” (based on business needs) which is requiring traditional data centre players to re-think their approach and leading to the growth of modular and more flexible data centre solutions. Being able to harness the opportunities that technology change is driving will be absolutely critical to those organisations wanting to benefit from the current growth that the market is seeing and continues to expect to see in 2014.

“The survey results support what we have been saying – the data centre industry is a diverse collection of players who have very different business needs and drivers. The level of sophistication demands that bespoke solutions are provided” **Paul Jayson, Real Estate Partner, DLA Piper**

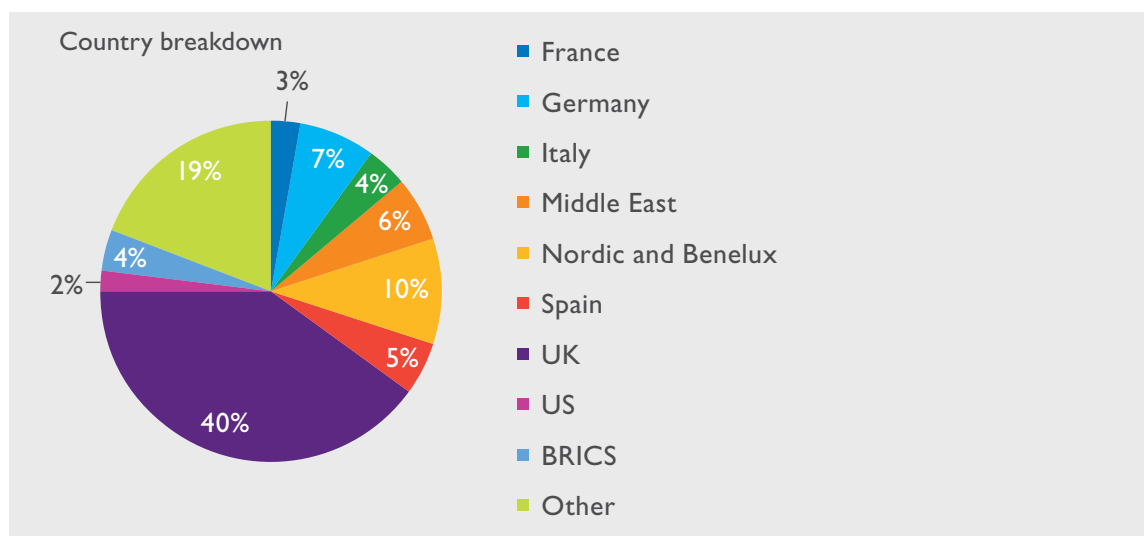
ABOUT THIS REPORT

The research was carried out in Q2 and Q3 2013, in collaboration with leading data centre market intelligence organisation Data Centre Solutions and is based on data from:

- 235 online interviews with industry professionals (see graph below for a break down)
- Most respondents were IT/telecoms consultants, followed by data centre customers and hosting services providers
- 'Other' refers to a variety of roles including infrastructure as a service (IAAS) specialists, data centre engineers, communications professionals, facilities managers, trainers and suppliers involved in the sector.



- The highest percentage of respondents was seen in the UK and European markets.
- Of the UK respondents, over half who responded worked for global businesses
- 10% of respondents were from the increasingly popular data centre locations of the Nordic and Benelux regions



ABOUT US

DLA Piper is a leading global business law firm with over 4,200 lawyers in more than 30 countries throughout Africa, the Americas, Asia Pacific, Europe and the Middle East.

With deep expertise in the telecoms/IT, technology, infrastructure, real estate, construction and financing sectors, we specialise in advising our clients on all aspects of data centre services and projects across the world.

With a presence in every key market, DLA Piper is well positioned to support your data centre requirements – whether you are a customer, supplier, developer or investor, it is our local

knowledge (combined with our global expertise), that enables us to leverage the best possible deal for you and bring to bear our deep understanding of how the data centre market operates in your region.

For further details of the study please contact DLA Piper's Data Centre PR Team:

Hannah Roberts

PR Manager

T +44 (0) 161 235 4557

hannah.roberts@dlapiper.com

EDITORS:



Paul Jayson

Partner, Real Estate

DLA Piper

T +44 (0)7968 558751

paul.jayson@dlapiper.com



Anthony Day

Legal Director, Technology & Sourcing

DLA Piper

T +44 (0)7738 295237

anthony.day@dlapiper.com

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