

ISSUE 3

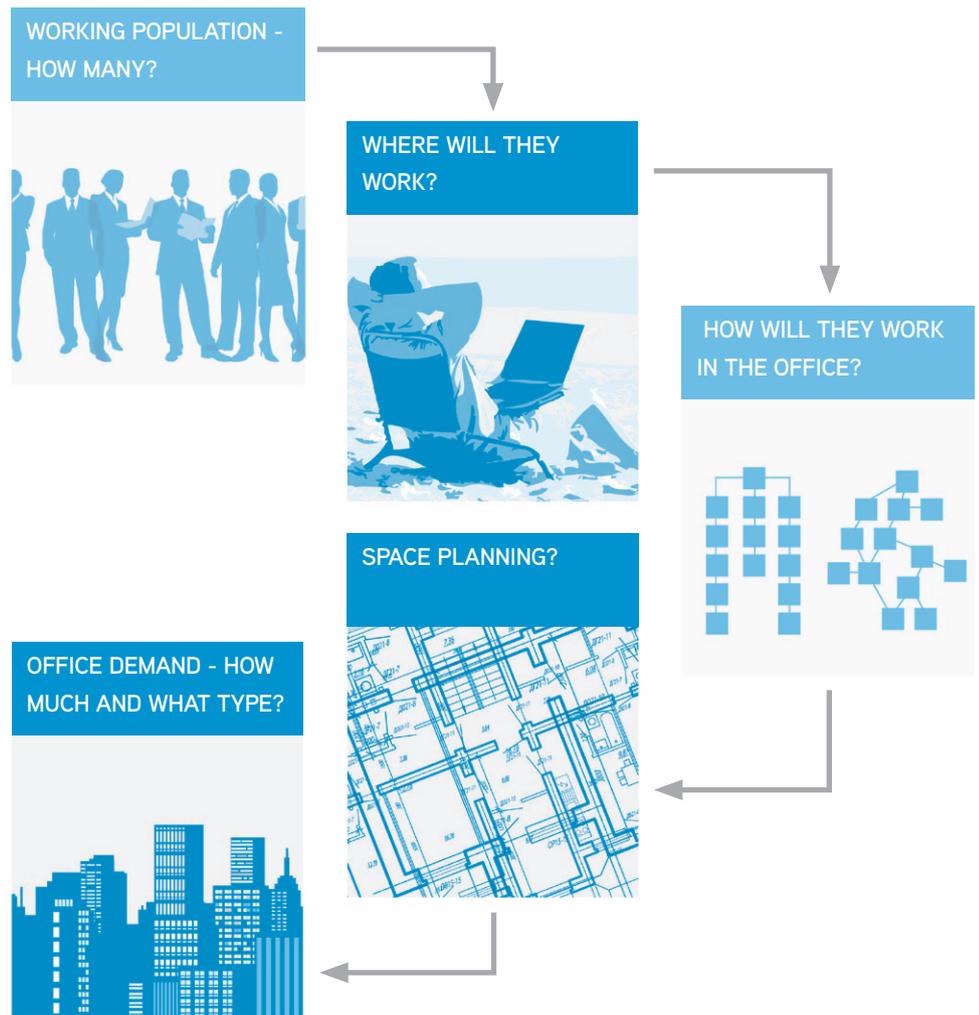
# Generation Y

## SPACE PLANNING AND THE FUTURE OF WORKPLACE DESIGN

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- > The demand for Alternative Workplace Strategies
- > Enabling a mobile workforce
- > The impact of technology and working needs on workplace design
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### OFFICE MARKET ALGORITHM



In the first two reports of our Generation Y white paper series we explored what motivates this burgeoning generation, how they work and how population trends will impact office space demand across Europe. In this paper we address the final two components (2 and 4) of what we term the Office Market Demand Algorithm:

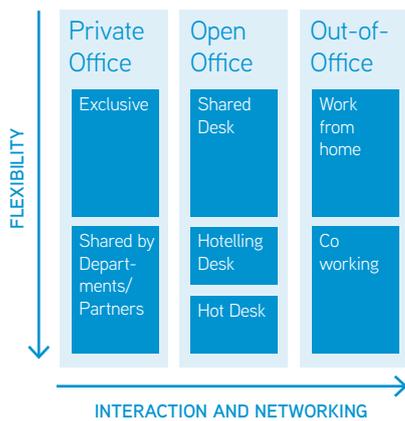
1. Working Population: How Many?
2. **Alternative Workplace Strategies (AWS): Where?**
3. Changing working styles/needs: How?
4. **Space Planning Solutions.**

It is the combination of all these factors that will determine both how much office space we need in future and the type of space required.



“The mix between virtual and real workspaces will be one of the defining trends over the next decades as companies explore the future of work. Getting people to work effectively together will be the key critical success factor. Productivity of people will drive change”.

Unwired Ventures Ltd, 2011



### THE DEMAND FOR ALTERNATIVE WORKPLACE STRATEGIES

AWS is certainly nothing new, having been around since the early 1990s. It is one of many terms coined to describe the myriad ways in which businesses have reshaped their workplace as a result of the growth of the internet and telecommunications technology. Notably, by enabling staff to work from home or in alternative locations.

From a corporate perspective, “space optimisation” (79%) and “cost savings” (74%) are the main reasons for companies to implement alternative strategies. Furthermore many companies see lots of potential for improvement in terms of space usage efficiency - only 55% of offices are utilised at a satisfactory level, according to research produced by New Ways of Working’s Benchmarking Study; 2010.

Employee demand is also fuelling the needs for AWS. Home-based working (\*89%), the use of drop-in spaces/hoteling (\*82%), non-company offices (\*37%) or satellite offices (\*35%) are used by an increasing number of enterprises to satisfy employee demand. We also know that employees want to be able to have a flexible workplace that can be taken wherever they go.

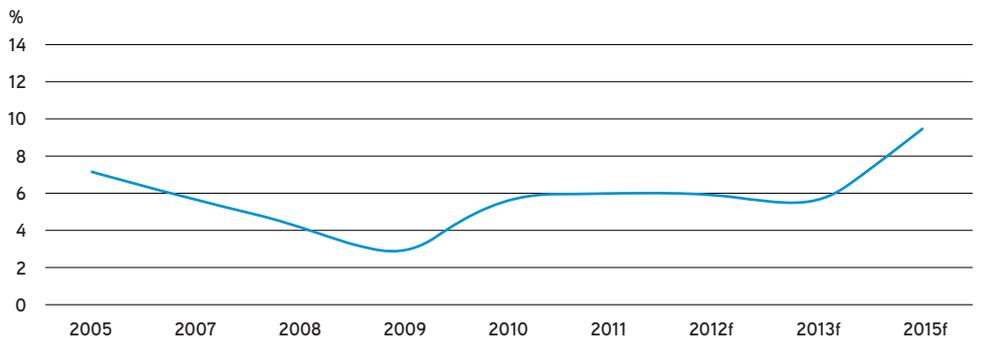
This suggests that we face a big drop in the use of traditional office space and that traditional office space itself has a requirement to be more flexible in order to accommodate companies wherever they may go.

**Whilst it is difficult to put this into numbers based on individual companies, there is an underlying raft of factual evidence which points to the growth in mobile working.**

### ENABLING A MOBILE WORKFORCE

According to the International Data Corporation (IDC), the number of mobile workers globally exceeded one billion people in 2010 and is forecast to grow by 6% per annum over the next years.

FIGURE 1: GLOBAL MOBILE WORKFORCE AS % OF WORKING POPULATION



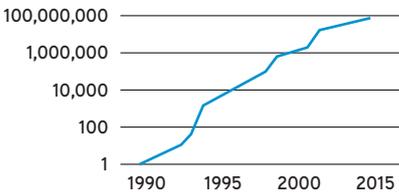
Source: International Data Corporation (IDC)

Mobile working has been brought about by rapid changes and advancement in information technology and as it becomes more accessible, more workers will be able to work remotely. Key factors to enabling a mobile workforce include:

- > Quick, reliable access to the Internet
- > The cost of information communication technology (ICT)
- > The ability to access company information and data outside of the office
- > Increased use of mobile devices

\*the % figure represents the proportion of companies who use this alternative to a traditional office.

**INTERNET TRAFFIC (TB/MONTH)**



Source: Stony Brook University, "The Impact of High-Speed Internet Access", 2010



**High Speed Internet Access Growing**

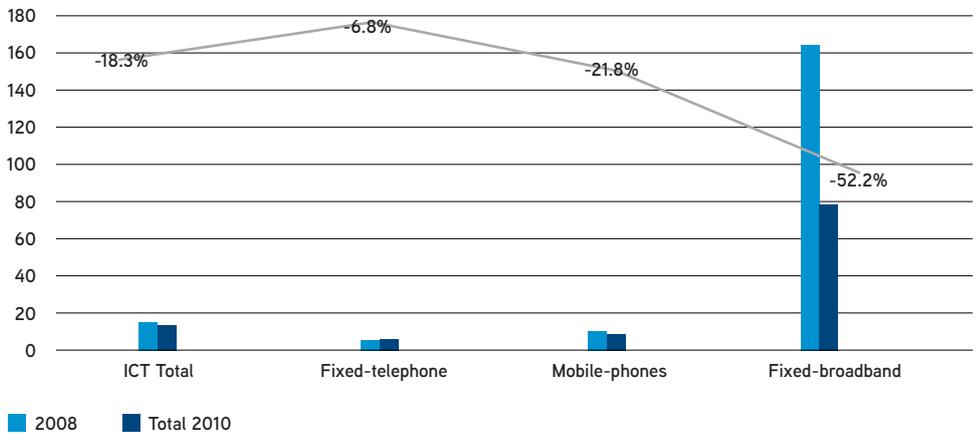
Data traffic has undergone exponential growth from 1 TB/month in 1990 to 20 thousand TB/month in 2010 and is forecast to reach the heady heights of 81 million TB/month in 2015 according to research conducted by Stony Brook University.

To further advance access to broadband, the EU has created a 'Digital Agenda' with the goal of bringing basic broadband to all Europeans by 2013. In fact, Europe (EU27) currently has the biggest broadband market in the world with 128.3 million lines. The average broadband (fixed lines) penetration in 2010 adds up to only 25.6% of the total market, but nonetheless underwent significant growth over the last six years coming from only 4.9% coverage in 2004. This development is accompanied by mobile internet usage which has tripled over the last three years in Europe and was itself responsible for 6.1% of total broadband usage in 2010.

**ICT Prices Continue to Drop**

In two years, ICT service prices have fallen by 19% and broadband prices dropped by about 52%. Thanks to strong governmental support, especially in Europe, prices are forecast to fall further, making access even easier and more cost effective.

**FIGURE 2: GLOBAL ICT PRICES (% MONTHLY GNI/CAPITA)**



Source: ITU; "Measuring the Information Society"; 2011

The arrival of "Cloud Computing" has enabled enterprises to store their information in data centres outside of the actual offices. It is a major driver behind the effectiveness of the likes of Apple and Amazon – the worlds' two major front-runners in the growth market of mobile working, playing and retailing through the use of 'tablet technology'.

**MOBILE WORKING ON THE GO**

Office specialists are growing to provide innovative, mobile working solutions. Regus has invested in building remote working office space in and around transport nodes. In November 2011 Regus agreed a deal with the French state owned rail company SNCF to install drop-in business centers across its 3,000 train station network as it seeks to cater for the growing trend towards mobile working. Business centers will initially open in Paris Nord, Le Mans, Bordeaux, Nancy, Amiens and Lille and Flanders with plans to extend the program to other stations later. Regus is also reported to be in discussion with other rail network operators across Europe.

Even on public transport mediums, notably trains, companies such as Nomad are engaging train operators to provide wireless technology during the journey.



Despite security concerns over the safety of data, cloud computing is anticipated to grow significantly allowing for reduced operational costs via improved data management, less on-site (i.e. within an office) server maintenance and a higher energy efficiency of the actual office, let alone more office space and a more pleasant environment. As a part of the previously mentioned EU “Digital Agenda”, it is believed that such data storage solutions will lead to a reduction of IT department costs by 70%. Equally it will drive the demand for bespoke data centers across Europe.

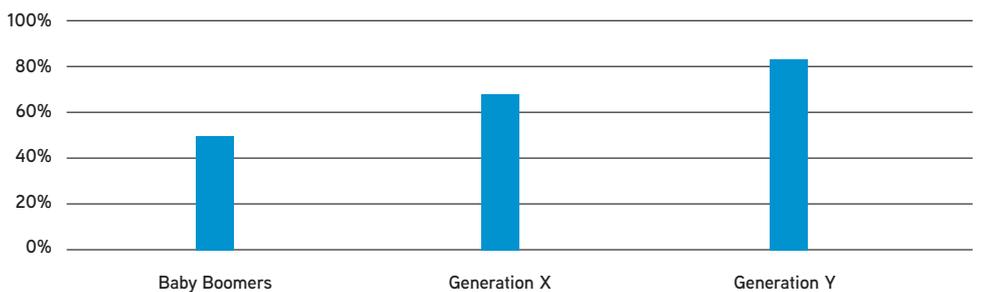
The other clear advantage is that it will allow employees to access data and files from out of the office. Not only does this support the work preference of the new generations in the workforce but allows for reducing and/or restructuring the office space footprint.

**Wired vs. Unwired?**

A closer look at the share of wireless and fixed-wired devices shows that in four years data traffic from wireless devices will surpass traffic from fixed-wired devices by 11%.

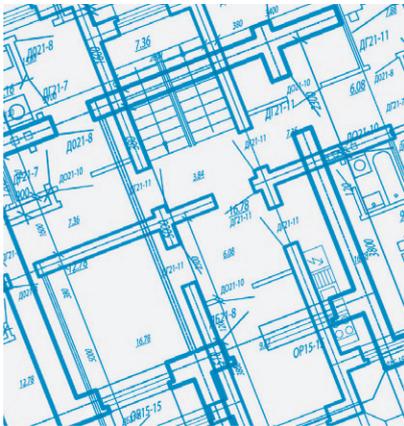
Surveys undertaken in the US (in 2010) show that 84% of Generation Y use wireless internet, followed by 69% of Generation X and at least 49% of Generation Baby Boomers now see a benefit in this convenient way to surf the world wide web. Furthermore Generation Y is the first Generation that owns more laptops (70%) than desktop PCs (57%) and moreover they possess both - on top of that they carry cell phones (95%). As technology advances we are likely to see more and more use of tablets and smaller handheld devices for working, in addition to laptops, increasing the possibility of remote working.

**FIGURE 3: PROPORTION OF US GENERATIONS USING WIRELESS INTERNET**



Source: Pew Research Center’s Internet & American Life Project

As younger generations are almost constantly online and everywhere using a myriad of gadgets, they obliterate the borders between private and working life, creating the need for AWS.



In the early noughties, maximizing the quantity of staff in an office area was important for companies to keep costs down. This view was not normally shared by the employees who occupied it.

### THE IMPACT OF TECHNOLOGY AND WORKING NEEDS ON WORKPLACE DESIGN

As the ways in which we work has changed, so too has office design and space planning. Whilst we continue to shift toward a more network driven way of working, we also shift to the need for more flexible, collaborative space. However, the needs between different companies, their branches and departments can vary a lot so it is hard to generalise the needs and design solutions for all offices. Nevertheless there are noticeable changes to space planning techniques if we look at the changing designs of office space since the early 1990s, courtesy of Arcadis.

Figure 4 shows the sort of office layout still favoured by large Law firms and is typical of the 1980s and early 1990s with heavy use of perimeter cellular office space with some open plan desking.

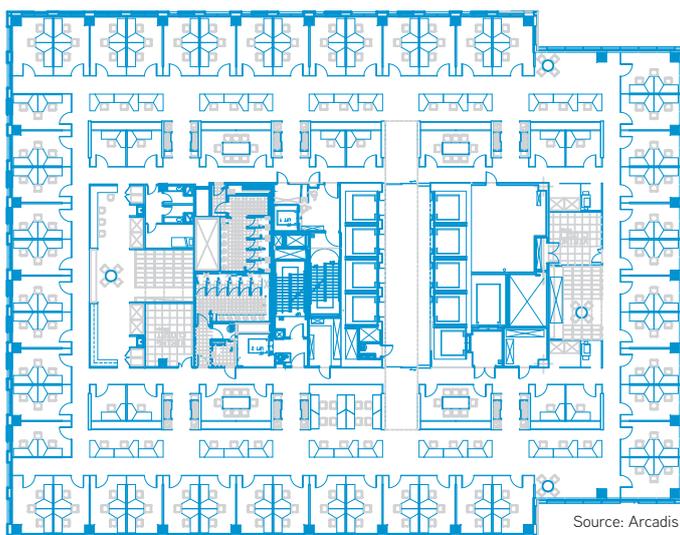
This type of layout where the cellular offices occupy all the natural light from the windows is not regularly used today.

A more modern approach to a heavily cellular space which also supports some open plan desking would put offices and meeting rooms in toward the centre of the building allowing most of the natural light to flood through the open plan space around the perimeter, as shown in Figure 5.

Moving through the late 1990s and early noughties, this office design begins to adapt a more open plan environment for staff. Partly driven by the requirement to fit more desking into offices and to encourage knowledge sharing and interaction between employees.

When flat-screen technology was introduced desk design changed again to more traditional, smaller branch-style open plan environments allowing maximum workstations within a given space.

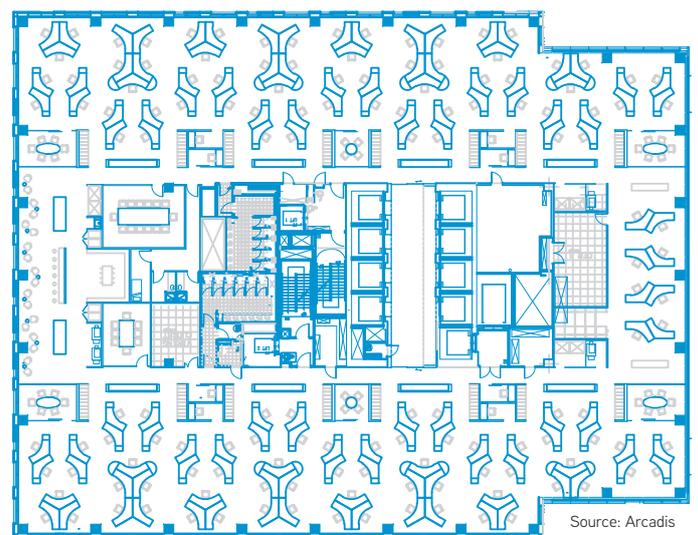
FIGURE 4: CELLULAR OFFICES - 1980S AND EARLY 1990S



Source: Arcadis

This example is typical of the 1980s and early 1990s with heavy use of perimeter cellular office space.

FIGURE 5: EARLY 2000



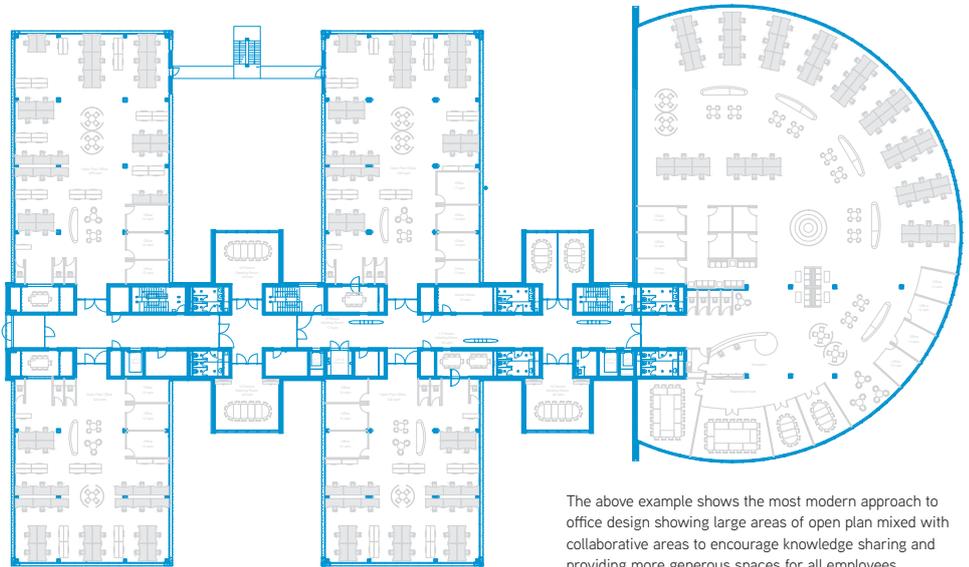
Source: Arcadis

The above example, typical of early 2000s, shows an almost completely open plan office floor with small one-to-one rooms for quiet phone calls and meeting spaces allocated to the central core of the building.



The above photos are of Colliers International workspaces.

FIGURE 6: OFFICE SPACE OF TODAY/FUTURE



The above example shows the most modern approach to office design showing large areas of open plan mixed with collaborative areas to encourage knowledge sharing and providing more generous spaces for all employees.

Source: Arcadis

The modern approach is to provide more collaborative working areas where staff can easily come together informally to discuss business. More fun areas have also been introduced where staff can meet, chat and take a break from the daily routine. In addition, private, quiet areas have been incorporated where employees can make private phone calls and work undisturbed. Equally, and just as importantly, more space has been provided for all employees both at their desk area and in the office space generally.

This change toward more open, flexible and collaborative space is driven by the demand and need for social interaction and group working within an office. Companies that satisfy these needs the best are typically better performing businesses. Johnson Controls launched a research project amongst their Generation Y staff to see how they could be made to feel happier and more productive through workplace innovations. Overall there was a preference for offices that support collaborating, provide common areas and a decent degree of the latest IT. Though they do like flexibility and open places, 70% of Gen Y staff would rather have their own desk than sharing or having to book a new desk every day. It was also clear that Gen Y staff wanted more private desk-space comprising at least 12 m<sup>2</sup>.

Collectively the emphasis has been on enabling and encouraging employees to enjoy the office space more. Combined with policies which support flexible office hours and permit staff to work remotely, employees feel more valued as individuals.



Space per person currently ranges from 12-15 m<sup>2</sup>, up from 8-10 m<sup>2</sup> in the late 1990s and early 2000s.

| Traditional 'Main Office' Use                | Office-based Employment | Amount of Space Needed |
|--|-------------------------|------------------------|
| 2012   | 200                     | 1,800 m <sup>2</sup>   |
| Working population declines - 10%            | 180                     | 1,620 m <sup>2</sup>   |
| Remote working erosion - 15%                 | 153                     | 1,377 m <sup>2</sup>   |
| Space Planning Increase to 12 m <sup>2</sup> | 153                     | 1,836 m <sup>2</sup>   |
| 2030   | -23.5%                  | +2%                    |

## CONCLUSION: IMPLICATIONS FOR OFFICE DEMAND

There are clear, growing trends which will impact office space demand across Europe in the future.

### Remote Working:

- › The growing trend toward remote working will erode the demand for desk-space within a traditional office environment. Whilst hot-desking/hoteling will absorb some of the growth in remote working within the 'traditional' office (remote workers won't spend every day of the week at home), the major recipients of this new demand will be the home-office and the increased use of satellite or 'non-company' offices.

### Space Planning:

- › The growing need for flexible, collaborative space and more generous personal desk-space will actually increase the demand for 'traditional' office space, per person. If companies move from 8-9 m<sup>2</sup> per person toward 12m<sup>2</sup> per person in response to employee and corporate demand, this equates to a 25-33% increase in the volume of space required per person.
- › Equally, it will help drive demand for bespoke data centres as IT storage and management is increasingly outsourced. The reduced requirement for office-based servers and IT equipment within will release some space for other forms of use.

### Overall implications for office demand

When considered in relation to the other major driver of office space demand – working population growth – we can gain some understanding of whether the combination of these factors will lead to a decline or increase in the demand for office space.

To start, let us make some assumptions clear in this analysis. The analysis assumes that as of 2012 the amount of space provided per person is 9m<sup>2</sup>, for an office comprising 200 staff. This equates to an office environment of 1,800 m<sup>2</sup>. So, if we look ahead to 2030, what is the likely scenario, using the table opposite as a basis for calculation.

Put simply, even though the main office-based population is set to shrink by almost 25%, the increase in the amount of space per person will mitigate against this erosion in office space demand.

Overall the message is that we do not necessarily believe there will be a significant change (fall) in the amount of space required for traditional office use, despite a fall in office-based employment.

There will, however, be a great deal of change in how office space is used and configured. Given the effect on the bottom line of reducing rental outgoings, there will be increasing pressure to utilise technology and other flexible office solutions to cut the regular rent demand whilst keeping core staff happy, motivated, productive and wanting to come to work. Amidst ever more competitive labour markets, having the right workplace strategy will be key to a company's future success.

For developers and landlords, having the right type of space which can accommodate changing layouts and needs and provide the sustainable building solutions which occupiers and investors are now demanding will be paramount to the success of an office portfolio.

## 532 offices in 62 countries on 6 continents

United States: 147  
Canada: 44  
Latin America: 19  
Asia Pacific: 204  
EMEA: 118

- €1.3 billion in annual revenue
- 116 million square meters under management
- 12,300 professionals

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