

Perth CBD Growth Sectors (Shared Work Spaces and Technology) Study – August 2017



Prepared for the



CITY of PERTH

Prepared by
Y Research – an independent West Australian property information company

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Executive Summary

Underpinned by the resources boom, over the past decade Western Australia, and its central business district, has undergone significant transformation.

Between 2004 and 2017, new office developments have grown the Perth CBD office market by over 30%. This growth was driven by demand created by major resources companies and their suppliers. At the peak of the boom in 2012, 70% of occupied office space in the Perth CBD was occupied by resources companies, firms servicing the resources industry and the Government.

Demand from these global resource players drove office vacancies in the Perth CBD to world lows of under 0.5% in 2008. Since the peak of the mining construction boom, resources companies and their project partners have vacated space. As a result, office vacancies have peaked over 25%. This level of vacancy has not been seen since the early 1990s.

As the Western Australian economy transitions away from the resources industry, a number of industries are emerging as major CBD office occupiers. In terms of new tenants, over the past 4-years improved market affordability has seen a significant increase in the proportion of CBD office stock occupied by technology companies and shared work spaces.

To allow the City of Perth to make more informed decisions in relation to co-working / business incubation facilities, the technology sector, and its capacity for commercial office take-up, this study analysed the current occupation of Perth CBD office space by shared work providers (serviced office and co-Working) and technology companies.

This study found 24 shared work facilities operating within the study area. These facilities occupy 22,412 sq m of office space. 74% of shared work space in the study area (16,574 sq m) is occupied by 7 serviced office operators across 12 facilities. The balance (5,838 sq m) is occupied by 9 co-working space operators across 12 facilities.

In terms of technology companies, this study analysed 38 new technology companies occupying space in the Perth CBD. These companies brought an estimated 803 employees into the Perth CBD and occupied 9,638 sq m. This was the largest growth of any sector in the Perth CBD in 2016.

This study highlights that shared work spaces and technology companies will continue to grow as office occupiers in the Perth CBD between 2017 and 2020. Including leasing transactions in the first half of 2017, shared work spaces and technology companies are forecast to occupy between 13,727 sq m and 17,277 sq m of office space in the Perth CBD by 2020. This would increase the amount of CBD office space occupied by these industries from 59,606 sq m at the end of 2016 to between 73,333 sq m and 76,883 sq m. This represents growth in space occupied between 23% and 29% by 2020.

Despite this strong level of growth and the relative sizes of the technology industry (8th largest occupier by industry) and shared work spaces (13th largest occupier by industry), the amount of space occupied will have a minimal impact on lowering Perth's office vacancies.

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1. Introduction

1.1 Background: Perth Office Market in 2017

Underpinned by the resources boom, over the past decade Western Australia, and its central business district, has undergone significant transformation.

Major local resources company, Woodside, bookends the beginning and conclusion of Perth's office development boom. In 2004, Woodside underpinned the development of Woodside Plaza, at 240 St Georges Terrace, relocating from a number of properties, primarily their headquarters at 1 Adelaide Terrace. In early 2018, Woodside, having outgrown 240 St Georges Terrace, will take occupation of Capital Square at 98 Mounts Bay Road.

Between the occupation of these two buildings by Woodside, new office developments grew the Perth CBD office market by over 30%. In total, over 550,000 sq m of new office space has been added. Developments such as Kings Square, Raine Square and 140 William Street represent new development precincts away from the traditional St Georges Terrace address.

This growth was driven by demand created by major resources companies and their suppliers. Our premium grade building stock is occupied by major multinational firms such as BHP Billiton, Chevron, Woodside and Rio Tinto. Engineering, construction and transport firms occupied significant secondary space to service major resources projects. Top tier multinational law firms, management consultancies and investment banks all opened Perth offices.

Demand from these global resource players drove office vacancies in the Perth CBD to world lows of under 0.5% in 2008. Office space the equivalent of just three floors in the Central Park building were available to lease across the CBD and neighbouring West Perth. At the peak of the boom in 2012, 70% of occupied office space in the Perth CBD was occupied by resources companies, firms servicing the resources industry and the Government.

Since the peak of the mining construction boom, commodity prices have fallen due to new supply brought on by completed resources projects. Investment in future projects has dried up. Resources firms and their suppliers have made significant staffing cuts which have flowed through to lower office space requirements. According to Y Research's 2017 Perth CBD Office Market Census, at the beginning of 2017, over 450,000 sq m of office space was vacant across the CBD. This represents a vacancy rate of 25.2%. This level of vacancy has not been seen since the early 1990s. Over half the office buildings in the CBD currently have a vacancy and 1 in 10 buildings are completely empty.

Adding to Perth's office vacancy, continued development of office space has created vacancies in two ways: -

1. Unleased space in new buildings; and
2. Significant backfill vacancies (largely in older, secondary stock) as tenants took up their pre-committed space in new developments.

However, the elevated vacancy rate is largely due to the equivalent of over two Brookfield Place buildings in the CBD being vacated directly or indirectly by iron ore companies and their engineering partners. Compared to 2012

levels, the amount of office space occupied by iron ore companies and engineering firms has decreased by over 40%.

The current level of vacancy has sparked fierce competition for tenants of scale in the Perth CBD as well as attracting suburban companies to relocate to the CBD. CBD property owners are offering once in 25-year deals to occupy high quality space in the core of the Perth CBD on rents not seen in over a decade and incentives not seen since the early 1990s.

Despite improved market affordability, Perth's office vacancy is forecast to remain high for the remainder of the decade due to the scale of space vacated by the resources companies. New companies are growing to occupy space and suburban tenants are relocating. However, these companies are significantly smaller than the resources companies they are replacing.

New drivers of growth need to be facilitated to reduce Perth's record office vacancy.

1.2 Post the Resources boom, New drivers of Office Demand in the Perth CBD – (Shared work spaces, technology, education and medical)

A potential avenue that Perth can limit the negative impacts of the cyclical lows of the commodity price cycle is to diversify our economy, our employment base and, therefore, tenant mix across office stock. Economic diversity and a broader tenant mix will improve the resilience of our city in the future.

As the Western Australian economy transitions away from the resources industry, a number of industries are emerging as major CBD office occupiers. In terms of new tenants, over the past 4-years improved market affordability has seen an increase in the proportion of CBD office stock occupied by education, technology, shared work spaces and medical companies. In 2012 these sectors occupied 4.6% of occupied CBD office space. By 2016, these four industries occupied 6.3% of CBD office space. In early 2017, they occupied 7.3% of Perth CBD office space. This represents an increase in occupied space by over 20%.

Of these growth sectors, 'technology' is the largest, occupying 3.3% of office space in the Perth CBD across 106 tenancies. Technology firms were the star performers in the Perth CBD office market in 2016, growing by 8,652sqm or 19.4% in the last 12 months. Compared to our global peers, Perth's technology sector is in its start-up stage. Incubators and shared work spaces, which facilitate the growth of technology companies, continue to be added to the Perth CBD and surrounding suburbs. Nearly all of these facilities are less than 5-years old.

While there is an understanding, given the increasing number of local start-ups as well as international trends, that technology companies will continue to occupy additional office space in the Perth CBD - what is not well understood is the progression of technology start-ups from incubators / co-working facilities to companies leasing their own premises, and its impact on the commercial office market.

While they will never replace the resources industry, education, technology, shared work spaces and medical companies will play a key role in the CBD leasing market in 2017 and beyond. The key question, is determining the future growth of these industries. Are the next 3 years likely to see the same level of growth, the potential for decline due to competition/regulatory changes or can we forecast higher growth as these sectors mature? By examining these sectors, the property market and the City of Perth will be better placed to understand what proportion of CBD office space these industries are likely to occupy by 2020 and what the city can do to facilitate.

1.3 Purpose of this Study

The purpose of this study is to analyse the current occupation of Perth CBD office space by shared work providers (Serviced office and Co-Working) and technology companies.

The study will determine:

- How much office space is currently occupied by these firms;
- The grade, age and location of the properties within the study area these firms occupy;
- The typical daily usage of shared work spaces within the study area;
- The role shared work spaces have in facilitating growth in the technology sector; and
- The typical stages of technology companies' growth and their respective office space requirements.

Based on this analysis, the study will forecast the likely office space take up between 2017 and 2020 of shared work space operators and technology companies.

The study outlined above will allow the City of Perth to make more informed decisions in relation to co-working / business incubation facilities, the technology sector, and its capacity for commercial office take-up.

The methodology for the study is outlined in Section 2.

2. Methodology

2.1 STUDY AREA

The focus of this study is the area within the City of Perth boundaries. Of particular focus is the Perth CBD and West Perth, which can be defined by the area bounded by:

South: The Swan River/Kings Park Road; West: Thomas Street;
East: The Causeway; and North: Wellington Street, including the new Kings Square development.

To further examine how occupancy trends vary across the Perth CBD, this analysis breaks down the Perth CBD into three sub regions. All areas run between Wellington Street to the north and the Swan River in the south:

- The Core sub region “the centre of the central business district”. The Core sub region covers the section of the CBD between King and Pier Streets.
- The West sub region covers the area of the Perth CBD from the western side of King Street and Mercantile Lane.
- The East sub region covers the area of the Perth CBD east of Pier Street through to the Causeway.

Four shared work spaces located within the City of Vincent (Cleaver and Co in Cleaver Street in West Perth, Tech Hub in Money Street in Northbridge, Claisebrook Design Community on Gladstone Street in East Perth and Synclabs on Newcastle Street in Leederville) were included, given either their proximity to the Perth CBD or their role in Perth's start-up scene.

To determine the current and future occupation of Perth CBD office space by shared work space providers and the technology industry, the methodology for this study combines data analysis with in-depth interviews with operators of shared work spaces and key industry participants in the technology sector.

2.2 Data Analysis

This study analyses two key Reports:

1. Y Research's 2017 Perth CBD Office Market Census – This Report was developed examining the occupancy of Perth's 280 office buildings, floor by floor. The Report analyses the current occupancy details of the approximately 1,285 office tenants in the Perth CBD. Details on the number of technology companies and their trend in occupancy are taken from this Report. Shared work spaces were identified from this Report, supported by analysis of online listings and information provided by the City of Perth.
2. Start Up WA – 2015 West Australian Start Up Ecosystem Report. Companies identified in the Report, in particular established and start-up companies that had passed funding benchmarks (\$1 million for established companies, \$500,000 for start-ups), were analysed to determine the current office occupancy of technology companies.

A full list of references can be found in Appendix 6.

2.3 Interviews

For this study, Y Research undertook interviews with 27 different organisations ranging from technology companies, shared work space operators and property industry executives.

A full list of companies accessed for the Study as well as typical interview questions and references can be found in Appendices 2 and 3.

3. Shared work spaces

3.1 Background on Shared Work Spaces

Shared work spaces, defined as either serviced offices or co-working spaces, have become an important and growing part of office markets around the globe.

Technology is making it easier to work from anywhere and find clients across the globe. Shared work spaces have grown based on their ability to offer workers and companies a quick, flexible and cost-effective alternative to leasing their own premises or working from home. Much like other pillars of the sharing economy, shared work spaces offer people the ability to use space on demand. Users range from casual, daily users to long term occupants of over 10 years.

Shared work spaces, serviced office and co-working, can accommodate office cubicles, business lounges, meeting rooms and event spaces. They usually serve as entry level spaces for companies looking to expand into new markets, affordable space for new companies and start-ups, project space, temporary homes during office relocations or overflow space for growing companies. Their growth has been dependent on meeting the changing needs of office workers.

Shared work space offers flexible solutions in terms of length of tenure and ability to grow/contract without the commitment of a typical 3-10 year office lease.

For the purpose of this study, shared work spaces can be defined as one of two classifications – serviced offices or co-working spaces.

- **Serviced offices spaces** are typically more formal spaces catering to Suit and Tie (S&T) clientele compared to the more casual, interactive spaces frequented by the (T&S) T Shirt and Shorts clientele of co-working spaces. Serviced offices typically are based around private offices catering for between 1-10 people. These rooms are supported by a range of meeting and board rooms. The growth of serviced office spaces, which emerged in the 1980's as a business concept, has been closely tied to globalisation and increase in business travel. Tenants sign leases ranging from weekly to monthly, quarterly or yearly. The serviced office provider delivers common receptionist as well telephone and internet access, and passes these costs on to tenants based on usage.
- **Co-working spaces** are less formal and are typically based around interaction and a sense of community. Co-working spaces are becoming increasingly popular across the globe offering flexible access to CBD properties and traditional workplace amenities. Open plan formats are common but facilities are increasingly incorporating private spaces for companies to use. The growth of co-working spaces, which are less than 15 years old as a concept, has been closely tied to the technology sector and the rise of start-ups. Co-working spaces are designed to foster collaboration - working in close proximity in a facility with common users drives interaction and innovation. Successful facilities have managers that work to foster collaboration. Co-working spaces market the sense of community in facilities. The community is developed by holding events and networking lunches/drinks. Users can pay for a daily pass, a fixed desk or a private office.

3.2 Comparison of Shared Work Spaces in Perth and Eastern States

Serviced offices have been a feature of the Perth office market for the last 20 years. Only in the past 5 years have co-working providers arrived in the Perth market.

According to Y Research's Perth CBD Office Market Census (February 2017) as of January 2017, 1.1% of Perth CBD office space is occupied by shared work spaces (serviced office and co-working).

Across 2016, the amount of CBD office space occupied in the Perth CBD by shared work spaces increased 3.4%. This growth rate is lower than the period between 2012 and 2015. In this three-year period the amount of CBD office space occupied by shared work spaces increased by 19.2%, at an annual rate of 6.4% driven by the expansion of co-working facilities Spacecubed, Flux and Hive by Liberty.

Across the eastern states, the shared work space sector is a much more significant occupier of office space. Figures for the total amount of serviced office space in Sydney and Melbourne are not available but industry sources estimate the amount of serviced office space in these markets is between 2-3%. In Brisbane, according to Colliers International, there is 62,137 sq m of serviced office space, which represents 2.7% of office space in the Brisbane CBD. In Perth, there is 16,574 sq m of serviced office space, representing 0.9% of office space in the CBD.

In terms of co-working space, based on recent research by Colliers International, in Brisbane, and Knight Frank, in Sydney and Melbourne, Perth would have the lowest proportion of office space occupied by co-working spaces. Just 0.3% of Perth CBD office space, is occupied by co-working space. As highlighted in Table 1, below, this proportion of stock occupied is the lowest of the four major capital cities. Melbourne is the co-working capital of Australia with 1.4% of CBD office stock occupied by co-working. Since 2013, the amount of co-working space in Melbourne has increased by 960%; this is highest amount, by growth rate, in the world according to Knight Frank. This growth has been driven by local operators with international players such as We Work yet to open in Melbourne. 1.1% of the Sydney CBD is occupied by co-working spaces. This result is influenced by global players; We Work have two facilities that account for 25% of the total co-working market in Sydney. In Brisbane, just 0.4% of CBD stock is occupied by co-working spaces.

Figure 1: Comparison of co-working facilities impact on national office markets

	Market Size	Co Working Space	% of Co Working Space
Perth	1,818,368	5,838	0.3%
Brisbane	2,280,055	8,860	0.4%
Melbourne	4,526,062	65,537	1.4%
Sydney	5,079,899	55,332	1.1%

Source: Knight Frank/Colliers International/Y Research

The impact of international co-working operators is evident in the average size of facilities across Sydney, Melbourne and Perth. Knight Frank note the average size of a co-working space in Sydney is 789 sq m. In comparison, in Melbourne the average is 385 sq m. In Perth, the average co-working facility is 487 sq m (this average is heavily influenced by the size of Spacecubed and Flux).

The co-working markets in Sydney, Melbourne and Brisbane are all forecast to record significant growth, driven by the entrance of international players and the continued growth of existing operators.

3.3 Shared Work Space within the Study Area

This study found 24 shared work facilities operating within the study area. These facilities occupy 22,412 sq m of office space.

74% of shared work space in the study area (16,574 sq m) is occupied by 7 serviced office operators across 12 facilities. The balance, 5,838 sq m is occupied by 9 co-working space operators across 12 facilities.

Full details of the 24 shared work facilities in the study area are contained in Appendix 4.

3.4 Characteristics of Shared Work Spaces in Perth

By Building Grade:

- 2,187 sq m or 9.8% of shared work spaces is located in Premium Grade buildings;
- 13,558 sq m or 60.5% of shared work spaces is located in A Grade buildings;
- 1,536 sq m or 6.9% of shared work spaces is located in B Grade buildings;
- 4,248 sq m or 19% of shared work spaces is located in C Grade buildings; and
- 883 sq m or 3.9% of shared work spaces is located in D Grade buildings.

The strong occupancy on Prime Grade buildings (Premium and A Grade) is influenced by serviced office occupiers. Part of what attracts users to serviced offices is the premium address of the facility. Only one CBD serviced office facility was not located in a prime grade building. While a majority of co-working occupied space is in secondary grade buildings, 46.6% is located in Prime Grade buildings. Flux, located at the Parmelia Hilton, and Hive by Liberty, located at Allendale Square, are the major co-working spaces in prime grade buildings.

By Building Age:

- 3,496 sq m or 15.6% of space occupied by shared work spaces is in buildings developed after the year 2000; and
- 18,916 sq m or 84.4% of space occupied by shared work spaces is in buildings developed prior to the year 2000.

There are just 4 facilities in buildings developed in the current building cycle (2008-2017). Regus at 100 Havelock Street, in West Perth, was the only occupier to pre-commit to a new building prior to development. Servcorp, located at Brookfield Place, sub leased space from an anchor tenant. The owner of Techhub, formerly Atomic Sky, was responsible for developing the space for the purpose of establishing a technology incubator in Perth.

By Building Location:

- 11,267 sq m or 50.3% of space occupied by shared work spaces is in buildings located in the Core sub region of the Perth CBD;
- 6,547 sq m or 29.2% of space occupied by shared work spaces is in buildings located outside the Perth CBD (Nedlands, Northbridge, West Perth, Leederville and East Perth);
- 4,043 sq m or 18% of space occupied by shared work spaces is in buildings located in the West sub region of the Perth CBD; and

- 555 sq m or 2.5% of space occupied by shared work spaces is in buildings located in the East sub region of the Perth CBD.

The core of the Perth CBD, given its public transport links and amenity, contains a majority of shared work space in the study area. The preference for centrally located space by shared work spaces is due to customer preferences (small businesses and freelancers) to work in high quality space.

Outside the core of the CBD, serviced office providers are located in the west sub region of the CBD (The Forrest Centre/267 St Georges Terrace) as is major co-working facility Flux. Two small co-working spaces are occupying previously vacant spaces in the east sub region. Suburban shared work space is split between three serviced office facilities in West Perth and co-working spaces spread across 4 suburbs.

3.5 Capacity of Current Shared Work Spaces

Serviced Office

- There are 1,458 work spaces in serviced office facilities within the study area;
- The average facility contains 121 work spaces. The number of workspaces ranges from 229 to 28;
- Currently, the average occupancy across these facilities is 92%. There is limited range in the occupancy across serviced office facilities from 87% through to 98%;
- The average tenure is approximately 2.5 years per company user. There are examples of companies using serviced offices for up to 17 years continuously; and
- There was limited exposure to technology companies in traditional serviced offices. On average, 4.75% of current occupancy in serviced office facilities was related to technology companies.

Despite high office vacancy rates in the Perth CBD and West Perth, serviced office facilities within the study area are strongly occupied. This level of occupancy, while in part due to companies downsizing from stand-alone offices into serviced offices, is largely due to the long term users of serviced office space. Companies that use serviced offices typically have less than 10 employees (most would be less than 4). A significant proportion of serviced office demand is from international and national companies looking to have exposure to WA. Industries that are major occupiers of serviced offices include financial services, recruitment, construction and legal.

Operators were able to list a number of long term occupants but were unable to recall companies that either had outgrown or vacated their serviced office. Anecdotally, the number of companies that outgrow serviced offices and move to their own significant tenancy (over 250 sq m) is very limited – an estimated average of 1-2 companies per facility, per year. The range of services offered, the quality of the office location (compared to what occupants are likely to be able to afford in the market) and proximity to clients are all factors which limit companies moving from these facilities.

CBD facility operators also noted that the current level of occupancy was a challenge in the present market. Lower market rents in the broader office market has caused operators to lower rates in their facilities. Most tenants would be on quarterly or 6 month leases. Ensuring that they renew, or attracting tenants to backfill vacancies, is an ongoing issue. There is limited co-operation between building owners and serviced office operators working from the building in terms of tenant movement. A number of real estate brokers drive Perth's serviced office tenancies.

Despite the level of occupancy, there were no short term plans for the expansion of existing facilities or the development of new facilities in the Perth CBD. Major serviced office provider, Regus, opened a facility at the Garden Office Park in Herdsman in July 2017. Future growth of serviced office space is likely to occur outside the Perth CBD.

Co Working Space

- There are 632 work spaces in co-working office facilities within the study area.
- The average facility contains 63.1 work spaces. The number of workspaces ranges from 220 to 13.
- Currently the average occupancy across these facilities is 46%. There is a wide range in the occupancy across co-working spaces in the study area. Major facilities are operating at 70% capacity on a daily basis. A number of other smaller operators run facilities at 40% capacity or lower on a daily basis.
- The average tenure, is between 1-2 years. There are examples of companies using co-working spaces continuously from 2012.
- There is strong exposure to technology companies in co-working spaces. On average, 43.3% of current occupancy in co-working facilities was related to technology companies. Technology companies would be the largest user type by industry of co-working spaces.

Despite high office vacancy rates in the Perth CBD and West Perth, co-working space has continued to grow in WA in line with national and international trends. Despite the growth in facilities, the occupancy varies significantly across facilities based on facility age, location, target market and management. While many operators noted that they had approached full occupancy on selected dates, no facility was operating near full occupancy on a regular basis. This is, in part, due to the fact that most facilities surveyed had been in operation for less than 18 months.

Typical users of co-working facilities were small teams of 2-4 people and a number of casual single users. While technology users are the largest industry user of co-working spaces within the study area, consultants and creative industries are other major users. Technology use has, in part, been driven by programs that award start-up companies space as part of early funding/awards. While historically driven by non-corporate users, company use of co-working space for project teams is gaining traction. In major Perth facilities Flux and Spacecubed, 70% of space is either full time desks or small offices. Expect facilities to grow to cater for growing users needing 10 or more workspaces.

Similar to serviced office operators, operators of co-working facilities were unable to recall companies that had either outgrown or vacated their co-working space. This may be, in part, tied to the age of facilities and the more casual usage compared to serviced office. Anecdotally, the number of companies that outgrow co-working offices and move to their own significant tenancy (over 250 sq m) is very limited – an estimated average of 1-2 companies per facility, per year. The exposure to technology companies also limits graduation to tenancy due, in part, to the high failure rate of start-ups.

A key feature of successful co-working facilities, is that the operators offer more than just space. The community of the facility, in terms of the other users, atmosphere and networking opportunities combined with human capital – mentors, in house management and guest speakers, drive usage and the occupation of facilities. Usage numbers across identified facilities highlight that a central CBD location or a high quality space is no guarantee of high occupancy. Cost is a key factor for casual users and start-ups. A number of operators have had to reduce daily rates or offer special rates for particular days to drive usage.

Only one major expansion of existing facilities was identified within the study area. Flux, the joint venture between Spacecubed and property group Hawaiian, plans to double in size by the end of 2017. Flux will occupy 2 additional floors in the Parmelia building at 191 St Georges Terrace. Just inside the City of Perth boundaries, the University of Western Australia intends to repurpose an older heritage property on Broadway for a co-working facility. This facility is forecast to add 31 additional workspaces across 905 sq m of space. This development, along with recent facilities opening in Fremantle and Malaga, highlight that a significant part of the future growth of co-working space is likely to occur outside the Perth CBD.

3.6 Graduation from Shared Work Space to Stand Alone Office

- A key finding of this study is that the forecast pathway between shared office use and businesses graduating to their own office tenancy is currently very limited;
- As outlined, for a number of reasons companies using serviced office and co-working facilities are likely to continue working from these facilities for an extended period. For serviced office, the quality of office space and level of service drive tenant retention. In Co-Working space, the community (access to mentorship and similar companies as well as networking events) provides strong links to facilities. Tenants that move lose touch with the community;
- Companies are staying in these facilities mainly for 2-3 years but in selected cases for over a decade;
- A key milestone is 20-30 employees. This is a point when remaining in shared work space is difficult for the operator as well as the tenant. Some operators noted that they try to move tenants with more than 10 employees into their own office given the constraints of their facilities in terms of workspaces;
- The length of tenure suggests that users of shared work spaces are largely not focused on growth in their business but rather on an address from which to operate. Occupation is also driven more by ease of occupancy, flexibility and cost;
- Successful facilities offer tenants more than just a place to work. Given that, with a laptop and internet access, work can be done anywhere, service and community are key features of strongly occupied facilities;
- In general, there was no clear timeline to tenancy. Given the limited number of tenants requiring additional space, operators were unable to provide typical timelines of occupation. It is more likely that tenants are vacating shared work spaces to work from home, or close their WA office;
- Further study of occupiers in these facilities is required to determine their long-term expectations. Further study would also help to determine the impact of the current weak economic conditions on usage rates for these facilities; and
- Largest examples of tenants upgrading to their own premises in the last 12 months:
Serviced office - Norwegian Geotechnical Institute moved from Liberty, at Allendale Square, to nearby 40 St Georges Terrace leasing 360 sq m on Level 7 of this B Grade building. In terms of Co-Working – Virtual Gaming World, who design online games, moved upstairs from Flux to Level 8 in 191 St Georges Terrace, leasing 380 sq m. These moves provide a benchmark on the typical tenancy that companies which outgrow shared work spaces may take.

3.7 Co-Working in Perth Case Studies

Case Study 1: Spacecubed and Flux

- Location: Spacecubed - Ground and Level 9, 45 St Georges Terrace/Flux – Ground and Level 1, 191 St Georges Terrace.
- Space occupied: Spacecubed, initially 550 sq m, has grown to 1,054 sq m. Flux: 1,458 sq m.
- Grade of space occupied: Spacecubed - B Grade/Flux – A Grade.

History

- Spacecubed was founded in 2012 by Brodie McCulloch as a social enterprise with the primary purpose of supporting West Australian entrepreneurs.
- Despite low office vacancies, the space on the ground level of 45 St Georges Terrace attracted limited to no interest, according to building owner Stockland.
- Spacecubed was able to secure the space, a former bank vault, due to support from the State Government (\$200,000 from the Social Enterprise Fund), City of Perth, (\$40,000), building owner Stockland and construction company, Northerly Group. 60% of the fitout materials are recycled.
- In 2014, Spacecubed used crowdfunding to source \$50,000 to lease level 9 at 45 St Georges Terrace. This move was to allow Spacecubed to offer space that accommodated growing teams. This move was also funded by programs such as RAC Seedspark which, as part of the prize, offered 3-6 months use of workspaces in Spacecubed.
- In 2016, seeking expansion space, Spacecubed entered into a joint venture agreement with property owner Hawaiian to open a new co-working space at 191 St Georges Terrace, Flux. Flux activated ground floor space vacated by an industry association as well as former lower level space in a retail arcade. Flux also replaced 3 office tenants on Level 1. After one year, the facility is operating near capacity and the joint venture partners plan on expanding Flux into the two top floors of the building.
- The joint venture structure for Flux is unique in Western Australia.
- Flux has been strongly supported by corporate users, with a majority of space on Level 1 occupied by established companies.
- Flux, has sub spaces for different users. Core focuses on resources technology/Solder, a space for hardware creation and prototyping.
- In addition to the space, Spacecubed has hosted a number of events for the Start Up Industry such as Gov Hack, Founders Institute and Start Up Weekend. It is estimated that over 35,000 people have attended events at either Spacecubed or Flux. The number of events helps to drive take up of the space.
- By the end of 2012, Spacecubed had 50 members. By the end of 2014, the number of members had grown to 500. When Flux was opened, in 2016, there were 650 members. In 2017, there are now over 750 members across the two facilities.
- Spacecubed/Flux's ability to offer mentorship programs, such as Tim Brewer at Flux, combined with its involvement in programs such as Vocus Upstart and Plus 8, will make it difficult for new entrants to the market to replicate/compete.
- Fundamentally, Spacecubed and Flux are successful because they offer more than just office space or a place to work. There are multiple options for office space/places to work. Spacecubed and Flux have become part of the fabric of WA's start-up community. Their spaces drive connections and business opportunities for people using their space.

Case Study 2: Tech Hub

- Location: 4 Money Street in Northbridge.
- Space occupied: 482 sq m.

- Grade of space occupied: B Grade.

History

- Founded in 2013 as Atomic Sky by Andy Lamb and Simon Macfarlane.
- Founded to help people or organisations with good ideas turn them into great businesses.
- Building at 4 Money Street was developed by the property owner with the property use in mind.
- WA's only true technology incubator – offering a physical space, strategic advice and access to capital.
- Space offers 65 work stations but, similar to Spacecubed, the key offering is the access to mentorships and other similar stage companies. Operators of Atomic Sky/Tech Hub have also made seed investment in a number of occupiers.
- Rebranded in 2015 as Tech Hub – focus on maturing technology companies, offering a pathway for successful start-ups.

Case Study 3: Bloom

- Location: St Catherine's College, 2 Park Road in Nedlands.
- Space occupied: 300 sq m.
- Grade of space occupied: Not Applicable as the College building is not an office building. The fit out is comparable to a low C Grade building.

History

- Founded in 2013, by UWA student, Mark Shelton, to encourage young Western Australians to pursue entrepreneurship and innovation. In 2015, opened Bloom Labs in St Catherine's College.
- Despite the user base and proximity, engaging UWA to provide space on campus or acknowledgement of innovation work for course has been, and continues to be, difficult.
- Bloom is reliant on the support of St Catherine's College, and corporate partners for funding.
- The space provides workspace and access to mentorship for current and recent students.
- Since the lab opened in 2015, over 3,000 people have attended events at Bloom.
- Current membership base is 50 people. Usage is driven by recent students instead of current students.
- St Catherine's College are planning an expansion to accommodate more international students. As part of the redevelopment, Bloom Labs will receive additional space.
- The management of Bloom has also examined the potential of Bloom opening a lab at another University or permanently reserving workspaces in CBD facilities, most likely Spacecubed. However, funding will be required to achieve these goals.

3.8 Impact of Shared Work Space on Perth CBD Office Demand 2017-2020

As outlined, according to Y Research's Perth CBD Office Market Census (February 2017) 1.1% of Perth CBD office space is occupied by shared work spaces (serviced office and co-working). Over the past 12 months, the growth rate has been 3.4%, down from an annual rate of 6.4% between 2012 and 2015.

Based on the findings of this study, how much additional space are shared work providers likely to occupy in the Perth CBD between 2017 and 2020?

Since January 2017, a net 768 sq m of shared work space has been occupied in the Perth CBD. This is due to the opening of the Platform in the Septimius Roe building, Start Up Studio at 143 Barrack Street, Guerrilla Establishment at 181 Adelaide Terrace and the reclassification of the St George Business Hub from bank related

space to a co-working space. As a result, there is now 15,865 sq m of shared work space in the Perth CBD. This represents 5.1% growth in 2017.

In terms of future growth:

- Serviced office – no current operator has expansion plans. Discussions with leasing agents did not highlight any new operators likely to expand into Perth in the next 18-24 months. The tightened Premium and A Grade space market limits the options for serviced office providers. Co-Working – Outside of Flux, no current operator has CBD expansion plans. Flux is expanding at 191 St Georges to occupy the top two floors of the building. This will double the size of Flux, taking the facility to just over 2,800 sq m. Combined with Spacecubed, the move would make the combined Spacecubed/Flux the largest operator of co-working or serviced office space in the Perth CBD. Discussions with leasing agents highlighted that international operator, We Work, is likely to expand its global operations into Perth in the next 18-24 months. The facility, based on east coast examples, would likely be in the vicinity of 1,500-2,000 sq m. It is also likely that, based on the success of Flux, other major property owners could also offer a similar co-working space on a smaller scale – 500 sq m. Given the global growth of co-working, it is also likely that at least one other facility will open in Perth by 2020.

Likely future take up of shared work space in the Perth CBD between 2017-2020: 5,400-6,400 sq m. This would represent 34%-40% growth over the next years at an annual rate between 11-13%.

4. Technology

4.1 The technology sector in Western Australia

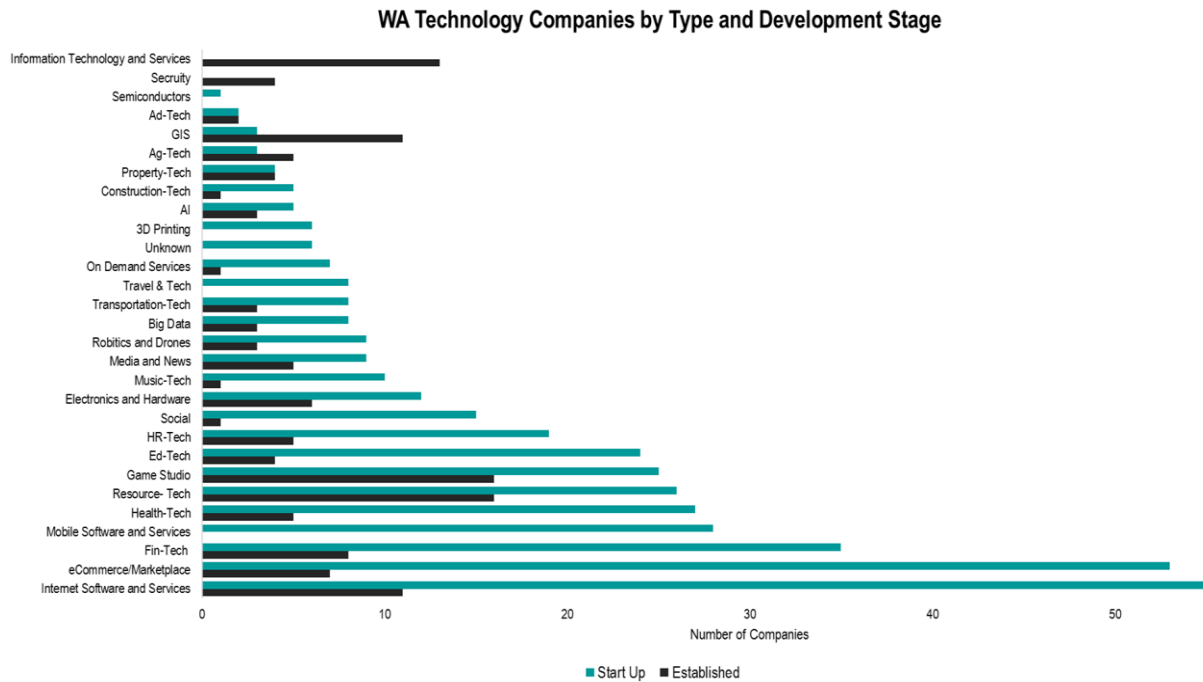
Globally, the technology sector is changing our way of life. Companies such as Microsoft, Apple, Google, Facebook and Uber have made the world more connected. With a laptop and internet access, people can work from anywhere. Armed with a smartphone, people can order just about anything. Compared to the rest of the country and the world, the technology sector in Western Australia is still in its start-up phase. Over the past 5 years, our technology scene has grown significantly as capital (human and money) moved from the resources sector into the start-up scene.

The start-up industry in Perth has grown significantly since 2012. Between the 2013 and 2015 Start Up WA Reports, the number of active start-ups increased by 235%, with over 300 active start-ups. In the subsequent years, the start-up industry has continue to grow at what is understood to be a lower rate. According to the Start Up WA 2015 report, approximately 3,000 people were working in WA's start up eco-system with a further 5,000 people working in established technology companies; this represents 0.8% of Western Australia's total employment. The 2016 Start Up Muster 2016 notes that 7.7% of Australian Start Ups were located in WA.

The evolution in Western Australia's technology sector is highlighted by the company focus of start-up companies and established technology companies. Technology companies that have matured have focused on the following sectors - games, resources technology, IT services, Geospatial Information Systems (GIS) and Fin Tech. In the start-up sector, according to Start Up WA, outside of resources tech and games there is minimal

work being done in these sectors. The key areas of WA's start up scene, based on company focus, is in mobile and internet based software and services, e-commerce solutions, health technology, education technology and human resources technology.

Figure 2: WA Technology Companies by Type and Development Stage



Source: Start Up WA Eco-System Report 2015

The difference in our technology sector compared to the Eastern States can be seen in our respective office markets. Companies such as Google, Facebook, Amazon, Apple, Dropbox, LinkedIn, Survey Monkey and Twitter have leased significant amounts of office space in Sydney and Melbourne. The growth can be significant: Twitter, in Sydney, progressed from occupying a 50 sq m serviced office to an 1,800 sq m floor within 3 years. Google grew from 2,000 sq m to nearly 20,000 sq m, in Sydney, over 10 years and are looking at growing to 60,000 sq m.

Perth has very limited exposure to these major technology companies. Our largest international technology tenants are IT Services companies - CSC Australia who occupy over 5,000 sq m at 516 Hay Street, Subiaco; IBM at 1060 Hay Street, West Perth, and Microsoft located at 100 St Georges Terrace in the CBD. These companies combined occupy approx. 4,000 sq m.

Technology space is driven by local demand. The space, approximately 3,500 sq m, occupied by local internet service provider, iiNet, at 502 Hay Street, in Subiaco, is the largest office tenancy by a local technology company in Western Australia. In the Perth CBD, Information Communications and Technology (ICT) infrastructure provider, Kinetic IT, at 30 The Esplanade, is the largest technology tenant.

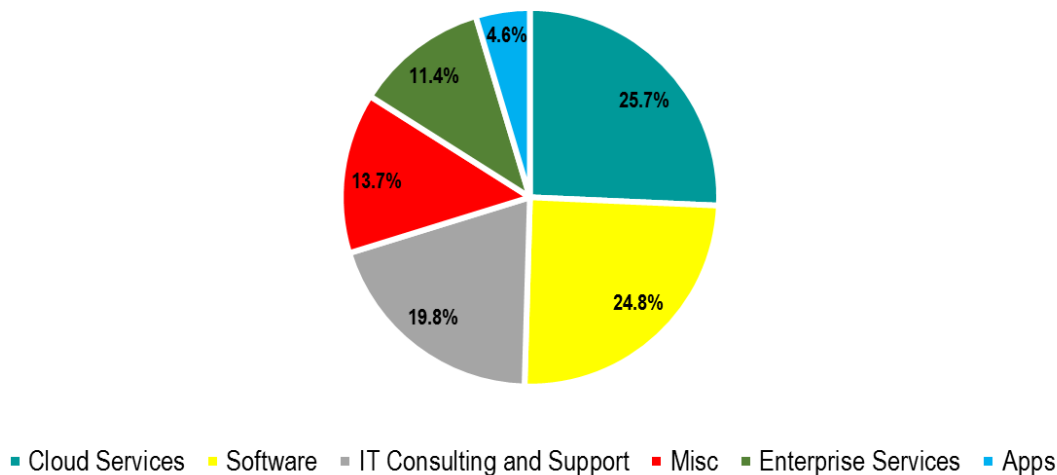
Co-working spaces Spacecubed, Flux, Sync Labs and Tech Hub have played a key role in Perth's early stage technology scene. These facilities provide more than just space with access to mentors, programs, funding and customers. The 2016, Start Up Muster Report notes that nationally 72.3% of start-ups use co-working facilities; this is up from 49% in 2015.

4.2 Technology companies in the Perth CBD

According to Y Research’s Perth CBD Office Market Census (February 2017) as of January 2017, 3.3% of Perth CBD office space is occupied by technology companies. This makes them the 8th largest industry in the Perth CBD.

Across 2016, the amount of CBD office space occupied in the Perth CBD by technology companies increased 19.4%. This was the highest growth rate of any industry in the Perth CBD. This growth was due to 38 new technology companies occupying space in the Perth CBD. A list of the 38 new technology companies, the focus of the company, the space occupied by size, grade and age and estimate of employee numbers is provided in Appendix 5. These companies brought an estimated 643 employees into the Perth CBD and occupied 9,638 sq m. 25.7% of newly occupied technology space was occupied by firms providing Cloud Services; 24.8% were software providers; 19.8% was occupied by IT consulting and service providers; 11.4% was occupied by enterprise service providers; 4.8% was occupied by companies working on Apps and 13.7% was occupied by a variety of companies including computer sales, database support, web design and computer security providers.

Figure 3: CBD Office Space Occupied by New Technology Companies by Business Focus
Space Occupied by New Entrants by Business Focus



Highlighting the importance of affordability for technology companies is the fact that 58.6% of office space occupied by new technology companies was in secondary space, with 75% of space occupied in buildings completed prior to the year 2000.

Prior to the strong 2016 absorption by technology companies, the growth rate for technology occupiers was significantly lower. In the period between 2012 and 2015, the amount of CBD office space occupied by technology companies increased by 12.9% or an annual rate of 4.3%.

4.3 Characteristics of Perth current technology occupancy

By Grade:

- 12,828 sq m or 28.8% of technology company occupied space is in A Grade buildings;
- 11,433 sq m or 25.7% of technology company occupied space is in B Grade buildings;
- 19,288 sq m or 43.3% of technology company occupied space is in C Grade buildings; and
- 950 sq m or 2.1% of technology company occupied space is in D Grade buildings.

The preference for secondary stock, 71.2% of occupied space, is evidence of two things:

1. The role affordability plays in driving technology absorption; and
2. That a majority of Perth technology occupiers don't need a prestige address to attract staff or clients. Growing local firm, Empired, and multinational Microsoft are the only two technology companies to occupy more than 1,000 sq m of office space in an A Grade building.

By Building Age:

- 6,290 sq m or 14.1% of technology company occupied space is in buildings developed after the year 2000; and
- 38,219 sq m or 85.9% of technology company occupied space is in buildings developed prior to the year 2000.

There are 17 technology companies in buildings developed in the current building cycle. The average tenancy size in new properties is just 370 sq m, with Microsoft the only 1,000 sq m tenant in a new building. Wipro Technology (Allendale 2), Technology One (999 Hay Street) and Cisco and ASG (both at 167 St Georges Terrace) are the only technology companies to occupy over 500 sq m of space in recently completed buildings.

By Building Location:

- 26,420 sq m or 59.4% of technology company occupied space is in buildings located in the Core sub region of the Perth CBD. There are 51 technology tenancies located in the Core sub region which are on average 518 sq m;
- 10,373 sq m or 23.3% of technology company occupied space is in buildings located in the West sub region of the Perth CBD. There are 34 technology tenancies located in the West sub region which are on average 305 sq m; and
- 7,716 sq m or 17.3% of technology company occupied space is in buildings located in the East sub region of the Perth CBD. There are 20 technology tenancies located in the East sub region which are on average 386 sq m.

The core sub region of the Perth CBD is the preferred location for technology occupiers. This is tied to transport infrastructure and amenity but given that a majority of office space in the Perth CBD is in this sub region, proximity to clients and prestige addresses are also key drivers.

The difference in average tenancy size in the Core sub region, 518 sq m compared to 386 sq m in the east and 305 sq m in the west, highlight that larger technology companies are located in the core of the CBD with smaller, newer companies located outside the core.

4.4 Impact of Local Technology Companies and Accelerator Programs on Office Demand in the City of Perth

While there has been strong growth in the number of start-up technology companies in Western Australia over the past 5 years as well as programs to foster their growth, there has been no understanding of how this growing sector impacts demand for office space across the City of Perth and, more broadly, across WA office markets.

This study analysed the following to determine the impact of the technology sector on office demand in WA:

- Start Ups identified in the 2015 Start Up WA Report that had received more than \$500,000 in funding;
- Mature technology identified in the 2015 Start Up WA Report that had received more than \$1 million in funding and that were established since the year 2000;
- Companies that had received funding as part of RAC Seedspark;
- Companies that had received funding as part of Vocus/Amcom Upstart;
- Companies that had received funding as part of Atomic Sky Fusion Program;
- Companies that had received funding as part of KPMG Energise; and
- Companies that moved from Tech Hub in 2015/2016.

Based on this analysis, identified companies occupied 2,735 sq m of office space in the Perth CBD and a further 1,090 sq m within the City of Perth. The 1,147 sq m occupied in 2017 by Health Engine accounts for 30% of the 3,825 sq m of the office space occupied by early stage technology companies within the City of Perth. These companies also occupied at least 2,187 sq m of office space outside the City of Perth, highlighted by CV Check at the Garden Office Park in Herdsman and Seqta in Joondalup. WA has lost an unknown amount of office space to companies that have either relocated to the eastern states or international markets. Not included in this analysis is technology companies that have been acquired by other companies (technology and non-technology).

The figure below highlights the current impact on technology companies and Accelerator Programs on Office Demand in the City of Perth.

Figure 4: Impact of Technology Companies and Accelerator Programs on Office Demand in the City of Perth

Program	Perth CBD	Broader City of Perth
Start Up WA Report Top Funded Tech Start Ups	574	150
Start Up WA Report Top Funded Mature Tech Companies	1,687	720
RAC Seedspark	50	
Vocus Upstart	50	
Atomic Sky Fusion Program	120	
Tech Hub 2015/16		220
KPMG Energise	254	
Total Sq M Occupied	2,735	1,090

Companies that have graduated to their own facilities include Healthengine, which accounts for 30% of office space occupied in the City of Perth by identified technology companies. Other companies include: Trendwise (Northbridge), Downunder Geosolutions and Rent.com.au (West Perth) and Calytrix Technologies (Perth CBD).

4.5 Case Studies: Technology Companies impact on CBD Office Demand

Case Study 1 – Empired

- Location: Level 6 and 7, 1 William Street in the Perth CBD.

- Space occupied: 2,194 sq m.
- Grade of space occupied: A Grade building.

History

- Empired is an Information Technology Solutions provider established in 1999. They have been listed on the ASX since 2007.
- Since 2012, the company has acquired companies to spur growth. By 2015, the company had outgrown previous premises at the A Grade rated Septimius Roe building, on Adelaide Terrace, where they occupied one floor.
- In 2015, Empired engaged tenant advocates, Knight Frank Global Corporate Solutions, to find a 2,000 sq m site in Perth to house their global headquarters.
- In November 2015, Empired relocated to new premises at 1 William Street taking 2,194 sq m across Levels 6 and 7. The space was chosen due to market incentives including - a fully funded fit out and the creation of inter floor stairs. Empired signed a seven-year lease.
- Proximity to public transport and future development at Elizabeth Quay were important factors in choosing 1 William Street, as was the central location and quality of the building compared to the former address.

Case Study 2 – Zetta Group

- Location: Mezzanine, 140 William Street in the Perth CBD.
- Space occupied: 930 sq m.
- Grade of space occupied: A Grade building.

History

- Zetta Group are a large provider of cloud computing platforms founded in Perth in 2004.
- Previously located at 10 William Street, a C Grade building, at the end of their lease they sought to move employees onto a single office floor.
- In late 2016 committed to the Mezzanine at 140 William Street, moving 450 metres from their former premises. The 930 sq m floor had previously been occupied by the City of Perth Library ahead of the completion of the new Library.
- Zetta Group were looking for a large floor plate that would allow an open plan fitout in a “non-conventional space”. Key consideration was the ability of the space to foster collaboration in the business, close to public transport and amenity and attractive to invite clients to.
- The space chosen met these criteria; a fully funded fit out was included and the space provided proximity to State Government clients. Lease details were not disclosed.

Case Study 3 - Health Engine

- Location: Level 4, 503 Murray Street in the Perth CBD.
- Space occupied: 1,147 sq m.
- Grade of space occupied: A Grade building.

History

- Health Engine, through the web and a mobile application, allows people to book and co-ordinate medical appointments.
- Founded in 2006 by two doctors as a medical specialist directory, the company has transformed from 2010, when taken over by Marcus Tan. At this stage, the company had 7,500 unique visitors per month.

By 2013, this had grown to over 480,000 unique visitors per month. Currently, it has over 1 million unique monthly visitors. Company has raised over \$50 million in investment.

- Estimated that a third of GP's in Australia are signed up to the site.
- From 2010, the company have moved from Marcus Tan's house to spare office space at 111 Hay Street, in Subiaco (leased to web design firm Alyka), to a custom space in Leederville (that became Sync Labs after Health Engine moved), to the offices of the West Australian in Herdsman (after receiving funding from Telstra Ventures and Seven West Media), to 243 James Street, in Northbridge, and, in 2017, to 503 Murray Street.
- Each move has been based on the need to accommodate more staff as well as access to funding. The number of moves in a 7 year period highlights the role that co-working spaces play for early stage start-ups as well as the difficulty technology companies have into committing to the typical lease terms sought by property owners – 5 years.
- In 2017, Health Engine received \$26.7 million in funding including from international venture capital firm, Sequoia. Plans to increase the marketing of the company to attract GP's and patients to the site. Despite advice to relocate to the eastern states or internationally, Health Engine plans on staying in WA.
- Move to 503 Murray Street represents a 241% increase in their office space requirement.

4.6 Impact of Technology on Perth CBD Office Demand 2017-2020

As outlined, according to Y Research's Perth CBD Office Market Census (February 2017), 3.3% of Perth CBD office space is occupied by technology companies. Over the past 12 months the growth rate has been 19.4%, up from an annual rate of 4.3% between 2012 and 2015.

Based on the findings of this study, how much additional space are technology companies likely to occupy in the Perth CBD between 2017 and 2020?

Since January 2017, a minimum of 1,157 sq m of technology space has been occupied in the Perth CBD by Health Engine, at 503 Murray Street. As a result, there is now a total of 45,666 sq m of office space occupied by technology companies in the Perth CBD. This represents 2.6% growth in 2017.

In terms of future demand:

- No demand is forecast from seed stage technology companies (1-5 staff): These companies are likely to work from co-working spaces (CBD or suburban) or work from home;
- Early start-up stage (5 to 30 staff): These companies are likely to continue working from co-working spaces. A number will work from suburban locations due to proximity to venture capital funding (Bentley, Balcatta, Subiaco) as well as affordability. Based on historical trends, 500-1,000 sq m of CBD office demand can be expected from early start-up stage companies;
- Growth stage (30 to 100 staff): Based on a typical workspace ratio of 15 sq m per person, these companies occupy between 450 sq m and 1,500 sq m. Space taken in this stage is likely to come from technology companies that are already office tenants. 74 of the 103 technology based office tenants occupy less than 450 sq m. Based on interviews, it is likely that 3-5 technology companies will expand from below 450 sq m to above this threshold. The corresponding impact on office demand would likely be 600 sq m to 1,000 sq m per annum; and

- Later stage (100 to 500 staff): A review of historical leasing trends shows that there was on average at least one leasing deal for over 1,000 sq m of office space in Perth over the last 3-5 years by the technology sector (Health Engine, Zetta Group, Vocus, Empired, Fujitsu). Typically, these moves represent 100% growth of in terms of size from the tenant's previous location. Based on this trend, later stage technology companies are likely to add 500 sq m to 750 sq m of office demand per year.

Adding to potential sources of demand are relocations for non-CBD locations (West Perth and suburbs). There are a significant number of technology companies in these markets. The relocation of major suburban technology companies to the Perth CBD (such as Seqta from Joondalup/the recent Health Engine move) has the potential to add 1,000 sq m of office demand. It is likely that one major technology company (requiring over 1,000 sq m) will move to the CBD by 2020. An estimated demand of 600 sq m to 1,000 sq m per year, based on 3-5 companies requiring 200 sq m, is forecast for non-CBD technology companies relocating to the Perth CBD.

The most likely start ups to take CBD office space, based on funding and staff numbers:

- Nuheara – Maker of wireless headphones. Currently have a US office and a WA office located on John Street, in Northbridge;
- Formalytics – Soccer training app using AI. Currently have 17 staff. Top 5 Finalist in 2016 OzApp Awards;
- Newton Labs – Technology to detect and prevent large boulders in the mining process. First winner of Unearthed in 2014. Currently working from Flux;
- Geo Moby – Geofencing for Apps. Working from Spacecubed. Previously part of Vocus UpStart;
- Spookfish – GIS Mapping. Working from Technology Park in Bentley;
- Trendwise – Visitor analytics. Currently working from a former residential property on Aberdeen Street, in Northbridge; and
- Micromine – Software solutions for the resources sector. Currently working from offices on Hampden Road, in Nedlands.

Items to be considered:

- Technology companies are more likely to move interstate and overseas than many other industries. Using analysis based on funding, about 5-10% of WA start-ups will leave WA. Technology companies such as Canva, NearMap, Migme and Instatruck have all relocated due to access to capital, clients and staff. These companies would have added significantly to the current level of demand for office space. This trend will also see a level of expected demand from start-up companies fail to materialise;
- The growth of co-working space, in particular the future expansion of Flux, at 191 St Georges Terrace, will allow for technology companies (particularly Early Stage Start Up) to remain in co-working space longer;
- The current Government has plans to foster the growth of Technology Park, in Bentley. Due to the location of one of WA's venture capital firms, Bentley already has a number of early stage local technology firms located in the Technology Park. Further investment in Technology Park could attract companies to this location, out of the CBD;
- Future demand could also be mitigated by the acquisition of companies and their integration into existing tenancies. Expect 200-600 sq m of demand per year from existing technology occupiers to be lost to mergers and acquisitions;
- The potential for well-funded start-ups/established technology companies to go out of business. As one interview subject noted, there is a big difference in building a product and building a business. Expect

200-500 sq m of demand per year from existing technology occupiers to be lost to business closure;
and

- It is considered unlikely that a major international technology company will open a branch office in WA over the next three years.

Based on this framework: Likely future take up by technology companies in the Perth CBD between 2017-2020: 6,402 sq m and 8,952 sq m.

This would represent 14%-19.6% growth over the next 3 years at an annual rate between 4.6% and 6.5%.

5. Recommendations

5.1 Recommendations

Based on interviews with study subjects and examples in other jurisdictions, a number of potential issues were identified. Implementing the following recommendations has the potential to alleviate these issues.

Shared Work Space

- **Recommendation 1: Establish a Shared Work Space Operators Group within the City of Perth**

Prior to contact for this study, operators of many serviced office and co-working facilities had little involvement with the City of Perth. The establishment of a regular forum within the City of Perth to engage with operators provides a mechanism for operators to discuss issues in their business with the City of Perth, and for the City to inform this growing sector of the CBD of broader initiatives. In time, as the number of operators grow and the market matures, an Association of Operators could be formed as has happened in South Australia. In South Australia, with the support of the State Government and the City of Adelaide, a Co-Working Industry Association has been formed to achieve effective advocacy for the sector. Initial funding from the Government was received, but the Association is now self-funded through operators. Funding is sought to run specific programs and events such as a Co-Working debate during the recent Entrepreneurs Week in South Australia.

- **Recommendation 2: Update the Co-Working Section of the City of Perth Website**

The City of Perth currently provides details on co-working options within the City of Perth. The page is dated and does not accurately reflect the co-working market in the City of Perth. Using the details of this study, the page should be updated to reflect full options. The page could also be used to provide a point of contact at each centre as well as details on the typical users of facilities.

- **Recommendation 3: Education program on differences between co-working/serviced office space**

As outlined, there is a difference in the clientele/target markets of serviced office operators and co-working space providers. A guide explaining the differences in the product offering between serviced office space and co-working could be provided on the City of Perth website. This would guide new users to the most suitable space.

- **Recommendation 4: Engage with Users of Facilities to Explain Pathway to Tenancy**

The current level of companies graduating from shared work spaces (both serviced office and co-working space) was significantly lower than originally forecast. Operators of these facilities are evolving to meet the growing needs of their tenants. As in the case of Flux, the additional space is focused on corporate users with more than 4 staff. As a result, users in these facilities, despite growing, are not moving to take their own space.

The City of Perth could engage with the users of facilities in the City of Perth to outline opportunities in the City of Perth outside of these facilities and determine the scale of users working in these facilities. This will better identify potential growth in CBD office demand from this sector as well as developing a relationship between the City of Perth and shared work space users.

- **Recommendation 5: Growth of Common User Facilities – Access to Grants**

This study identified a new type of co-working space – christened Common User Facilities. The Platform, at Septimius Roe, and Guerrilla Establishment, at 181 Adelaide Terrace, are examples of spaces that are not focused on daily use. In both instances, the property owner was looking to activate vacant space. Both properties offer groups (charities and non-profit groups at the Platform/Students at Guerrilla Establishment) priced out of the CBD a space to use. While these groups have received rental discounts from property owners, funding for staff time is required for these facilities to break even. Grants to operators of suitable common user facilities could be explored to facilitate the activation of longer term vacancies. More broadly, could other common user facilities be created in the CBD - could a floor in a vacant office building be transformed to a common meeting room/presentation area staff for international businesses/speakers visiting Perth? Could a floor be converted to a performance space for schools and theatre groups? Or a technology incubator? While there is likely to be support from property owners in terms of peppercorn rents, support to cover fit out costs and staff time would facilitate the growth of new common user facilities.

- **Recommendation 6: Engage with major international shared work space providers**

Outside of international player, We Work, no other Australian or international provider of shared work space is forecast to open in Perth. This is despite strong growth across eastern states market in local and international providers. The City of Perth could engage with these operators to determine potential interest in opening in the Perth CBD. Each facility would likely occupy over 1,000 sq m in A and B Grade buildings having a large impact on lowering vacancies.

Technology

- **Recommendation 1: Attract Venture Capital Firms to the CBD**

Access to local funding was identified as the number one hurdle for local technology companies. The Start Up WA Report highlights 4 Venture Capital Funds headquartered in WA, none are located in the Perth CBD - Yuuwa Capital is located in Bentley, Stoneridge Ventures are in Balcatta, Go Capital and Eve Investments are both in Subiaco. Venture capital funds in WA move their investments to facilities in suburban Perth, either in their headquarters or nearby properties. Funding from other sources is a key reason for local technology companies to relocate to the Eastern States or internationally.

Attracting Venture Capital Firms to the Perth CBD, could potentially have a twofold effect:

1. It would keep promising local start-ups (largely working in co-working space) in the Perth CBD; and
2. It would provide access to funding for local companies. For venture capital firms, it allows them to be close to a network of financial services professionals and high net worth investors, as well as potential acquisitions.

Venture Capital Funds, located in Australia and globally, could also be approached to locate in the Perth CBD. For City of Perth support to be effective, CBD based venture capital firms would need to commit to keeping companies in the City of Perth.

- **Recommendation 2: Educate Local Business Community on Technology Investment**

Interview subjects noted that while there is significant funding in Perth, local investors are more comfortable investing in resources or property than technology. The City of Perth, through events or a publication, can educate local investors on the potential of the local technology sector by highlighting local success stories.

- **Recommendation 3: Shift from investment in physical spaces and events to mentorships**

The City of Perth has been a strong supporter of the growth of Perth's start-up ecosystem by funding co-working spaces, events and Reports on the sector.

Over the past 5 years, the sector has evolved with the number of companies increasing significantly and early co-working space full and expanding. Reinforced through the interviewing process was the fact that successful facilities in Perth and globally are more than just space. In a world where you can work from anywhere, facilities have to offer more than just a desk. Community, in terms of networking and events, is a starting point but the real value is mentorship and access to experts.

Funding a Chief Technical Officer for the City of Perth, or an Entrepreneur-in- Residence, will provide expertise in more than a single location and offer another reason to locate in the City of Perth over other jurisdictions.

The past 5 years has seen a number of successful products developed – the challenge for the next 5 years is for these entrepreneurs to build successful businesses out of their innovation. Targeted mentorship will help create potential occupiers of CBD office space.

- **Recommendation 4: Facilitate knowledge exchange by attracting international experts to Perth**

Given our distance from other cities, international visitors typically visit Perth for a day, maybe a week. This isn't long enough to extract the full value of having international expertise in Perth.

Similar to what is proposed at Forrest Hall at UWA, the City of Perth could explore inviting international experts on necessary topics to Perth for an extended period of time (1-3 months). Experts could visit City of Perth facilities and companies, meet with University students, Government and business.

- **Recommendation 5: Examine the Potential for a CBD based Incubator**

Across the country, State Governments have established Government sponsored incubators, State Investment Funds for technology or incentive programs for start-ups to relocate. In comparison, Western Australia has done little.

With the support of the State Government, the City of Perth could investigate the potential for a CBD based incubator for Western Australia. The focus of the incubator could be on Early Seed Stage or Growth Stage companies – turning products into businesses. The NSW State Government recently signed a lease for a 17,000 sq m incubator in the Sydney CBD, which plans to open in November 2017. The Victorian State Government is examining a potential State Government run financial services incubator.

A facility such as this would tie into plans to attract venture capital and human capital into the Perth CBD. A CBD based incubator would also be a cornerstone of an Innovation Precinct in the Perth CBD that could facilitate investments such as a 5G network in the core of the CBD. Entrants to the facility would have to commit to staying in WA.

- **Recommendation 6: Build Connections between Technology Companies and the CBD.**

WA have lost a number of technology companies that could have contributed to demand for CBD office space to the east coast or international cities due to access to funding and staff. While access to funding and staff are key issues, developing a relationship with technology companies may assist in retaining technology companies in WA.

The City of Perth could engage with the technology companies based on their level of funding to outline opportunities in the City of Perth and determine the future space requirement of these companies. This will better identify potential growth in CBD office demand from this sector as well as developing a relationship between the City of Perth and future space occupiers.

- **Recommendation 7: Engage with former West Australian Start Ups, Suburban Technology Companies and Major International Technology Companies**

The City of Perth has missed out on potential office demand from technology companies from a number of sources – local start-ups that have relocated to other markets, major suburban technology companies and the potential for international companies to open in WA due to our proximity Asia.

The City of Perth, with the support of the State Government or international and national groups, should engage with these groups such as start ups that relocated from WA/international technology companies and technology companies located outside the Perth CBD, to attract them to the Perth CBD. Companies would likely occupy over 500 sq m, having a large impact on lowering vacancies. The attraction of international companies would also assist in increasing the level of programming expertise in WA.

- **Recommendation 8: Establish a Technology Advisory Group within the City of Perth**

Prior to contact for this study, operators of many technology firms had little involvement with the City of Perth. The establishment of a regular forum within the City of Perth to engage with technology companies and their funding partners provides a mechanism to better understand the issues of the technology sector as well as for the City to inform this growing sector of broader City of Perth initiatives.

General

- **Recommendation 1: Reform the Perth Parking Levy to reflect service provision**

A number of interview subjects noted that the Perth Parking Levy was a major issue for their business, in particular serviced office providers in West Perth. Given lower office rents, many serviced office operators have

no scope to pass on increased costs to clients. Many are located in areas with no proximity to the CAT Bus Service.

For many suburban businesses looking to relocate to the CBD, the cost of parking remains the main deterrent. The Levy is a disincentive to working in the City of Perth. Given that the Parking Levy is the same for a premium grade tower and older secondary stock, changing the Levy to reflect the grade of property or, alternatively, the location of the property in the City of Perth (discounted rate for West Perth/east end of the CBD), would drive absorption in problem areas of the City of Perth.

6. Conclusion

6.1 Conclusion

In June 2017, there is currently over 800,000 sq m of office space vacant across the metropolitan area, 500,000 sq m of which is located in the Perth CBD and West Perth. The amount of vacant office space in the City of Perth and West Perth is the equivalent to approximately 12.5 Woodside Plaza buildings.

Demand from the resources sector, and their project partners in engineering, construction, transport and recruitment, is down in some industries by over 40% from 2012 levels. The completion of major LNG projects, Gorgon and Wheatstone in 2017, is forecast to lead to further vacancies in the Perth CBD as is the relocation of Woodside to their new headquarters at 98 Mounts Bay Road.

Given the level of vacancy, action is needed to determine new sectors of office demand and potential redevelopment options for older, vacant secondary office space. The adaptive re-use of former office buildings to schools, apartments, hotels and other uses, combined with the demolition of a number of properties for new development, is likely to play a role in reducing the level of office vacancy. The main driver of lower CBD vacancies will come from improved demand – either growth of existing CBD tenants or the attraction of new tenants either from suburban Perth, interstate or overseas.

As outlined, since the peak of resources led CBD office occupation in 2012, four sectors have emerged as key growth industries in the Perth CBD in terms of office demand – shared work spaces, technology, education and medical. Collectively, these industries have grown from 4.6% of occupied CBD office space, in 2012, to 7.3% of occupied Perth CBD office space, in 2017.

This study has highlighted that shared work spaces and technology companies will continue to grow as office occupiers in the Perth CBD between 2017 and 2020. Including leasing transactions in the first half of 2017, shared work spaces and technology companies are forecast to occupy between 13,727 sq m and 17,277 sq m of

office space in the Perth CBD by 2020. This would increase the amount of CBD office space occupied by these industries from 59,606 sq m at the end of 2016 to between 73,333 sq m and 76,883 sq m. This represents growth in space occupied between 23% and 29% by 2020.

Despite this strong level of growth and the relative sizes of the technology industry (8th largest occupier by industry) and shared work spaces (13th largest occupier by industry), the amount of space occupied will have a minimal impact on lowering Perth's office vacancies.

APPENDIX 1: DEFINITIONS

TIME FRAME

Information for this report was collected and analysed in June and July 2017.

All information sourced through the methodology above was, to the author's knowledge, correct as of 10 July. Some vacancies may have changed since final data collection and independent verification of data should be conducted prior to relying on this information.

BUILDING GRADES

The grading system used in this Report has been developed by Y Research. Grades for any individual buildings listed in the Report have been developed for research purposes and take into account the marketing of the building by the developer or agent.

A number of key factors were considered in assigning grades for properties including:

- Overall building size/Floorplate size
- Street Address and streetscape
- Building age including refurbishments
- Asking rents
- Building presentation and maintenance
- Proximity to public transport, focus on cat-bus and rail.
- Provision of parking
- Surrounding/incorporated retail amenity

Appendix 2: List of interview subjects

Technology

Tech Hub/Studio Start Up
Seqta Software
Larsen Ventures
WA Business News
Space to Co
Quiz Jam (Via Email)

Shared work spaces

Liberty Services Offices/Hive
Bloom
Spacecubed/Flux
Amberley Business Centre
The Park Centre
Claisebrook Design Community
The Platform
Cleaver St and Co
The Executive Centre
St George Business Hub
Guerrilla Creative
Regus
Bubdesk (via phone)
Coworking South Australia Association (via email)

Property Industry

Tenant Advocate: Acorpp
Building owner: Dexus Property Group/ Hawaiian
Leasing agents: Colliers International/ JLL (via phone)
Sales JLL (Via email)
Research: Commonwealth Bank (via email)

Appendix 3: List of typical interview questions

Technology

1. Background on the study and growth sectors in the Perth office market post the resources boom.
2. Your views on the current state of the West Australian technology sector?
3. What are the challenges in running a technology company in WA?
4. What lessons have you learned from growing your technology company?
5. What area of the technology pipeline needs the greatest intervention: high schools/universities, incubators/accelerators, start-ups, mature technology companies?
6. What is the typical timeline for the growth of technology companies? % that fail at different points?
7. What role do events such as Hackathons have in growing the technology sector?
8. What do you look for in office space?
9. Success stories of the local industry?
10. What can the City of Perth do to help?

Shared work spaces

1. Asked to outline their company/facility – rationale for opening, duration of occupation.
2. How many sq m of office space do they currently occupy?
3. How many workspaces do they have in the facility?
4. Current occupancy of the facility?
5. Mix of current occupancy in terms of: companies vs individuals? And industries focusing on exposure to technology companies.
6. Average tenure of occupants?
7. Typical movement of occupants? Please highlight companies that have moved to their own office?
8. How have current market conditions impacted demand for space?
9. Is there any interaction with other tenants in the building? Level of interaction with the landlord?
10. Any expansion plans?
11. What can the City of Perth do to help your business?

Property

1. Background on the study and growth sectors in the Perth office market post the resources boom.
2. Asked to discuss their role.
3. Recent and current leasing enquiry from technology sector/shared work space operators?
4. What do these industries want in terms of office space?
5. Where in the CBD do they want to be?
6. Have you leased space to companies coming out of shared work spaces such as Spacecubed?
7. Is there any demand for tenants to locate near shared work spaces?
8. Any special requirements in leases for these sectors?
9. What can the City of Perth do to help?

Appendix 4: List of shared work spaces

See attached excel spreadsheet.

Appendix 5: List of technology companies who relocated into the Perth CBD across 2016

See attached excel spreadsheet.

Appendix 6: List of References

Reports

Y Research Perth CBD Office Market Census - February 2017

Y Research West Perth Office Tenant Census - July 2016

Y Research Suburban Office Market Report - June 2017

Start Up WA – 2015 West Australian Start-Up Ecosystem Report

Start Up WA – 2013 West Australian Start-Up Ecosystem Report

Start Up Muster Report 2016

Start Up Muster Report 2015

Techboard Joining the Dots - A network map of Perth's hubs, start-ups and tech companies, November 2015

Colliers International Brisbane Flexible Workspace June 2017

Knight Frank Melbourne's Co-Working Culture July 2016

Knight Frank Bridging the Gap: Melbourne's Coworking Culture Q1 2017

Knight Frank Sydney's Co-Working Insight October 2016

Legislative Assembly Parliament of Western Australia Economics and Industry Standing Committee: Growing WA through Innovation Report No. 7 June 2016

Media Articles

The West Australian - Long road for Perth tech hub, 7 July 2014

The West Australian Perth's tech firms hit investment hurdles 9 May 2016

WA Business News - Spacecubed ready for innovation, 11 April 2012

WA Business News Well-funded foreign firms a digital disruption 10 March 2016

WA Business News Tech players Rue Poor Connection 14 March 2017

Perth Now Space Cubed flags aggressive growth plans for new space business June 21, 2012

Smart Company Perth's Spacecubed raises over \$50,000 in crowdfunding for new Level 9 coworking space 24 October 2014

Start Up WA: Interview with Matt Macfarlane, YUUWA Capital 1 April 2016

Start Up WA: Interview with Greg Riebe, Western Angel Investors Network 6 April 2016

GPT Blog: Tech influx reshapes Sydney CBD August 10 2015

Websites and Social Media

- City of Perth;
- City of Melbourne;
- City of Adelaide;
- City of Sydney;
- City of Brisbane;
- Spacecubed;
- Flux;
- Hawaiian;
- Bloom;
- Tech Hub;
- Empired;
- Zetta Group;
- Health Engine;
- Vocus Upstart;
- RAC Seedspark;
- KPMG Energise;
- Techboard;
- Dexus Place;
- Various technology companies from Start Up Report and Start Up Programs;
- Serviced office providers; and
- Co-Working operators.