PEOPLE WANTED

Placemaking in Victoria

Public Realm Vision and Strategy

Changing Structural Trends and Public Realm Supporting Paper

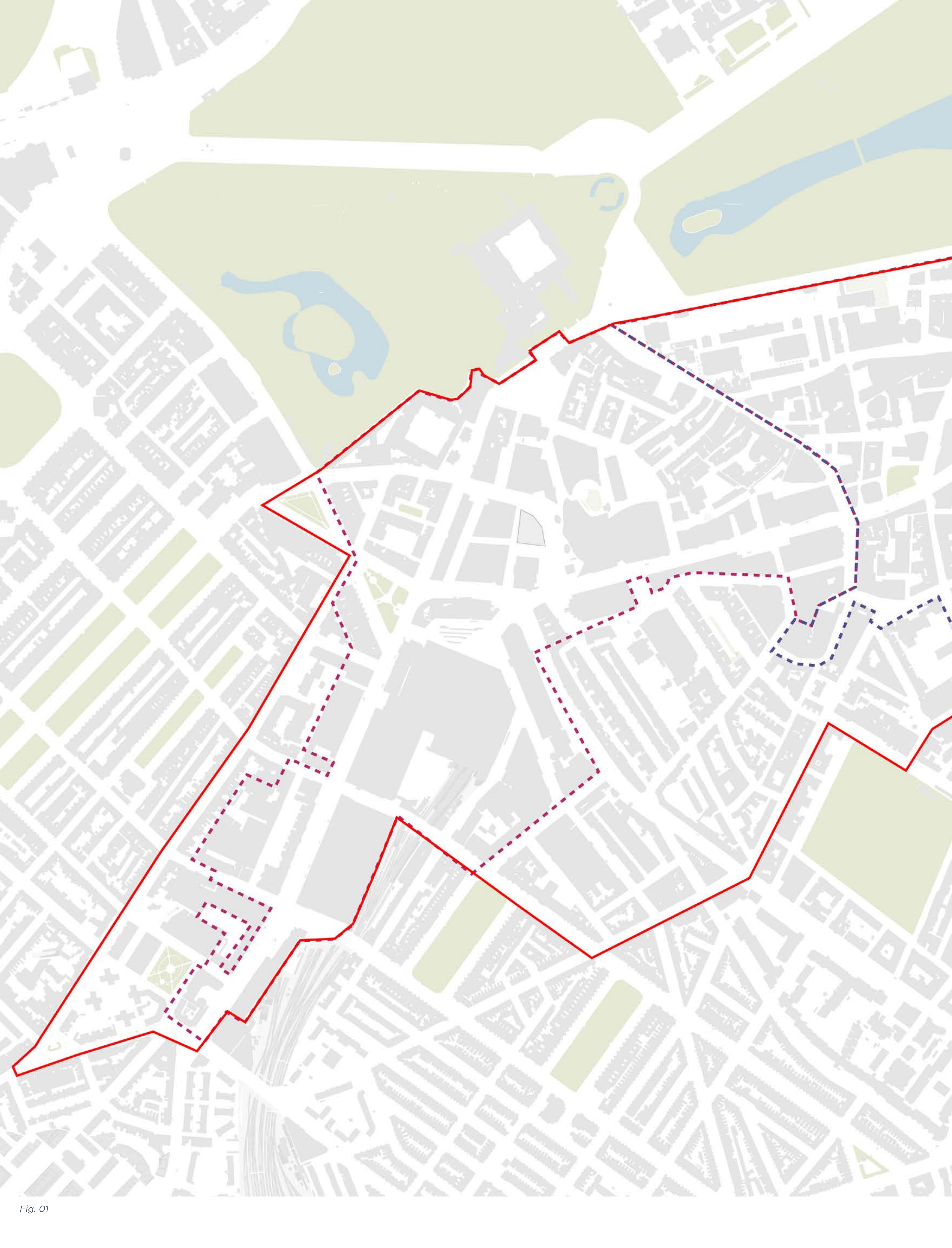

Fig. 01

CONTENTS

STUDY TEAM

BDP	Urban Flow	VBID
Lucy White	John Emslie	Niall Tipping
Ana Peixoto	Lorna Sewell	
Chris Stanton		
Alice Galvin		
Nick Edwards		

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Fig. 02


Fig. 03

Fig. 04


Fig. 05

Victoria has a rich diversity of spacial, cultural and architectural characteristics

1.0 Introduction

Cities are changing. London is changing. Business, community and public perceptions about our urban environments are changing, and indeed continue to evolve. The importance of improving air quality, provision of high quality streets and spaces, greening, reducing traffic congestion, giving greater priority to people, pedestrians, cyclists and overall inclusivity has climbed ever higher in our collective conscience and our priorities for the built environment in our cities.

Lifestyles and trends in retailing, leisure, and working continue to change, with employers, employees, shoppers, residents, and visitors expecting (if not demanding) more from their public realm as well as from their buildings. The transport industry is not immune to changing contexts and is also beginning to experience significant shifts, driven by a range of factors including customer demand, car industry, misguided practices, oil price volatility, technology (sometimes 'push' sometimes 'pull'), and increasingly air quality policy. There is a growing shift towards electric vehicles and autonomous vehicles are being trialed by several commercial enterprises. The impact upon the public realm could be significant – in terms of potential positive contributions towards improving urban air quality, but possibly adding to issues of congestion, infrastructure provision for recharging vehicles and associated visual intrusion.

What should we do in terms of planning for the future and what sort of public realm environment should we pursue? What sort of issues and trends should a public realm and placemaking strategy for Victoria need to be cognisant of in terms of planning for the future – both near term and further off?

Fig. 06

Study Area   Victoria BID   Victoria Westminster BID

Note: Whilst the study area is primarily comprised of the BID areas of Victoria and Victoria Westminster, we have employed the term "Victoria" to represent the study area as a whole.

1.1 Purpose

This summary paper has been prepared by the client and project team as a supporting paper for the People Wanted: Placemaking in Victoria study. Its purpose is to present a high level overview of the broad emerging trends in four key sectors which are key to cities and their future, and therefore also key for Victoria and its future:

- Working;
- Retailing;
- Living and;
- Transport and Movement.

In addition to these themes, which indeed exert influence on the public realm and how it responds to changes in urban environments, an overview of current trends within cities and the public realm is also included. It is intended that by assessing the trends influencing the urban environment and the trends emerging in the design of public realm schemes that common threads can be identified which could help inform the nature of potential improvements that will be of highest overall benefit to the Victoria area.

The paper is specifically *not* intended as an in-depth piece of academic or detailed research. Its overall purpose is to present an overview of key emerging trends and questions in these areas, which a future public realm and placemaking strategy could consider if appropriate. (Readers are invited to undertake further research should they wish to explore these themes further).

1.2 Background

This paper forms part of a wider commission from Victoria Business Improvement District on behalf of both Victoria Business Improvement District (VBID) and Victoria Westminster Business Improvement District (VWBID). The purpose of this wider project is to prepare an overall Public Realm Vision and Strategy for the Victoria BID and Victoria Westminster BID areas, albeit the actual study area goes beyond their boundaries. The project is also an update of VBID's previous public realm strategy published in early 2015. The new Strategy is called 'People Wanted: Placemaking in Victoria'.

The Victoria area itself is changing and indeed may already be witnessing some of the trends explored in this paper, if not at least some of the impacts. Perceptions about the area's reputation and character are also beginning to change, all of which forms an important background to this paper and the wider strategy study.

For many people, and for a long while, Victoria was synonymous with transportation and large and largely non-descript office buildings interspersed with occasional points of interest –Buckingham Palace, the theatres, Westminster Cathedral, and a mix of architectural styles of residential buildings. This perception is beginning to change. Over the past several years a significant amount of investment has been and continues to be channelled into Victoria leading to some transformed streets and streetscapes as part of larger developments. These complement and add to the cultural offer and serve to help round out Victoria's growing position as a new and exciting destination for all. This activity, initiated by developments such as 62 Buckingham Gate, has gathered momentum and now encompasses sites towards the World Heritage Site of Westminster Abbey, for example at Buckingham Green and the former site of New Scotland Yard.

The pace and degree of change is vital to ensure the area meets future needs. Located within the Central Activities Zone, Victoria is also an Opportunity Area outlined in previous Westminster City Council policy documents such as the Victoria Area Planning Brief and most recently in the draft 2019-2040 City Plan, and is set to provide, "at least 1,000 new homes and development capacity for 4,000 new jobs...between 2011 and 2031." With this brings increased pressure on infrastructure. Below ground, and to meet this challenge, London Underground has taken the first step in upgrading the transport infrastructure with the Victoria Station Upgrade project. A Crossrail 2 station is also proposed for the area and Network Rail are examining the potential to revitalise Victoria Station above ground too, recognising that the country's second busiest railway and gateway to Gatwick Airport will only get busier still. Landsec's developments have continued apace with buildings along Victoria Street being completed and the final phases of NOVA are being refined prior to commencement on site, possibly in 2019/20.

The opportunity for potential over station development at Victoria Station, the second busiest station in Britain, has taken on added significance. London Underground's upgrade works to Victoria Station with new and extended ticket halls, step free access to the station, new escalators and new and improved station entrances are also nearing full completion. This work has served to re-emphasise that the Victoria Transport Interchange, with a direct rail link to Gatwick Airport, also acts a visitor's first impression of Victoria and indeed of our capital city, as can the nearby Victoria Coach Station.

The Victoria area includes St James's Park Tube station, Wellington Barracks to the west and Parliament Square to the east. It is home to many historic and cultural assets as well as a variety of established hotels and blue chip organisations. Whilst benefiting from a rich and diverse mix of businesses, its identity is also defined through its function as home to the seat of national government. Major multi-national corporations thrive alongside small start-ups and bustling creative industries are complemented by a thriving hospitality and leisure sector. However, the area's challenges include suffering from traffic domination, poor public realm, poor air quality, poor pedestrian connectivity and inadequate signage. In terms of the built environment, there seems to be an inherent priority given towards motor vehicles, rather than people.

Within Victoria a minor revolution in decant design techniques and planning is taking place as the House of Lords prepares for a temporary relocation to the Queen Elizabeth II conference centre as part of the multi £bn restoration, upgrade and repair initiative for the Palace of Westminster. This project, possibly accompanied by significant upgrades to Parliament Square, introduces an opportunity for both permanent and interim public realm interventions that could significantly enhance the experience of the area for residents, businesses, workers and visitors alike.

Nearby, Northacre's six tower residential development with retail and office space and new public realm has commenced construction on the former site of New Scotland Yard on Broadway next to Christchurch Gardens.

In July 2018, Central Government Cabinet Office also launched the Government Estate Strategy which has particular reference and relevance to the Victoria area. The Government Estate Strategy recognises the major role that tourism plays in London's economy (in 2016 over 19 million visitors came to London). It advances that the area between Buckingham Palace, Trafalgar Square and Parliament Square is of particular focus and is of national and international importance. However, this area suffers from a poor public realm environment and traffic domination among other factors. The strategy presents the need for a long term vision for this area to enable it to reach its multi-functional full potential in terms of placemaking, and help high level thematic co-ordination of the range of development projects and initiatives emerging in the area.

Collectively the planning, environment and transport policy landscape also continues to evolve. The London Mayor's office has recently updated their transport and environmental policy documents. Its new London Plan is going through the process of adoption. Westminster City Council also recently published its draft City Plan 2019-2040 for formal consultation, which focuses upon Victoria as an Opportunity Area and reflects the introduction of additional policy emphasis towards the provision of appropriate new housing as well as improving the quality and provision of green space.

Against this background, it is important therefore to recognise emerging structural trends in key sectors and consider their existing and potential relationship with Victoria – what challenges and opportunities they may pose and how best can the new public realm and placemaking strategy proactively respond to these in order to secure and enhance Victoria's future growth potential as one of London's premier locations in which to work, live or visit.

1.3 Study Approach

The approach to this study can be considered in three phases. The first is to conduct an overview of the trends within the themes of Working, Retailing, Living and Transport and Movement. The second phase is to develop a series of key findings for each theme and establish a succinct number of considerations, or trends, that we believe should inform the development of a vision strategy for the area. Finally, a series of responses to these trends have been proposed to suggest how the public realm could respond to these trends when developing spaces and places in Victoria. This provides a framework for considering the public realm "needs" of a modern and responsive urban environment.

In addition to the themes noted above, a review of the Healthy Cities agenda provides additional key trends emerging within the design of public spaces particularly in relation to the creation of urban spaces and places that contribute to their inhabitants wellbeing.

The key findings and responses of each of the themes are then reviewed to identify commonalities, and from these a set of consolidated design principles to inform the public realm vision are proposed.

1.4 Structure of the Paper

The structure of the paper is presented below. It begins with Chapter 1 which presents an overview of the purpose and background to the project and this paper.

Chapter 2 presents a review of the current trends of each of the identified themes. It seeks to explore not only what might be considered as traditional public realm themes, but recognises that the role of the public realm in societies will increasingly need to accommodate, and facilitate, a changing attitude to the way people work, shop, live and move around their cities.

In addition, current trends around the more traditional role of the public realm are explored, looking at how to meet demand for space for people to walk and cycle, spend recreational time, and socialise in and connect with nature whilst also accommodating the integrating the integral infrastructure needed for modern city functionality.

Chapter 3 looks to distil the information revealed in Chapter 2 into a set of concise key findings that help inform the way public realm projects in the Victoria area could be progressed in terms of their overall nature.

Chapter 4 explores how findings from this review could be integrated into future public realm schemes in the Victoria area. This will help guide potential future public realm projects for the area, and ensure they are based upon a people centred approach that recognises and responds to the needs of all those who live, work and visit in the area.

Fig. 07 - Retail

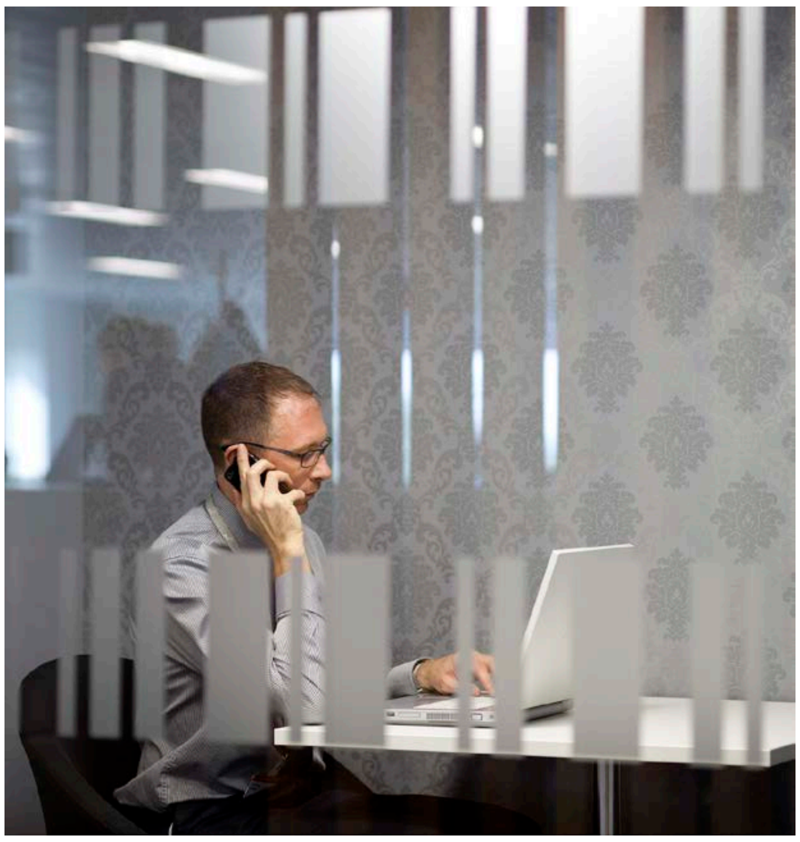

Fig. 08 - Working

Fig. 09 - Living

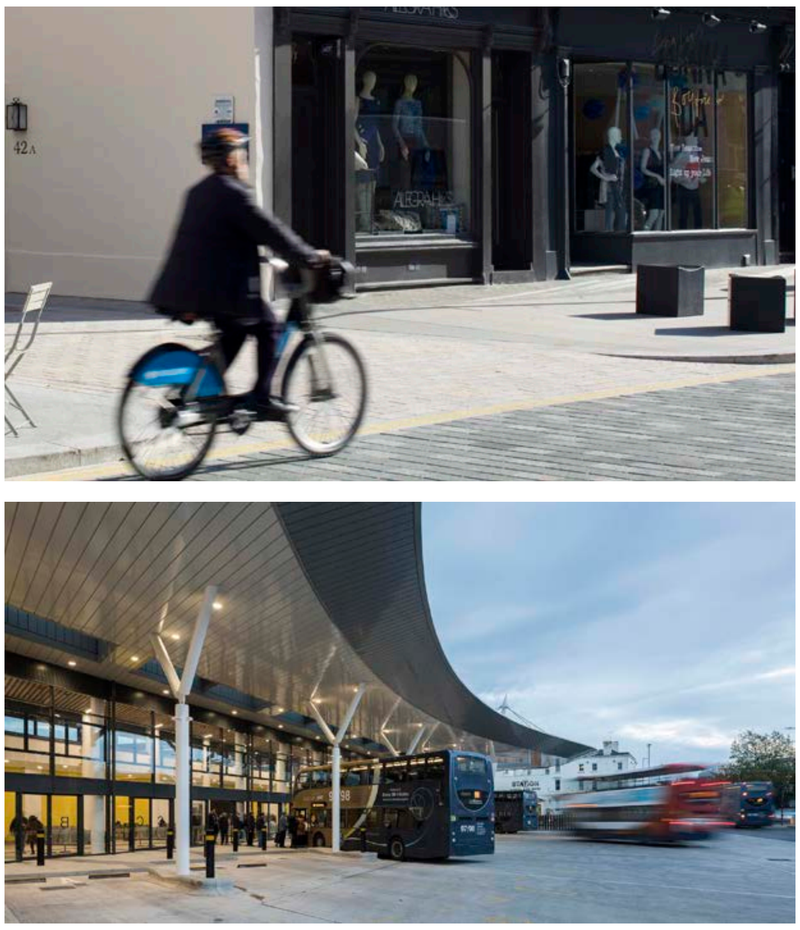

Fig. 10 - Transport

2.0 Changing Structural Trends

Our cities are growing and changing faster and more dramatically than at any point in human history. Rapid advances in and increasing reliance upon technology, global demographic shifts and rapid urbanisation, climate change, and emerging political and economic developments, are all dramatically transforming the urban world in which we live, work, shop and move.

Changes in lifestyle are becoming apparent, breaking the traditional structures of the Living, Retail, Working, Transport and Movement sectors. The borders between some are dissolving and in turn are bringing a more experiential and flexible setting to our environments that sectors need to respond to more pro-actively.

Emerging trends are transforming the built environment of our cities, and urban innovation and new solutions are already being tabled to address them. In turn the design of buildings and public spaces needs to be more adaptable to the changing demands. Design needs to be creative and innovative, putting people back at the centre, with the human experience being the driving force behind resilient and livable cities - and ultimately sustainably successful ones.

The following pages explore in more detail the emerging trends and how the public realm can begin to respond.

2.1 People + Working

‘Work’ and working has been an integral part of people’s lives throughout history, and throughout history its nature, scale and diversity has always been in a state of change and evolution. The history of urban development, architecture and engineering design, manifest through our heritage and more contemporary built environments, also closely reflects the history of ‘work’ and how it has changed over time. From rural hamlets and grandiose urban civic buildings to the emergence of an industrial built landscape, as ‘work’ began to change from a predominantly rural practice to an urban one during the industrial revolution, design for buildings and structures has reflected changing structural trends in ‘work’ and indeed has often sought to anticipate them.

The skyscraper has perhaps become the ultimate expression recognised by most to personify the link between architectural and engineering design, technology, and changing structural trends in ‘working’ – probably beginning with the opening of the Woolworth Building in America in 1913 – the first real ‘Cathedral of Commerce.’

It could be argued that most of these evolutionary (if not revolutionary) changes in work, architecture and engineering have been driven by ‘employers’ and their adoption of new ways of working allied with technological innovation and development. More recently however, it would seem that “employees’” adoption and use of technology is strongly influencing structural trends in working, with consequential implications for how people and employers think about the public realm and how it could be used or designed – for it is not just the building now that is important, but the spaces and wider location around it too which can contribute to ‘success’ for a company or business, and ultimately for a successful ‘place.’ London’s urban legacy and landscape very much reflects this, as recent research by the New London Architecture centre showed.

Technology, globalisation, demographics and social values are changing the personal expectations of the workforce and, in association, this is translating into evolving perspectives and strategies being considered by businesses in relation to property assets and portfolios, their approaches as to how and where work is done, their values and culture, and their capacity and ability to attract and retain talented staff.

In respect of technology, whilst its influence has been felt in workplace design over many years, a more recent trend is the ubiquity of laptops, tablets and mobile phones which have (as they have become more sophisticated and powerful) enabled office workers to leave their desks as they are increasingly able to access company systems from remote locations. Parallel with this, is the growth in prevalence and speed of WiFi and mobile telephone networks which have enabled communication connections to occur almost anywhere and at faster speeds for accessing and sending information. Such developments have also facilitated the rise of remote attendance at meetings.

All of these technological advances have served to help promote businesses’ strategies around rationalising and optimising their office space assets and resources, encouraging an increase in remote working and hot-desking. This has led to a growing perception that work is, or can be, ‘something we do’ rather than ‘somewhere we go’ for many, which itself can impact upon business models.

This ‘experience’ of work is something that seems to be increasingly accepted as a norm, particularly when taken within the context of the work-life balance being increasingly blurred, with socialising increasingly related with association with work contexts too. This ‘mobility’ in communication is also becoming the norm in our social lives too, particularly among millennials who are adapt at maximising its positive utility it seems.

Mobility is also increasingly a characteristic of career progression, one initially catalysed by wider economic changes rather than technology per se. One cannot really expect to spend a career with one company anymore, which would be quite rare now. However, in recent years, this trend seems to have become more emphasised as cultural attitudes to work change and develop. Younger people are now expecting to work for many employers throughout their career, as well as demanding an enriching experience at each.

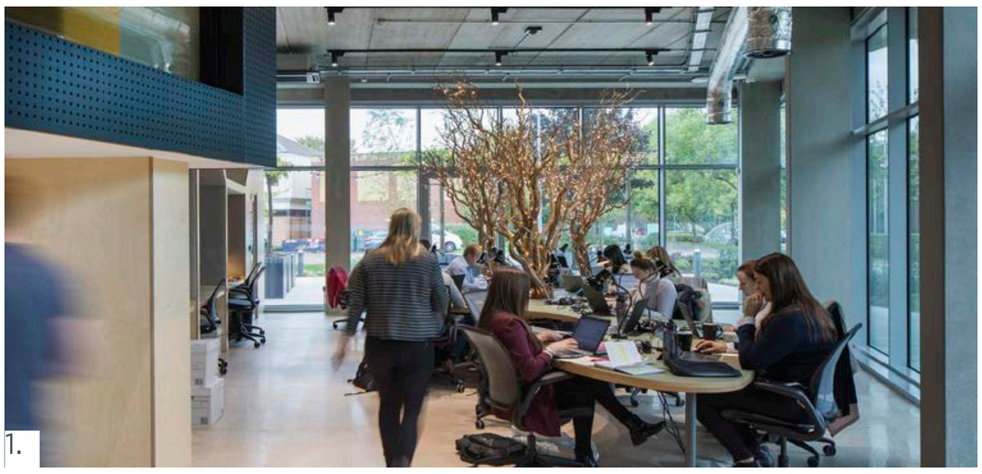
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Fig. 11


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Fig. 14


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Fig. 12

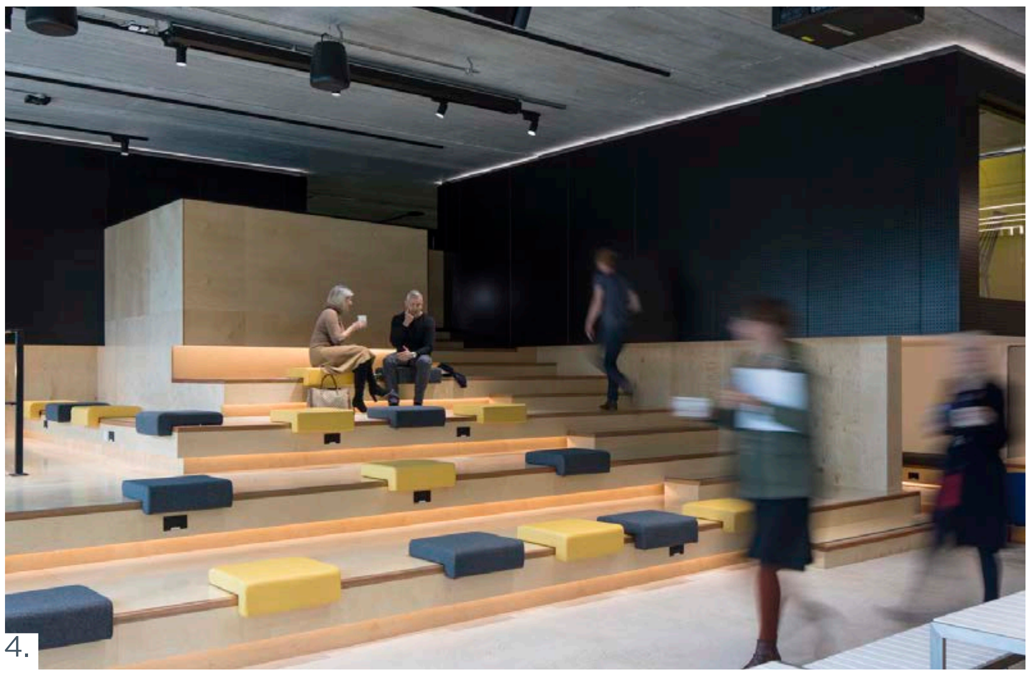
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Fig. 15

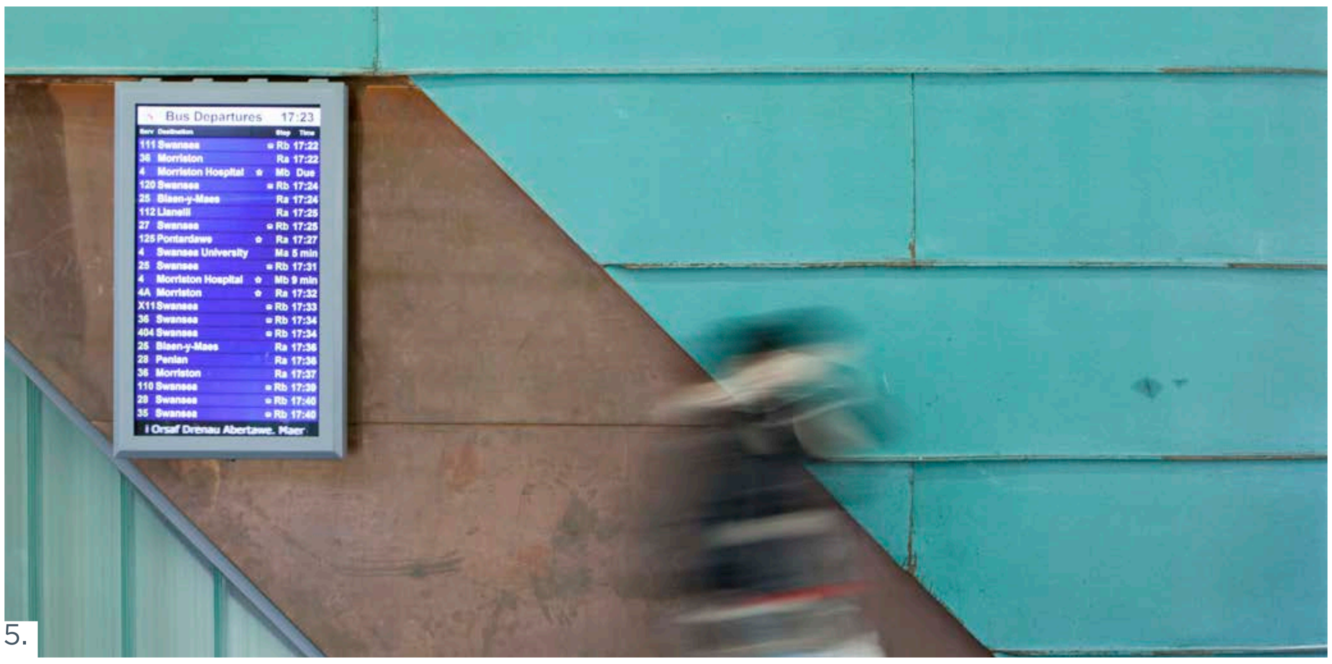

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Fig. 13

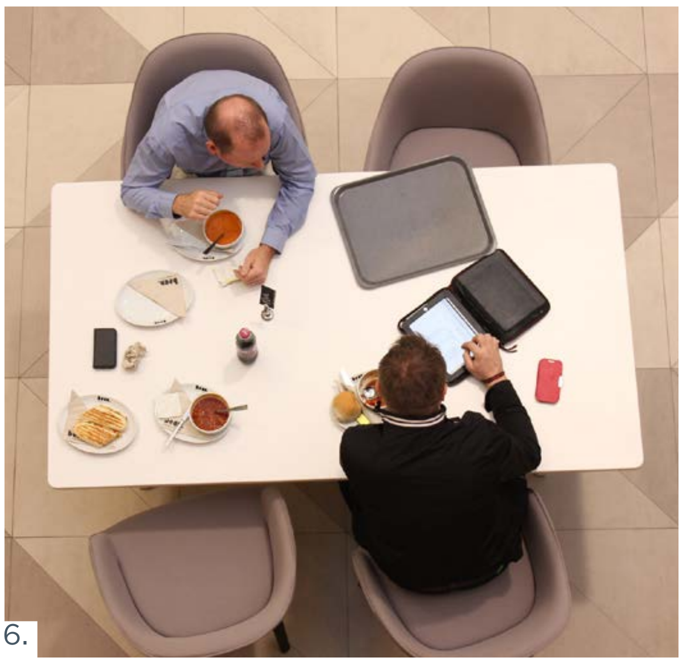
6.

Fig. 16

1. The use of technology is changing the structural trends of working with many demanding a further steps towards work/life balance | 2. Health and wellbeing are becoming priorities for many companies, investing in sports classes, healthy food and team work activities | 3. Co-working spaces are flourishing and support the increasing adoption of the flexible working model | 4. Employees are looking for high quality work environments that offer a range of amenity and flexible work environments | 5. Artificial Intelligence is increasingly changing work place roles and how we interface with technology | 6. Working away from the office. Increasing number of employees are able to access information across networks allowing working from home, cafes, libraries and other remote locations.

Indeed, according to Deloitte's Millennial Survey, Millennials have little loyalty to their current employers and many are planning near-term exits. This "loyalty challenge" is driven by a variety of factors. Millennials seem to have the conviction that most businesses have no ambition beyond profit, and their beliefs and purposes in relation to the business are distinct from their companies. They feel underutilised as well, and believe they are not being developed as leaders. High expectations for a rewarding, purposeful and flexible work experience are put on the employers, with the requirement of constant learning and development opportunities, and dynamic career progression (Deloitte, 2016). This is complemented by a sector of the workforce which is aging, or maturing. Whilst responsive to changing office environment design and remote working, their influence has also helped ensure that there are spaces for focused working, where quiet environments are required.

To succeed, organisations need to understand what motivates their teams, engage them and drive them to success. They must put people first, investing in the individual, diversifying work spaces, and reinforcing a shared culture and vision. Connecting employees with the company vision, purpose and meanings behind their work is imperative for retaining and growing a worldclass organisation. Differentiation, diversity, inclusion and well-being are also key. Today, experience is a key element to motivate workers. To engage talent, the workplace must prioritise experience. Three factors that influence employee experience are: culture, technology, and the physical workplace. Finding the sweet spot is paramount (Deloitte, 2016).

Employees are choosing workplaces with high quality amenities, cultural activities, leisure provision and a focus on health and well-being to support a better and balanced lifestyle. A space that promotes a wider place-based approach to design, for instance where play has a key role on the well-being agenda it is more likely to encourage activities such as walking, cycling and spaces for respite. Increasingly office design can take clues from residential design, making an office look and feel more like home. In addition, locations with an attractive evening economy are important.

Health and wellbeing of their employees has shot up the agenda of business priorities for many companies. This is increasingly reflected not just in building design, but through the consideration of quality of public realm and amenities around buildings and areas where businesses may be thinking of locating too. This is also important as, particularly with the rise in building costs, many businesses are seeking to rationalise the amount of office space they need on the back of changing work patterns related to technological developments. As such, they also want more from the external spaces around them, especially as social and amenity environments are also environments where business can be conducted. Health and well being is influenced not just by interior design within buildings, but exterior design of public realm and spaces. This in turn is increasingly recognised as influencing the productivity of workforces, absenteeism, presenteeism, the ability to attract talented staff as well as retain them.

These trends, when allied with the blurring of work and living lifestyles, point to the increasingly important role that the quality of public realm and placemaking plays in enhancing or creating facilitatory environments and locations for successful businesses to flourish. The benefits of such high quality public realm and placemaking are, of course, as much for other sectors (residents, shoppers, visitors for example) as they are for the work sector. These principles have been explored and implemented in projects such as British Land's development at Paddington, where the public realm has been designed and animated to promote social engagement, where business can also be carried out.

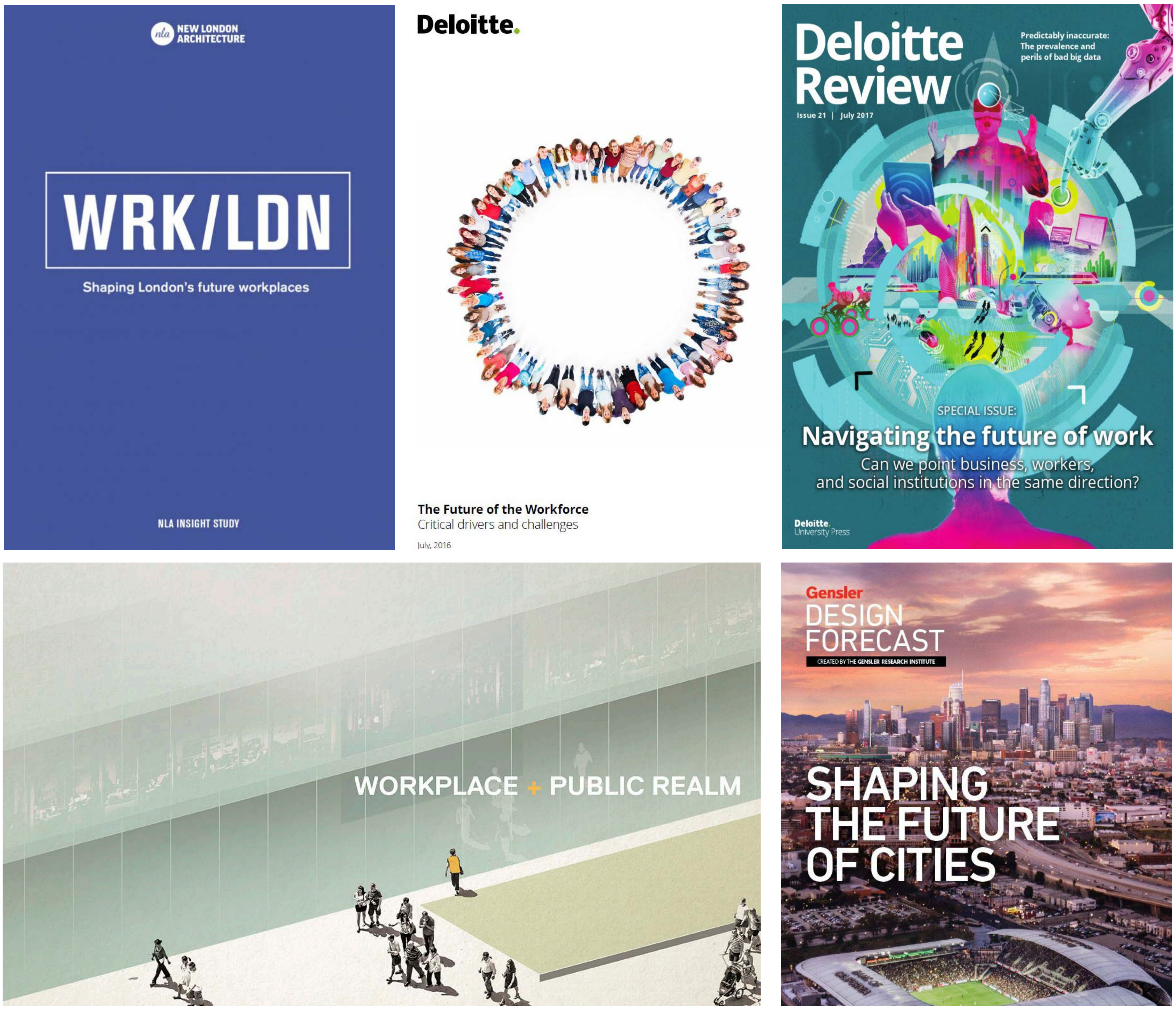

Fig. 17 - Various papers and studies have been reviewed to the inform the relavent emerging trends.

Two contemporary examples of how development activity has begun to respond to these trends are offered at Paddington Central and Chiswick Park in London.

Paddington Central

Paddington Central lies within the City of Westminster and comprises 11-acre office-led mixed use lifestyle campus, owned by British Land.

The area benefits from its proximity to Paddington Station, with connections to Heathrow and to different tube lines. In the future it will also be supported by Crossrail.

The interventions brought by British Land, started when the public realm was approaching its 15th birthday, showing signs of need of improvement. The developer acquired the majority of Paddington Central in July 2013 and has invested in the campus since then.

This included the acquisition of some properties, the construction of new buildings and a programme of public realm improvements designed to enhance the wider environment, with attractive places to spend time outside of the office and an appealing streetscape.

Today the campus comprises of a mix of offices, apartments, cafés, bars and restaurants within a reinvented public realm with an increased areas of greenery.

The public realm's aim was to create a greener, natural and more pedestrian friendly environment with a focus on well-being. The proposals included the construction of wider walkways, art commissions and a focus on high quality paving. They also consisted of upgrading the heavily used pedestrian entrances to the Paddington Central estate from the canal side. An increased focus towards biodiversity included the installation of green walls, new trees and potted planting. Strategically placed new furniture and the removal of overall clutter opened up the views across the site. The public realm also looked at rebalancing the space away from vehicles and towards pedestrian use. This was implemented through the introduction of a linear garden, trees and planting to create a high quality environment for people to sit, meet, work and enjoy.

These enhancements have improved the arrival and user experiences. The canal side has now a cohesive, welcoming environment with new benches, trees and lighting. There is more opportunity for external retail use and active frontages. Kingdom Street now has a linear 'woodland walk', with a series of garden spaces of different sizes and uses: a central lawn, a games room, a kitchen garden and an open air 'library'.

As a result the programme at Paddington Central is rich, with a vast offer of outdoor activities, taking advantage of the public realm enhancements and contributing to an increased well-being.

Chiswick Park

Chiswick Park is a business park in Chiswick, West London, developed by Stanhope. It was developed on a brownfield industrial site formerly occupied by Chiswick Bus Garage.

It is currently home to some of the world's leading companies comprising twelve buildings with a total of 1.4 million square feet of office space, set within a landscaped public space. The park also houses over 45,000 sq ft of retail including a gym, restaurants, convenience stores, pop-up traders and street-food vendors.

The project reflects the conviction of the developer that a very high quality, distinctive and flexible development can be achieved using standardised components and built to conform to tight commercial constraints. To this end, the office buildings contain highly flexible space that can be configured in open plan or cellular form.

Each building at Chiswick Park is standardised taking advantage of off-site construction technology. They provide climatic control and passive shading with the use of large scale external louvres, which reduce significantly the requirement for air-conditioning. The facades are fully glazed to maximise views and daylight and enclose large, unobstructed office spaces.

The buildings are arranged around the perimeter of the site to enjoy views over the public park – the heartbeat of the site, which offers open-air performances and activities, a scenic lake, waterfall and nature reserve. These facilities are designed to enhance the work-life balance of the occupants, supporting the concept of social sustainability.

Chiswick Park has been developed as a place favouring people rather than vehicles, consigning the vehicular movement to the perimeter of the site and hence 75 percent of those working here arrive on foot, by bicycle, bus or train.

Central to Chiswick Park is the 'Enjoy-Work' philosophy: People who enjoy where they work are more productive and loyal. It's around this central idea that they focus their attentions by having Enjoy-Work's organisation managing the safety, maintenance and the extensive programme to enthuse the workers helping them to develop new skills and broaden their horizons. This is achieved with clubs and evening classes either of an academic or creative nature. At the heart of the philosophy is the belief that supporting and engaging individuals first is the key to productive and engaged employees. Happy people are more committed, more creative and productive. A workplace that stimulates and refreshes its occupants, encourages them to work harder, stay longer and have better ideas. This entails "evening economy" activities and events too.

"Working" Examples: Changing Design Trends

Gusto, San Francisco

Gusto in San Francisco has a homely environment, transparency in the way they work and generous benefits (Robinson and Canales, 2018). Fortune magazine named Gusto one of the 100 best workplaces for millennials and employees write very good reviews. It is placed in a former shipyard that has been transformed into a 'living room' where desks are mixed among couches, area rugs, poufs and coffee tables. Comfort is key. Employees have the flexibility to work from wherever they want and need to remove their shoes at the entrance to feel like they are at home (Robinson and Canales, 2018).

Microsoft, Dublin, Ireland

Taking a human-centric approach (Gensler Research Institute, 2018), the Microsoft building is the physical manifestation of the cultural transformation (Gensler, n.d.). Microsoft has created a design concept called Microsoft Island, which maps out how employees interact with the space. Developers may gravitate to the caves and mountain to seek peace and quiet; salespeople would arrive at the harbour to engage with visitors, business support professionals would huddle around the campfire to share information in social hubs (Gensler, n.d.). For its new headquarters Microsoft wanted to break down barriers and find new ways of working to empower employees, optimise operations and engage customers. The space connects everyone and everything, strengthens relationships, builds community connections and fuels innovation (Gensler, n.d.).

WeWork

WeWork is changing the way people and companies work. It provides shared workspaces for technology startup subculture communities as well as services for entrepreneurs, freelancers, startups, small businesses and large enterprises (Sheftell, 2011). It is a concept that is gaining space everyday according to the tendency of a flexible world, where people can work remotely and have control over their hours and workspaces (HR&A Advisors Inc. and WeWork, 2019).

Key Findings: People and Work Trends

• Blurring and Balance

There is an emerging and increasing trend towards the blurring of the lines between work life and social life (away from the traditional norm where these activities were separate). As such, work environments are looking to incorporate or combine socialising opportunities within their business environments (internal and external) as well as opportunities for leisure, to help with balancing work and social life. This also highlights the importance of an evening economy for 'work' and businesses.

• Health and Wellbeing

The environment that people work in is increasing viewed within a wider work life balance context. Access to nature and opportunities for an active lifestyle are seen as beneficial to workplace satisfaction and productivity. Providing the right stimulus, the wider work environment will assist in attracting and retaining the best talent.

• Technology & Remote Working

Utilising technology provides opportunities to become more flexible in how the work place is structured and how people interact. The public realm should continue to integrate technology infrastructure where possible to provide opportunities for wider workplace options. People are choosing to work remotely from their place of work, including more public places such as cafes and public realm spaces. This creates workplaces in public places and the need to accommodate this type of use is increasing.

• Changing Demographics

People are increasing placing value on the experience of working and not just financial reward. This puts an emphasis on workplaces and their surrounding environments to be engaging in themselves and located in places that provide a rich and stimulating experience.

• Animation and Evening Economy

There is a trend towards facilitating activation and animation of public realm and space, and provision of participatory activities within the public realm – to help bring locations 'alive.'

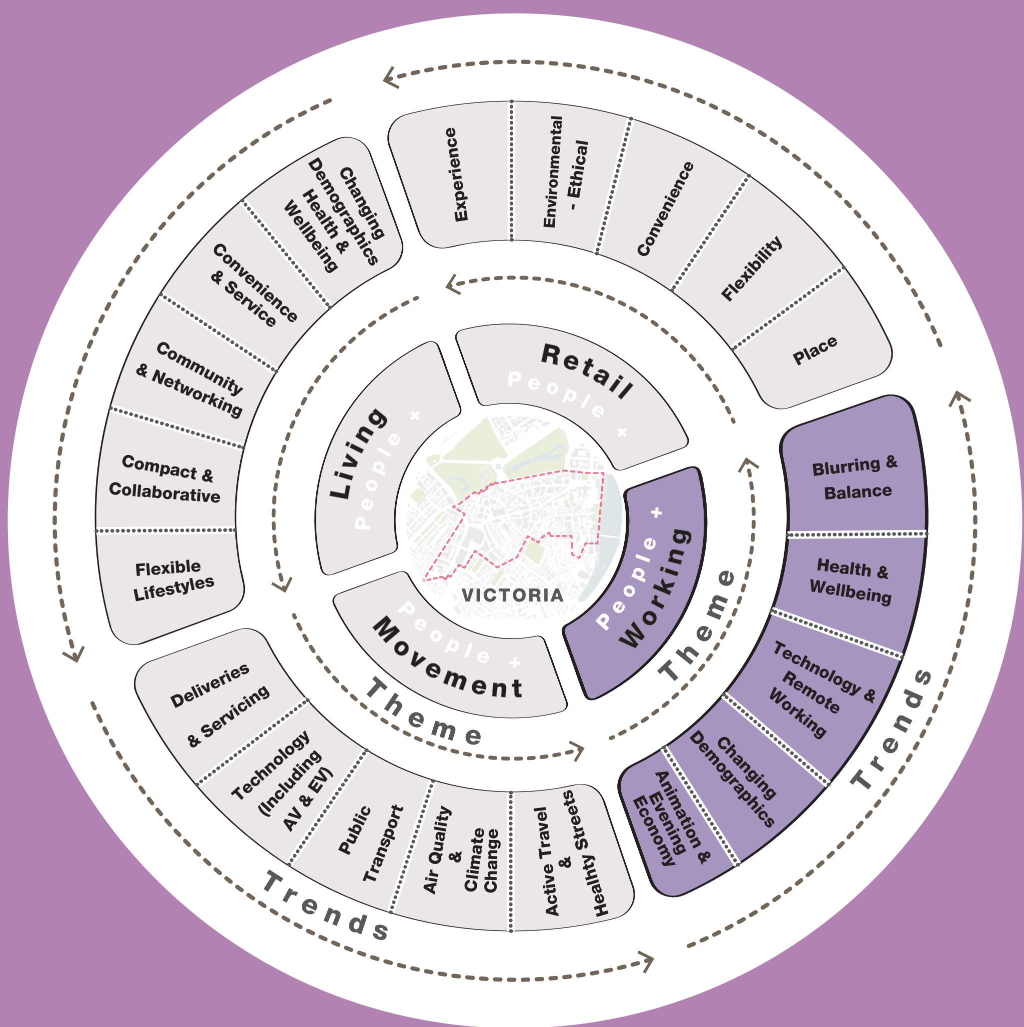

Fig. 18

2.2 People + Retail

"Britain is a nation of shopkeepers."
Napoleon (Attrib)

The UK certainly has that reputation. Over the decades, retailing has become a central part of living and working, growing ever more sophisticated in its evolution and desire to not only please the customer, but to do so in ever more economically efficient and profitable ways. In the UK our built environment displays the seachanges (low and high water marks) in culture, technology, finance, economic cycles and innovation that have influenced retailing and its corresponding relationship with design and built form. This is manifest, for example, through the transformation of old market areas into shopping locales, the arrival of the 'department store' most famously exemplified by Selfridges and Harrods, but also by John Lewis, House of Fraser, British Homes Stores and others, to the development of out-of-town shopping centres that capitalised upon the convenience offered by the motor car. The art and science of architectural and planning design responses to these sea changes are there to be explored. Each of these seachanges has brought opportunity, but also challenges – not just for the retailers themselves as an industry, but also for the built environment.

Although it is an industry sector typified by constant invention and reinvention, retailing is once again experiencing significant structural change. The 'notion' of shopping itself is evolving – driven not just by technological innovation (in the form of the high-speed broadband and the internet), but also by cultural evolution itself, driven by evolving priorities amongst people regarding consumerism and growing environmental consciousness. We may indeed be becoming a nation of "shopclickers" rather than "shopkeepers," but simultaneous with that may be a realisation, particularly among younger people, that we may not need to consume as much?

The growth of online retailing since the advent of the internet has been steady, at times explosive, but cumulatively it is having an impact upon the way in which customers buy products – which is increasingly done online. (Retailers have also responded to this in terms of marketing, which is also increasingly done online). This trend has also moved into the purchasing of products that, initially at least, were somewhat immune to the attractions of the internet and online purchasing – perishable items, food, footwear, clothes and high value or white goods items. This is now changing.

The impact upon the high street in the UK in the last few years has been dramatic and there for all to see. Many retailers have shut their doors for good, unable to compete in an ever more competitive business environment, particularly when trying to compete with the price of goods online. This decline has not been solely down to the internet. Younger people it seems tend to gravitate towards having 'experiences' around their purchasing activities, rather than just acquiring a product. The experience and product may have to reflect values that the customer identifies with as their own personal values (often informed by the values that millennials evoke). Over provision in some sectors, such as the restaurant sector, may also play a role. The high street has witnessed the disappearance of many well known names recently, whilst others are going through significant structural reorganisation and refinancing to adjust and adapt to the changing industry and customer climate.

As such changing consumer patterns, and new technological developments are pressing the retail sector to re-evaluate existing business models (New London Architecture, 2019). A potentially seismic shift is occurring. The ongoing shift towards online is impacting many traditional retailers who face inflexible leases, high rents and excess properties (Waugh, 2018). Many retailers are overburdened with debt, focused on cost-cutting rather than reinvestment, have poor stakeholder relationships, or simply lack vision (Canavan, 2019). The UK's high streets are a witness to the impact of these trends.

Indeed retail is no longer about products, it is about the relationship between a brand and its audience (Gensler Research Institute, 2018) and there is a greater understanding and appreciation in the industry of the purpose of the retail 'place' and what the cultural offer is for all the people who use it. This involves looking beyond just the financial returns but to optimising the overall social value and attractiveness of a place, and helps facilitate a stronger retail opportunity. As a result, a move to designing and curating (New London Architecture, 2019) better and more engaging retail and cultural spaces is emerging.

Fig. 19 - A snapshot of newpaper headlines of the current retail environment

Consumers are browsing and purchasing 24 hours a day, anytime and anywhere. However a consumer's desire for personalised human interaction remains a key factor in customer loyalty and repeat visits. Many shoppers still prefer to interact with a sales associate when visiting a store. This is despite the need for faster delivery and service offered by artificial intelligence (AI) and automation. According to Gensler, 77 percent of Gen Z consumers in the US prefer to shop in a physical store with real and authentic experiences and 80 percent of millennials would choose to spend money on an experience or event over buying an object (Gensler Research Institute, 2018).

Retailers are beginning to focus on connecting with these generations, to whom service and authenticity are paramount (Gensler Research Institute, 2018). Shifting their focus back to the customer experience, offering environments for consumers to share positive brand experiences which help to build meaningful connections (Gensler Research Institute, 2018) and maximise engagement. There is an emerging need to shift from retail centric commerce to an offer that is diverse in function and experience (New London Architecture, 2019) and promotes social interactions.

As such, there is a growing appreciation that to thrive as next-generation retail destinations, traditional shops and locations must reinvent themselves and fundamentally revolutionise and tailor the shopping experience with flexibility to adapt to the different growing needs and complementary services. Retailers which bridge the gap between digital and real-world interactions will further prosper (Canavan, 2019).

Retailers are turning to data-driven insights. More nuanced forms of customer profiling can improve experiences for all generations. The consumption of experiences is outpacing the consumption of goods. The future of retail will encourage customers to play and stay, rather than grab and go. A unified, seamless customer journey is imperative: creating memorable moments at every touchpoint is an opportunity to inspire repeat business.

In response, retail centres are evolving into hybrid destinations by bringing different uses together to maximise assets and stay relevant. Shopping centres are reshaping their offerings, moving from a focus on apparel stores to more diverse networks of retailers, leisure and entertainment tenants, with event and pop-up spaces (Gensler Research Institute, 2018). Spaces that have flexibility to adapt their services and offers to the constant change of the customer needs are provided too. Alongside the developing multi-level narratives of the use and experience of retail, the spaces that foster a strong identity and the spaces that create emotional resonance (New London Architecture, 2019), are further ways which will engage people and attract them.

The emerging new approach seems to be one that is amenity and service-rich, leverages technology, promotes culture, and offers ample leisure and event activities Some retailers are developing immersive virtual shopping experiences, allowing users with Virtual Reality headsets to walk through virtual shops, browsing and purchasing digital versions of products. Although technology alone isn't enough to produce a compelling customer experience, user-centric design is key. ' Shops' may be were people go to 'experience' a particular product, but they purchase it online with delivery arranged through the same medium.

According to Gensler "Millennials and Gen Z consumers respond favourably to brands that are conceived as sustainable or socially conscious, brands that embrace locality and friction free/seamless environments. Consumers are willing to pay a premium for places, products, and services that give them back their time, and are convenient. Thus clear navigation and easy connections, easy-to-use technology, and services that provide value will further support the high convenience lifestyle of today's consumers" (Gensler Research Institute, 2018).

Specific to UK, the problems on retail are: wages, Brexit, consumer spending, online shopping, competition and high street retailers. The effects of Brexit, particularly on the currency and workforce, clearly have the potential to severely disrupt the industry. According to a research by London First and PwC, around 44% of London's entire retail and wholesale workforce are from outside the UK. Consumerism is arguably in terminal decline as well, not only in the UK, but in many other leading economies around the world, with millennials leading the change. Researchers have suggested that environmental concerns might be pushing some people to consume less.

With these challenges, it is expected that a third of Britain's retail jobs could vanish by 2025, according to the British Retail Consortium. Many high street centres are already coming under increasing strain urging to develop comprehensive strategies to adapt, survive and thrive. In order to remain competitive, attract custom and add to the vibrancy of a place (Ministry of Housing, Communities & Local Government, 2019), retailers need to consider how they could update their practices. Property needs to relinquish its grip on the traditional forms of transaction to something that is more flexible, agile and hands on (New London Architecture, 2019).

It is through the implementation of progressive and creative thinking around placemaking, flexibility, leadership and culture that retail environments will be well placed in the future. Retail spaces will need to continue to adapt to different uses and push the boundaries further, continuing to expand the parameters of retail. New and retrofitted retail space must be designed with adaptability in mind.

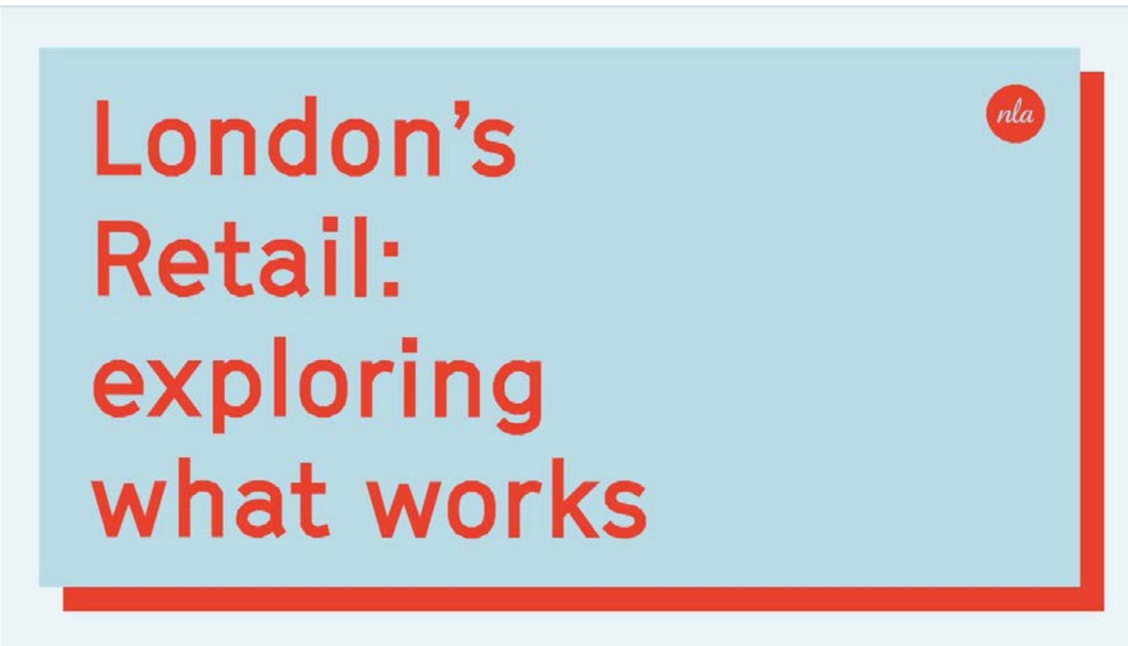

Fig. 20 - Various papers and studies have been reviewed to the inform the relevant emerging trends.

Emerging Retail Examples

Boxpark, Croydon UK

Boxpark describes itself as a revolution in retail. The park offers a mix of street food and drinking outlets alongside scheduled events and experiences like concerts and performances. Key to its success is the constant curation of events and activities tailored to specific demographics at specific times of the day. Commuters benefits from early morning yoga, lunch accommodates a families and children market, exercise classes running in the afternoon and evenings have a vibrant club environment or live music offers. This approach provides a successful multi-functional offer and constantly adapts to changing programme of experiences to attract people.

Adidas Flagship Store, Oxford Street

A new Adidas Store has recently opened in London, which showcases the most technologically advanced retail experience for the brand. The focus is a digitally enhanced retail experience with innovations including interactive mirrors in the changing room, allowing customers to ask for different sizes and colours to be bought to you without leaving the space. Alongside pioneering a new part of the Adidas app 'Bring It To Me' feature which uses in store geolocation tracking to allow shoppers to check stock, request sizes and purchases personally as they shop without the need for queues or designated collection spaces. The store has been designed to act as a 'hyper-local hub' for consumers, explained Adidas. In conjunction with the innovative approaches the store has given consideration to protecting the environment by use of a large range of sustainable and responsibly sourced materials.

Mercato Metropolitano – Elephant and Castle, London

Mercato Metropolitano is food based experience that combines the repurposing of existing sites into food markets, community based events and workshops, live music and screenings. Social responsibility, community engagement and recycling/reuse are key concepts and food is all sourced locally, often with an emphasis on small scale and seasonal produce. This provides customers with unique experiences across the seasons and provides access to smaller artisan suppliers.

Key Findings: People and Retail Trends

- Experience

The value of experience will separate the physical and the digital retail and changing High Street experience. The public realm will play a significant role in adding to the experience of the wider place, and actively influence peoples decision to shop at one place or another. Locational proximity with other uses such as food, leisure, entertainment or community are increasingly key, as is a successful evening economy.

- Environmentally Ethical

Growing awareness on issues of sustainable and socially conscience choices will continue to influence the experiences people choose to engage with.

- Convenience

The retail experience on the high street must offer an easy and convenient place to get to and move around. Perceived isolation from other quality environments will be barriers to attract people into high street environments.

- Flexibility

The creation of adaptable mutli-use destinations that offer people an evolving and continuing diverse range of opportunities including temporary/seasonal uses.

- Place

A strong identity which symbolises a destination creates a sense of uniqueness and desire. Essential that a place can attract customers to it and subsequently support a retail environment . Complementary supporting uses such as leisure, entertainment, culture and dining are key for a successful retail place, offering a combined experience. The evening economy can be key.

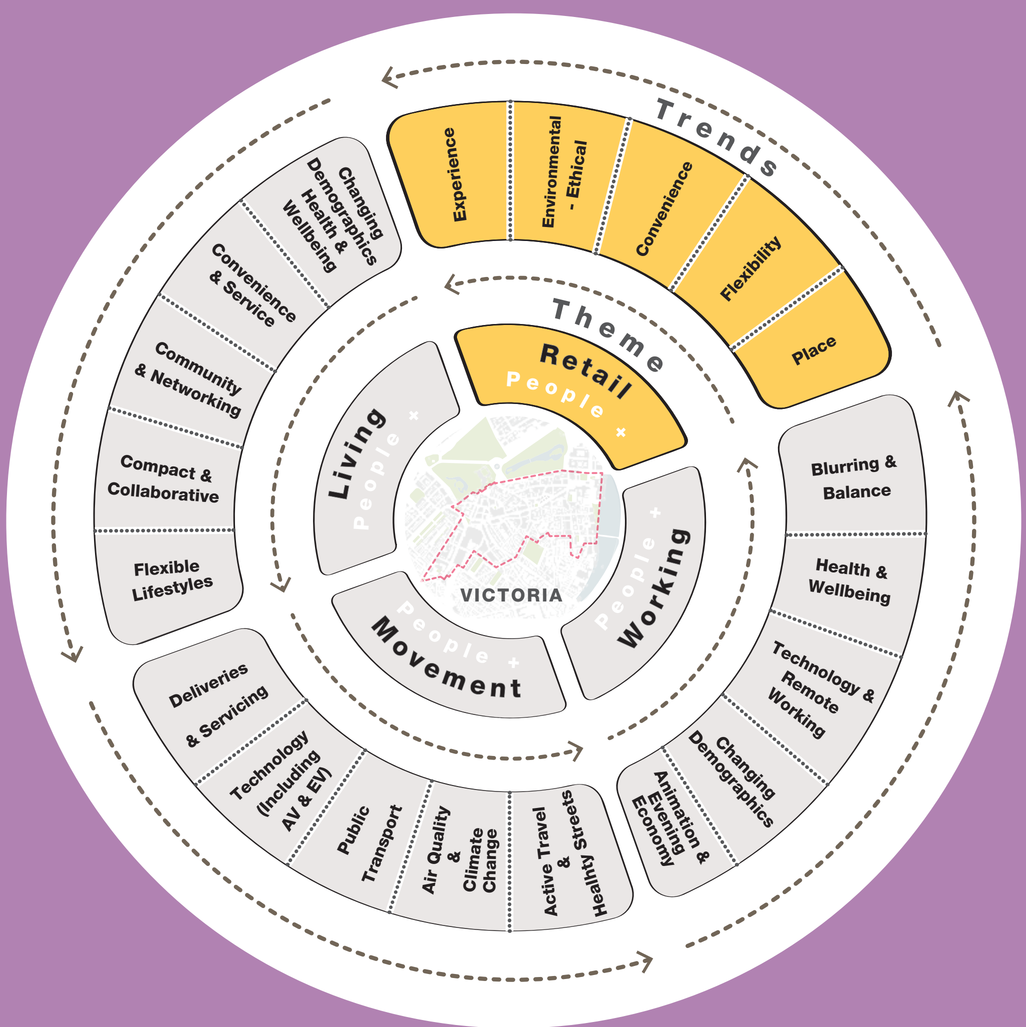

Fig. 21

2.3 People + Living

The future of living is changing. Whilst owning a home in the twentieth century was an aspiration for many people, the market today is becoming a generation to rent due to high costs of private ownership. Alongside the increase in free-lancers, flexible workers and entrepreneurs, people are also becoming less tied to specific locations and working hours which in turn is affecting living environments. The borders between sectors are dissolving and to enable more people to live in cities, urban innovation to new solutions for urban dwellings is developing, providing us with a series of new living facilities and trends. A report written by Pop Up City summarised the main macro-trends being ‘the four C’s: City, Compact, Community and Convenience’.

City

The world is becoming increasingly urban (Beekmans et al., 2018) with almost 9% of the world’s population expected to be living in 41 megacities (cities with more than 10m inhabitants) by 2030 according to Space10, and with 66% of the worlds population expected to be living in urban areas by 2050, according to the United Nations Department of Economic and Social Affairs. This brings with it challenges, with the need to ensure cities are equitable, clean and safe (Beekmans et al., 2018) for all, alongside creating vibrant neighbourhoods that are attractive in order to respond to other cities competing for people, jobs and talent.

Compact

The influx of a younger demographic is already having a strong impact on the atmosphere of the city (Beekmans et al., 2018). Born between 1980-1994, this younger demographic group is commonly referred to as millennials; a phrase coined by William Strauss and Neil Howe due to the group’s foreseen graduation into a new millennium. With the demand for housing pushing up land prices, the cost of living space in cities is on the rise. As a result, the average size of a person’s living space is decreasing, leading to new lifestyles and smaller forms of housing being created (Beekmans et al., 2018), in order to find affordable places to live. According to Pop-Up City, millennials seem to prefer these new forms of compact or shared housing in order to live in more central locations (Beekmans et al., 2018).

This emerging phenomenon of living collectives, such as micro-living, shared-living and co-living are becoming more apparent and popular with the creation of flexible shells that support flexible lifestyles and living. However as the internal environments are becoming more multifunctional there will be more pressure on external adjacent and surrounding spaces and facilities to work harder to support the emerging compact living.

Community

There is a growing trend for new neighbourhoods to be defined by high density, high rise housing (Gensler Research Institute, 2018). But still young urban dwellers are seeking to live in locations with cultural benefits which are engaging and vibrant, as well as offer a community feeling. 75% of millennials value experiences over purchasing things according to Pop up City whilst still being connected digitally and physically to wider locations. Residential buildings are responding by becoming mixed use, redefining the idea of a neighbourhood community hub and creating vibrant 24/7 destinations. These environments unlock the possibilities of a diverse urban lifestyle, activating the voids between buildings where more social interactions can occur (Gensler Research Institute, 2018).

Value of ‘community’ is also becoming more important with the opportunities to create ties and socialise more commonly on peoples agenda. This has seen a new rise in companies specialising in property that focuses on creating co-living spaces, such as “The Collective.” According to ‘The Collective’, 50% of the residents are interested in convenience, the other 50% in community. These new priorities brought by the millennials and Generation Z (those born after 1994) are leading the way in the formation of new urban communities. Organised by common interests, demographics, or lines of work these new communities replace the standard idea of traditional neighbourhoods (Beekmans et al., 2018).

Convenience

Lastly, "living" is seen as a service that provides convenience and a seamless environment. The concept of smart homes is transforming living environments to an easy-to-use experience for dwellers. With the progression of different technologies, intelligent personal devices and building systems. Homes are becoming smarter, learning behaviour and activity patterns, predicting, adapting, and customising experiences for dwellers. Other systems that are emerging associate robotic innovation with furniture. Foldable and sliding furniture powered by modular robotics that can adapt to the smallest living spaces, turning spaces into versatile homes on micro-living contexts (Beekmans et al., 2018).

Despite convenience being one of the primary ways in which 'generation rent' structure their daily lives, research has stated that a search for 'place' and 'belonging' is one of the driving forces for people to choose more community focused locations and forms of housing (Beekmans et al., 2018).

However, whilst Millennials and Generation Z (who are the mainstay of Generation Rent), they are not the only demographic that is playing an influential role in changing the residential market sector. Baby boomers, those born in the years just following the Second World War, are now senior citizens, indeed have been for the past few years. Age UK estimates that there are approximately 12 million people in the UK aged 65 and above. By 2030, it estimates that 20% of people in the UK will be aged 65 or older. Whilst life expectancy has increased, this also introduces scenarios of increasing portions of the UK's population living with health-affecting conditions, including mental health, that may be long term ones.

In terms of existing housing stock, Age UK also estimates that approximately 6.5 million (33%) households in England are headed by someone aged 65 or older. This is estimated to reach 10 million by 2041 - a substantial rise.

In response to this, specialised residential developments for 'later living' is a growth area in the residential development sector. These are developments enabling older people to live independent of care, but accompanied by a layer of medical support. There has been growth in retirement villages and developments, including at the luxury end of the spectrum such as Battersea Place in London.

Health and wellbeing based on the demographic nature of the occupants, are important aspects of these types of developments, with the provision of amenity space and health or activity related facilities being integral components.

There is also a third aspect of demographics which is related to a concerning trend in the 'living' sector and health and wellbeing – this is the rise in obesity among children and you people. The Royal College of Paediatrics and Child Health estimates that almost 20% of children are obese or overweight when they start primary school. This rises to 30% when starting secondary school. It also estimates that by 2020, half of all children in the UK will be overweight. Obesity is one of the biggest health threats in the UK, particularly as it brings with it a range of serious health conditions that could also affect the person. Social and economic deprivation is a governing factor in the geographical distribution of obesity among the population.

The 'living' environment, internal and external, has a major role to play in addressing this worrying trend concerning health and wellbeing. There is a lot more emphasis now placed upon opportunities for play areas and play facilities for children in existing parks and spaces, as well as the public realm and new residential developments. This is seen as an important element for children's health and wellbeing.

At a more structural and strategic level the UK is experiencing a housing crisis. Whilst it is not the purpose of this paper to explore that specifically, nor the political, economic and financing reasons for its cause, it is clear that the growing urban population allied with the shortage of land for residential development, exacerbates this situation. That context has also been an influencing factor in changes in some 'living trends' discussed earlier, as affordability and developer viability factors affect design and delivery. Population growth in urban areas, coupled with these factors, is leading to higher density residential developments (and higher buildings), entailing a reduction in unit sizes over time, as more units in total are incorporated into development schemes. The private rented sector is also increasing as home ownership becomes impossible for many because of the costs.

This trend in population growth, in association with these other trends, brings with it increasing demands and pressures being placed upon the existing public realm and amenity space which urban areas may have. Opportunities to relieve this pressure through new public realm are often quite limited. This introduces a greater need for public realm to be ever more multifunctional in its design and purpose, in order to respond to these pressures and trends, particularly in terms of its amenity function, greenery, and response to health and wellbeing considerations.

Whilst these trends also have a relationship and bearing upon existing residential communities (and their built environments), such urban 'living' communities are also increasingly voicing their concerns around other factors, in particular the environment. Air pollution and air quality are now very much at the heart of urban communities' conversations with their elected representatives, with an associated desire for less traffic, better air quality and more green space.

Fig. 22 - Various papers and studies have been reviewed to the inform the relevant emerging trends.

Emerging Living Examples

The Collective - Old Oak

Collective Old Oak, in West London is the first model to be built and is currently the world's largest co-living building (the collective, n.d.).

With skyrocketing house prices, young Londoners have to find new lifestyles to afford living in the city. The Collective offers the latter with a concept that creates a new lifestyle for their inhabitants, based on sharing and convenience. It develops a strategy for new and affordable way of living predicated on high-density, communality and shared experience (the collective, n.d.).

The HUB on Causeway, Boston

The HUB represents the redefinition of the idea of a neighbourhood community hub.

This mixed-use development was conceived as a new urban hybrid, with a vertical urban district with office, residential, and hotel towers. It will house a retail streetscape, entertainment, dining, and live events to create a vibrant destination for residents and visitors (Gensler, n.d.).

Smart houses

A smart home is one in which the various electric and electronic appliances are wired up to a central computer control system so they can either be switched on and off at certain times (Woodford, 2019).

Smart home devices provide a sense of convenience. Nearly everything, including air-conditioners, thermostats, lights and garage doors, can be connected to the internet and be remotely controlled with a mobile device or smart speaker (Zirkel, n.d.).

Key Findings: People and Living Trends

- Changing Demographics and Health & Wellbeing

Urban populations are rising, with a growing percentage of over 65s forming part of the increase in the coming decades. People are living longer. This, and rising obesity in younger people, is focusing greater attention on health and wellbeing in 'Living' and greening and active spaces.

- Convenience and Service

Intense urban lifestyle requires the ability to access multiple services easily and conveniently. High quality service will be essential to attracting users.

- Community and Networking

People desire to live in locations that offer a sense of vibrant local community to engage with. Communities, and community based places, offer the opportunity to network on a human level, offering advantages over digital networking.

- Compact and Collaborative

Residential development densities are increasing generally. High density residential developments based upon more 'communal' living are also emerging, in response to rising costs and land shortages. The Private Rented Sector is also growing.

- Flexible Lifestyles

As people's lifestyles change and adapt to the pace of the modern urban environment, the availability of flexible and adaptable spaces to complement compact high density living models will increase.

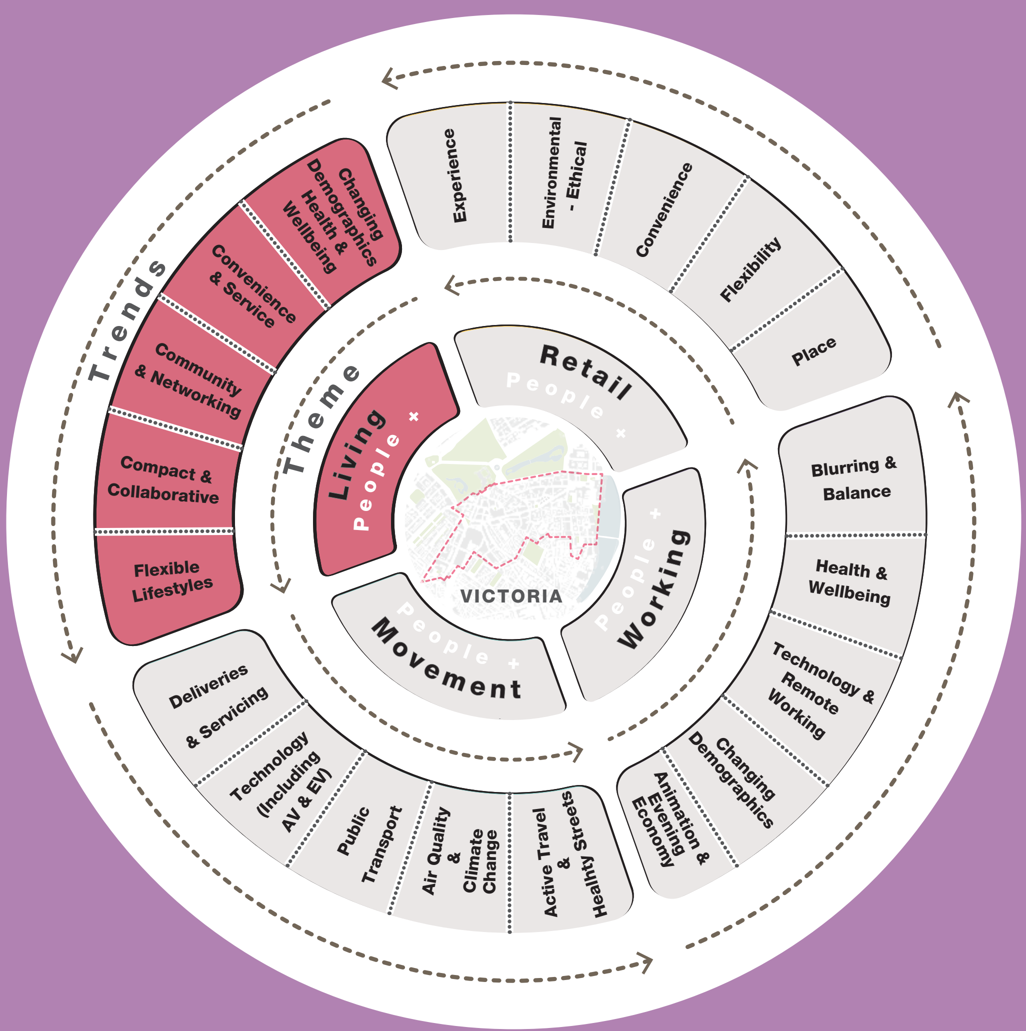

Fig. 23

King's Cross

King's Cross Central is one of Europe's largest urban regeneration projects, owned by King's Cross Central Limited Partnership (Argent and Australian Super), and is an example of mixed use regeneration, including significant amounts of retail.

It is embedded into one of the UK's most significant industrial heritage sites, located to the North of King's Cross and St Pancras Stations. By the late 20th Century, the area had become a series of disused buildings, railway sidings, warehouses and contaminated land. This 67-acre site with this rich history and unique setting, represented an opportunity to transform the neighbourhood into one of the most vibrant urban regeneration schemes in London, to become what it is now - a whole new part of the city with homes, shops, offices, galleries, bars, restaurants, schools, and a university.

The masterplan from 1999, delivered a diverse mix of uses incorporating 5.4m sq ft of office space, 2.2m sq ft of residential space and 1.1m sq ft of retail, within a new network of public open spaces consisting of streets, lanes, squares and parks. The site contained many historic buildings, structures and surfaces, in which some of those have been retained or re-used, harnessing the value of the heritage and creating a 'sense of place'.

A number of 'events' were crucial to the success of the site. The University of the Arts by being placed here brought with it new restaurants; the host of Companies such as Google, Louis Vuitton, Universal Music and Havas brought great attention to the area and more recently Coal Drops represents a unique shopping destination.

As a reflection, the enhancements on the public realm brought attentions to the outdoor spaces as well. The public realm has quickly become heavily used and Granary Square became a London destination. This square plays host to an annual series of hugely successful public events run by the King's Cross Management Company. It has showcased public art, such as the 'Across the Buildings' by Felice Varini, and the London Lumiere light show.

A whole series of new public squares and gardens have opened alongside Granary Square, such as Lewis Cubitt Park and Square, the Gasholder Park and Pancras Square.

On-site initiatives promoting volunteering, youth groups, local employability programmes and so on have helped to embed the development in the local context. In other words, this renewed piece of King's Cross has strived to build connections with the existing social fabric.

Events and celebrations are staged year round, from major festivals to intimate performances and screenings. These activities reinforce King's Cross reputation as one of the most visited series of public places and an attraction for visitors, Londoners and locals alike.

It is the overall location with its transport connections and canal-side setting which provides the footfall for the thriving business communities and successful calendar events. The cultural richness is supported by the contextual heritage setting and a strong sense of local community lies both with the residents and the university students. It is the combination of these factors that come together and make this place unique.


1.
Fig. 24


2.
Fig. 25


3.
Fig. 26


4.
Fig. 27


5.
Fig. 28

1. Pancras Square | 2. Granary Square - The heart of King's Cross and a new London destination | 3. Arts and cultural events take place on-site | 4. 26 acres of new parks (Image: Wharf Road Gardens) | 5. Coal Drop Yards

2.4 People + Movement

Sustainable transport planning in London has further asserted itself in recent years, building actively upon the contemporary agenda to align with increasing concerns and needs including climate change, air quality, and health and well-being amongst others. New and refreshed policies, goals, investments and interventions to prepare for future movement needs for people and goods to and within London are very much part of the planning process.

Related to this is a tidal wave of developing technology, which through the facilitation offered by information sharing and demand: supply management, promises a dramatic and exciting transformation in the way we travel around our towns and cities.

These changes are reflected in the draft London Plan and its related policies, guidance and research. The Mayor of London, Transport for London, local authorities and related stakeholders are working corroboratively to reduce car dependency and improve our health through active travel and shape a zero-carbon future. Provision for cycling is a particular priority, especially as cycling in London continues to grow.

As covered elsewhere in this document, there is also a related transformation in the ways in which Londoners go about their work. This began slowly at first with the move towards remote and flexible working in the mid-1990's, which has deepened in recent years as the capability and reliability of laptops, tablets, WiFi and networks has improved. The workplace is being woven into the 'experience' culture with employees expecting, convenient, attractive and supportive working environments to, from and within the workplace. Workplaces as destinations are changing and can be in smaller buildings and less-central locations, accessed on-foot or by cycle.

In a such a changing world, it is interesting to look further forward and more widely into what may be to come. A number of acknowledged researchers have offered such visions, and a selection are presented below:

Personalised and customised mobility In this future, urban mobility is seen as multimodal, collaborative and efficient. By 2030, customers are expected to rely on multiple and complementary mobility options, with private motorised vehicles largely substituted by mobility services, with the key motivation being time savings. Smartphones and other devices become an integral part of the transport system; as the tool for integrated route and fare planning with integrated payment (Speckermann et al. 2014).

Climate change emergency
This future scenario sees restrictions related to the worsening climate crisis with mobility actively constrained in relation to congestion and pollution. Action becomes even more urgent (e.g. Tranter, 2010; Moriarty and Honnery, 2008) with zero-emission vehicles, sustainable freight solutions, demand responsive transport and active travel, all overlaid with the objective of delivering car-free neighbourhoods.

Health and well-being
With the concerns relating to increasing obesity levels, chronic illness, mental health and air-pollution related health issues, active travel becomes a focus of action to generate substantial individual health benefits (de Nazelle et al, 2011; Giles-Corti et al., 2016). The needs of an aging society also become increasingly important, with transport networks designed specifically to meet their access and travel needs (Mercado et al., 2010; Kim, 2011).

Technological advancement
Future scenarios consider automation, on-demand delivery solutions (drones, underground systems), Artificial Intelligence for emergency service reliability, modular pavement systems and 'dynamic' kerb spots that can change between road and public space (TechRepublic, 2018).

It is interesting to note how these scenarios are already under active consideration with responses being prepared, acted-upon, and in some regards, implemented. As considered below.

The development and employment of technological advances in the transport sector can be of particular interest in respect of cities and urban evolution. Bespoke transport technologies and interventions have already had a notable influence on the way Londoners' move around the city in recent years. These include smartphone app-based on-demand travel solutions (e.g. Uber, Lyft, Lime, Jump), last-mile electrically powered delivery services (e.g. Gnewt) and other innovations such as digital bus shelters, lamp column electric vehicle charging points and autonomous vehicle trials. The options and possibilities are seemingly endless, bringing the related challenge of trialling, developing, sifting and implementing the optimum blend of solutions for the capital's streets.

This challenge comes after significant progress over the last decade or so in addressing the dominant priority historically according to vehicles and vehicle movement in the past- itself a factor of technological advance in the motor industry.

After years or re-prioritising the allocation of conventional transport modes to our streets, we are faced with a new wave of technological transport advancement with 'new' means and modes for travel. Individuals can now make best use of sustainable transport options via smartphone apps, hire cycles populate the streets, to the door deliveries are made within minutes of ordering, micro-mobility scooters and 'hoverboards' speed along roads and footways whilst law and policy makers struggle to keep pace with appropriate and effective regulation. It's an exciting time and full of promise, but chaotic, and at times, unnerving. Navigating through this sea of change is difficult in sorting the real from the fanciful, and the beneficial from change for changes sake. Are deliveries by airborne drone truly feasible or desirable in cities?

Who do they benefit specifically and collectively, the deliverer or recipient? Do they fit with wider objectives such as high street retail, clutter-free environments, wellbeing? There are many practical questions to be asked.

Electric vehicles (EVs) have become increasingly familiar on London's roads; and that trend looks set to continue. There were some 20,622 EVs registered in Greater London by the end of 2018 with that number forecast to grow significantly to between 145,000 – 335,000 by 2025. The Mayor for London's Electric Vehicle Infrastructure Delivery Plan, June 2019 set an ambitious target of all new cars and vans on London's roads to be zero emission from 2030.

EVs are evolving rapidly, from the early hybrids through to the current high-performance models with manufacturers clamouring to get their share of the burgeoning market to protect their position as manufacturers. Battery technology, the chief obstacle to take-up to date is rapidly improving in range and needed charging duration. The charging infrastructure continues to develop, with various trials and installations such as pop-up charging docks, lamp-column and wireless induction charging with the potential to render infrastructure and cabling redundant. But the hazards of unmanaged change are many, at worst perhaps returning us to the days of largely unfettered personal car-borne mobility, with excessive vehicle queuing and lines of single-occupant parked vehicles alongside kerbside charging clutter. Substantial new capacity will be needed to meet the power draw, with the attendant infrastructure such as transformers provided on local streets working against the prevailing anti-clutter culture. The Mayor's Infrastructure Delivery Plan warns: *"We are frontier planning, with many unknowns and rapidly changing technology. Our findings must be understood within this context. EV driver behaviour is evolving and we must be cautious to avoid stranded assets (out of date technology)."*

Perhaps Autonomous Vehicles (AVs) offer a way forward with the prospect of a rationalised, flexible, safer, inclusive and efficient movement system, highly responsive to movement needs at the individual and collective level. Trials are underway with autonomous buses worldwide, presenting similar potential benefits to autonomous cars. There could be a significant benefit of smaller AV bus size, better matching passenger demand and supply in timing, routeing and capacity, allowing penetration into streets presently unsuitable for today's double-deckers. With AVs moving along virtual 'tracks', their presence within the public realm could be highly managed to minimise their impact and work with the street in a positive way. Many current vehicle drivers already benefit from in-vehicle satellite navigation, but AVs offer the possibility of a full hands-free journey with time for other activities, reading or working.

But as with EVs, unmanaged and unconnected, congestion and parking blight may well result as recognised by the London Assembly's Transport Committee 'Future Transport' report of 2018, which sees shared AV usage as the most sustainable way of harnessing this technology rather than the conventional private ownership model. As with AVs, the provision of physical infrastructure is a key concern, in managing and providing for that movement in a regulated and positive way such that those walking or cycling don't once again find themselves delayed at the kerbside or corralled by guard railing and pens in city crossing streets.

Technology is already an area making inroads into daily life with individuals familiar with immediate to-the-door deliveries of goods, including meals. On a larger scale, progress has been made in terms of organising and consolidating deliveries on an area-wide basis to minimise vehicle movements on the road network, though progress has perhaps been slower that envisaged. Many will also be familiar with the prospect of delivery by drones whether airborne or as 'robots' on the street obviating the need for larger delivery vehicles, but replacing those with smaller, more numerous vehicles.

Once again, the challenge is in realising the means, if appropriate, as positive contributions rather than simply replacing existing problems with new ones. The future does though appear encouraging given the potential for technology addressing and resolving the logistical challenges of rationalising complex delivery operations to the betterment of our towns and cities.

Planning for change

We should however carefully consider the perception of electrification and the related AV technology as the panacea to movement and environmental issues. Apart from the concerns over the application of the technology, there are wider questions too. How reliable as prospects for positive widespread change are EVs and AVs? Can the supply of the needed battery rare minerals keep up with demand? Are EVs with their electric power produced remotely from the vehicle via the national grid truly environmentally green? How socially inclusive will these new modes be – perhaps the preserve of the well-heeled only? Will these technologies result in a meaningful net benefit in comparison to how we travel now? Will we be making the needed significant and enduring positive contribution to reducing global warming?

The questions above, and others, need answers, and many are seeking to do so. If successfully addressed, the future movement system could be reimagined very positively to wider benefit, including the public realm. The past 30 years has been, overall, very positive in moving away, albeit gradually, from car-use to sustainable travel modes towards the present where placemaking is a central focus of planning movement.

Victoria and Victoria Westminster BIDs have an excellent opportunity to take a leading role in this new movement context, leveraging the greater sustainable transport and movement opportunities to positively influence social and economic activity. Acting positively on concerns such as air quality and climate change will do much to benefit the area's profile and attractiveness as a place to live, work and visit.

Fig. 29 - Various papers and studies have been reviewed to the inform the relevant emerging trends.

It is remarkable that the needed action is invariably highly complementary to other wider area aims, in this case, attracting people into the area to live, work and visit. Healthy Streets, cleaner air, connected, safe and pleasant walking and cycling routes, convenient, reliable and high-quality buses and high quality public spaces all encourage sustainable movement and present a very attractive proposition to all.

Victoria's existing streets are compromised by excessive traffic volumes and congestion, with expansive roads accommodating and encouraging traffic at the expense of walking, cycling and public realm. This demands bold action, and the context for change is supportive; there has perhaps never been a better time to effect positive change. The sustainable transport agenda is now well established and supported and recent advances in technology appear to offer a set of highly effective tools to deliver positive change in providing a clean, connected, responsive and rationalised high-quality movement environment. The key to realising these benefits will be flexibility and responsiveness in design such that the developing travel modes, behaviours and infrastructure can be provided effectively and efficiently. For example, Victoria Street, which could be reduced in width and vehicle carrying capacity, giving the released carriageway over to the public realm and a greener and calmer environment. This could be done now but leaving appropriate carriageway space for appropriate and practical technological development in vehicles and movement systems to fit within a people prioritised space and place.

Electric and Autonomous vehicles could contribute to this and offer some of the attributes helpful to a clean, efficient and positive movement environment. However, this should not come at the expense of the public realm and priority for people, which vehicular traffic continues to adversely affect. As we have discussed, there some fundamental and substantial concerns over the practicality, delivery and application of these technologies which if not addressed appropriately will present us with some familiar problems for the public realm and placemaking and new issues too. In considering such opportunity, it is important not to lose sight of practicality and appropriateness over the allure of technological promise yet to be demonstrated.

Key Findings: People and Movement

The key trends that need to be considered in the development of the public realm can be summarised as

- Active Travel and Healthy Streets

Encouraging people to take up sustainable and healthy transport modes such as walking and cycling requires the public realm to provide welcoming and accessible environments in which to do so.

- Air Quality and Climate Change

Our public spaces and streets need to be free of air pollution and respond to climate change in both accommodating changing weather patterns and providing mitigation to further climate change. Transport and traffic initiatives that reduce traffic volumes, promote use of public transport, and reduce vehicular dominance are key.

- Public Transport

Access to reliable and well connected public transport remains a key component of a successful place. Further emphasis on the environmental benefits of multi occupant transport will continue to reinforce the role of public transport in successful city places.

- Technology (including AV & EV)

Technological advancement can help issues such as air quality and convenience. However careful consideration must be given to the life cycle of materials and supporting infrastructure required for emerging forms of transport, including electronic and autonomous vehicles.

- Deliveries and Servicing

Deliveries and servicing are fundamental to successful places, particularly commercial and retail environments. Initiatives that promote delivery consolidation are increasingly key in order to help reduce traffic domination and improve air quality.

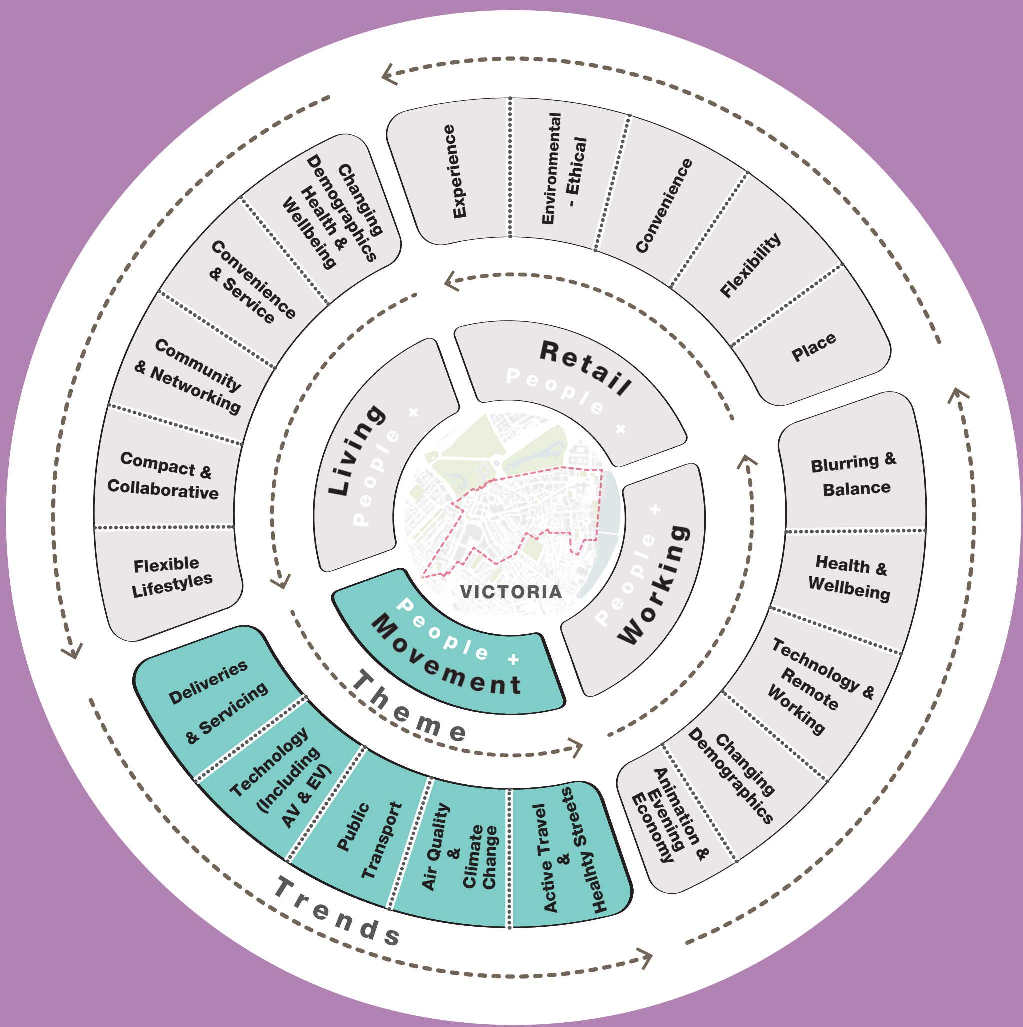

Fig. 30

3.0 Key Findings

This paper presents a brief overview of the key structural trends emerging in four sectors of our city environments: Working, Retailing, Living, and Transport and Movement. Each chapter has presented its own key findings for each individual sector. This section brings together those thoughts and presents a more strategic overview of the key findings, taken from the perspective of commonalities between them and what this offers for considerations regarding the public realm and placemaking for Victoria.

From the review, it is possible to see that there are a number of commonalities between the sectors that are interesting from a public realm and placemaking perspective. These are presented in more detail in Figure 07 and include:

The Importance of Experience for the User

Whilst it may appear trite to say so, emerging trends in design for Working, Retail, Living and Transport and Movement are all placing much greater emphasis upon the Experience of the User (or the customer). Design for the built environment appears to be much more focused upon this aspect than previously so. The difference seems to be that this is now fundamentally driven by the sector clients themselves (as opposed to the designers). For retailing, this may be driven by the realities around economic survival and growth in a very competitive market, but it is also driven by cultural change and values associated with changing demographics. This latter perspective is perhaps more appropriate to the Work sector. Living too is placing greater emphasis upon the user experience and understanding the user's needs (even if driven by user financial capabilities) and responding to them. Movement too is influenced by this, with the user experience of journeys increasingly a deciding factor in transport provision decisions, and indeed transport mode selection by the user.

In essence, this is putting the priority upon designing for people and their experiences, how they use and experience an environment, which has similarity and synergy with designing for the public realm.

Changing Demographics

Changing Demographics is having an impact across all sectors. It is changing the Living market sector in terms of the type of 'living' being planned for. It is changing the Work sector in terms of design of the workplace and the ways in which people work (such as remote working as well as health and well being considerations). It is changing the nature of retailing and the experience on offer. In terms of transport and movement, its impact can be felt in London, for example, where apparently fewer younger people are attracted to owning cars or taking a driving test. They increasingly view the car as an inconvenient mode of transport in the city, as well as one with few green credentials.

Technology

Technological advancement and change is common to all sectors, with internet based technology driving change being common to all sectors. Smart cities, smart houses, smart retail experiences, remote working, smart transport systems are all playing a role in driving change and improvements. The development of EVs and AVs is a particular feature as mentioned in the transport sector, though its promised potential should be carefully assessed against its practical potential and employment in cities. Care should be taken that their incorporation into urban environments if pursued, should not bring about a return to dominance of the motor car over deign fro the public realm and the built environment. Opportunities for digital connectivity are also key for technological advances and its practical employment in cities.

Health and Wellbeing

The importance of health and wellbeing is clearly a factor across all four sectors. Indeed, in transport terms this is strongly reflected in the Healthy Streets policy from the Greater London Authority. This also reflects a people centric approach and has a direct relationship with the public realm.

Sustainability, Climate Change and Air Pollution

This is a common theme across all four sectors, in terms of the increasing recognition that these sectors should and need to play in helping to address sustainability and climate change. This ranges from energy consumption to efforts to consolidate servicing and delivery traffic. Tackling air pollution is a key priority for all work and residential communities – existing and planned. Ethical considerations for Working are also important in this respect.

Coalescence and Community – Work Life and Living

There is clearly an increasing blurring of the lines and coalescence between work life, social life and living. These are becoming more closely intertwined. Many businesses, in order to help attract and retain high calibre staff, are also keen to have opportunities for their workers to participate in social or leisure activities near to or at their place of work so they can also balance their work-like needs too. Some commercial developments have therefore created communities of businesses where employees can socialise. This imparts an overall feeling of community. The importance of the sense of community is also vital to residential areas and developments if they are to be fully successful. This can also bring a spirit of collaboration within communities.

Flexibility and Remote Working

One of the aspects that emerges from the review is the notion of flexible spaces (and lifestyles). This is particularly pertinent to Living and Working and that the design of space should be flexible enough to accommodate a range of functionalities or different styles of working or living. This also applies to retailing, where retailers want spaces to be flexible so they can try different things. In addition, technology has also brought great flexibility to people, not just in terms of how they work, but where they work. Remote working is now actively a key part of most businesses' general policy towards work.

Place

Working, Retailing and Living all have 'place' among their priorities – not just in terms of locational decision-making, but also in terms of initiatives to improve the sense of place in an area where these sectors are already located.

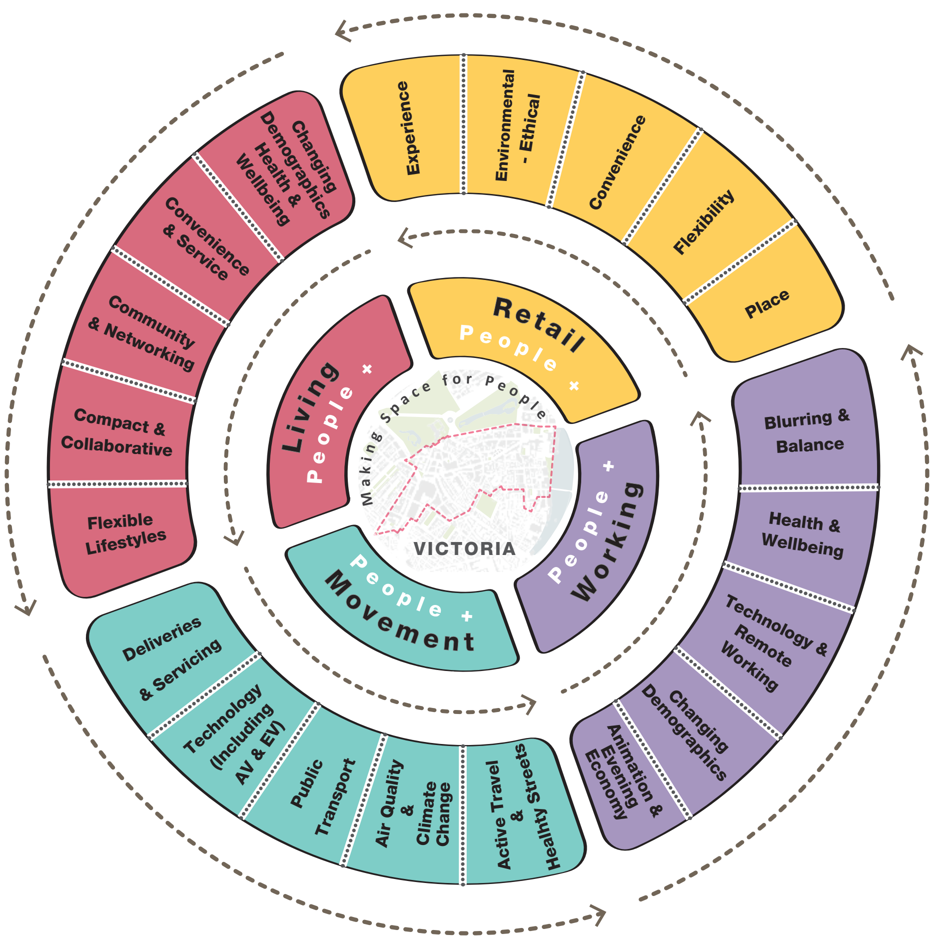

Fig. 31

Public Realm Response to the Trends

Working

The public realm needs to create collaborative spaces which encourage meetings, talking and working environments. In which the digital infrastructure and connectivity will further play a large part in the success of the space. The public realm should provide a series of additional stimulus to workers to support wellbeing, with green and improved links and connections playing a key role. Lastly the public realm surrounding working environments has the opportunity to connect employees better with the social values of the company.

Retail

The public realm needs to facilitate movement and access to and around retail environments, providing better walking, cycling and transport links. Public realm further needs to be of a high quality, safe and vibrant environment. Creating spaces which are multi-functional and can be changed and curated easily for different events and uses throughout a year. Furthermore the public realm needs to respond to its immediate context and complement its surroundings to create a uniqueness to the place. Lastly all public realm should be leading in environmental performance, promoting and instilling environmental and ethical responsibilities.

Living

The public realm needs to provide multifunctional places that provides a series of facilities which support compact living environments. These need to be designed to enhance, promote and continue social rearousing and sharing externally. Alongside providing a series of amenities which enhance social interaction of living environments. Public realm further needs to instil digital infrastructure within the place to support current living and social interactions.

People and Movement

The public realm needs to create high quality environments which support green and sustainable travel modes. Introducing better and improved walking and cycling environments which connect into and enhance wider linking networks. These connections need to be seamless and interchangeable supporting the existing transport infrastructure. With technology rapidly improving the public realm should further facilitate deliveries and emerging technology whilst mitigating any adverse impact on the environment.

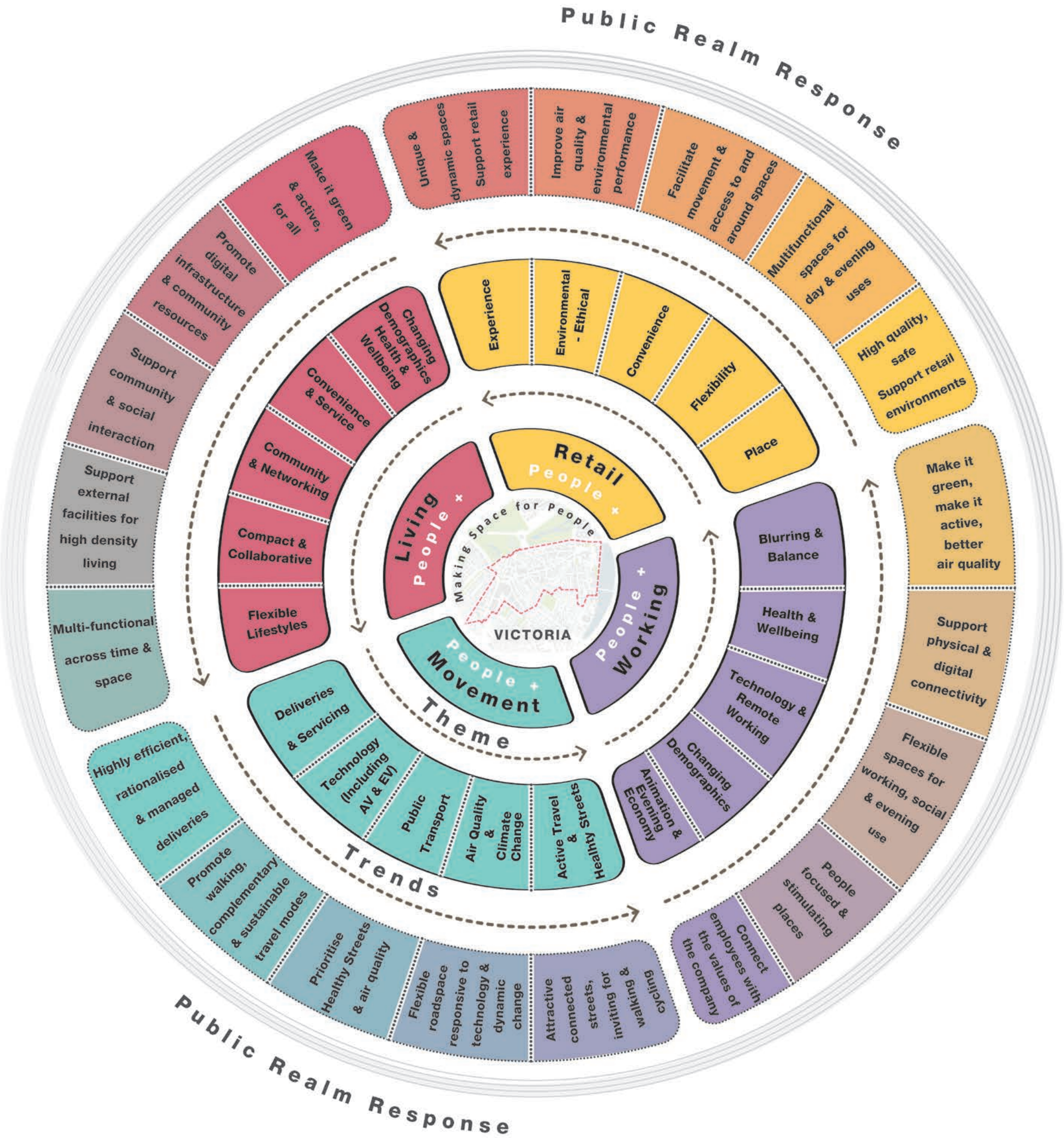
Public Realm Response
Making Space for People
VICTORIA
People + Retail
People + Working
People + Movement
People + Living
Theme
Trends
Experience
Environmental - Ethical
Convenience
Flexibility
Place
Blurring & Balance
Health & Wellbeing
Technology & Remote Working
Changing Demographics
Animation & Evening Economy
Active Travel & Healthy Streets
Air Quality & Climate Change
Public Transport
Technology (Including AV & EV)
Deliveries & Servicing
Flexible Lifestyles
Compact & Collaborative
Community & Networking
Convenience & Service
Changing Demographics Health & Wellbeing
Unique & dynamic spaces
Support retail experience
Improve air quality & environmental performance
Facilitate movement & access to and around spaces
Multifunctional spaces for day & evening uses
High quality, safe Support retail environments
Make it green, make it active, better air quality
Support physical & digital connectivity
Flexible spaces for working, social & evening use
People focused & stimulating places
Connect employees with the values of the company
Attractive connected streets, inviting for walking & cycling
Flexible roadspace responsive to technology & dynamic change
Prioritise Healthy Streets & air quality
Promote walking, complementary & sustainable travel modes
Highly efficient, rationalised & managed deliveries
Multi-functional across time & space
Support external facilities for high density living
Support community & social interaction
Promote digital infrastructure & community resources
Make it green & active, for all
Public Realm Response

Fig. 32

4.0 Considerations for Placemaking and Public Realm

All of the sectors demonstrate a close relationship with the public realm. This is based upon several inter-related factors, including:

- Greater realisation that placemaking is fundamental to urban area success (including as a residential community, business community, area for visitors, shopping area) and that putting people at the heart of such a placemaking process is vital;
- That high quality public realm is also vital to the economic, social, community and environmental success of each sector and an area, acting as an additional component of the overall experience of an area for each of these types of users (including visitors), but also acting as a supporting and complementary 'space' or 'amenity' to people's homes or offices or shops. Businesses and residents want the public realm to respond more to their needs - in terms of spatial and functional needs;
- That the physical relationship between the public realm and the buildings or structures accommodating living, working, retailing and movement is key in terms of determining the overall quality of experience that people will have of a 'place', and indeed their perceptions of a place either individually towards each of those sectors or collectively about them. In this respect, animation and activation of the public realm is an important component of its overall contribution to placemaking and successful places; and
- As such people in an area (or those considering coming to an area), want more from their public realm.

It is also clear that in responding to these needs for the public realm in respect of Victoria, a number of factors should be taken into account:

- That the demands, needs and aspirations for the public realm for each of the sectors are not mutually exclusive. Indeed, there is a great deal of commonalty between them;
- Proposals for the public realm that seek to respond to business needs and aspirations in principle can also be of direct benefit in principle to the other sectors, such as Living and Retailing. Equally, public realm proposal which seek to respond to the needs of residents in principle can also be of direct benefit to Working and Retailing.
- Because of this commonalty, public realm improvement proposals in Victoria can be of mutual interrelated benefit to all sectors, not just one. Greening infrastructure proposals, for example, can be of benefit to both businesses (Working) and residents (Living) as well as visitors;
- That because of this context, public realm proposals should aim to be multifunctional across both time and space, so they offer benefits to all users rather than just focusing on one particular sector;
- That the public realm needs to be inclusive, and offer benefits for all age groups and ranges of mobility.

In respect of these, a number of characteristics have emerged which are common to most sectors and represent fundamental criteria for proposals (especially larger scale ones) to respond to. These include:

- Being people centric and promoting priority for people, including cycling;
- Promote and deliver a positive experience for the user;
- Being multifunctional and flexible spaces across both time and space;
- Enhancing greening and providing green infrastructure;
- Helping address air pollution;
- Being accessible for all;
- Support activation and animation;
- Facilitate permeability, accessibility;
- Bring complementary functionality to ‘Working’, ‘Living’ and ‘Retailing’ requirements
- Respond to changing demographics;
- Be sustainable and respond to climate change;
- Promote environmental, social, community and business networking and collaboration;
- Respond appropriately to technological opportunities; and
- Recognise and respond appropriately to all transport modes and delivery and servicing needs.

5.0 Principles for the Public Realm

Building on the research overview, the broad ways in which public realm could respond to the requirements and aspirations of each sector, yet working together to collectively respond to all sectors and enhance the overall benefits for Victoria in terms of placemaking are presented in Figure 08. The diagrammatical concept presented is not intended to convey that public realm proposals should or can be specifically tailored just to the needs and aspirations of one sector, but rather that the public realm response is rotational, overlapping and interconnected, and cumulative, with public realm proposals being most effective if they respond to the needs of all sectors. This represents a contextual framework in a Vision for Victoria within which the role of public realm, and its potential project specifics, could be considered.

The emerging trends research highlighted a range of key considerations that should inform the way that the public realm in our cities will need to evolve to meet the emerging demands of city life. While these findings are grouped under their research headings of Working, Retail, Living, Movement there are many consistent results in the findings across these sectors, revealing common threads that appear across all the sectors. Consolidating these commonalities into set of key themes, they can be used as a guiding principles, which should then in turn inform the strategic approach to the area as a whole and the type of interventions required to produce a forward looking vision for the area. In this way these become a set of Vision Principles.

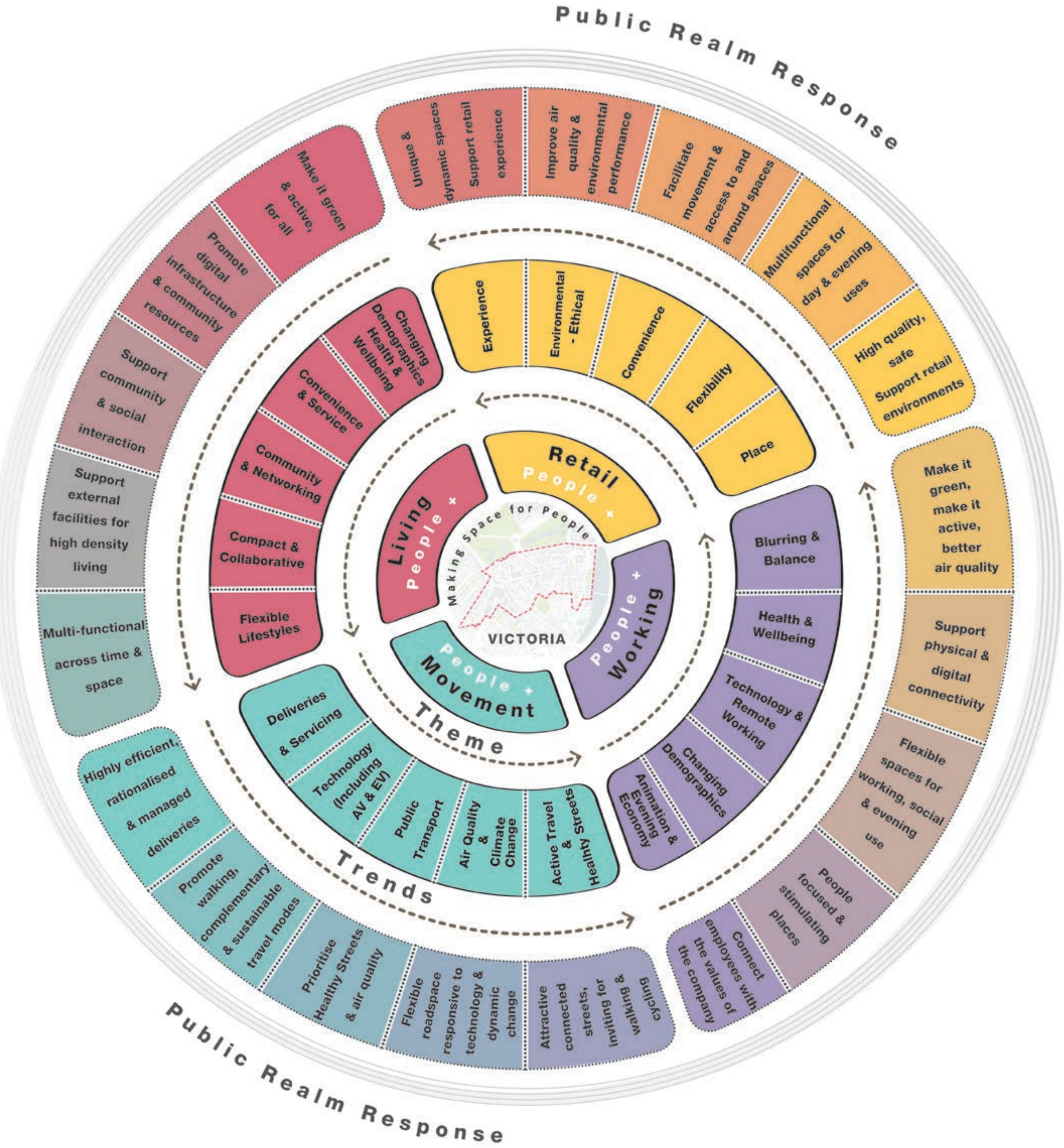

Fig. 33

The analysis of the findings and the resulting principles are shown in Figure 09. The common headings that have been identified are Health & Wellbeing, Memorable, Connected, Flexible, Green, Resilient, Inviting & Safe and Vibrant. The Vision Principles will be taken forward into the People Wanted: Placemaking in Victoria study, and the strategic approach and suggested interventions developed in response to these principles.

It is the application of these principles within the public realm of the Victoria area that will help respond to peoples needs and create a people centric approach to Victoria and Westminster's placemaking approach.

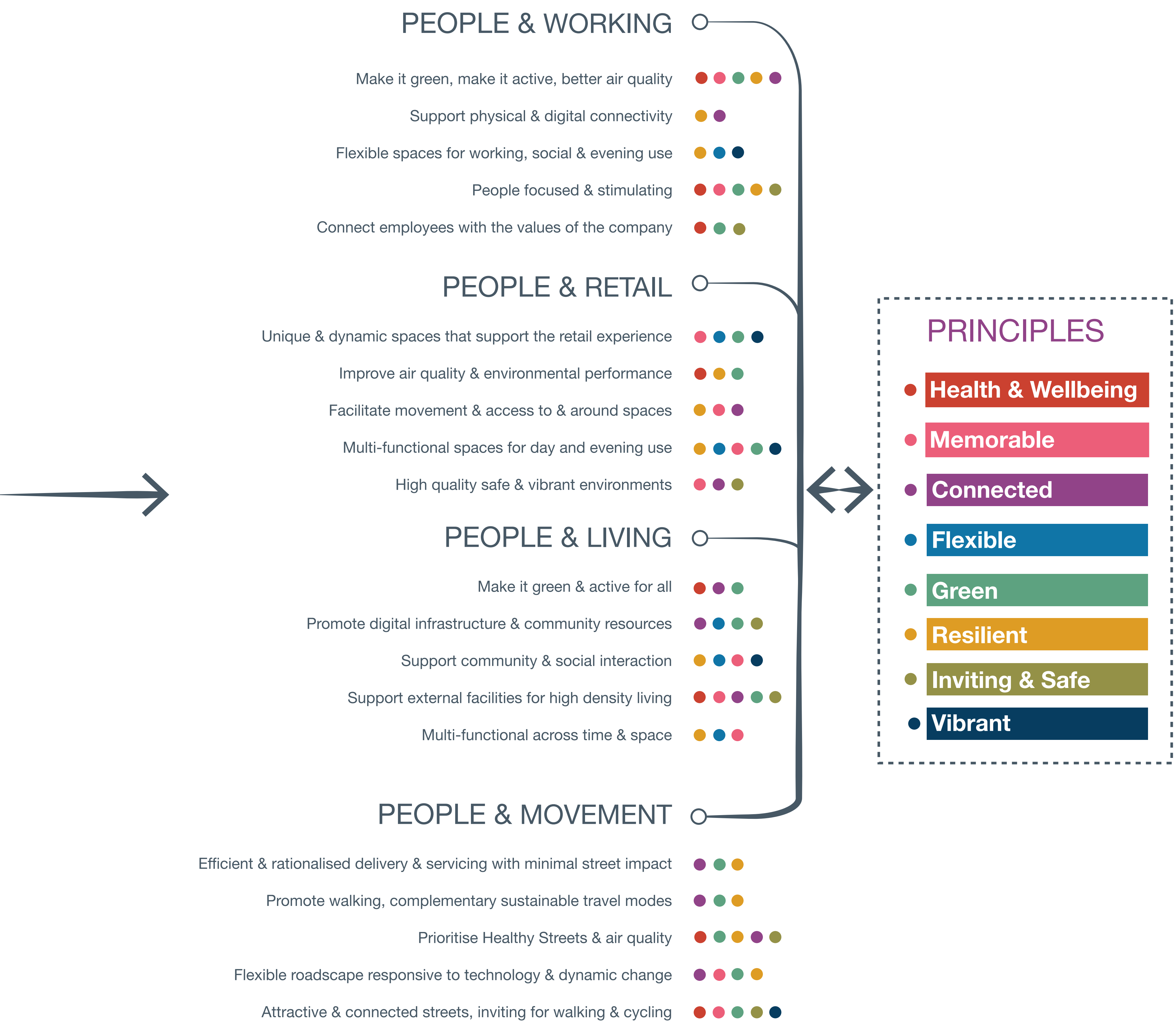

Fig. 34

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urban flow
movement people places

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