A constructive view on real estate
Real Estate Predictions 2019
Welcome to the 2019 edition of Deloitte’s predictions for the real estate industry. Curious to see which changes lie ahead? Discover the Real Estate trends for 2019 that will impact your business. Read about circularity, blockchain, cybersecurity, and more.
Have a glimpse into the future of real estate

The Real Estate and Construction market has been changing over the past few years. With all these changes going on, Deloitte Real Estate released the Real Estate Predictions 2019. We hope the predictions enhance your understanding of the opportunities within the real estate industry. Have an interesting read!

1. Data driven business models
As technology keeps developing and becomes more affordable—due to both new and existing structures—and collaboration platforms, service providers and owners can now more easily advance, the amount of data produced by buildings is absolutely exponential. This data can give real estate market participants, investors, asset managers, property managers, and tenants a competitive advantage and help them avoid disruption. It can additionally be used to develop data-driven services and new business models focused on the needs of years, owners, or the property itself. But only a joint effort among developers, technology providers, investors, owners, tenants, and other market participants can create insights that improve performance and profitability.

2. Digital twins in real estate
As we are entering the fourth industrial revolution and businesses are being disrupted in a way never seen before, sometimes it takes time for owners to see the building and provide value to services, people can transform maintenance based on data from sensors to reduce cost and downtime, and enhance the overall tenant experience.

3. Industrial property: ugly duckling
Not long ago, the industrial property market was considered the “ugly duckling” of the real estate industry. In the last couple of years, however, industrial warehouses and distribution centers have emerged as attractive desirable assets within commercial property, generating higher returns, and not only better value for other commercial assets – all thanks to the digital revolution.

4. Cybersecurity in real estate
All around the world, governments, companies, and security experts are increasingly recognizing the importance of ensuring real-time data as to how tenants are using buildings is increasing exponentially. This raises more and more interconnected, numerous questions are arising about their resistance to cyber risks. Real estate companies need to understand these business risks profile and threat landscape.

5. Blockchain in real estate matures
Real estate transactions involve many different parties and traditional processes, which are complex and impractical. But blockchain technology is changing that through its ability to create a digital version of all property transactions. The technology could streamline the exchange of data based on internationally agreed standards, and improvements in the reliability, speed, and security of data transfer. This, in turn, could be leveraged to improve business performance.

6. Robotic and cognitive automation part 2
Part 2 of our look at robotic and cognitive automation. What is robotic and cognitive automation, and how can real estate companies benefit from it? In this section, we will discuss the impact of these technologies and how they can be used to drive efficiency and innovation in the real estate industry.

7. Building flexibility into real estate management
The real estate business is currently experiencing a shift in demand away from the traditional business operating model to more flexible solutions. Technology advancements and technological disruptions will change the way we work, live and shop. These developments will span across many programs of which technologies typically serve multiple clients. As a result, CREs continue to view proptechs as a disruptor rather than as a potential source of business. While most of the broader financial services market has moved to a “traditional” business operating model, CREs still haven’t yet figured out how to deal with the relatively recent emergence of real estate technology startups, known as “proptechs.”

8. The future of urbanization and transit-oriented development
The next generation of urban mobility presents unique opportunities for developers around the globe. Autonomous vehicles, ride-sharing services, and active parking technology adoption are set to change the transportation ecosystem and with it. Urban landscapes. Tomorrow’s smart cities will operate with increasing levels of connectivity, increased collaboration, and networking communities, along with intensified and sustainably empowered transportation ecosystems.

9. The rise of cybersecurity
The real estate industry is no different, with a significant impact on the physical workplace and associated occupants, developers, and investors will need to carefully consider changes in their decision-making, identified by Deloitte as ranging from automation and management of IoT devices and generational change – we have identified four key trends that will impact the industry to consider in 2019.

10. The future of urbanization and transit-oriented development
The next generation of urban mobility presents unique opportunities for developers around the globe. Autonomous vehicles, ride-sharing services, and active parking technology adoption are set to change the transportation ecosystem and with it. Urban landscapes. Tomorrow’s smart cities will operate with increasing levels of connectivity, increased collaboration, and networking communities, along with intensified and sustainably empowered transportation ecosystems.
As technology keeps developing and be-comes more affordable—for both new and existing buildings—and collaboration plat-forms, sensors, and smart devices continue to advance, the amount of data produced by buildings is increasing exponentially. This data can give real estate market par-ticipants (investors, asset managers, prop-erty managers, and tenants) a competitive advantage and help them avoid disruption if they use it effectively to develop da-ta-driven services and new business models focused on the specific needs of users, members, or the property itself. But only a joint effort among all real estate stakeholders (con-structors, investors, owners, tenants, and service providers) can optimize data to create insights that improve performance and profitability.

Predictive analytics is also becoming the standard sooner than many might have imagined. The ability to use in-formation from the past to predict what is expected to happen in the future, such as maintenance or repairs, Service providers companies can use this knowledge to become more efficient and provide better services. Business models based on data-driven decision making have the potential to increase profits and enable their companies to change the landscape of service providers and the real estate industry, while also enabling additional analytics and benefits which will be used in many aspects.

In the day-to-day business of asset and property management, the increasing amount of data available offers a range of opportunities. For example, big data can help automate due diligence as the technical records and current conditions of building components can now be computed real-time and make both such techniques as building information mod-eling (BIM) and blockchain playing roles.

In the day-to-day business of asset and property management, the increasing amount of data available offers a range of opportunities. For example, big data can help automate due diligence as the technical records and current conditions of building components can now be computed real-time and make both such techniques as building information mod-eling (BIM) and blockchain playing roles.

Predictive analytics for the tenant-side of the building will probably take more time to develop but offers additional potential and will be even more relevant in the light of coworking spaces. If investors and asset managers can learn the optimal usage of a rental space for tenants based on data collected (e.g., utilizations and services), a perfect win-win situation can emerge for all three parties. Moreover, looking ahead, the emergence of artificial intelligence and machine learning can also have an impact. For example, these technologies can address some of today's business challenges related to the use of space such as the need to find different ways to collaborate or reduce costs of doing business. The development of such solutions is already changing the landscape of service providers, competition, property management, and market acceptance of the data, transparency, and networking. Success in big data will come with breaking up existing data silos.
Digital twins in real estate - Humanizing buildings in the age of Industry 4.0

In a time when technology-laden smart buildings have become an industry standard, “digital twins” are poised to deliver the next stage of real estate innovation. A digital twin is the digital representation of a physical asset, process, or system that allows for predictive modelling in order to deliver proactive adjustments for assets. This technologically-enabled process can deliver greater strategic value for the real estate industry as a whole. While digital twins are similar to smart buildings in that they optimize operations and improve the customer experience, a twin can also deliver benefits across the full lifecycle of a building by simulating complex scenarios.

Buildings are more than assets
As complex, high-value assets with an equally high value over their life cycle, buildings represent important opportunities for modeling the benefits of a digital twin. Investments in smart buildings are much more than just physical assets. They are the environment in which people and work facilitate social interactions, foster communities, and have the opportunity to improve individual outcomes, live, learn, belong, and create health, happiness, and more productive people.

Creating a digital twin, approaching it from a perspective that encompasses the entirety of a building ecosystem allows you to optimize for far more than straightforward activities as energy usage. It allows you to simultaneously address such key assets as air quality, temperature control, furnishing, and activities as energy usage. It allows you to optimize far more than such straightforward activities as energy usage. It allows you to simultaneously address such key assets as air quality, temperature control, furnishing, and activities as energy usage. It allows you to optimize far more than such straightforward activities as energy usage.

Breaking down the digital twin
Creating a complete digital twin that can do all this means starting from the core - breaking down a project into smaller, modular digital twins that can eventually be integrated together over time. This allows the development of a new way to progress faster, prioritizing use cases in a way that builds momentum, enables shorter term value, and enables the creation of a digital twin of a building across its entire lifecycle. Eventually, the process can even create a digital twin of the entire property portfolio.

For example, choosing to optimize the HVAC and lighting may not be the use case that delivers the biggest benefits. Moving halfway down the road may make sense. In the average commercial office building, about 10 to 15 percent of operating costs are due to electricity, of which almost 50 percent is associated with HVAC and lighting.

These are substantial costs largely driven by tenant use of HVAC and lighting. Digital twin will enable better visibility of how tenants use a building, and in, the ability to simulate and forecast how tenants will move and interact. This will provide deeper insight into HVAC and lighting management as well as a more operational cleaning roster while optimizing tenant expectations. In this way, it is a use case that will not only make business sense and sustain cost savings – building confidence in the digital twin – but pave the way for more complex use cases.

A digital twin enables the entire view of building management. Digital twins will enable users to simulate the building and understand how tenants use a building. This will allow for more efficient HVAC and lighting control, and enable better visibility of how tenants use a building. In this way, it is a use case that will not only make business sense and sustain cost savings – building confidence in the digital twin – but pave the way for more complex use cases.

A digital twin enables the entire view of building management. Digital twins will enable users to simulate the building and understand how tenants use a building. This will allow for more efficient HVAC and lighting control, and enable better visibility of how tenants use a building. In this way, it is a use case that will not only make business sense and sustain cost savings – building confidence in the digital twin – but pave the way for more complex use cases.

The next industry-wide disruption
Though real estate assets have been progressively digitalized across industries, the digital twin represents the next major driver of change geared to its powerful predictive capabilities. Given the complexities involved with creating a complete digital twin, the industry is currently focused on delivering value for smaller, more specific digital twin use cases. And while these aren’t big enough to completely disrupt the industry, as use cases slowly combine into a complete digital twin, companies will be able to optimize entire buildings, premises, and portfolios in every single way.

As the way spaces are designed and built is redefined, new business models and market offerings will emerge. Buildings will become more human, with an understanding of human sensibilities and the capability to nurture rich ecosystems. It will no longer be sufficient to just design, build, and lease a space. The space will need to think for itself and react to the world around it. And these large scale changes, enabled by the predictive capabilities of a digital twin, will be the drivers behind a dramatic disruption of the real estate industry in the years to come.
Not long ago, the industrial property market was considered the “ugly duckling” of the real estate industry. In the last couple of years, however, industrial warehouses and distribution centers, have emerged as the most desirable assets within commercial property, generating higher rental growth and returns than other main commercial sectors – all thanks to the rise of e-commerce.

Written by: 
Ben Stacey (UK)

The perception of industrial real estate, once synonymous with noisy trucks and dirty yards, is changing as automation, robotics, and other technological advances further reshape the sector.

The rise and fall of e-commerce:
Online retail growth shows no signs of slowing down due to several factors, namely convenience, price, and fast delivery. In the United Kingdom, which has been active forefront of online shopping and e-commerce, registering 20 percent of all retail sales by 2020, an equivalent of almost €120 billion. This year alone, more than half of online sales were made on smartphones, suggesting that mobile apps, including social media, and having shopping preferences in mind are becoming important retail transactions.

Retailers, therefore, will be investing not only in websites and apps but also in fulfillment centers and delivery hubs, holding inventory rather than in physical shops. As an estimated 1.5 billion of online transaction could reach 100 million square feet of industrial space, retailers are likely to seek even more warehousing space going forward.

Fewer shops, more urban logistics?
Changing shopping habits and rising population growth in major urban centers is leading demand for logistics space. However, having lost sources of industrial land to other uses in the past few decades, warehouse supply levels are struggling to keep up with the demand. In the face of this, the retail sector is looking to repurpose that opportunity, given that the retail market is currently facing large scale store closures as costs – including travel times and wages – rise with inflation. With the expiration of leases and local forms of e-commerce, customers have become less satisfied with online shopping.

Urban logistics close to the customer:
Logistics space supporting the delivery of goods is ever more crucial as customer expectation and delivery times within one week, with some retailers even guaranteeing one-hour delivery. Last mile logistics are moreover becoming more efficient and, therefore, online retailers will base their new business model on this experience. This will result in ever more complex supply chains – something we have already witnessed as the customer enjoys a more seamless and efficient experience. Urban logistics are likely to be more compact and mobile. Warehouses, therefore, must be flexible and, therefore, embedded in logistics centers.

Intensification of land use:
The limited industrial space urban areas will likely be more productive and create great value. This includes urbanizing ground floors of buildings that are not used for retail or office purposes. Furthermore, this will make warehouses and fulfillment centers more efficient, increasing business intelligence and, ultimately, improving the customer experience.

Automaton and robotics:
New technology is already having a profound impact on industrial real estate and the potential disruption cannot be underestimated. Automation, robotics, and other technological advances, including automation, are transforming entire industries. This includes the use of robots to move goods, logistics, manage inventory, and perform tasks that would have been too labor intensive to perform. New technology is already having a profound impact on industrial real estate and the potential disruption cannot be underestimated. Automation, robotics, and other technological advances, including automation, are transforming entire industries.

Not long ago, the industrial property market was considered the “ugly duckling” of the real estate industry. In the last couple of years, however, industrial warehouses and distribution centers, have emerged as the most desirable assets within commercial property, generating higher rental growth and returns than other main commercial sectors – all thanks to the rise of e-commerce.

Written by: 
Ben Stacey (UK)
Creating a better world: circularity in real estate and construction

All around the world, governments, companies, and NGOs have committed to minimizing raw material usage in the real estate and construction industry. In the Netherlands, for example, it was recently agreed that by 2030 a 50 percent reduction of raw materials usage needed to be realized. Actions like these dictate a fast transition toward a circular economy—that is an economy wherein resources and energy are renewable and regenerative and cycled back into supply chains. Through the transition to circularity facets of real estate, there are also opportunities. One of the opportunities being explored is the possibility of ‘activating’ the financial meaning to materials.

Financial incentives of a circular economy

There are several avenues of financial incentives that can be pursued to achieve a circular way of working in the real estate and construction industry. One example is increasing the adaptability of buildings: if buildings can be easily adapted to changing needs over time, they can translate into lower costs. This also creates an increased expectancy of real estate usage, the building can be used for a longer period of time with decreased renovation costs and perhaps lower periodic maintenance.

The possibilities of a materials passport

A materials passport provides materials with an identity, stimulating review of products, preventing material destruction, and making it easier to eliminate waste. A materials passport is designed as an online library of materials on the balance sheet and financial reporting—that is, financially activating materials. The idea is to incorporate the raw materials identified in a material passport into financial reporting—and, in fact, activating the identity of these materials. The ideal is simple: based on material performance and material characteristics, making it possible to correct for demolition, transport, and re-useage costs—can be captured. This unappreciated value can impact financial reporting, prompting the financial incentive needed to transition the real estate and construction sectors to a circular economy.

Financial incentives to materials

The potential positive impact of applying circular ways of working in the real estate and construction industry is huge, research shows that buildings consume 40 percent of all primary raw materials. And while buildings can be assessed through their material usage costs, the residual value of the materials is captured for demolition, transport, and re-useage costs—can be captured. This unappreciated value can impact financial reporting, prompting the financial incentive needed to transition the real estate and construction sectors to a circular economy.

Creating a materials passport

A materials passport provides materials with an identity, stimulating review of products, preventing material destruction, and making it easier to eliminate waste. A materials passport is designed as an online library of materials on the balance sheet and financial reporting—that is, financially activating materials. The idea is to incorporate the raw materials identified in a material passport into financial reporting—and, in fact, activating the identity of these materials. The ideal is simple: based on material performance and material characteristics, making it possible to correct for demolition, transport, and re-useage costs—can be captured. This unappreciated value can impact financial reporting, prompting the financial incentive needed to transition the real estate and construction sectors to a circular economy.
Securing the enterprise: Assessing cyber risk in commercial real estate

Evolving technologies, business models, and risks

As external technology advancements reshape the traditional commercial real estate (CRE) business model, owners and operators must contend with new forms of risk, including cybersecurity. Information security and data privacy.

For example, the growing use of IoT technologies such as sensor-enabled building management systems could broaden the attack surface for CRE firms, increasing access to sensitive data that can cause financial and reputational damage to owners/tenants. The question, then, is how CRE companies can balance investments in technology with the ability to manage growing cyber risks.

To better answer this, Deloitte conducted a global survey in 2018 of 500 institutional investors. The survey revealed that only 25 percent of respondents are very satisfied with CRE companies’ cyber risk preparedness, though the rates do vary by geography (see figure 1). Given this assessment, CRE companies should consider how to better balance their investments in technology with the ability to manage growing cyber risks.

Figure 1: The investor pulse: Cyber risk management

Only one-fourth of investors are very satisfied with CRE companies’ cyber risk preparedness.

Investors consider reputational damage, financial theft, and theft of PII as top three impacts of cybersecurity breaches.

Note: The categories highlighted in the graphic tables suggest the following about the survey respondents:

Property focus: Property specialization of investors.
Geographic focus: Home country of the investor.
Assets under management: Investor size.

Source: Deloitte Center for Financial Services Analysis
Navigating cyber risks

With the heightened threat from cyber risks, surveyed investors expect investee companies to make cyber security a leadership-driven business priority, perform regular cyber risk assessments, and conduct awareness campaigns to evaluate susceptibility to potential attacks. To compartmentalize your CRE companies, take a proactive approach to determine appropriate responses to cyber risks and maintain secure, vigilant, and resilient operations.

Make cybersecurity a leadership-driven business priority

Involvement and engagement of senior management and the board is crucial to making cybersecurity a strategic business priority and maintaining it. The SEC’s updated cybersecurity disclosure guidelines emphasize that the board of directors take ownership and responsibility for developing and overseeing cyber risk mitigation controls and procedures. As such, CRE senior management and boards should be deeply involved in developing policies; framing the cybersecurity policy, roles, and responsibilities; assigning budgets; and tracking overall progress towards fulfilling and maintaining accountability. The board and senior management should strongly consider appointing a cybersecurity officer—who should be an accountable cyber risk strategist and advisor along with senior management—to design, execute, and align their cyber risk strategy with a central mandate. To do this, the CRE board and senior management must work together rather than in silos.

Perform regular cyber risk assessments

A detailed scenario planning and cyber risk assessment would allow companies to evaluate susceptibility to cyberattacks and develop appropriate responses. Companies should develop a cyber risk framework that offers guidelines to evaluate the threat landscape and appropriate responses to manage the risk. Learning from it is not possible to eliminate risk. CRE companies should deploy advanced detection technologies such as artificial intelligence to identify potential threats and use analytics to devise appropriate response management tactics. It is important to treat cyber risk assessment as a regular activity rather than a singular undertaking. Part of the company’s cybersecurity policy and framework.

Conduct awareness campaigns

CRE companies should evaluate employees for their exposure to cyber risks. They should conduct trainings to help employees understand the potential threat and implications of various types of risks, especially cybercrimes, to themselves and the company. CRE companies may also need to train or hire appropriate cyber risk talent in their organization. Finally, companies should drive behavioral change to instill the responsibility and mutual accountability for risk management among all employees.

The bottom line: Change the mindset

Clearly, CRE boards and senior managements need to reassess their current risk prioritization. Some of the key questions they should consider are:

• Is your board and senior management ready to assume responsibility and accountability for managing the cyber risk?
• Are you considering a centralized or decentralized approach to risk management?

To learn more about other factors that are likely to influence institutional investors’ CRE investment decisions over the next 18 months, see the Deloitte report, 2019 Commercial Real Estate Outlook: Agility is key to winning in the digital era.

Written by: Surabhi Kejriwal and Lauren Hampton (US)
Cyber risk in the building lifecycle: Smarter buildings will know more about us

With modern buildings depending more and more on technology and becoming more and more interconnected, numerous questions are arising about their resistance to cyber risks. To optimize management and increase cost-efficiency while ensuring access to adaptable and comfortable living and working space, buildings are collecting and processing information not just about the structure itself, but about us – including such technical and private data as names, IDs, photos, and videos. Protecting this data – from generation to storage to disposal – must be a critical part of the new, smarter building management systems. To do this, real estate companies, third-party suppliers, and IT companies must embed security by design and privacy by design rules into their building development lifecycle.

Written by: Marcin Ludwiszewski (PL)
Blockchain in real estate matures: From use cases to practical applications

This year’s real estate prediction about blockchain—their fourth—marks a healthy shift in perception of the technology’s impact. In our 2016 prediction, we highlighted the great potential of blockchain to transform the real estate market. In 2017, we predicted a year in which the first generation of applications will be built—borne out by the number of proofs of concept that were conducted. In last year’s prediction, we called for realistic expectations around blockchain technology, noting that several steps needed to be taken in order to implement a reliable, green, and operational blockchain for the daily operations of real estate companies.

We are now encountering this new reality every day. And that’s why this year we will see a wake-up call toward a more systematic and comprehensive blockchain approach. This approach is fuelled by the significant work that still needs to be done in the fields of privacy, data ownership, and stakeholders essential. And while big real estate companies and ecosystem players will be disappointed about its progress, it’s not necessarily the best solution for the problem they’re trying to solve.

More and more there is consensus among early adopters about the major steps that need to be taken toward the successful adoption of blockchain. The mythical case about blockchain is also replaced by practical applications that solve specific challenges. The notion that blockchain will also find its place in the real estate industry will become more mainstream within the industry.

Principles to keep in mind

Obtain data directly from its source
• Verify data once and re-use often—not the other way around
• Digitize reliable verification processes of data and verification of data
• Focus on the portability of real estate data between applications and user groups with the exchange of knowledge between industry leaders, blockchain experts, and stakeholders essential. And while large real estate companies and ecosystem players appreciate the real estate data throughout the entire lifecycle of a building, the technology is moving beyond the hype. For some use cases, the technology right now for the blockchain is not necessarily the best solution for the problem they’re trying to solve.

Innovations and early adopters of blockchain have also learned valuable lessons from proofs of concept, and have a good understanding about the value propositions for the technology for the years to come. There are great expectations for the unprecedented potential of blockchain to learn from as we enter the next phase of the evolution of blockchain for real estate.

Industry adoption is about to take off

One limitation of the past generation of blockchain enthusiasts learned is that blockchain will not be an end solution for every real estate problem. Even though the blockchain industry is looking beyond the hype, the industry is not today.

Practical applications will take the stage

One limitation of the past generation of blockchain enthusiasts learned is that blockchain will not be an end solution for every real estate problem. Even though the blockchain industry is looking beyond the hype, the industry is not today.

Other movements such as the IEEE Blockchain Principles to keep in mind

Verify data once and re-use often—not the other way around
• Digitize reliable verification processes of data and verification of data
• Focus on the portability of real estate data between applications and user groups with the exchange of knowledge between industry leaders, blockchain experts, and stakeholders essential. And while large real estate companies and ecosystem players appreciate the real estate data throughout the entire lifecycle of a building, the technology is moving beyond the hype. For some use cases, the technology right now for the blockchain is not necessarily the best solution for the problem they’re trying to solve.

Innovations and early adopters of blockchain have also learned valuable lessons from proofs of concept, and have a good understanding about the value propositions for the technology for the years to come. There are great expectations for the unprecedented potential of blockchain to learn from as we enter the next phase of the evolution of blockchain for real estate.

Industry adoption is about to take off

One limitation of the past generation of blockchain enthusiasts learned is that blockchain will not be an end solution for every real estate problem. Even though the blockchain industry is looking beyond the hype, the industry is not today.

Practical applications will take the stage

One limitation of the past generation of blockchain enthusiasts learned is that blockchain will not be an end solution for every real estate problem. Even though the blockchain industry is looking beyond the hype, the industry is not today.
Building flexibility into real estate management

The real estate business is currently experiencing a shift in demand away from the traditional business operating model to more flexible solutions. Technological advancements and digitization, the quest for sustainability, and changes in user lifestyles are all factors that are demanding a greater level of adaptability in real estate strategic management and value creation.

Real estate, wellbeing, and talent

Today’s employers are becoming more demanding on their employees, requesting greater flexibility and healthier, more sustainable working environments. The creation of real estate can help employers meet these demands, thus giving them an edge when it comes to hiring and retaining talent.

Co-working spaces are a real estate operating model that has been growing in popularity in recent years. The idea is to use space to create “a community of people” who share similar needs and interests but not necessarily the same employer. The concept of co-working has arisen from the fundamental changes in today’s employee lifestyle and ways of working. Most notably, co-working spaces have been used to great effect by start-ups and small-to-medium enterprises (SMEs) and such independent workers as freelancers, contract workers, and remote workers.

Studies show that co-working is an ideal arrangement for both employer and employee. Working remotely, professionals co-working with other professionals in a space, especially one that is modern and innovative, fosters the productivity and creativity of employees. From a corporate real estate management perspective, occupying less office space rented on a fixed term, therefore reducing costs as well as an increase in the efficiency of lettable area, thus lowering the square meter costs per employee.

Flexibility in RE commitment (less office space)

- Not only do co-working spaces provide flexibility in the real estate portfolio, they also have a positive effect on the environment. From a corporate real estate management perspective, occupying less office space rented on a fixed term, therefore reducing costs as well as an increase in the efficiency of lettable area, thus lowering the square meter costs per employee.

- Building flexibility into real estate management can help companies widen their access to capital. Considering the fact that over one-third of carbon emissions in the world come from buildings, more and more companies are implementing sustainability practices for their real estate. Smart buildings can also effectively collect, control, and analyze data that can help solve inefficiency problems in a building.

- Building a smart, green building is usually easier than it sounds considering the technological and innovative solutions now available in the market. An example is the Deloitte Amsterdam office building—the Edge—which was named the greenest and most sustainable building in the world by the BREEAM standards in 2018. This building utilizes such space efficiency practices as a “hot-desk” policy, with provisions for hot desking and space depending on individual schedules on a particular day. The Edge hosts the same number of employees with fewer desks and space as used in Deloitte’s previous offices, thereby reducing a considerable quality working environment.

- Sustainability in real estate

Encouraging sustainability has many positive impacts in creating long-term value for communities, businesses, and stakeholders. It helps companies attract and keep talented employees as well as promotes brand reputation. Moreover, thanks to the new concept of “green financing”, sustainable practices help companies enter their access to capital. Considering the fact that over one-third of carbon emissions in the world come from buildings, more and more companies are implementing sustainability practices for their real estate. Smart buildings can also effectively collect, control, and analyze data that can help solve inefficiency problems in a building.

- Building a smart, green building is usually easier than it sounds considering the technological and innovative solutions now available in the market. An example is the Deloitte Amsterdam office building—the Edge—which was named the greenest and most sustainable building in the world by the BREEAM standards in 2018. This building utilizes such space efficiency practices as a “hot-desk” policy, with provisions for hot desking and space depending on individual schedules on a particular day. The Edge hosts the same number of employees with fewer desks and space as used in Deloitte’s previous offices, thereby reducing a considerable quality working environment.

- Asset/Portfolio optimization

With the recent developments in digital technology, companies can now extract more value from their real estate portfolio management. Value creation in RE comes from two sources: increasing income and reducing costs. Optimizing the trade-off between these two sources requires analysis and expertise. An important consideration in choosing among the different RE portfolio management approaches is whether the investor has the necessary knowledge, skills, time, and incentives to effectively manage all aspects of the portfolio. Before making an investment decision, there should be proper due diligence and post transaction, efficient property and tenant management to optimize value.

- Digital technologies can now help make this entire process more efficient and effective. A range of portfolio management tools—such as standardized reporting solutions to cloud-based platforms—are accessible from anywhere in the world, naturally moving away from manual processes to fully digital, taking time, but a flexible approach will help ease the transition.

Conclusion

With the new changes in the marketplace, we expect the real estate business model to become even more disrupted. Many companies will need to adjust to this new environment in order to sustain their position. But though these market trends may seem complex, they do create new opportunities and are rewarding for the market players that are willing to adapt.

Written by
Jean Pierre Lequeux
Francois Guinet
(LU)

22
22
The Future of Work is changing: real estate needs to change too

The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

The real estate industry is no different, with a significant impact on the physical workplace anticipated that occupiers, developers, and investors will need to carefully consider. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

Written by:
Alex Virginia P. Carnevale (BR)
Chris R. Robinson
Jasmin Beckwith
Written by:
Russell McMillan
(UK)

Location strategy is key

Location strategies have never been more important, whether driven by the need to access skilled talent pools, improve financial performance by moving to lower cost locations, or the needs to respond to geo-political events. In the future, real estate will develop in response not only to market dynamics but also to the needs of occupiers, and real estate will need to be developed in a manner that the future occupiers need to keep up with those constant reviews to ensure property is not only in the locations that are anticipated to be the preferred locations but also that the future occupiers are anticipated for, planned for, and executed for in pace.

For developers and investors, it is essential they understand the emerging location hotspots and develop strategies to occupy these needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

Real estate must be seen as a value driver

For many organizations, real estate is seen as a significant cost to be managed. In the future, real estate must be seen as a driver of value. It will drive productivity, quality of space, and collaboration. Investors that have the employee experience at its heart and in their development programs experience engagement, collaboration, and innovation. These are all key in helping the organization of the future respond to the changing demands of the technology-driven world.

To achieve this, corporate occupiers must be able to articulate and track the value that the workplace delivers. For developers and investors, this challenge is to supply the market with buildings that have the occupiers’ needs and value rather than just looking to optimize short-term financial returns.

The way people use space will change

In the past, change was viewed as an opportunity to introduce new technologies and feature sets. However, the Future of Work is coming. And it’s changing: real estate needs to change too. The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

The way people use space will change.

For developers and investors, it is essential they understand the emerging location hotspots and develop strategies to occupy these needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

Occupiers need to develop a greater understanding of how they actually use the space in their buildings. This can help provide insight as to how different types of work are done in the building and how the building can be operated at higher levels of utilization.

In addition, occupiers need to adopt fit-out and furniture solutions that can evolve in a cost-effective manner. This will require a move away from traditional, often rigid, corporate brands.

For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

Flexible office space will become part of the strategic solution

In the past, office space has been a place in corporate portfolios, where it has often been used as a strategic tool to accommodate projects of an example space. However, as the financial market has become more sophisticated, occupiers are now looking to use this space strategically—such as accommodating high-growth businesses before they need to move to larger premises. As occupiers become more uncertain and the future becomes more uncertain, it is likely that flexible space will play an ever greater role in the corporate portfolio. The challenge for developers is to identify which locations and markets will provide the best opportunity for flexible space. For landlords and investors, it poses a short-term financial returns. However, the Future of Work is coming. And it’s changing: real estate needs to change too. The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

However, the Future of Work has a lot to say to investors. The building of the future needs to be designed around what the market will accept. The economics of the future are driven by finance. For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

As occupiers become more uncertain and the future becomes more uncertain, it is likely that flexible space will play an ever greater role in the corporate portfolio. The challenge for developers is to identify which locations and markets will provide the best opportunity for flexible space. For landlords and investors, it poses a short-term financial returns. However, the Future of Work is coming. And it’s changing: real estate needs to change too. The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

Conclusion

Real estate is an industry where decisions are expensive, emotion- and sentiment-driven. Concepts such as innovation and “failing fast” do not always sit comfortably with multimillion-dollar construction contracts, multivac global business platforms, or investor demand for security and longevity of revenue.

However, the Future of Work is coming. And it’s changing: real estate needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

As occupiers become more uncertain and the future becomes more uncertain, it is likely that flexible space will play an ever greater role in the corporate portfolio. The challenge for developers is to identify which locations and markets will provide the best opportunity for flexible space. For landlords and investors, it poses a short-term financial returns. However, the Future of Work is coming. And it’s changing: real estate needs to change too. The world of work is changing. Clients in every industry are now facing the challenges and opportunities presented by this disruption, with much thought going into how work will be completed and by whom in the years to come.

Conclusion

Real estate is an industry where decisions are expensive, emotion- and sentiment-driven. Concepts such as innovation and “failing fast” do not always sit comfortably with multimillion-dollar construction contracts, multivac global business platforms, or investor demand for security and longevity of revenue.

However, the Future of Work is coming. And it’s changing: real estate needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

Conclusion

Real estate is an industry where decisions are expensive, emotion- and sentiment-driven. Concepts such as innovation and “failing fast” do not always sit comfortably with multimillion-dollar construction contracts, multivac global business platforms, or investor demand for security and longevity of revenue.

However, the Future of Work is coming. And it’s changing: real estate needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

Conclusion

Real estate is an industry where decisions are expensive, emotion- and sentiment-driven. Concepts such as innovation and “failing fast” do not always sit comfortably with multimillion-dollar construction contracts, multivac global business platforms, or investor demand for security and longevity of revenue.

However, the Future of Work is coming. And it’s changing: real estate needs to change too. Disruptors identified by Deloitte—ranging from automation and generational change—we have identified four key trends we predict the industry will need to respond to in 2019.

For developers and investors, the challenge is to deliver buildings that have the flexibility for the upward building accommodation and design. For the Future of Work, the workplace potential is not just one size fits all, but with the emergence of automated buildings and intelligent spaces means, we predict the amount of non-traditional office space. By doing this, we predict the amount of non-traditional office space decreases, we predict the amount of non-traditional office space that supports learning and collaboration, and co-working—will increase significantly.

Conclusion

Real estate is an industry where decisions are expensive, emotion- and sentiment-driven. Concepts such as innovation and “failing fast” do not always sit comfortably with multimillion-dollar construction contracts, multivac global business platforms, or investor demand for security and longevity of revenue.
Commercial real estate (CRE) companies haven’t yet figured out how to deal with the relatively recent emergence of real estate technology startups, known as “proptechs.” While most of the broader financial services field have made the shift to a partner mentality, CREs continue to view proptechs as a disruptor rather than as a potential source of collaboration. In contrast, institutional investors clearly see the value in proptechs. In our survey of 500 global CRE institutional investors, nearly 90 percent of respondents believe proptechs will have a moderate to significant influence on the CRE industry (see figure 1). Investors plan to commit an average of 14 percent of CRE capital to proptechs globally, with new investments increasing from $3 billion in 2014 to $18 billion in 2018— even as new proptech launches declined sharply (see figure 2). This doesn’t mean investors are just blindly following the latest tech trend, however. Investors are channeling their resources toward more mature proptechs: late-stage funding, essentially Series C and above, formed 71 percent of the total capital raised by proptechs in 2018. And nearly a third of those surveyed acknowledged that an incumbent’s collaboration with a proptech will influence their future investment decisions.

Figure 1: Investors are optimistic of proptech influence on CRE

In Figure 1, investors expect moderate to significant influence of proptechs on CRE.

Figure 2: Investors prefer more mature proptechs

In Figure 2, proptech fundraising continues to rise even as new launches decline sharply.

Source: Deloitte Center for Financial Services analysis.

Source: Venture Scanner database, as of December 31, 2018.

<table>
<thead>
<tr>
<th>Property focus</th>
<th>Nontraditional, Industrial</th>
<th>16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>Canada</td>
<td>17%</td>
</tr>
<tr>
<td>Assets under management</td>
<td>Less than US $500 million</td>
<td>16%</td>
</tr>
<tr>
<td>Investor category</td>
<td>Hedge Funds</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property focus</th>
<th>Retail</th>
<th>13%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>China, Hong Kong, Japan</td>
<td>100%</td>
</tr>
<tr>
<td>Assets under management</td>
<td>Above US $30 billion</td>
<td>12%</td>
</tr>
<tr>
<td>Investor category</td>
<td>REITs or real estate operating</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property focus</th>
<th>Nontraditional, Industrial</th>
<th>16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>Canada</td>
<td>17%</td>
</tr>
<tr>
<td>Assets under management</td>
<td>Less than US $500 million</td>
<td>16%</td>
</tr>
<tr>
<td>Investor category</td>
<td>Hedge Funds</td>
<td>12%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property focus</th>
<th>Retail</th>
<th>13%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>China, Hong Kong, Japan</td>
<td>100%</td>
</tr>
<tr>
<td>Assets under management</td>
<td>Above US $30 billion</td>
<td>12%</td>
</tr>
<tr>
<td>Investor category</td>
<td>REITs or real estate operating</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property focus</th>
<th>Retail</th>
<th>13%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical focus</td>
<td>Canada</td>
<td>17%</td>
</tr>
<tr>
<td>Assets under management</td>
<td>Less than US $500 million</td>
<td>16%</td>
</tr>
<tr>
<td>Investor category</td>
<td>Hedge Funds</td>
<td>12%</td>
</tr>
</tbody>
</table>
What is driving the growing investor preference for proptechs?

Proptechs’ use of existing and evolving technologies to nurture new, innovative ideas are most likely a key factor in their attractiveness to investors. Proptechs are using technology to not only enhance transparency and operational efficiency but also to improve tenant experience and information flow. Ultimately, this improves both property profitability and investor return.

Take the case of Open Box, which promises automation services to real estate companies with a robots-as-a-service (RaaS) model. The company’s real estate automation engine provides automated data transfer from budgeting function to valuation, saving hours of monotonous and manual work. Another example is Leverton, a company that uses deep learning algorithms to provide real estate document abstraction services. Leverton’s platform uses natural language processing and other machine learning capabilities to extract and structure relevant information from complicated documents related to purchase-sale, lease, title insurance, and mortgage transactions.

Many proptechs are also redefining the business by positioning the CRE asset as not just a physical space but as a service hub. For instance, WeWork is clearly looking to achieve more than just a functional experience by providing a vibrant ambiance, varied open-seating options, amenities, and networking opportunities for an on-the-go workforce.

Proptechs also approach the business with a different view of talent. Unlike traditional CRE companies, they tend to have a larger proportion of employees with either a data science or technology background who can develop technology-based solutions at a more rapid pace than incumbents. And proptechs are leaner and faster decision-makers than their more traditional CRE counterparts.

Despite these advantages, many proptechs struggle to survive due to lack of industry knowledge, incumbents’ slow adoption of technology, and non-availability of timely financing.

How can CRE companies and proptechs work together to drive digital real estate?

CRE companies investing in proptechs need to get more comfortable with enhancing their risk appetite and adopting a fail-fast approach, as every proptech investment may not generate the desired returns.

Companies should also consider looking at a more mature partnership with proptechs that move beyond just a strategic investment. How can CRE companies and proptechs work together to drive digital real estate?

CRE companies investing in proptechs need to get more comfortable with enhancing their risk appetite and adopting a fail-fast approach, as every proptech investment may not generate the desired returns.

Written by:
Surabhi Kejriwal
Saurabh Mahajan
(US)

Companies should also consider looking at a more mature partnership with proptechs that move beyond just a strategic investment. How can CRE companies and proptechs work together to drive digital real estate?

CRE companies investing in proptechs need to get more comfortable with enhancing their risk appetite and adopting a fail-fast approach, as every proptech investment may not generate the desired returns.

Written by:
Surabhi Kejriwal
Saurabh Mahajan
(US)

7. Ibid.
9. Ibid.
10. Surabhi Kejriwal, Saurabh Mahajan, “2019 Commercial Real Estate Outlook: Agility is key to winning in the digital era and defined by the numbers.”
11. Ibid.
12. Ibid.

“Acting as change agents, proptechs typically retain the core ethos of the real estate business – location, location, location – while changing perceptions about how the physical space is used.”
The future of urbanization and transit-oriented development

The next generation of urban mobility presents unique opportunities for cities around the globe. Autonomous vehicles, ride-sharing services, and wide-ranging technology adoption is set to change and substantially enhance transportation ecosystems. Increasing levels of connectivity, creative collaboration, and networked communities along with intricate transportation ecosystems are leading to the next generation of urban mobility. This presents an incredible opportunity for cities as they gear up for future-focused hubs, those key points of convergence, such as train stations, and mobility hubs. Maximizing the potential of TODs is critical to re-imagining transit hubs in our urban futures. Careful design of TODs could mean rethinking the way we live, work, and play.

So, what are TODs?

TODs are a type of community development that integrates mixed-use development, surface and structured parking areas at transit nodes, retail businesses benefit from the high-intensity community with low-pollution levels. TODs provide an array of benefits ranging from lifestyle to environmental to economic, including:

For citizens:
• Reduced commute times and increased productivity
• Opportunity to gain back commuting time and freedom to pursue leisure, free up disposable income
• Expanded mobility choices at lower costs, freeing up disposable income
• Walkable communities that accommodate more healthy and active lifestyles

For communities:
• Increased urban intensity and hence land value capture
• Improved property valuations in the community catchment areas
• Walkable communities that accommodate more healthy and active lifestyles

For cities:
• Increased ridership and fare revenue
• Improved urban intensification and hence land value capture
• Improved economic opportunity and access
• Improved public transport ridership from the past generation

The TOD opportunity

The question is, how can cities leverage and maximize the TOD opportunity? One of the immediate options is to transform underground infrastructure into a high-value development. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

Value release through sale of air rights above surface and structured parking areas at transit stations into high-density, mixed-use developments. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking access and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

The future of urbanization and transit-oriented development

The next generation of urban mobility presents unique opportunities for cities around the globe. Autonomous vehicles, ride-sharing services, and wide-ranging technology adoption is set to change and substantially enhance transportation ecosystems. Increasing levels of connectivity, creative collaboration, and networked communities along with intricate transportation ecosystems are leading to the next generation of urban mobility. This presents an incredible opportunity for cities as they gear up for future-focused hubs, those key points of convergence, such as train stations, and mobility hubs. Maximizing the potential of TODs is critical to re-imagining transit hubs in our urban futures. Careful design of TODs could mean rethinking the way we live, work, and play.

So, what are TODs?

TODs are a type of community development that integrates mixed-use development, surface and structured parking areas at transit nodes, retail businesses benefit from the high-intensity community with low-pollution levels. TODs provide an array of benefits ranging from lifestyle to environmental to economic, including:

For citizens:
• Reduced commute times and increased productivity
• Opportunity to gain back commuting time and freedom to pursue leisure, free up disposable income
• Expanded mobility choices at lower costs, freeing up disposable income
• Walkable communities that accommodate more healthy and active lifestyles

For communities:
• Increased urban intensity and hence land value capture
• Improved property valuations in the community catchment areas
• Walkable communities that accommodate more healthy and active lifestyles

For cities:
• Increased ridership and fare revenue
• Improved urban intensification and hence land value capture
• Improved economic opportunity and access
• Improved public transport ridership from the past generation

The TOD opportunity

The question is, how can cities leverage and maximize the TOD opportunity? One of the immediate options is to transform underground infrastructure into a high-value development. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

Value release through sale of air rights above surface and structured parking areas at transit stations into high-density, mixed-use developments. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

The future of urbanization and transit-oriented development

The next generation of urban mobility presents unique opportunities for cities around the globe. Autonomous vehicles, ride-sharing services, and wide-ranging technology adoption is set to change and substantially enhance transportation ecosystems. Increasing levels of connectivity, creative collaboration, and networked communities along with intricate transportation ecosystems are leading to the next generation of urban mobility. This presents an incredible opportunity for cities as they gear up for future-focused hubs, those key points of convergence, such as train stations, and mobility hubs. Maximizing the potential of TODs is critical to re-imagining transit hubs in our urban futures. Careful design of TODs could mean rethinking the way we live, work, and play.

So, what are TODs?

TODs are a type of community development that integrates mixed-use development, surface and structured parking areas at transit nodes, retail businesses benefit from the high-intensity community with low-pollution levels. TODs provide an array of benefits ranging from lifestyle to environmental to economic, including:

For citizens:
• Reduced commute times and increased productivity
• Opportunity to gain back commuting time and freedom to pursue leisure, free up disposable income
• Expanded mobility choices at lower costs, freeing up disposable income
• Walkable communities that accommodate more healthy and active lifestyles

For communities:
• Increased urban intensity and hence land value capture
• Improved property valuations in the community catchment areas
• Walkable communities that accommodate more healthy and active lifestyles

For cities:
• Increased ridership and fare revenue
• Improved urban intensification and hence land value capture
• Improved economic opportunity and access
• Improved public transport ridership from the past generation

The TOD opportunity

The question is, how can cities leverage and maximize the TOD opportunity? One of the immediate options is to transform underground infrastructure into a high-value development. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

Value release through sale of air rights above surface and structured parking areas at transit stations into high-density, mixed-use developments. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

The future of urbanization and transit-oriented development

The next generation of urban mobility presents unique opportunities for cities around the globe. Autonomous vehicles, ride-sharing services, and wide-ranging technology adoption is set to change and substantially enhance transportation ecosystems. Increasing levels of connectivity, creative collaboration, and networked communities along with intricate transportation ecosystems are leading to the next generation of urban mobility. This presents an incredible opportunity for cities as they gear up for future-focused hubs, those key points of convergence, such as train stations, and mobility hubs. Maximizing the potential of TODs is critical to re-imagining transit hubs in our urban futures. Careful design of TODs could mean rethinking the way we live, work, and play.

So, what are TODs?

TODs are a type of community development that integrates mixed-use development, surface and structured parking areas at transit nodes, retail businesses benefit from the high-intensity community with low-pollution levels. TODs provide an array of benefits ranging from lifestyle to environmental to economic, including:

For citizens:
• Reduced commute times and increased productivity
• Opportunity to gain back commuting time and freedom to pursue leisure, free up disposable income
• Expanded mobility choices at lower costs, freeing up disposable income
• Walkable communities that accommodate more healthy and active lifestyles

For communities:
• Increased urban intensity and hence land value capture
• Improved property valuations in the community catchment areas
• Walkable communities that accommodate more healthy and active lifestyles

For cities:
• Increased ridership and fare revenue
• Improved urban intensification and hence land value capture
• Improved economic opportunity and access
• Improved public transport ridership from the past generation

The TOD opportunity

The question is, how can cities leverage and maximize the TOD opportunity? One of the immediate options is to transform underground infrastructure into a high-value development. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.

Value release through sale of air rights above surface and structured parking areas at transit stations into high-density, mixed-use developments. Often joint ventures between the public and private sector can help finance the costly infrastructure investments required. With the advent of ride-sharing and autonomous vehicles, the value of parking is declining—potentially reducing parking areas and re-imagining them for alternative uses. This however requires careful and strategic planning. Singapore MRT and Hong Kong MTR have effectively planned and executed TODs to advance transit-oriented development projects.
The question is, how can cities leverage and maximize the TOD opportunity?

Successful TOD planning

It is clear that successful TOD projects are able to achieve a range of results from reduced carbon emissions to socio-economic benefits, not to mention sustainable and livable cities. But successful TOD implementation requires careful planning, strategic finance, and marketing along with 3D design. So, what are the key factors to the success of TODs?

According to a report by Transportation and Development Policy (ITDP) report, government intervention and land potential are two critical factors.

What matters most to a TODs success is government intervention and promotion. While local governments did not effectively promote a TOD, a few cities that generated only nominal amount of economic investment. For example, the south and west busways in the U.S. city of Pittsburgh had weak support and produced little TOD investment, but the city’s moderately supported east busway produced US$903 million.

The second most important factor in TOD success is market potential. The national, regional, and local market strength, expected real-estate growth, corridor quality, and proximity to desirable catchment areas. According to the ITDP report, long potential does not have to play a direct role in TOD success; however, it does play a role in deciding how much government support the development project can receive.

In addition to these two critical aspects, the TOD Standard 3 outlines eight elements that could be included in the planning and design of the development project to deliver projects that maximize benefits.

- Walk: Develop neighborhoods that promote walking
- Cycle: Prioritize non-motorized transport networks
- Connect: Create dense networks of streets and paths
- Transit: Locate development near high-quality public transport
- Mix: Plan for mixed use
- Density: Optimize density and transit capacity
- Compact: Create regions with short commutes
- Shift: Increase mobility by regulating parking and road use

TODs: A catalyst for economic growth

The dizzying pace of change for our cities and urban mobility will likely only accelerate. With a growing interest in TODs, it is clear that they can bring together a spectrum of solutions to help build cleaner, people-focused communities.

With global cities set to embrace the new era of urban mobility and Smart City frameworks, TODs can be a revolutionary form of TOD-centric urban planning, and policy definition. TODs offer a chance to redefine how we grow into a sustainable future.

Written by: Sheila Botting (CA) Ram Srinivasan (CA)
General & NL
Director | FA - Real Estate Netherlands
Wilko Bornemeier
Mobile: +31 180 88 1890
Mail: wbornemeier@deloitte.nl

US Partner | Real Estate & Construction Leader
United States
Jim Berry
Mobile: +1 212 614 7160
Mail: jiberry@deloitte.com

UK Partner | FA - Real Estate
United Kingdom
Nigel Shilton
Mobile: +44 20 7007 7934
Mail: nshilton@deloitte.co.uk

NL Partner | FA - Real Estate Leader
Netherlands
Jurriën Veldhuizen
Mobile: +31 6 52048770
Mail: JVeldhuizen@deloitte.nl

DK Partner | FA - Real Estate
Denmark
Tinus Bang Christensen
Mobile: +45 30 93 44 63
tbchristensen@deloitte.dk

DE Partner | Consulting - Real Estate
Germany
Jorg von Ditfurth
Mobile: +49 211 87 72 4160
Mail: jvonditfurth@deloitte.de

CA Partner | FA - Real Estate Leader
Canada
Sheila Botting
Mobile: +1 416 947 7417
Mail: sbotting@deloitte.ca

FR Partner | Advisory & Consulting - Real Estate
France
Jean Pierre Lequeux
Mobile: +33 6 86 34 27 80
Mail: jplequeux@deloitte.fr

BE Senior Manager | FA - Brazil
Ana Virginia P. Carnaúba
Mobile: +55 11 97558 1309
Mail: acarnauba@deloitte.com

AU Partner | Assurance & Advisory - Real Estate Leader
Australia
Alex Collinson
Mobile: +61 (0) 410 045 656
Mail: acollinson@deloitte.com.au

Authors
Alex Collinson (AU)
Robbie Robertson (AU)
Jeremy Pitchford (AU)
Ana Virginia P. Carnaúba (BR)
Ram Srinivasan (CA)
Sheila Botting (CA)
Henry & Associates (US)
Jorg von Ditfurth (DE)
Volker Wörmann (DE)

Tinus Bang Christensen (DK)
Jean Pierre Lequeux (LU)
Frances Guinz (NL)
Jan Willem Sonting (NL)
Thomas van Bergen (NL)
Desie Driever (NL)
Marcin Ludwiszewski (PL)
Bo Glowatz (UK)

Chris X Robinson (UK)
Russell McMillan (UK)
Surabhi Kejriwal (US)
Lauren Hampton (US)
Saurabh Mahajan (US)
Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited ("DTTL"), its global network of member firms, and their related entities. DTTL (also referred to as "Deloitte Global") and each of its member firms are legally separate and independent entities. DTTL does not provide services to clients. Please see www.deloitte.nl/about to learn more.

Deloitte is a leading global provider of audit and assurance, consulting, financial advisory, risk advisory, tax and related services. Our network of member firms in more than 150 countries serves four out of five Fortune Global 500® companies. Learn how Deloitte's approximately 264,000 people make an impact that matters at www.deloitte.nl.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the "Deloitte network") is, by means of this communication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.

© 2019 Deloitte The Netherlands