

Transit-oriented developments survey

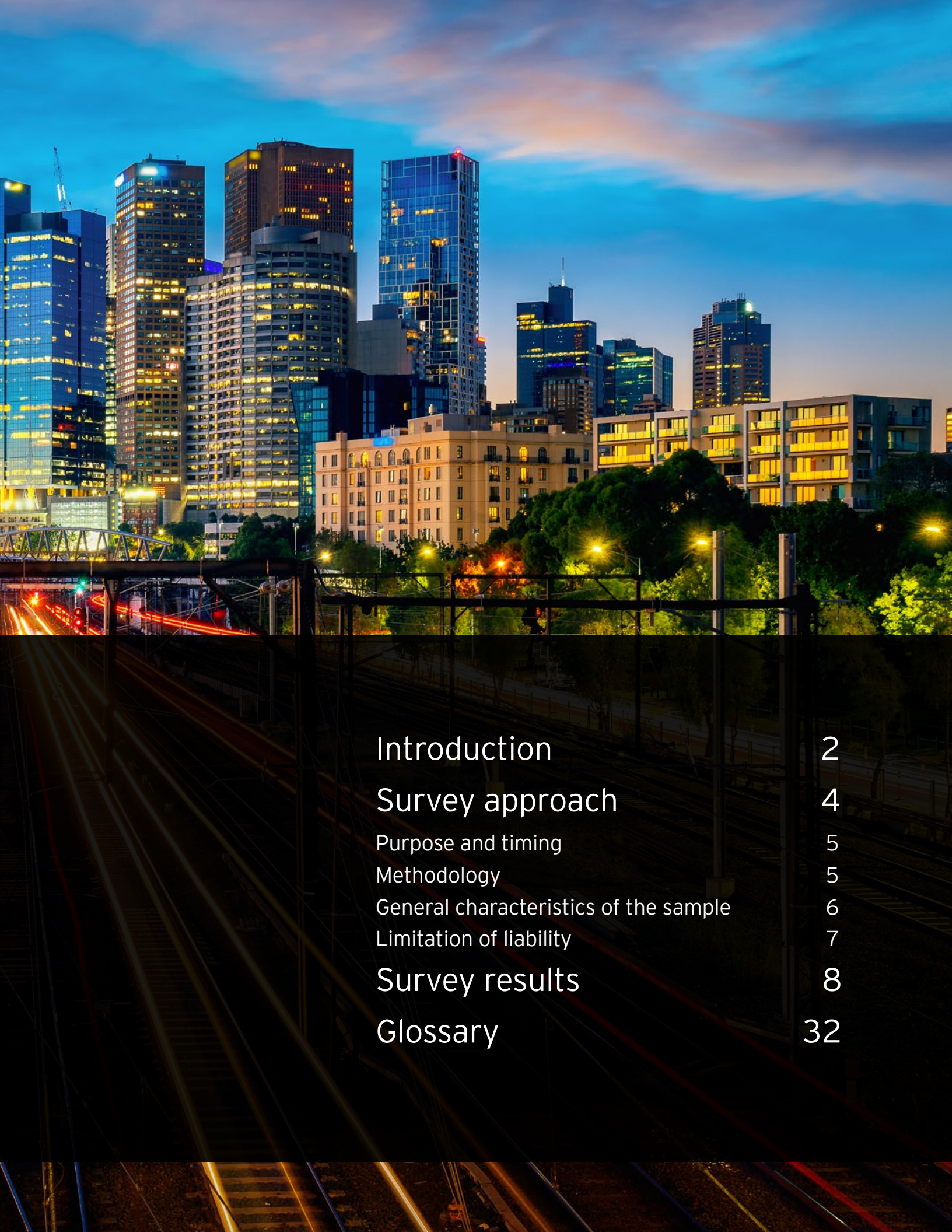
EY Canada
2020

The EY logo consists of the letters 'EY' in a bold, white, sans-serif font. A yellow diagonal line is positioned behind the 'Y', extending from the bottom left towards the top right.

Building a better
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Introduction



Transit-oriented developments (TODs) are a growing trend in the real estate and infrastructure market. TODs support the creation of mixed-use communities by locating residential, business and/or recreational amenities within walking distance from transit nodes. TODs are most effective when incorporating urban design principles that support walkability and reduce the space traditionally dedicated to personally owned vehicles. These developments aim to lessen people's dependence on driving through improved access to public transit. The broader goal of TODs is to build connected, complete and sustainable communities that improve residents' quality of life.

We conducted a survey to better understand the Canadian TOD market. The objective of the survey was to collect the perspectives of major TOD players while identifying current and future market opportunities and challenges. The survey was conducted in the beginning of 2020 and included public and private sector respondents from Ontario, Alberta and British Columbia. This document provides a detailed analysis of the results.

The study findings demonstrate that 100% of public and private sector respondents are actively exploring, planning or already fully engaged in TOD projects. Additionally, there is expected growth in the TOD market as evidenced by the data gathered. When comparing the number of TOD projects on which survey respondents are currently working on to their respective forecasts, TOD market segment growth within the next five years is expected to increase by a minimum of 30%. There is a clear alignment among public and private sector respondents in defining TOD project success as the "creation of better communities with an optimal mix of uses, increasing transit ridership and improving public transit." In light of this robust growth potential, organizations in both sectors are currently building their TOD capabilities. Public sector respondents are exploring lessons learned from other jurisdictions and defining TOD policies and strategies for their respective organizations.

Public sector players also recognize an opportunity for their organizations to pivot to a more active developer or investor role in the future, compared to the more passive land owner role, which they currently occupy.

Both public and private sector respondents believe that the primary initiators of TOD projects should be either private real estate developers or municipalities, rather than provincial governments or infrastructure players (e.g., transit and airport authorities). It was noted that existing laws, regulations and policies do not adequately support TOD project approvals and development; these are considered to be key areas for improvement. Respondents see land assembly, zoning and approvals policy, and navigating governments as the top three barriers to successful TOD implementation.

In addition to the barriers cited, respondents identified their limited comfort or familiarity with the available land value capture tools and funding mechanisms. The most common currently used funding mechanisms in the market are development charges and the land sale/lease of provincial or municipal lands. A deeper understanding of the available funding and financing tools, in addition to an open dialogue between public and private sector players regarding expectations, may benefit both parties and result in hybrid real estate and infrastructure deals.

EY is eager to address any questions regarding the survey's findings and work with sector players on TOD strategies and projects to refine land value capture mechanisms and advise on deal structures.

Survey approach



Purpose and timing

The survey was launched in Q4 2019, and survey results were analyzed in early 2020. The purpose of the survey was to provide a better understanding of the TOD market in Canada. The objective of the survey was to define respondents' perspectives while identifying current and future market opportunities and challenges.

Methodology

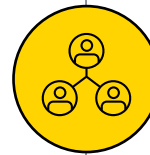
Stage 1

EY developed a list of questions on the TOD market by leveraging lessons learned from prior projects in Canada and overseas. We then validated the questions developed by TOD market players.



Stage 2

EY invited 75 active market players in the TOD sector from both the public and private to participate in the survey. The respondents were from Ontario, British Columbia and Alberta.



Stage 3

The online survey was launched through EY Survey, a proprietary survey platform. Individual response links were sent to all participants, and respondents had one month to complete the survey. 45% of the market players that received the survey responded, with an even spread between public and private sector respondents.



Stage 4

EY analyzed responses and synthesized key themes in the form of a report. All data and findings are driven solely by survey responses.





General characteristics of the sample

EY survey respondents included key decision-makers in the public and private sectors who influence real estate investment in major cities across Canada. All survey respondents are based in Canada.

Public sector respondents included:

- ▶ Cities from the list of the top 10 largest municipalities in Canada, by population¹
- ▶ The largest transit agencies in Canada²
- ▶ The largest waterfront redevelopment agency in Canada³
- ▶ The largest airport authorities in Canada⁴

Private sector respondents included:

- ▶ Four respondents that collectively manage real properties with an aggregate value of approximately \$200 billion⁵
- ▶ Four respondents whose joint market capitalization exceeds \$20 billion⁶

¹<https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016001/98-200-x2016001-eng.cfm>

²https://cutaactu.ca/sites/default/files/cuta_ridership_report_final_october_2018_en.pdf

³According to a Canadian Government Office website. EY has refrained from including direct sources to maintain survey respondents' anonymity.

⁴<https://www.worldatlas.com/articles/which-are-the-busiest-airports-in-canada-by-passenger-traffic.html>

⁵According to Yahoo Finance - a leading financial information repository.

⁶According to survey respondents' publicly accessible websites. EY has refrained from including direct sources to maintain survey respondents' anonymity.

Limitation of liability

This report on the survey was put together based on the original data and information received electronically and verbally from respondents during the analysis; EY considered this data and information to be true and did not take any measures to independently verify their accuracy or completeness. EY is not responsible for any inaccuracy of the information provided by the sources.



Survey results



TODs have recently become a frequently discussed topic in Canada, despite the concept being centuries old. Transit infrastructure and real estate development are mutually dependent and have coexisted since the early 1800s when horse-drawn streetcars were introduced in North America. Over time, transportation has become more sophisticated, thereby facilitating the development of more connected communities.

In the 1980s, Peter Calthorpe defined TOD as “a mixed-use community that encourages people to live near transit services and to decrease their dependence on driving.” The main purpose of TOD design was to build ecologically respectful and sustainable communities, which would improve residents’ quality of life. Traditionally, developments have taken the form of transit nodes surrounded by retail and residential developments, with a high-density requirement.

Though this approach is still relevant, infrastructure and real estate spaces are becoming more integrated. Today, a TOD is often referred to as a complex mixed-use development – where transit nodes are seamlessly integrated into real estate and train riders arrive, not at a standalone station, but at a multi-functional facility inclusive of retail, places of work, and play. This convergence drives new questions market players are trying to tackle now. For example:

- ▶ How can one ensure station safety standards are met when technically there is no station?
- ▶ How are future land values estimated?
- ▶ How can one unlock financing for TOD projects if real estate and infrastructure investors have different risk appetites and payback horizons?

These questions become even more complex once technology development comes into play. As described in EY’s recent CREtech report,⁷ build-world tech saw US\$75b venture capital investment from 2015 to 2019, which suggests that the real estate and infrastructure sector has a strong appetite for innovation. Once started, technology-led disruption of built space will have profound impacts on future TOD projects. It has the potential to fundamentally shift human behaviour around the built environment, while at the same time giving unprecedented access to all the data necessary to maximize both social and commercial benefits of TOD.

According to the Centre for Urban Research & Land Development (the Centre), there are currently 200 major transit nodes across Ontario alone that either exist or are being planned or constructed. The Centre has defined transit nodes as major transportation stops such as subway stations, light rail lines and bus stations where the passenger shifts to another form of mobility. The Centre further states that there are untapped development opportunities for mixed-use development and betterment of our communities.⁸

EY developed the survey to gain better insights into what type of TOD opportunities and challenges are emerging in the Canadian market. One objective was to help stakeholders conduct a peer review of their current TOD strategies in the industry and to foster potential collaboration opportunities among municipalities, transit agencies and private developers.

⁷ https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/real-estate-hospitality-and-construction/ey-venture-capital-funding-points-to-hottest-concepts-in-built-world-tech.pdf

⁸ https://www.ryerson.ca/content/dam/cur/CUR_Report_TransitOrientedDevelopments.pdf

100% of respondents are either exploring, planning or already engaged in TOD projects

When answering this question, the survey respondents could select more than one option, if multiple options applied.

Although all respondents have noted some form of engagement in TOD discussions, the extent of engagement for public and private sector players with TODs varies:

53%

of the public sector respondents indicate they are exploring TODs internally, engaging in market conversations and developing TOD strategies. The remaining 47% indicate they have a TOD strategy already in place or have undertaken planning and construction of TODs.

12%

of the private sector respondents are focused on TOD internal exploration, market engagement or strategy development, with none (0%) of the private sector respondents currently having a TOD strategy in place. However, 88% of respondents are currently planning or executing TOD projects by purchasing land in and around transit nodes.



While most of the public sector players are exploring the subject and developing TOD strategies within their organizations, private sector companies are focused on TOD project development and delivery. There may be two reasons for this contrast in positioning:

- Public sector players may need more time to redefine regulation and policy around TODs. Usually a public sector player would bear the responsibility of establishing planning strategies, defining funding options (LVC mechanisms) and amending regulation and policies. Therefore, public sector entities are taking time leading the best practices from both Canada and other states as well as to define their organizational TOD strategies.

- The private sector may consider any real estate development in proximity to a transit node a TOD, thereby unintentionally inflating the number of projects at the planning and execution phases. TOD is a complex deal combining real estate and infrastructure risks and involves multiple private and public sector stakeholders having different expectations and priorities. Therefore, TOD projects require rigorous planning from the initial stages through the deal structuring and procurement.

In five years, planning and execution of TOD projects will become a priority for 59% of the public sector and 76% of the private sector respondents.



Figure 1 - Public and private: How is your organization engaged with TOD currently?

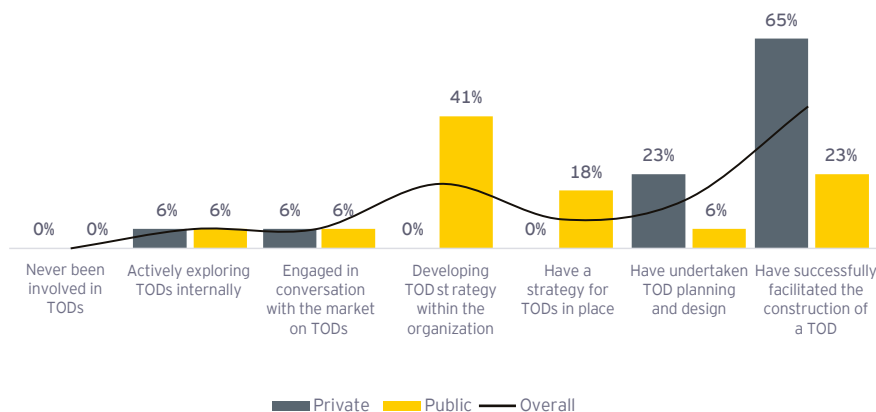
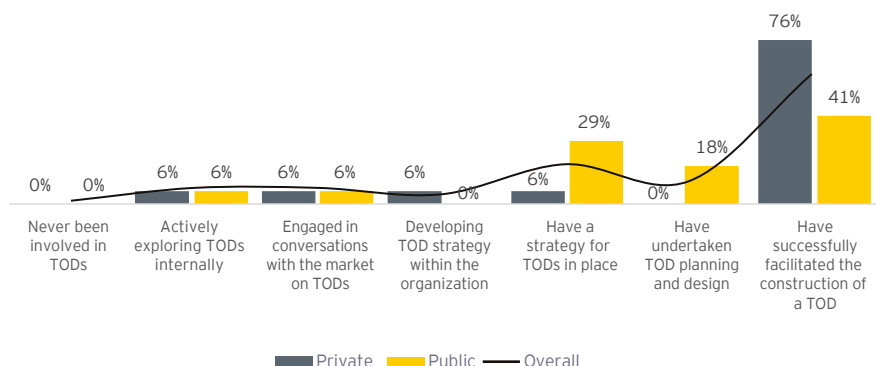


Figure 2 - Public and private: How will your organization be engaged with TOD five years from now?



Large mixed-use properties are the investment of choice for TOD projects⁹

When answering this question, the survey respondents could select more than one option, if multiple options applied.

Private sector respondents named the following options as their top TOD investment choices:

Priority #1

a. Mixed-use properties next to a transit node with investments of \$100m+ currently and \$50m+ in the future.

Priority #2

b. Residential properties within a 15-minute walk from a transit node (including both high- and low-rise residential premises) of \$50m+ in development costs both currently and in the future.

c. Commercial real estate next to a transit node with investments of \$500m+ both currently and in the future.

Selected priorities support the TOD concept of mixed-use property: a collection of real properties blending residential, commercial, cultural or entertainment uses into one space being physically and functionally integrated to a certain extent.

The least favourite investment option for the private sector respondents became a “partnership with a local municipality to develop a transit node and a mixed-use property”. Although there is a positive trend in responses in five years from now, it remains the lowest priority in the future due to:

- ▶ Lack of understanding and experience of the private sector players in LVC mechanisms
- ▶ Lack of experience in sharing risks and structuring effective partnerships with the public sector
- ▶ Varying risk appetites, payback horizons and return expectations from the private and public sectors
- ▶ Other factors (more information on inhibiting factors for TOD developments is presented on p.15, Figure 9)

Figure 3 - Private: What type/capital investment size of TODs do you anticipate your organization to pursue now and in the future (within 5 years)?

Investment Criteria	Commercial real estate next to transit node		Mixed-use property		High-rise condominium within 15 mins of walk to a transit node		Low-rise residential properties within 15 mins of walk to a transit node		Partnership with the local municipality to develop a transit node and mixed- use property	
	Current	Future	Current	Future	Current	Future	Current	Future	Current	Future
None	○	○	○	○	○	○	○	○	○	○
< \$50m	○	○	○	○	○	○	○	○	○	○
\$50m-\$100m	○	○	●	●	○	○	○	●	○	○
\$100m-\$500m	○	○	●	●	●	●	○	○	○	○
> \$500m	●	●	●	●	○	○	○	○	○	○

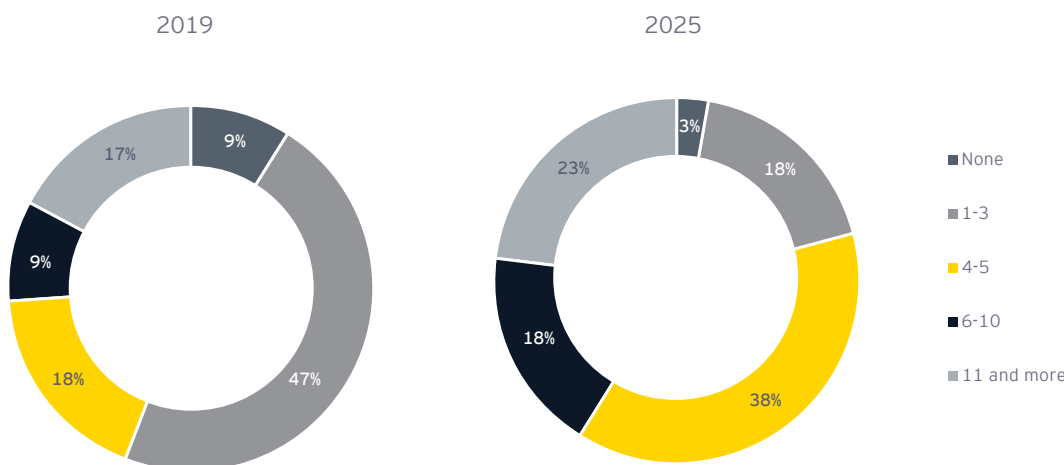
○ 0 - 2 Selections ● 3 - 5 Selections ● 6 - 8 Selections

⁹ This survey question was only included on the private sector survey.

The number of TOD projects may increase by 30% in 5 years

The majority of both public and private sector respondents indicated their current TOD project pipeline includes one to three projects and that within a five-year horizon they expect to have four to five TOD projects in their portfolios.

Figure 4 - Public and private: How many TOD projects are you engaged with now and will be five years from now?



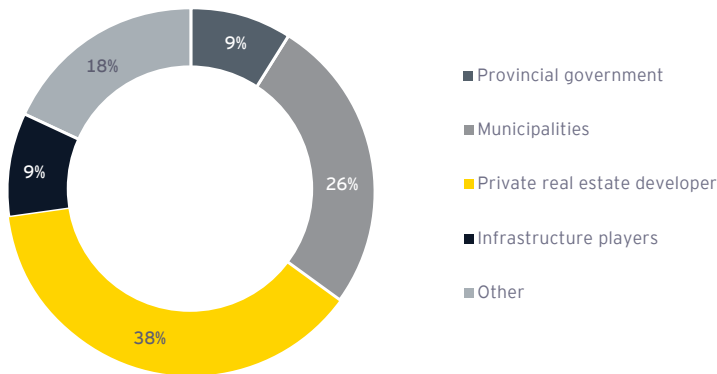
To estimate the number of TOD projects survey respondents are currently engaged with, EY totaled the number of projects indicated through survey responses and divided this figure by 2. This approach assumes that both public and private sector respondents will be working together on all TOD initiatives, regardless of the stage, size or type of the project.

Based on this conservative approach, EY has estimated that survey respondents currently occupy a TOD market share of 60 to 90 projects, at different project stages. Given this is simply the number of projects indicated by survey respondents, it should be noted that more TOD projects may exist in the Canadian market that are not captured through this report. As a result, the overall national TOD market size may be larger.

Applying this same logic to the future, the respondents expect a 30% increase in the number of their TOD projects within the next five years, totaling to 100 to 120 projects. Like the current state assessment, this forecast is also limited by the survey respondents' growth plans and does not consider the projects of any potential new market players or the existing public and private entities not covered by this survey.

Private developers and municipalities should be primary drivers for TOD projects

Figure 5 - Public and private: Which party do you think should be the primary driver for developing new TODs in the market?



Both sectors agree that either the private sector (38% of respondents) or municipalities (26% of respondents) should lead in TOD initiatives. This may be explained by mutual interests: the private sector is highly reliant on municipalities for land-use rights and permits, while municipalities can rely on developers' expertise to get better real property developments.

In efforts to get a better understanding of the "Other" category (18% of respondents), EY investigated the respondents' comments, according to which the respondents believe both sectors should take an equal lead to enjoy the benefits of TODs.

- ▶ Public sector respondents commented that TOD projects will rise through public and private partnerships:

“to accelerate the creation of TODs, it would require the collaboration from all parties (provincial, municipal, private developers and infrastructure players) where the driver would be different depending on the project or development phase.”

- ▶ Private sector respondents indicated the primary driver for TODs should be through public and private sector partnerships or inter-governmental partnerships (i.e., municipality and province).

Market Example 1: U.S. Institute of TOD Policy Study¹⁰

The collaboration theme is in line with global leading practices in TOD implementation. Successful delivery of TODs requires stakeholders from both sectors to work together. A study by the U.S. Institute of Transportation and Development Policy concludes that government support is the most important factor for TOD success. However, respondents preferred municipalities rather than the provinces to be the public sector representative in TODs. Fewer than 20% of respondents think provincial or infrastructure players should take a leading role in TODs.

Market Example 2: Joint Survey by EY and the Urban Land Institute¹¹

A joint survey conducted in 2014 by EY and the Urban Land Institute supports our respondents' perspective of collaborating with local governments as opposed to infrastructure or provincial players. The survey revealed that three-quarters of respondents refer to cooperation between developers and local governments as the most significant funding approach for new infrastructure over the next decade, while more traditional options, such as income and property taxes and contributions from the federal and provincial governments, were rated as less significant. As time has passed, it is clearer the market still upholds municipalities as their preferred public sector representatives for a range for development topics.

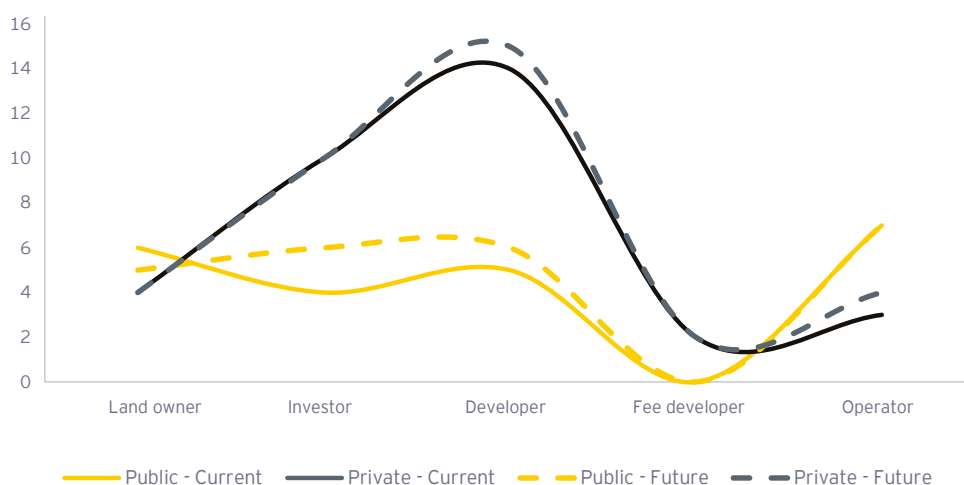
¹⁰ https://realty.economicstimes.indiatimes.com/web/files/retail_files/reports/data_file-CBRE-Transit-Oriented-Developments-2015-1435835505.pdf

¹¹ [https://www.ey.com/Publication/vwLUAssets/EY_-_Infrastructure_2014:_shaping_the_competitive_city/\\$FILE/EY-infrastructure-2014-shaping-the-competitive-city.pdf](https://www.ey.com/Publication/vwLUAssets/EY_-_Infrastructure_2014:_shaping_the_competitive_city/$FILE/EY-infrastructure-2014-shaping-the-competitive-city.pdf)

Public sector players may pivot from passive “land owner” role more towards “investor” and “developer” in five years

When answering this question, survey respondents could select multiple options that applied.

Figure 6 - Public and private: How do you view your primary role in TOD projects now and five years from now?



The public sector respondents most commonly identify their primary roles in TODs as land owners and transit operators, while the private sector respondents see themselves as investors and developers. In the future, the private sector respondents do not anticipate significant changes in their roles, while the public sector demonstrates a shift towards being investors and participating with developers in TOD projects.

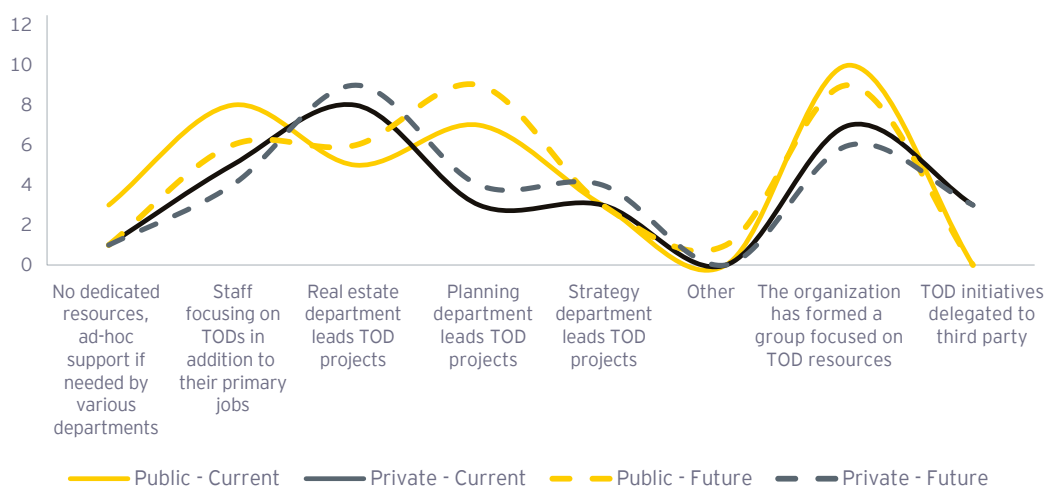
The public sector players would need to develop specific capabilities and be comfortable with bearing a larger portion of project risks to successfully transition to the investor and developer roles. This pivot to new roles may be supported by overall TOD market development and deployment of various LVC mechanisms (e.g., joint ventures between the public and private sectors). These mechanisms may allow the public sector players to organically develop necessary skills and be ready to play a more active role in TODs.

In Canada, municipalities and transit authorities are exploring several vehicles. Municipal development corporations through JVs are being set up to assist the public sector in achieving its desired state. Transit authorities have also been entering into participatory agreements with developers that allow both parties to participate in the future financial gain. Although these structures use common approaches to achieve this role transition, further assessment is required by municipalities in determining which vehicles will better deliver their desired outcomes.

Both sectors are now building capabilities in TOD

When answering this question, survey respondents could select multiple options that applied.

Figure 7 - Public and private: What capabilities does your organization have to deliver on TOD initiatives now/you plan to have in five years from now?



Both the public and private sector are currently building capabilities in TODs. Although each sector has a different focus, there are many similarities in their approaches.

Public sector respondents are currently strengthening their TOD capabilities by creating specialized and integrated groups focused on TODs. In the future, when TODs are expected to be more routine, the sector is expected to have fewer staff combining a TOD focus with their primary jobs. Instead, public sector organizations will have TOD capabilities either in the specialized TOD groups or planning departments. Forming specialized groups and planning departments is critical to success of the governments' role in TOD implementation as it helps to drive accountability and sponsorship for the delivery of projects.

The private sector has responded similarly. Currently, the respondents are either setting up specialized TOD groups or asking staff from other departments to include a TOD focus in addition to their primary role responsibilities. As the market evolves, TOD capabilities will start being concentrated either in specialized TOD groups or in real properties departments.

Almost no respondents from both sectors are planning to delegate TOD initiatives to a third party or have no dedicated resources for TOD initiatives.



“

Traditionally in the GTA, stations have been built in isolation—a lost opportunity. Through our transit-oriented communities program, we will not only be bringing fast, reliable transit to new communities, but we will also be building communities around future subway stations the right way: one thoughtful, integrated approach.

Transit-oriented communities will increase ridership, reduce congestion, create jobs and a mix of housing, and build complete communities based on good planning principles. We are connecting people to places and making life easier and more affordable for the taxpayer.”

- Minister Kinga Surma, February 20th, 2020

Key barriers for TODs: land assembly, zoning and approvals and navigating through levels of government

When answering this question, survey respondents could select multiple options that applied.

Both sectors identified the following as their top three barriers in successful TOD implementation:

- 1 Time-consuming and cumbersome process with land assembly.
- 2 Time-consuming and unclear zoning, approval timelines and requirements.
- 3 Challenges in navigating through the different levels of government.

The top three barriers faced by the public sector inhibiting it from pursuing TODs are in two categories - funding options as well as policy and legislation:

- 1 Lack of information on funding mechanisms and tools available (funding options)
- 2 Challenges navigating through the different levels of government (policy and legislation)
- 3 Long and tough process with land assembly (policy and legislation); long and unclear zoning and approval timelines and requirements (policy and legislation); real estate projects cannot bear the burden of covering public infrastructure costs (funding options)

Table 1: Public Sector Barriers

	Public sector rank	Private sector rank
Policy and legislation	1	1
Market understanding	2	4
Funding options	3	2
Other	4	5
No barriers	5	3

Market Example 3: Rutgers University¹²

The sector's challenges are in line with what other cities, provinces and countries face with TODs. For example, a study conducted by Rutgers University on barriers faced by the State of New Jersey on the implementation of TODs revealed major hurdles to the construction of TODs were related to difficulties with land assembly, financial complexity, lack of developer knowledge and public opposition.

Market Example 4: King's Cross Regeneration Project¹³

Another example of these challenges is demonstrated through the King's Cross Regeneration Project in London, UK. The London and Continental Railways were responsible for the design, construction, operation and finance of the high-speed Channel Tunnel Rail Link. To encourage private development, the government engaged in the major infrastructure upgrade that included 20 new streets, 10 new major public spaces, 3 new bridges and the restoration of 20 historic buildings. Key hurdles that slowed down the project were:

- Fragmented land ownership,
- Coordination of real estate development with the framework of a rail scheme,
- Lengthy debates on infrastructure and mix of property types that took almost six years of negotiation between various stakeholders.

¹²<http://vtc.rutgers.edu/wp-content/uploads/2014/04/FHWA-NJ-2010-002-Eliminating-Barriers-to-Transit-Oriented-Development.pdf>

¹³https://realty.economictimes.indiatimes.com/web/files/retail_files/reports/data_file-CBRE-Transit-Oriented-Developments-2015-1435835505.pdf

The top three challenges revealed for the private sector relate to two categories – funding options and policy and legislation – and include:

- 1 Long and tough process with land assembly (policy and legislation)
- 2 Long and unclear zoning and approval timelines and requirements (policy and legislation)
- 3 Challenges in navigating through different levels of government (policy and legislation); real properties projects cannot bear the burden of covering public infrastructure costs (funding options); also, the same number of respondents indicated that nothing stops them from planning or delivering TOD projects (no barriers)

Both sector respondents echo to one another in identifying improvements that could unlock TOD market potential.

Market Example 5: Canadian Journal of Urban Research¹⁴

These barriers are not new; in 2012, the Canadian Journal of Urban Research conducted a study examining the perspective of land developers regarding supply barriers to TOD in the Montréal metropolitan region. The study consisted of 15 residential developers and builders representing a diversity of company sizes and product types. Findings indicated that structural barriers included complexities in land assembly and access to land plots were among the principal obstacles to TOD supply.

Table 2: Private Sector Barriers

	Public sector rank	Private sector rank
Zoning flexibility	1	1
Shortened permits and approval timelines	2	1
Access to land for acquisition and development	0	2
Access to funding tools	1	0

For the purposes of analysis, all barriers were grouped into five categories:

- ▶ market understanding
- ▶ funding options
- ▶ policy and legislation
- ▶ others
- ▶ no barriers

Depending on the number of responses, these categories were ranked for the public and private sector from 1 to 5, where

- ▶ "1" represents the **largest volume of responses**, indicating more respondents are concerned about this group of barriers.
- ▶ A rating of "5" represented the **fewest responses**, meaning that fewer respondents are concerned about this group of barriers.



¹⁴Sarah Feldman, Paul Lewis and Rebecca Schiff, Canadian Journal of Urban Research Vol. 21, No. 2 (Winter 2012), pp. 25-44.

Key barriers for TODs: land assembly, zoning and approvals, and navigating through levels of government

Figure 8 - Public and private: What is inhibiting your organization from actively pursuing TODs?

Barrier I: Interest and understanding		
	Public	Private
Lack of clarity around what a TOD is and what its benefits are to the organization	3%	0%
Lack of clarity around what a TOD is and what its benefits are to the community / developers / infrastructure projects	7%	0%
No intent or desire to pursue TODs within the organization as it does not meet the organizational mandate or needs	0%	0%
Lack of clear strategic direction on TODs within the organization	7%	3%
Lack of capabilities and resourcing within the organization	3%	0%
Lack of private sector interest in TODs	7%	0%
No need for TOD in my area of operations	2%	0%



Figure 9 - Public and private: From your point of view, what could improve TOD planning and development?

Solution to barrier I		
	Public	Private
Having dedicated resources focused on the TOD in the organization	11%	3%
Having capabilities on planning / real estate / funding tools in the organization	11%	2%
Having clearly defined policy and strategic direction of TOD projects in the organization	9%	3%

Barrier II: Funding		
	Public	Private
Lack of information on funding mechanisms / tools available	12%	3%
Real estate projects cannot bear the burden of covering public infrastructure costs	9%	15%



Solution to barrier II		
	Public	Private
More information on funding options and value creation tools options	8%	6%
Access to funding tools	12%	5%
More private sector initiative for TOD projects	11%	11%

Barrier III: Government and policy		
	Public	Private
No policy or regulation defining or supporting TOD development in the municipality / province	7%	5%
Long and tough process with land assembly and acquisition for TOD	9%	18%
Long and unclear zoning & approvals timelines and requirements	9%	18%
Challenges in navigating through different levels of government	11%	15%



Solution to barrier III		
	Public	Private
Having TOD development and design standards at the provincial / municipal level	9%	11%
Shortened permits approval timelines for TOD projects	11%	21%
Zoning flexibility	12%	21%
Access to land for acquisition and development	7%	16%

Barrier IV: Other		
	Public	Private
Safety concerns within TOD projects (e.g. pedestrian and car traffic)	5%	2%
All barriers apply	5%	0%
All of the above	0%	3%

No barriers to entry		
	Public	Private
No significant obstacles currently for the delivery of TODs	2%	3%
Nothing stops us, we are planning /delivering new TOD projects	2%	15%

Through an assessment of survey responses, the tables above demonstrate the frequency of responses for each available option within the categories by survey respondents.

Both sectors recognize that laws, regulations and policies are still to be adjusted for TODs

Generally, both groups of respondents agree that the TOD market is still evolving, and all its segments have not reached an advanced level of maturity.

The public sector respondents are less conservative in their estimates and rank most capabilities' maturity level as "intermediate." Comparatively, for the private sector, almost half of the respondents indicated the market is mostly at a low maturity level.

Although the public and private sector respondents maintain different levels of conservatism in their overall market assessment in terms of capabilities, they are entirely aligned on which segments are the least developed:

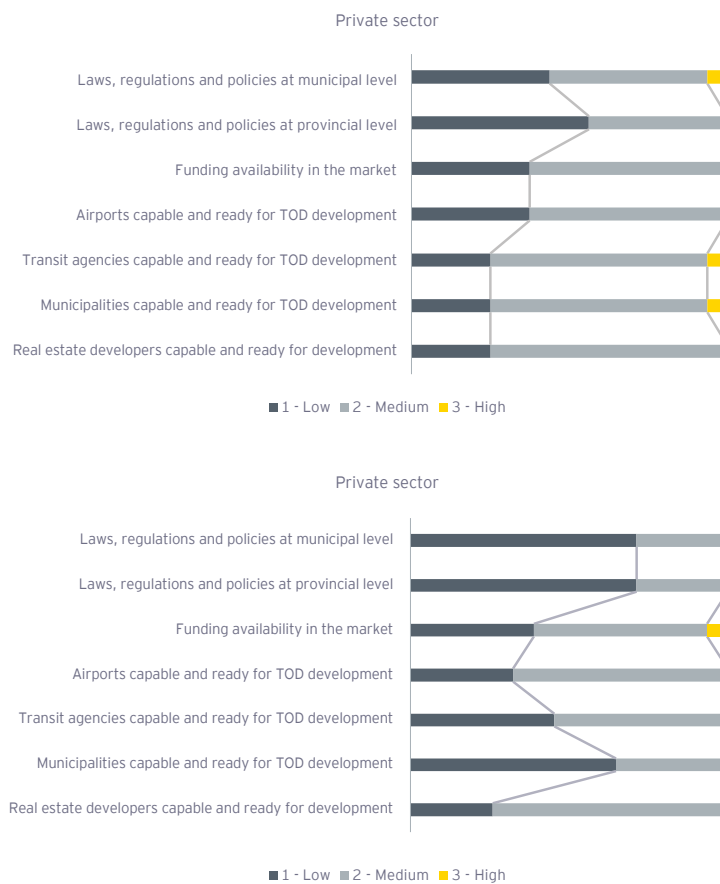
1 Laws, regulations and policies at the provincial level

2 Laws, regulations and policies at the municipal level

As mentioned earlier, these findings align with the "key barriers" that exist in the market, identified by both the public and private sectors.

The biggest gap between the public and private sectors' responses is in the assessment of the municipalities' maturity level and their readiness for TODs. Most private sector respondents believe that municipalities are still at the "beginner" level, while public sector respondents mostly rank municipalities' capabilities as "intermediate" and even "advanced." This gap may be driven by both the higher expectations from the private sector players and the lack of a constant open dialogue between the municipalities and private developers. A potential solution to bridge this gap is with open forums and clear communication of municipal TOD strategies. This may contribute to both the public and private sectors being more aligned in the future.

Figure 10 - Public and private: Please help to assess TOD current market maturity level (1-immature, 3-leading practice)

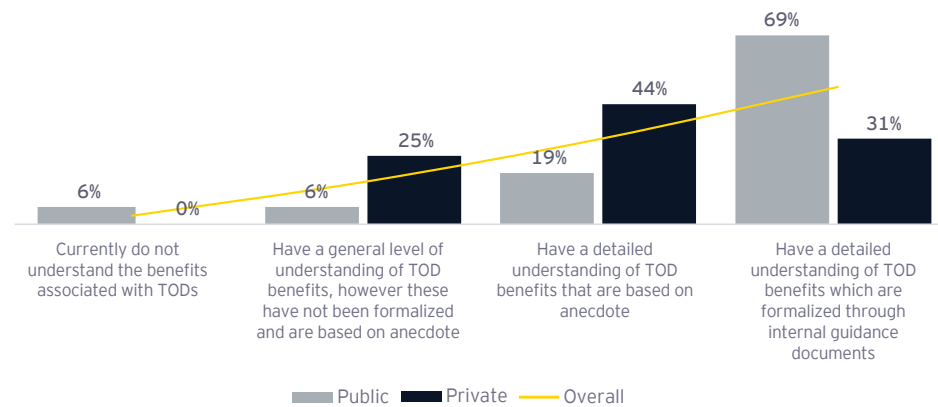


The public and private sector respondents had to select a rating from 1 to 5 for a range for each TOD capability. The selections represent the following:

- ▶ Selections from 1 to 2 represent that a capability is at a lower maturity level.
- ▶ Selections from 3 to 4 represent that a capability is at an intermediate maturity level.
- ▶ A selection of 5 represented that the capability is at an advanced or "industry-leading standard" maturity level.

Public sector formalizes expected TOD benefits before starting a project; the private sector is more experimental

Figure 11 - Public and private: How well does your organization understand the benefits associated with TODs?



Both sectors have a good understanding of the potential benefits that TOD projects can offer. More than two thirds of the public sector respondents have formalized their understanding through internal guidance documents. Despite the private sector being mostly anecdotally familiar with the benefits of TODs, this sector is currently more engaged in TOD project planning and construction.

The next survey section reveals which TOD benefits are important to public and private sector respondents in Canada.

The World Bank Organization highlights the following benefits of TODs:¹⁵

- ✔ Promoting higher densities and the concentration of jobs within relatively small areas is proven to boost a city’s competitiveness. Studies have shown that doubling job density increases economic productivity by 5% to 10%.
- ✔ Cities capture a part of increases in land value and use it to finance additional transit improvements, affordable housing, and other initiatives that promote sustainable inclusive growth. In Hong Kong, the land value capture brought in about HK\$140 billion in revenues between 1980 and 2005 and unlocked land for 600,000 public housing units.
- ✔ By concentrating jobs, services and housing within the catchment area of transit stations, TOD makes public transport a more attractive and efficient option, while reducing dependence on private cars and promoting shorter commutes. As a result, TOD typically translates into higher productivity and a smaller carbon footprint. In Stockholm, for example, where development has generally followed the city’s main public transport corridors, the gross value added per capita grew 41% between 1993 and 2010, while GHG emissions per capita decreased by 35% over the same period.

¹⁵<https://www.worldbank.org/en/topic/transport/publication/transforming-the-urban-space-through-transit-oriented-development-the-3v-approach>



“

From our global experience in TOD projects, we see the importance for all market players to understand how TOD and LVC mechanisms fit together. TOD answers the why – for example, why land value changes. LVC answers the how – such as how all stakeholders share benefits and capture value uplift created by TOD? For successful projects, it's critical to consider both questions at the same time.

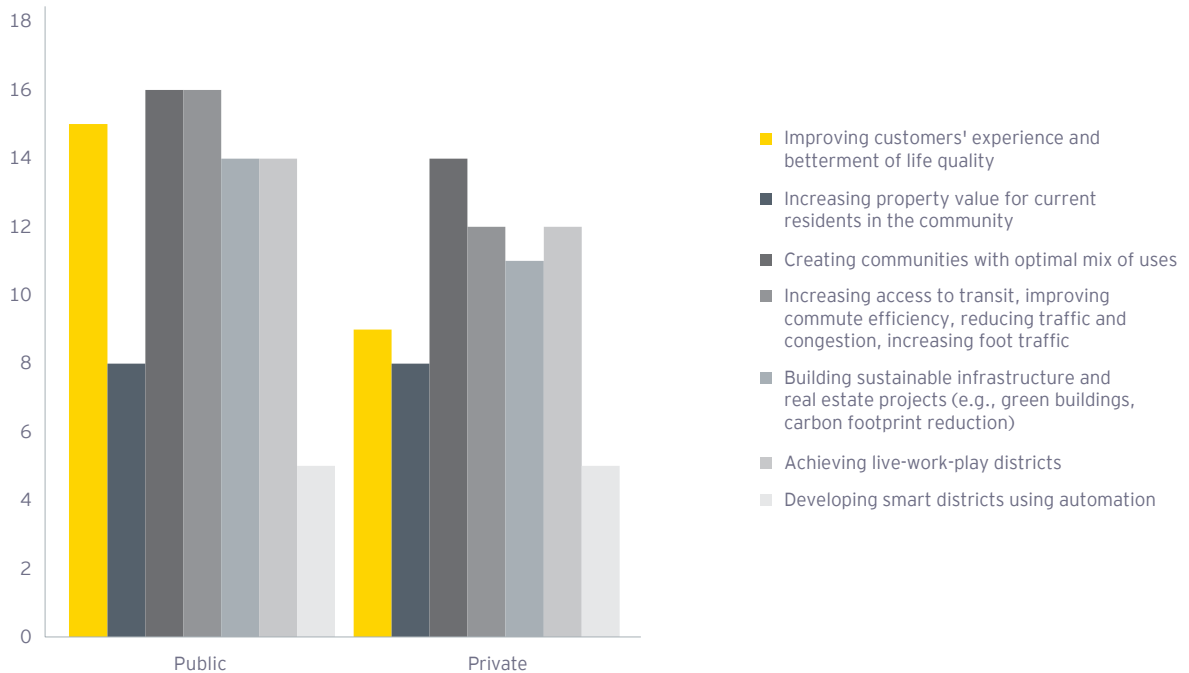
Julia Stefanishina, Associate Partner, Infrastructure Advisory

Both sectors define TOD project success as “creating communities with optimal mix of uses”

When answering this question, survey respondents could select multiple options that applied.

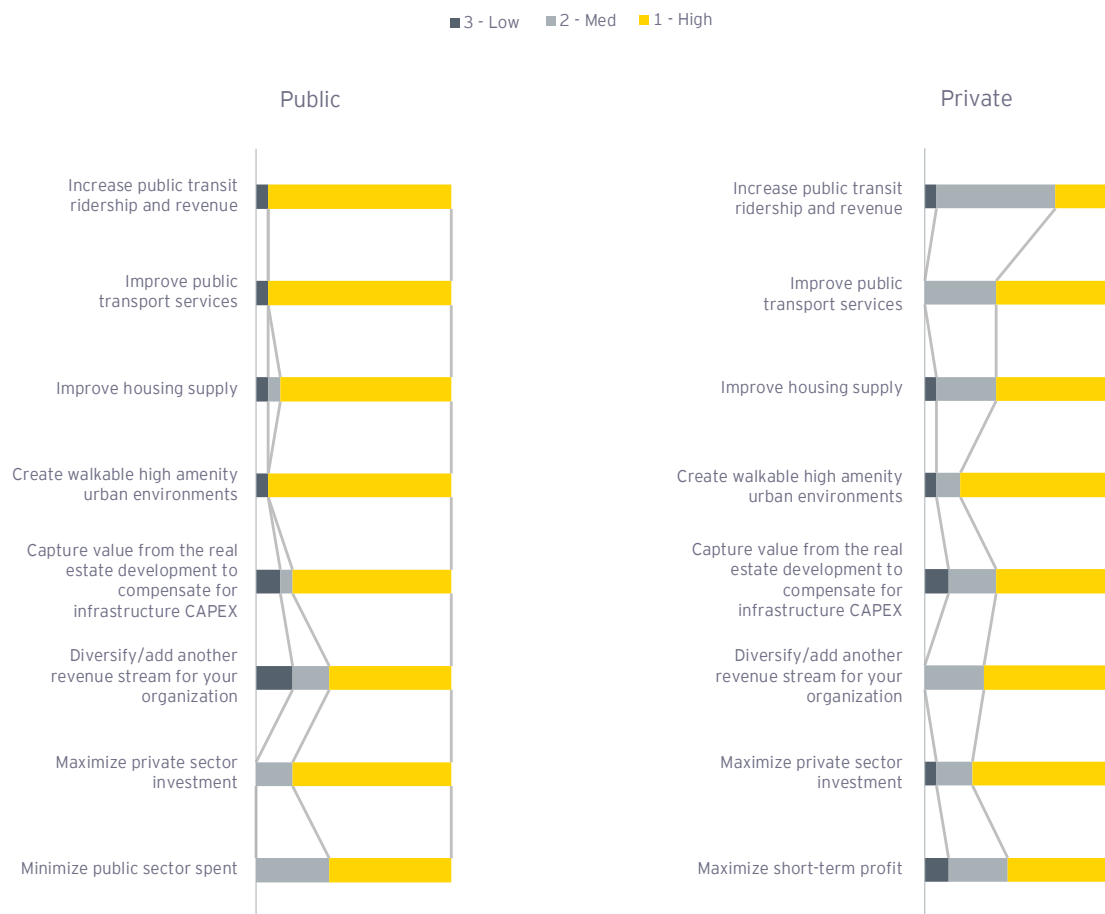
Most respondents defined successful TOD projects in the same way: “creating communities with optimal mix of uses” and “increasing access to transit, improving commute efficiency, reducing traffic and congestion, and increasing foot traffic.” This indicates that the market players from both sectors are aligned in defining TOD projects and value to communities and society.

Figure 12 - Public and private: How do you define success from a TOD?



Both sectors share the long-term goal of creating better communities and transit

Figure 13 - Public and private: How well does your organization understand the benefits associated with TODs?



The public and private sector respondents had to select a rating from 1 to 5 for a range of TOD outcomes. The selections represent the following:

- ▶ Selections from 1 to 2 represent a **high** degree of focus towards the outcome from the respondent.
- ▶ Selections from 3 to 4 represent an average or **medium** level of importance towards the outcome from the respondent.
- ▶ A selection of 5 represented that the outcome was the **low** or least desired on the priority list for the respondent.

Both sectors share the long-term goal of creating better communities and transit



Public sector respondents ranked their priorities, giving most of the outcomes a ranking of “high.” As a result, six out of the eight suggested outcomes made their way into the top three categories for the public sector respondents:

- 1** Increased public transit ridership and revenue; improved public transport services; and created walkable high amenity urban environments
- 2** Improved housing supply
- 3** Captured value from the real properties developments to compensate for infrastructure capital costs; and maximized private sector investment

The lowest-priority outcome for the public sector is diversification of revenue streams for their organization.

The private sector respondents identified their top three desired long-term outcomes from TOD projects as:

- 1** Created walkable high amenity urban environments
- 2** Maximized private sector investment
- 3** Diversification of revenue streams for their organization

The lowest-priority outcome would be maximizing short-term profit.

This ranking of priorities demonstrates that both sectors are focused on creating better communities and transit, and are looking at TOD projects from a long-term perspective. Although the TOD market is still evolving, the fundamental benefits between public and private sector players are aligned.

“

We asked public and private sector survey participants which party they think should be the primary driver for developing new TODs in the market? Among the anonymous “Other” responses, one public sector respondent said it should be “partnerships between governments, developers and infrastructure players,” while a private sector respondent believed it should be “public and private partnerships.”

Market knowledge of TOD funding tools is relatively low

As the TOD market evolves, market players are getting a better understanding of the available LVC mechanisms and funding tools. Most respondents from both sectors indicated they are “somewhat aware” of the existing options. The percentage of respondents who have a clear understanding or are deploying these mechanisms is substantially lower.

The public sector players have a somewhat better understanding of funding options compared to the private sector companies. This could be the result of research and preparatory work that the public sector entities are currently performing to develop their TOD strategies. Analysis of the lessons learned from municipalities in various other jurisdictions, provincial and federal governments helps to identify LVC mechanisms that could be successfully deployed in a municipality or a province. As noted earlier in this report, the public sector oversees developing TOD policies and LVC tools to inform the private sector of the available funding options and how they would impact TOD business cases.

The known funding mechanisms being deployed, though in very few cases, for the respondents from both sectors are:

1

Developer charges: This is a form of a betterment mechanism; also known as linkage fees (or “impact fees”), these are charges to developers as a means of funding affordable housing, transit or social infrastructure projects. The fees attempt to link the market-rate real properties to funding social or transit infrastructure. Developers are charged a fee per square unit of development space to be used by a municipality for their other needs (e.g., towards affordable housing in the area).

2

Leveraging provincial and municipal land: Leveraging or leasing government land or air rights can allow public authorities to generate revenue from the existing assets and spur development without major public investment.

Both public and private sector respondents are somewhat aware of the following mechanisms:

- 1 User charges: In the LVC lens, end-user charges are methods of recouping money from those who directly benefit from the new infrastructure rather than the entire tax base. The theory behind the end-user charges is to pass through a portion of the cost of a government-funded asset to the people and businesses that ultimately benefit from its construction.
- 2 Betterment levies: Considered a form of a beneficiary user charge that can be either led by a neighbourhood coalition or imposed by public authorities. In the case of a coalition, a neighbourhood determines that a capital investment in their area is beneficial to the businesses and/or residents. The coalition petitions or asks the city (or public authority) to impose a betterment levy. Businesses, developers and land owners in the area then contribute money (based on their property share in the area) to a pool that eventually funds, in full or in part, a local infrastructure improvement or addition. This was the case in 1998 when Portland, Oregon, businesses along the future Central City Streetcar Phase 1 alignment pooled money together to partially fund the project.
- 3 Contributions from the federal and provincial governments.
- 4 Canada Infrastructure Bank gap financing.

Better understanding of the available funding and LVC options by public and private sector players could be a catalyst for the TOD market development. TOD projects are complex as they involve multiple players with different risk appetites, return expectations and priorities. Creating TOD projects as a component of a larger infrastructure deal may be more beneficial to all parties compared to viewing it as a standalone real estate project. By creating well-planned, high-value infrastructure assets, property values in surrounding neighbourhoods rise due to the increased desirability associated with the asset. The rise in property value is a result of public infrastructure spending; as such, public authorities can employ methods of capturing this rise in value to fund spending on infrastructure assets. This is most commonly how land-value capture mechanisms are used.

The table below provides a high-level summary of LVC mechanisms and how they are structured and deployed at a municipal or provincial level:

Table 3: LVC mechanisms categorizations and Canadian applicability

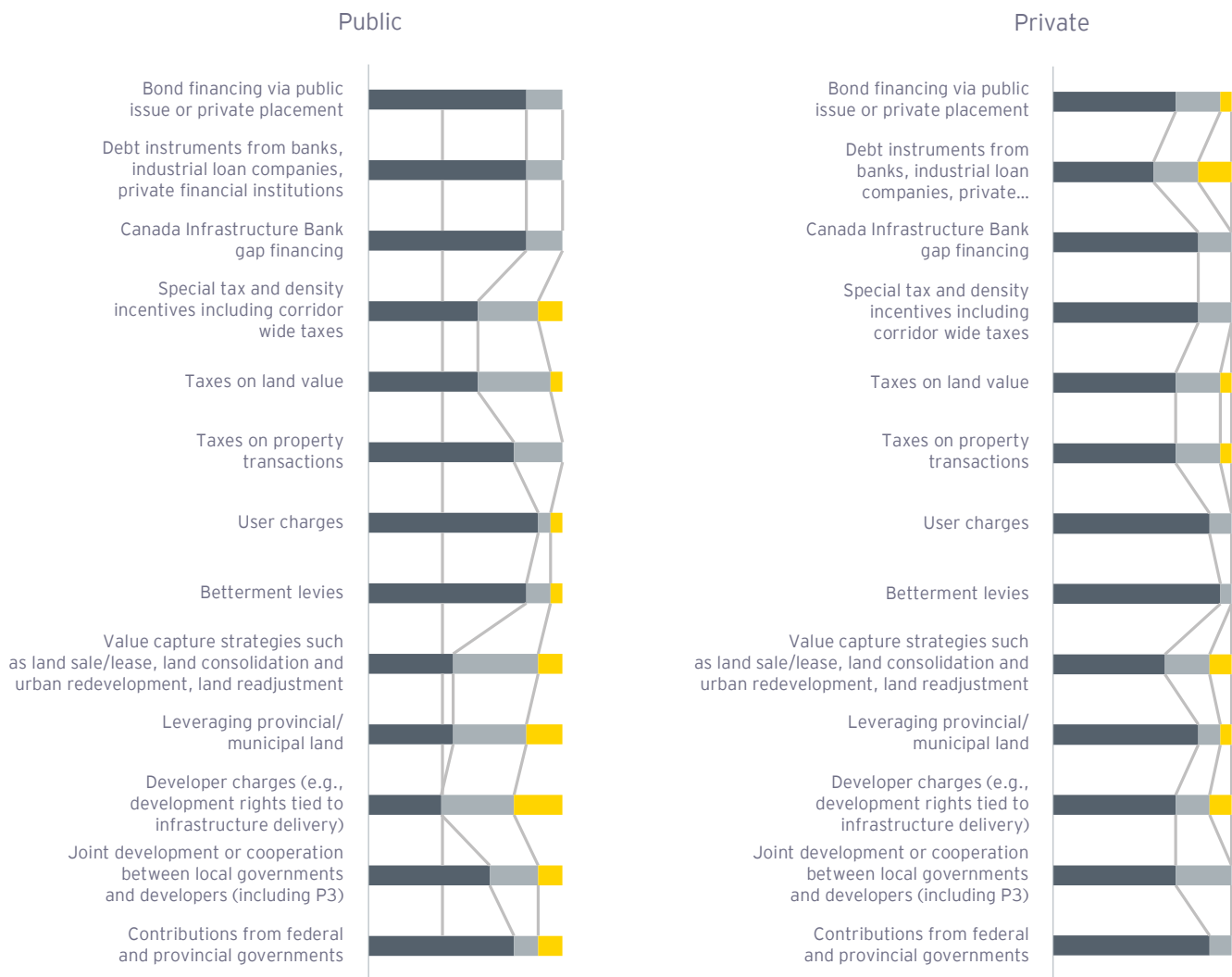
Value Capture Tool	Ease of Introduction	Project risk shared between private and public sector	All beneficiaries are charged	Mechanism is transparent for public	Allows for continuing revenue inflow	Allows for immediate value realization	Enforces targeted revenue allocation to a specific project	Applied in Canada before	Potential Risks to Consider
Joint Development	●	✓				✓	✓	✓	► Requires bespoke deal structuring per each project
End User Charges	●		✓	✓	✓				► Political risk of alienating end-users
Business / Local Improvement Districts	●		✓	✓	✓				► Political risk of alienating end-users in affected areas
Tax Increment Financing	●		✓	✓	✓		✓		► In case land value does not rise taxpayers still bear the project costs
Leasing / Leveraging Gov't Land	○				✓		✓		► Portion of revenue may be significantly lower compared to other LVC mechanisms
Development Rights / charges	●			✓		✓	✓		► Change of zoning or density can disrupt existing residents
CePACs	●			✓		✓			► Requires complex management system and significant legislation
Linkage or impact fees and "city share"	○			✓		✓	✓	✓	► Risks may be similar to "development charges and densification rights"
Land Value Tax	●			✓	✓			✓	► Public resistance to higher taxes ► land value tax - disbalance between "one-off" infrastructure improvement and constant tax payments at a higher rate

○ Easy ● Medium ● Difficult

Market knowledge of TOD funding tools is relatively low

Figure 14 - Public and private: Which funding sources you are aware of that may be relevant to TODs?

■ 1 - Somewhat a ware ■ 2 - Very aware ■ 3 - Deploying





Glossary



- **Current market** ————— This refers to 2020.
- **Future market** ————— This refers to 2025.
- **Land value capture (LVC)** ————— This is a policy approach enabling projects to benefit from the recovery and reinvestment of land value increases, which result from public investment and other government actions. This is also known as value-sharing; it is rooted in the notion that public action should generate public benefit.¹⁶
- **Private sector respondents** ————— This includes real estate investment trusts (**REITs**) and real estate developers.
- **Public sector respondents** ————— This includes municipalities, Crown corporations, transit agencies and airport authorities.
- **Transit-oriented developments (TODs)** ————— The promotion of mixed-use communities offering residential, business and recreational amenities within walking distance from transit nodes that encourage people to use public transit and decrease their dependence on driving. TODs offer smaller block sizes to support walkability and reduced car-dedicated areas (roads, parking, etc.) TODs are intended to build ecological, sustainable communities, which improve residents' quality of life.
- **Venture Capital (VC)** ————— This is a type of financing provided by investors to startup companies and small businesses that are believed to have long-term growth potential.¹⁷

¹⁶ <https://www.lincolinst.edu/key-issues/value-capture-property-tax>

¹⁷ <https://www.investopedia.com/terms/v/venturecapital.asp>

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