

# Real Asset Disruption: How Infrastructure and Real Estate Investments are Being Transformed in the Digital World

Toronto, June 2018

CBRE Caledon and Deloitte recently hosted an industry forum to provide insight into the opportunities and challenges facing infrastructure and real estate investments in an increasingly digital world. Key insights are featured in this report.

## Panels and Insights

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## Forum Speakers and Moderators

### Michael Bernstein, Special Investment Advisor

Waterfront Toronto

### Stephen Dowd, Partner

CBRE Caledon

### Doug Herzbrun, Co-Global Head of Research

CBRE Global Investors

### Gavin Ingram, Co-Head & Managing Director

OPTrust Private Markets Group, and Global Head of Infrastructure, OPTrust

### Jamie James, Managing Director

Greensoil Building Innovation Fund

### Viktor Kats, Co-Head

IFC Asset Management Company Global Infrastructure Fund

### Joy Savage, Partner

Monitor Deloitte

### Kevin Smithen, Partner

Digital Bridge

### Noi Spyrtos, Vice President

CBRE Caledon

### Craig Walter, Partner

Deloitte

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## Overview and Key Themes

**“Digital disruption is transforming the real asset investment landscape. With the market environment changing so rapidly, how can investors know which organizations will be winners today and in the future?”**

— Joy Savage, Partner, Monitor Deloitte

### TECHNOLOGIES TRANSFORMING REAL ASSETS:

- Artificial intelligence
- Interconnected networks
- Advanced manufacturing
- Collaborative connected platforms
- Advanced robotics

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**Forum participants discussed at length how digital disruption is having a profound impact on real asset investments. From traditional infrastructure revenue models to risk assessments, digital innovation is transforming the way investors need to approach their real asset strategies. The discussion touched on several key areas relating to investment opportunities and risks.**

#### **Disruption Changing the Way the Industry Operates**

As digital disruption accelerates the pace of change across industries, organizations are facing uncertainty with regards to responding to, and driving, innovation, according to introductory speaker Joy Savage. As a result, investors must become fluent in the language of disruptive innovation in order to understand its impact on traditional real asset investments. This requires applying a new value creation lens to the way they invest.

#### **Investors Need to Shift Their Perspective on Real Assets**

While investors have long been attracted to the stable nature of the infrastructure and real estate sectors, panelists stated that disruption in these asset classes requires a more comprehensive analysis of investment risks and opportunities. Today’s investment strategies require a multi-layered, multi-faceted approach, from technology investment to creating new partnerships within changing regulatory frameworks.

#### **Investment Opportunities Focused on Enhancing Performance**

Disruptive technologies are playing a significant role in addressing sustainability and operating cost containment within the infrastructure and real estate sectors, according to forum participants. Investors should take into account organizations that are using innovative platforms to improve construction projects and overall asset operations as part of their investment criteria.

#### **There Are No Long-Term Guarantees for Investors**

In the final session, panelists discussed how the rapid pace of change is undermining the long-term predictability of real asset projects and blurring the lines between infrastructure and other asset classes such as private equity. With major disruptors such as autonomous vehicles on the horizon, the level of impact on the real estate and infrastructure markets remains a question mark, but with the right approach, can offer promising new opportunities.



## The Global and Local Landscape

**“We’re seeing business changing at a pace we’ve never seen before. Within a few years, business models have been turned upside down.”**

— Michael Bernstein  
Special Investment Advisor, Waterfront Toronto

### Technology Disruption Redefining Infrastructure Investment Strategies

Deloitte partner **Craig Walter** challenged the presenters to consider how prepared their organizations are for the impact of disruptive technologies and how they are building capacity to respond to – and drive – innovation.

**Viktor Kats** of the IFC AMC Global Infrastructure Fund introduced the audience to a paradigm checklist that compared infrastructure-defining characteristics today and in the future. He stressed that the traditional expectations such as longevity/stability, barriers to entry, stable regulatory environments and predictable cash flows associated with infrastructure investment are becoming unknowns, leading to a fundamental paradigm shift.

Technological change demands a new perspective on investment opportunities. Kats advised the audience to consider a “new global perspective” approach and to closely observe innovative business models around the world that will provide important insight into potential investment opportunities.

Representing the local perspective, **Michael Bernstein** of Waterfront Toronto demonstrated how the Waterfront Project represents the next wave of technology innovation in large-scale infrastructure projects. The joint government initiative represents a radical transformation of the city’s 46 kilometres of waterfront between Etobicoke Creek and the Rouge River that will encompass residential, commercial, educational and recreational spaces. “We are bringing mobility, sustainability, and affordability together with technology to bring something that is world changing,” he said.

Bernstein explained the concept of the “city as a platform” that merges digital and physical layers to create an environment that is more usable, efficient and affordable.

When a project such as Waterfront Toronto looks at new technologies and business models that are not even proven yet, it is challenging to clearly identify potential profit pools over the longer term, he added. “Thoughts are now on sustainability, resiliency and urban innovation in light of complete communities.

With respect to real estate, the world is bringing Silicon Valley to construction, Bernstein notes. “We are seeing microgrids, smart disposal bins and chutes, fuel cells, and autonomous vehicles, and more.” With each new technology comes a new way of doing things and a new approach to investment. We have to look at things quite differently than in the past.”

**Business models are in a state of flux as digital disruption is changing the rules of the game. Panelists provided their thoughts on the risks and rewards of getting ahead of the curve.**

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Digital infrastructure is transforming the infrastructure subsector investment landscape. Panelists demonstrated how a convergence of multiple technology trends will ultimately bring new asset classes and opportunities.



## Investment Opportunities

### Digital Information Changing the Value Equation for Investment

In this session, CBRE Caledon's **Noi Spyratos** asked panel members to provide their thoughts on emerging digital infrastructure investment opportunities.

In a world of instant connectivity and data availability, there is a growing appetite for software as a service, digital storage and cloud computing as a means to offload operating costs. As such, investors are looking to the data centre ecosystem for prime real assets investment opportunities. From buildings to the communications infrastructure supporting them, they exhibit important traditional infrastructure attributes, such as stable cash flows, high barriers to entry and longevity.

"There has never been a more exciting time for investment in digital infrastructure. We are very excited by the asset class," said **Kevin Smithen** of Digital Bridge. He pointed out that a majority of hyperscale data centres and cell towers are owned by REITs on long-term leases and tend to be at the lower end of the returns spectrum. He placed small cells and services in the middle, and identified enterprise fibre as an area where investors are seeing the highest returns, while also representing the highest risk.

When asked to identify the most underappreciated trend in construction today, **Jamie James** of Greensoil pointed to the growing transition from straight procurement of product to procurement of services, such as lighting and energy, as a means to offload capital costs.

He also outlined opportunities being generated by disruptive technologies to improve building performance, reduce operating costs and gain construction efficiencies. Investors are increasingly focussed on innovation to improve construction management and building performance, from visualization tools and wireless control systems to distributed intelligence.

A central technology category is solutions that reduce costs through utility savings and reduce hours spent on managing workflow. "The question for investors remains however, is the solution just a tool or a platform what will sustain growth?" James said.

### SUB-SEGMENTS WITHIN DIGITAL INFRASTRUCTURE:

1. Hyperscale data centres
2. Cell towers
3. Small cells
4. Enterprise fibre



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**"There are a lot more software solutions than there are real estate problems. There is a plethora of investment opportunities out there, so we have to be more careful on the investor side."**

— **Jamie James**, Managing Director, Greensoil Building Innovation Fund

Approaches to valuations are changing at an unprecedented pace. Panelists in this session tackled the question of where to find the right value proposition in this shifting landscape.

## Trends Disrupting Real Assets:

- High-tech Build
- Blockchain
- Autonomous Vehicles
- Smart Cities
- Digital Buildings



# Moving Forward in a Digitally Disruptive World

## Investors Facing New Risks and Opportunities

Moderator **Stephen Dowd** of CBRE Caledon asked the speakers to present their views on how disruptive technologies are affecting assessments moving forward.

**Gavin Ingram** of OPTrust said his organization has been applying a different lens across the investment return spectrum and looking at things over a shorter time period, which is a departure from what is typically done with infrastructure investments.

Downside protection remains an important factor, as investors strive to strike the right balance between risk and opportunity in an unpredictable world. Ingram explained OPTrust's platform approach to investing, taking on smaller, more early-stage projects "around the edges, where adding a piece to our portfolio isn't going to break what we already have."

In discussing compression of returns across all asset classes and infrastructure, Ingram noted that disruption is not new, it is simply accelerating and broadening its impact.

**Doug Herzbrun** of CBRE Global Investors pointed out there were many disruptors in play, citing blockchain as an innovation that has the potential to be hugely disruptive on the services side of real estate, as it will provide consistent data and histories of everything related to real estate assets, including title insurance, appraisals and valuations.

Autonomous vehicles are another example of a technology that will have an impact on available investment opportunities in the real estate market. Beyond safety and less congestion, there could be significant changes to real estate investment and planning, from expanding drop off and pickup areas in commercial areas, to eliminating parking structures to make way for residential and office buildings that will increase net operating income.

"Technology risk has always been an issue in a direct sense," Ingram said. "Today there is a broader indirect technology impact on everything. So we are less asset focused and more business focused now."

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**"We once looked at a 5, 7 or 10-year time frame. Now we are looking at things over a shorter time period. That's not what people tend to think about with infrastructure."**

— Gavin Ingram, Co-Head & Managing Director, OPTrust Private Markets Group and Global Head of Infrastructure, OPTrust

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## Key Takeaways

### Paradigm Shift

Investors can no longer rely on traditional expectations for infrastructure investments and regulatory structures. Embrace the paradigm shift by observing, and where appropriate, driving, disruption in projects around the world.

### Rapidly Evolving

Digital infrastructure is an important and rapidly evolving subsector that offers important infrastructure attributes. Assess investment opportunities in areas such as procurement of services, storage, telecommunications, and data centres.

### Focused Diligence

Investment decisions should focus less on assets and more on business models. Consider risks and returns over shorter time periods, paying close attention to downside protection in more early stage projects.

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**How prepared is your portfolio for the impact of disruptive technology?**



## Contact us

We thank the speakers, moderators and guests who participated in this investment forum.



### David Rogers

Partner  
(416) 861-2284  
drogers@cbrecaledon.com



### Martin Day

Partner  
(416) 861-5814  
mday@cbrecaledon.com



### Stephen Dowd

Partner  
(416) 861-5808  
sdowd@cbrecaledon.com

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CBRE Caledon  
141 Adelaide Street West, Suite 1500  
Toronto, Ontario Canada  
M5H 3L5  
Telephone: (416) 861-0700  
Fax: (416) 861-0770  
Website: [cbrecaledon.com](http://cbrecaledon.com)  
Email: [info@cbrecaledon.com](mailto:info@cbrecaledon.com)

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