Emerging Trends in Real Estate 2019

❑ **40th** annual outlook – **12th** Canadian annual outlook

❑ Based on insights from over 2,400 personal interviews and survey responses across North America, with over 400 from Canada

❑ Sponsored jointly by PwC and the Urban Land Institute

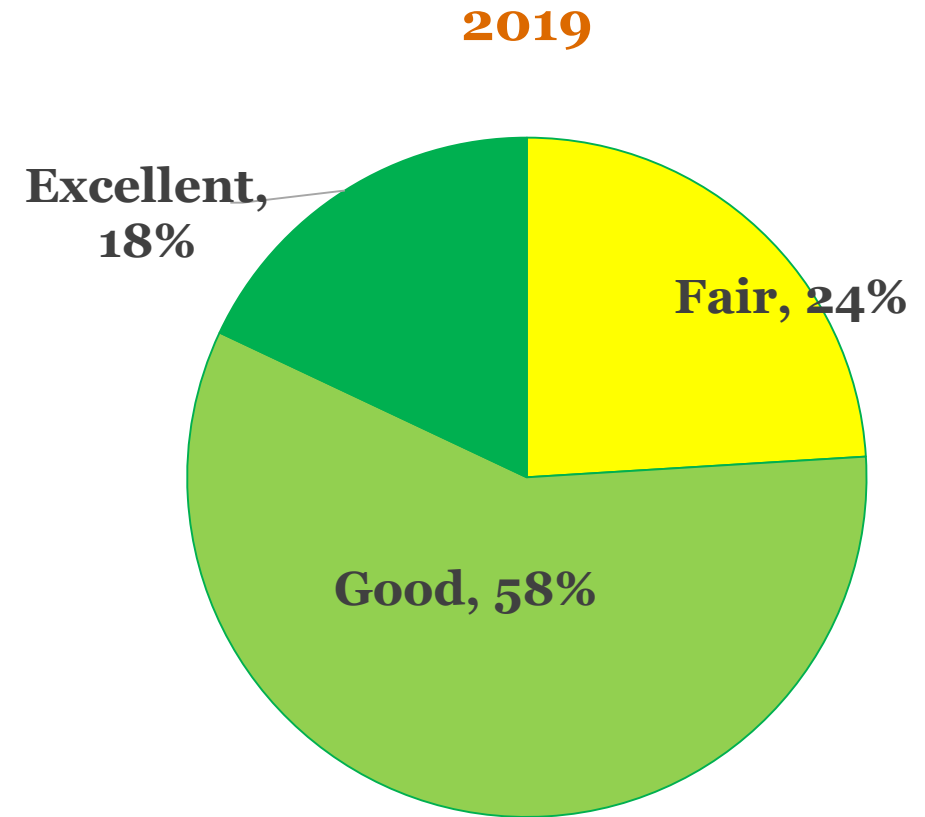❑ Emerging Trends is the industry's **"most predictive forecast"**

Emerging Trends in Real Estate®
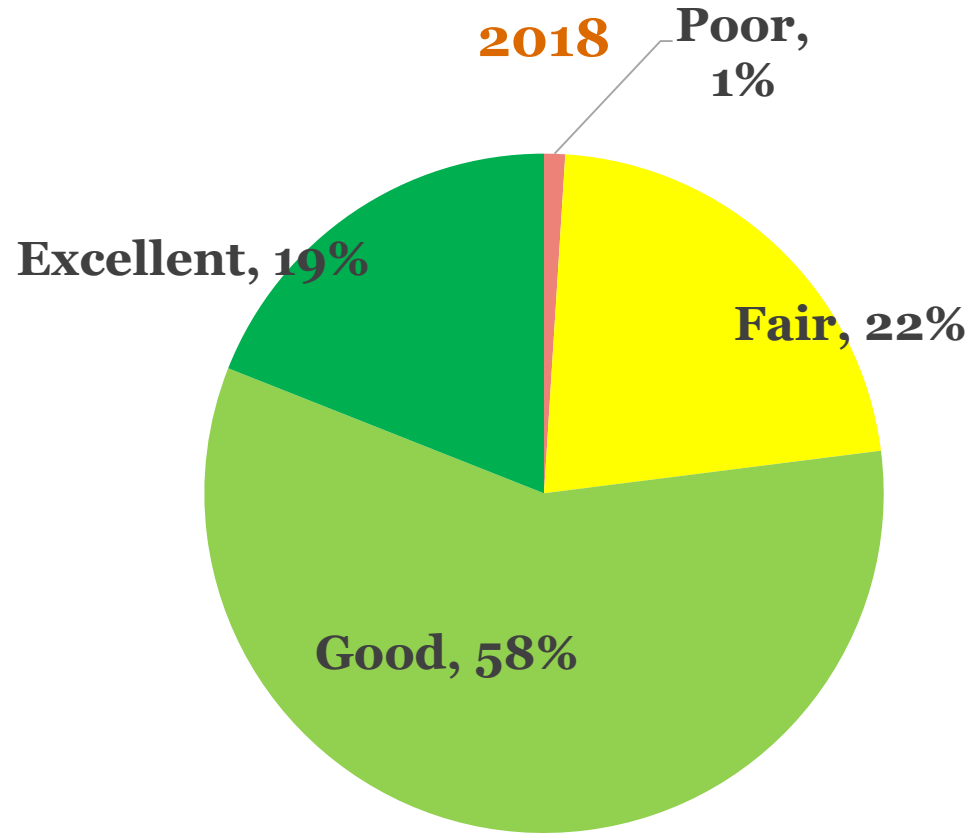
Canada and United States 2019

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Market Sentiment

Expected profitability of your business

2018

Poor, 1%

Fair, 22%

Good, 58%

Excellent, 19%

2019

Excellent, 18%

Fair, 24%

Good, 58%

Expected profitability of your business

Canada

Excellent, 18%

Fair, 24%

Good, 58%

Calgary

Excellent, 8%

Fair, 19%

Good, 72%
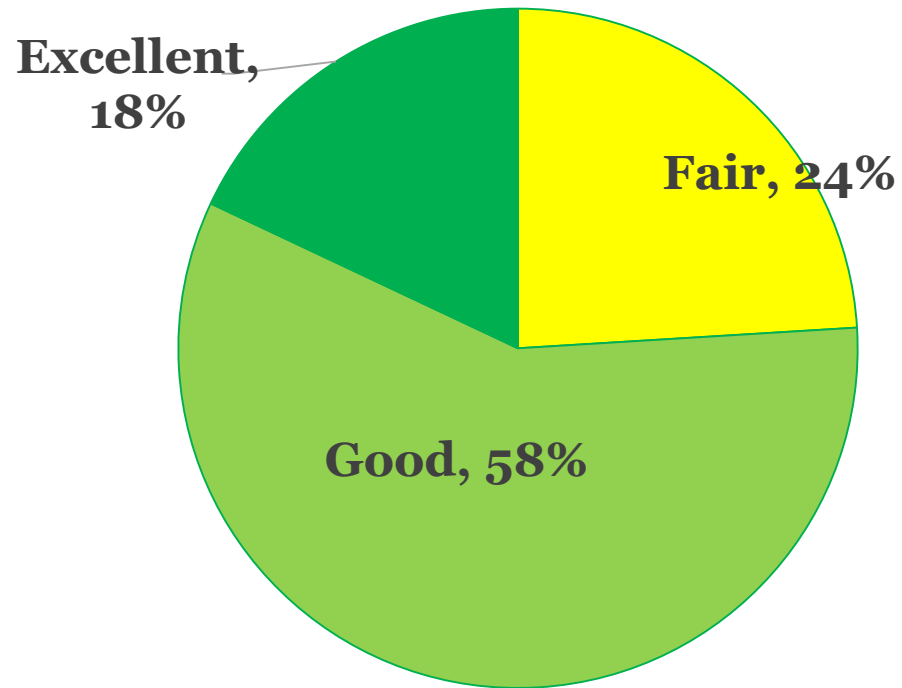
Trends

2019 Trends

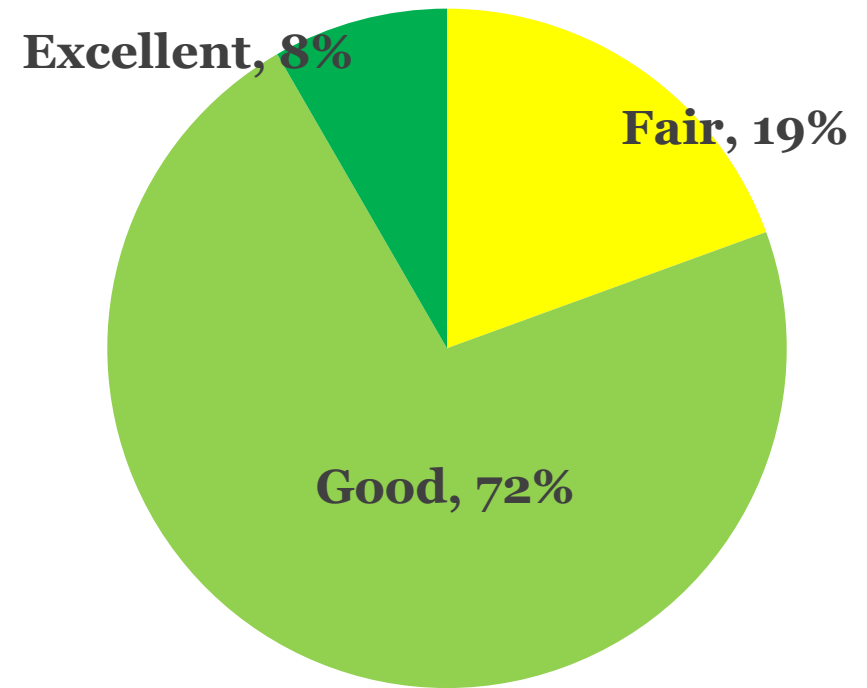### *Rebalance:* **Real Estate Strategies Rely on Creativity**

- ❑ Reassess, rebalance, and redevelop
- ❑ Partnerships and opportunities
- ❑ Unlocking insights from predictive analytics

Reinvent: **Accelerating Digital Transformation**

- ❑ Embracing change and business transformation
- ❑ Meeting evolving tenant and customer expectations
- ❑ From awareness to action
- ❑ Unlocking the power of **Proptech**
- ❑ Getting the right skills

Rethink: **Time to Rethink the Affordability Puzzle**

- ❑ The governments role
- ❑ Affordability drives mobility and lifestyle
- ❑ Rethinking will be required for all property types

Rebalance

Rebalancing portfolios to create advantage: Canada

What to buy in 2019

Sector	Buy Recommendation
Moderate-income apts	56.8%
Fulfillment	56.0%
Age-restricted housing	52.9%
Warehouse	50.0%
Medical office	40.8%

What to sell in 2019

Sector	Sell Recommendation
Power centers	72.0%
Luxury hotels	50.0%
Outlet centers	46.9%
Regional malls	42.0%
Suburban office	39.5%

Rebalancing portfolios to create advantage: Calgary

What to buy in 2019

Sector	Recommendation
Industrial	44.8%
Multifamily/Rental	40.6%
Single Family/Owner	30.8%
Niche	21.7%
Office	16.7%

What to sell in 2019

Sector	Recommendation
Retail	22.6%
Niche	21.7%
Hotels	20.0%
Office	13.3%
Industrial	3.4%

Rebalancing portfolios to create advantage

Opinion of current pricing

Sector	Over Priced
All Property Type Avg.	32.2%
Luxury hotels	61.1%
High-income apartments	58.3%
Power centers	46.7%
Central-city office	42.9%
Urban/high-street retail	39.1%

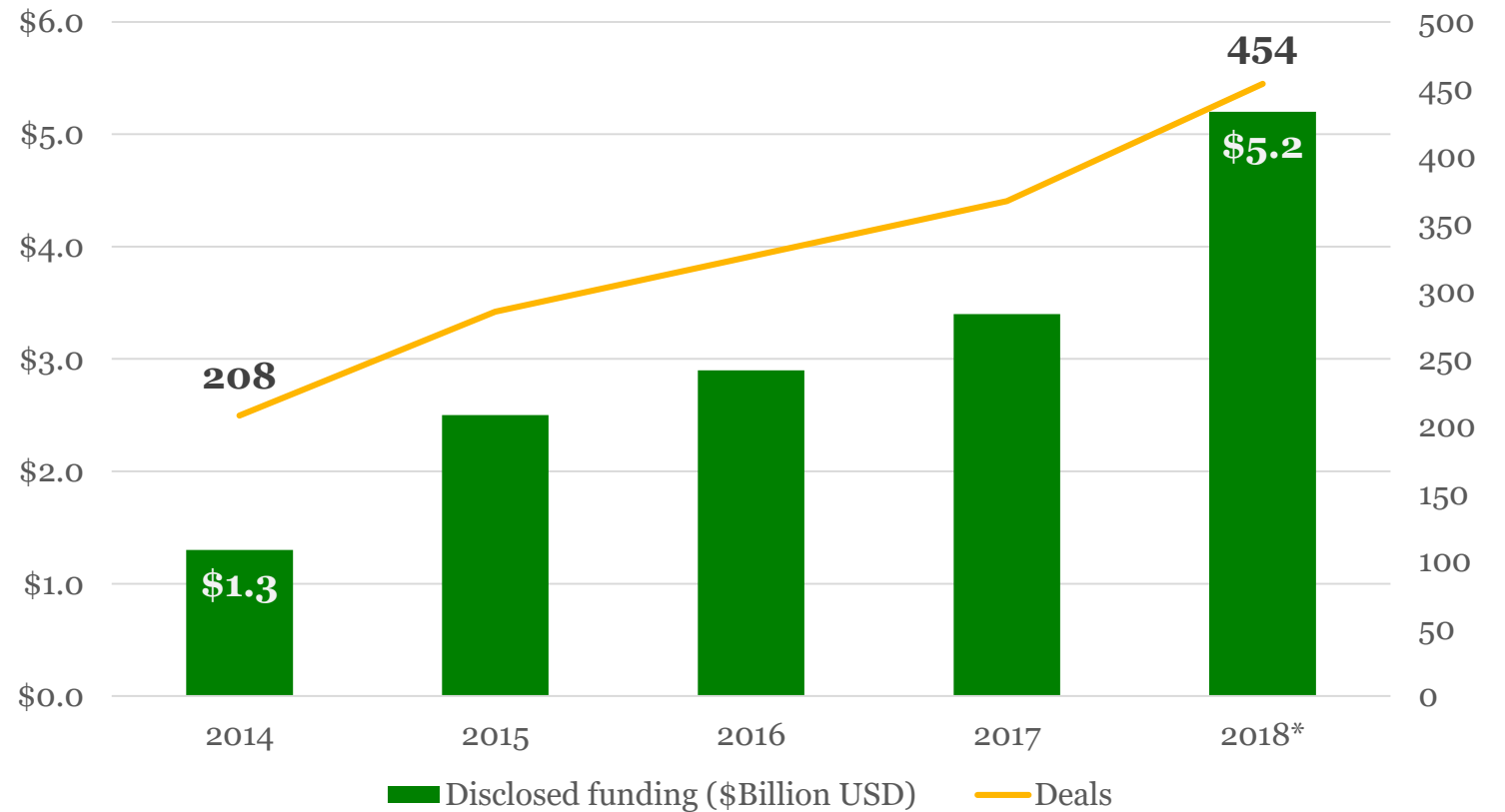| Sector	Under Priced
All Property Type Avg.	8.3%
Regional malls	19.6%
Flex	17.8%
Suburban office	17.5%
Affordable apartments	14.1%
Limited service hotels	11.1%

Reinvent

Accelerating Digital Transformation
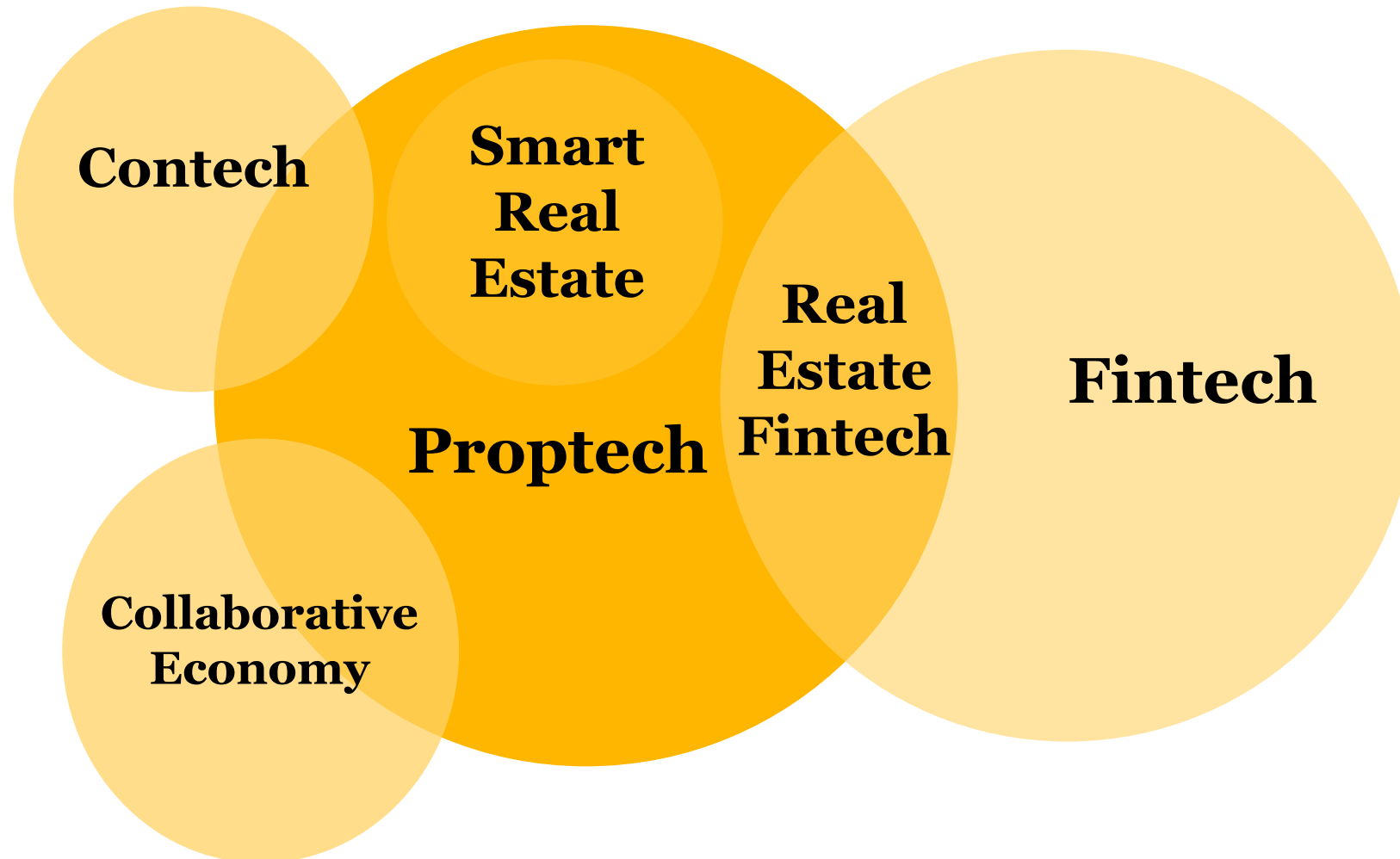
41%

Annual increase in global real estate tech investment over the past 4 years

Real Estate Tech Financing

$6.0 / 500
$5.0 / 450 / 400
$4.0 / 350 / 300
$3.0 / 250
$2.0 / 200 / 150
$1.0 / 100 / 50
$0.0 / 0

454
208
$5.2
$1.3

2014 2015 2016 2017 2018*

■ Disclosed funding ($Billion USD) — Deals

Source: CB Insights

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Unlocking the power of Proptech

Contech

Smart Real Estate

Proptech

Real Estate Fintech

Fintech

Collaborative Economy

From awareness to action

How important could the following be to disrupting the real estate industry?

	None	Little	Moderate	Considerable	Great

Construction technology

Autonomous vehicles

Internet of things (IoT)

Cyber security

Sharing/Gig economy

Workplace automation

Big data analytics

CoWorking

5G implementation

3D printing

Augmented/virtual reality

Blockchain

Drone technology
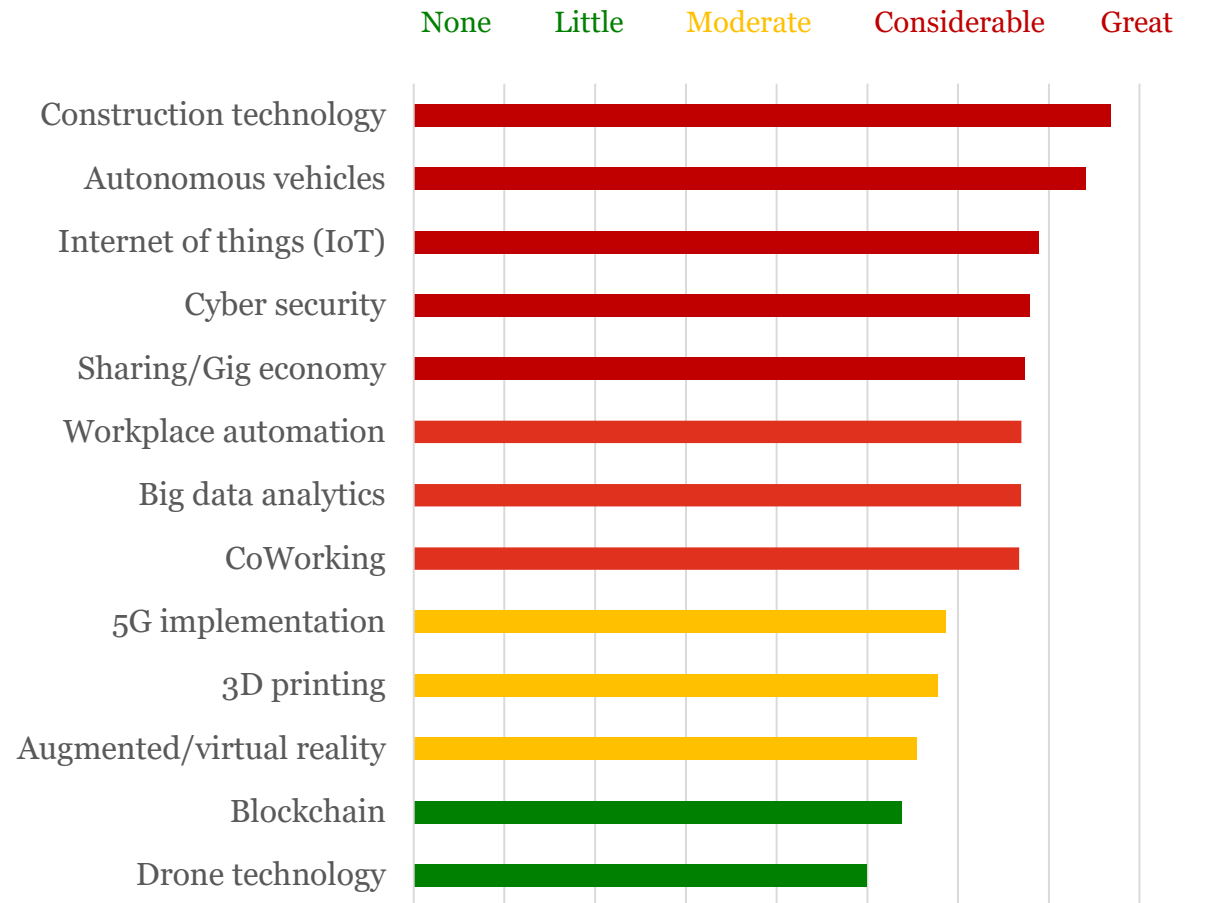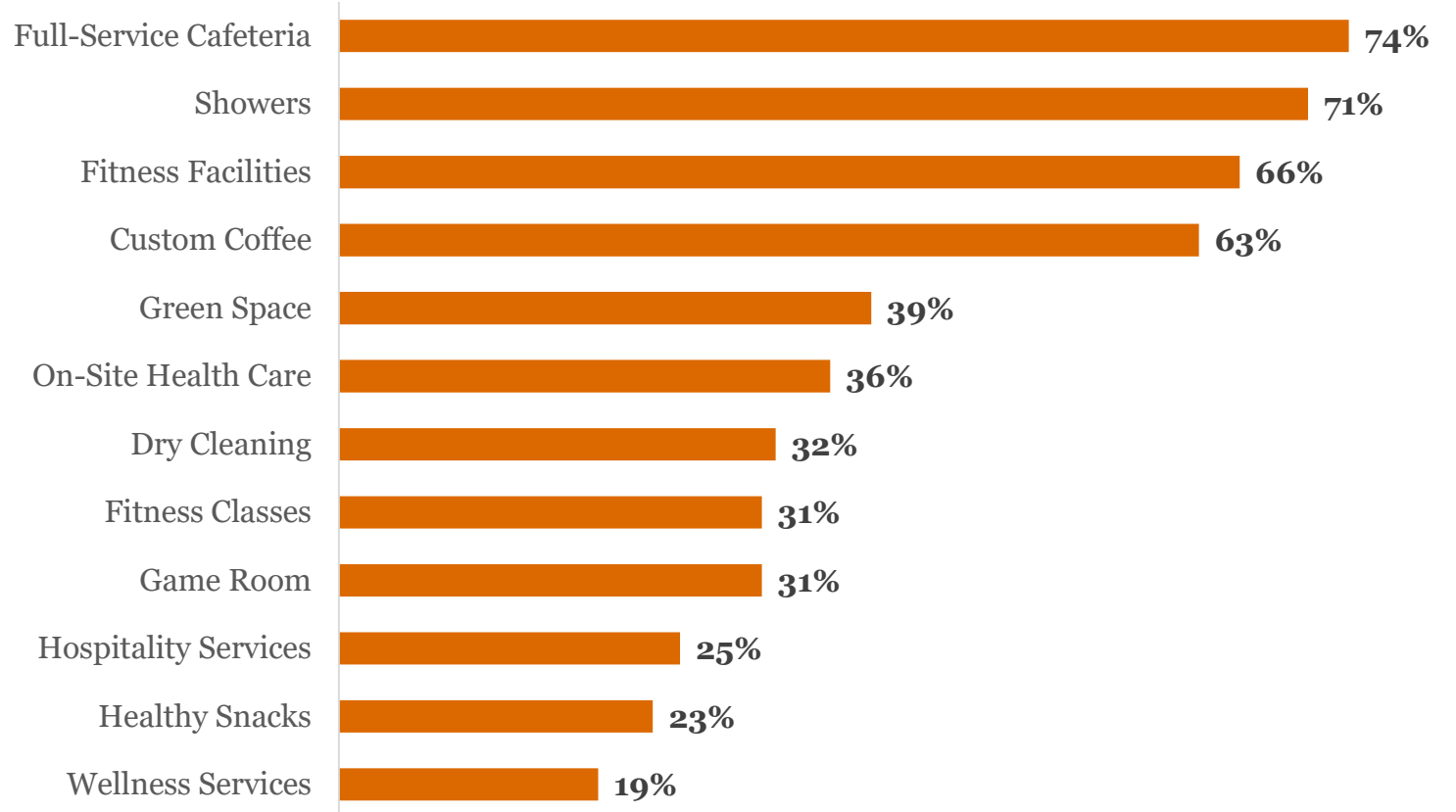
Unlocking insights with predictive analytics
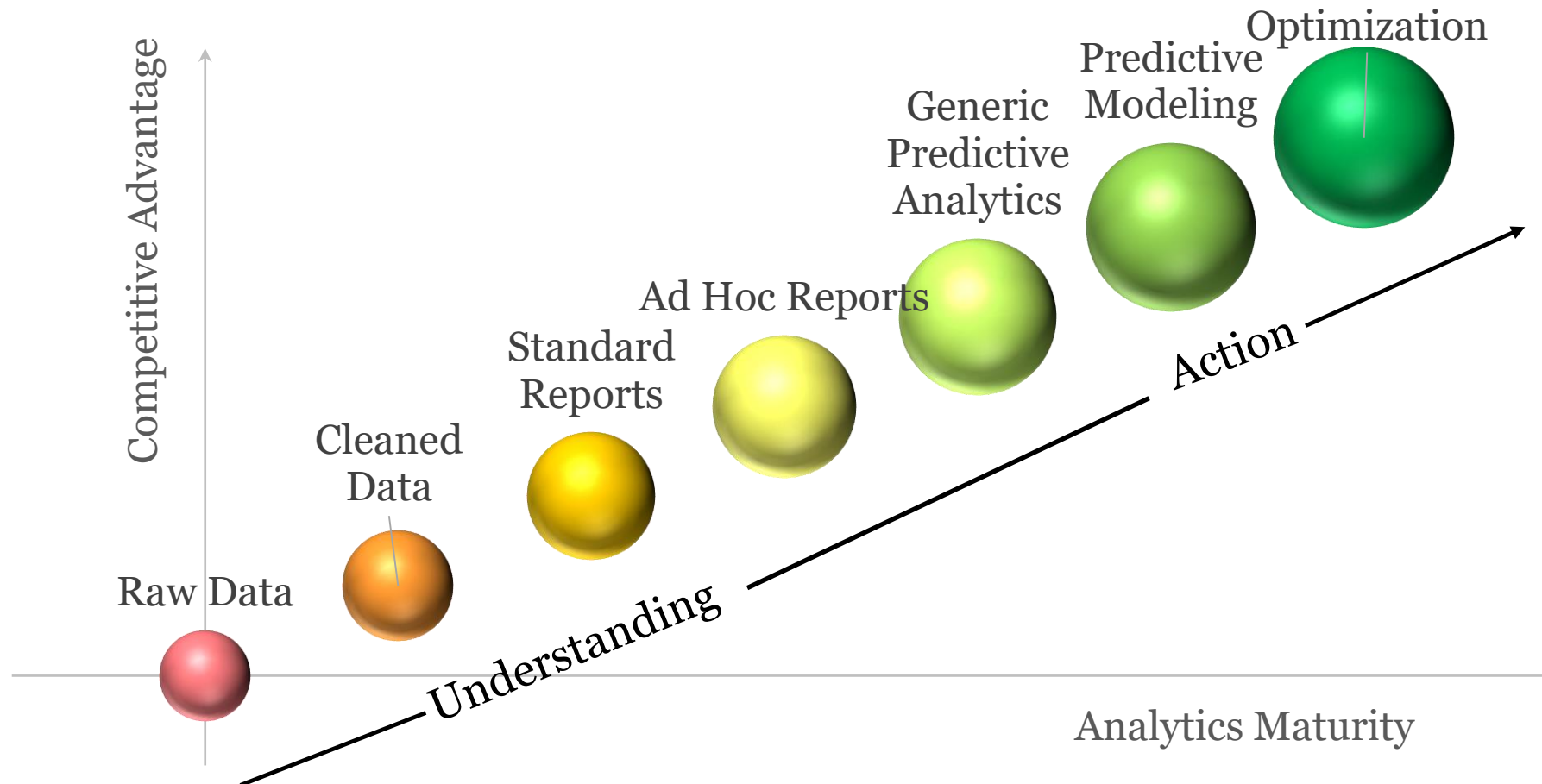
Getting the Right Talent

81%

Of employers feel that the right amenities are needed to attract employees

Amenities Provided

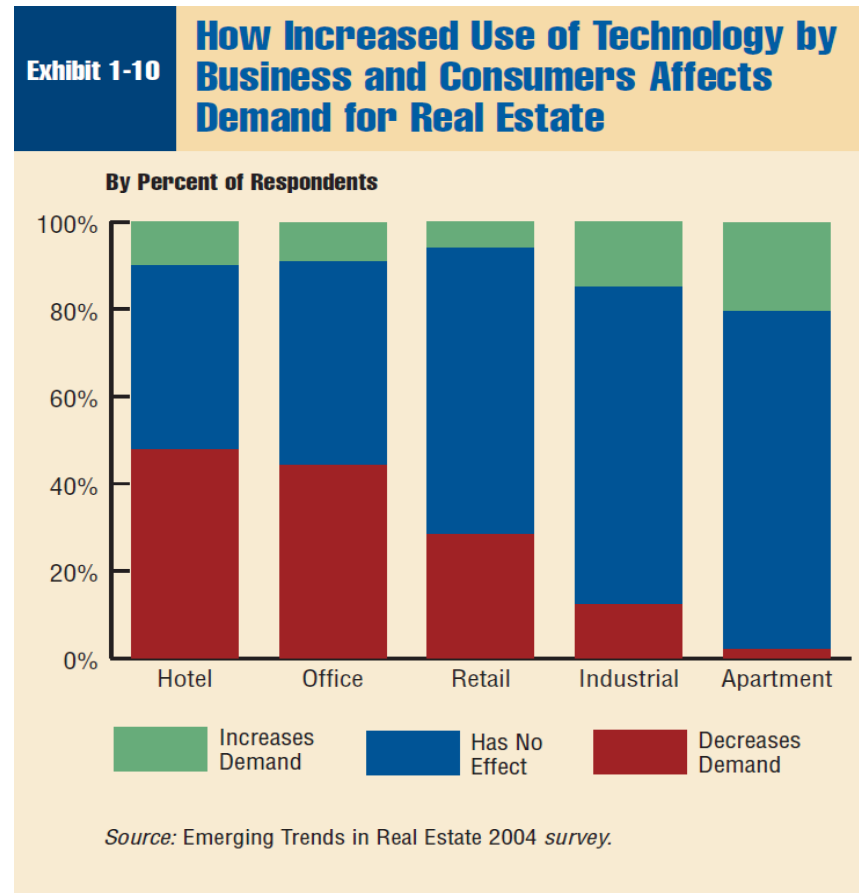| Amenity	Percentage
Full-Service Cafeteria	74%
Showers	71%
Fitness Facilities	66%
Custom Coffee	63%
Green Space	39%
On-Site Health Care	36%
Dry Cleaning	32%
Fitness Classes	31%
Game Room	31%
Hospitality Services	25%
Healthy Snacks	23%
Wellness Services	19%

Rethink

Meeting evolving tenant and business transformation

70%

*The percent of survey respondents who felt technology would have no impact on the demand for retail space.*

Exhibit 1-10 — **How Increased Use of Technology by Business and Consumers Affects Demand for Real Estate**

By Percent of Respondents

Legend:
- Increases Demand
- Has No Effect
- Decreases Demand

Source: Emerging Trends in Real Estate 2004 survey.

What does disruption look like ?

Their Biggest issues – people didn't rewind these

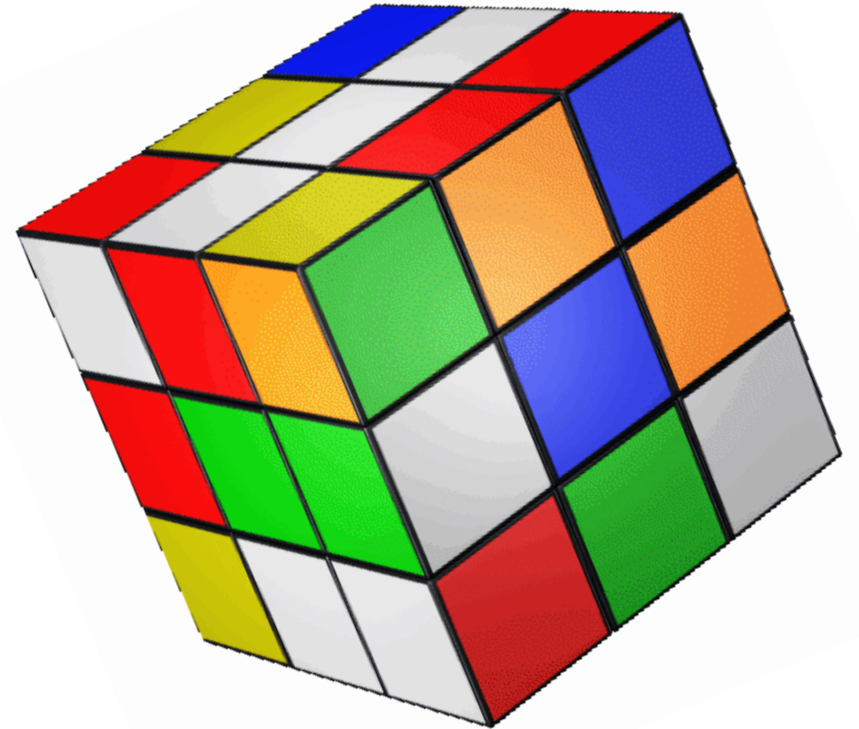Emerging Trends in Real Estate 2019
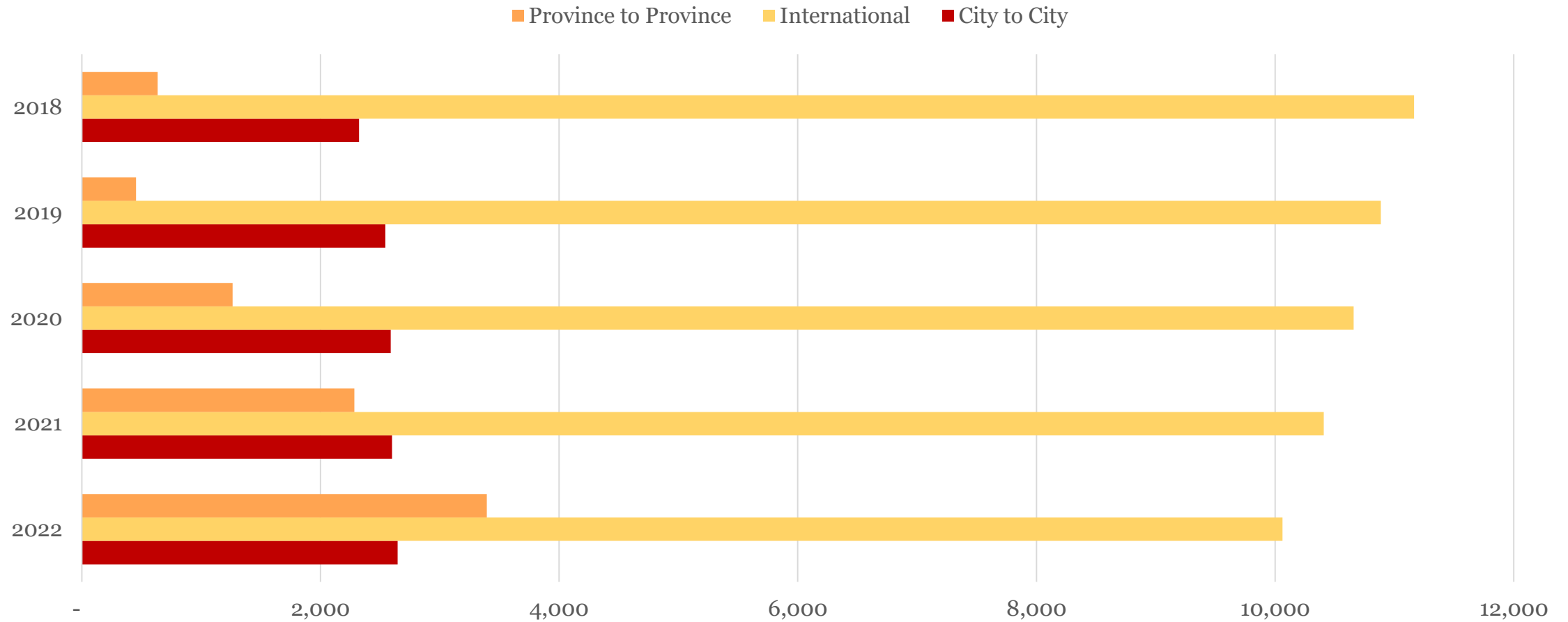
Taking their eye off the ball
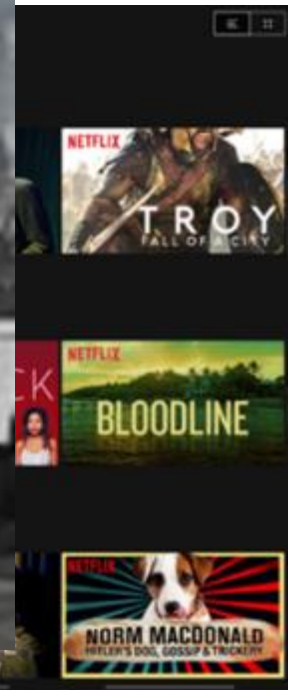
Time to Rethink the Affordability Puzzle

- ❑ **Agree on what the problem really is**

- ❑ **Can't be solved by just getting one side right**

- ❑ **Pieces have to be moved in coordination**

- ❑ **Watch out for unintended consequences**

- ❑ **Find a way to create the right amount of new supply**

Calgary net migration forecast

Legend: ■ Province to Province ■ International ■ City to City

Years shown: 2018, 2019, 2020, 2021, 2022

X-axis: -, 2,000, 4,000, 6,000, 8,000, 10,000, 12,000

Conference Board of Canada

ULI Urban Land Institute

24

Migration cycle

- More space
- Affordability
- School quality
- Proximity to Family

- Employers follow the workers

Looking For → Still want → Leads to → and Potentially → (cycle)

Impact on Destination

- Access to amenities (walkability)
- Available transit
- Close to city

- Residential
- Retail
- Services
- Entertainment

Thank you, and now our panel!

Emerging Trends
in Real Estate®

Canada and United States 2019

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Emerging Trends in Real Estate 2019

uli.org/et19

pwc.com/ca/emergingtrends

Calgary: Re-Inventing and Re-Thinking Challenges & Opportunities
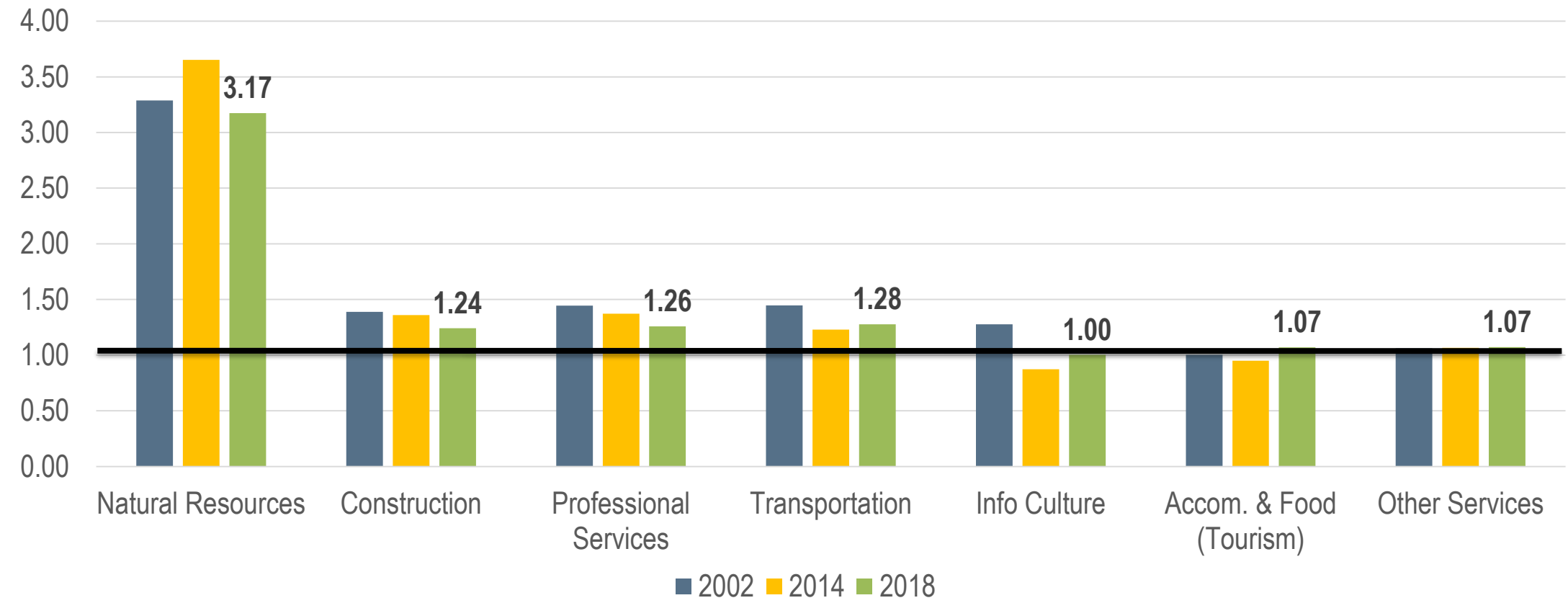
ULI Emerging Trends Breakfast
8 January 2019

Wendy Waters

Sr. Director, Research Services & Strategy
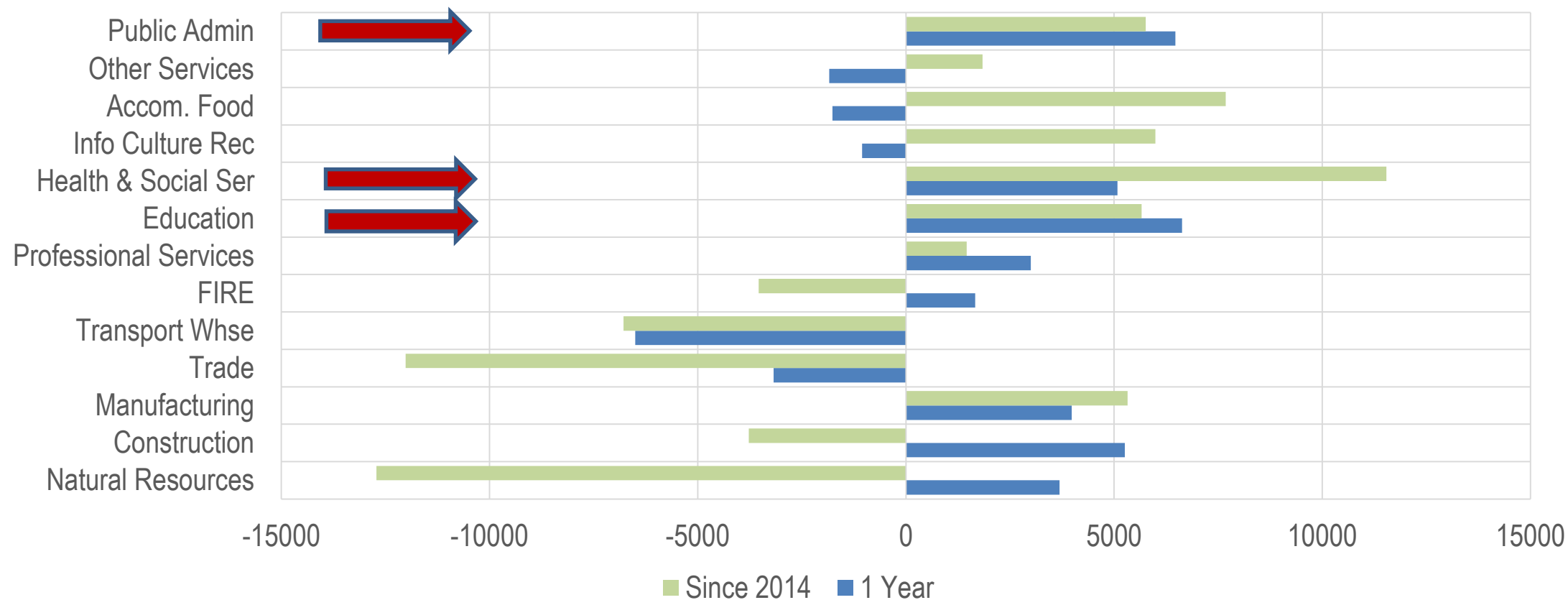**GWL Realty Advisors**

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Reinventing the economy: Diversification happening slowly in Calgary

Calgary Economic Drivers (Location Quotients).
>1.05 a noteworthy driver

Chart data labels (2018 values):
- Natural Resources: 3.17
- Construction: 1.24
- Professional Services: 1.26
- Transportation: 1.28
- Info Culture: 1.00
- Accom. & Food (Tourism): 1.07
- Other Services: 1.07

Legend: ■ 2002 ■ 2014 ■ 2018
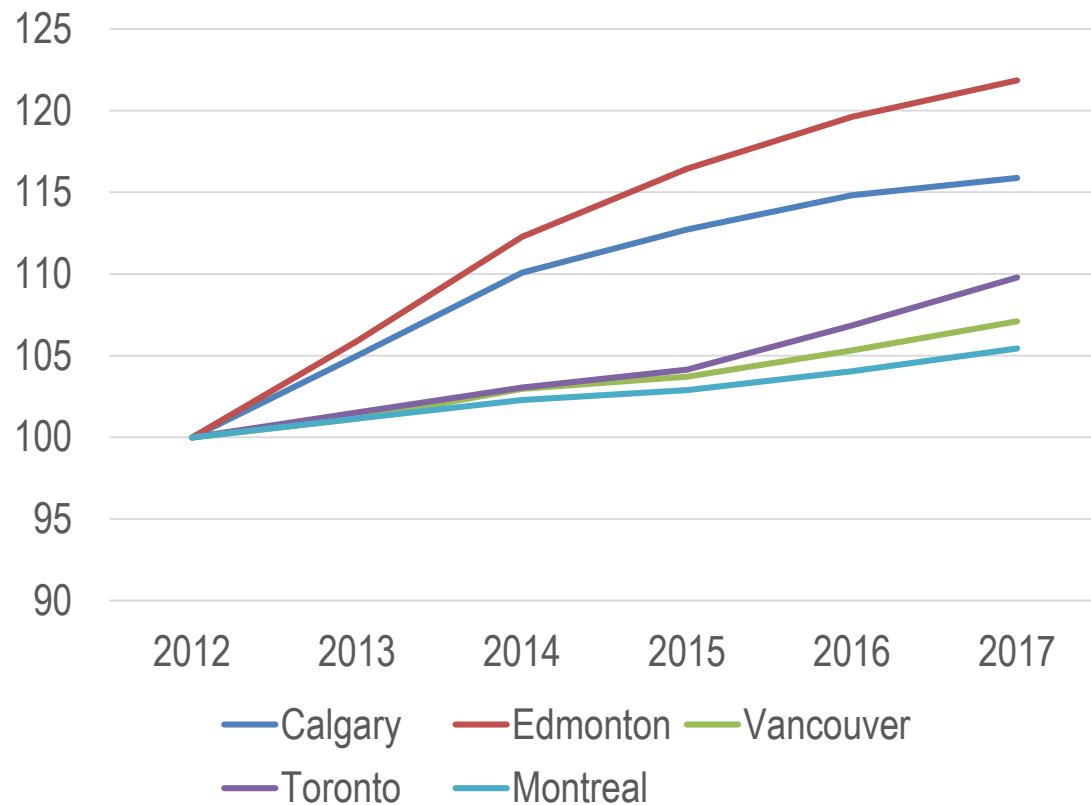
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In Calgary, public sector driving sustained employment growth. Accommodation & food (tourism) also strong

**Employment Change. Calgary. One Year to November 2018 and since 2014
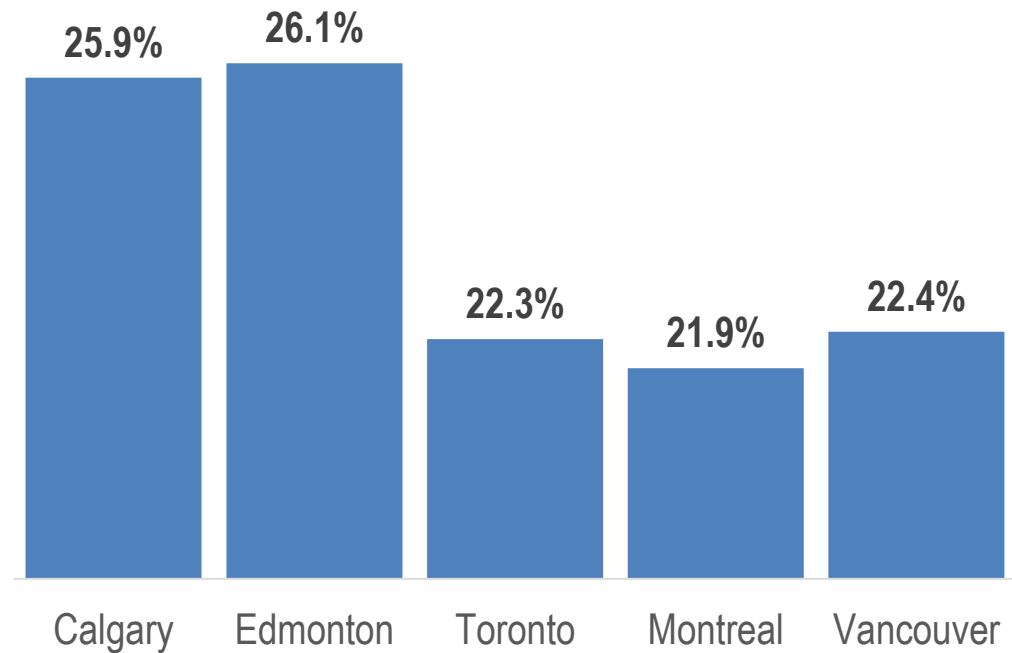data: Labour Force Survey (calculations off 12 month rolling average)**

Legend: ■ Since 2014 ■ 1 Year

Categories (top to bottom): Public Admin, Other Services, Accom. Food, Info Culture Rec, Health & Social Ser, Education, Professional Services, FIRE, Transport Whse, Trade, Manufacturing, Construction, Natural Resources

X-axis: -15000, -10000, -5000, 0, 5000, 10000, 15000

Re-inventing, Re-thinking: Youthful population key for future economic growth

Growth in 25-39 Year Old Population, Compared

Legend: Calgary, Edmonton, Vancouver, Toronto, Montreal

Percent of population age 25-39 (July 2017)

| Calgary	Edmonton	Toronto	Montreal	Vancouver
25.9%	26.1%	22.3%	21.9%	22.4%

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Re-Invention: More computer and information science degrees being awarded. But Alberta enrollment below rates seen in 2002.

Computer & Information Science (includes Mathematics) Degrees Awarded

Legend: QC, Ontario, AB, BC
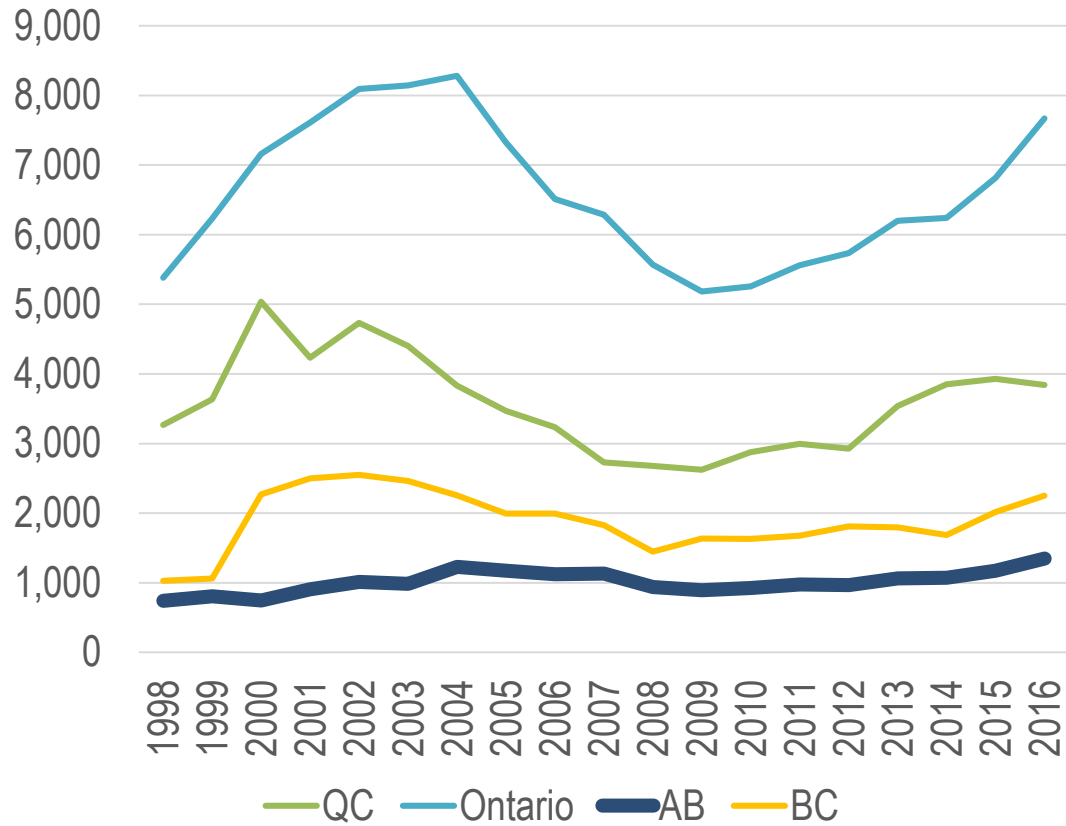
Percent Enrolled in Computer Science / Math in Alberta. Statistics Canada. Canadian average = 3.8%

2002-2003	2008-2009	2016-2017
3.9%	2.1%	3.2%
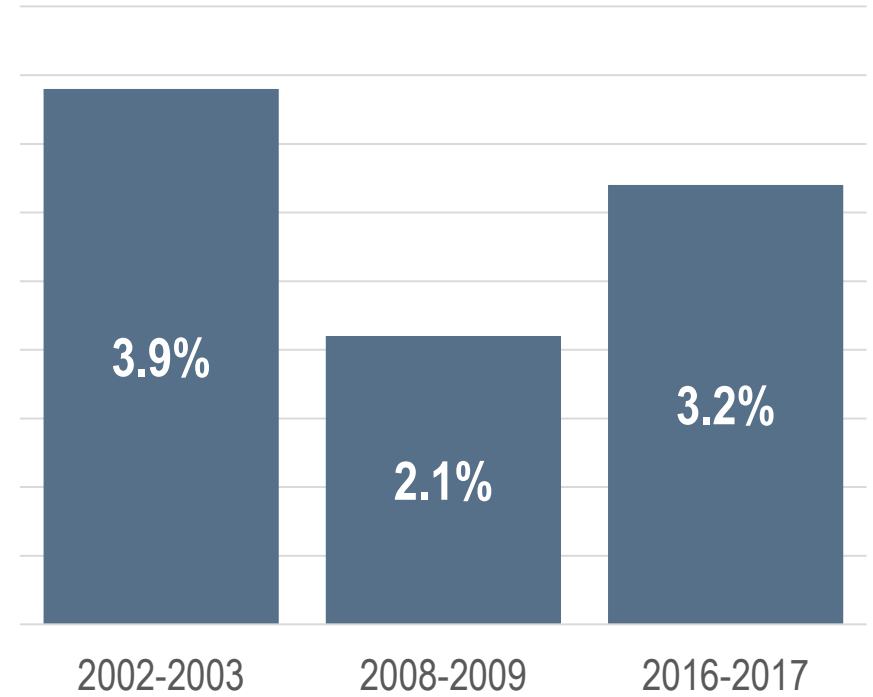
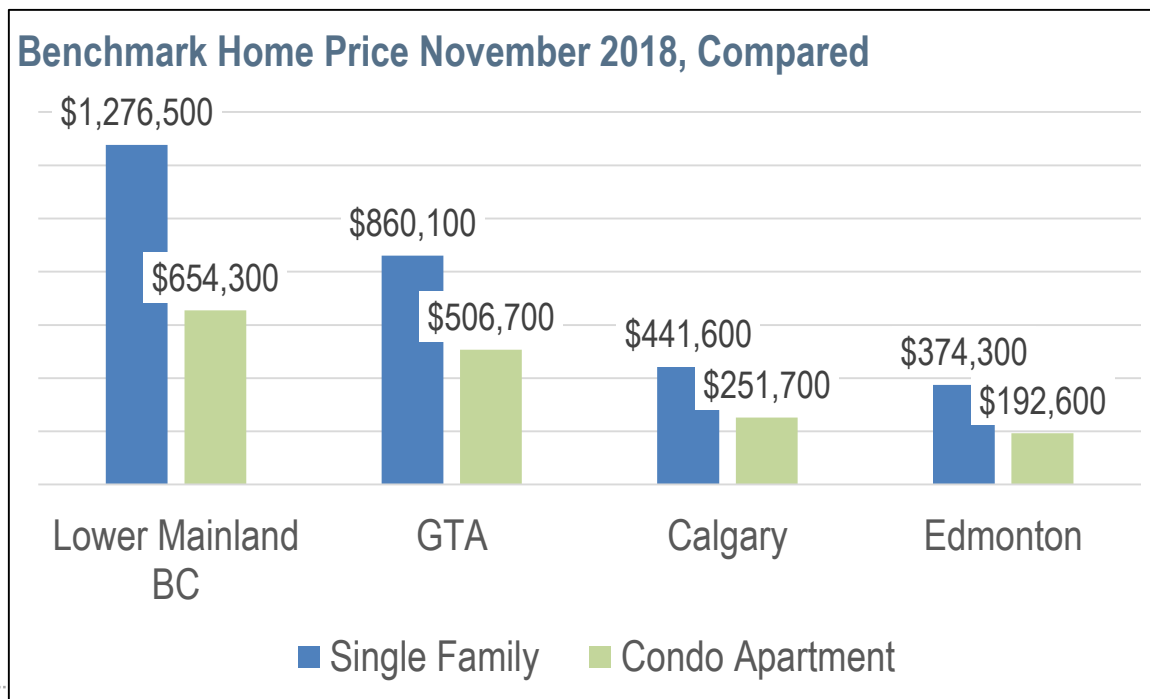Statistics Canada. Table 37-10-0012-01

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Alberta's and Calgary's advantages and challenges

Advantages

- Youthful population

- Housing affordability and availability

- Livability

- Low taxes

- High wages (good for workers)

- Land, office and talent availability

Challenges

- Low levels of computer science graduates

- High wages (detractor for attracting employers)

- Beyond energy sector, less known for business growth potential

Benchmark Home Price November 2018, Compared

Region	Single Family	Condo Apartment
Lower Mainland BC	$1,276,500	$654,300
GTA	$860,100	$506,700
Calgary	$441,600	$251,700
Edmonton	$374,300	$192,600

■ Single Family   ■ Condo Apartment

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Tourism an important driver and indicator

Alberta International Tourist Entries - Persons
Annualized to October 2018

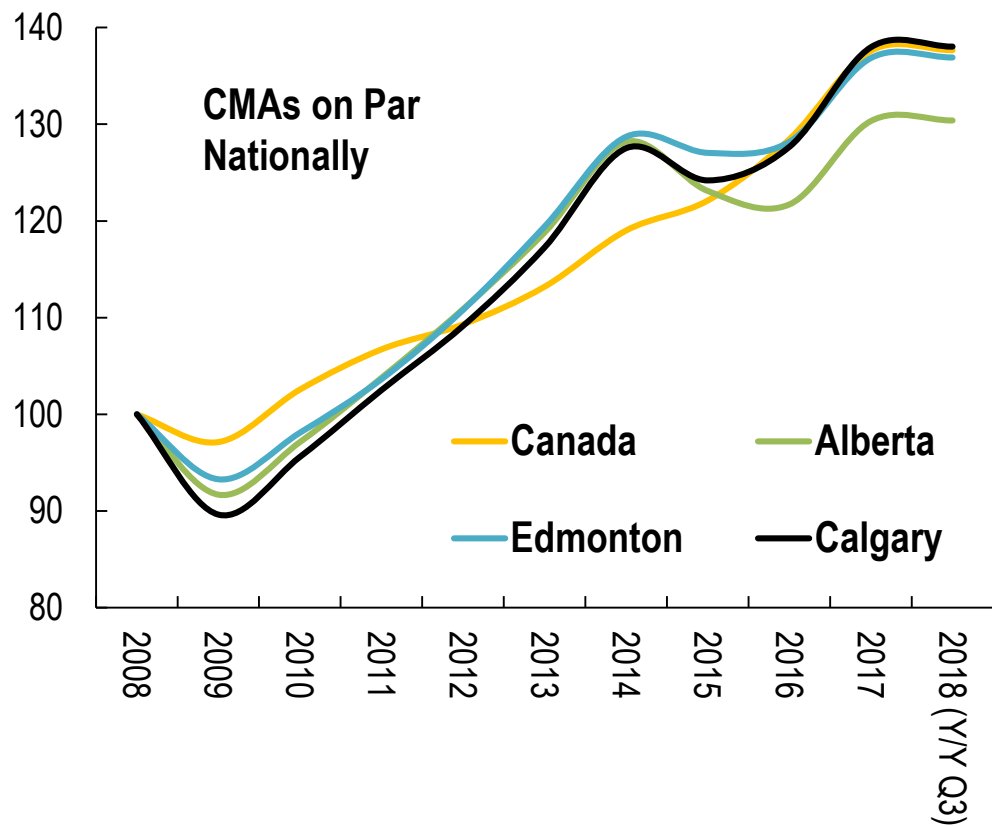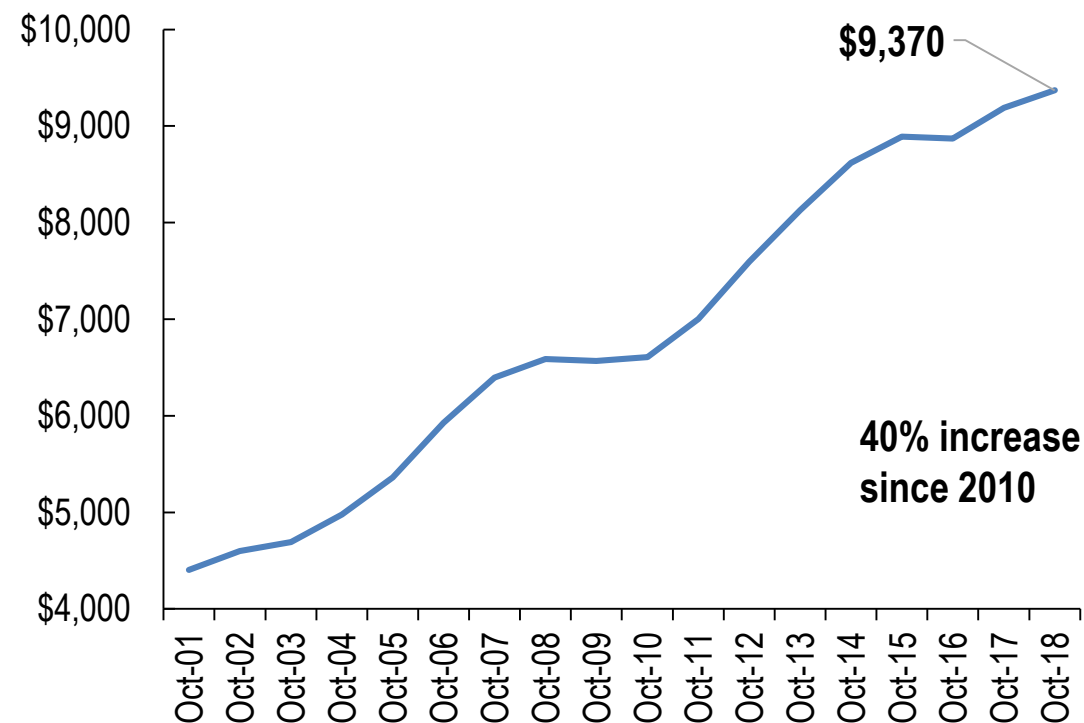**1,083,956**
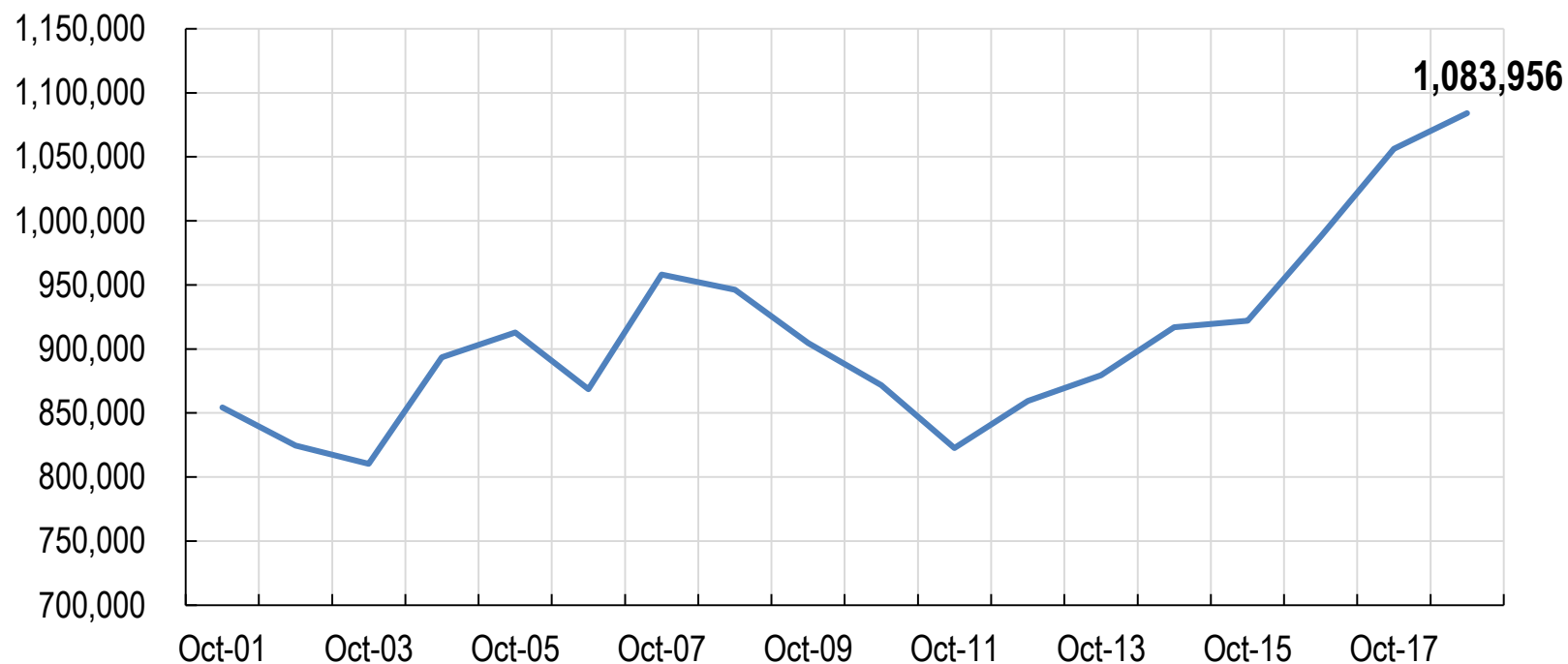
Nearly 5 Million Visitors last five years

Source: Statistics Canada, Conference Board of Canada

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Tourism and food are growth drivers within the province

Indexed Retail Sales
Last 10 Years
2008=100

CMAs on Par Nationally

Legend:
- Canada
- Alberta
- Edmonton
- Calgary

X-axis: 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018 (Y/Y Q3)
Y-axis: 80, 90, 100, 110, 120, 130, 140

AB Food and Drinking
Places Receipts ($M)
Annualized to October 2018

$9,370

40% increase since 2010

X-axis: Oct-01, Oct-02, Oct-03, Oct-04, Oct-05, Oct-06, Oct-07, Oct-08, Oct-09, Oct-10, Oct-11, Oct-12, Oct-13, Oct-14, Oct-15, Oct-16, Oct-17, Oct-18
Y-axis: $4,000, $5,000, $6,000, $7,000, $8,000, $9,000, $10,000

Source: Statistics Canada, Conference Board of Canada

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Albertans are spending more on food and beverages

Average spending per household:
2017 compared to 2012

	Top 3			Bottom 3		
	Grocery	Alcohol & Tobacco	Home Operations	Recreation equipment	Household Appliances & Equipment	Clothing & Accessories
2012	$ 5,855	$ 1,568	$ 5,032	$ 835	$ 1,430	$ 4,580
2017	$ 6,424	$ 1,915	$ 5,344	$ 549	$ 1,118	$ 3,803
NET	+$ 569	+$ 347	+$ 312	$ (286)	$ (312)	$ (777)

Source: Statistics Canadian Survey of Household Spending

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Re-inventing cities: Calgarians part of a North American trend of embracing urban living, including new, urban purpose-built rental options
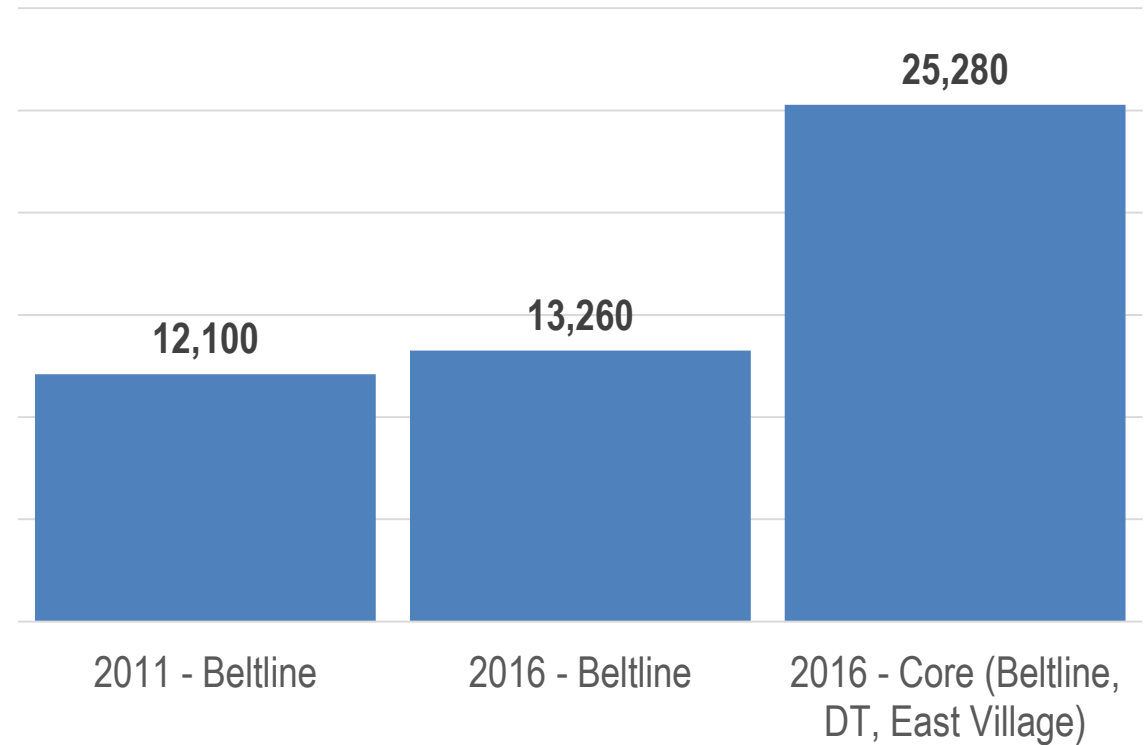
Calgary PBR Vacancy Rates.
Data: CMHC
*No data point for 2016

All — Post 2000 — Beltline — Beltline New*
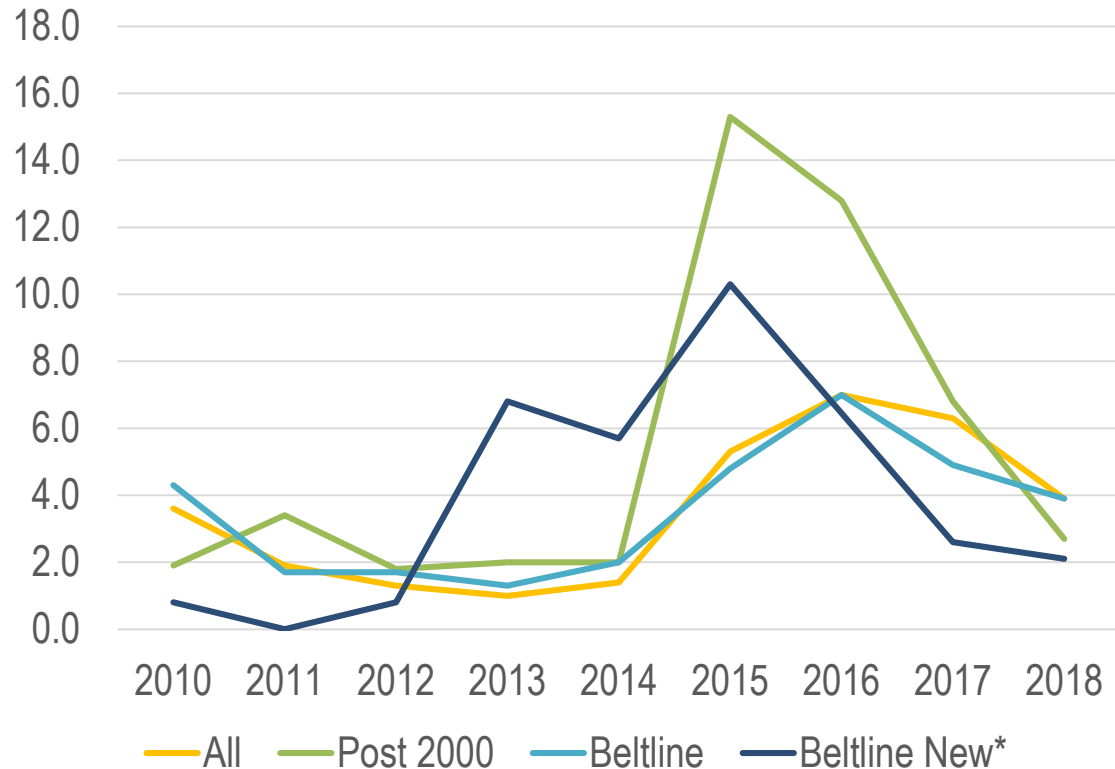
Urban Living - Total HOUSEHOLDS.
Core of Calgary
2011, 2016 Census

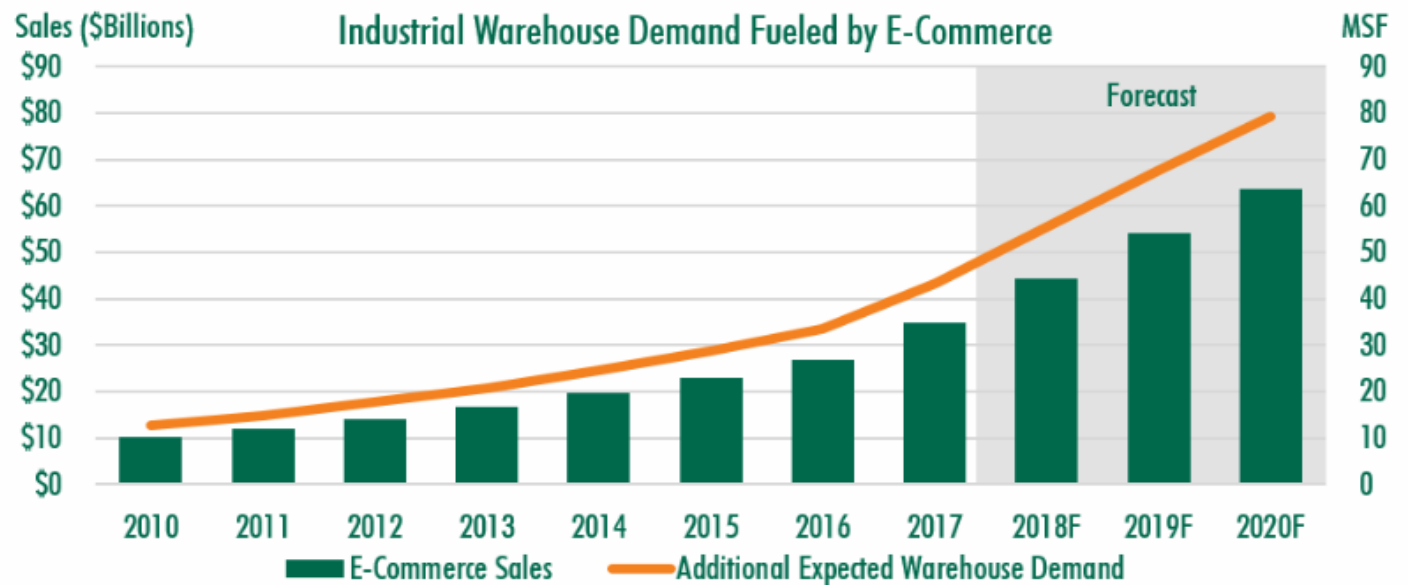| 2011 - Beltline	2016 - Beltline	2016 - Core (Beltline, DT, East Village)
12,100	13,260	25,280

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E-Commerce growth contributing to re-invented logistics real estate demand

CBRE Research:

$1
Billion Cdn e-commerce sales

=

## 1.25
Million SF Net Industrial Demand

Metro Area	Industrial Availability	Net Rental Rate
Calgary	8.2%	$7.54
Edmonton	7.9%	$9.52
Vancouver	2.3%	$11.86

Industrial Warehouse Demand Fueled by E-Commerce

Sales ($Billions) — left axis: $0, $10, $20, $30, $40, $50, $60, $70, $80, $90

MSF — right axis: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90

Years: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018F, 2019F, 2020F

Forecast

- E-Commerce Sales
- Additional Expected Warehouse Demand

Source: e-Marketer, CBRE Research, May 2018.

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Calgary Office: Challenges & Opportunities
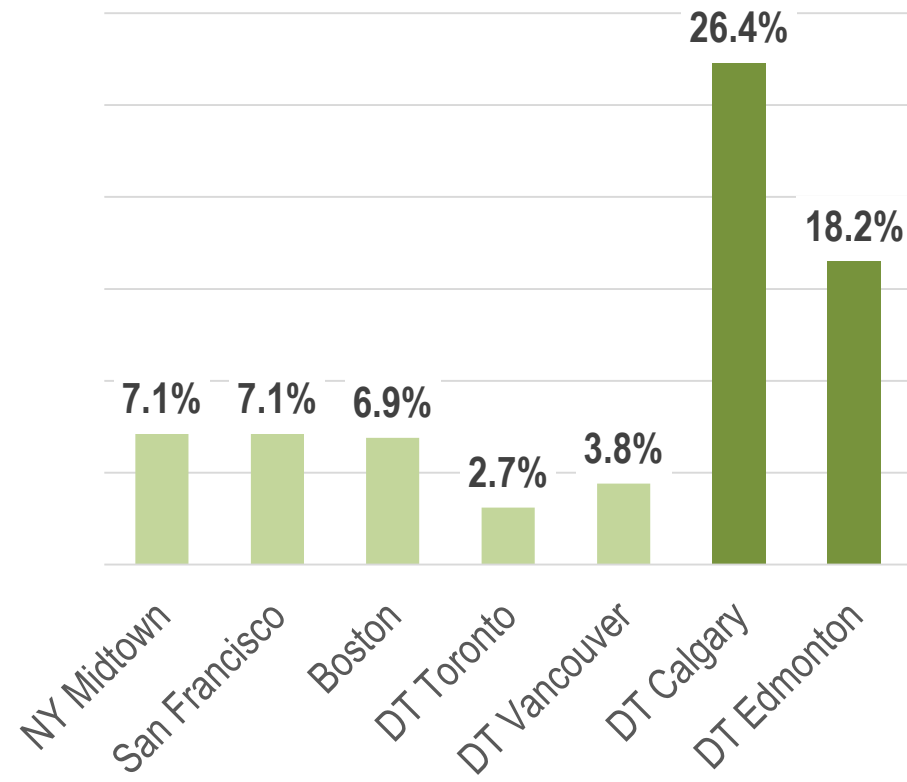

Downtown Supply & Demand - Calgary
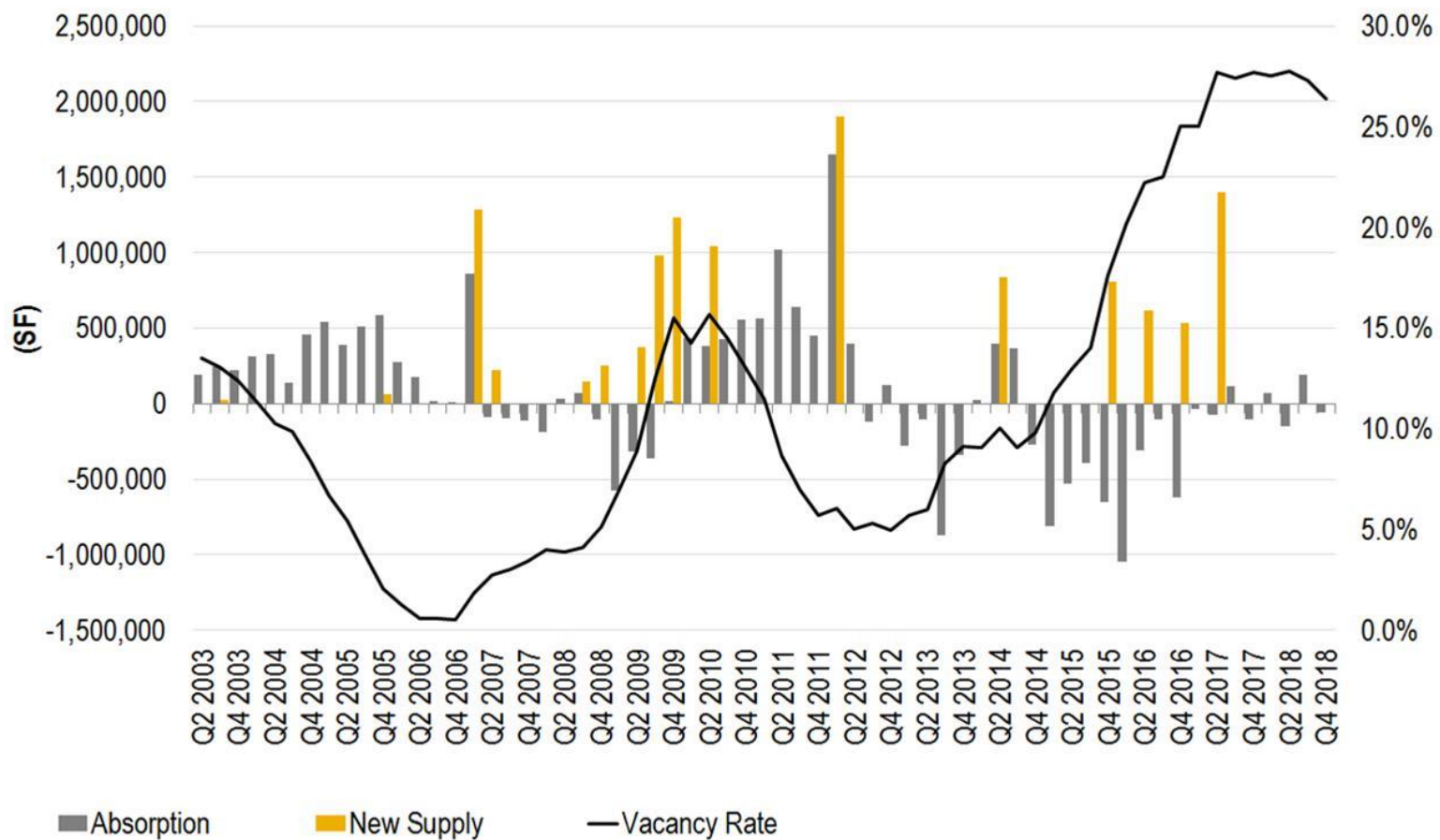
Challenge

Downtown environment less inviting than many in North America

Office spaces designed for large energy tenants

Re-inventing office space: Downtown Calgary may be North America's laboratory for the future office space experience, upgrading of legacy assets

Urban Vacancy Rates: North America, Compared. Data: Green Street, CBRE

Bar chart values:
- NY Midtown: 7.1%
- San Francisco: 7.1%
- Boston: 6.9%
- DT Toronto: 2.7%
- DT Vancouver: 3.8%
- DT Calgary: 26.4%
- DT Edmonton: 18.2%

Key Factors in Re-inventing office space (GWLRA Research)
- Hospitality & Services
- Amenities
- Wellbeing
  - Fitness
  - Natural Light
  - Air Quality
- Productivity
- Belonging

Presented by Snap Squad
The Edison - Lobby and 2nd Floor
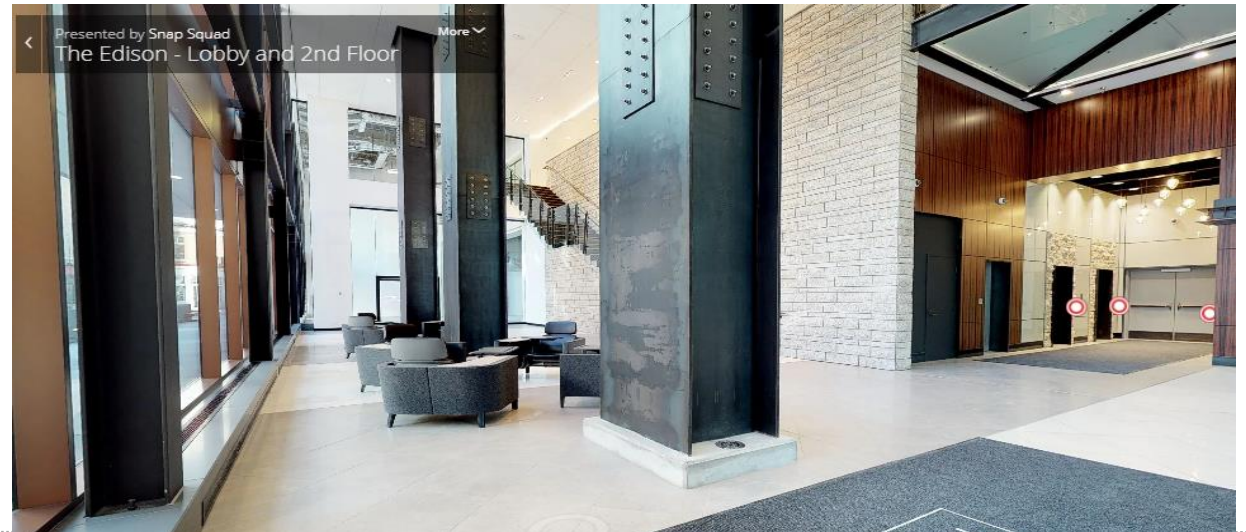
Questions, Comments

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