

# Renewal & resilience

Deferred maintenance report 2022



# Three key facts about deferred maintenance at the university

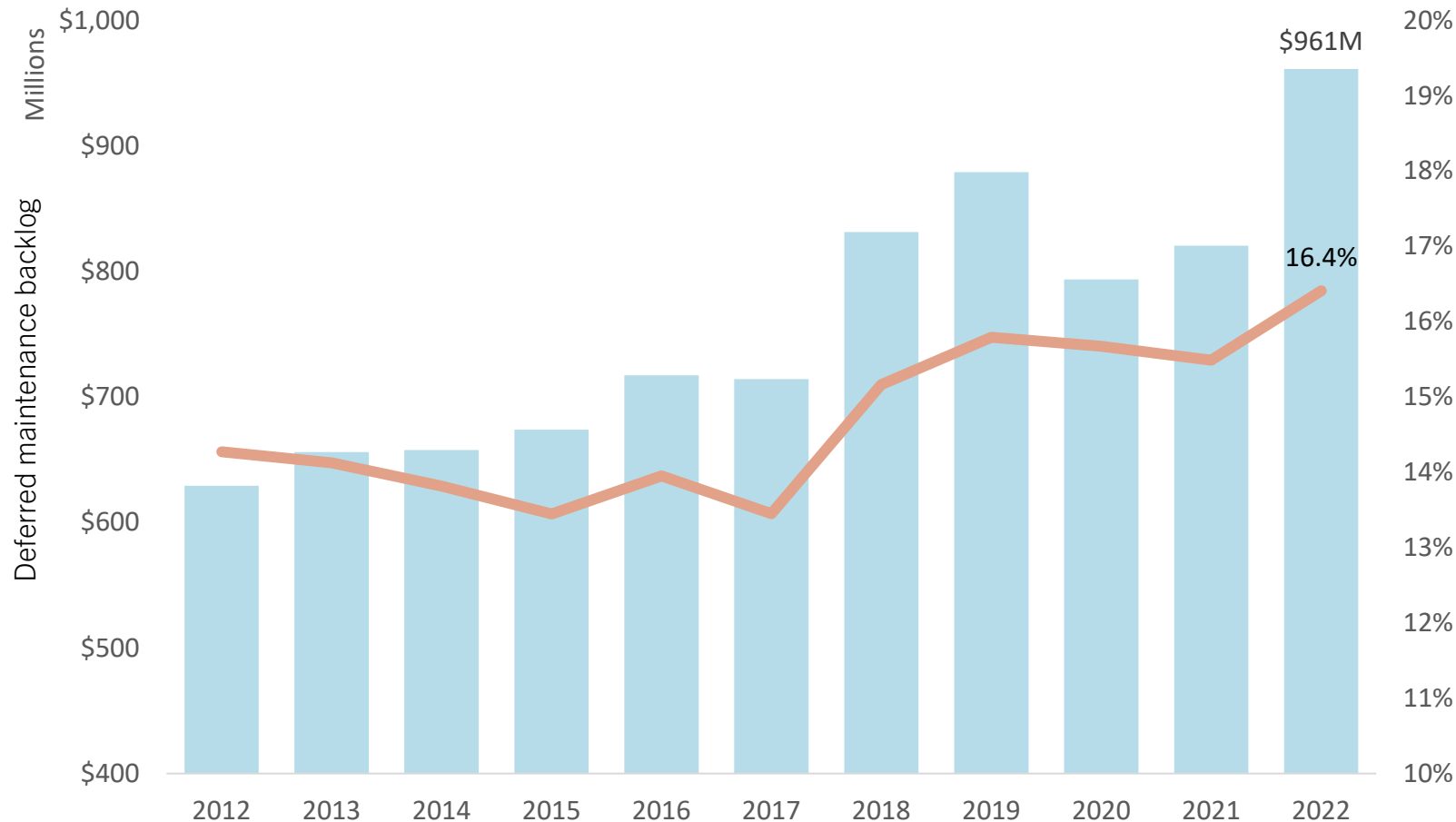
1. Our campus facilities are the backbone of world-class research and teaching operations
2. In 2022, our deferred maintenance backlog increased to \$961M
3. Climate change and economic volatility make the need to invest in facility renewal more important now than ever

# Our facilities are the backbone of world-class research & teaching

Our ability to address deferred maintenance needs has direct consequences on:

1. Maintaining the organization's **ranking** and attracting top research and teaching talent
2. The **reliability** of our building systems and the prevention of unexpected failures and incidents
3. The **student experience** on campus when participating in every facet of academic life and community
4. The **resilience** of our facilities in the face of climate change and imminent environmental events

# Since 2021, the backlog & FCI have both increased



**\$5.9B**

The current replacement value of all university buildings increased by \$559M

**\$961M**

The cost of the tri-campus deferred maintenance backlog increased by \$26.8M

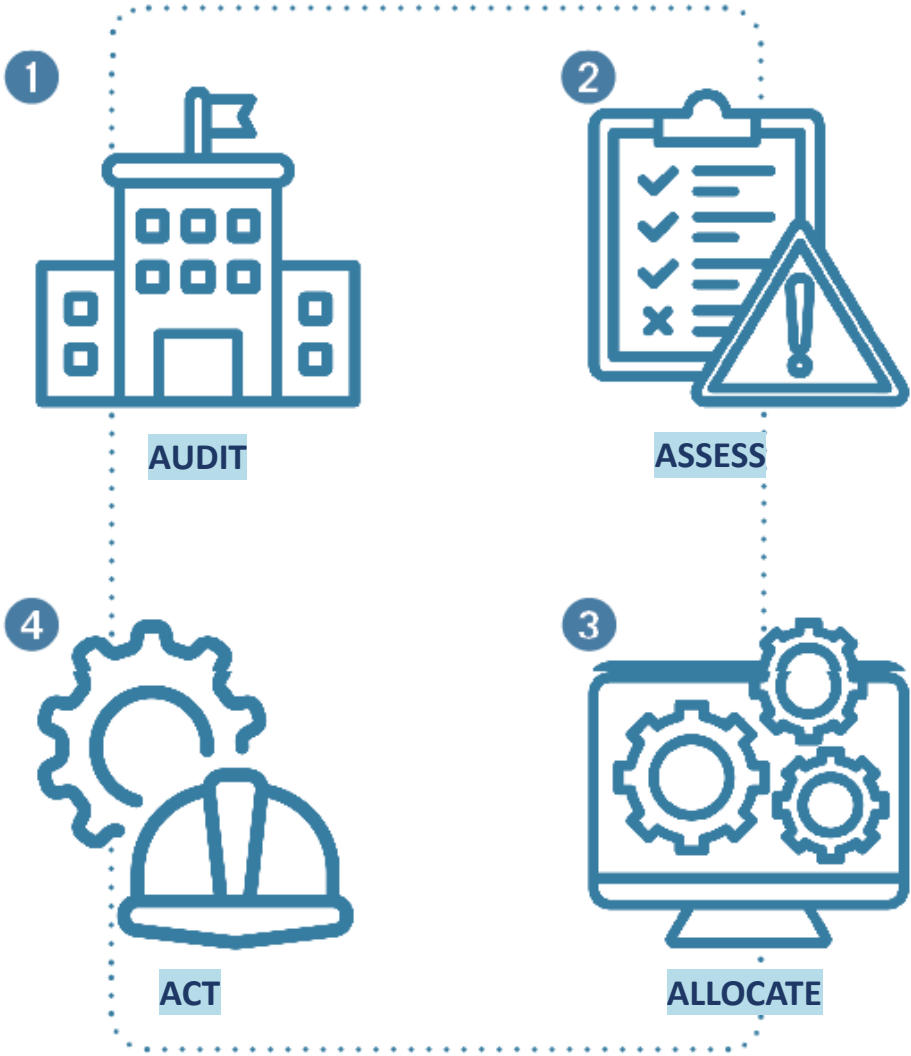
**16.4%**

The combined facilities condition index increased by 0.9%

# Deferred maintenance varies by campus

	ST. GEORGE	MISSISSAUGA	SCARBOROUGH
<b>TOTAL REPLACEMENT VALUE</b>	\$4.7B for 104 buildings	\$0.6B for 22 buildings	\$0.5B for 9 buildings
<b>DEFERRED MAINTENANCE BACKLOG</b>	\$777.5M up \$112.1M	\$94.3M up \$22.0M	\$89.5M up \$6.7M
<b>FACILITIES CONDITION INDEX</b>	16.4% up 1.1%	16.4% up 2.2%	16.7% down 2.6%
<b>PRIORITY ONE NEEDS</b>	\$161.6M up 157.9%	\$35.3M down 18.2%	\$9.3M down 42.8%

**Our risk-based methodology informs fiscally responsible funding allocation**

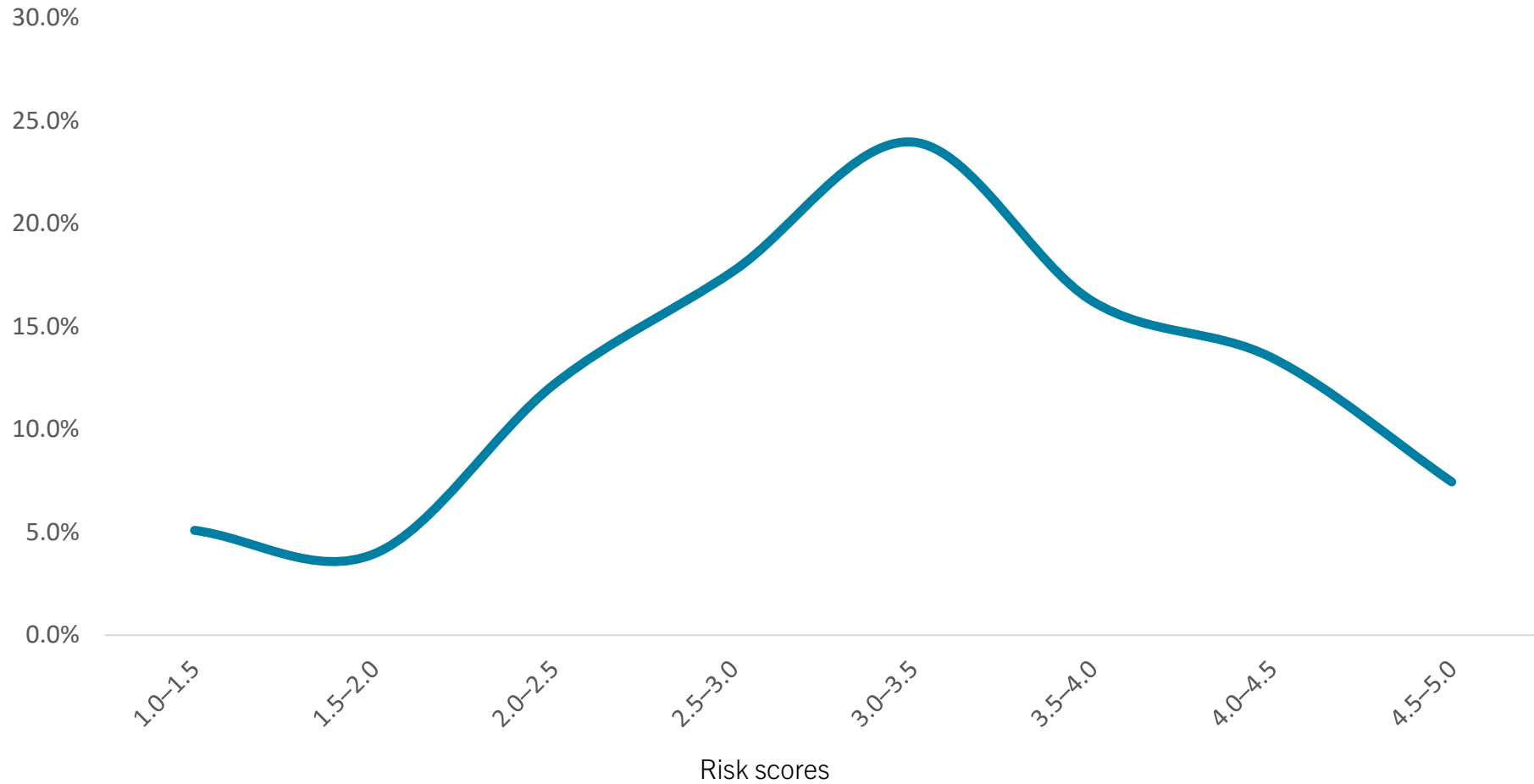


# Allocate: a comprehensive risk-based methodology

Every year each asset is assigned a weighted risk score of one to five based on five criteria:

- The **physical condition** of the asset based on the facilities condition audit.
- The **current use** of the facility that prioritizes academic and research uses.
- The **future use** of the building based on the University's capital plan.
- If the asset fails, the **severity of impact to building occupants**.
- If the asset fails, the **severity of impact to other building systems**, where failures that have consequential impacts to other assets are prioritized.

# 2022 distribution of St. George campus deferred maintenance costs by risk score





# High inflation has increased costs

In 2022, the **cost of non-residential building construction in Toronto grew by 15.6% to 17.5%**—the highest rate of all Canadian metropolitan areas

The same rates of inflation affected deferred maintenance, which consists largely of major infrastructure upgrades and renewal



# Climate change poses major risks to infrastructure

It is well established that climate change poses a high risk to physical infrastructure

**We can expect a 7 to 29% increase in the costs** of operating and maintaining public buildings by 2100

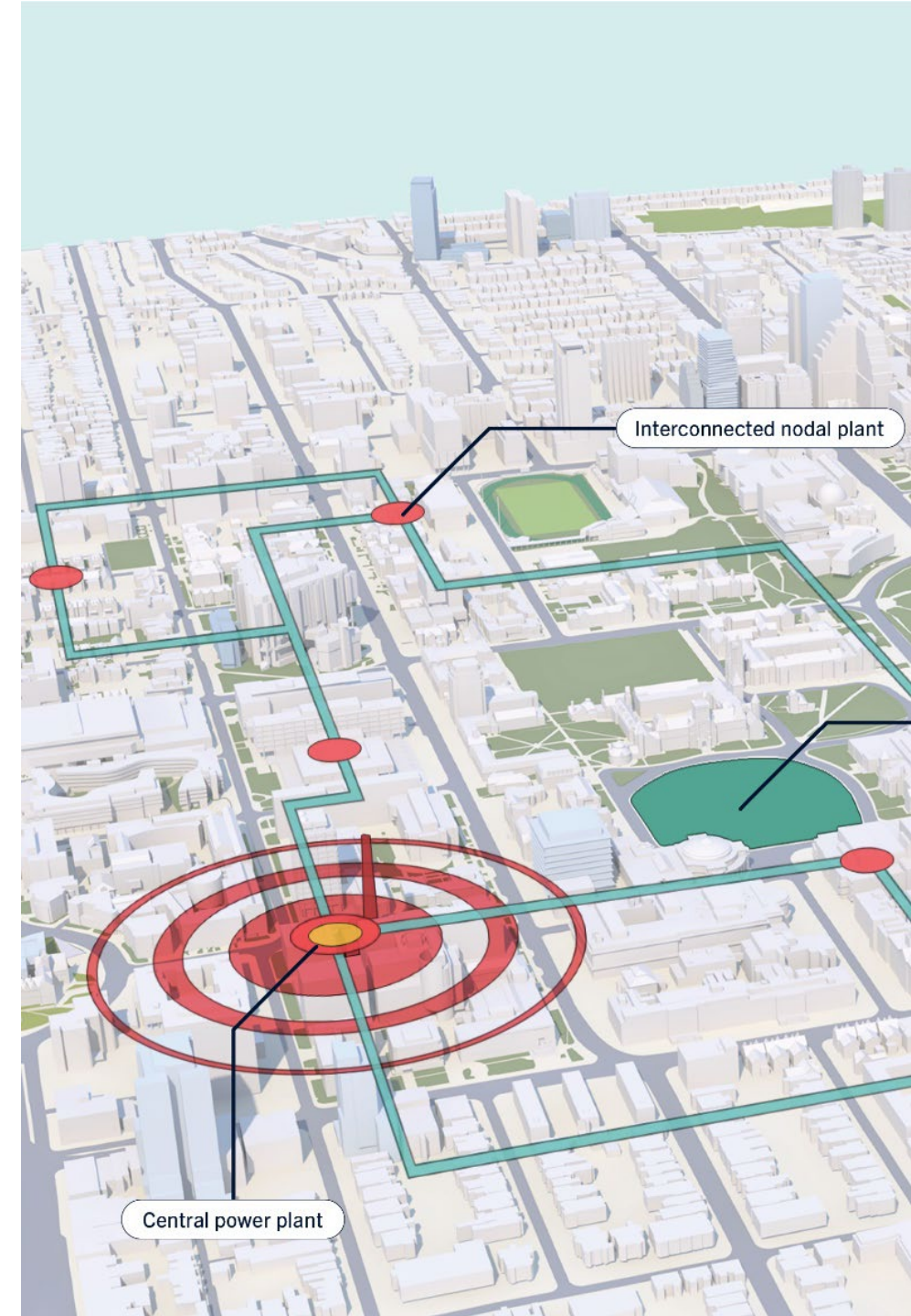
For the university, this represents an increase of \$20M to \$80M



# In response, we're building resilient systems

We are increasing the use of electricity to heat our campus with technologies such as geoexchange

We are creating inter-connected nodal plants to increase redundancy and resiliency of energy to the campus



# We are co-planning deferred maintenance with decarbonization

CIB  BIC

Project Leap is an ambitious initiative supported by the Canada Infrastructure Bank that aims to cut emissions on the St. George campus in half by 2030

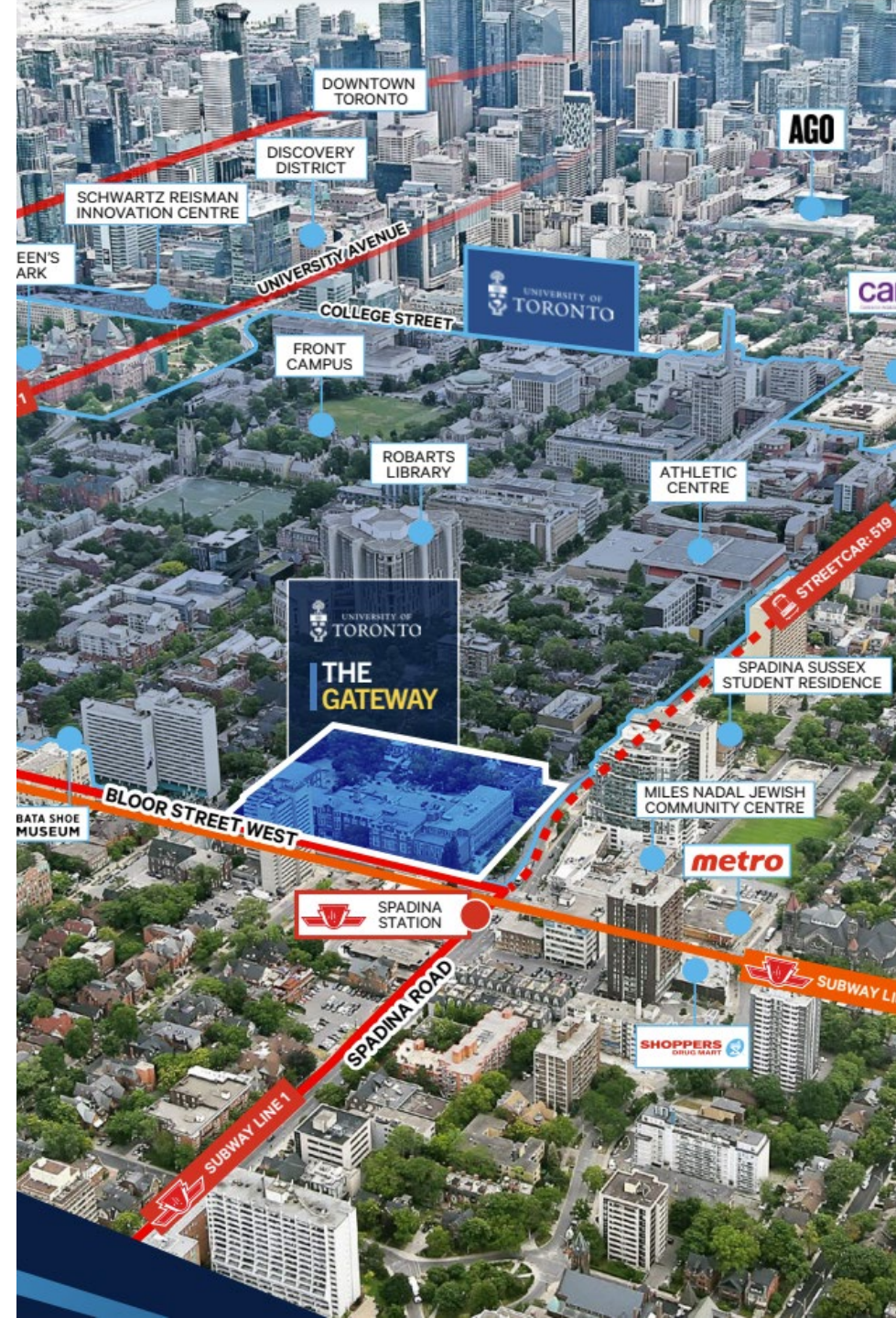
This initiative has the **potential of addressing \$30M in deferred maintenance** by replacing existing equipment with more energy efficient technology



# We leverage capital projects to address some deferred maintenance

Construction projects indirectly address deferred maintenance by replacing building elements and systems at or beyond their useful remaining life

The planned demolitions of Banting Institute, 371 Bloor St. W (Site 1: The Gateway project), and 215 Huron Street have the **potential of addressing a combined total of \$57M in deferred maintenance**



# We have also successfully advocated for increases in government funding

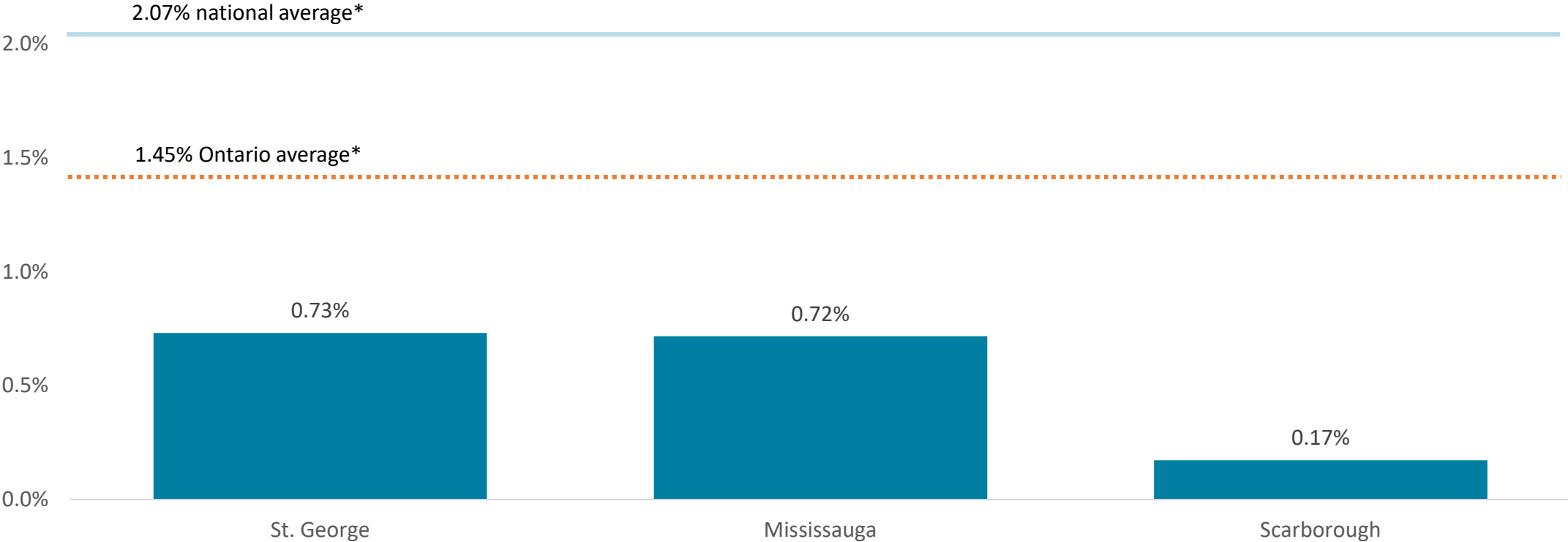
We play an active leadership role in our sector

We have successfully advocated for and secured **increased Facilities Renewal Program funding**

We will continue to engage government to advocate for support for infrastructure initiatives

YEAR	TRI-CAMPUS FACILITIES RENEWAL PROGRAM FUNDING
2019-20	\$9,504,300
2020-21	\$11,382,400
2021-22	\$11,382,400
2022-23	\$12,806,500

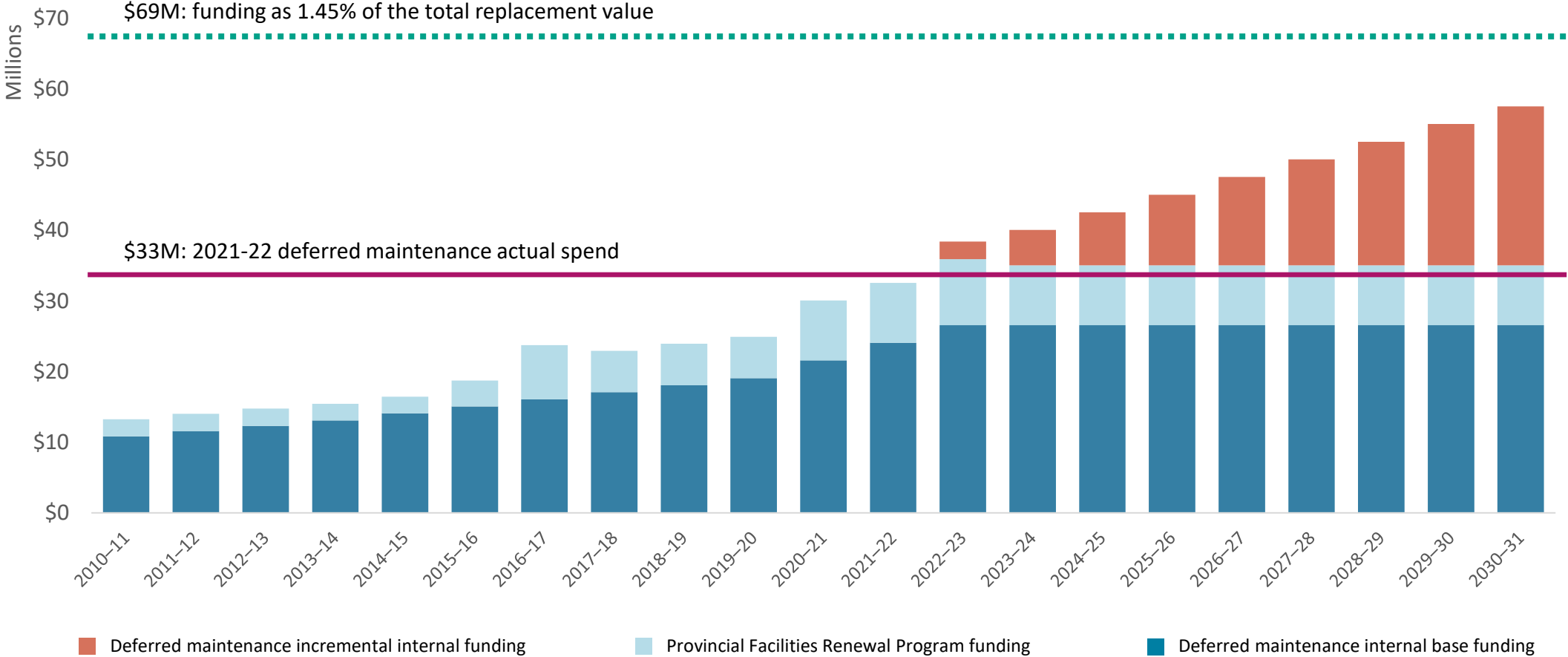
# \$69M is required to catch up to the provincial level of investment



2021-22 DEFERRED MAINTENANCE FUNDING AS A PERCENTAGE OF CURRENT REPLACEMENT VALUE

\*Canadian Association of University Business Officers. "2019 CAUBO Deferred Maintenance at Canadian Universities." January 2020.

# Multi-year funding increase proposed to match the provincial level of investment





# 2022 deferred maintenance projects



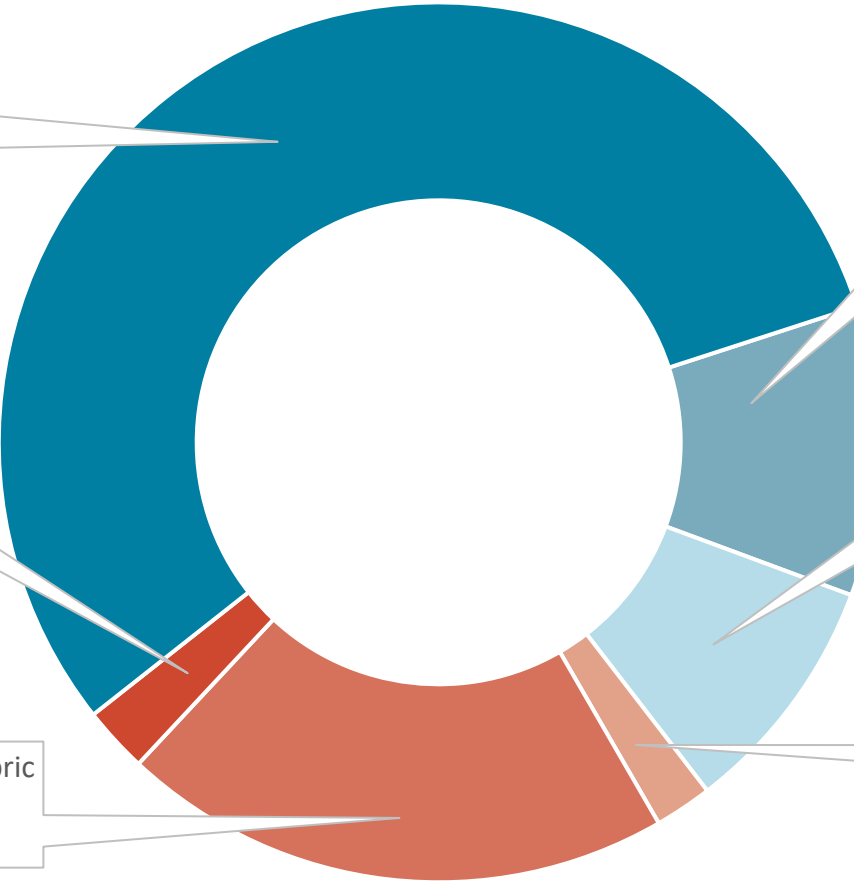
Roofs & building envelope  
\$21M



Road repairs & grounds  
\$1M



Interior & fabric projects  
\$8M



Contributions to capital projects & renovations  
\$4M



Electrical & mechanical systems  
\$3M



Elevators  
\$1M





**Facilities & Services**