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Toronto's Resilience Strategy

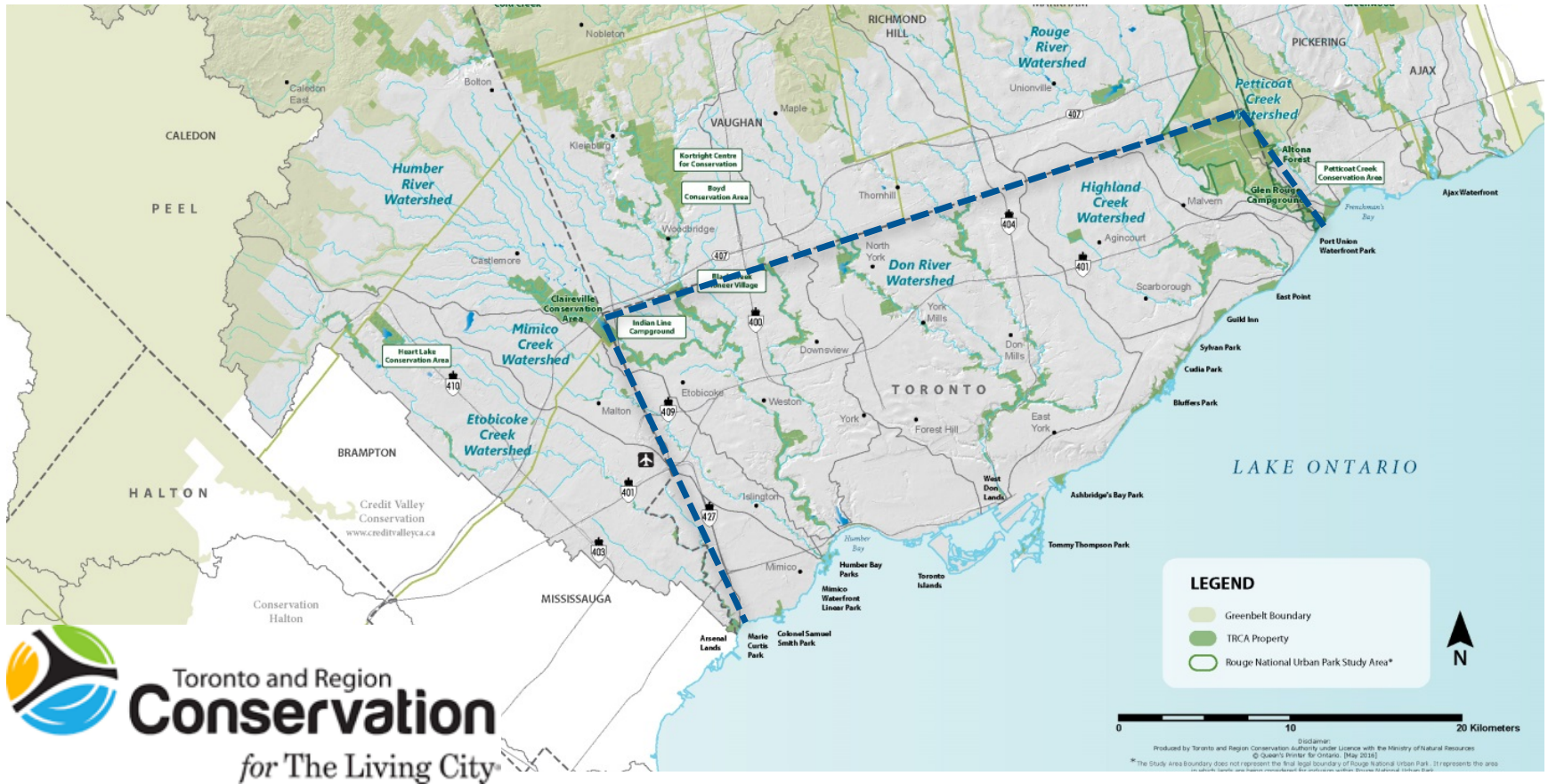
Preliminary Resilience Assessment

September 2017

Introduction



Introduction



“It’s something we know inherently, something we never question. Nature and people are interconnected – the health of one directly impacting the health of the other”

Introduction



1946

Conservation
Authorities created by
Ontario

1951

CA's propose a flood
protection measures
(which are rejected)

1954

Hurricane Hazel

1957

CA's amalgamated to
a regional body
(TRCA) with new
powers

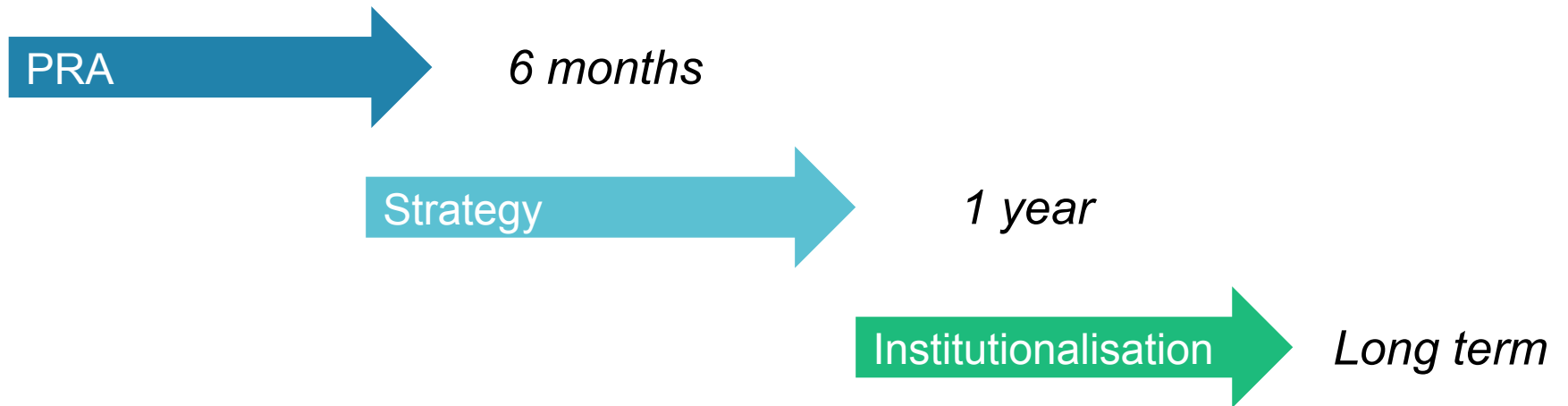
100 RESILIENT CITIES

URBAN RESILIENCE

Is the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of **chronic stresses** and **acute shocks** they experience.

Milan, Italy

Context

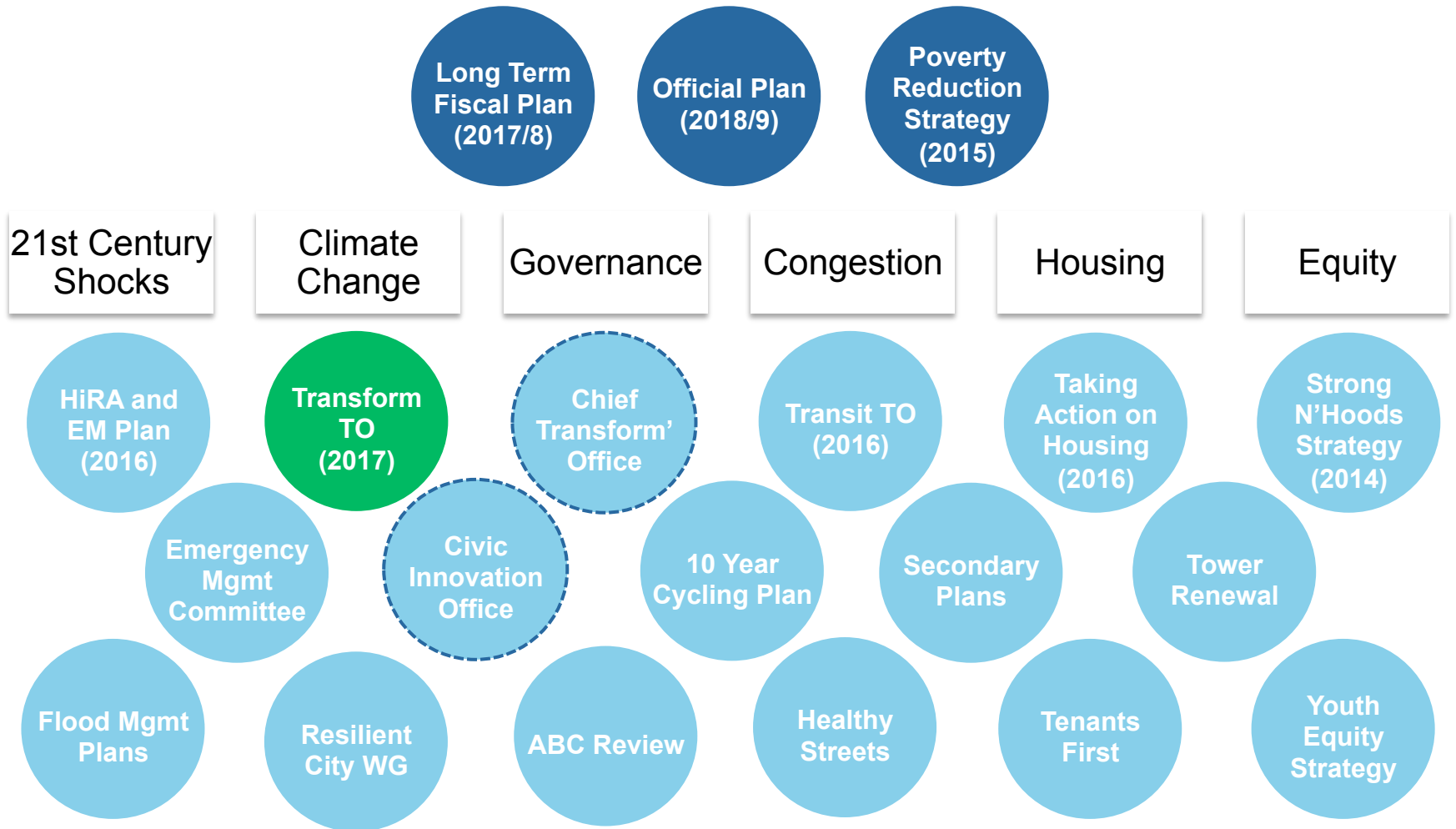


Consultation to date

PRA work to date includes consultation with:

- **300+** individuals
- **100+** one to one interviews in Toronto
- All 3 clusters of City of Toronto, and 30+ City divisions additionally
- Focus groups including with businesses, industry associations, philanthropic sector
- Ontario municipalities, Province of Ontario, and federal counterparts
- Monthly+ meetings with Canadian 100RC cities – Calgary, Montreal, Vancouver
- 50+ cities, associates, and partners in the 100RC network

Actions Inventory



Jurisdictional Scan

Top Table

Top Contenders

Other World
Cities

London
New York City
Paris
Singapore
Tokyo
Hong Kong
Seoul

Los Angeles
Shanghai
Beijing
Amsterdam
Chicago
San Francisco
Toronto
Madrid
Sydney
Washington DC

Montreal
Vancouver
Tel Aviv
Buenos Aires
Melbourne
Berlin
Stockholm
Boston
Milan
Others...

Jurisdictional Scan

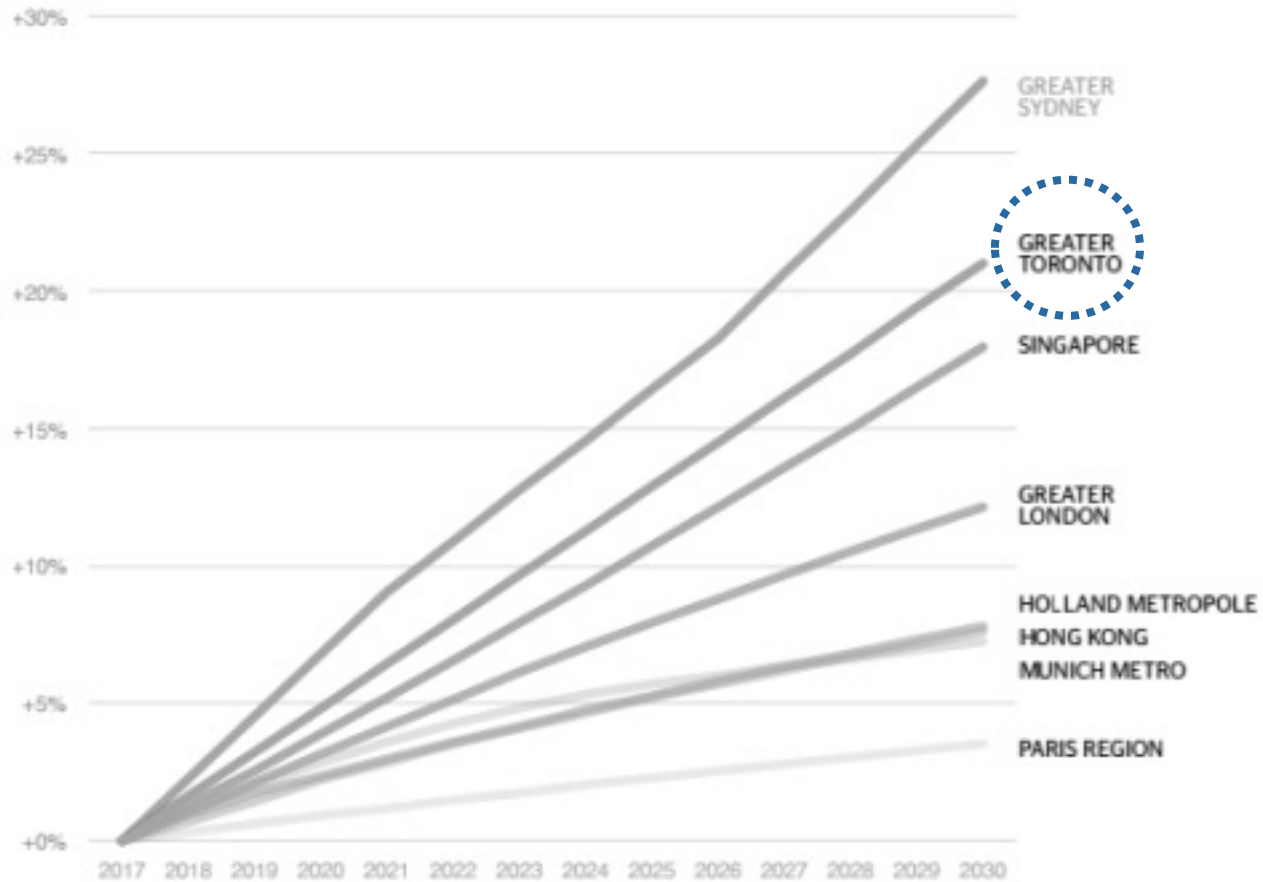
	Toronto's Rank (among the contenders)	Source
Economy and Labour Attractiveness	1	2015 Scorecard
Cost of Living Adjustment	1	2015 Mercer
Health Index	2	2017 Numbeo
Macro-Political Stability	1	2016 World Bank
City Risk Index	1	2017 Lloyd's
Quality of Life	1	2017 Economist EIU

But...

...Toronto is changing

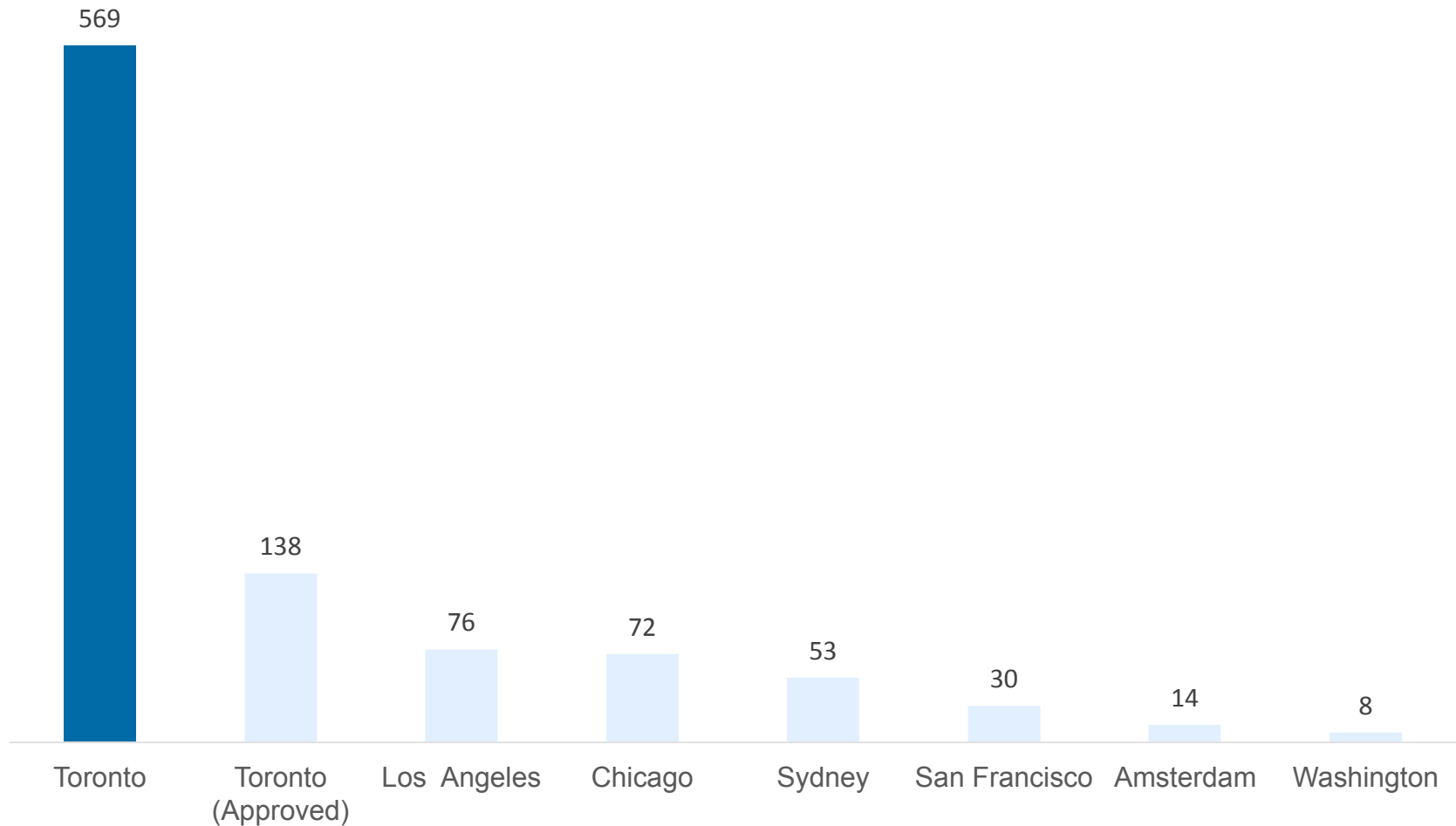
Population Growth

Forecast Population Growth (%) 2017-2030
(Top Table and Contenders)



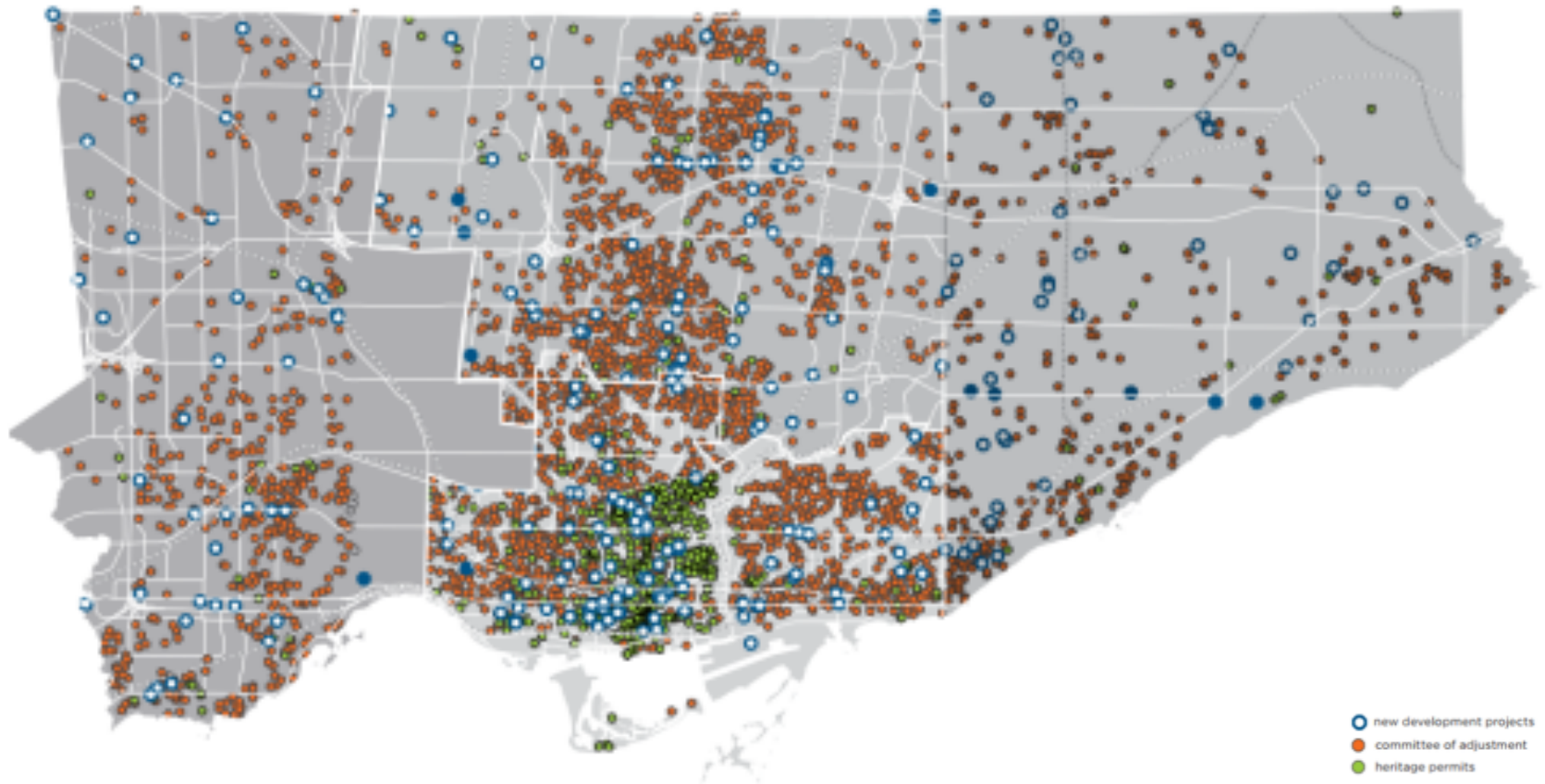
Built Environment

Highrise Buildings Proposed or Under Construction*



Densification

New Projects, Committee of Adjustment, Heritage Permits
in Toronto, 2016



Climate is Changing



**DAILY
TEMPERATURE
MAXIMUM**

44°
celsius

2040-50

37°

2000-09



HOT DAYS

66
above 30°

2040-50

20

2000-09



**EXTENDED
HEAT WAVES**

2.5
per year

2040-50

0.6

2000-09



**DAILY
RAINFALL
MAXIMUM**

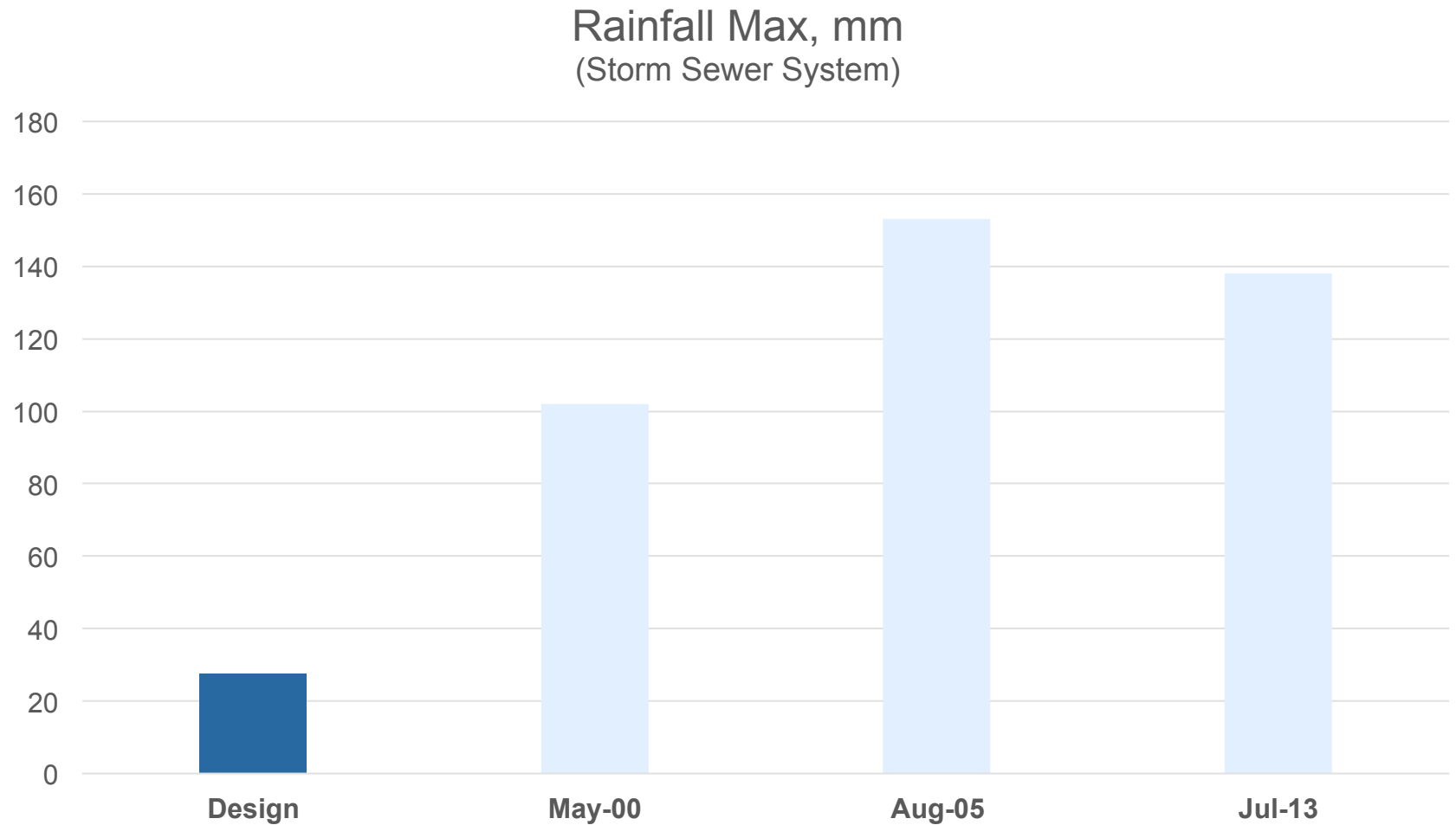
166
millimetres

2040-50

66

2000-09

Climate Change and Urbanisation

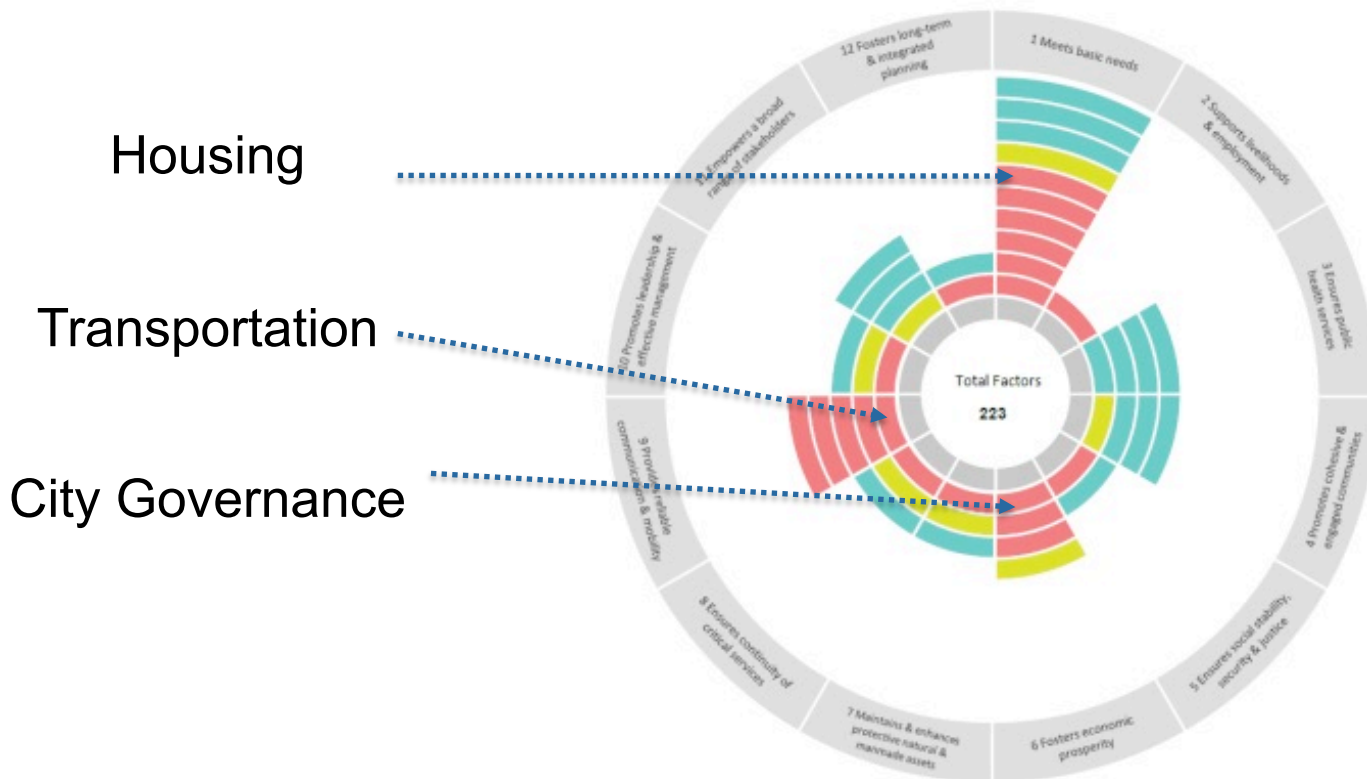


Risk Assessment

- Through Provincially mandated risk assessment process, the City has identified major threats – which include:
 - **Cyber** Failure or Attack
 - **CBRNE** Failure or Attack
- Risks associated with **energy supply** ranked highest; compounded by fuel switching and climate change mitigation.
- Other possible risks identified through this process include:
 - Our globalised **food** system
 - Potential for increase in **migration**

Torontonian's Perceived Stresses

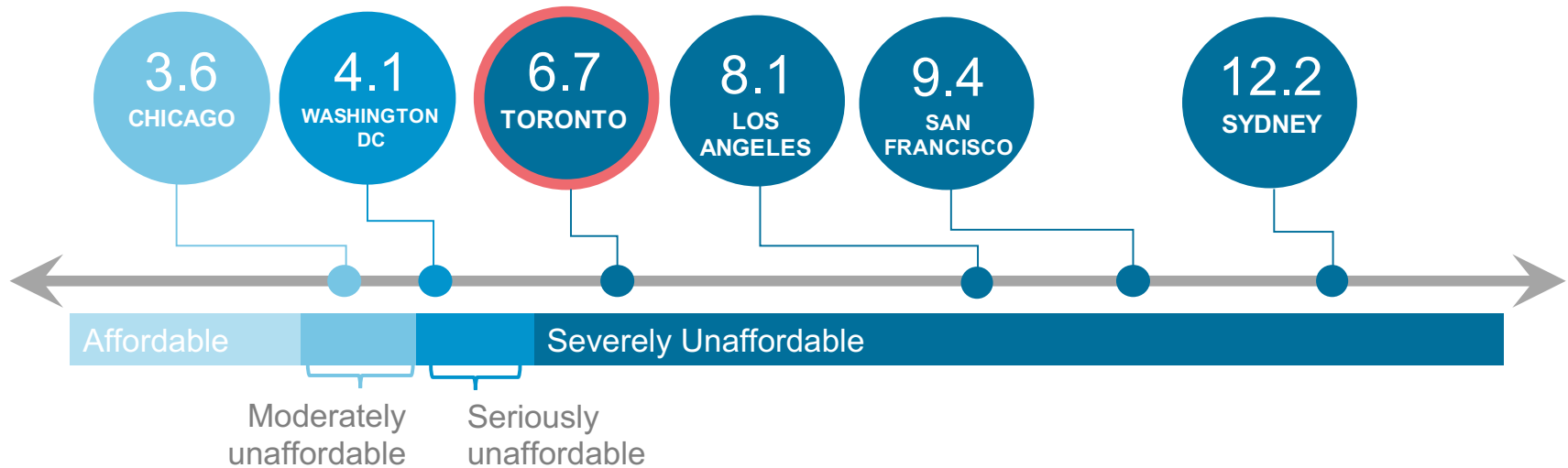
Perceptions Assessment



LEGEND

- Need to do better
- Doing well, but can improve
- Area of strength

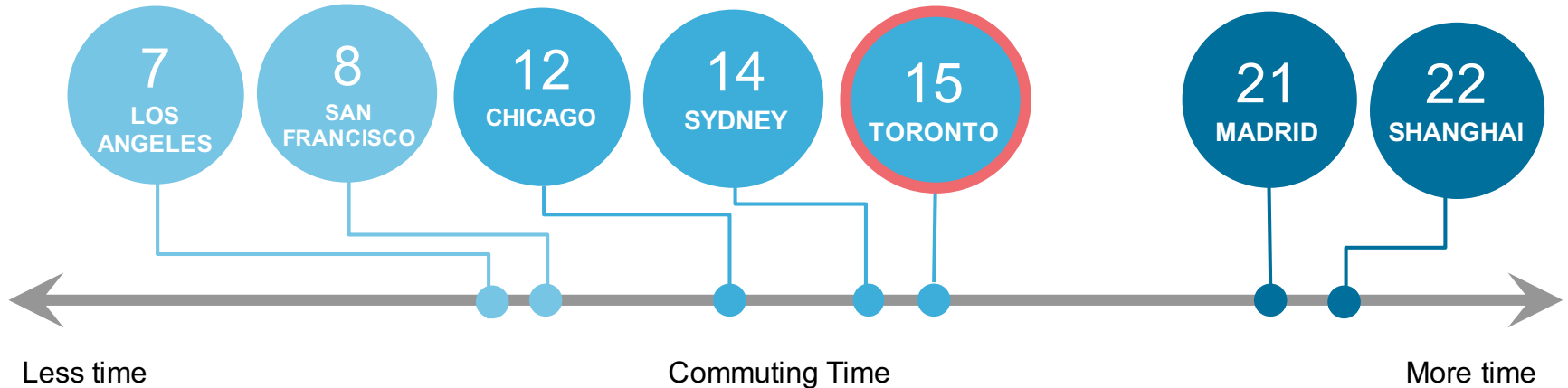
Housing Affordability



Most of our peer cities are experiencing a similar decline in housing affordability.

Stakeholders rated housing affordability as a top stress; but most of that data was collected before August.

Congestion



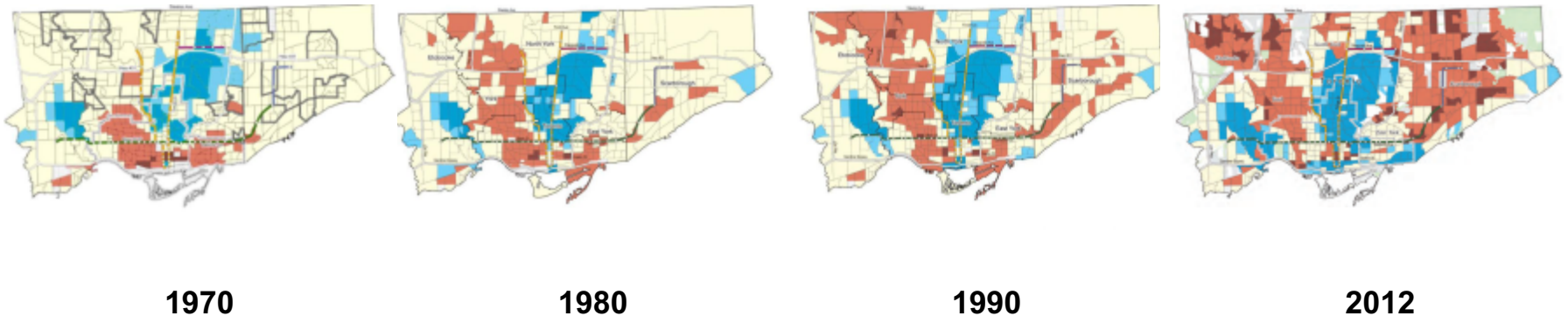
Stakeholders consistently ranked transportation and congestion as one of the top stresses in Toronto.

Congestion has become a fact of life in Toronto, and it is threatening our prosperity and our quality of life.

Equity

Income by Census Tract in Toronto

(low, middle, high)



Congestion and housing affordability are together fueling a long term trend in inequality in Toronto:

*“[Equity] trends could be slowed or reversed by public policies that ... expand access to services in neighbourhoods where the need is greatest, and by **renewing the aging high-rise neighbourhoods.**”*

Selected Stakeholder Perceptions

“Toronto is a *Strategy Production Factory*”

“We have lots of strategies... but how many are funded? 10%?”

“It will take a near miss – or a disaster – for us to fund something proactive”

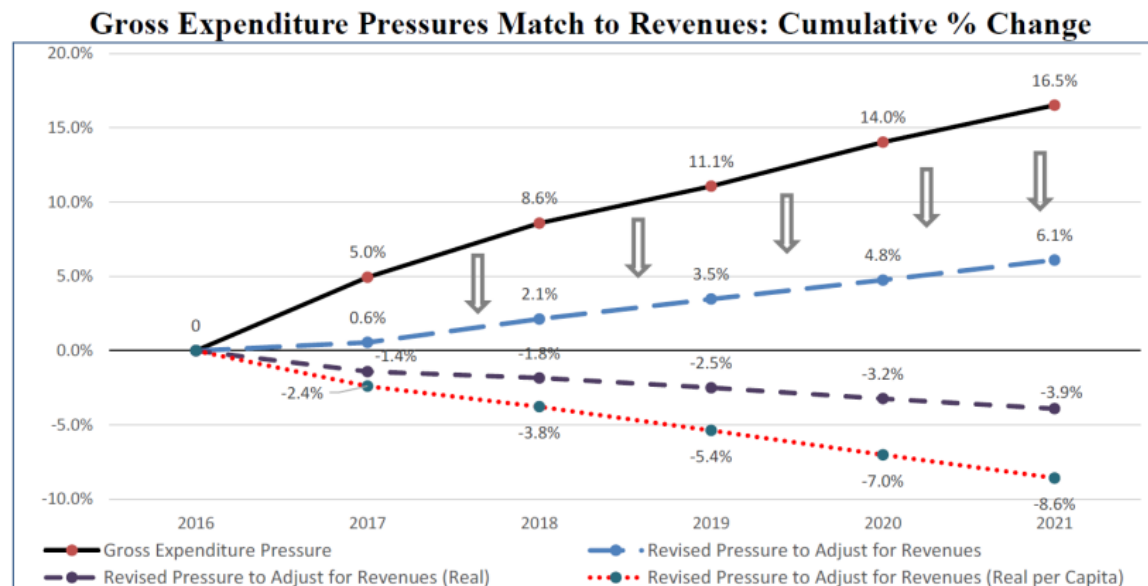
“We would like to innovate and to try new things, but that requires taking resources off of the front lines”

“It is imperative you *actually do* something”

City Budget

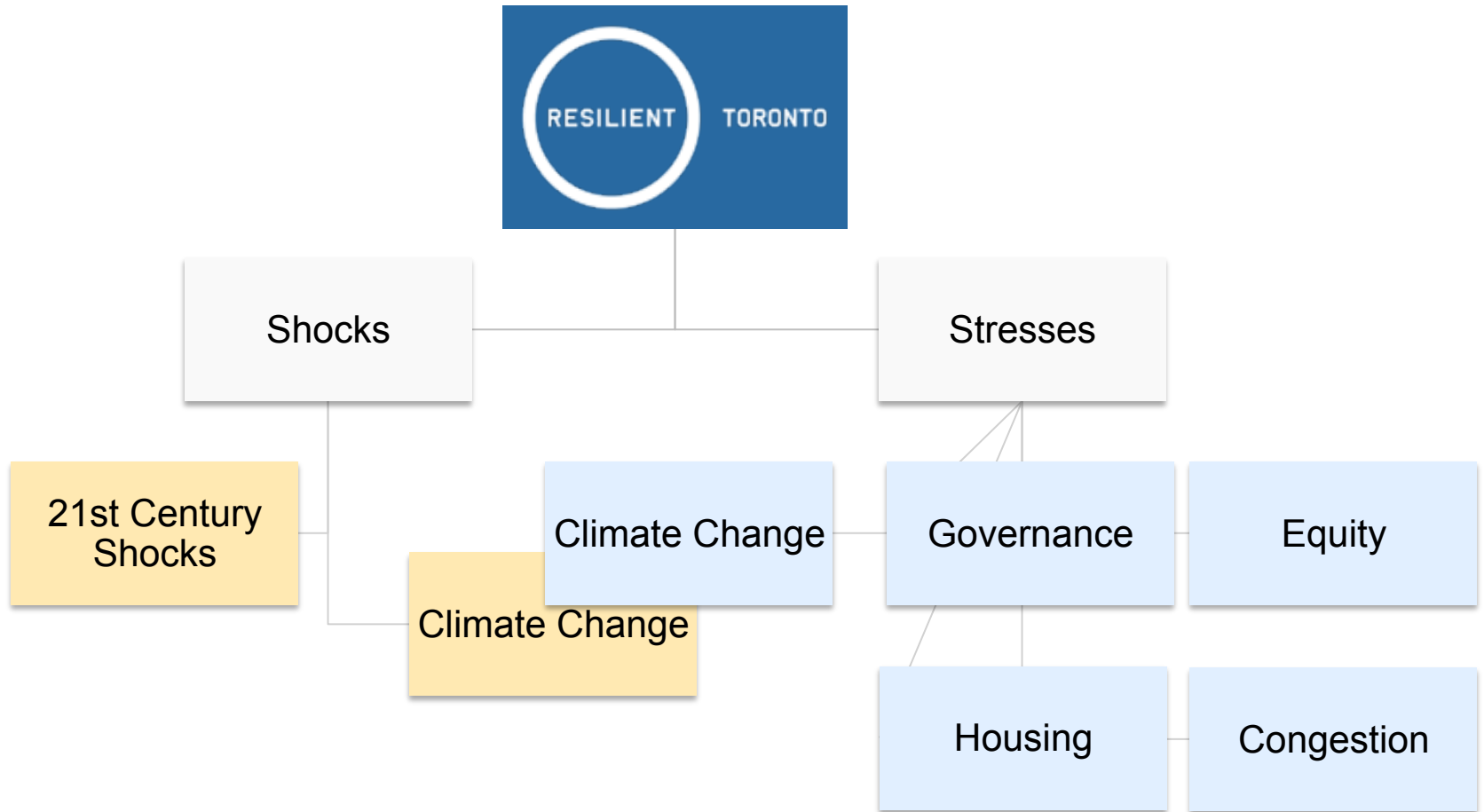
“Given the limited funding for City services, there is no additional financial capacity to fund any new capital works in 2017...

...While the City has faced budget challenges in the past, mitigating measures which helped balance the budget previously are either not expected to reoccur [or] are longer feasible”



Mention October 26th annual Municipal Finance Event at IMFG with City Manager

Toronto's Resilience Challenge



Toronto's Resilience Challenge

In the context of a rapidly urbanising city, a changing climate, and a connected global economy, how do we enable **inclusive, climate resilient growth**

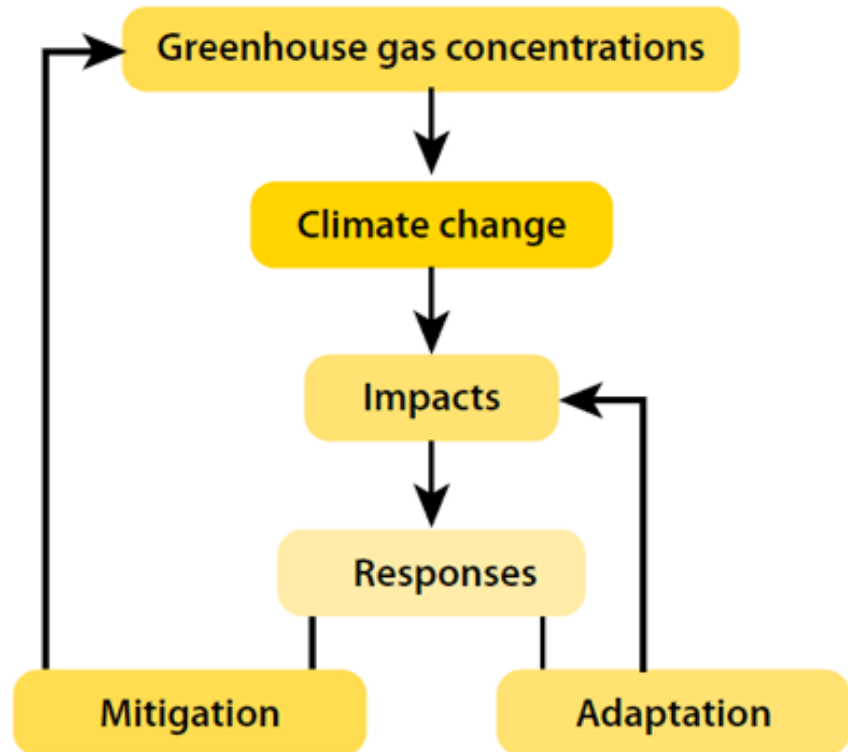
The Art of the Possible

Narrowing down is an act of balancing aspiration with:

- Timelines
- Resources
- Governance
- Gaps

Transform TO

- Transform TO is Toronto's climate change mitigation plan
- There are several co-benefits for adaptation, such as:
 - Active transportation
 - Climate finance
 - Neighbourhoods work
- Any resilience work needs to draw from and mesh with TransformTO
- As compared to our peers, Toronto does not have an up to date adaptation plan



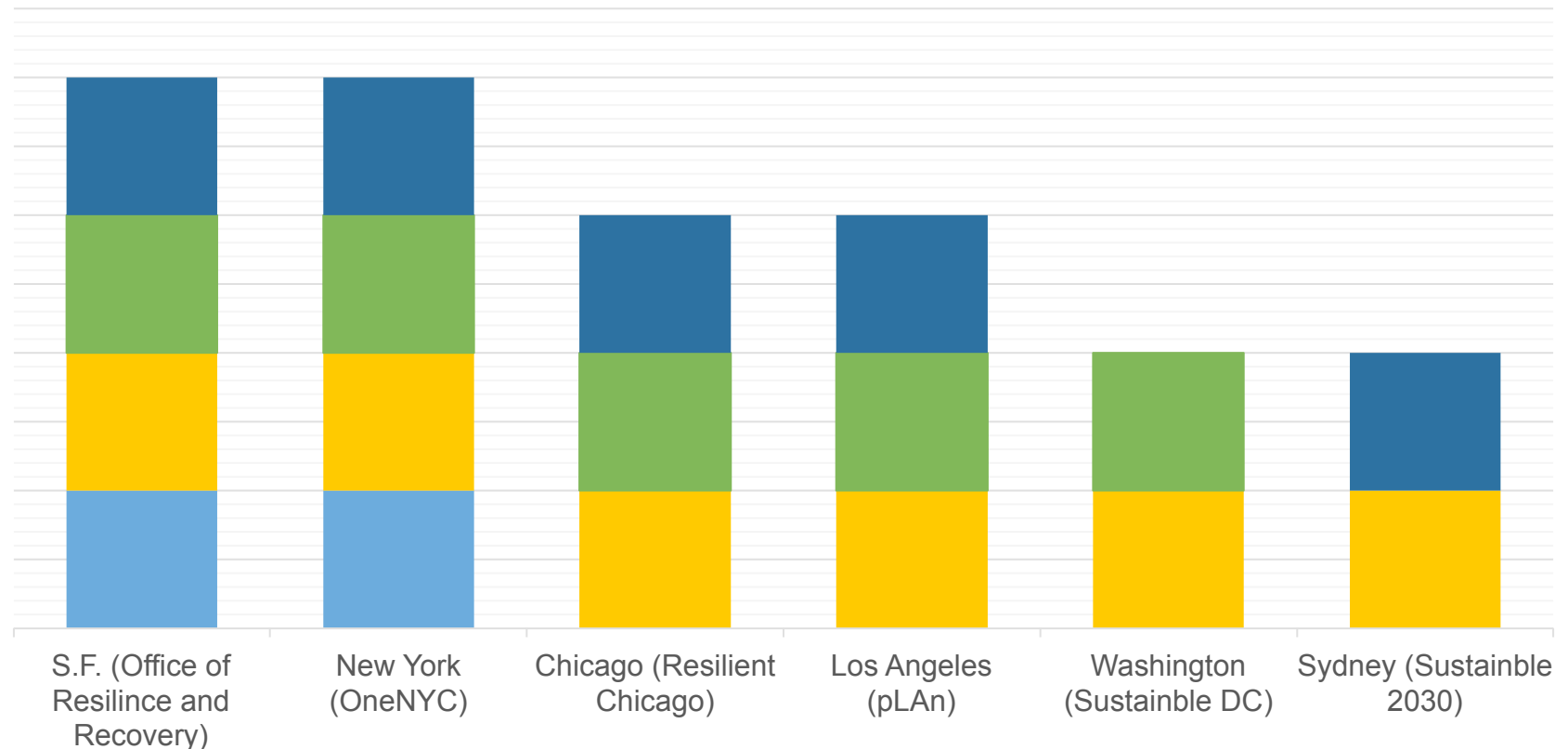
Adaptation Building Blocks

■ Neighbourhood Level Adaptation Planning

■ Mainstreaming Adaptation through City Government

■ City Adaptation Plan

■ Recovery Planning



Mainstreaming Adaptation

Planning

Structuring our **land use plans** to proactively reduce climate vulnerability; ensuring **redundancy** in transportation systems

Design

Taking climate projections into account in our capital projects **environmental assessments**

Financial Closure

Leveraging **adaptation finance** such as from other orders of government

Procurement

Taking climate adaptation into account for **materials** and **construction**

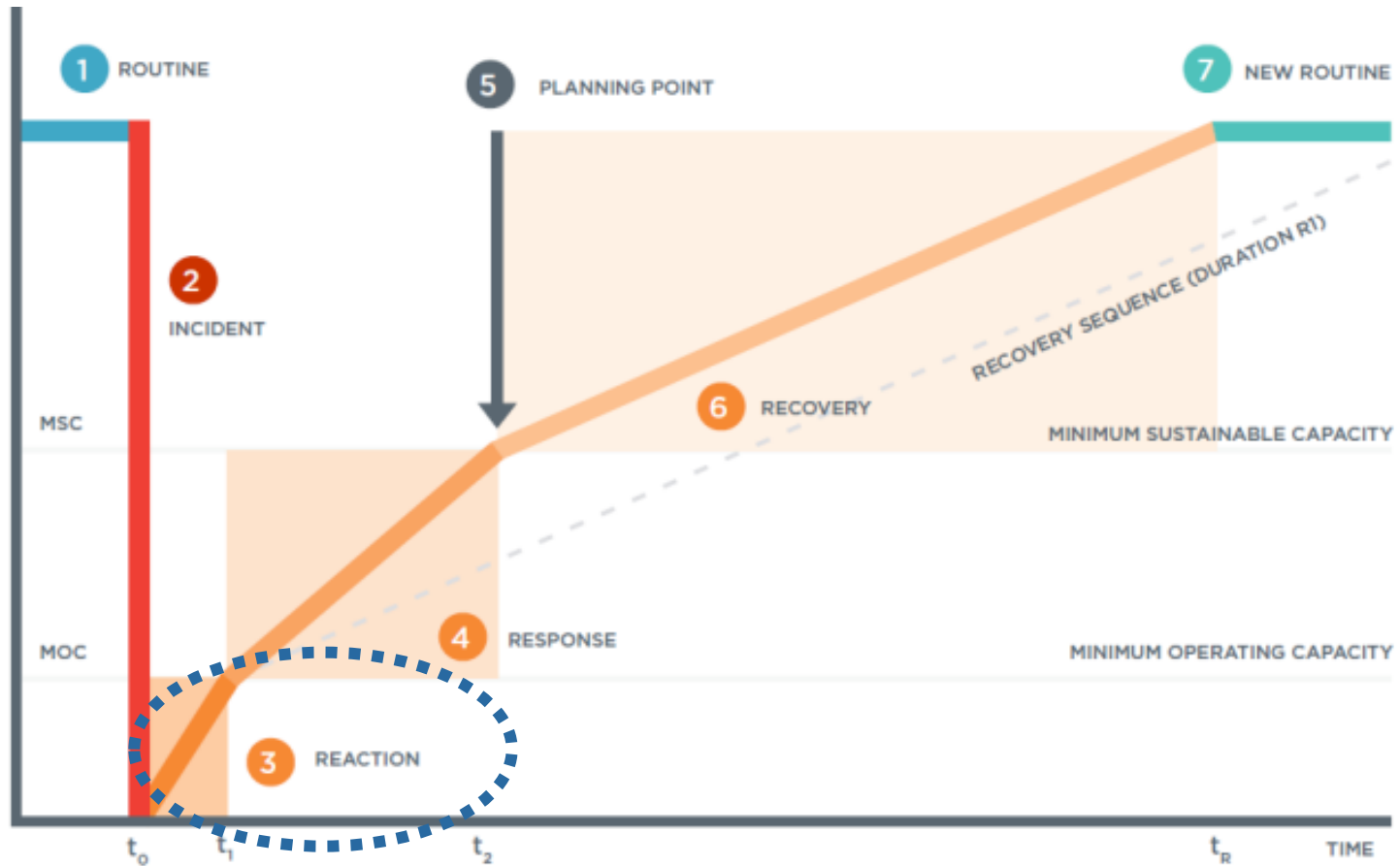
Delivery

Planning for **extreme climate events** such as floods or heatwaves

Evaluation

Integrating new **technology** and **lessons** on climate adaptation

Neighbourhood Resilience



Neighbourhoods and business are our first line of defense

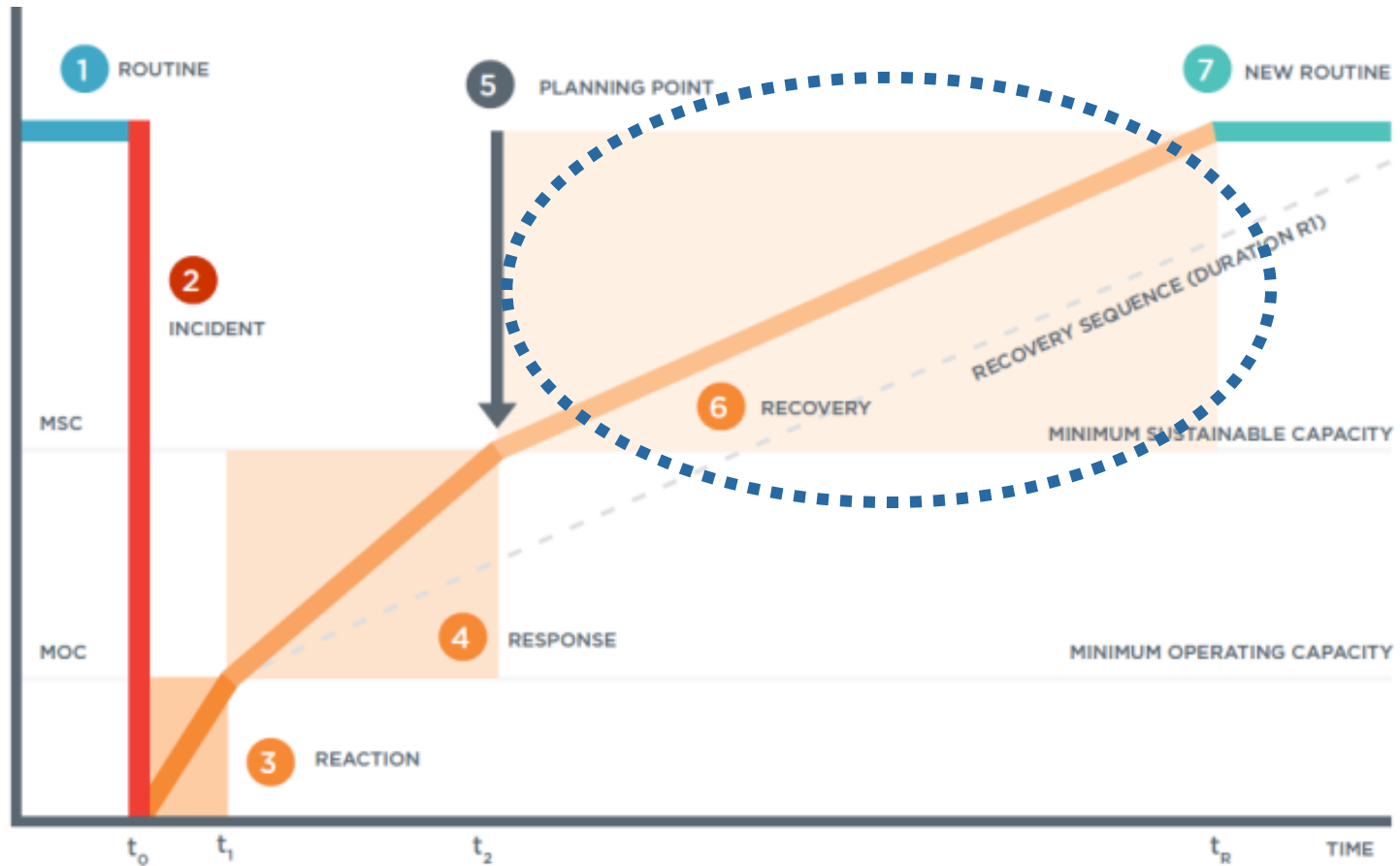
Vulnerable neighbourhoods do worse after shocks, recover more slowly

Tower Renewal & RAC Zoning

- Tower Renewal focuses on environmental, economic, social change for the 1200 towers built before 1985.
- Prior to July 2017, those towers were zoned as residential only.
- The new **Residential Apartment Commercial (RAC) Zone** allows for a number of small-scale nonresidential uses, such as retail stores, services and community facilities either outdoors or on the ground floor of certain sites.



Recovery



Toronto Islands and Waterfront Parks provide us with a test bed to apply resilience thinking in the context of recovery

City Level Resilience Plan

- Resilience requires a whole of government working across the City
- And a whole of governments approach, with our ABCs, neighbours and the Province
- Enables us to apply a 'resilience' lens across the City



Toronto's Resilience Challenge

In the context of a rapidly urbanising city, a changing climate, and a connected global economy, how do we enable **inclusive, climate resilient growth**

We want to hear from you!

Participate in the **#ResilientTO** Survey:

<http://cityoftoronto.fluidsurveys.com/s/resilientTO/>

Connect with #ResilientTO:

@elcappell and @resilientto

resilientto@toronto.ca