



TransformTO

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Climate Action for a healthy,
equitable, prosperous Toronto

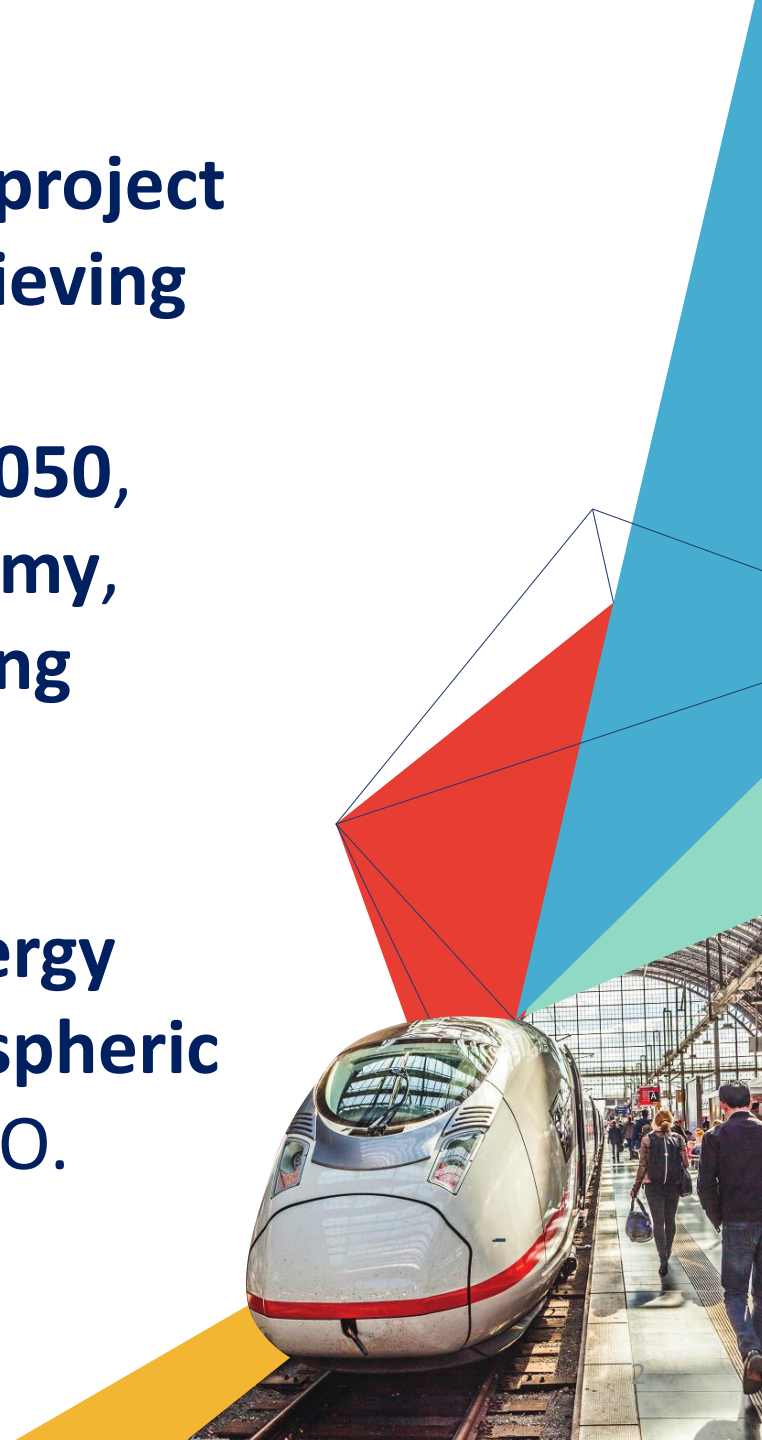
November 14, 2016

toronto.ca/transformto

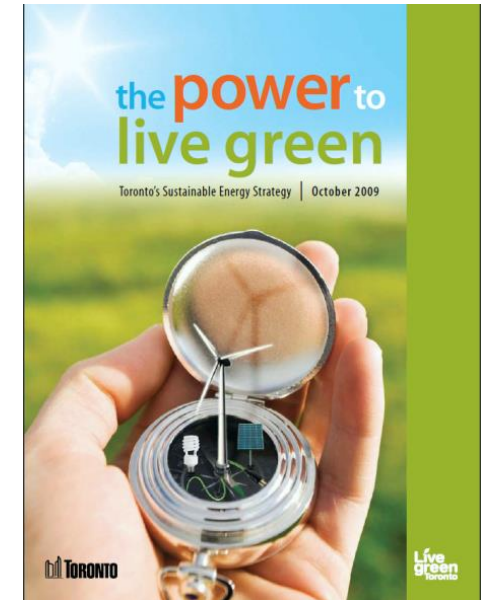
TransformTO is a **collaborative project** engaging the community in **achieving an 80% reduction in Toronto's greenhouse gas emissions by 2050**, while **enhancing its local economy**, **reducing inequalities** and **shifting patterns of consumption**.

The City's **Environment and Energy Division** and the **Toronto Atmospheric Fund** are co-leading TransformTO.

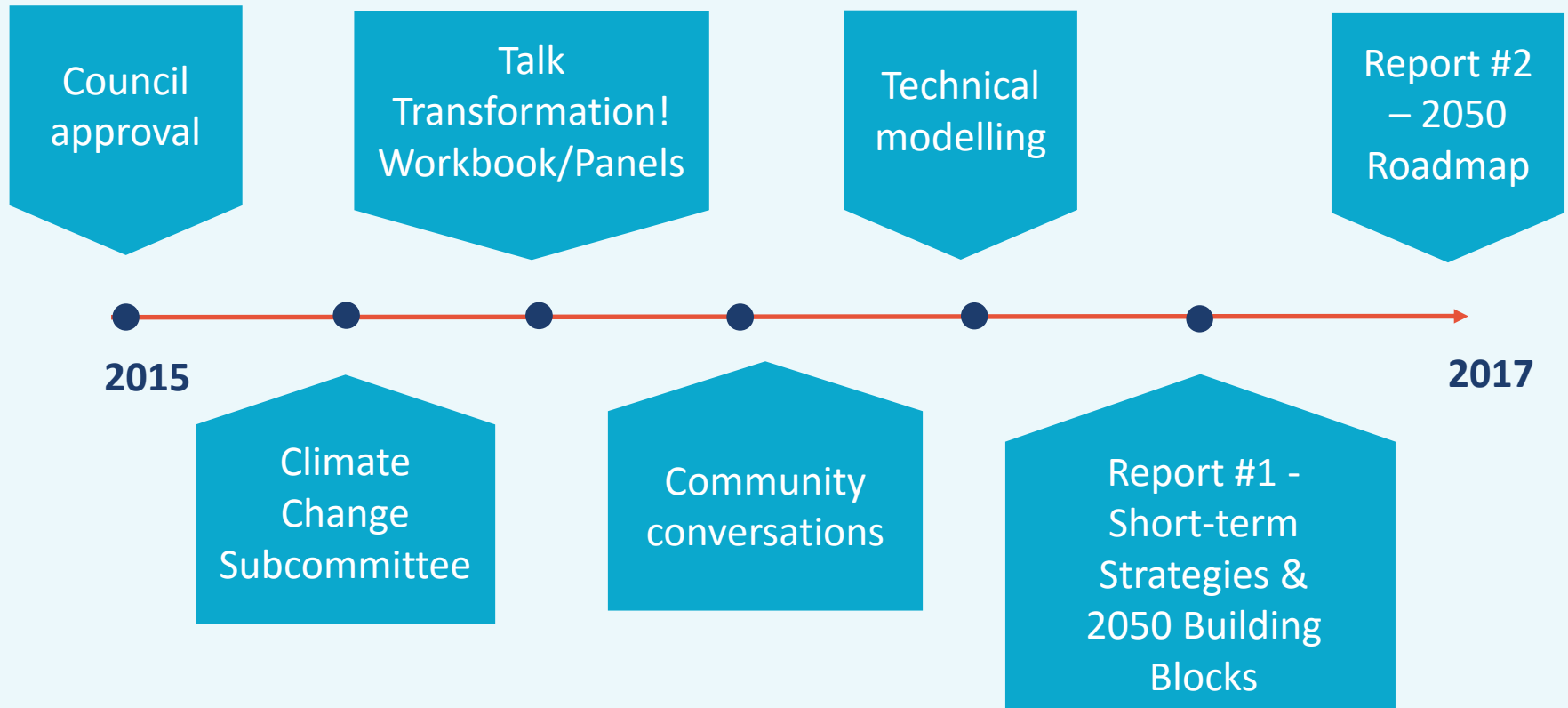
TransformTO

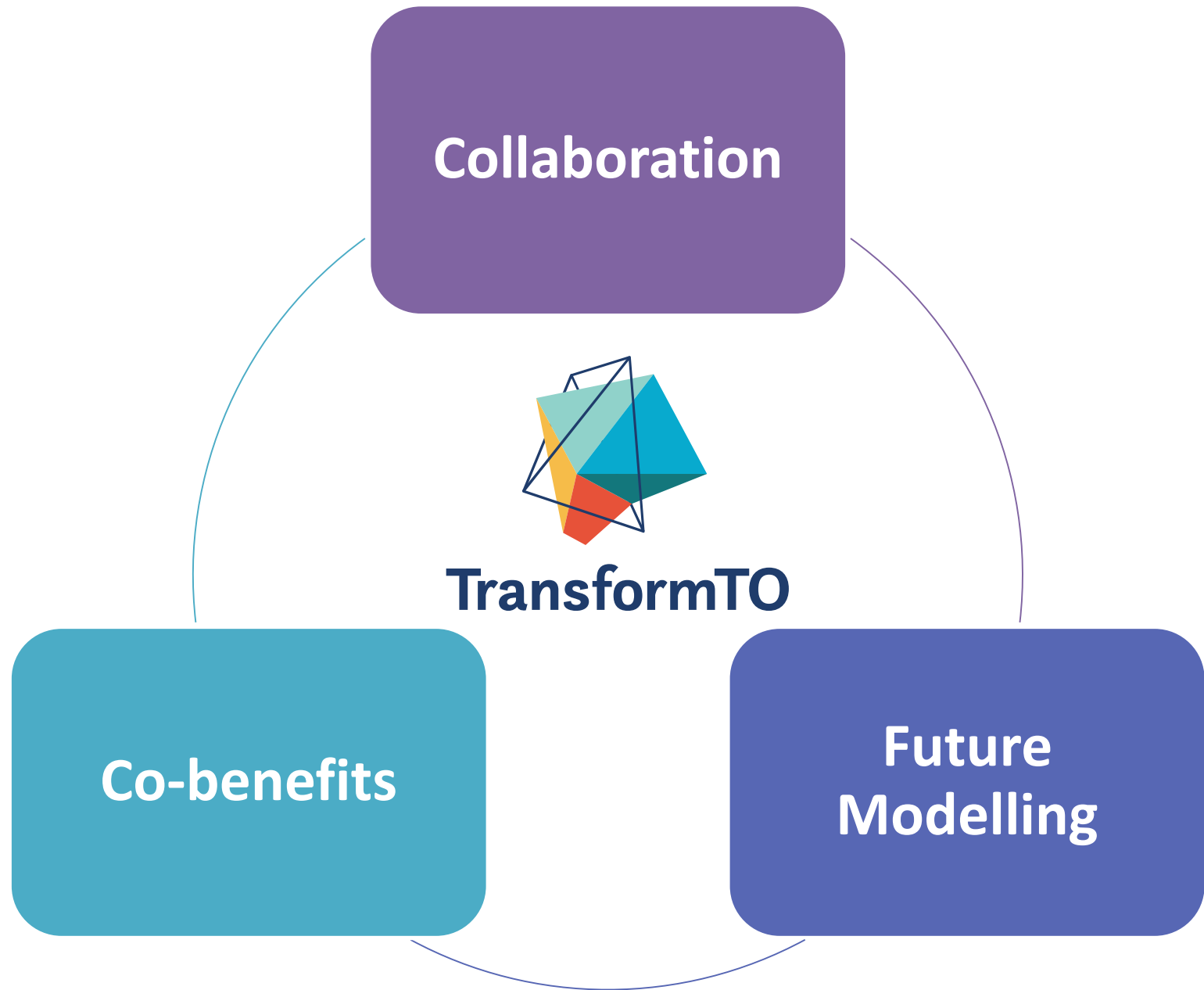


Toronto's Climate Action Leadership



TIMELINE





“Cities that collaborate with other actors are able to deliver twice as many climate actions as those that govern through a less partnership based approach.”

— C40 Cities/ ARUP

Community Engagement

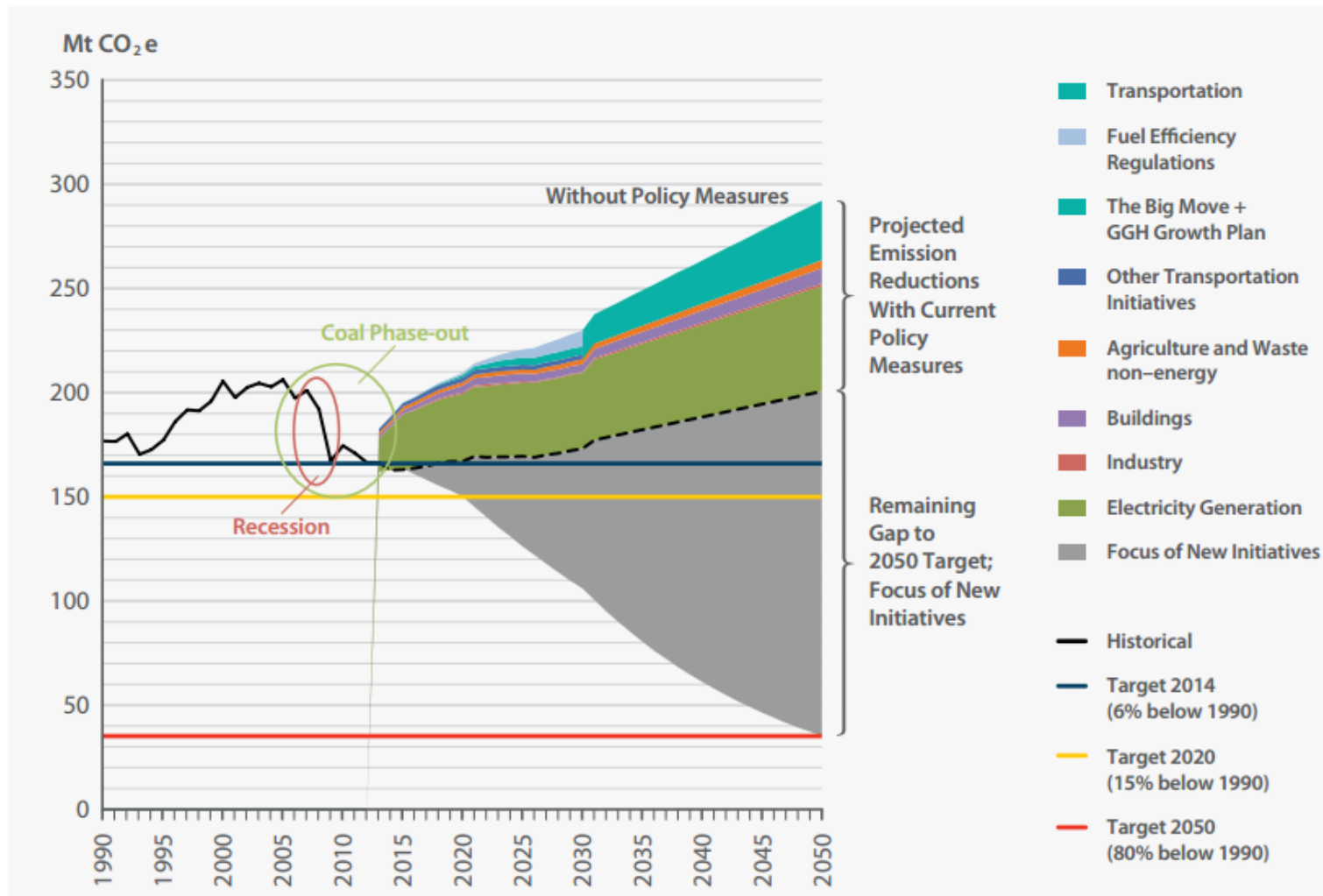


Stakeholder Engagement



GHG MODELLING & TECHNICAL ANALYSIS

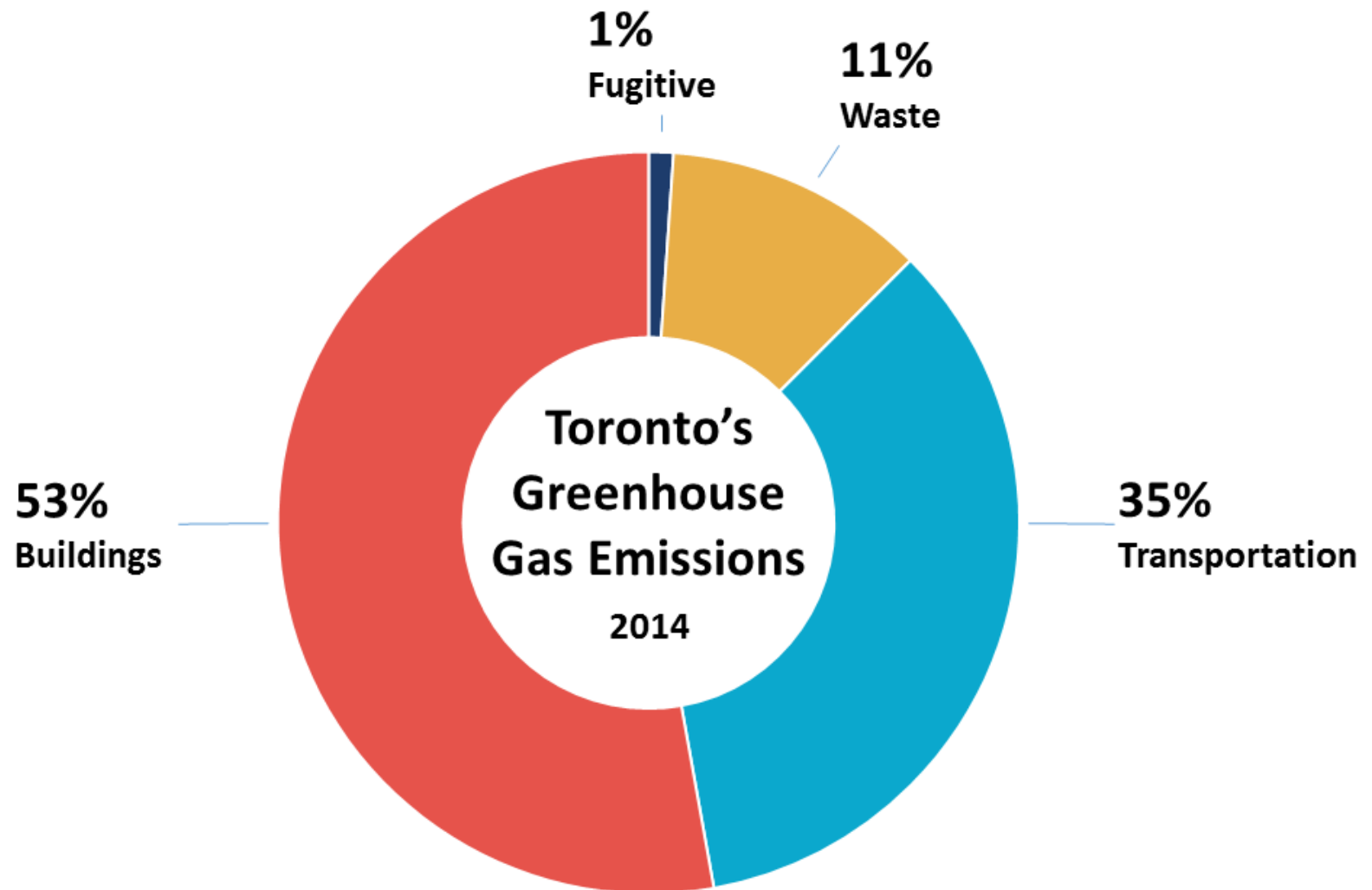
FIGURE 1 Ontario's GHG emissions trajectory "wedges"²⁸



SECTION TWO

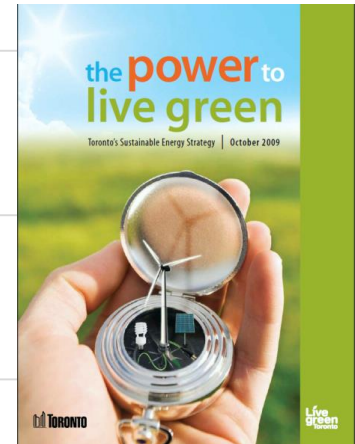
TransformTO Findings

TORONTO'S EMISSIONS SOURCES

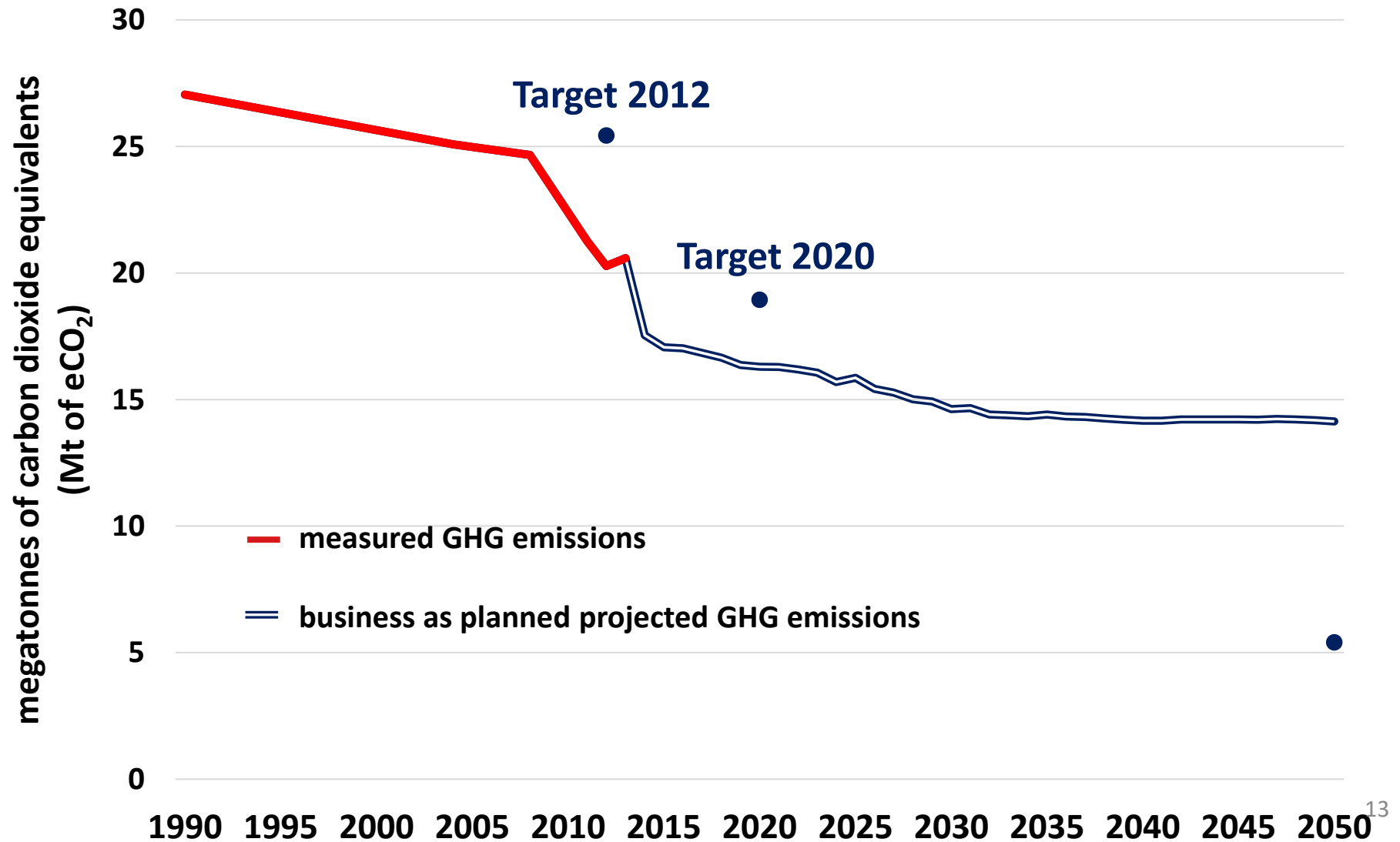


Measured GHG emissions (Mt of eCO₂)

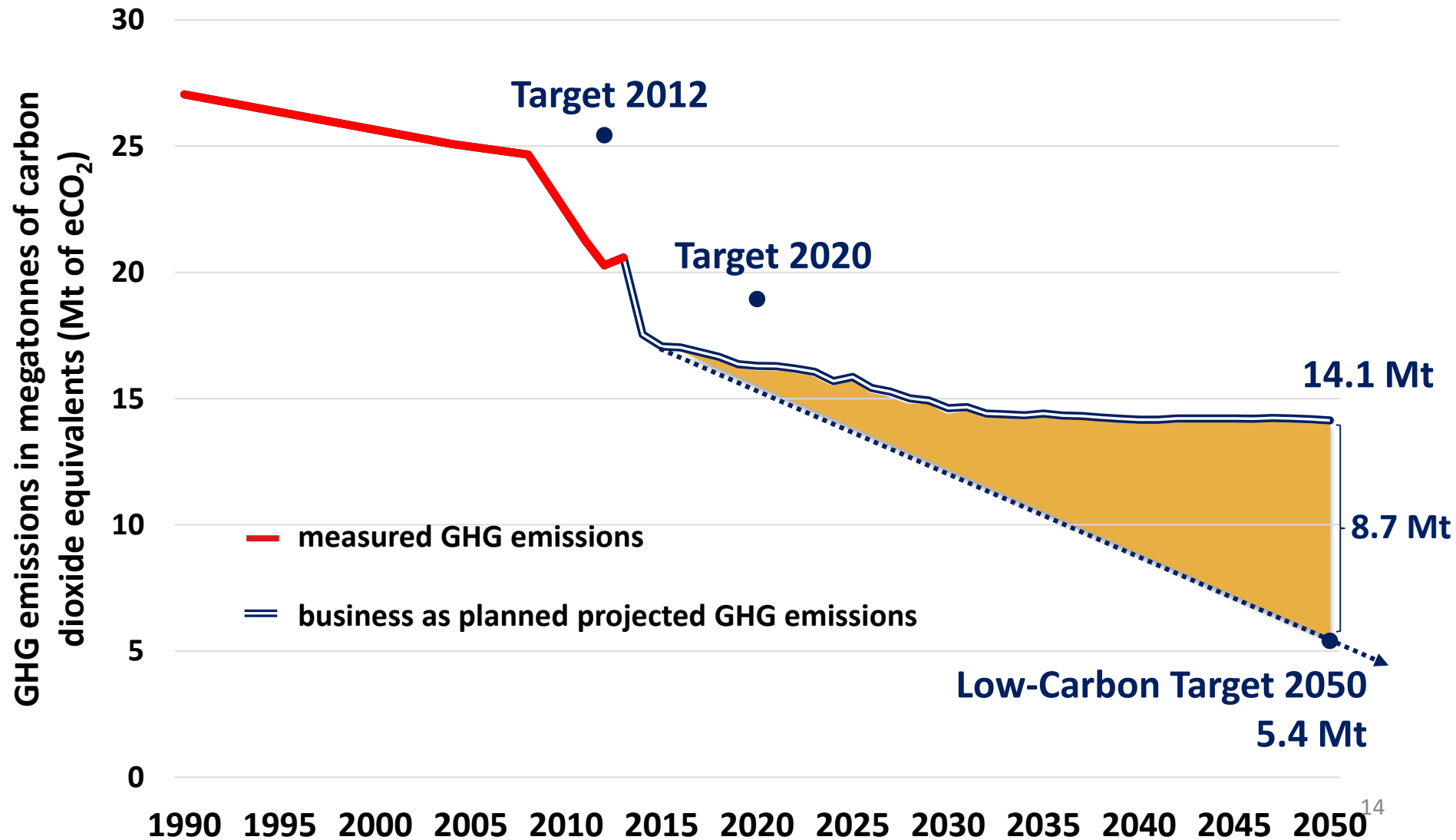
megatonnes of carbon dioxide equivalents
(Mt of eCO₂)



Measured and projected GHG emissions (Mt of eCO₂)



Measured and projected GHG emissions (Mt of eCO₂)



TransformTO Community Engagement Findings



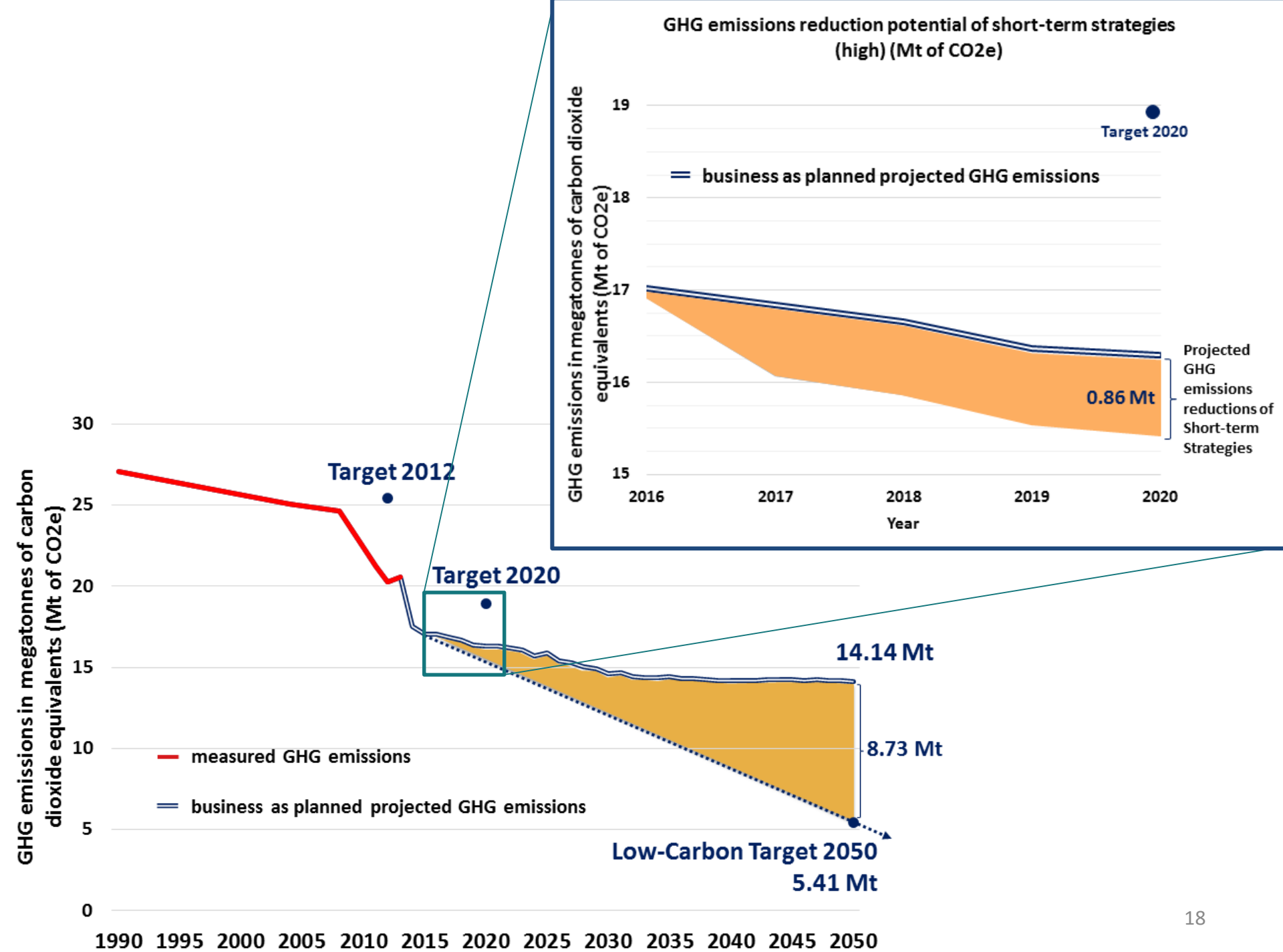
SECTION THREE

TransformTO Short-term Strategies

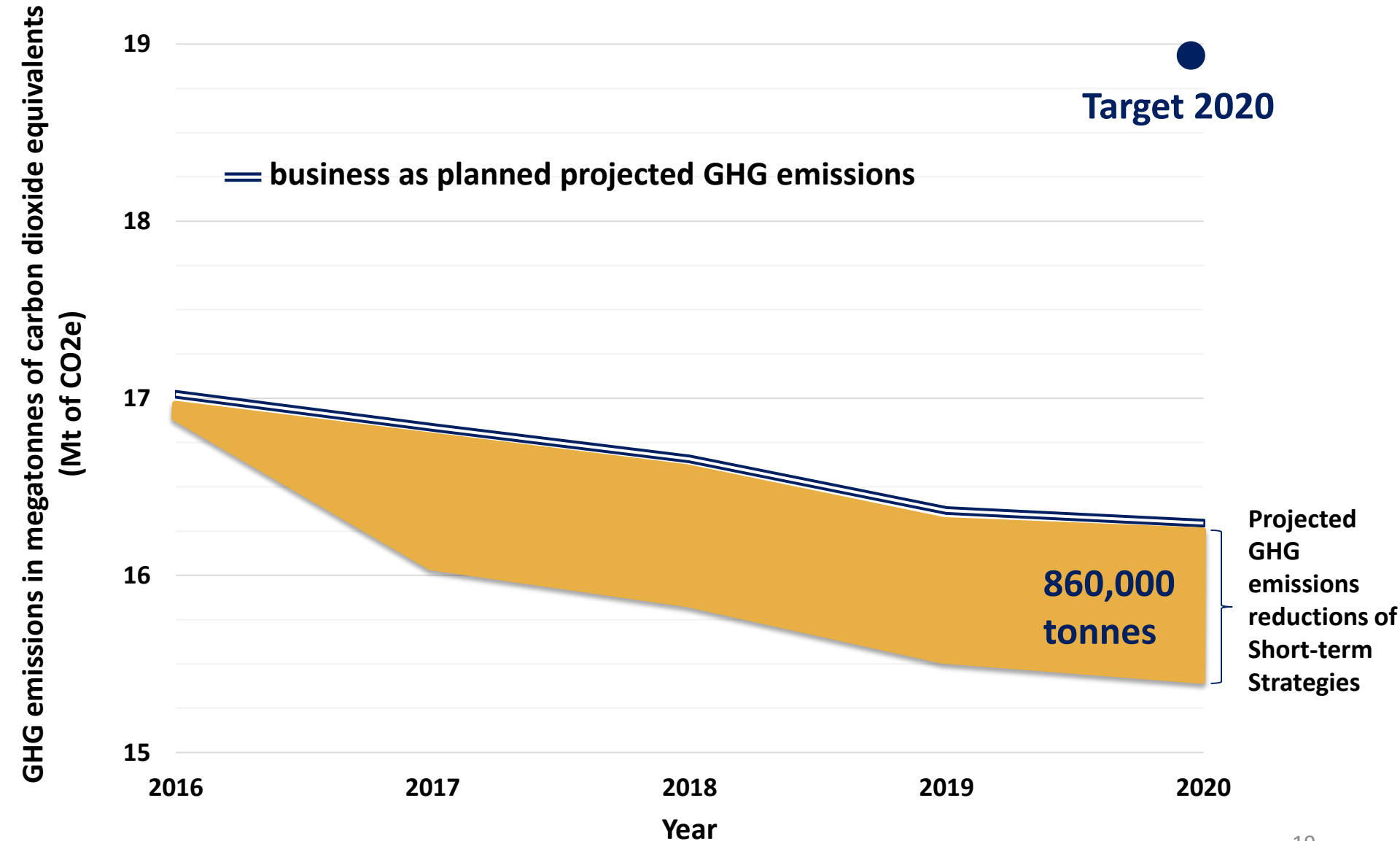


TransformTO Short-term Strategies

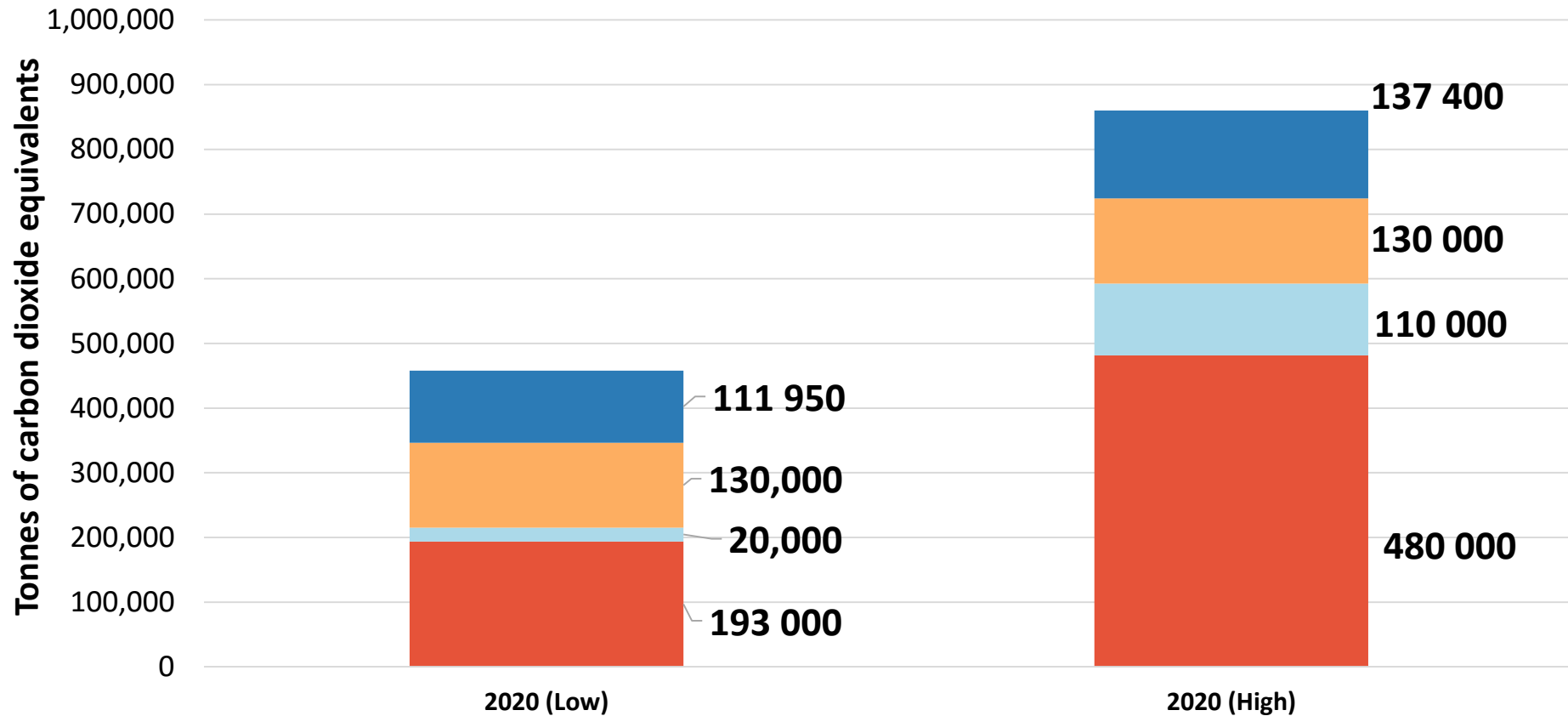
- 1 Support energy efficiency in buildings**
- 2 Raise the bar for new construction & community energy solutions**
- 3 Advance sustainable transportation**
- 4 Lead by example**
- 5 Engage and collaborate with stakeholders**



GHG emissions reduction potential of short-term strategies (high) (Mt of CO2e)



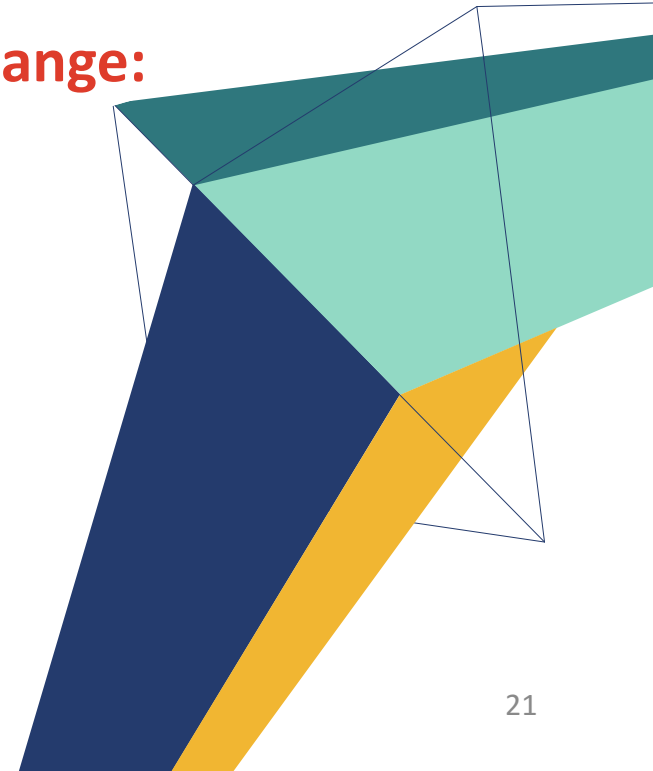
Cumulative GHG emissions reduction potential of short-term strategies (tonnes of CO2e)



- Leading by example
- Advancing sustainable transportation
- Raising the bar for new construction & low carbon community energy planning
- Supporting energy efficiency in buildings

- 1.1 Enhance the Better Buildings Partnership**
- 1.2 Scale-up Innovative financing mechanisms**
- 1.3 Dedicate funding for community-based climate action**
- 1.4 Improve energy efficiency of social housing**
- 1.5 Continue support for residential property owners**

**GHG Emission Reduction Potential Range:
193,000 – 480,000 tonnes**



2.1 Advance a leading-edge new construction standard

2.2 Advance community energy planning

2.3. Advance low-carbon/renewable Thermal Energy Networks(District Energy)

2.4 Advance a renewable energy strategy

GHG Emission Reduction Potential Range

20,000 – 110,00 tonnes

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3.1 Explore Road pricing

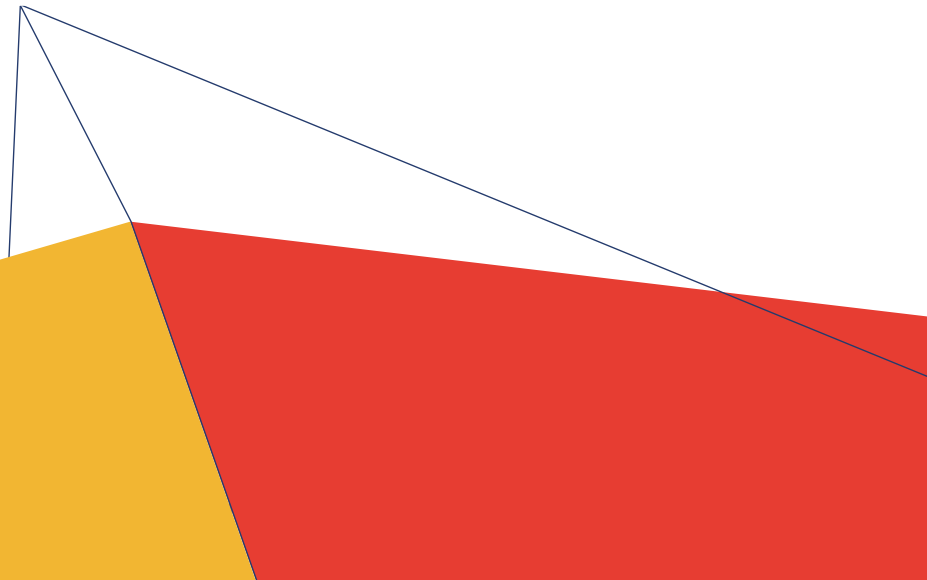
3.2 Support safe cycling and walking

3.3 Enhance transit service

3.4 Develop a freight strategy

3.5 Enable electric vehicles (EVs)

**GHG Emission Reduction Potential Range:
130,000 tonnes**



- 4.1 Expand energy retrofits at City facilities**
- 4.2 Scale-up renewable energy installations**
- 4.3 Utilize landfill gas and biogas**
- 4.4 Improve fleet fuel efficiency**
- 4.5 Promote Smart Commute for Toronto Public Service**

**GHG Emission Reduction Potential Range:
111,950 – 137,400 tonnes**

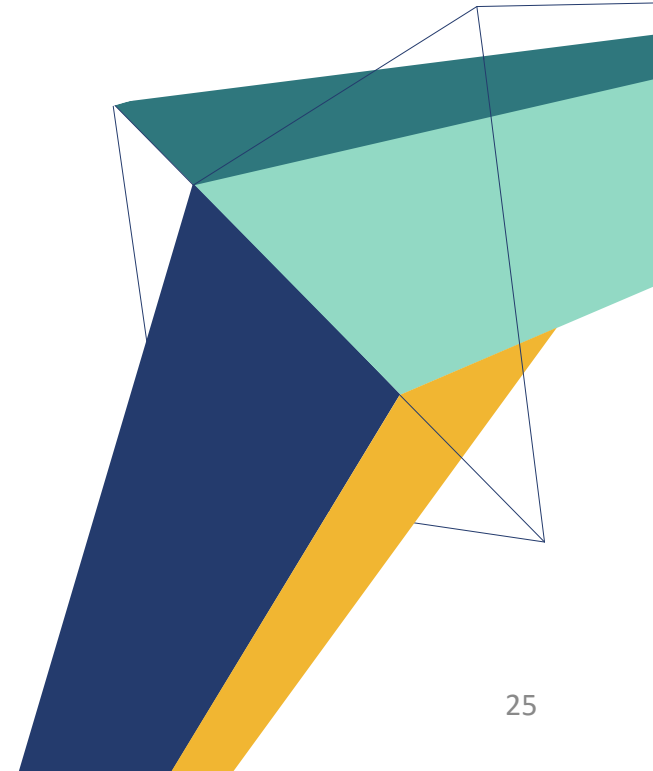


5.1 Continue TransformTO Community Engagement.

5.2 Use building energy disclosure as an engagement tool

5.3 Leverage Live Green Toronto

5.4 Collaborate with utilities on local programming

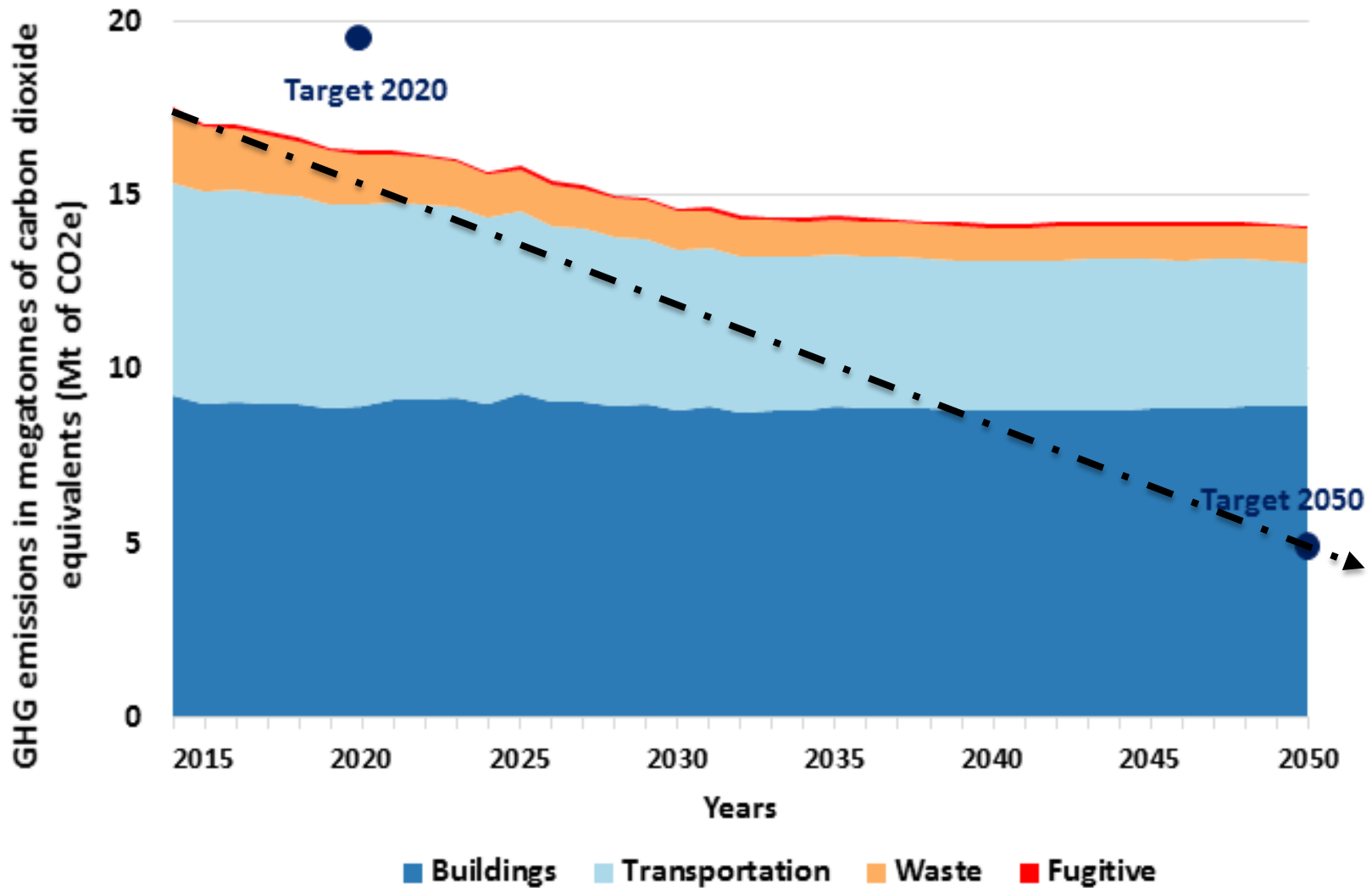


SECTION THREE

TransformTO 2050 Roadmap Building Blocks

The slide features a large, bold title in dark blue. Below the title, there are two large, overlapping geometric shapes: a light green triangle on the left and a blue triangle on the right. Two thin, dark blue lines originate from the right side of the title and extend downwards, connecting to the top vertices of the green and blue triangles respectively.

GHG Emissions Projection by Sector



Potential for Transformation

BUILDINGS AND ENERGY

Building Energy Efficiency

- Aggressive Retrofits of existing buildings
- TGS Update

Community Energy

- Net-Zero Community Energy Plans (CEP)
- Low-Carbon Thermal Networks

TRANS- PORTATION

Transit Supportive Development

Transit Network Plan Update

Active Transportation

Fuel Switching – Electric Vehicles (EVs)

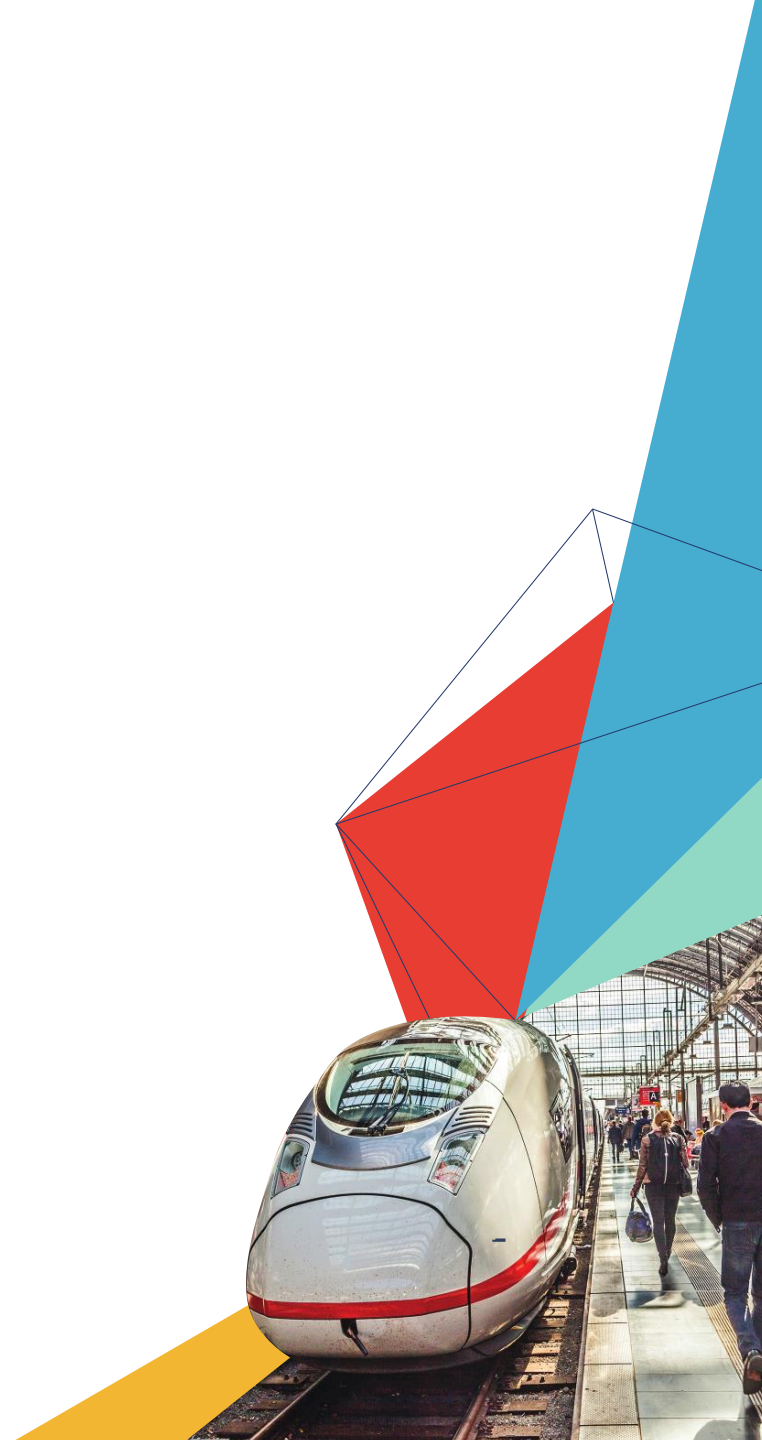
WASTE

Long-Term Waste Strategy

SECTION FOUR

TransformTO Next Steps

TransformTO



Transformation Case Study: Net-zero communities



- Port Lands has been directed to create a net-zero community energy plan

Net-zero communities



Local Economy

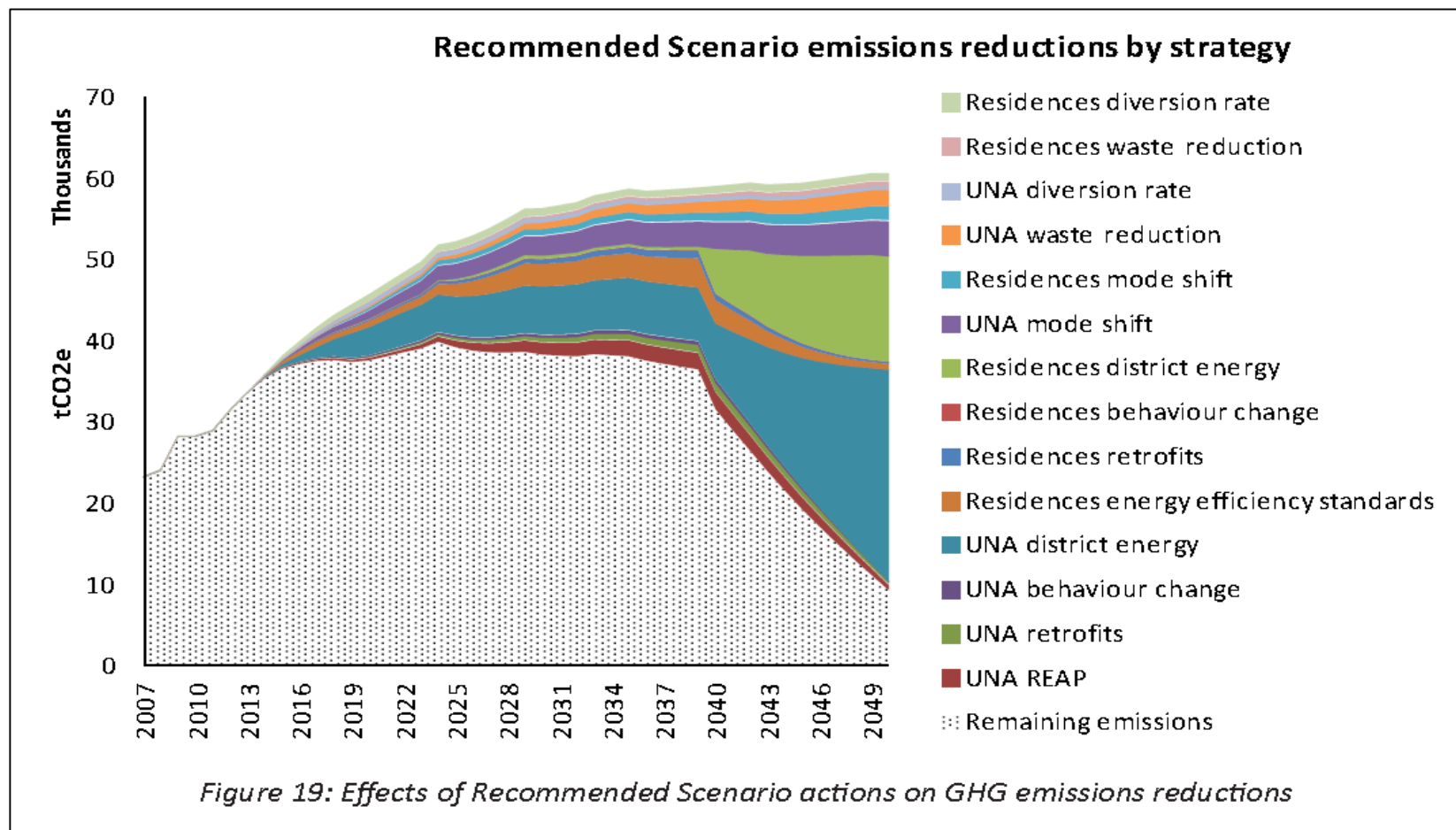


Social Equity



Public Health

Sample Emission Reduction Scenario





TransformTO

2050 Low-
carbon
scenario

Co-benefit
analysis

2050
Roadmap

“ ... the decisions made by mayors within the next five years will determine whether or not the world is set on a high or low carbon pathway.”

—ARUP, 2015

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