

GREENEST CITY ACTION PLAN

Implementation Update // July 9, 2014



OBJECTIVE

To become the greenest city
in the world by 2020

- Greenest City 2020 Action Plan adopted in 2011
- Overview of third year of implementation
- Positive, measureable results in nearly all goal areas

TEN GOAL AREAS

ZERO CARBON 	Climate Leadership	Lighter Footprint	Green Economy
	Green Transportation		
	Green Building		
ZERO WASTE 	Zero Waste		
HEALTHY ECOSYSTEMS 	Access to Nature		
	Clean Water		
	Local Food		
	Clean Air		

GREEN ECONOMY

Secure Vancouver's international reputation
as a mecca of green enterprise

Double the number of green
jobs by 2020, over 2010 levels

Double the number of
companies actively engaged in
greening their operations over
2011 levels by 2020

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
total number of green and local food jobs	16,700 (2010)	19,900	19%	33,400
per cent of businesses engaged in greening their operations	5% (2011)	TBD New survey to be conducted early 2015	TBD	10%



2013-2014 ACHIEVEMENTS

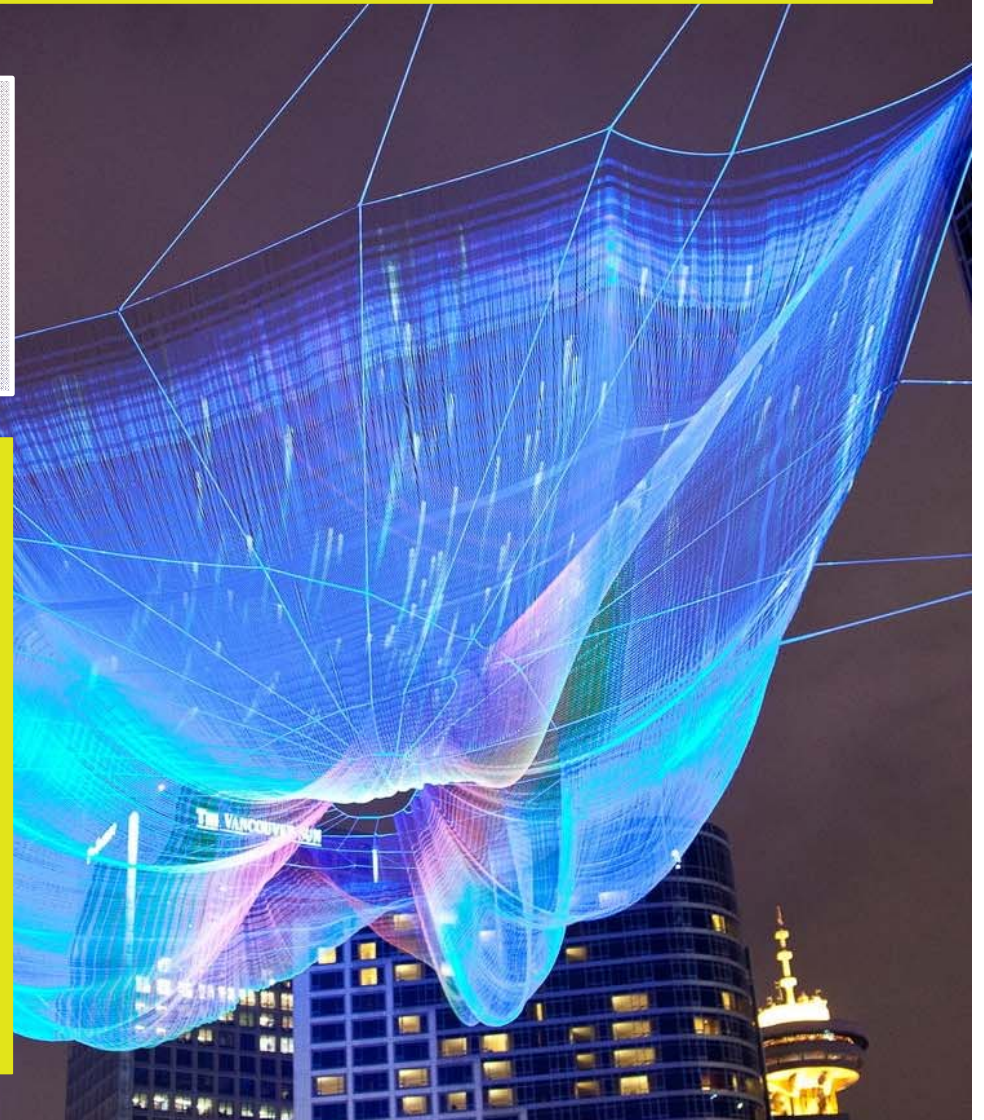
- 
- **Strong green jobs growth**
up 19% (3,200 jobs) from baseline
 - **Strong sectoral growth**
green building jobs up 50%
local food jobs up 21%
green transport jobs up 19%

2013-2014 ACHIEVEMENTS

- Showcasing green business
“Grizzly Den” local cleantech
showcase and business-pitch
session at GLOBE

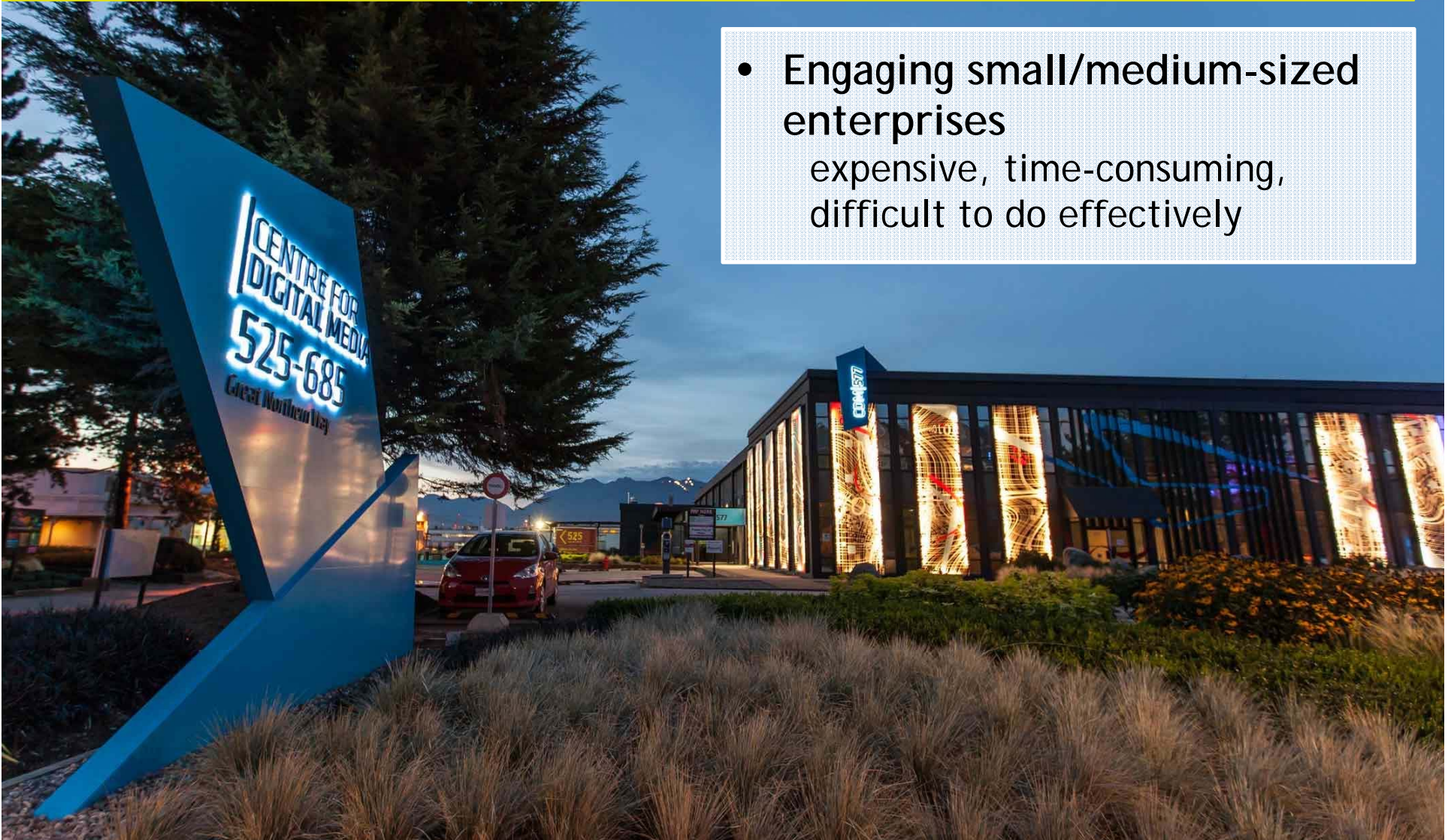
“In Vancouver, we found a special combination of things we didn’t find anywhere else and it got us really excited. There is a feeling of looking forward, a commitment to excellence, of innovation and sustainability.”

Chris Anderson, TED Curator



CHALLENGES TO IMPLEMENTATION

- Engaging small/medium-sized enterprises
expensive, time-consuming,
difficult to do effectively



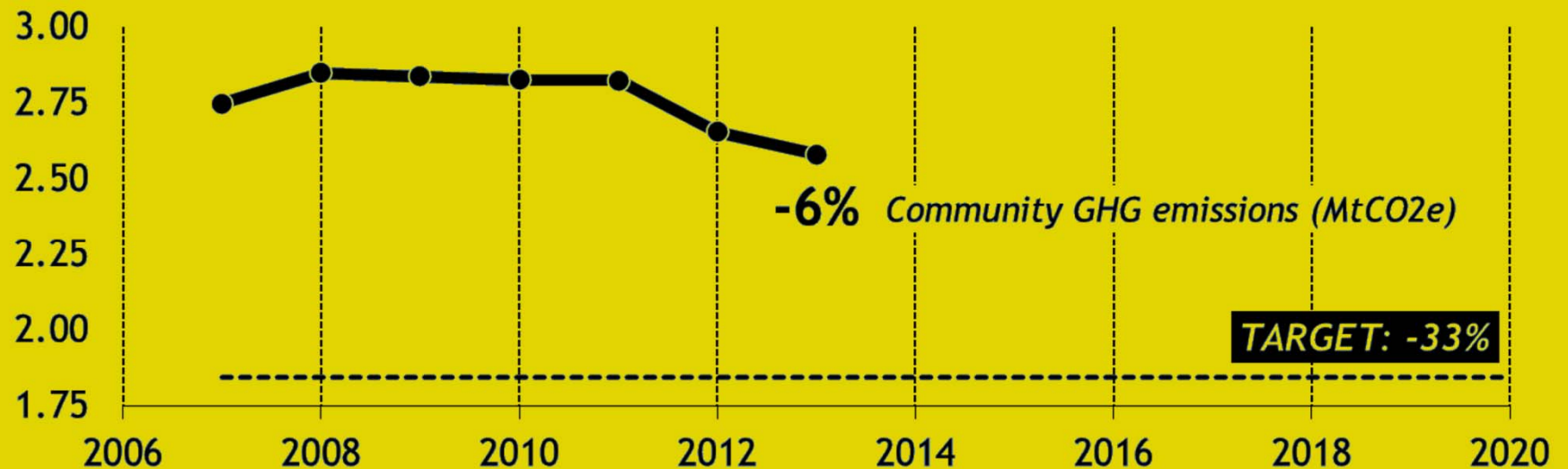
CLIMATE LEADERSHIP

Eliminate Vancouver's dependence on fossil fuels

Reduce community-based
greenhouse gas emissions 33
per cent from 2007 levels

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
total tonnes of community CO ₂ e emissions (tCO ₂ e)	2,750,000 (2007)	2,585,000	-6%	1,846,000



2013-2014 ACHIEVEMENTS

- **Coastal Flood Risk Assessment** completed Phase 1: the first of its kind at a city level in Canada
- **Landfill gas capture** equivalent to taking 104,000 cars off the road

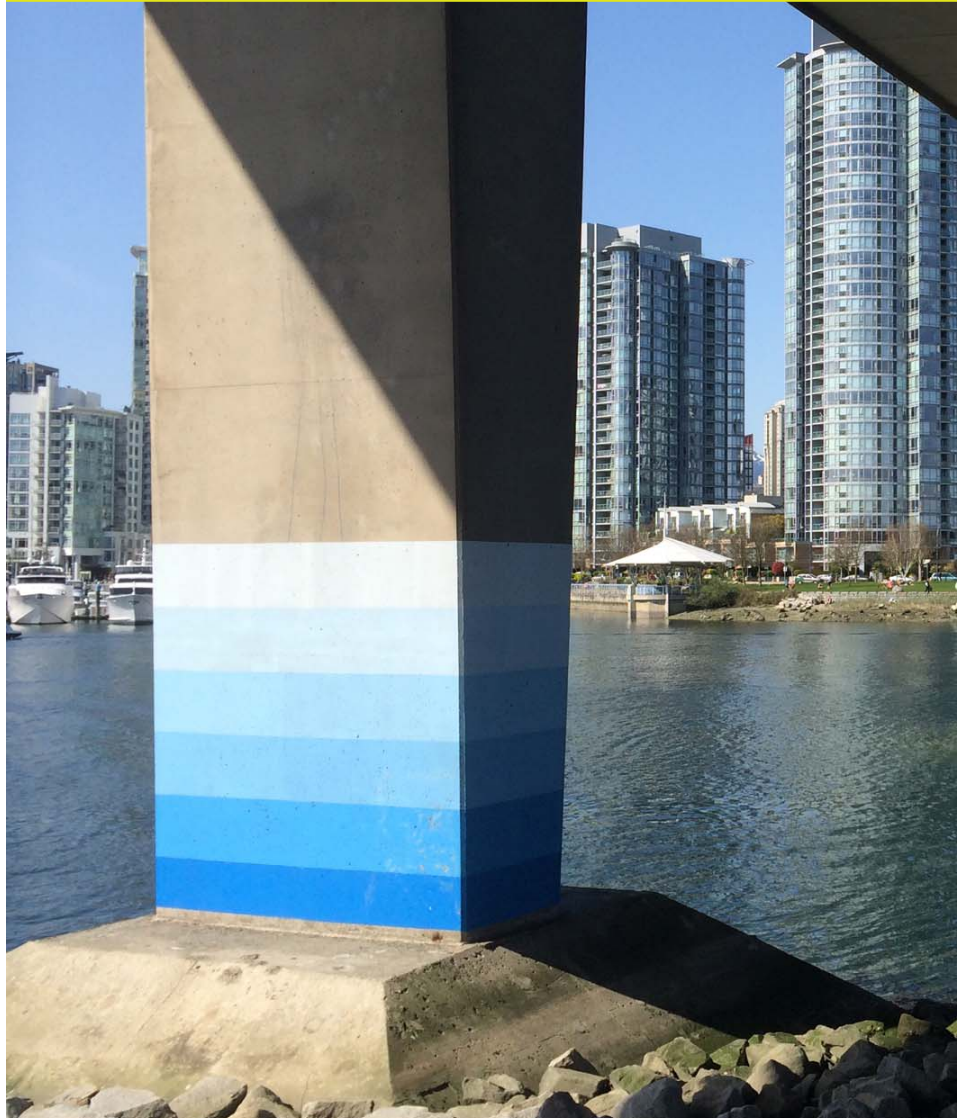
2013-2014 ACHIEVEMENTS

- **Southeast False Creek NEU**
neighbourhood energy utility
service area up 30% in 2013;
future systems in development
- **Carbon neutrality**
City operations carbon neutral
under Provincial framework

Winner:
World Wildlife Fund 2013
Global Earth Hour Capital for
climate protection leadership

FCM 2014 Green Champion
Award for climate leadership

CHALLENGES TO IMPLEMENTATION



- **Pipeline expansions**
 - increased GHG from oil sands expansion
 - failure to meet national climate commitments
 - exacerbated damage from future coastal flooding
- **Reductions outside of City's control**
 - 40% of projected greenhouse gas reductions were to come from Provincial actions

GREEN BUILDINGS

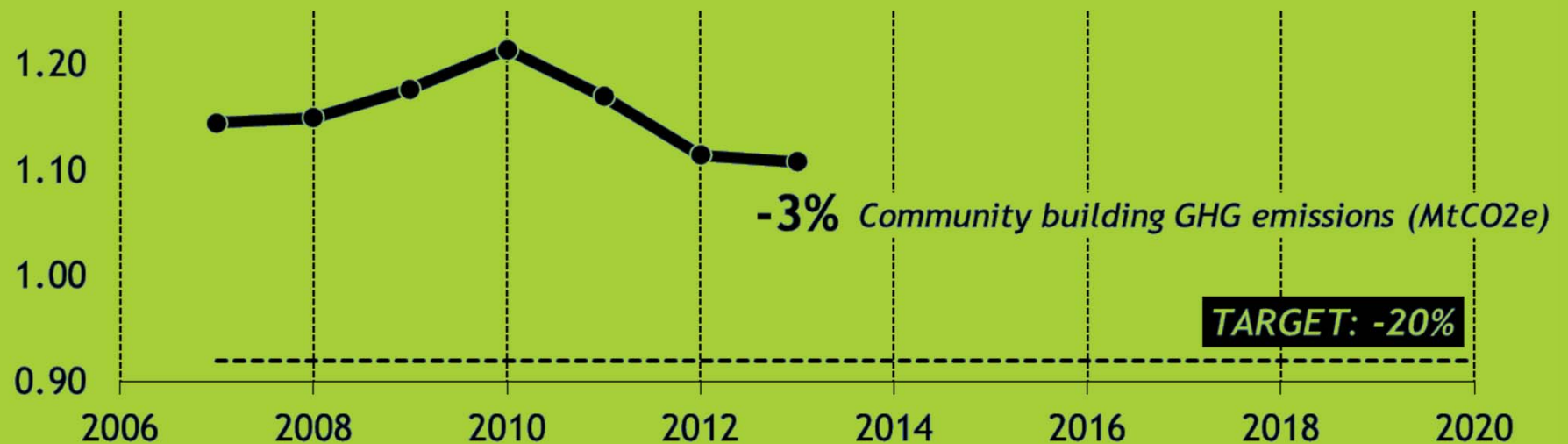
Lead the world in green building design and construction

Require all buildings constructed from 2020 to be carbon neutral in operations

Reduce energy use and greenhouse gas emissions in existing buildings by 20% over 2007 levels

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
tonnes CO ₂ e from residential and commercial buildings (tCO ₂ e)	1,145,000 (2007)	1,110,000	-3%	916,000



2013-2014 ACHIEVEMENTS

- 2014 VBBL
 - new homes will emit half the GHGs vs. Provincial code
 - large office and commercial buildings 15% more energy efficient
 - first Canadian jurisdiction to require energy efficiency upgrades during renovations

2013-2014 ACHIEVEMENTS



- **Green Landlords Pilot**
City support led to rental building owners commitments to energy upgrades that will:
 - reduce GHGs by 14%
 - pay for themselves in 2.4 years

Winner:
World Green Building Council
2013 Best Green Building Policy

CHALLENGES TO IMPLEMENTATION



- Engaging condominiums
high turnover of suite owners,
complex strata relationships
and decision-making processes

GREEN TRANSPORTATION

Make walking, cycling, and public transit preferred options



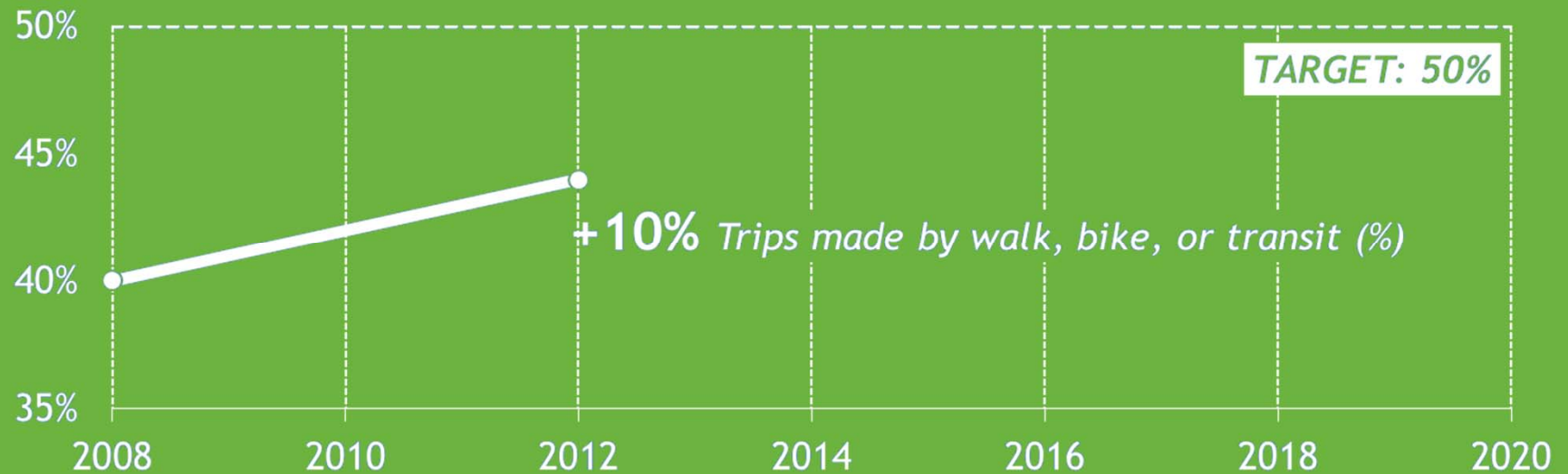
B8010
Majority (>50%) trips by foot,
bicycle and public transit

Reduce average distance driven
per resident by 20% from 2007
levels

RESULTS TO DATE

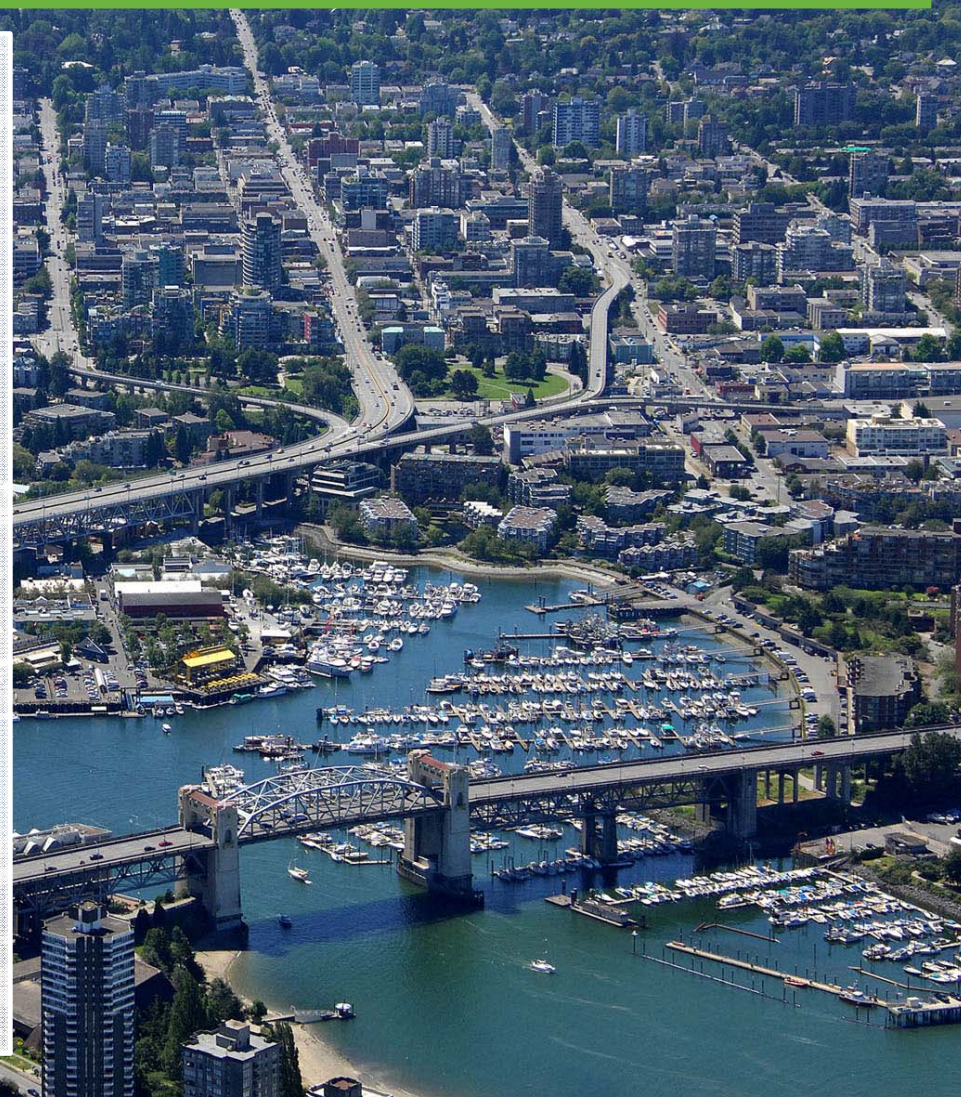
INDICATOR	BASELINE	2012	CHANGE	2020 TARGET
per cent mode share by foot, bike and transit	40% (2008)	44%	+10%	50%
total vehicle km driven per person	--	TBD	TBD	-20%

New survey to be conducted late 2014



2013-2014 ACHIEVEMENTS

- **Seaside Greenway completed** last leg of 28km continuous walking/cycling route; also improved Comox-Helmcken & Union Street routes
- **Burrard Street Bridge improvements** simplification of south intersection improves safety for all users
- **Powell Street Overpass** completed this core section of the Portside Greenway



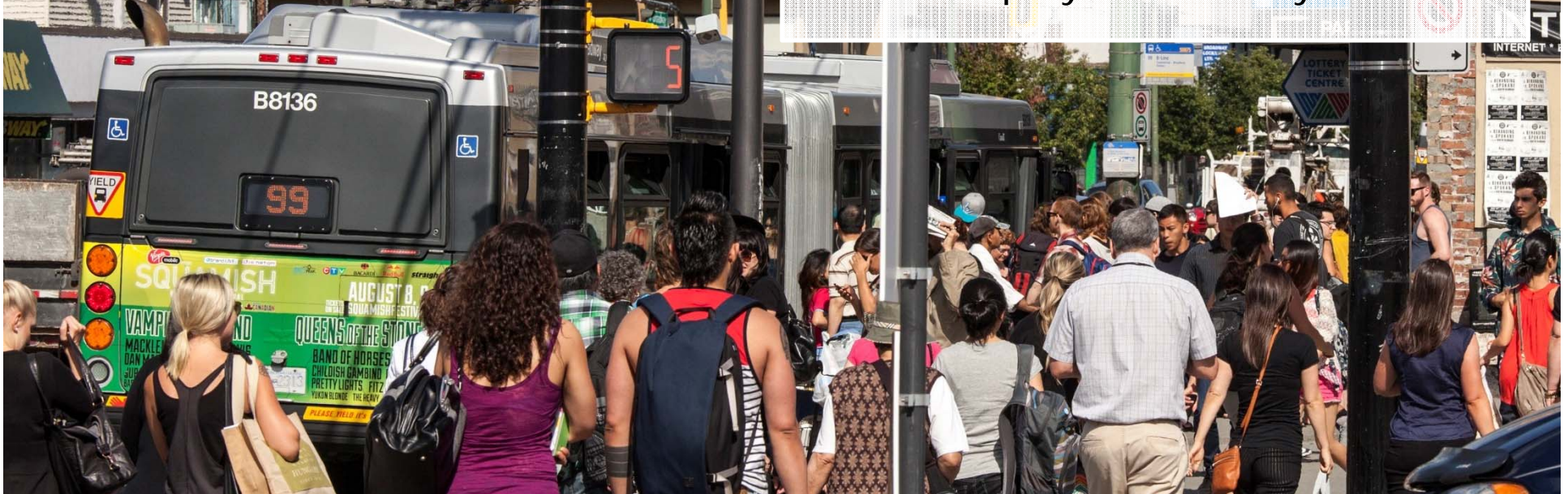
2013-2014 ACHIEVEMENTS

- Separated bike lanes increases female ridership
 - Hornby: up from 28% to 37% from 2010 to 2012
 - 41% city-wide average

19% of Vancouver's 265 kilometre bike network is designated "All Ages and Abilities": high-quality low-stress routes suitable for novice riders, families with children, and the elderly.

CHALLENGES TO IMPLEMENTATION

- Securing transit funding for the Broadway Corridor Skytrain extension
- Bike-share
System provider's prime supplier bankruptcy led to delays



ZERO WASTE

Create zero waste

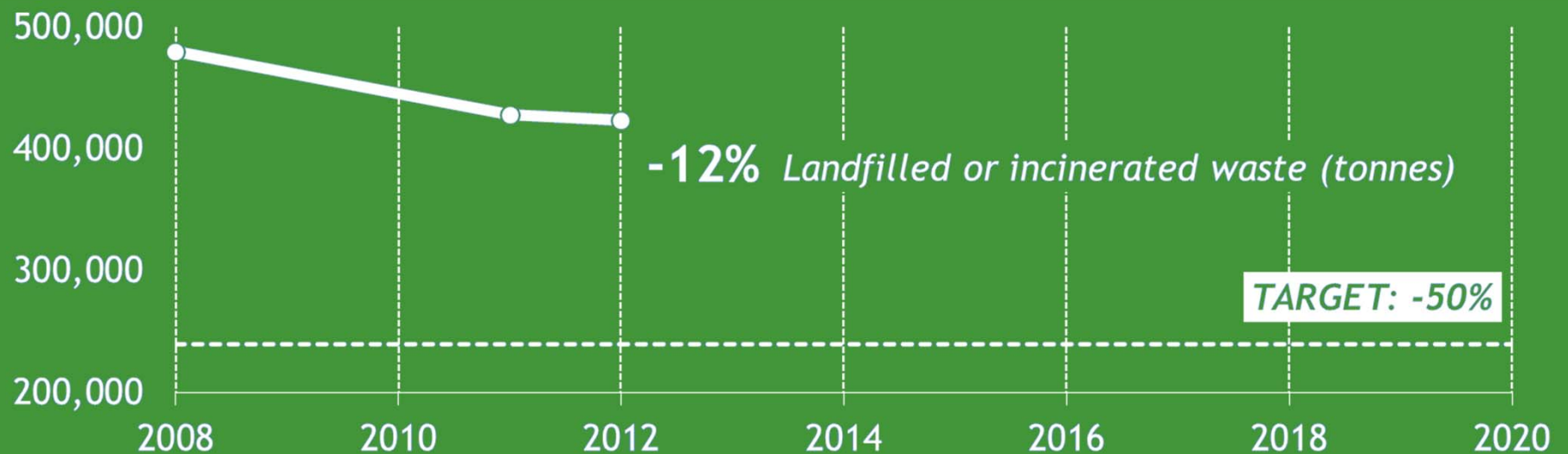


Reduce total solid waste going to landfill or incinerator by 50% from 2008 levels

RESULTS TO DATE

INDICATOR	BASELINE	2012	CHANGE	2020 TARGET
annual solid waste disposed to landfill or incinerator (tonnes)	480,000 (2008)	424,000	-12%	240,000

*Metric relies on Metro Vancouver data and is always **one year in arrears***



2013-2014 ACHIEVEMENTS

- 
- **Weekly food scraps pickup**
green bin collection up ~60% by weight; 39,000 tonnes diverted to compost
 - **Binner-accessible receptacle pilot**
redesign in partnership with Encorp reduced recyclables in trash by 94%

2013-2014 ACHIEVEMENTS

- **Heritage Action Plan recycling requirement**

Council approved recycling and reuse requirements for older homes in order to help preserve architectural character and reduce waste

Since the Green Bin program began for single family and duplex homes, approximately 40% more of their total waste is being diverted from landfill

CHALLENGES TO IMPLEMENTATION



- **Regional organics ban**
timely and effective implementation of ban will impact success
- **Green Bins for apartments and condos**
difficult to establish due to building space limitations and private hauler services
- **Reliance on regional data**
may not account for waste moving out of region

ACCESS TO NATURE

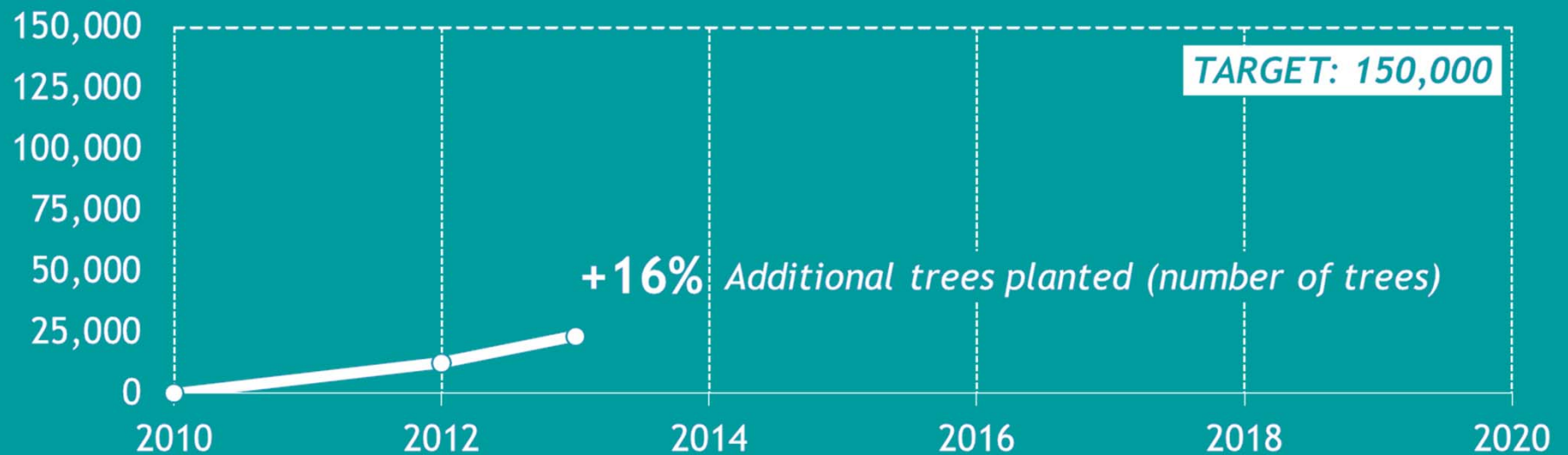
Vancouver residents enjoy incomparable access to green spaces

Ensure every Vancouver resident lives within a five-minute walk of a park, beach, greenway or other natural space

Plant 150,000 additional trees in the city between 2010 and 2020

RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of additional trees planted	0 (2010)	23,400	16%	150,000
per cent of city's land base within 5-min walk to a green space	92.6% (2010)	92.7%	0.1%	95%



2013-2014 ACHIEVEMENTS

- **Urban Forest Strategy**
included by-law amendment to ban healthy-tree removal
- **11,000 trees planted in 2013**
nearly the same number that were planted in the previous two years combined

2013-2014 ACHIEVEMENTS

- **Creekway Park**
daylighted stream; increased aquatic and streambed habitat in the heart of urban landscape

In Oak Meadows Park, 300 new trees and a pollinator garden were planted in 2013 to create songbird and bee habitat.

CHALLENGES TO IMPLEMENTATION

- **Acquiring land for new parks**
limited funding and increasing land values
- **Access to nature**
need to increase natural spaces and habitats in city parks, waterways, and shorelines

LIGHTER FOOTPRINT

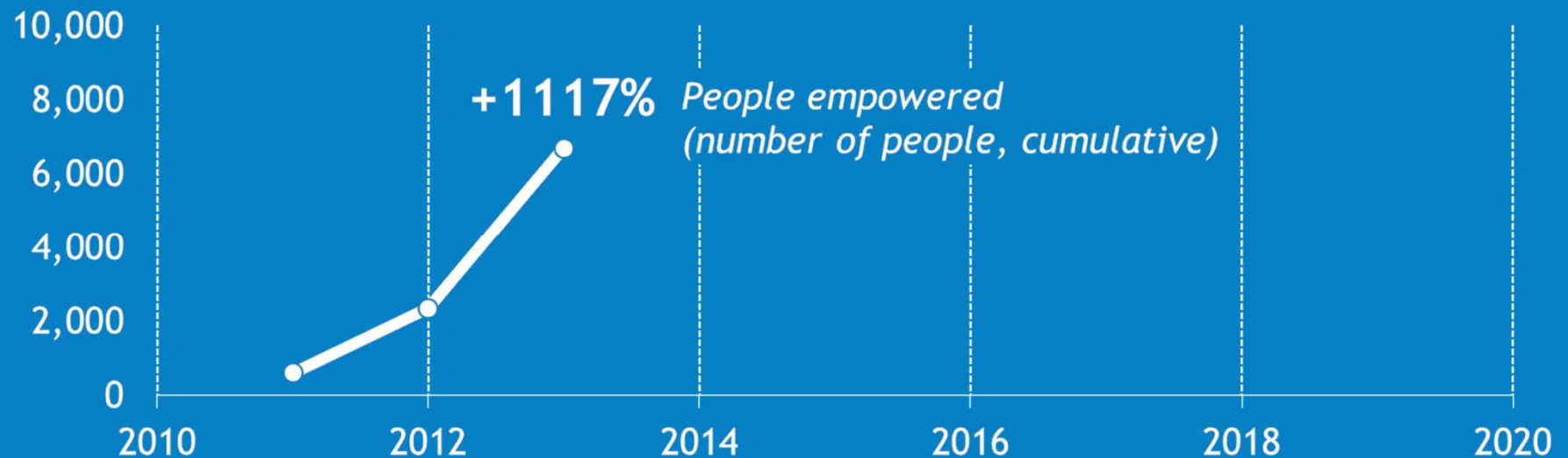
Achieve a one-planet ecological footprint

A photograph of two young women in a forest. The woman on the left is wearing a plaid shirt and a black polka-dot scarf, smiling. The woman on the right is wearing a black jacket and glasses, holding a wooden staff with a dark glove, and has a wide, enthusiastic smile. In the background, another person is visible, and the forest is misty.

Reduce Vancouver's
per capita footprint by 33%
over 2006 levels

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
Number of people empowered by a City-led or City-supported project to take personal action in support of Greenest City or reduce levels of consumption	600 (2011)	6,700	1117%	--



2013-2014 ACHIEVEMENTS

- **City Studio projects**
 - Britannia Food Share: youth recover unwanted food from local businesses, learn to prepare it, and feed themselves
 - free public pianos enliven public spaces making walking more rewarding
- **Green Events**
resources to encourage sustainable practices at events (zero waste, cycling support)
- **Greenest City Scholars**
Expanded program with UBC


CHALLENGES TO IMPLEMENTATION



- Food and consumption choices
personal choices of residents have a major impact
- Measuring ecological footprint
actual measurement is difficult as key data is available only at national or regional level

CLEAN WATER

Vancouver will have the best drinking water of any city.

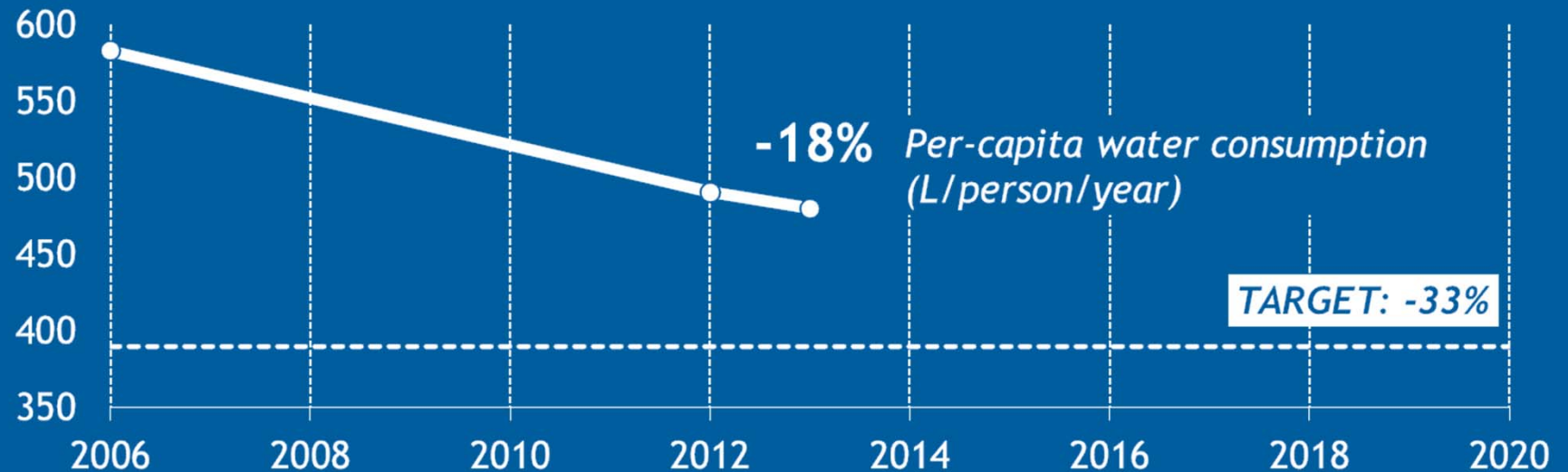
A woman with dark hair, wearing a dark jacket and a red scarf, is drinking from a blue water bottle. She is outdoors, with a body of water and a railing in the background. Another person is visible in the distance, walking away.

Meet or beat the strongest of
BC, Canadian and international
drinking water quality
standards and guidelines

Reduce per capita water
consumption by 33%
over 2006 levels

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
total instances of not meeting drinking water quality standards	0	0	--	0
total water consumption per capita (L/person/day)	583 (2006)	480	-18%	390



2013-2014 ACHIEVEMENTS

- **Water-use reduction in businesses and apartment buildings**

Plans to reduce water use by over 20% were developed with pilot groups of businesses and landlords

2013-2014 ACHIEVEMENTS

- **Green Plumbers[®]**
local plumbers/apprentices
trained to identify savings for
clients

>1,000 entries for the Ironclad Art Challenge design contest to highlight the important role of sewers in clean and healthy water systems.

photo credit: Stacie Biehler

CHALLENGES TO IMPLEMENTATION

- Water conservation in a “rainy” city
reliant on water stored during rainy season for long dry stretches in summertime

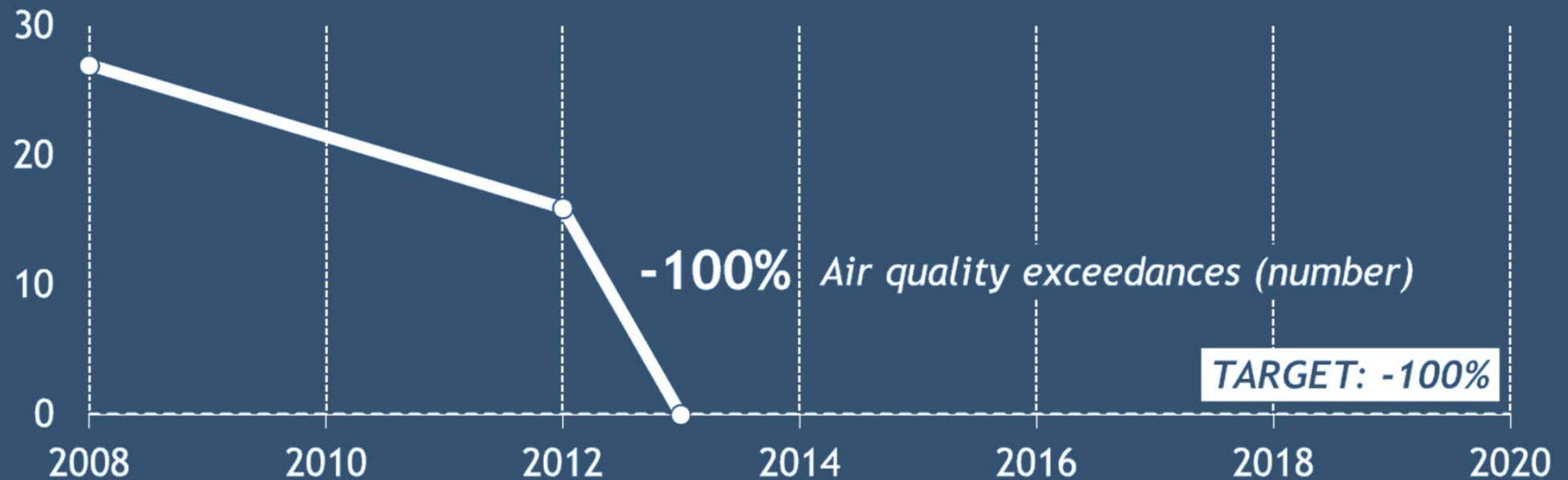
CLEAN AIR

Breathe the cleanest air of any major city in the world

Meet or beat the most stringent of Metro Vancouver, BC, Canadian and international air quality guidelines

RESULTS TO DATE

INDICATOR	BASELINE	2013	CHANGE	2020 TARGET
total number of instances of not meeting air quality standards for ozone, particulate matter, nitrogen dioxide, and sulfur dioxide	27 (2008)	0	-100%	0





2013-2014 ACHIEVEMENTS

- **Coal shipments banned**
on industrial lands; dust has significant impact on local air quality
- **Wood-burning appliances**
Vancouver Building By-Law incorporates strictest wood appliance emissions standard in North America

2013-2014 ACHIEVEMENTS

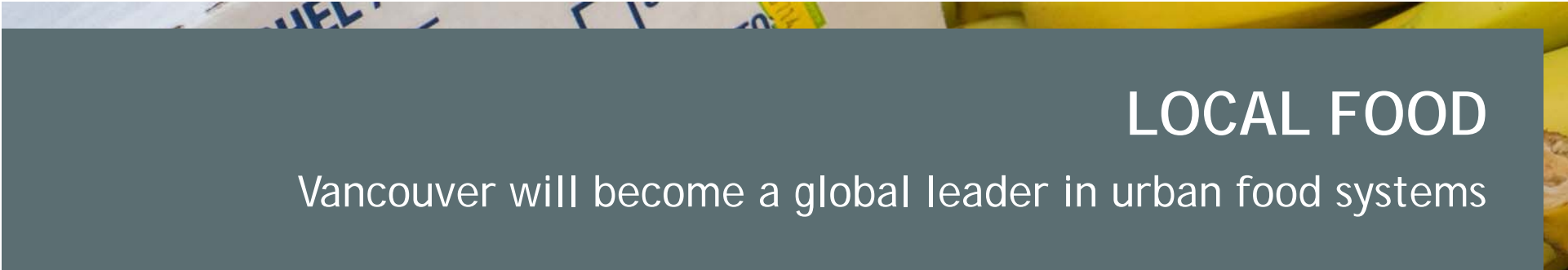
- **Electric Vehicle award**
FCM Sustainable Communities
Transportation Award for
electric vehicle infrastructure
program

The number of electric vehicle
charging stations doubled in
2013.

Currently: 93 City-installed;
57 BOMA-installed

CHALLENGES TO IMPLEMENTATION

- **Marine shipping**
increased oil tanker traffic from pipeline expansion would increase pollution
- **Air quality guidelines to be tightened**
air quality must remain a priority
- **Provincial restriction on reselling electricity**
discourages business investment in public electric vehicle charging stations



LOCAL FOOD

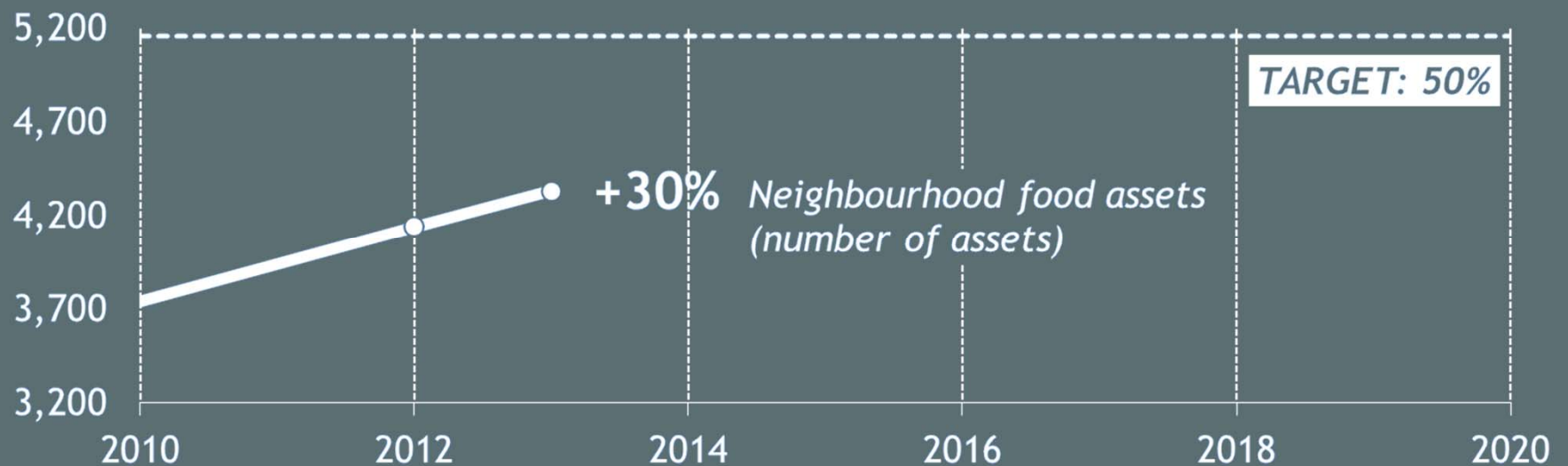
Vancouver will become a global leader in urban food systems

A photograph of a grocery bag filled with garlic. A white paper tag is placed inside the bag, reading "GARLIC grown in Vancouver 2.5¢ ea". A green card with the "PLANTED a community food network" logo is also visible. In the background, a yellow banana is partially visible.

Increase city-wide and
neighbourhood food assets
by a minimum of 50%
over 2010 levels

RESULTS TO DATE

<i>INDICATOR</i>	<i>BASELINE</i>	<i>2013</i>	<i>CHANGE</i>	<i>2020 TARGET</i>
total number of neighbourhood food assets in Vancouver	3,340 (2010)	4,332	30%	5,158



2013-2014 ACHIEVEMENTS



- **Vancouver Incubator Kitchen**
skills training and commissary
launched in collaboration with
Vancouver Community College,
Mark Brand Inc. and Vancity
- **Food assets in parks**
Park Board Local Food Action
Plan includes improved farmers
market infrastructure and new
community gardens

2013-2014 ACHIEVEMENTS



- Community food markets
fresh healthy food access for
residents with physical or
economic barriers

Vancouver added 481 new
community garden plots in 2013,
for a total of 4,166 plots.

CHALLENGES TO IMPLEMENTATION



- **Shortage of available land**
innovative growing techniques needed (moveable planters, vertical growing and rooftop gardens)
- **Shortage of food business incubation resources**
Such as leasable commercial kitchen, processing and refrigeration space

GCAP 2013-2014 SUMMARY

- Positive, measurable results in nearly all goal areas
- Global recognition for green building policy, electric vehicle infrastructure, and climate protection leadership
- Continued City, business, and community action crucial to achieving 2020 targets

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