



20141209 Lima COP

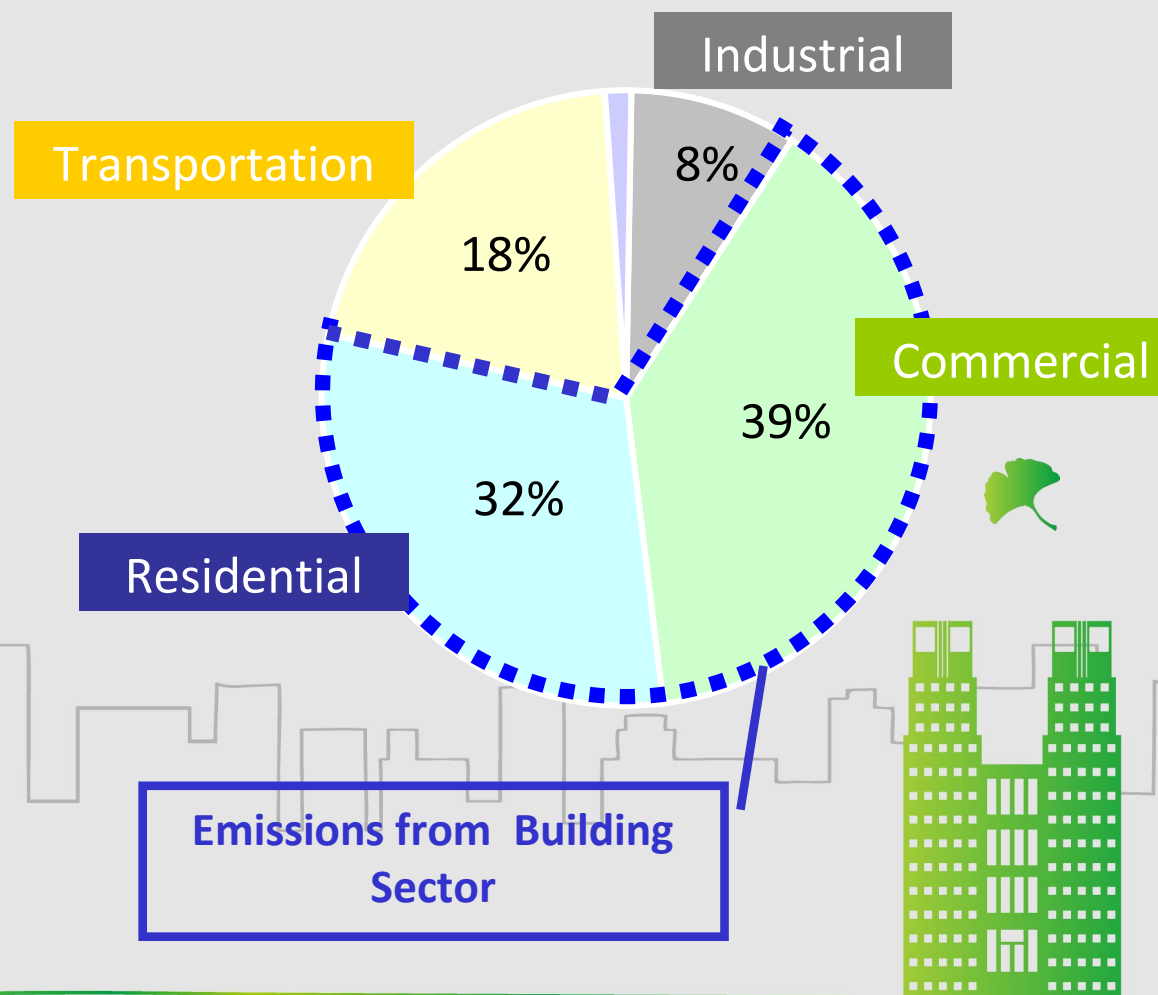
# Toward a Low Carbon City Tokyo and Global Networks

Yuko Nishida Tokyo Metropolitan Government-Environment

# Tokyo and it's carbon emissions

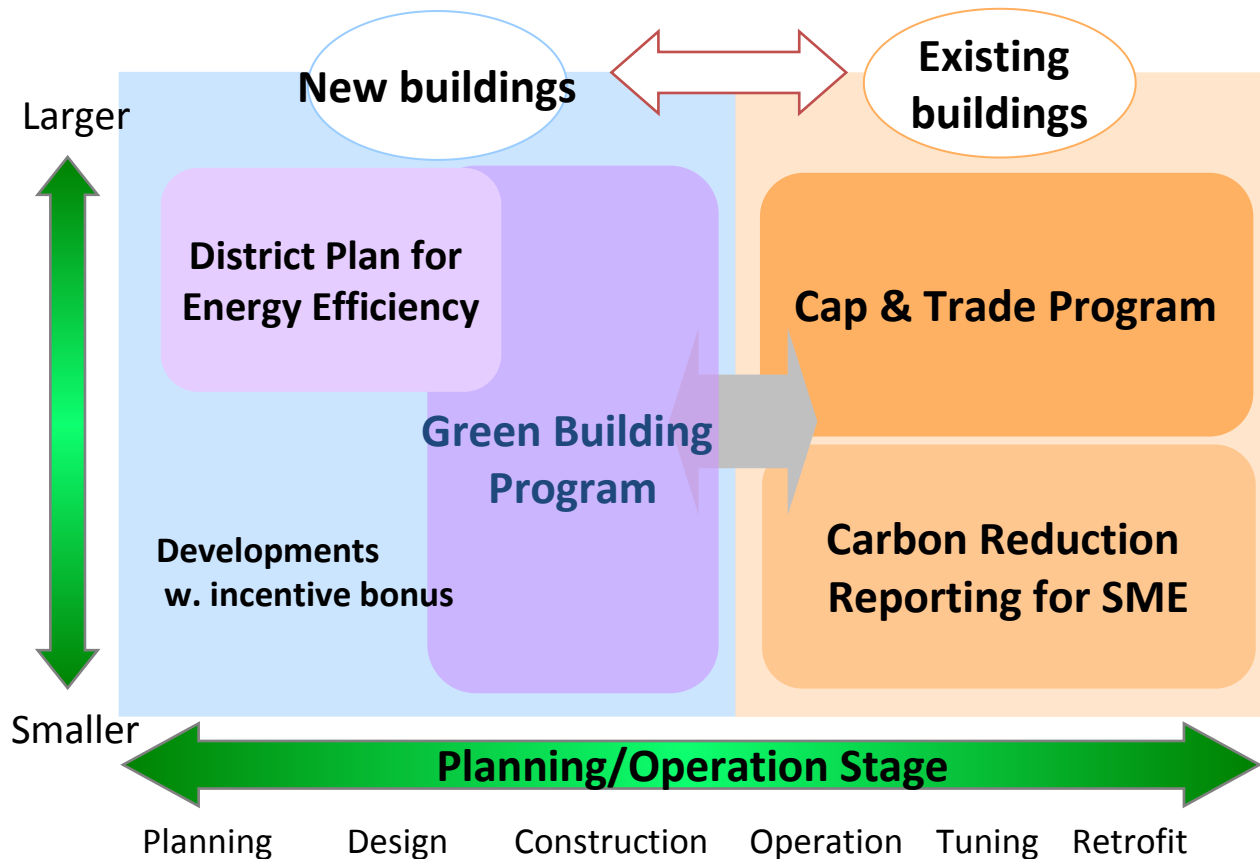


CO2 Emissions by Sector in Tokyo

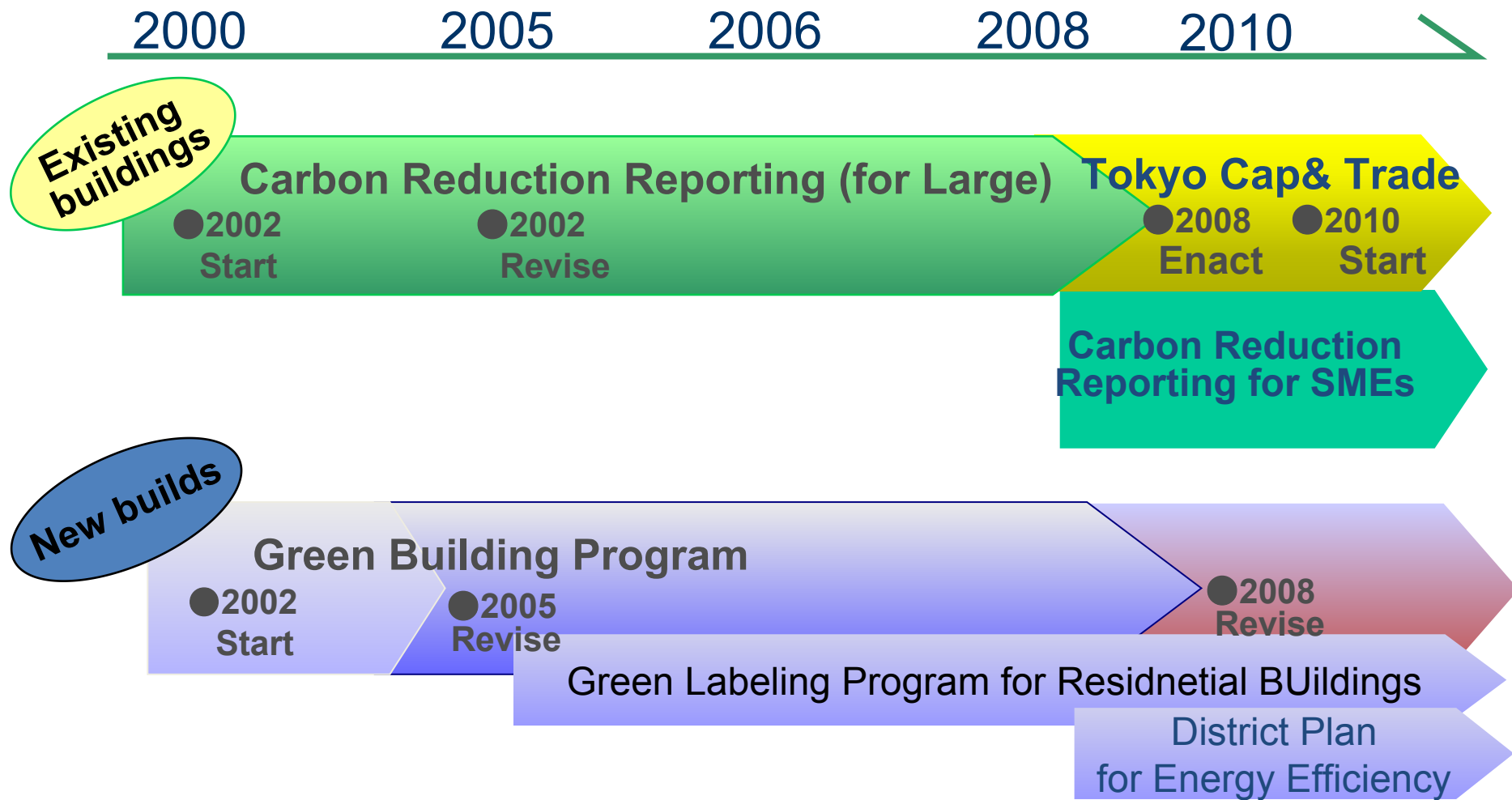


# Tokyo's Policy: Framework

## Policy Likages & Policy Developments



# Tokyo's Policy: Developmet



# Tokyo Metropolitan Government



## Outline of programs

Tokyo Cap-and-Trade Program

Tokyo Green Building Program

Carbon Reduction Reporting



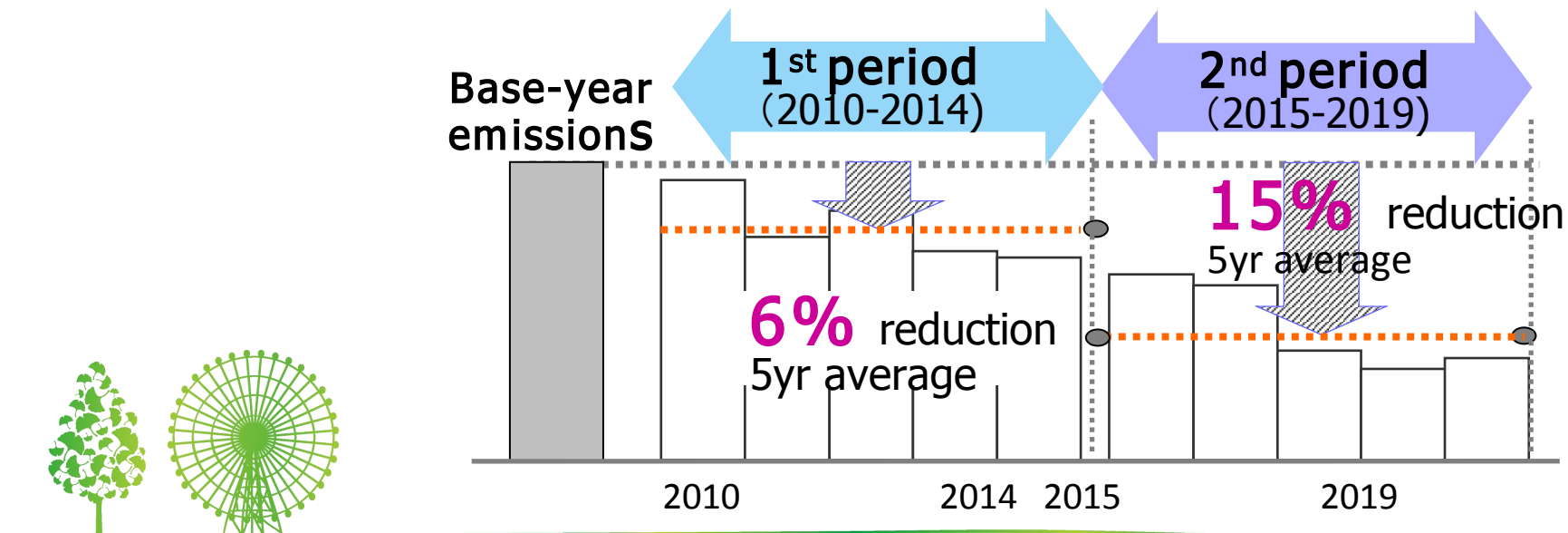
# Tokyo Cap-and-Trade 1

## Cap, Covered Facilities, Cap Settings

Cap (Total emissions allowed for the covered sector) was designed to enable Tokyo to achieve "-25% by 2020" emission target

Setting cap on emissions from **1,400 facilities** (Mainly commercial bldgs.), accounting for **20%** of Tokyo's total emissions

Under the cap, each building is obligated to reduce emissions by **6,8 %** (first period) and **15,17%** in the second period



# Tokyo Cap-and-Trade 2

## Trade and Offset

### Emission Trading:

Trade scheme can be utilized by owners to fulfill their obligations  
Tradable allowances are limited to the excess reductions over compliance obligations

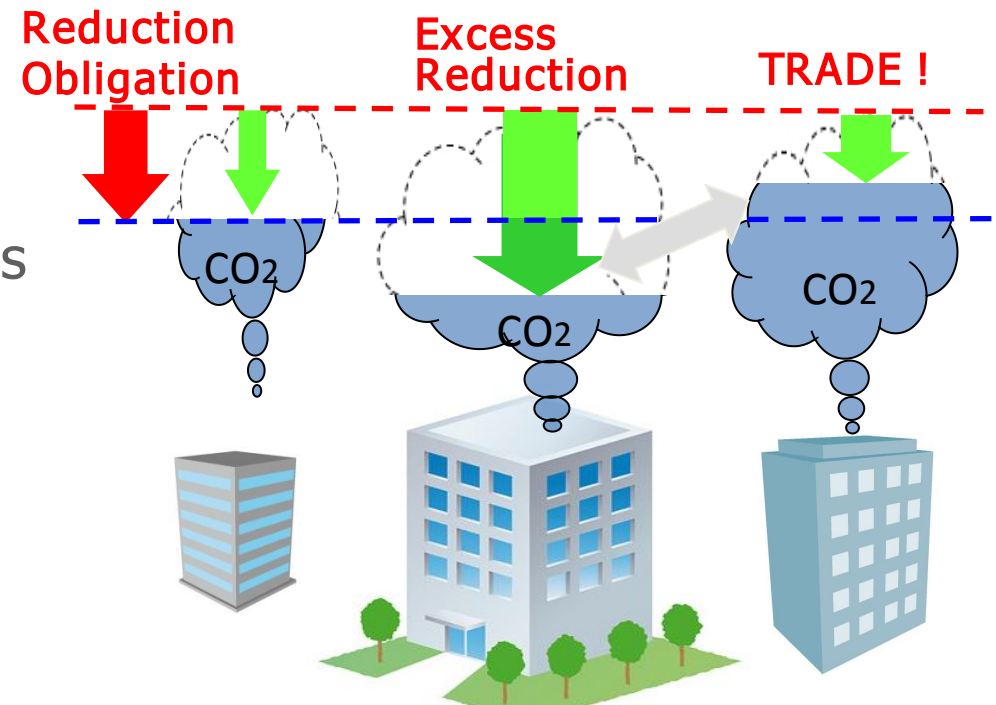
**MRV:** Monitoring and annual reporting are required  
Verification system established for the program

### Offset systems:

Renewables, emission reductions in small facilities, etc.

### Linkage:

Link with the C&T of an adjacent prefecture





# Tokyo Green Building Program

## Rating and disclosure system for sustainable design

**Coverage:** Covering 40% of new buildings

Newly planned large buildings (over 5,000 sq. meters)

**Requirement:** Mandatory reporting, Minimum energy standard

Submit sustainable design plan with its ratings

Satisfy Tokyo's energy standard (higher than the National)

**Rating & Disclosure:**

12 items in 4 categories including "Energy, Natural Environment, Water/Material, and Heat Island category"

Rated results are disclosed on the TMG website

**Labeling and Energy Efficient Certificate Programs**

have been developed based on this GB program

**Incentive system** in the urban planning is effectively working

The image shows a screenshot of the Tokyo Green Building Program (TMG) rating form. The form is titled "東京都 建築物省エネルギー性能評価書" (Tokyo Green Building Program Energy Efficiency Evaluation Form). It includes a section for "建築物の基本情報" (Basic Information of the Building) and a "チェックリスト" (Checklist) for various energy efficiency measures. The form is designed to be filled out by building owners or designers to assess the energy performance of new buildings.

The image shows the TMG Green Labeling Program for Condominiums. It features a green header with the text "TMG Green Labeling Program for Condominiums". Below the header is a table with five categories and their corresponding star ratings:

Category	Rating
Insulation	★★★★
Energy efficiency	★★★★
Solar Energy	★★★★
Longer building life	★★★★
Greening	★★★★

Below the table is a note: "This indication is based on the TMG Environmental Security Ordinance." and a box labeled "2009 Criteria".





# Carbon Reduction Reporting for Small and Medium Facilities

## Target:

Small & medium emitters not covered by the Tokyo C&T

## Requirement: Mandatory reporting

Reporting annual CO<sub>2</sub> emissions & their plan for reductions

Disclose on the TMG website

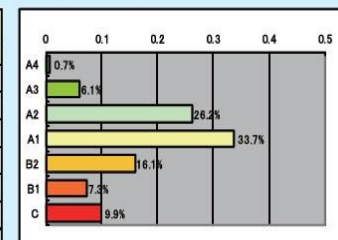
Over 34,000 facilities are reporting  
including 10,000 volunteers

## Launched Voluntary Benchmarking Program

22 building-use categories in 7 ratings

2. Medium-sized Buildings for Rent (3,000 m<sup>2</sup> or larger but smaller than 10,000 m<sup>2</sup>)

Range	Basis	Emission Intensity (kg / m <sup>2</sup> )			Number of Facilities	Percentage	Average Floor Area
A4	0.25 or less	19.6 or less			7	0.7%	4988.83
A3	More than 0.25 but 0.50 or less	More than 19.6 but 39.1 or less			58	6.1%	5063.63
A2	More than 0.50 but 0.75 or less	More than 39.1 but 58.6 or less			250	26.2%	5526.83
A1	More than 0.75 but 1.00 or less	More than 58.6 but 78.1 or less			321	33.7%	5444.23
B2	More than 1.00 but 1.25 or less	More than 78.1 but 97.7 or less			153	16.1%	5930.80
B1	More than 1.25 but 1.50 or less	More than 97.7 but 117.2 or less			70	7.3%	5981.22
C	More than 1.50	More than 117.2			94	9.9%	5537.81
		Average intensity	78.1	Total	953	100%	5566.20



# Tokyo Metropolitan Government



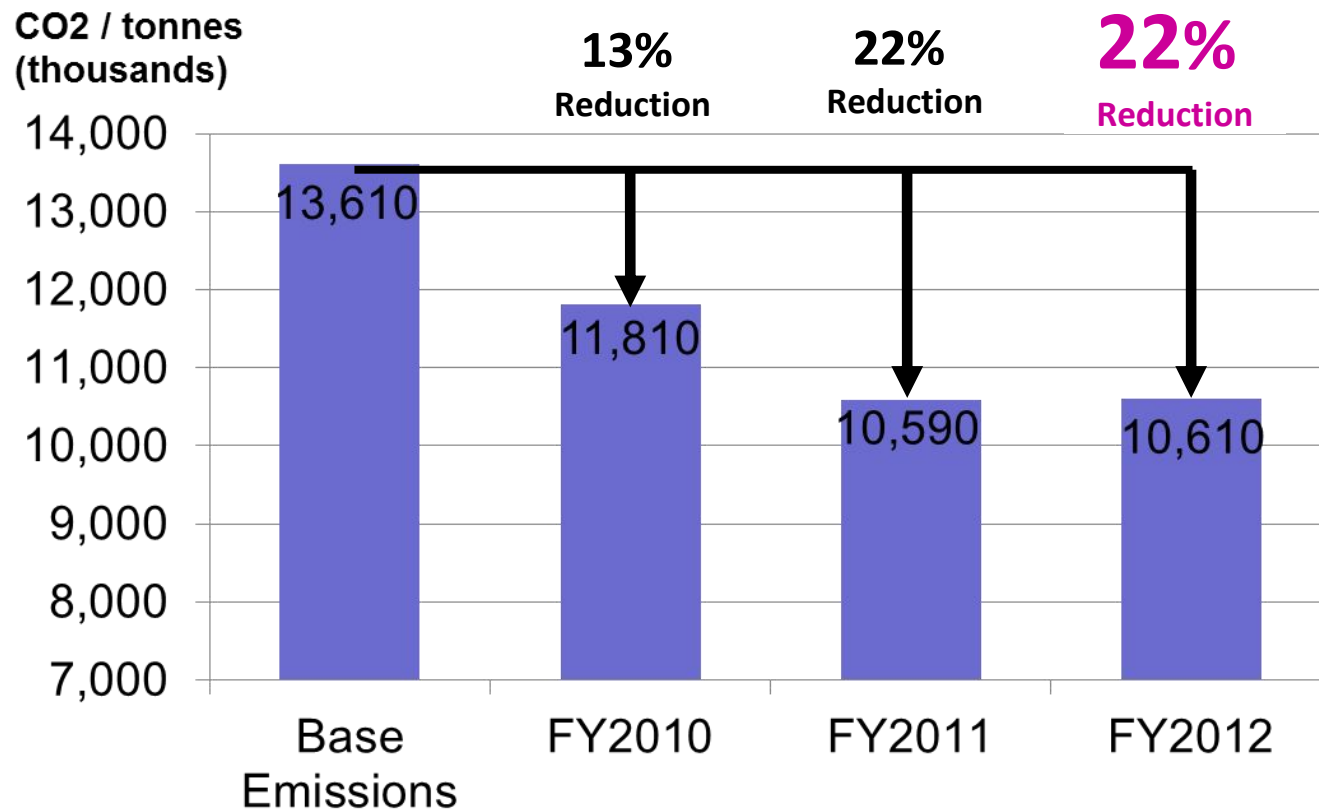
## Results to Date

## Tokyo Cap-and-Trade Program



# Tokyo Cap-and-Trade: Results to Date 1

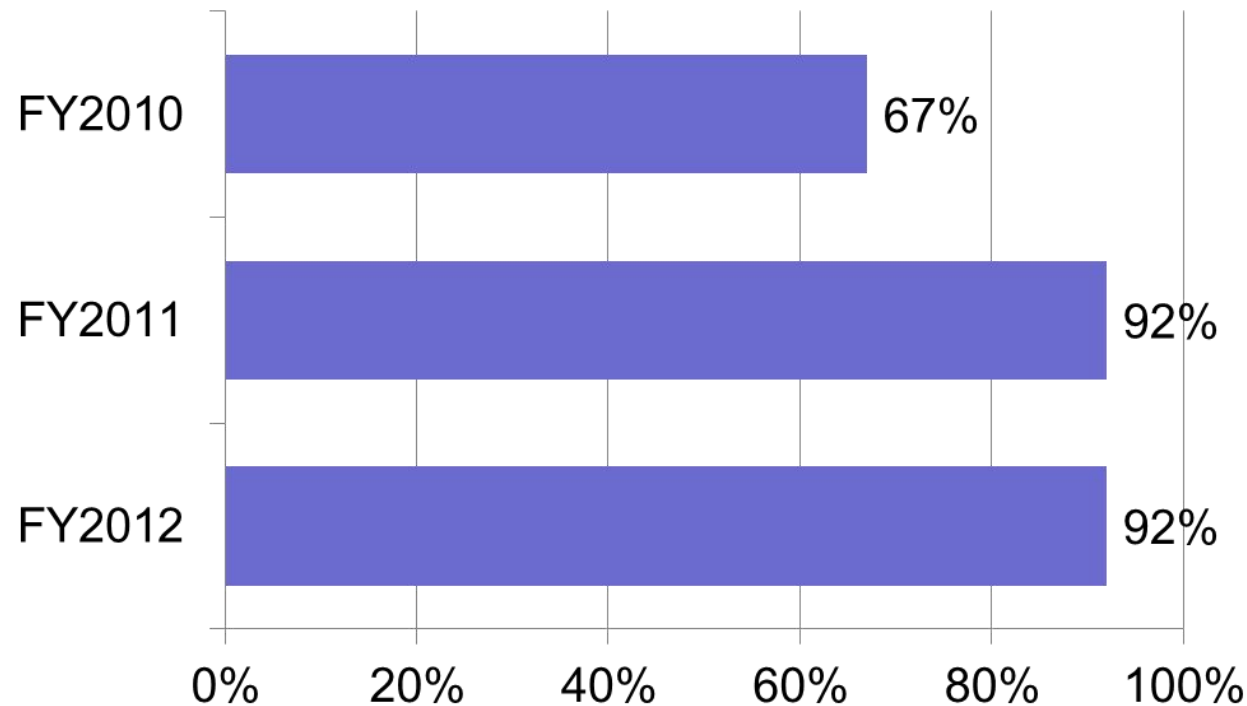
Total CO2 emissions from facilities covered by C&T dropped drastically



# Tokyo Cap-and-Trade: Results to Date 2

## Emission reductions in each facility:

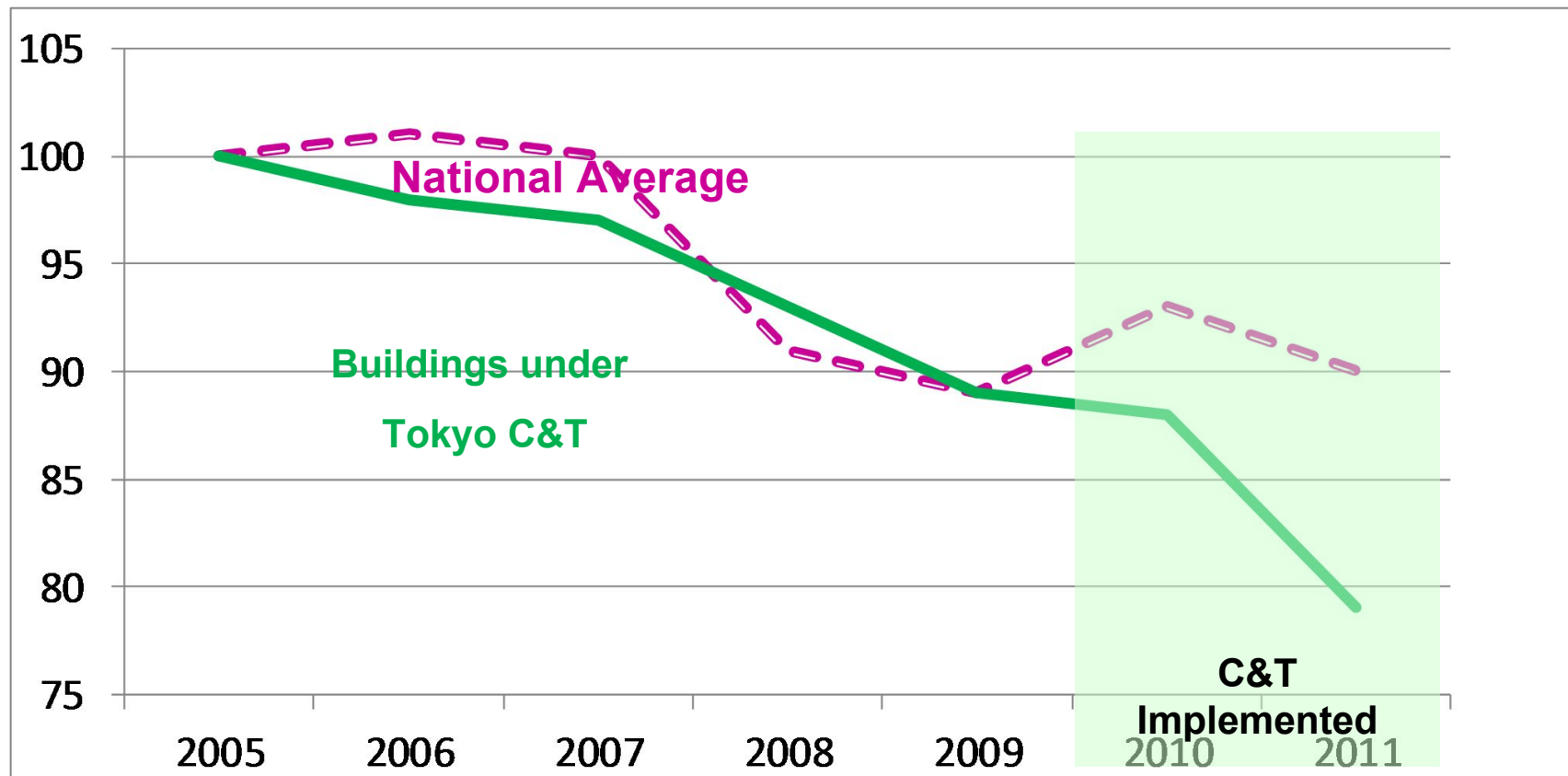
92% of all facilities have successfully achieved more than their obligations



# Tokyo Cap-and-Trade: Results to Date 3

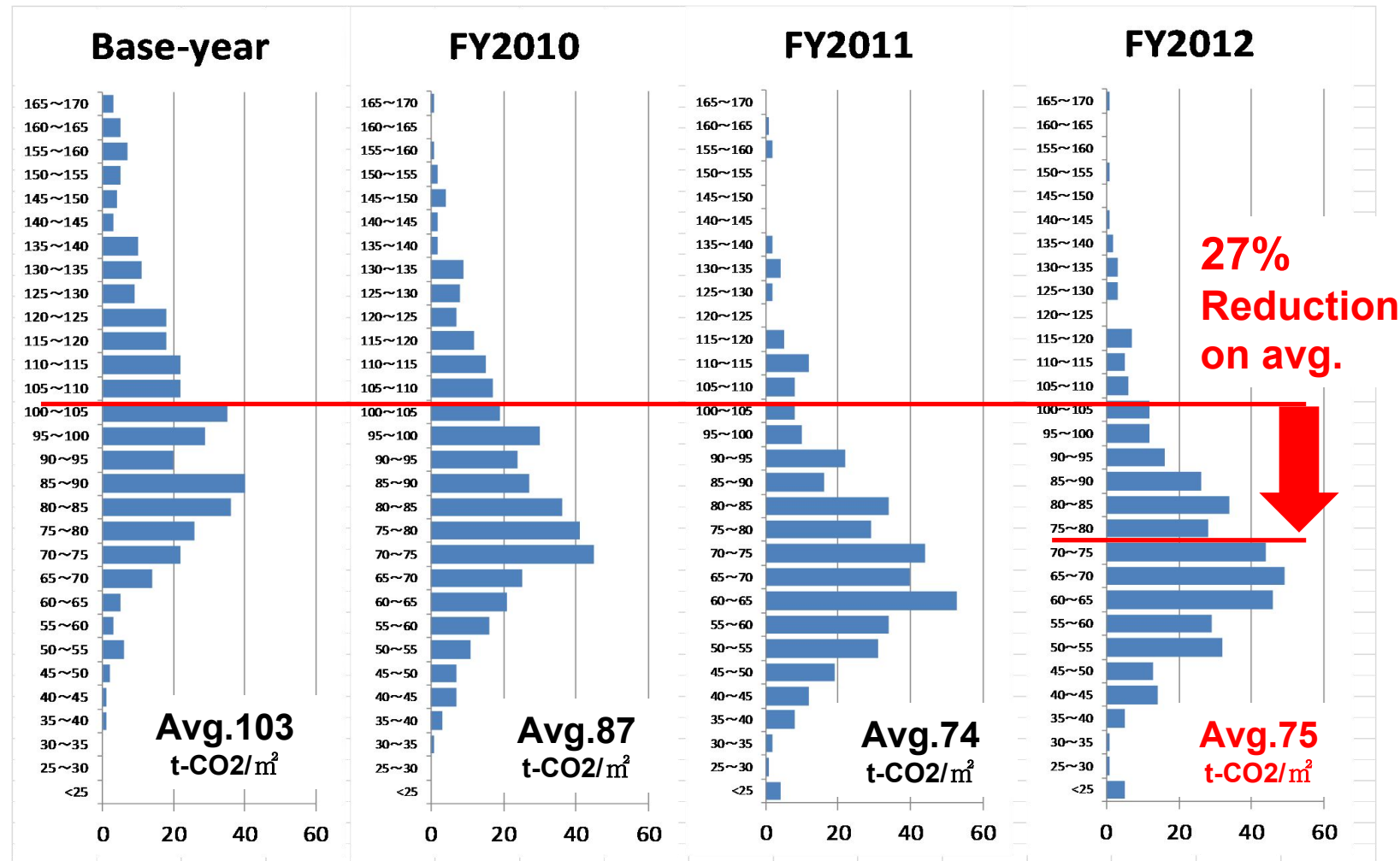
## Comparison with national total trend:

Facilities under C&T decreased emissions drastically



# Tokyo Cap-and-Trade: Results to Date 4

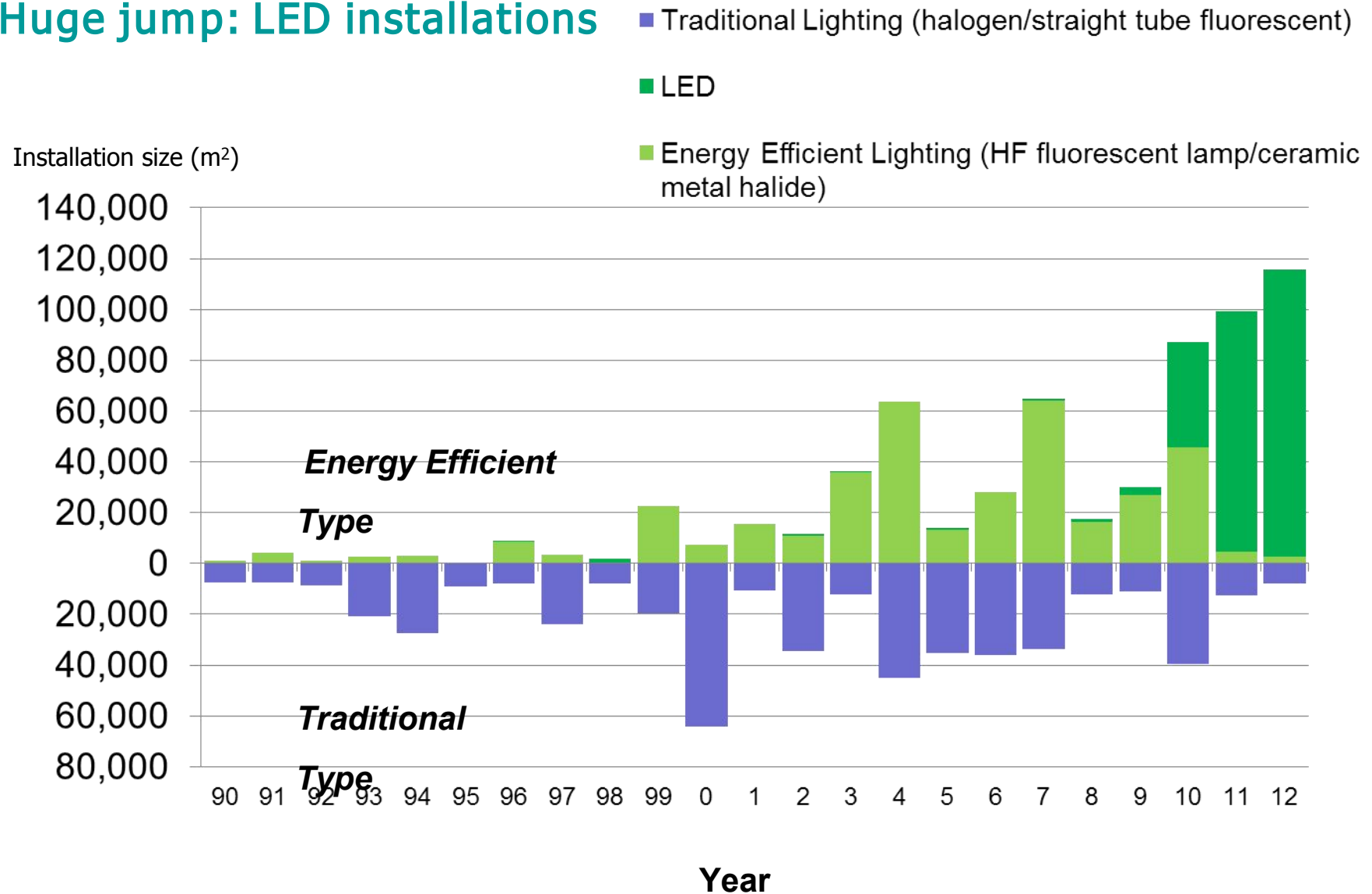
Dramatic drop in CO<sub>2</sub> emission intensity





# Tokyo Cap-and-Trade: Results to Date 5

## Huge jump: LED installations



For the Steps Forward...



**Global Cooperation**

**Toward Low Carbon City**



# City and Climate Change: Power and Opportunity

- ◆ **Diverse resources**

(Citizens, Companies, Governments, NGOs...)

- ◆ **Scale of economy**

- ◆ **Innovations**

- ◆ **Local governments**

functions and experiences



# City and Climate Change: Collaborative work among cities

**C40CITIES**  
CLIMATE LEADERSHIP GROUP

**•I.C.L.E.I** Local Governments for Sustainability

 **Covenant of Mayors**  
Committed to local sustainable energy





# City and Climate Change: Power of Network



## The C40 Cities Climate Leadership Group

Network of the world's megacities committed to addressing climate change



# Power of Network



## Networks

Bus Rapid Transit

Green Growth

Climate Positive Development

Climate Risk Assessment

Connecting Delta Cities

Cool Cities

Electric Vehicles ..... and more

Private Sector Building Efficiency

Municipal Building Efficiency

Sustainable Solid Waste System

Measurement and Reporting

Global Standards for Measurement & Planning

Sustainable Infrastructure Finance





# C40 Cities Private Building Efficiency Network



Workshop  
Webinar  
Conference call  
Research  
Joint action

## Key Features

1. Network of key officials
2. Close relationship among members
3. Secured environment
4. Supporters



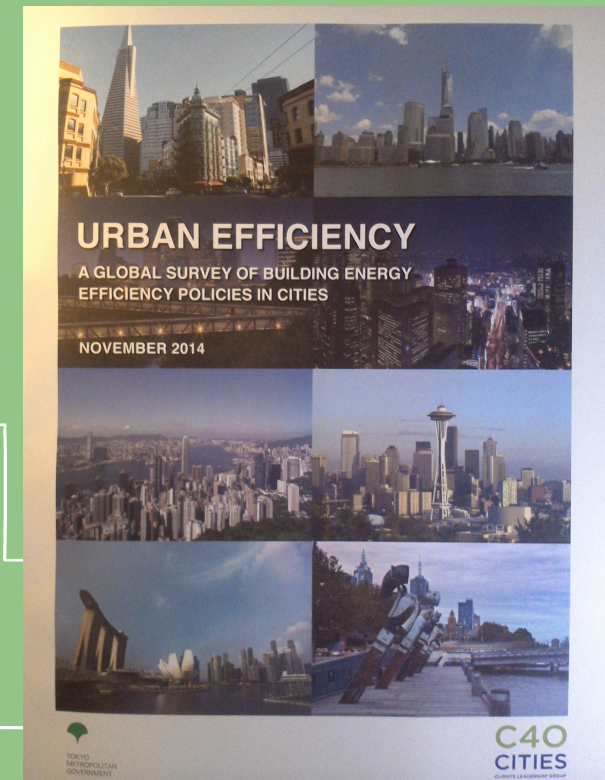
# Private Building Efficiency Network

## "Urban Efficiency"

A Global Survey of  
Building Energy Efficiency Policies in Cities

Highlighting various BEE policies in cities  
to serve as a resource for city officials

Success factors and key challenges



[www.kankyo.metro.tokyo.jp/en](http://www.kankyo.metro.tokyo.jp/en)

# For the Steps Forward...

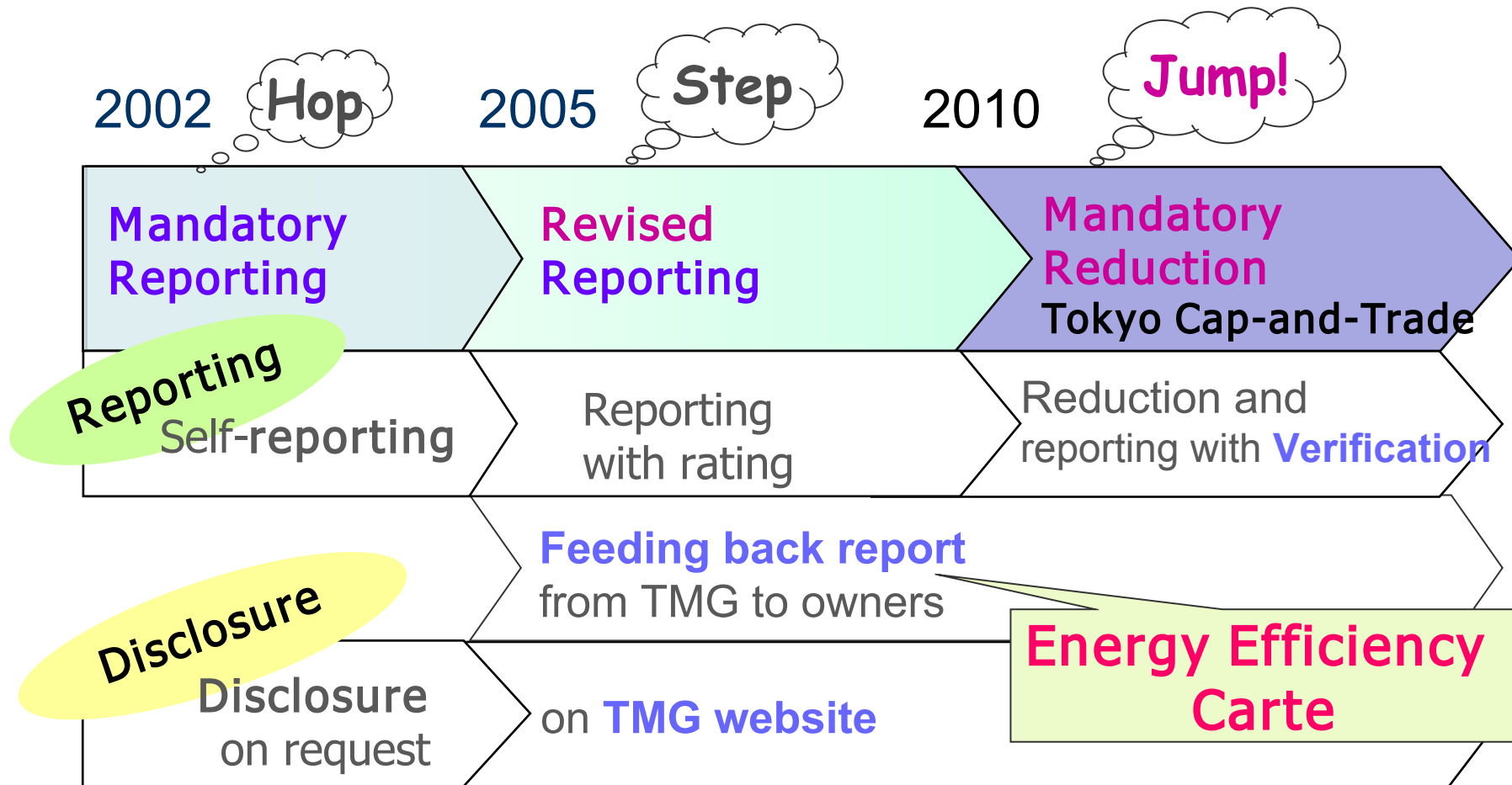


## Bilateral Cooperation Tokyo's Experience



# Hop, Step & Jump!

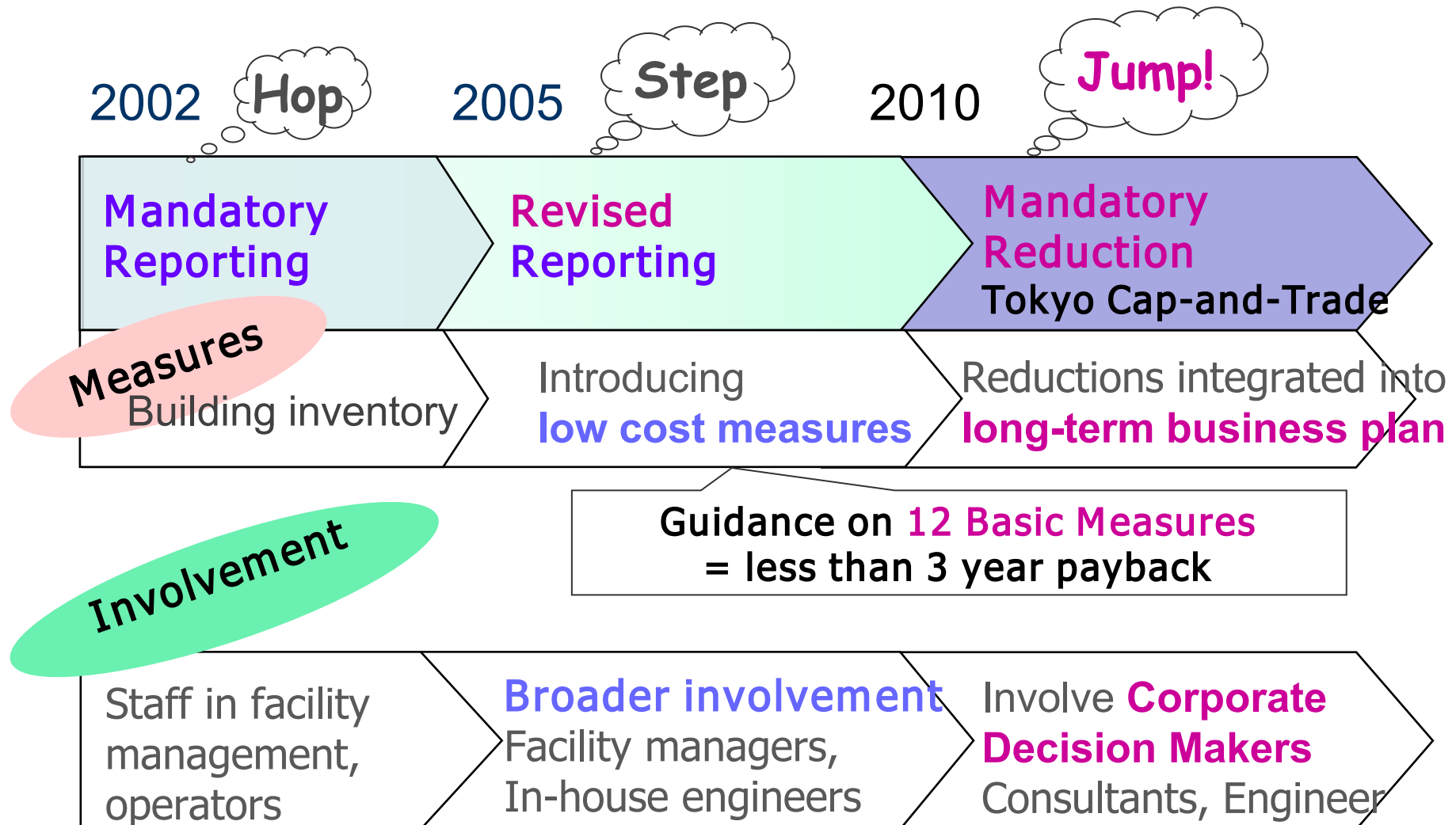
Reason for steady reductions





# Hop, Step and Jump!

Reason for steady reductions



# More Global Attentions for Local Climate Actions!



## References

TMG Website: [www.kankyo.metro.tokyo.jp/en](http://www.kankyo.metro.tokyo.jp/en)

TMG Facebook: [www.facebook.com/Environment.TMG](https://www.facebook.com/Environment.TMG)

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