

# Accelerating HKIA's carbon footprint reduction through multi-stakeholder engagement and its potential for multi-tenant facilities

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# Overview of HKIA

- **Opened** : 6 July 1998
- **Total Site Area** : 1,255 hectares
- **Runways** : Two
- **Aircraft Parking Stands** : 182
  - Passenger: 106
  - Cargo: 43
  - Others: 33
- **Employees** :
  - AA: 1,700
  - HKIA: 73,000



# Greenest airport pledge

- May 2012: AAHK, endorsed by THB and 40 airport business partners, pledged to make HKIA the **world's greenest airport**.



# Benchmarking by aspect: HKIA vs “best-in-class”



 HKIA Current  
 PAG 'Best-in-class'



Organisers:



International Co-owners:





# Where to focus: transcending Hong Kong's environmental DNA



Noise



Local Air Quality



CO<sub>2</sub> Emissions



Ground Transport



Wastewater



Solid Waste



Water



Energy

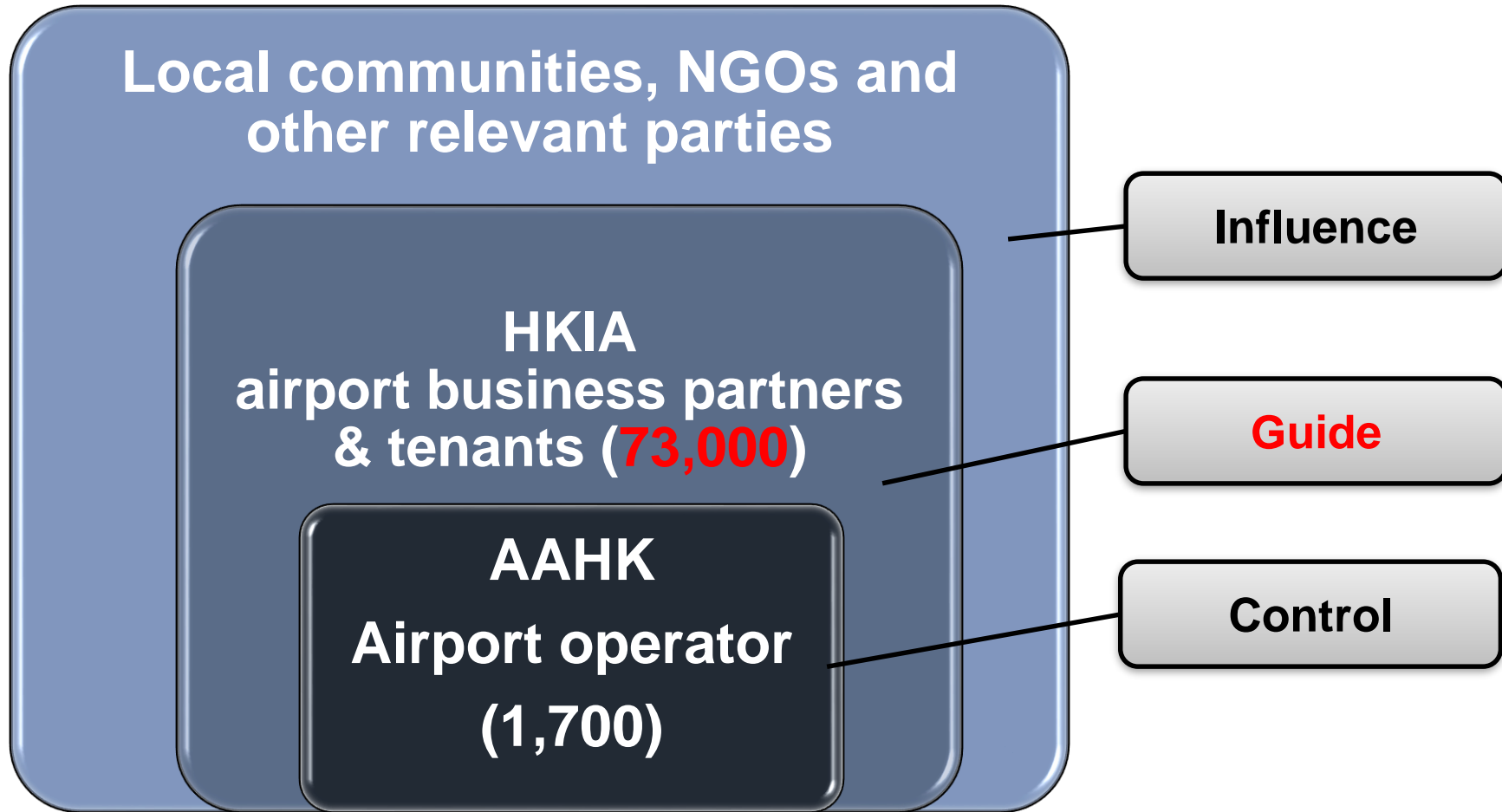


Biodiversity



Green Policy + Strategy

# Spheres of relative influence



# Business case for footprint reduction

## Reduce cost

- Lower cost by reducing/avoiding consumption

## Reduce regulatory risk

- Prepare for future regulatory requirements

## Manage reputational risk

- Meet or shape public /stakeholder expectations

## Reduce operational risk

- Establish a more resilient operating environment

# Carbon management: HKIA's roadmap

Continuous Investment

2008

Carbon Audit for AAHK

2009

1st airport-wide carbon audit

2010

25% carbon reduction pledge

2011

Online Carbon Audit System

2012-16

ACI-ACA Level 3

2016

Set new carbon target & implement strategies

Continuous Communication



Organisers:



International Co-owners:

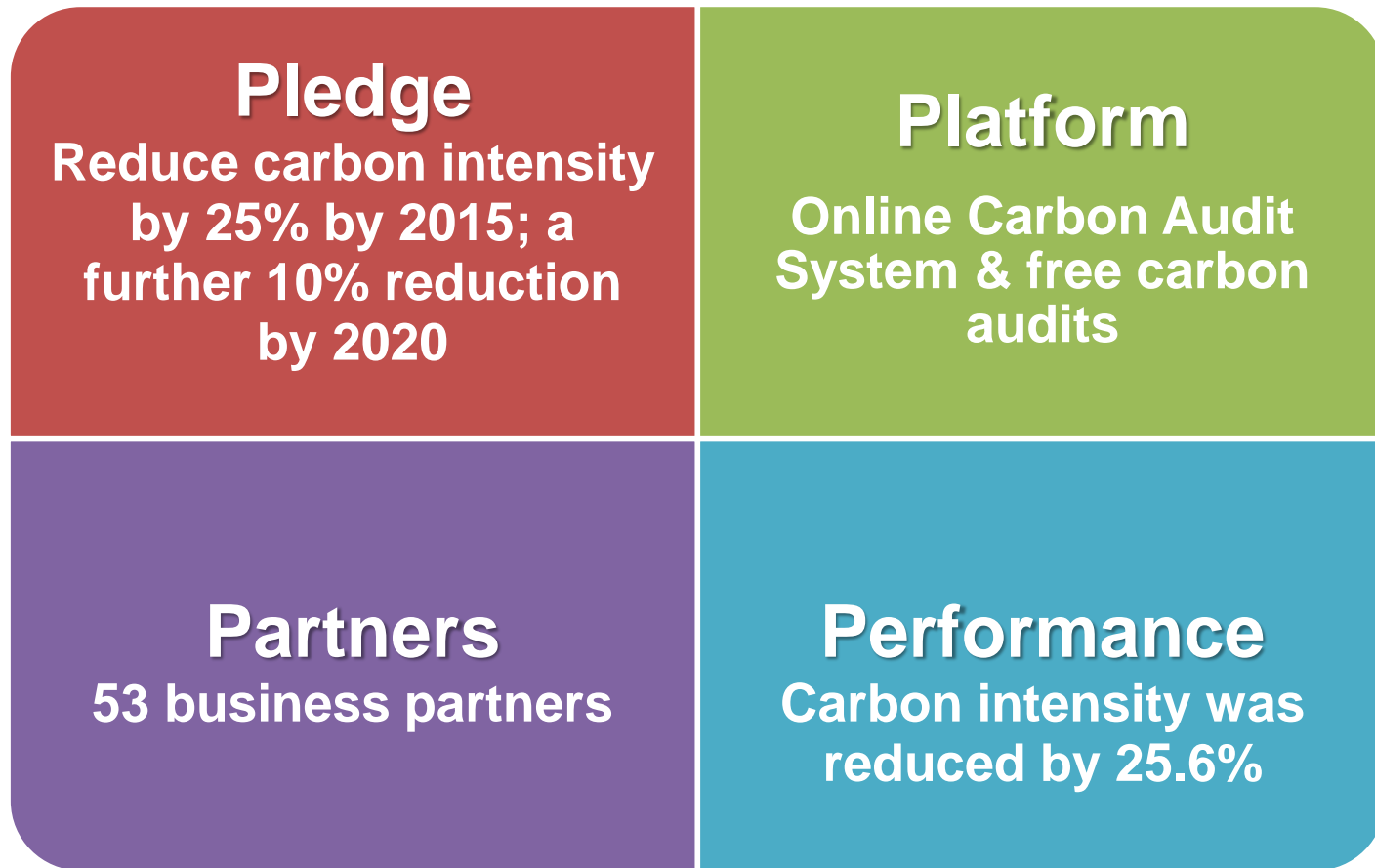


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# The “4Ps” of HKIA Carbon Reduction Programme



Organisers:



International Co-owners:



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# Pledge: airport-wide carbon reduction target



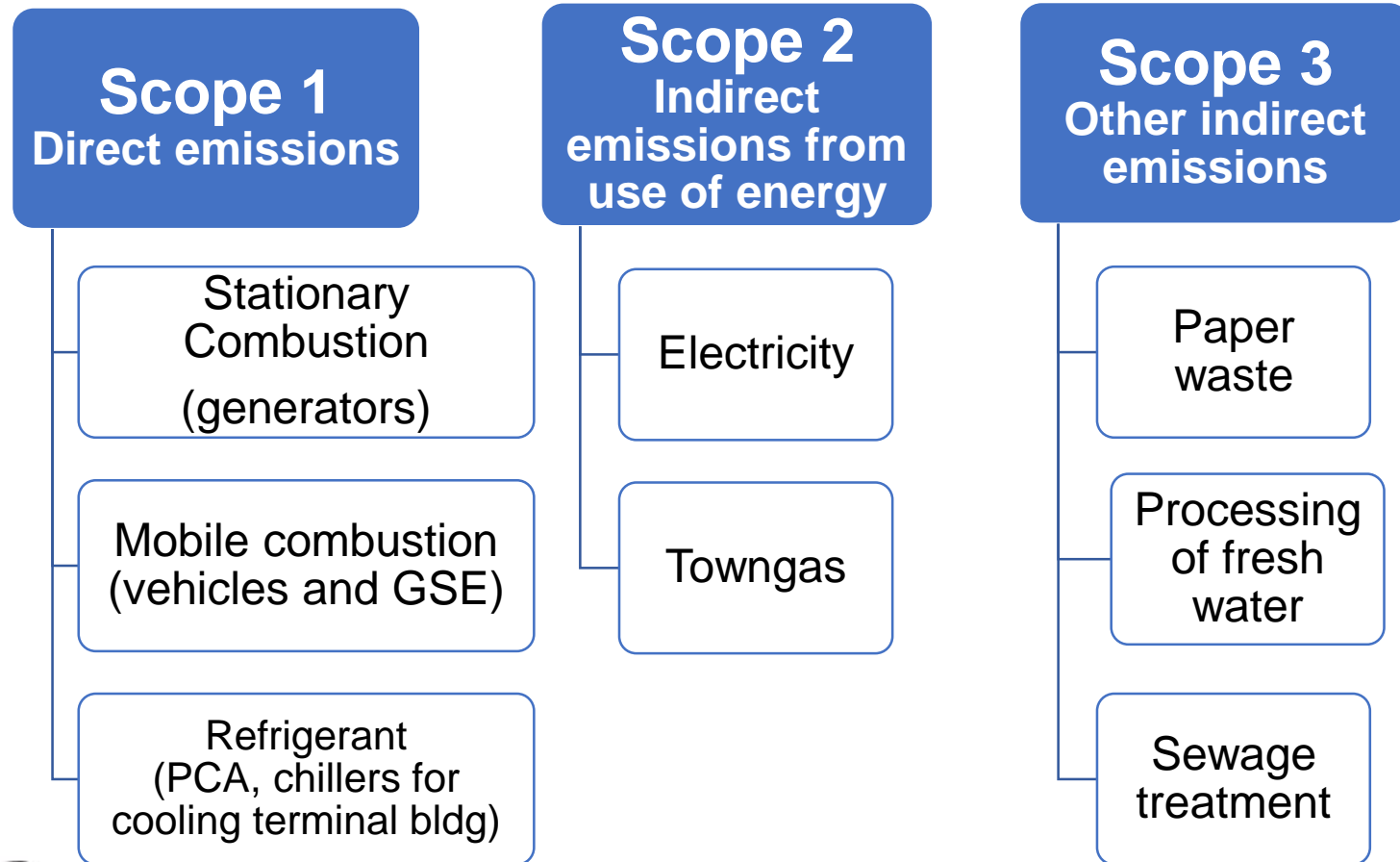
**“We pledge to further reduce airport-wide carbon intensity by 10% by 2020 from 2015 levels”**

# Platform: investing in the infrastructure

- 2011: Online Carbon Audit System
  - a) System development cost:  
**US\$70,000+**
  - b) Additional on-going investment in enhancing the audit boundary and system user interface
- **6 internal staff** trained as certified carbon auditors

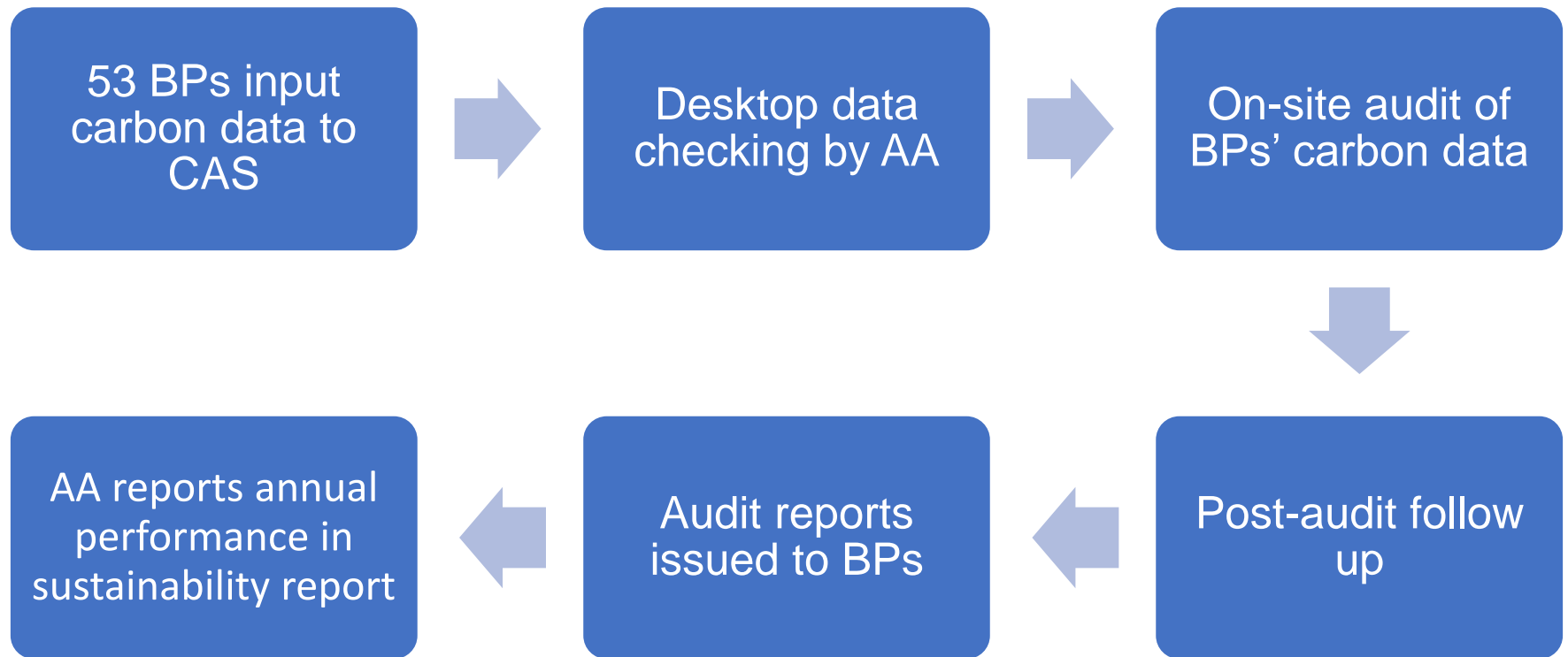


# Platform: emissions sources covered in CAS





# Platform: carbon data verification process



# Partnership: engagement with airport business partners



## HKIA Carbon Reduction Programme

The AA aims to accelerate the rate of carbon reduction at HKIA by working closely with its airport business partners.

Between 2010 and 2015, the AA and over 40 business partners reduced the airport-wide carbon emissions by 25.6% per workload unit\* from a 2008 baseline. In November 2016, the AA set a new pledge to further reduce the carbon emissions by 10% by 2020 from 2015 levels.

Please click the logos on the right to see how the airport community contributes to carbon reduction at HKIA.

\*One workload unit is equal to one passenger or 100kg of cargo



Organisers:



International Co-owners:



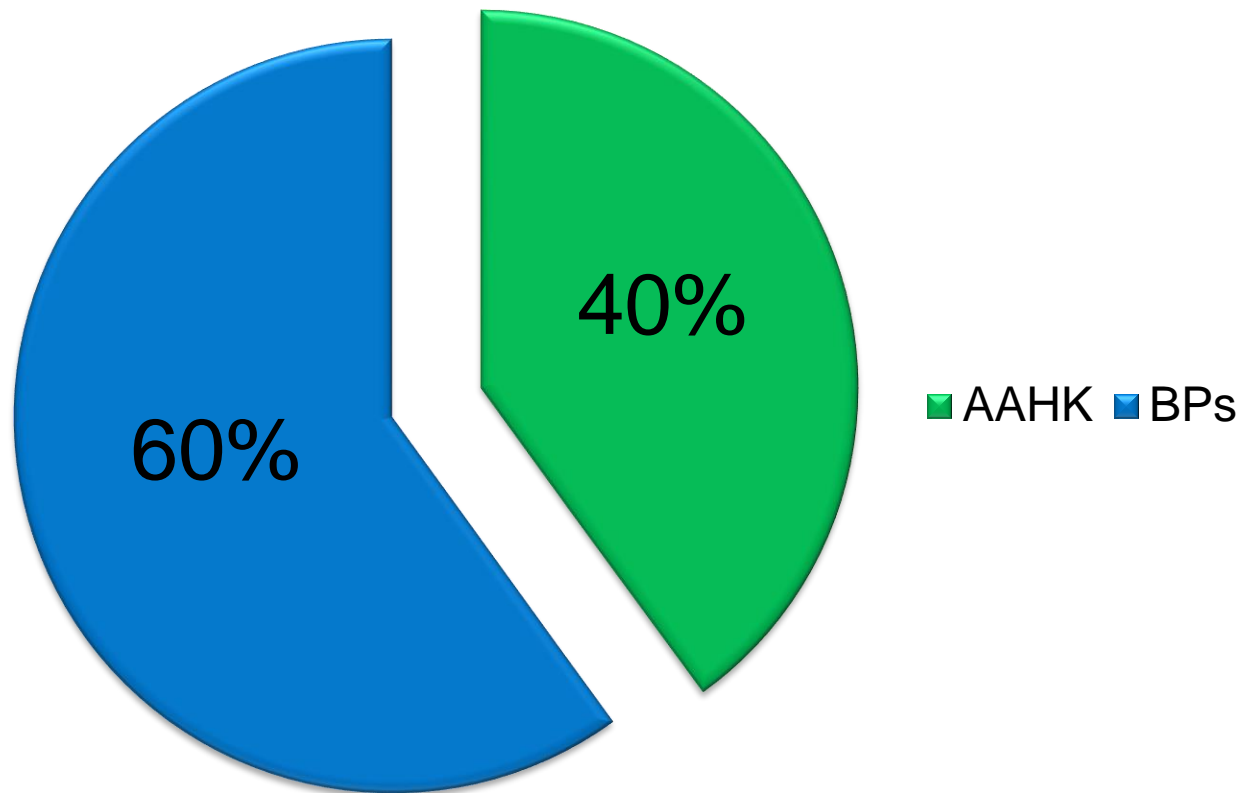
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# Partnership: the value of engaging business partners

## Airport-wide carbon emissions in 2015



Organisers:



International Co-owners:



# Partnership: the funding model – cost sharing

- Carbon reduction initiatives must be justified by a sound business case
- There is no “one-size-fit-all” solution – flexibility is needed

## CAS platform and training (AAHK)

AAHK

Funds carbon reduction projects for AA-owned facilities

BPs

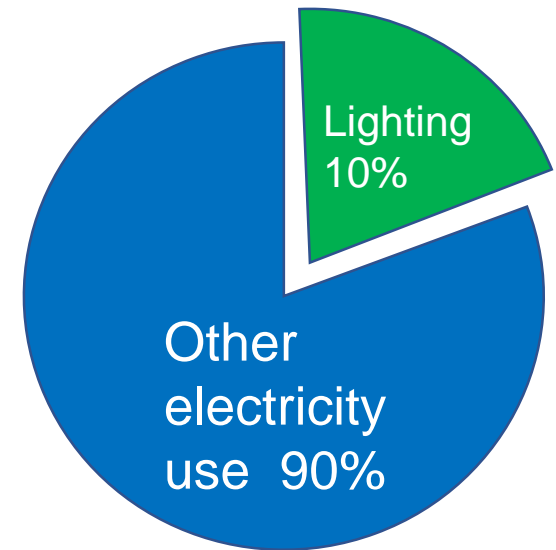
Measures based on business nature & business case

All parties benefit from sharing best practices



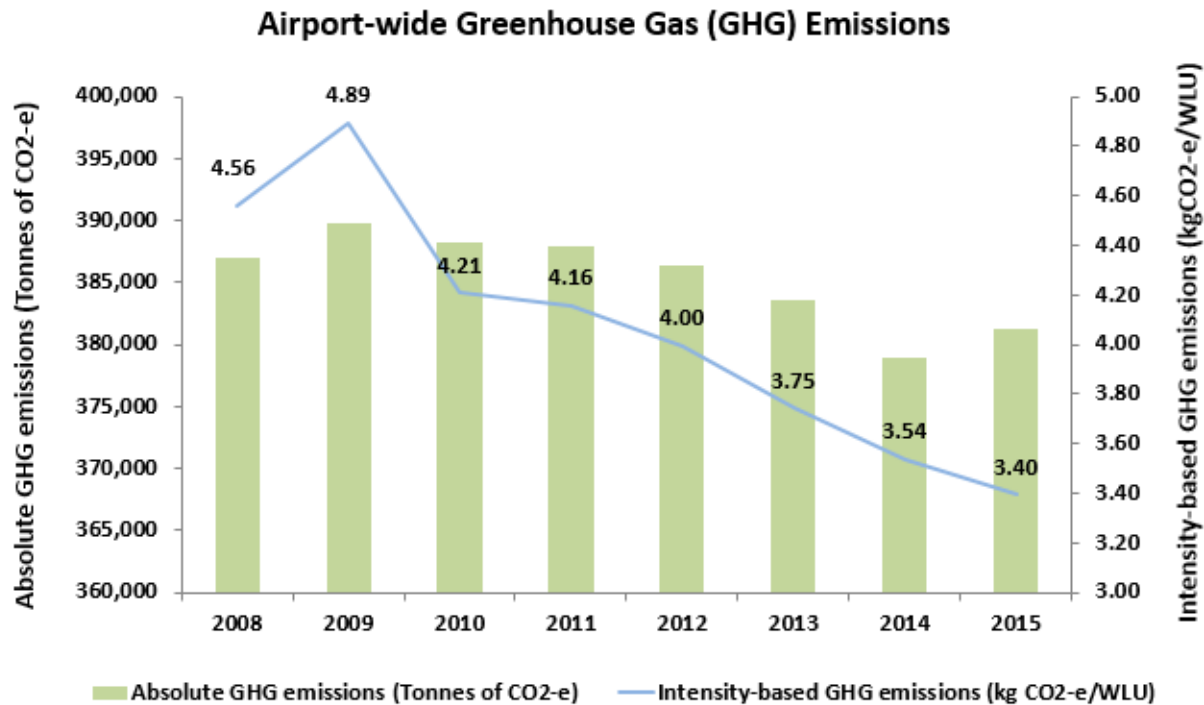
# Performance: best practices from AA – LED Replacement

Project:	Installed 100,000 LEDs by 2015
Annual Consumption	27.5M kWhr/year
Saving:	18.2M kWh per year
Carbon Reduction:	<b>Approx. 10,000 tonnes of CO<sub>2</sub>-e/year</b>



# HKIA carbon reduction progress (2008 – 2015)

- An overall achievement of 25.6% reduction in 2015



- \* Grid emission factor for 2008 was used throughout to enable year-to-year comparison
- \*\* Excludes emissions from new joining companies of the Programme



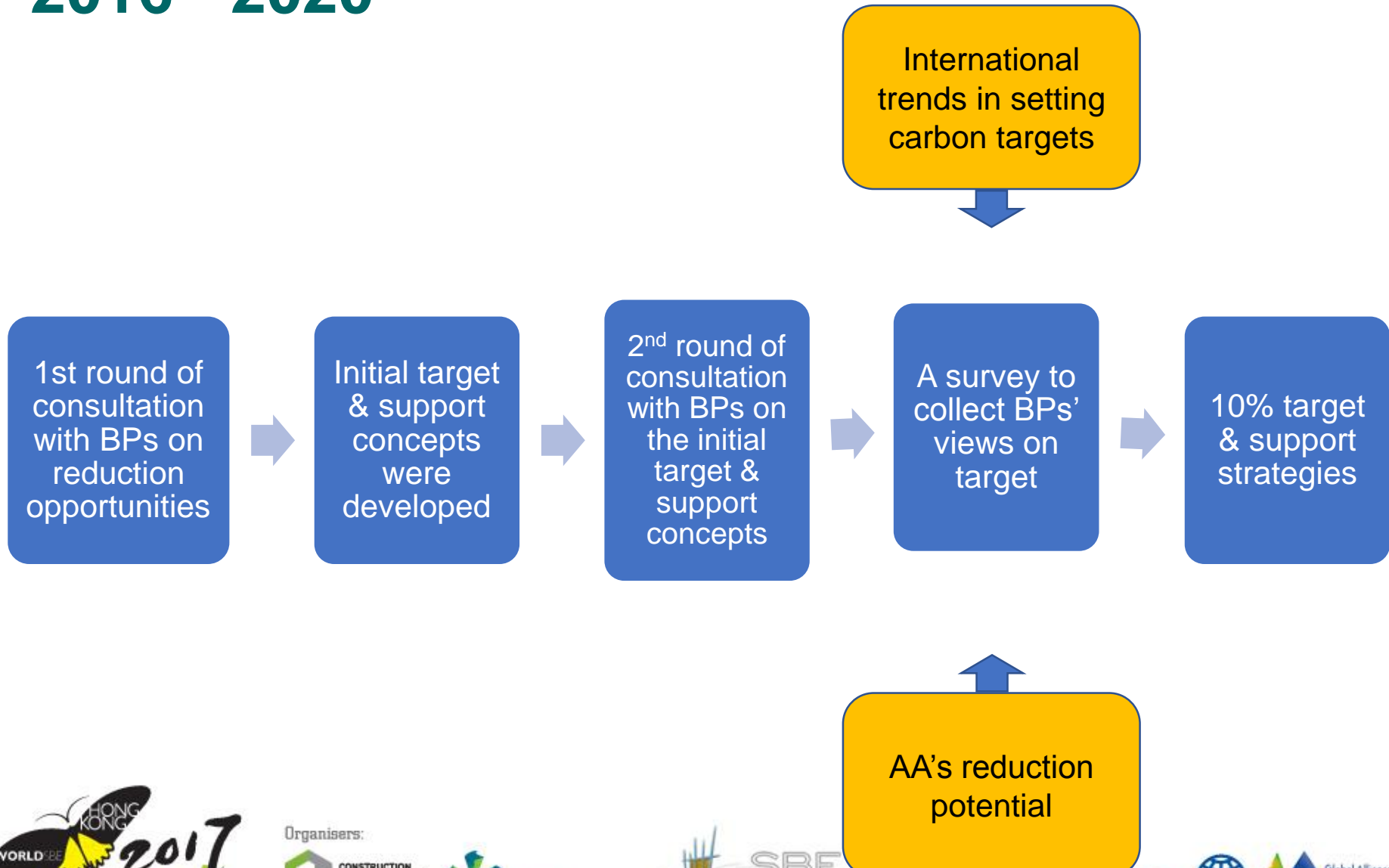
Organisers:



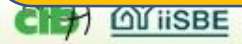
International Co-owners:



# Setting a new carbon reduction target for 2016 - 2020



Organisers:



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# Way forward

- AA has established the following support strategies:
  - a) Roundtable discussions with senior executives
  - b) Technical working groups with BPs
  - c) Benchmarking scheme
  - d) HKIA carbon reduction award scheme



Organisers:



International Co-owners:



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# Applicability to other facilities

- **Flexibility of the model makes it also suitable for other multi-tenant facilities:**
  - a) Shopping malls
  - b) Multi-tenant office buildings
  - c) Logistics centres with multi-tenant offices
  - d) EcoPark



Organisers:



International Co-owners:



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# Thank you



Organisers:



International Co-owners:



# Performance: best practices from BP - EGSE

- Example from JATS:
  - a) 10 electric loaders and 5 solar staircases
- Annual fuel savings for diesel:
  - a) 5 electric loaders: 40,000 litres
  - b) 10 solar staircases: 6,400 litres
- Total GHG savings: **120 tonnes per year**

