

# CHINA REDESIGN

A leadership platform to support cities  
in planning and execution of  
low carbon growth plans

The Climate Group  
Greater China Operations



# What can a small NGO do?

☑ Inspire Leadership

## The Clean Revolution

- Launched at Climate Week NYC (+ UN and World Bank) in 2011
- Inspiring leaders to step up and take transformational action to help us secure a better, smarter, safer, more prosperous world.



# What can a small NGO do?

**CORPORATE MEMBERS** Alstom, Arup, Barclays Bank, Better Place, Bloomberg, BSKyB, Broad Air Conditioning, BT, CB Richard Ellis, China Mobile, Cisco, Climate Change Capital, CLP Holdings, The Coca-Cola Company, Dell, Deutsche Bank, Duke Energy, EN+ Group, Florida Power and Light Group, GE Energy Europe, Goldman Sachs (Associate), Google, HDR, Hewlett Packard, HSBC Holdings, IWC Schaffhausen, Johnson Controls, JP Morgan Chase, Landsea, Munich Re, MWH, Nestlé Waters NA, News Corporation, Nike, Origin Energy, Philips, Pratt Industries, PSA Peugeot Citroen, Skadden, Smith Electric Vehicles, Standard Chartered Bank, Suntech, Suzlon Energy, Swire Group, Swiss Re, TaoBao, Tesco, Timberland, Tiptop Real Estate, TNT, VantagePoint, Veolia Environment, Virgin Group.

**CITY GOVERNMENT MEMBERS** Greater London Authority, City of New York.

**STATE & REGIONAL MEMBERS** Governments of: Catalunya, North Rhine-Westphalia, Quintana Roo, Scotland, the Basque Country; Provinces of: British Columbia, Manitoba, Ontario, Quebec, South Holland; Regions of: Brittany, Ile-de-France; States of: Bavaria, California, New South Wales, New York, Queensland, Sao Paulo, South Australia, Upper Austria, Victoria, Western Australia; and the Welsh Assembly Government.

**ADDITIONAL PARTNERS** including HSBC, The Dutch Postcode Lottery, Zennström Philanthropies, Pratt Industries, Doen Foundation, Schroder Foundation, Marisla Foundation, The Swedish Postcode Lottery, The Rockefeller Foundation, The Nand & Jeet Khemka Foundation, Prince Albert II of Monaco Foundation and our International Leadership Council members.

# What can a small NGO do?

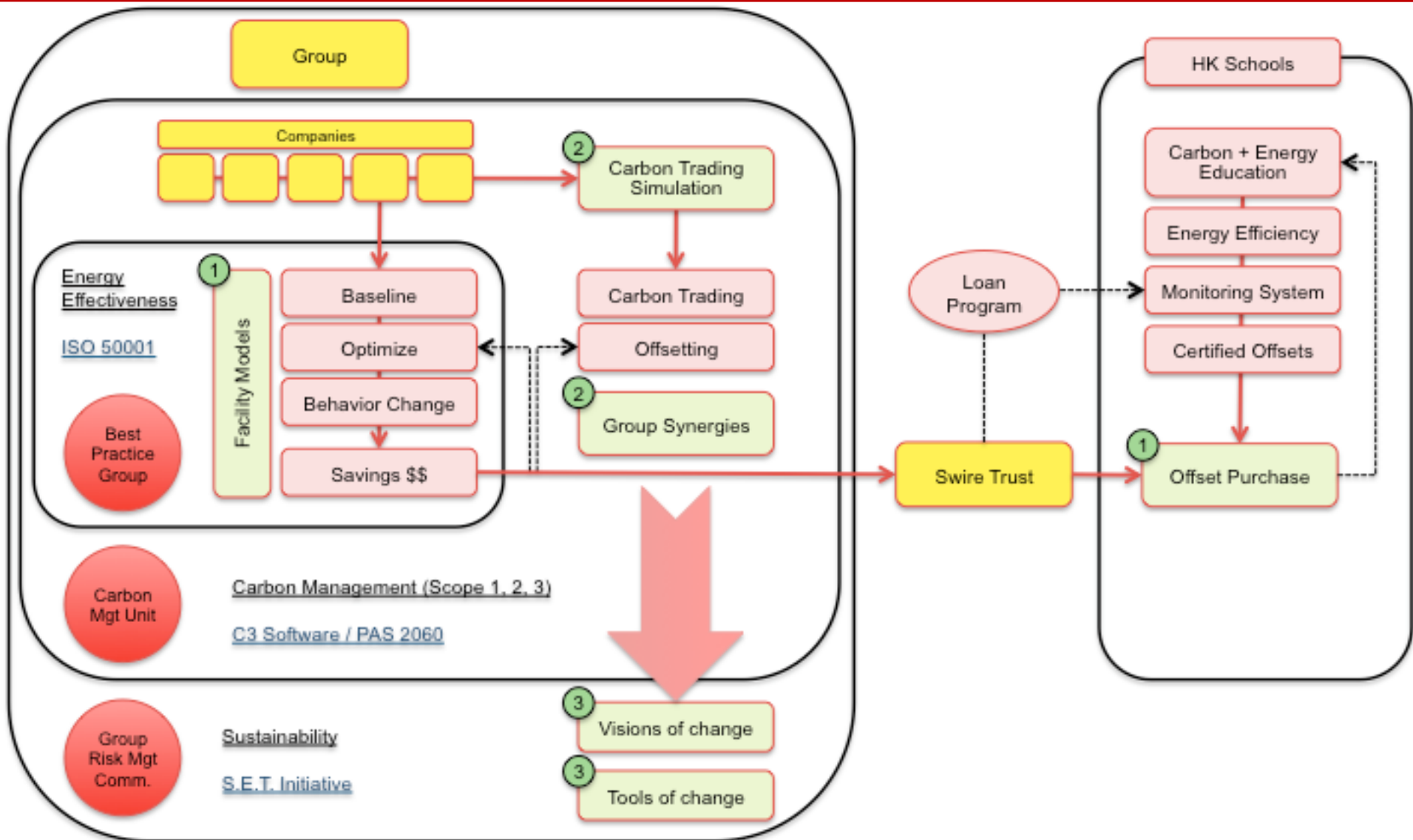
- ☑ Inspire Leadership
- ☑ Catalyse Change

## LED lighting program “LightSavers”

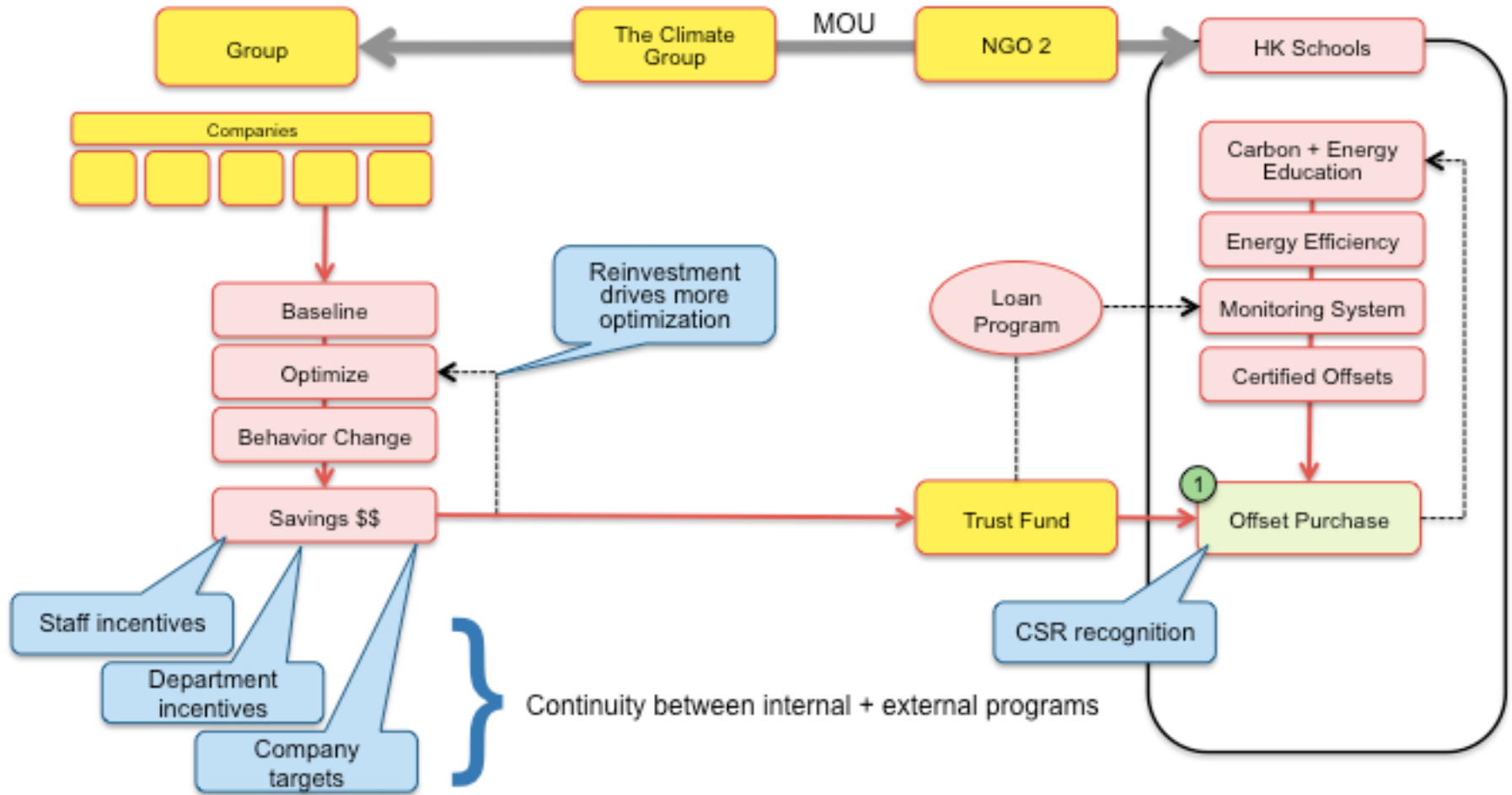
- TCG + Adelaide, Guiyang, Hong Kong, Kolkata, London, Mumbai, NY, Sydney, Tianjin, Toronto
- The first international program to test how light-emitting diode (LED) and smart controls perform in real world applications to plan for scale up and to encourage LED friendly policies and financing products.



# What can a small NGO do?



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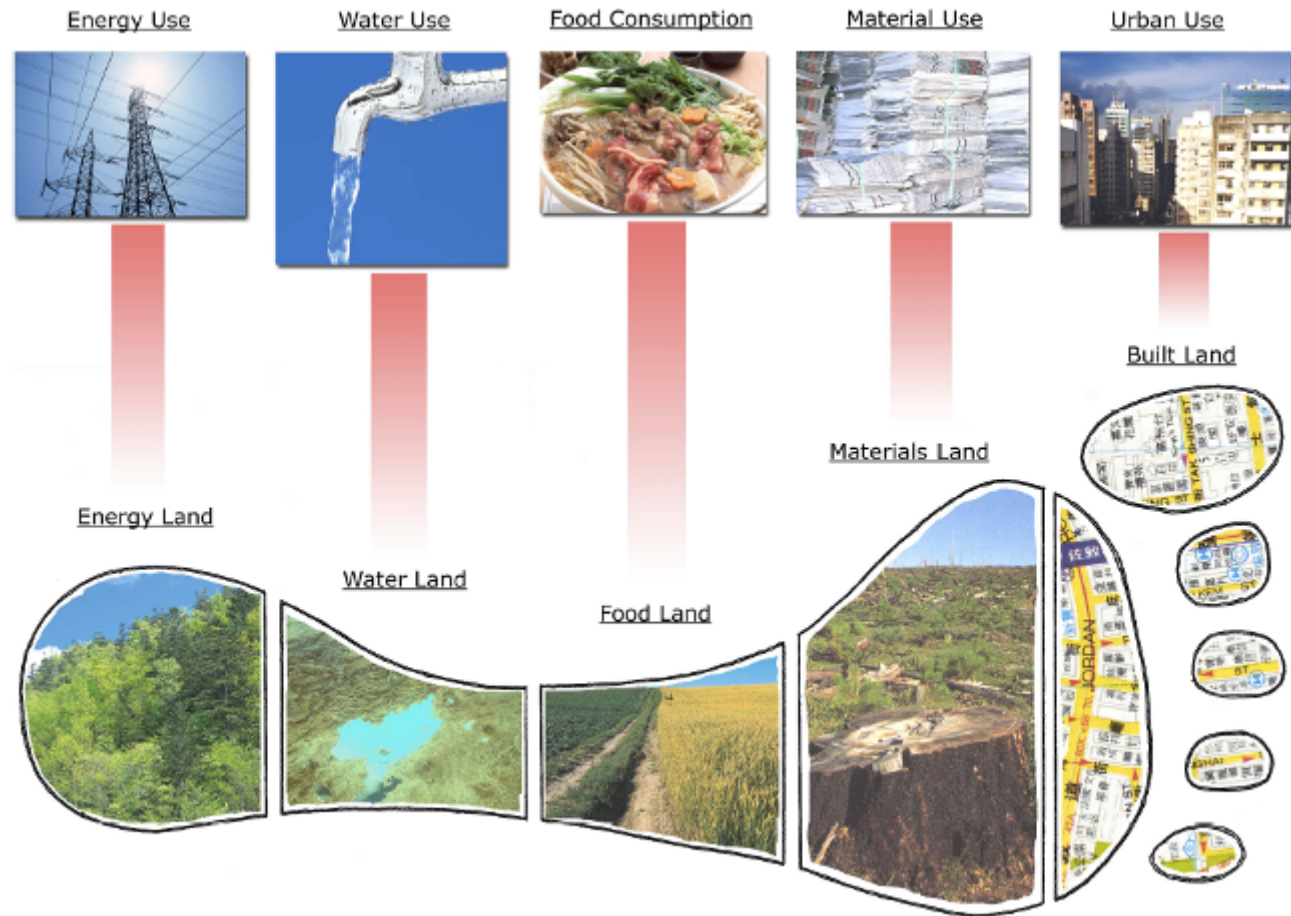
- ☑ Inspire Leadership
- ☑ Catalyse Change
- ☑ Provide Tools

## Verified Carbon Standard

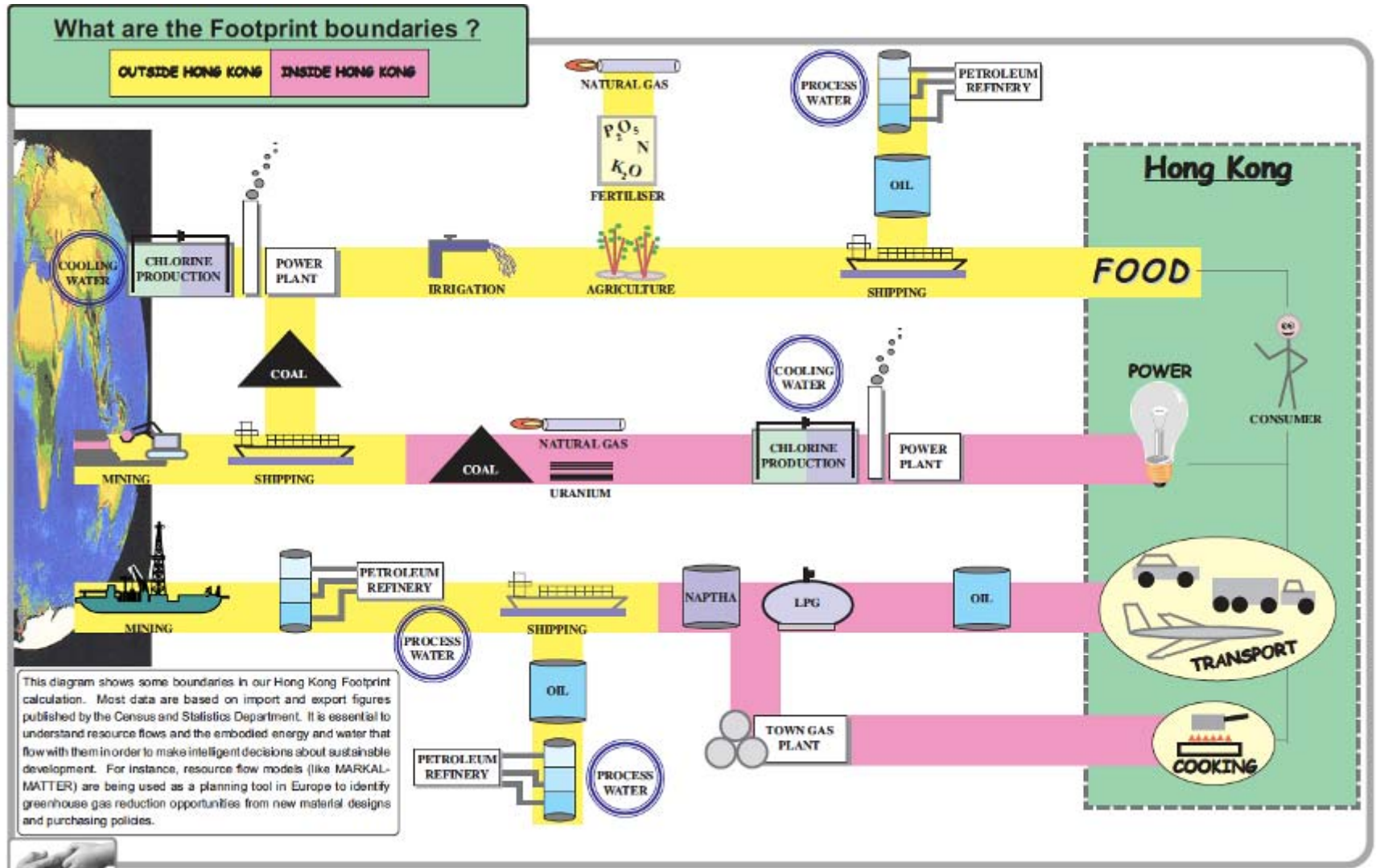
- TCG was a founding partner (+ IETA and WEF) in 2005
- The Verified Carbon Standard is a greenhouse gas accounting program used by projects around the world to verify and issue carbon credits in voluntary markets.




# What can a small NGO do?



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## Climate Change

**1. Hong Kong is responsible for 0.2% of the world's greenhouse gas emissions and a yearly cost of 3 Billion US\$ for damage from climate change (3% of GDP).**

The 1997 Footprint counted these greenhouse gas sources (in CO<sub>2</sub> equivalents):

Δ CO <sub>2</sub> from local + indirect global fossil fuel use.	87,805,344 mt
Δ CO <sub>2</sub> / CF <sub>4</sub> / C <sub>2</sub> F <sub>6</sub> from primary aluminum manufacture.	942,510 mt
Δ CO <sub>2</sub> from lime + cement manufacture (fossil carbonate).	2,695,056 mt
Δ Methane from rice paddies exporting to Hong Kong.	10,743 mt
Δ N <sub>2</sub> O from fertilizer applied to crops for Hong Kong.	691,970 mt

**Total HK Greenhouse Gas Emissions (in CO<sub>2</sub> Equivalents) 92,145,623 mt**  
**Total World GHG Emissions(human) (in CO<sub>2</sub> Equivalents) 52,552,713,180 mt**


Hong Kong's contribution to climate change is based on these assumptions (for 1997):

- Δ Human forcing of climate change is from 56% CO<sub>2</sub> and 45% non-CO<sub>2</sub> gases.
- Δ The CO<sub>2</sub> component is due 76% to fossil fuel burning and 22% to forest destruction.
- Δ The inventory of fossil fuel CO<sub>2</sub> was 22,598 million metric tons of CO<sub>2</sub> in 1997.

The cost of climate change is estimated from:

- Δ 5% of Gross World Product (GWP) is needed to pay for social and environmental damage costs in the near medium term. Estimates of damage costs are highly dependent on the value given to human life. The IPCC estimated a climate change cost of up to 2.5% of GWP, but this was based on a Value of Statistical Life (VSL) ten times lower for developing countries (where more impacts will occur) compared to developed countries. Other estimates which do not include this bias suggest a much higher climate change cost in the range of 10-40%. Thus we consider 5% of GWP to be a reasonable and conservative estimate of climate change costs.
- Δ Gross World Product in 1997 of 29.1 trillion US dollars (in 1995 dollars).

Here are the top eight conclusions of Hong Kong's 1997 Footprint. Details and solutions are discussed in the Eco-City section.



## Climate Change

**2. Hong Kong's fossil fuel CO<sub>2</sub> emissions are equal or greater than 52% of the countries that are Annex 1 parties to the Framework Convention on Climate Change (FCCC).**

If Hong Kong is modeled as a country by including all energy inputs such as agriculture and manufacturing, then we have the following rank with respect to selected other countries, based on fossil fuel CO<sub>2</sub> emissions: (\*) = Annex 1 countries (33 in total)

LESS THAN HONG KONG		EQUAL TO HONG KONG
Sweden*	Estonia*	Denmark*
Switzerland*	Latvia*	Greece*
Austria*	Slovakia*	Iraq
Finland*	Hungary*	Pakistan
Portugal*	Iceland*	Nigeria
Ireland*	Norway*	Algeria
Bulgaria*	Colombia	Malaysia
Luxembourg*	Chile	Uzbekistan
New Zealand*	Israel	

If Hong Kong is serious about its status as a "World Class City" then it should also consider the "World Class Country" responsibilities to climate change. Hong Kong is wealthy and has equal or more CO<sub>2</sub> impact than half of the Annex 1 countries that are already setting targets for greenhouse gas reduction. Hong Kong has no targets and no policy. Being active on climate change would gain respect for Hong Kong and create profitable new growth in China's environmental industries and quality of life.

# China redesign model

enter

Integrate & optimize

## Enterprise

Urban planning

company1

Energy mgt

company2

Building

company3

Transport

company4

## China Redesign



## Low-carbon city solution

•Urban planning

•Energy mgt.

company1

company2

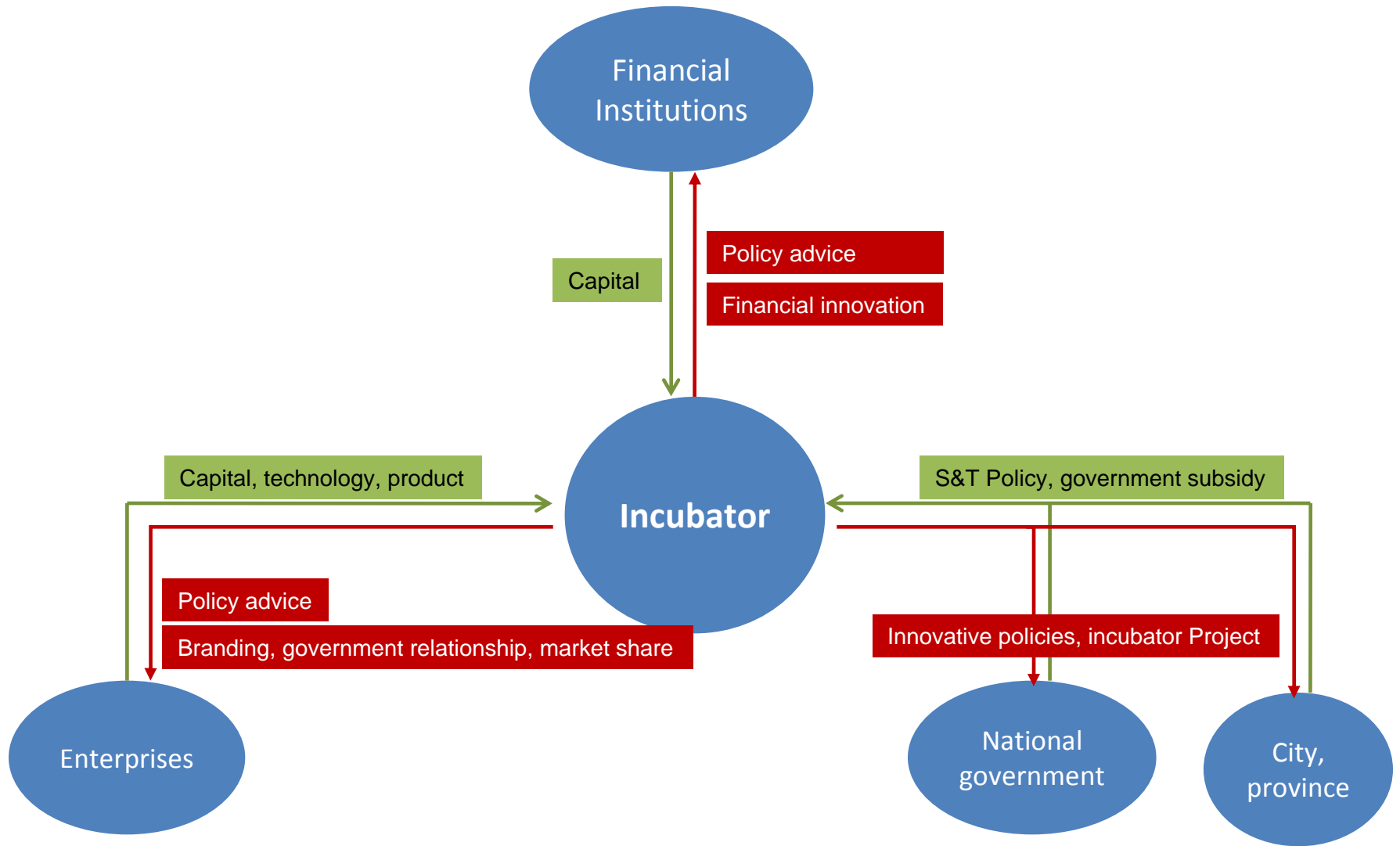
company4

company3

•transportation

•Building

# China redesign model: Incubator



# The urgency to act

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- **Cities are at the heart of the climate challenge for China and will be essential to the climate solutions outlined in the 12<sup>th</sup> Five-Year Plan**
  - China is witnessing an unprecedented urban growth rate, which is likely to accelerate. Its urban population reached 620 million people in 2009, an increase of 36% since 2000;
  - China's urban population is becoming wealthier, consuming more energy and resources per capita;
  - Chinese cities currently consume three-quarters of the country's energy – a proportion that is set to rise to 83% by 2030.
- **China's commitment to clean development is strong and is likely to continue into the 12<sup>th</sup> Five-Year Plan period from 2011 to 2015**
- **Low carbon strategies from Chinese cities have become increasingly sophisticated in the last two years**

# The urgency to act

- **However, there is an urgent need to build up the capacity of city governments to deliver and execute their low carbon growth plans, with the following challenges:**
  - Capacity constraints in terms of skill sets, experience and knowledge among city managers
  - Lack of holistic framework to manage the cities' energy consumption and carbon emission that would clearly drive down carbon but boosting the economy
  - The sheer scale and pace of urbanization and re-industrialization
  - Institutional and political challenges, e.g. the division of power and policy contradictions
  - No simple 'one-size-fits-all' solutions due to different levels of development among cities
  - Inadequate consultation and investigation processes in low carbon planning

**TCG's China Redesign Program focuses on helping cities and organizations unlock the enormous business and carbon reduction potentials through de-carbonizing urban development**

# Sectors we focus on



URBAN PLANNING



INDUSTRIES



BUILDING



RENEWABLE  
ENERGY



TRANSPORT



ENERGY  
MANAGEMENT



FINANCE

# TRACK 1: Capacity building

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**GOAL** – To build up the capacity of city governments to deliver and execute their low carbon growth plans.

China Redesign has the following **OBJECTIVES**:

- To enrich city managers' knowledge on city-focused low carbon solutions in selective sectors;
- To help city managers identify the necessary resources and relevant mechanisms;
- To strengthen city managers' skills to develop, deploy and manage those low carbon solutions that are appropriate for their own cities.

# TRACK 1: Capacity building

DELIVERABLES	DESCRIPTION	RESPONSIBLE
Program brochure	Outline the curriculum and agenda, program introduction and promotion for each city	TCG + partners
Training courses and training materials	<ul style="list-style-type: none"> <li>• On site conferences/seminars/workshops</li> <li>• Webinars</li> <li>• Study tours</li> </ul>	TCG
China Redesign manual	“Resource book” with a series of sector-based solutions	TCG
City needs assessment and analysis	Assess sectors to identify targets with high potentials and top priorities	TCG
Expert consultancy	On-the-job support and consultation (expert advice plus research if applicable)	TCG + expert groups + partners
Project report	Summarize and highlight key issues and lessons learnt from each city as references for other cities and partners	TCG
Demonstration project database	Outline the actionable future pilots for business and government leaders to take forward	TCG
Program website	An information hub for knowledge transfer and database	TCG



# TRACK 2: Project support

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**GOAL** – To demonstrate the potentials of effective solutions beyond business as usual through 10 demonstration projects

China Redesign has the following **OBJECTIVES**:

- To improve understanding on the solutions;
- To develop joint projects between government and private sectors to deploy the identified solutions;
- To provide co-ordination & support to leverage maximum external (national and international) financing for the projects.

# TRACK 2: Project support

DELIVERABLES	DESCRIPTION	RESPONSIBLE
Project implementation plan	Outline the work plan and describe roles & responsibilities for all partners	TCG and partners
Project monitoring system	Outlines the key performance indicators and evaluation process	TCG supported by solution providers
Low carbon pilot project toolkit	Provide guidelines in terms of project selection, formulation, operation, financing, monitoring and evaluation to facilitate the development and implementation of similar projects in the future	TCG supported by other partners
Lectures and training workshops	To educate a wider base of audience on the project key learning	TCG, project leaders, and solution providers
Publicity and communication tools	Press releases, media interviews, in-depth reports, media tracking reports, program website, project brochures and newsletters	TCG
Demonstration project database on website	Based on the work of TRACK 1 and integrate the 10 case studies	TCG supported by other partners
Project summary	Summarize and highlight key issues and lessons learnt for each project as reference for other cities and partners	TCG

# TRACK 3: Policy and finance

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**GOAL** – To advocate policy reforms and innovative financing models and mechanism for government at national and city levels to drive the scale up of effective low carbon solutions deployment in cities

China Redesign has the following **OBJECTIVES**:

- Enrich Government officials' (in particular those who are in charge of policy and finance issues) knowledge and understanding of various low carbon solutions
- Recommend specific policy reforms and financing mechanisms/models through engaging leading policy advisors and experts
- Boost the confidence level of financial sector in low carbon investments

## **FOCUS AREAS** –

Recommendations on public policy innovation in:

- Green industrialization
- Building energy conservation standards
- Sustainable transport: EV charging infrastructure and grid integration
- Energy management
- Renewable energy
- Financing instruments

# TRACK 3: Policy and finance

ACTIVITIES	DESCRIPTIONS	DELIVERABLES
Produce policy recommendation paper and submit to related government departments	Outlines the priorities for implementation, institutional hurdles, potential solutions and recommendations	A series of sector-based policy briefings and recommendation papers
Conduct regular discussion roundtables on specific issues with key policy makers and regulators	<ul style="list-style-type: none"> <li>• At strategic level – TCG senior management will meet regularly with political, policy-making and regulatory leaders</li> <li>• At policy development and execution level –to be delivered through engagement with city members of China Redesign</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Roundtables</li> </ul>
Recruitment of project partners	A group of leading government advisory bodies and experts will be engaged to form the Program Advisory Committee	Program development and facilitation of policy formulation
Conduct a workshop with financial institutions	Discuss barriers and opportunities in scaling-up low carbon solutions	Workshop
Conduct project presentation meetings (one for each city as deemed necessary)	Facilitate the process to attract and leverage national and international investments for specific projects	Project presentation meetings

# TRACK 4: Communication & outreach

**GOAL** – To build up knowledge, boost confidence level, secure support and participation on realizing low carbon growth through sharing and dissemination of project information and learning of China Redesign among government and business leaders, media and the general public, both within China and on a global basis.

## Report program progress

- Prepare press tracking reports throughout the project (as deemed necessary)
- Conduct in-depth evaluation report for the five target cities
- Conduct program launch event
- Conduct program anniversary conference
- Build and host program website

## Communicate program results

- Develop key project publications (China Redesign Manual, Low Carbon Pilot Project Toolkit) for partners
- Disseminate reports and newsletters to a wider audience base
- Media interviews and feature stories

## Communicate leadership

- **PARTNERS AWARDS** to recognize cities and businesses who have made great efforts and have successfully implemented low carbon city policies/programs
- **World City Summit** to create long term collaborations among global cities and encourage city governments to work with businesses to accelerate action; sharing of best practices; **Representatives** of cities: BJ, SH, HK, NYC, London.....

Partner with leading media to launch the  
“**China Redesign**” media campaign

# City Partners

## ○ City Tours Completed

- Hangzhou
- Wuhan



## ○ City Tours Upcoming

- Guangdong Province
- Foshan
- Dongguan



# City Tours

## ○ Challenges

- Carbon trading policies not yet public.
- Integration of experts with cities.



# City Tours

## ○ Partnership

- South Media Group: “Low Carbon Era Forum” campaign.
  - Stories on successful projects, highlight pioneering cities and people.
- TCG: Provide content and framework on low carbon city development.
  - ✓ Involve the community
  - ✓ Integrate appropriate technology
  - ✓ Broaden economic analysis
  - ✓ Plan holistically
  - ✓ Design sustainable lifestyles
  - ✓ Explore new governance models
  - ✓ Encourage piloting, monitoring + evaluation



# Climate Smart Precincts

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The following companies participated in this workshop:

ARUP



IBM



  
**Lend Lease**



With contributions from Stainability Victoria, The Monash Stainability Institute, The Green Building Council of Australia and the Integrated Design Commissioner of South Australia.

Disclaimer: the companies associated with this work have contributed to this document, but do not necessarily endorse all content contained within.

# Contact

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○ **For more information please contact:**

- Dongmei WANG

Head of China Redesign Program

[dwang@theclimategroup.org](mailto:dwang@theclimategroup.org)

TEL: +86 10 6440 3639 ext. 8026

Thank you !