



WORLD
RESOURCES
INSTITUTE

城市的宜居与低碳可持续发展

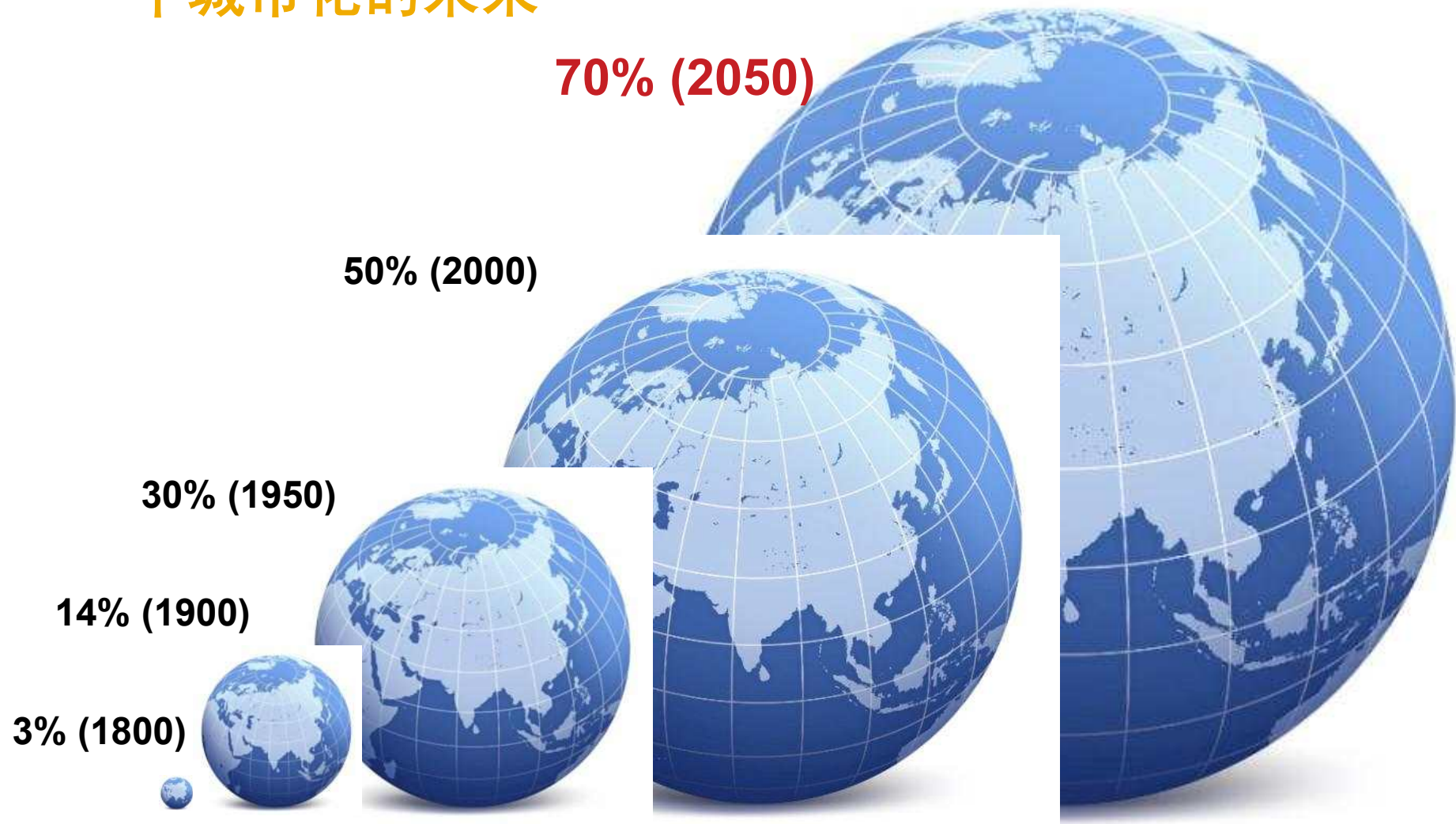
China Sustainable and Livable Cities Initiative

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SHIFT TO AN URBANIZED WORLD

一个城市化的未来



(UN DESA, 2012)

SUSTAINABLE AND LIVABLE CITIES INITIATIVE

可持续宜居城市项目

- Implemented by World Resources Institute (WRI)
- In three big developing countries, China, Brazil and India
- Financially supported by the Caterpillar Foundation, with \$12 m.
- 由世界资源研究所设计实施
- 在全球三个主要发展中国家实施：中国、巴西和印度
- 由卡特彼勒基金会资助1200万美元



VISION 愿景

Cities are thriving places **designed for people**, with vibrant economic activity, fresh air, and clean water; places with **accountable governance** and **environmental stewardship**; where people feel safe, **equitable, healthy, and connected** to all the opportunities of urban life.

可持续宜居城市：以人为本；活跃的绿色经济；清洁的空气、水和土壤；透明公开公正有效的城市治理；安全、平等、舒适、健康的生活。

CONTEXT

背景

What's happening in cities?

城市现状？

Why is now the right time to act?

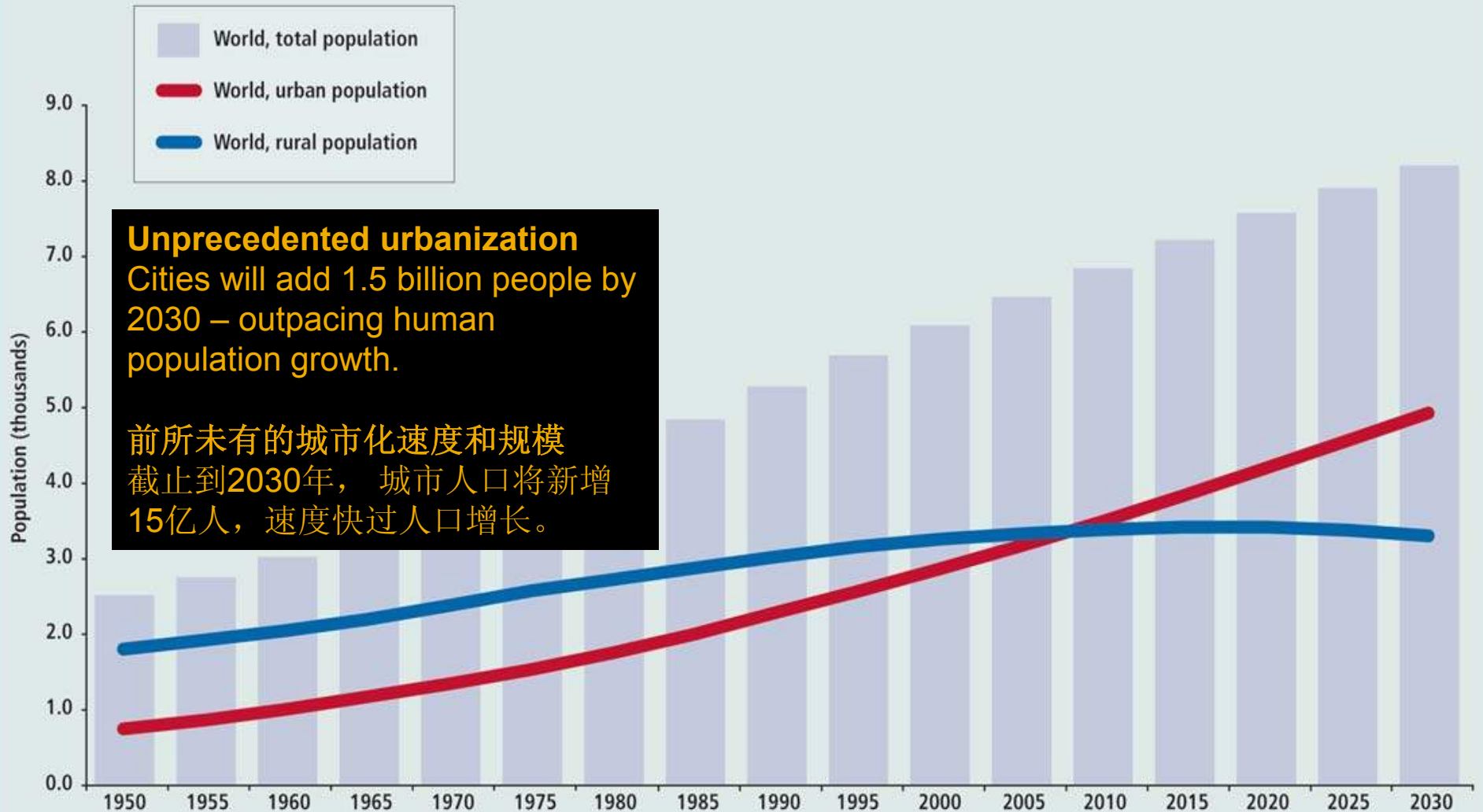
为什么要在此时开展城市项目？



CONTEXT 背景

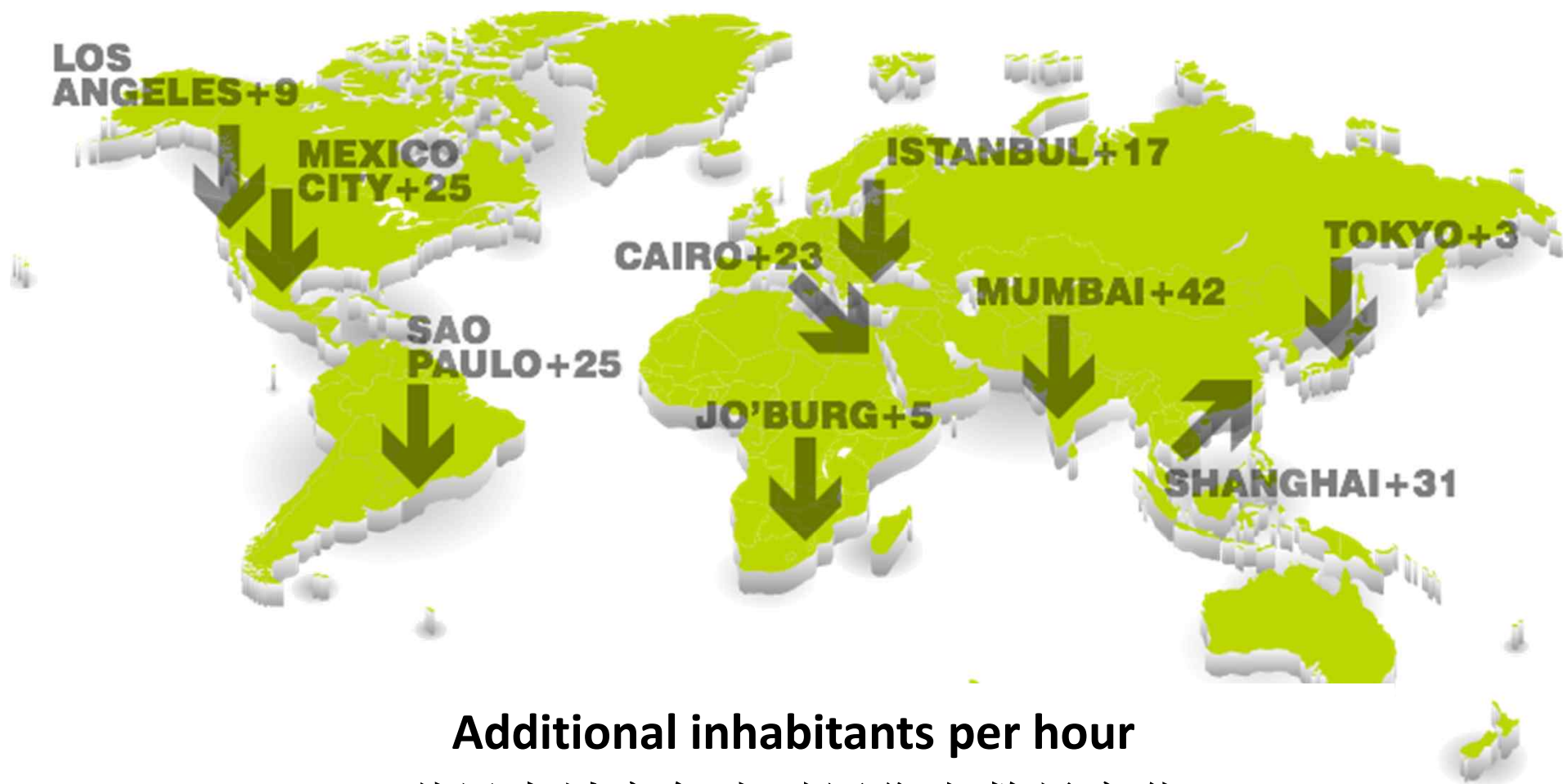
OPPORTUNITY & CHALLENGE 机遇与挑战

The urban and rural population of the world, 1950-2030



CONTEXT
背景

OPPORTUNITY & CHALLENGE
机遇与挑战



Additional inhabitants per hour
世界大城市每小时居住人数量变化

CONTEXT
背景

OPPORTUNITY & CHALLENGE
机遇与挑战

Decisions cities make today will impact many generations to come.

城市今天的决定将对今后几代人产生影响

Lock-in consumption habits and quality of life

消费习惯的锁定

1.5 billion new urban residents by 2030

2030年城市居民将新增15亿

Double humanity's built environment by 2030

建成区面积将增加一倍

Massive urban (re)development programs, with planned investment exceeding \$8 trillion in China, India, Brazil & Mexico

对城市发展大项目的大规模的投资：中国、印度、巴西的投资规模约8万亿美元

75%

**global CO2 emissions
attributable to cities**
来自城市的二氧化碳排放

A scenic view of a canal in Amsterdam, Netherlands. The canal is lined with historic buildings, including a prominent church with a large dome. Lush green trees line the banks, and several bicycles are parked along the water's edge. The sky is clear and blue.

Sustainable and Livable City in China

可持续宜居城市项目在中国

SLC in CHINA 中国项目

WHY IN CHINA? 为何在此?

- **Fast urbanization:** 快速城镇化

urban population from 18% in 1978 to **52.6%** in 2012, up to **65%** by 2030

城镇人口比例从1978年的18%扩大到2012年的**52.6%**, 2030年达**65%**

- **Challenge to energy:** 能源挑战

fast increase of energy consumption; 70% of energy mix from coal, 66% of petro from import;

能耗快速上升及能源安全

- **Environment pollution:** 环境污染

air, water, and earth 空气、水、土地

- **No. 1** carbon emitter and one of the countries **most vulnerable** to climate change

- 第一碳排放大国, 同时是受气候变化影响而成为最脆弱的国家之一

SLC in CHINA | POLICY PLATFORM

中国项目 | 政策平台

Partner with NDRC

与国家发改委气候变化司签署合作备忘录

- Formulate the program objectives and strategy 共同制定项目目标和实施战略
- Select the pilot cities and the project focal areas 选择示范城市：Chengdu & Qingdao 成都、青岛及重点领域

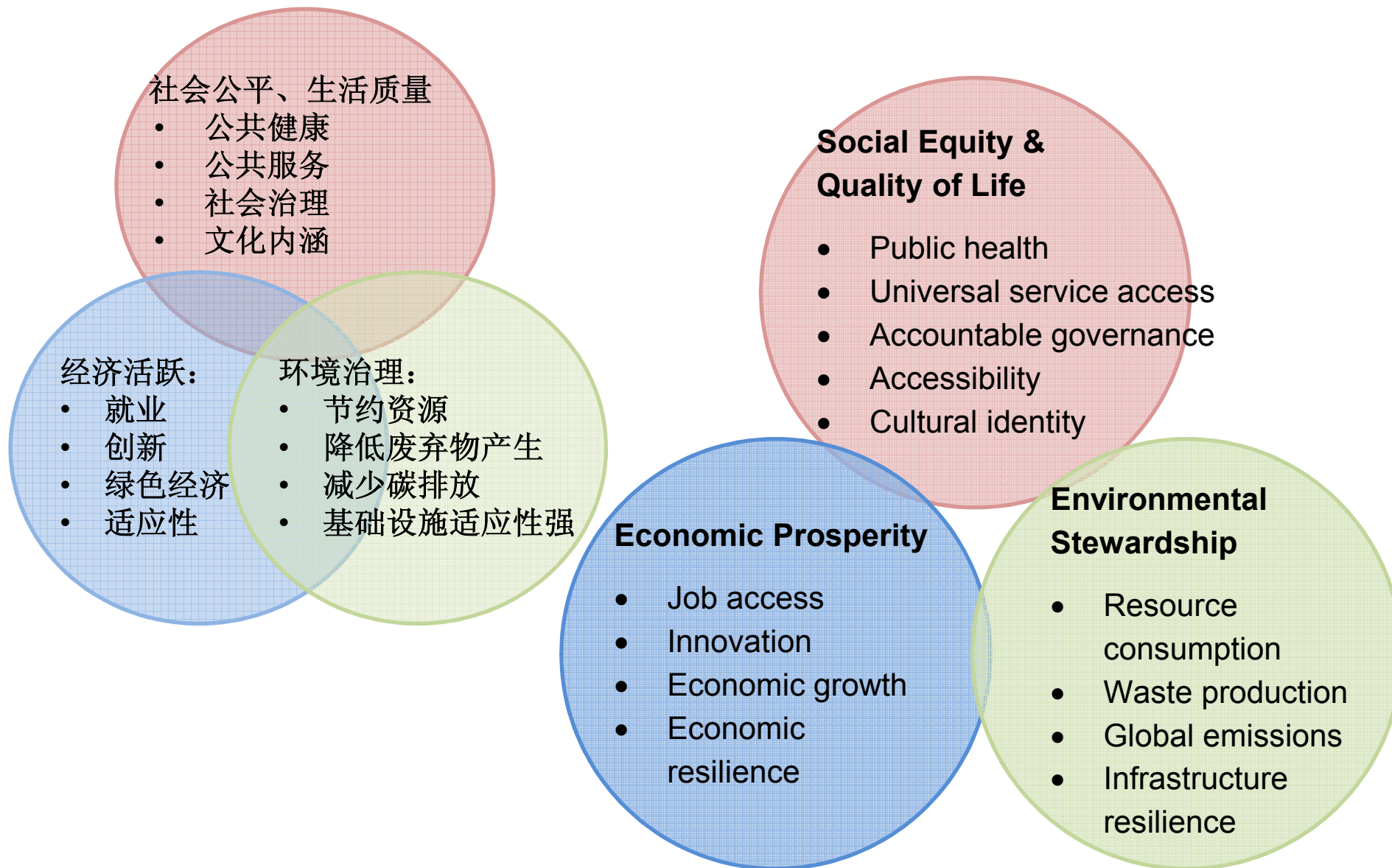
Implementation in partnership:

合作实施：

- NDRC & municipal DRC 国家/城市发改委
- NCSC 国家气候中心
- Relevant administrations in cities 城市行业管理部门
- Research institutes at the national and city levels 国家/城市的专业研究机构

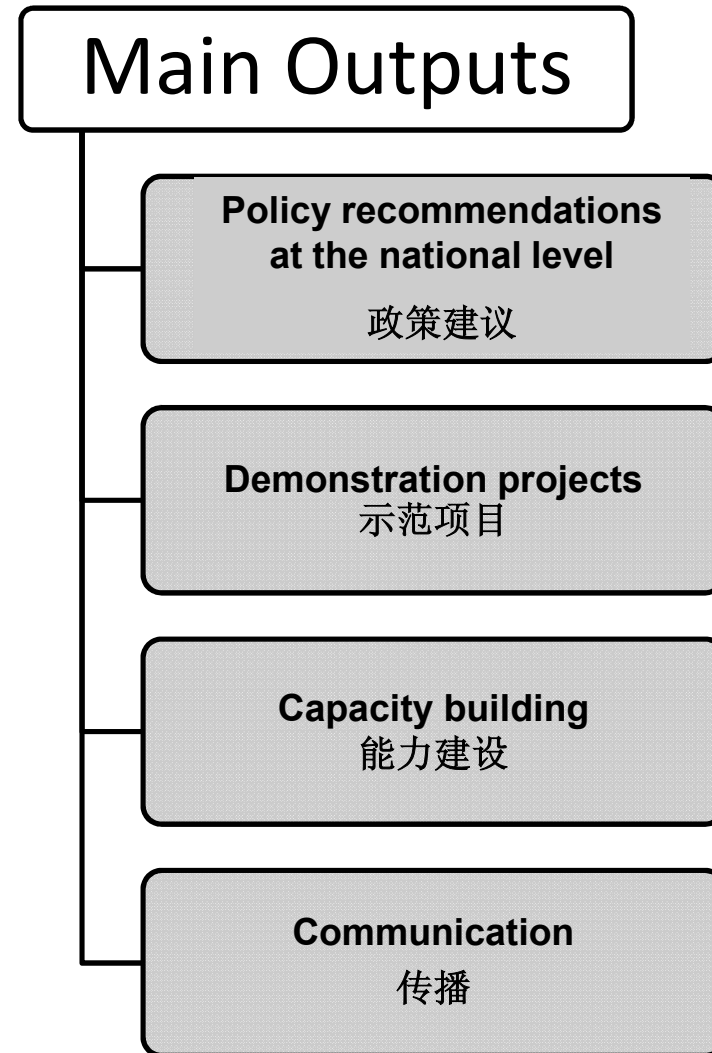
SUSTAINABLE URBANISM

可持续宜居城市的要素



SLC in CHINA | An Overview

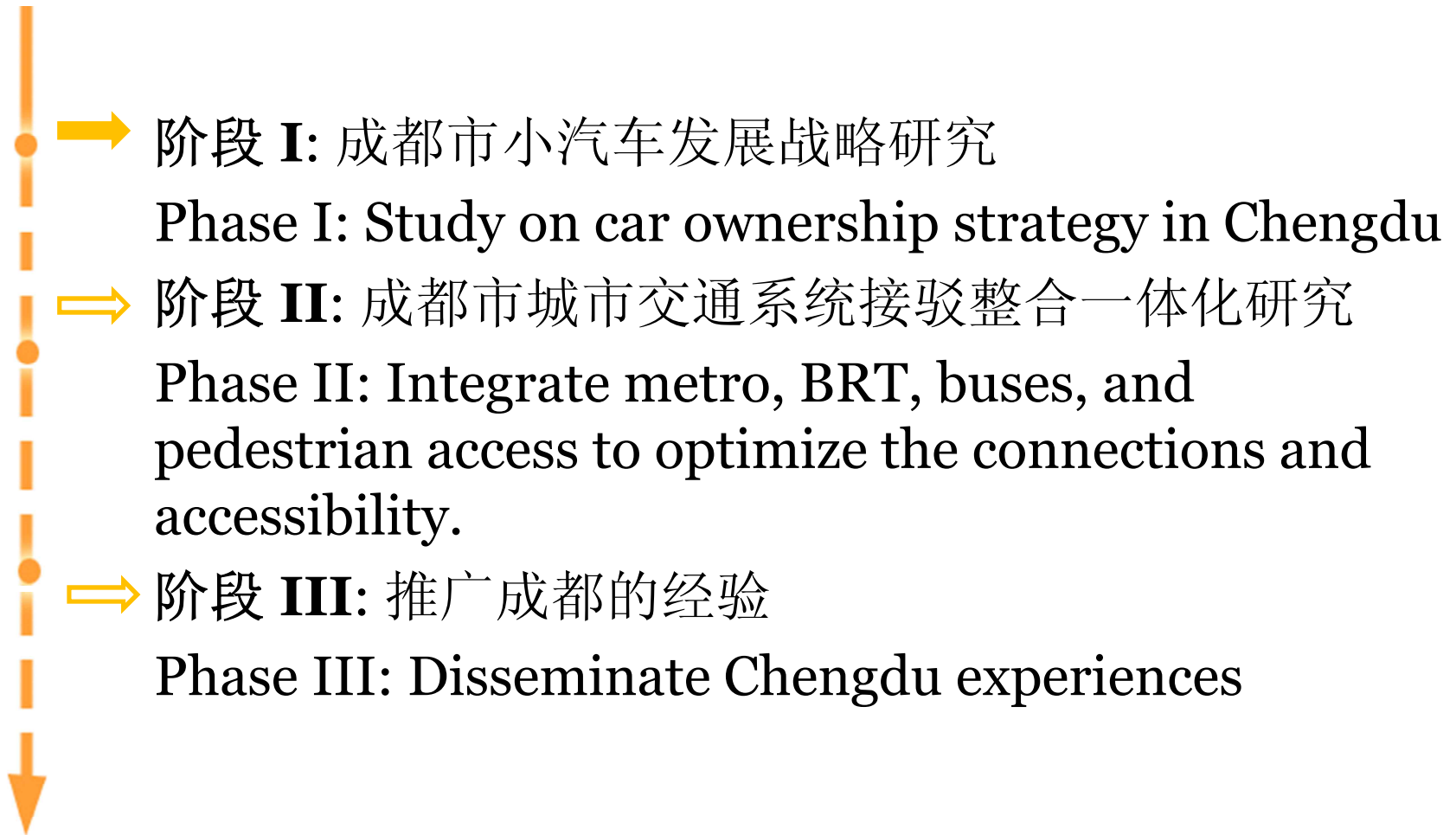
中国项目 | 项目概览





TRANSPORT 交通

- ⇒ 青岛市低碳交通行动计划
Low carbon transport action plan in Qingdao
- ⇒ 青岛市港口温室气体排放清单和编制指南
GHG inventory and guidelines for Qingdao Harbor
- ⇒ 地铁沿线土地增值国际最佳实践总结
International best practices of land using along metro lines





WATER 水

Water-Energy Nexus in water supply sector in Qingdao

青岛供水行业的水-能关联

- Assess energy consumption and cost of existing/proposed water supply measures and water conservation measures
- 现有以及计划的供水和节水措施的能耗和成本分析
- review of international experiences in reducing energy consumption of urban water sources options
- 城市水源选择中的节能国际经验总结
- Develop roadmap for low-carbon urban water system in Qingdao
- 青岛低碳城市供水系统路线图

Water-Energy Nexus in Wastewater Sector in Chengdu

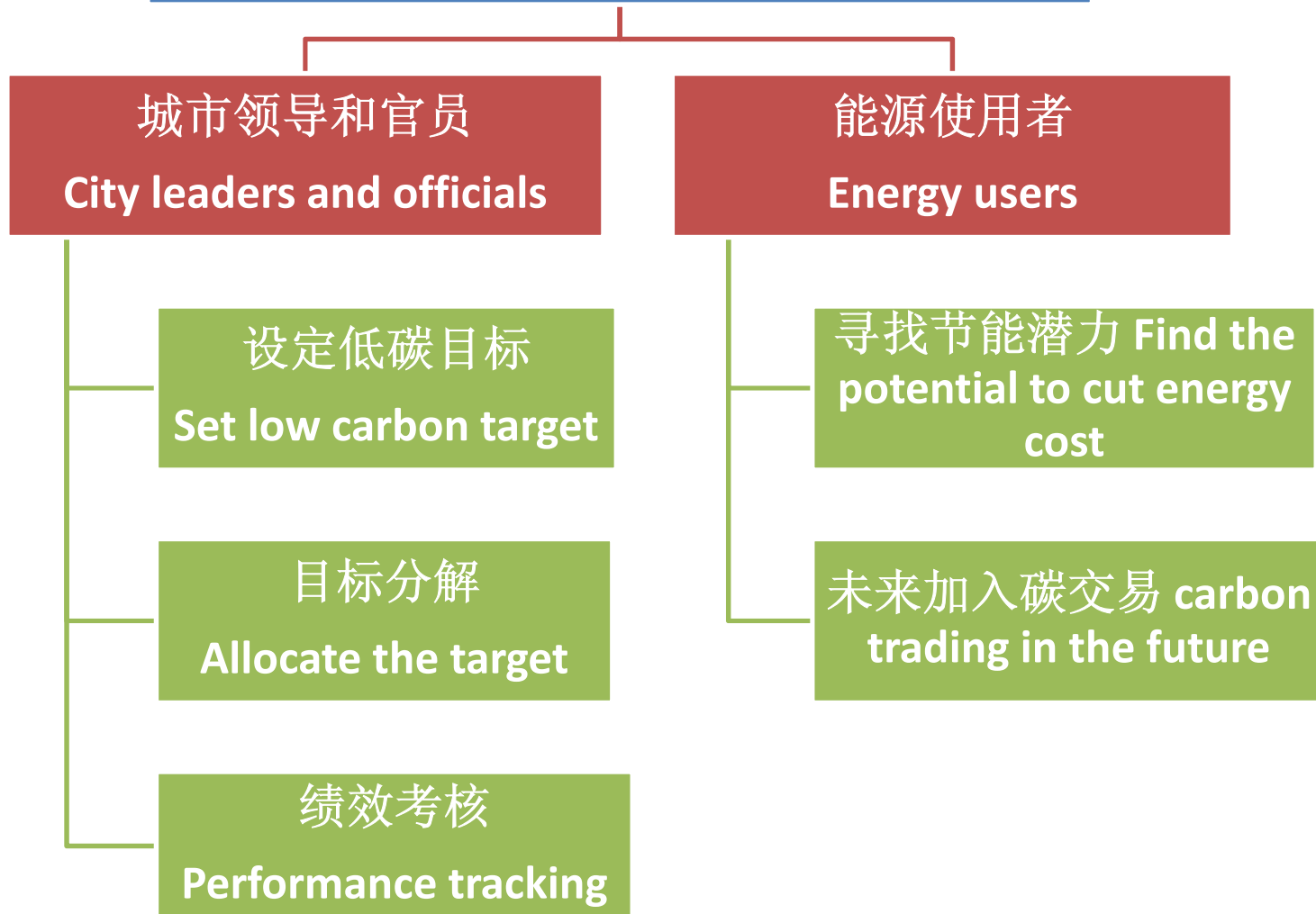
成都污水处理中的水-能关联

- Water and Energy are closely related. Creating energy consumes enormous quantities of water while the treatment and moving of water also take a significant amount of energy.
- 水资源和能源密切相关，能源的获取需要水，水的生产和污水处理的整个过程也需要大量的能源。
- **Purpose of the study** : enhancing energy efficiency of wastewater system and reducing GHG emission while ensuring achieving pollutant reduction targets.
- **目的**：在实现污染物减排目标的前提下，提高成都污水处理系统能效，降低能耗，并减少温室气体的排放，获得污染物减排和污水处理系统低碳可持续发展的双赢。

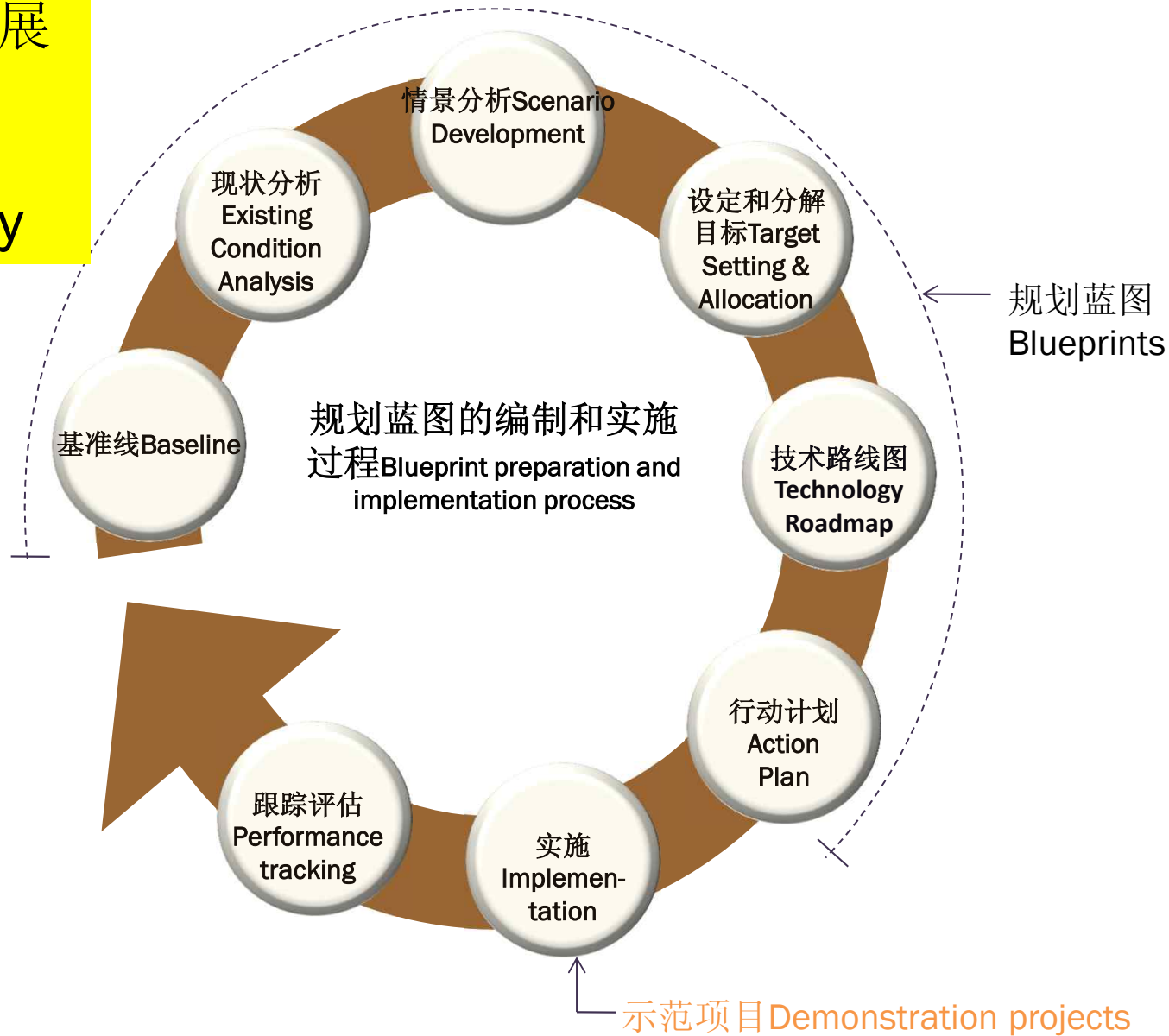
ENERGY 能源



青岛温室气体报告和监测体系 Qingdao GHG emission reporting and monitoring system



成都市低碳发展
规划蓝图研究
Chengdu LC
blueprint study



Observations and lessons learnt I

观察与思考（一）

- What's the benefits cities will gain, or what's the risk if cities do nothing? Initiate the action.
- 城市如何受益？开启行动。
- How to ensure sustainability? Work on both demand and supply sides.
- 如何确保可持续性？需求供应两手并重。
- How to ensure city buy-in? Cities' ownership, and be part of the local team.
- 如何确保城市采纳？融入城市。

Observations and lessons learnt II

观察与思考（二）

- What's the challenges of local pilots? Bottom up and top down, pilots and scaling up, integration, standardizing.
- 试点的挑战？从试点到推广，跨部门的协调与合作。行动的差异，方法的趋同。
- How cities work together? In-depth exchange, and identify own strengths.
- 城市如何合作？深入交流，发挥各自优势。
- How various players realize win-wins? Set up a platform and work together.
- 相关各方如何实现共赢？创建平台，共同投入。

Thank you !

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