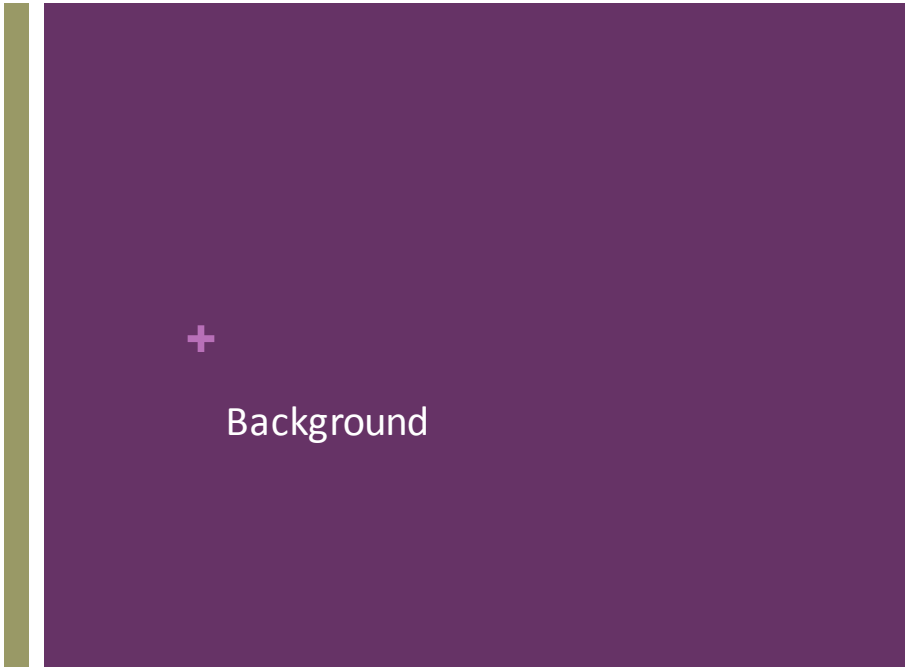




## Green Transport in the Sino-Singapore Tianjin Eco-City

*International Seminar on Green Transport for Growing Cities*

2 September 2009



+

Background

## + Genesis of the Eco-City Project



- Agreement between Premier Wen Jiabao and Senior Minister Goh Chok Tong on **2nd flagship bilateral project** (after Suzhou Industrial Park), 1<sup>st</sup> on eco-city



S'pore, China to jointly develop an 'eco-city'

- Development of a city driven by **3 harmonies**: social, economic and environmental
- Designed to be **practical, scalable and replicable**
- **Model of sustainable development** for China and the world

## + Strategic Location in Tianjin Binhai New Area



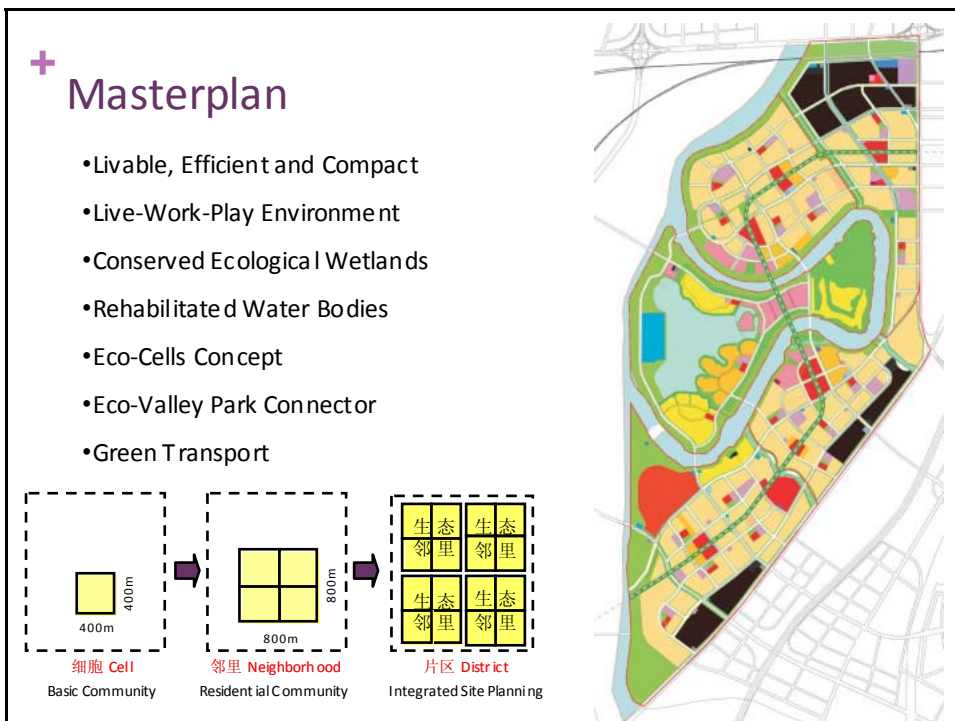
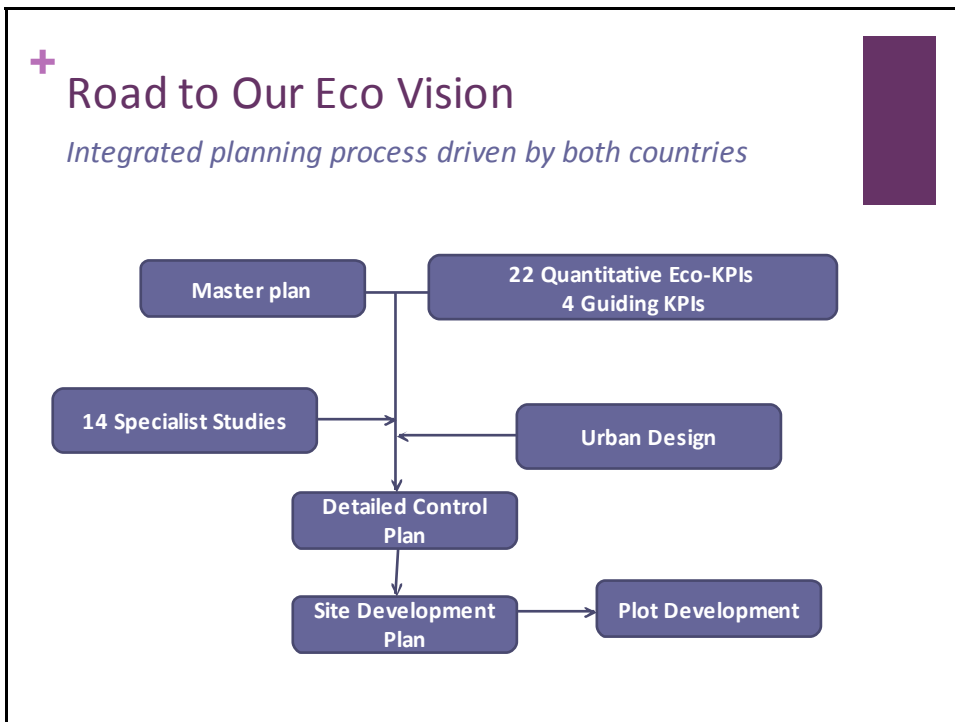
- Located within the **Coastal Leisure and Tourism Zone**
- **150 km** from Beijing; **40 km** from Tianjin city; **10 km** from core district of Tianjin Binhai New Area (TBNA)
- Area of strong growth
  - TBNA's GDP >20%/year for last 3 years
  - Rapid population growth (1.7m in 2007 to 2.0m in 2008)

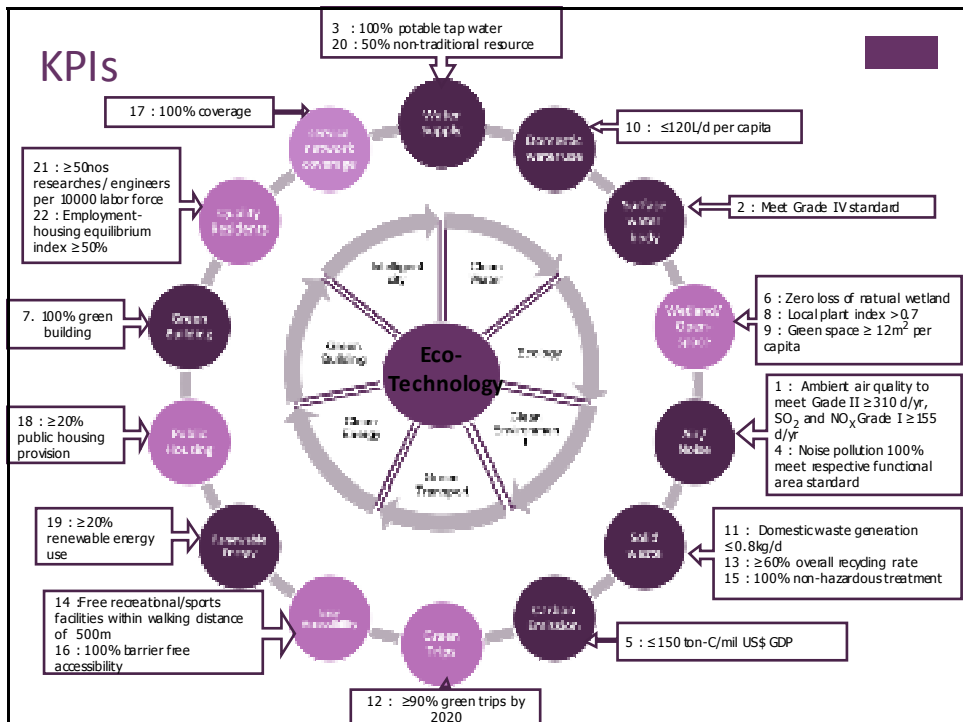
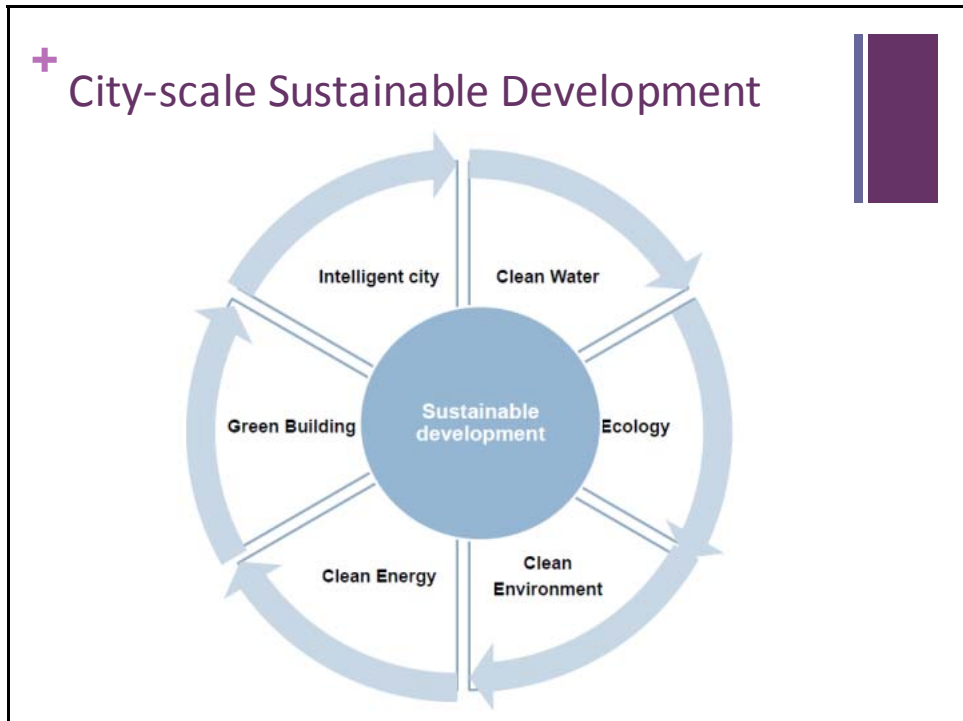
## + Our Site

- 30km<sup>2</sup> of
  - Water scarce
  - Non-arable land
- Home to 350,000 people when completed in 10 to 15 years' time, depending on market demand
- Swift progress on Start-Up Area of 3.91km<sup>2</sup>
  - Estimated 85,000 people



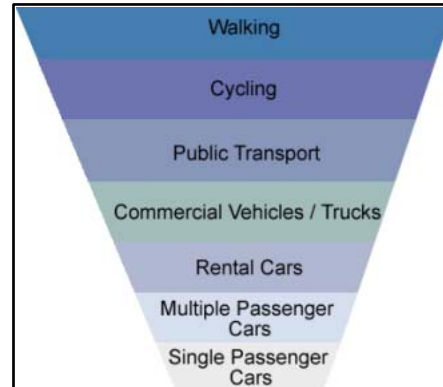
## + Integrated Planning and our Green Transport Vision





## + Our Green Transport KPI

- 30% Green Trips by 2013, 90% Green Trips by 2020
- Green Trips refer to:
  - Public transport and
  - Non-motorised forms of transport, e.g. walking & cycling
- Transport key part of the Eco Vision for the Eco-City
  - Consumes 1/3 of total energy consumption in a city
  - Remaining 2/3 from residential and industrial usage



## + Integration & Connectivity are Key



- “1 Chain – 1 Core, 1 Spine, 4 Districts”
- LRT as key transport infrastructure
- Integration with other transport options for seamless connectivity throughout the Eco-City

## + Our Eco-Valley

*Creating a walkable community*



- 50m wide **green spine** running through the Eco-City
- Focal point for leisure & social activities
- Barrier-free access
- Built by the Government
- Integrated with surrounding developments

## + Practical Approach to Green Vehicles



- Ensure whatever **we use are as efficient and green** as possible
- Collaboration with LTA Academy and ST Kinetics provide insight and expertise
  - Intelligent Transport System
  - All-electric/electric-hybrid public and private vehicles
- Studying other incentive measures to encourage take-up rate of green vehicles amongst our residents

## + Green Transport Infrastructure



- Use of green construction materials for road infrastructure
- Solar powered lights for non-motorised lighting systems
- Porous tiles for non-motorised lanes
- Exploring other potential green materials that we can use to enhance the eco-friendliness of our transport infrastructure



Looking Ahead

## + Challenge to Realise Ambitious Vision

- Have to contend with:
  - Broader trends: increasing car ownership and road usage as China's economy grows
  - Open boundaries: not possible to isolate or restrict types of vehicles that enter the Eco-City
    - Specialist study shows Eco-City to eventually have **1,062,000 trips a day**
    - Of which **37% are internal-external trips** as people come to the Eco-City for the high value-added jobs we bring in
- Need to ensure good connectivity via rail and public bus routes to major cities



## + High Barriers to Entry in Initial Stages

- Need to create buy-in or awareness of green transportation
- Costly charging infrastructure
- Uncertainty of investment as technologies continue to evolve



## + But Risks = Opportunities

- Greenfield development = free playing field
- No legacy systems or existing infrastructure to overhaul
- Bringing in experts in LTA Academy and ST Kinetics to shape and realise our green transport vision



## + Conclusion

- Partnering experts to create and realise long-term success of green transport in the Eco-City
- Many opportunities for providers of all kinds
- Further innovation and ideas wanted
- Together, we can create a more sustainable future

