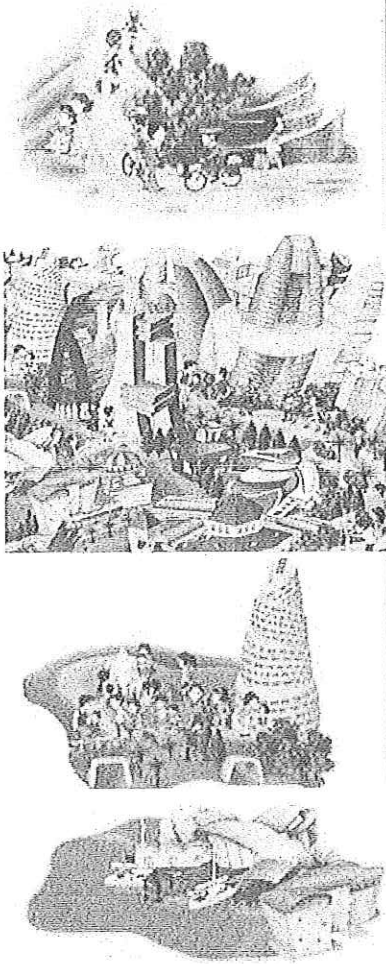


タウンセンター開発 → ディベロッパー・ビジネス
と
工業団地開発 → コーディネーション・ビジネス
(第1期 100ha、最終1000ha)



DEVELOPING A CITY OF THE FUTURE

SINO-SINGAPORE TIANJIN ECO-CITY 中新天津生态城

Mr Goh Chye Boon
CEO

Sino-Singapore Tianjin Eco-city
Investment & Development Co. Ltd

OUTLINES

- ◎ Our People-centric Vision
- ◎ Our Corporate ecology
- ◎ Sustainable Development in China
- ◎ Eco-city development & planning
- ◎ Conducive Environment for Eco-industry

OUR PEOPLE-CENTRIC VISION

As we **build**,
so shall we **live**

As we **live**,
so shall we **become**

- Richard Register

Our people-centric vision

OUR SUSTAINABLE OBJECTIVES

A Very Liveable City



Ecologically
rich homes



Socially harmonious
community



Live,
Work,
Play



Economically
vibrant hub



Our people-centric vision

FUTURE-READY DIRECTIONS

Future Ready

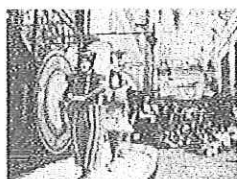
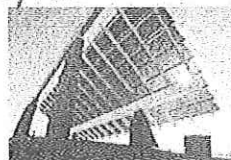
Our people-centric vision



Solutions



Lifestyles



Creativity

Values



CORPORATE ECOLOGY

Corporate Ecology

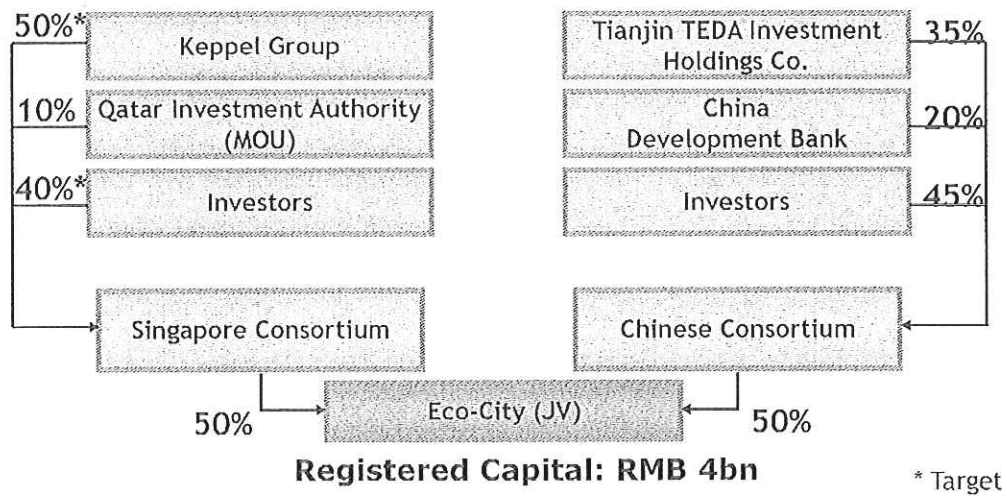
- ④ A 50:50 joint venture between Singapore Tianjin Eco-City Investment Holdings Pte. Ltd. (STEC) and Tianjin Eco-City Investment and Development Co., Ltd (TECID)
- ④ JV Agreement signed on 1 July 2008
- ④ Initial registered capital of RMB 4 billion



Kinva Corporation

tecid
天津生态城
投资开发有限公司

WHO ARE WE



Shareholders' land capped at 60 hectares each

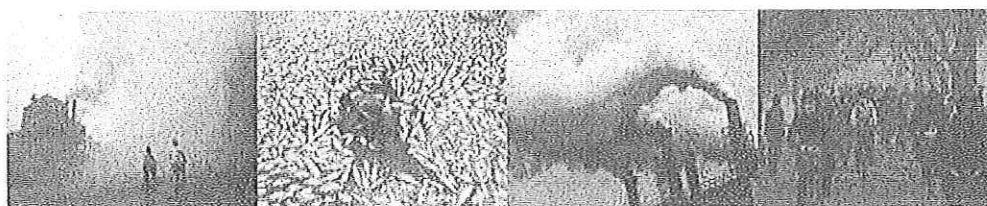
Opportunities



SUSTAINABLE DEVELOPMENT IS SUNRISE INDUSTRY IN CHINA

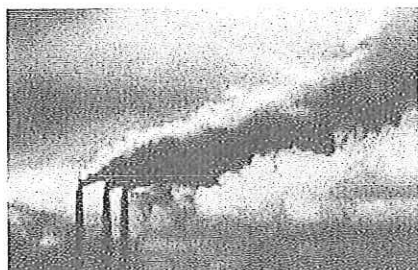
Tremendous potential and sustained SD opportunities in the Chinese market

Environmental Sustainability Index 2008
- China Rank 105 out of total of 149 Cities



SUSTAINABLE DEVELOPMENT IS SUNRISE INDUSTRY IN CHINA

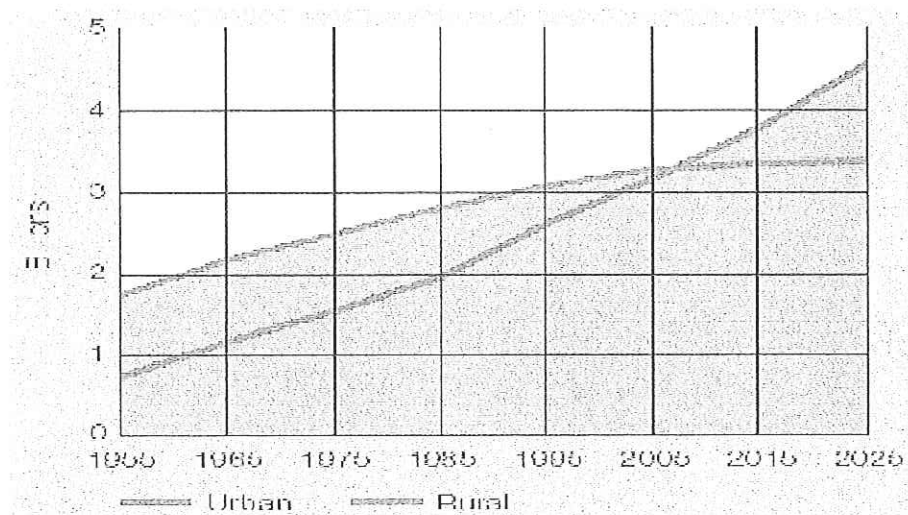
Carbon-constrained world is a given



- World energy consumption is to increase 40-50% by 2010
- Developing countries use 30% of global energy
- Post-Kyoto Protocol
- Carbon emission constraints

SUSTAINABLE DEVELOPMENT IS SUNRISE INDUSTRY IN CHINA

Urbanisation is unstoppable



Source: Drivers of urbanization (Arup)

SUSTAINABLE DEVELOPMENT IS SUNRISE INDUSTRY IN CHINA

Urban solutions create new global businesses

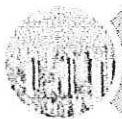


© In 20 years, China's cities will have added 350 million people—more than the entire population of the United States today or 2 New York cities a year.

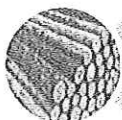
© The country's urban population will reach 926 million by 2025 and top 1 billion by 2030

GENESIS OF OUR ECO-CITY

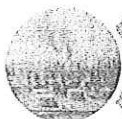
Challenges faced by typical Chinese city



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References

- © 2004 Blackwell Publishing Ltd, *Journal of Clinical Pharmacy and Therapeutics*, 29, 139–144



Society

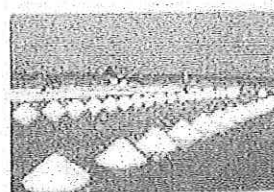
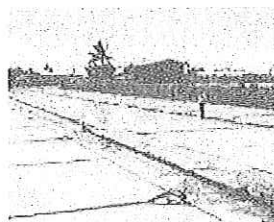
- Income gap: Average income is the level of income 40 years ago, and target difference is 33.1%.
- GDP income: Income that grows at rate of 8% increases by 6.4% (0.4% increase in real income could mean that we now have 6.4% more)

OUR ECO BASELINE

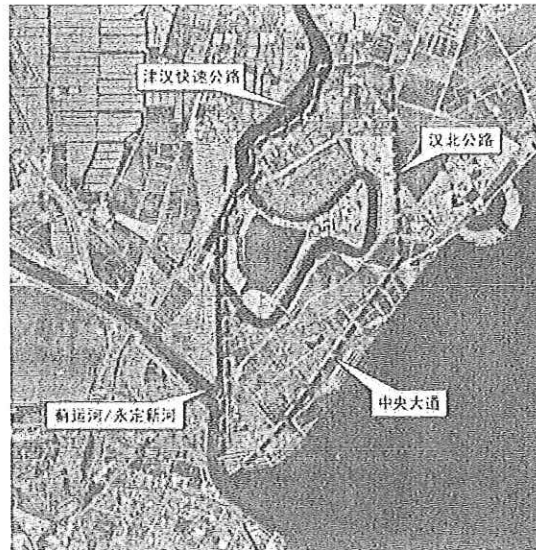
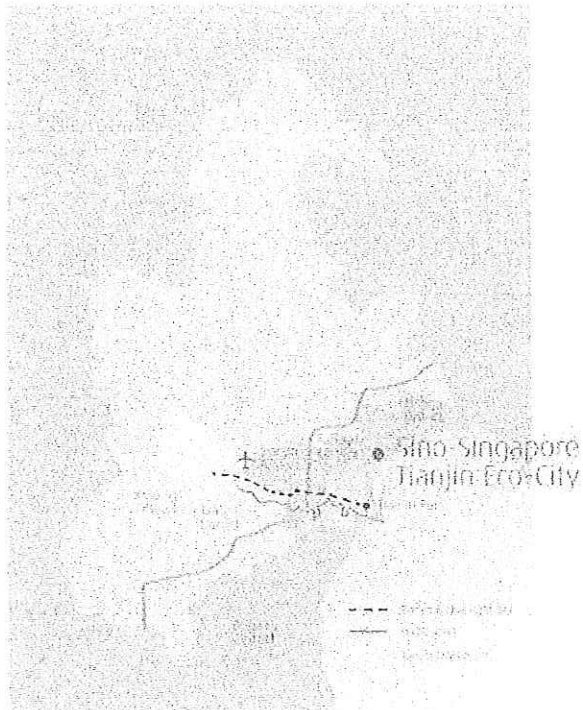
Selecting an area that has poor ecological track record to make a difference

Site Selection Criteria

- *Non-arable land*
- *Limited water resources*
- *Commercial viability*
 - *Economic and job opportunities*



LOCATION



Total Area: 34.2sqkm

40km east to Tianjin downtown

Eco-city development & planning

PLANNING PROCEDURES

Master Plan

A metropolis that celebrates
sustainable development

A home for 350,000 people living in
harmony with nature

Implementable, Replicable, Scalable

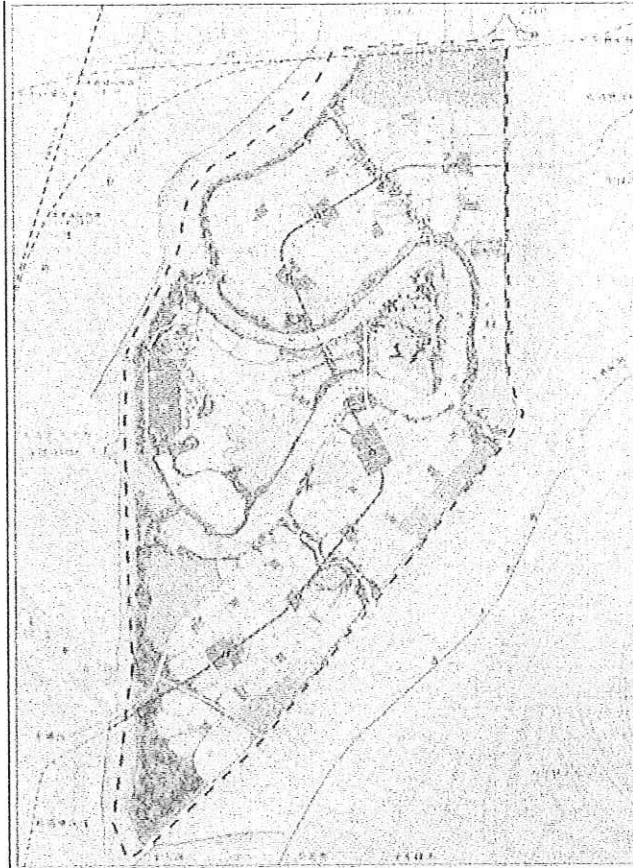
Eco-city development & planning

MASTER PLAN

By 2020, total land development area is 25sqkm

◆Urban functional area - From South to North

◆Water /Eco-corridors - From West to East



Eco-city development & planning

PLANNING PROCEDURES

Master Plan

KPIs

22 Quantitative KPIs
4 Qualitative KPIs

Eco-city development & planning

KEY PERFORMANCE INDICATORS

Healthy Ecological Environment

- Good Natural Environment (air, water, native plants, wetland conservation)
- Balance of man-made environment (green buildings, noise, carbon emission,

Comprehensive Infrastructures

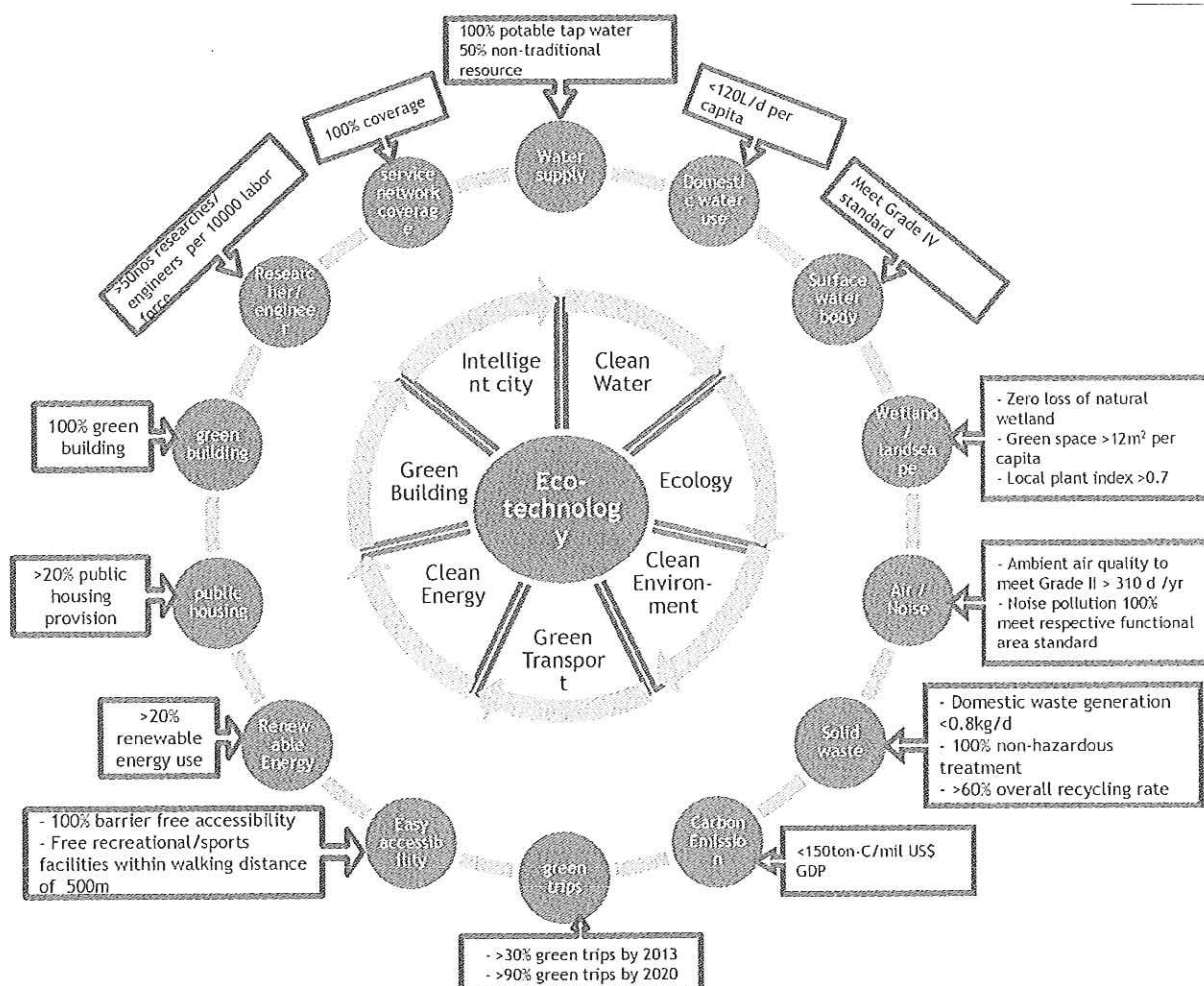
- Solid waste recycling and disposal
- Provision of green space/recreational/sports facilities
- Service network coverage

Social Harmony & Progress

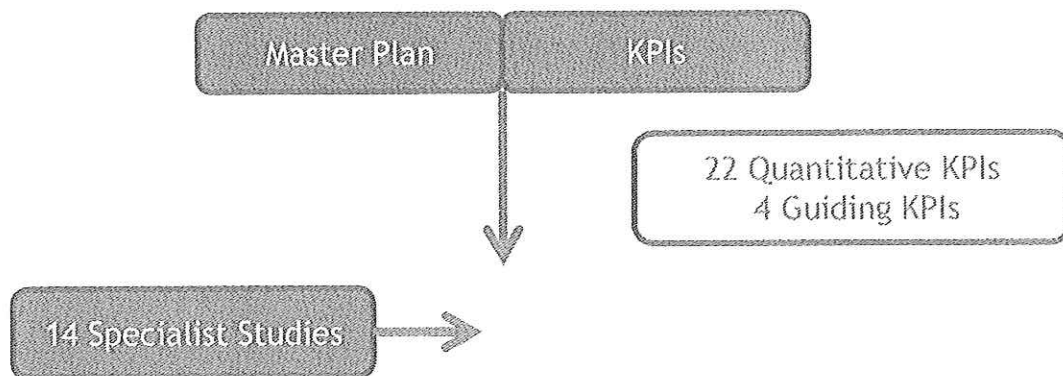
- Green trips
- Domestic water consumption
- Domestic waste generation

Dynamic and Efficient Economy

- Renewable energy usage
- Vibrant technology innovation



PLANNING PROCEDURES



WATER & ENVIRONMENT PLANNING

- ◎ 100% potable tap water supply
 - Water supply plant (both from TEDA & Hangu)
 - Advanced water supply network management



- ◎ Per capita domestic water consumption $\leq 120\text{L/d}$
 - Household water saving management

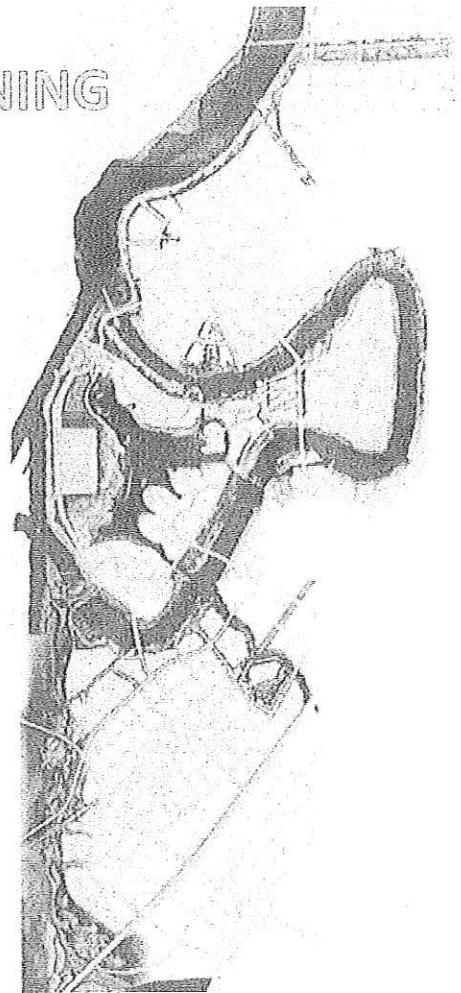
WATER & ENVIRONMENT PLANNING

◎ Quality of surface water bodies to meet GB Grade IV

- Wastewater pond rehabilitation
- Yingcheng Sewage Treatment Plant (meet GB 1A discharge standard)
- Old Ji Canal bio-rehabilitation
- 6 Eco-corridors

◎ Water supply from non-traditional resources $\geq 50\%$

- Recycled water treatment plant
- Rainwater harvesting
- Desalinated water



WATER & ENVIRONMENT PLANNING

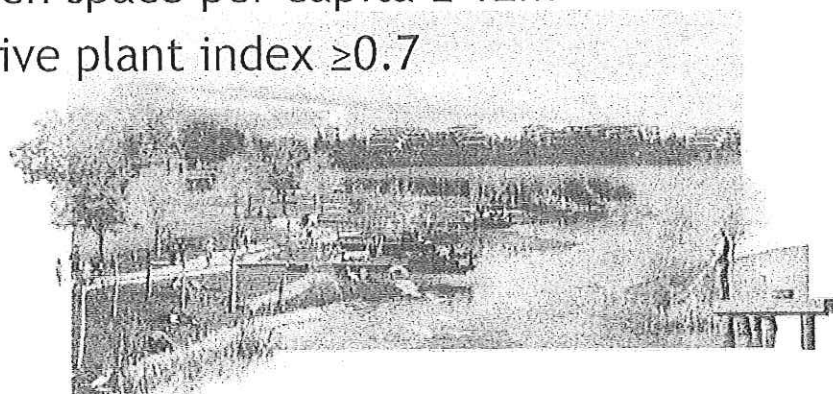
◎ Zero net loss of natural wetland

- Estuary wetland conservation
- Engineering wetland



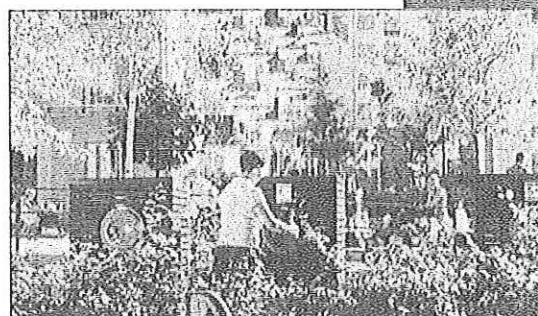
◎ Public green space per capita $\geq 12\text{m}^2$

◎ Local/Native plant index ≥ 0.7



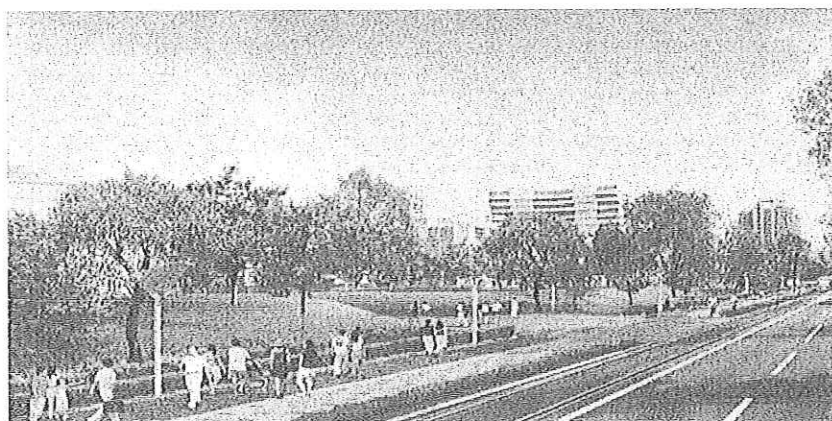
ENVIRONMENT PLANNING

- ⊙ Treatment to render solid waste non-hazardous - 100%
 - ▣ Pneumatic waste collection system (PWCS) for household waste disposal/classification
 - ▣ Pharmaceutical , Industrial, Construction waste management
- ⊙ Overall recycling rate $\geq 60\%$
 - ▣ Solid waste classification/recycling plant
 - ▣ Biomass power plant
- ⊙ Per capita domestic solid waste generation $\leq 0.8\text{kg/d}$



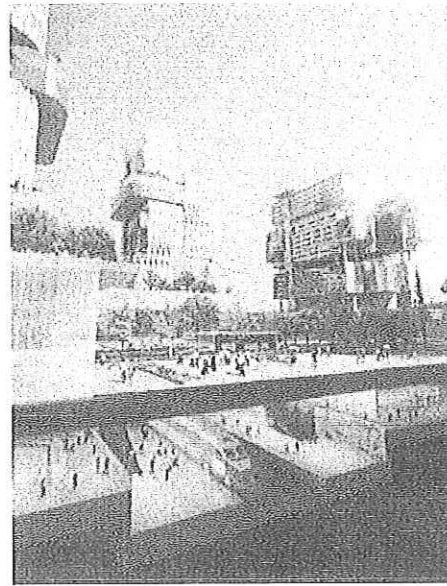
ENVIRONMENT PLANNING

- ⊙ Ambient air quality to achieve GB Grade II $\geq 310\text{days/a}$ (85% of the time)
- ⊙ Carbon emission per unit GDP $< 150\text{tonne-C/US\$1mil}$
 - ▣ Clean Development Mechanism
 - ▣ Carbon emission auditing/certificating



INTEGRATED TRANSPORTATION PLANNING

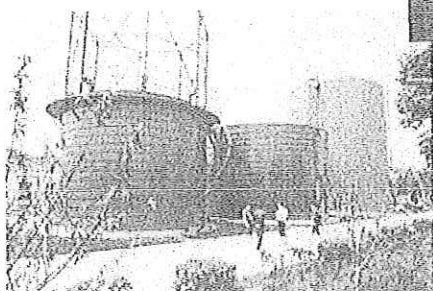
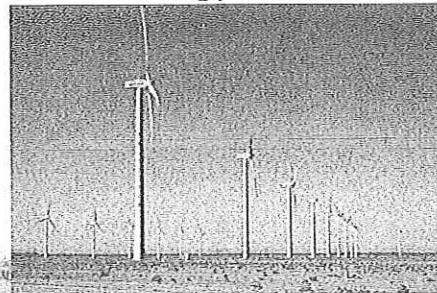
- ◎ 90% green trips by 2020
 - Clean engine vehicles
 - Rail system (LRT, tram)
 - Bicycle rental system
 - Road network planning
 - Public transport planning
- ◎ Intelligent transportation system
 - Signaling
 - Remote monitoring
 - Real time feedback
 - Emergency management



Eco-city development & planning

RENEWABLE ENERGY PLANNING

- ◎ Renewable energy \geq 20% of total energy usage
 - Solar
 - Wind
 - Geothermal
 - Biomass
 - Heat exchange
 - Residual heat
 - Many others

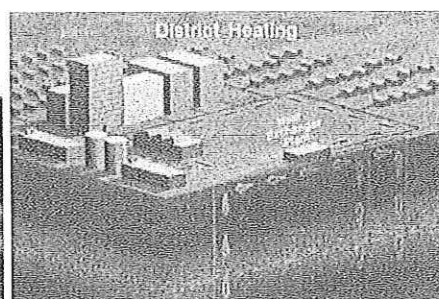
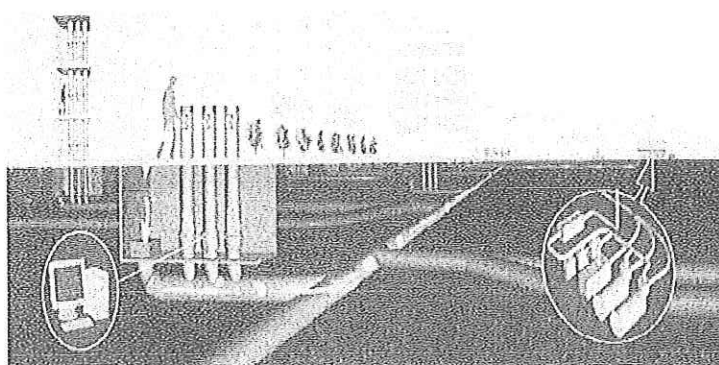


Eco-city development & planning

UTILITIES & INFRASTRUCTURE PLANNING

• Service Network Coverage 100%

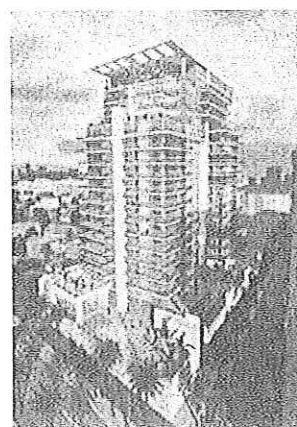
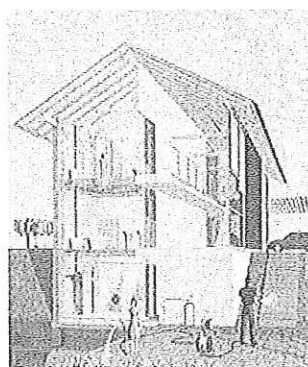
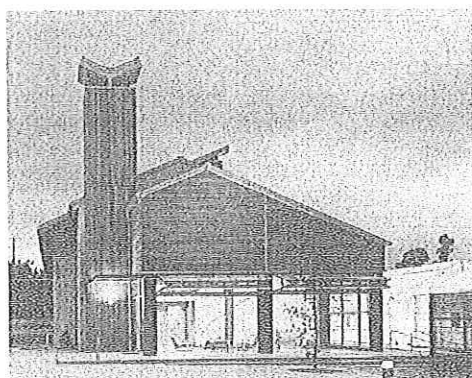
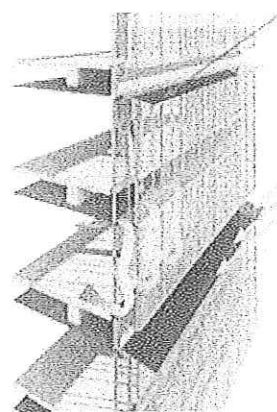
- Vibrant Technologies Innovation
 - District Cooling/Heating System
 - Vacuum Sewage System
 - Pneumatic Waste Collection System
 - More to come...
- System integration/intelligence



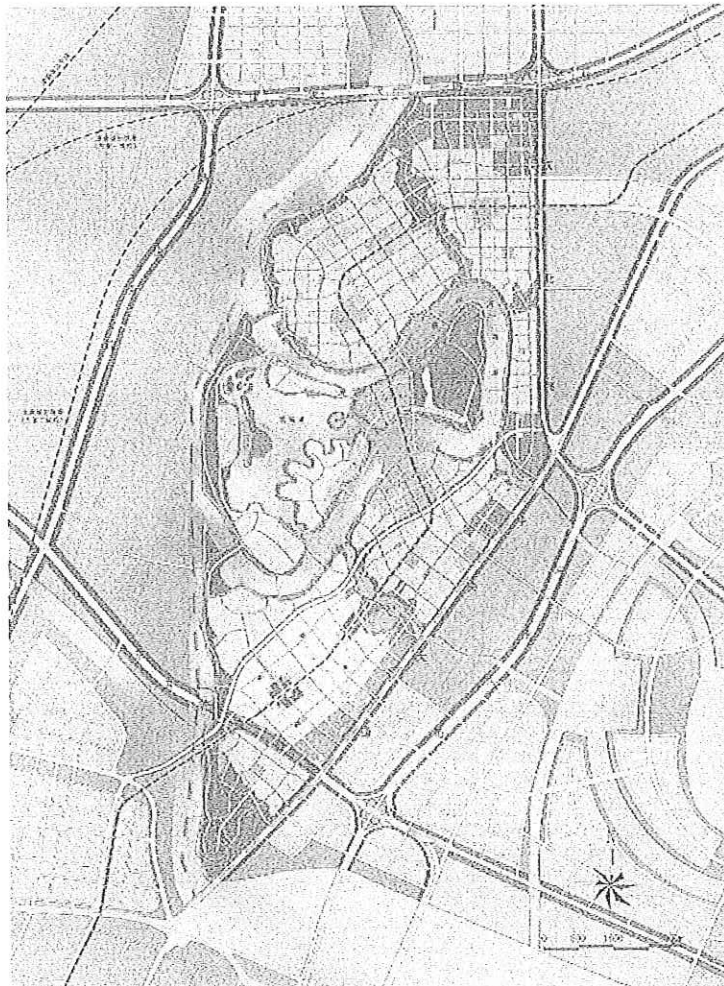
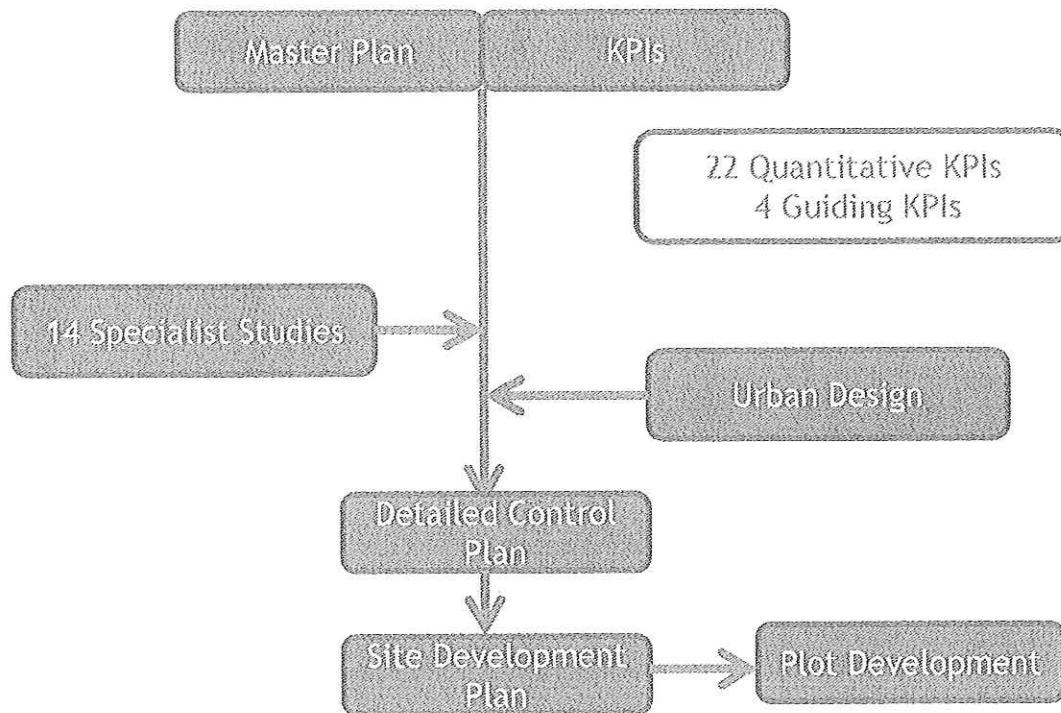
GREEN BUILDINGS PLANNING

• 100% green buildings in eco-city

- Green building design
- Green construction
- Green materials
- Intelligent building system (IBS)
- Building energy optimization



PLANNING PROCEDURES



START UP AREA

SSTECH Startup Area Fact Sheet

- 3sqkm area
- Residential GFA: 2.9mil sqm
- Commercial GFA: 314,000 sqm
- Industrial GFA: 414,000 sqm

Amenities

- 4 Neighbourhoods
- 1 Business Park
- 1 Sub-centre
- 1 Hospital
- 5 Primary Schools
- 2 Secondary Schools
- 6 Kindergartens

OUR ECONOMIC POSITIONING



Hyflux

NANYANG
BUSINESS
UNIVERSITY



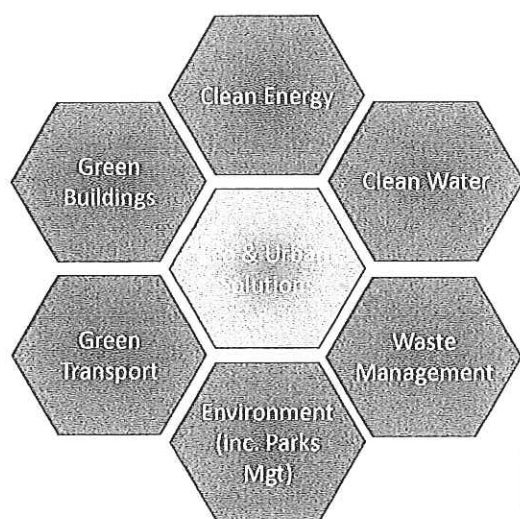
Provide conducive environment for eco-companies to flourish

- o Business parks customized for R&D and commercialization of cleantech
- o Centre for eco-education, training & research institutes to provide skilled workforce
- o Sustainable development financing hub

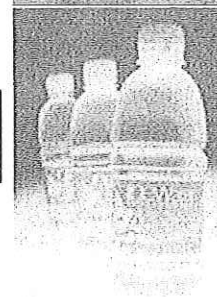
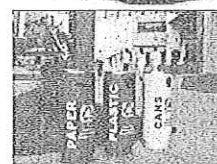
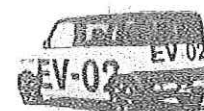
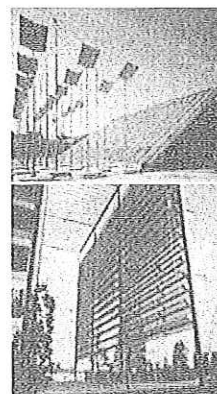
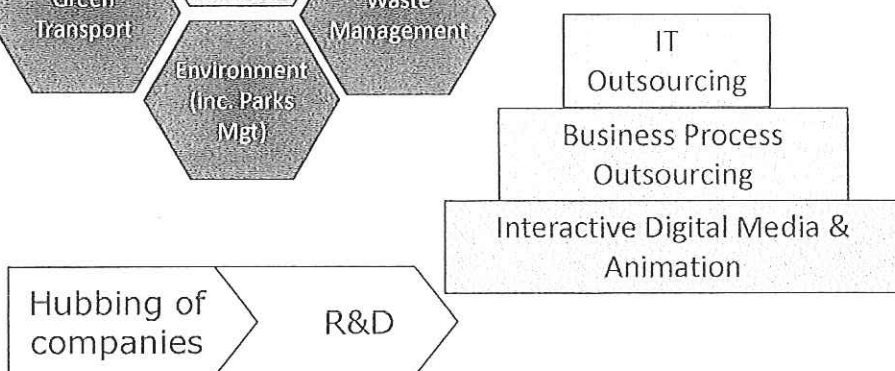
Working on policies to encourage eco biz activities

OUR TARGETED INDUSTRY CLUSTERS

MAIN FOCUS

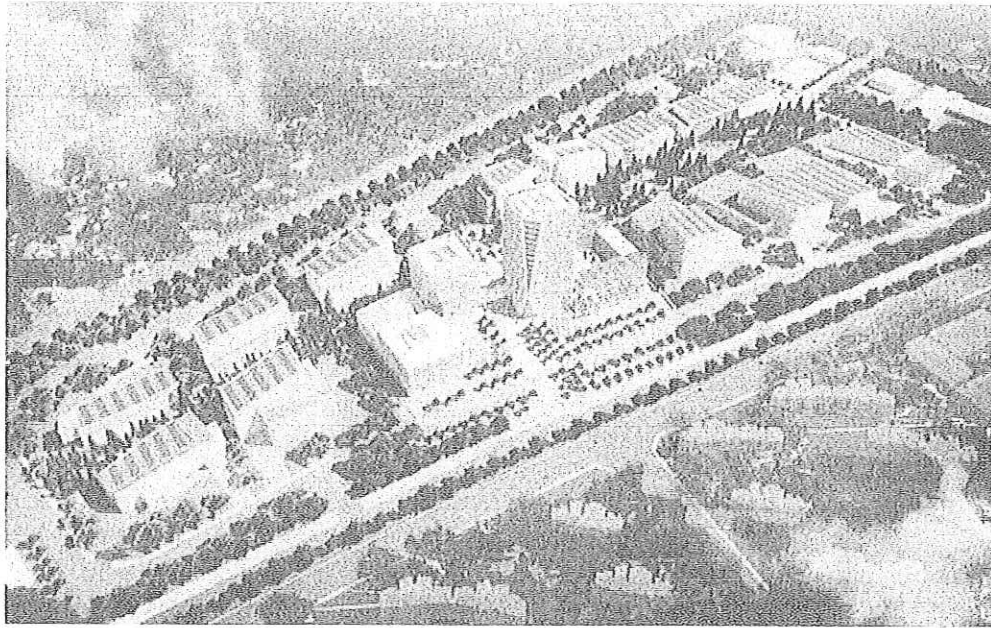


SECONDARY FOCUS



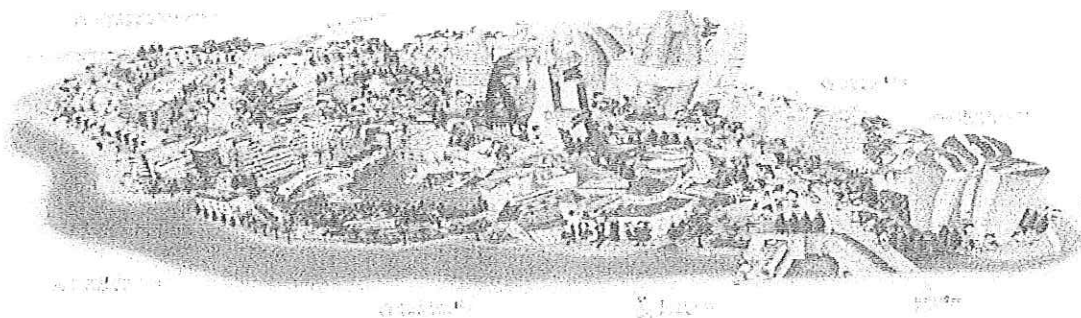
OUR ECO BUSINESS PARK

LEED-Silver Eco Base for Eco Companies



Groundbreaking on 3 June by
Minister(MND) Mah Bow Tan
& Minister(MOHURD) Qiu Bao Xing

DEVELOPING A CITY OF THE FUTURE



THANK YOU !