

Principles and practices of TOD

Planning, paying, understanding

Yesterday's discussions

- **We need proper planning**
 - To reduce kms travelled
 - To “balance” densities and urban development
 - To improve sustainability and quality of life
- **We need money**
 - To build needed infrastructure
 - To “balance” financial difficulties (e.g. operation)
- **We need to understand our cities**

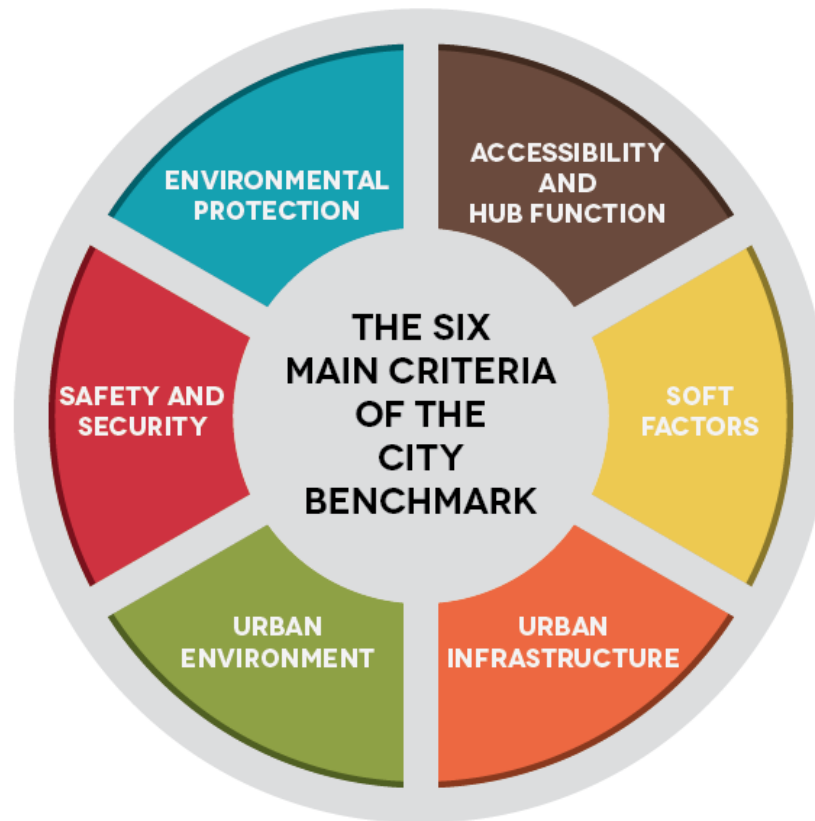
Cities included in the benchmark



CITIES SELECTED FOR THE BENCHMARK

- POTENTIAL BEST PRACTICES
- TRANSITIONAL CITIES
- EMERGING CITIES

Benchmarking system: 75 classified and weighted criteria



Bogotá 21 - publication

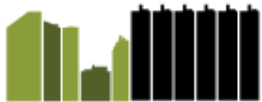
- Available from www.despacio.org
- Book with all results (English and Spanish)
- Video with summary of project



Megatrends localized for Bogotá

MEGA-TRENDS AND IMPACTS FOR GREATER BOGOTÁ

3.



GROWING UNIFORMITY OF CITIES

A "modernisation drive" may cause demolition of cultural heritage and loss of community life, thus undermining cultural uniqueness

4.



GROWING INDIVIDUAL PROSPERITY

By 2050, the world will be populated by more than 9 Billion people, with everybody in average more wealthy than today. The effect on the world's resource consumption is frightening.

5.



URBANISATION - BOGOTA IS GOING TO GROW FURTHER

Colombia's urbanization is high (78%) and is growing further (85% by 2050). Metropolitan Bogota will become a mega city in the first half of the next decade

1.



DEMOGRAPHIC CHANGE

In 2050, up to 22% of the population in Bogota will be above 65 years of age (6% today). Today's low dependency ratio starts to increase by around 2021

2.



INCREASING MOTORISATION

Car ownership in Bogota is still low (at 18%) but growing. A significant increase of road congestion is to be expected. NMT, MRT, BRT, and TDM (1) become increasingly necessary

6.



GLOBALISATION

Exports / imports are growing 6.7 / 6.4 times faster than GDP (average 2004 to 2010), indicating Colombia's growing participation in the global economy

7.

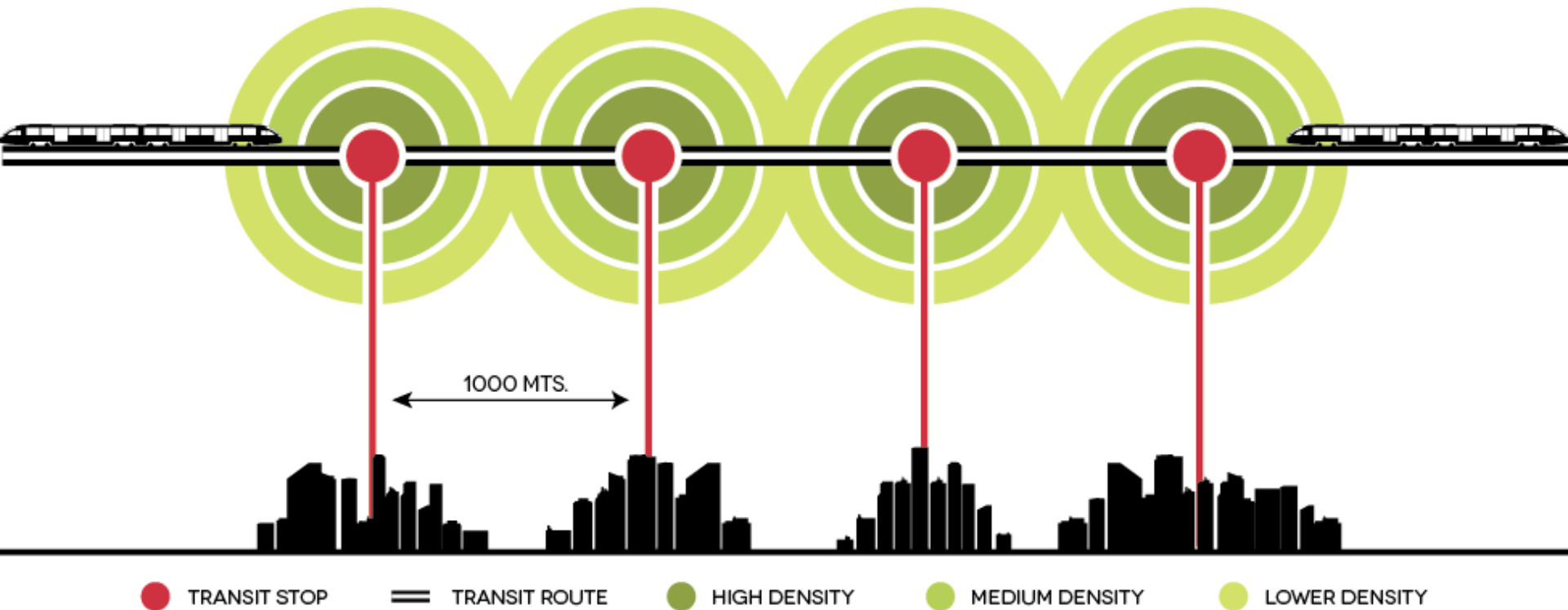


CLIMATE CHANGE

Increasing vulnerability to river-borne flooding: Bogota is expected to see an increase in the asymmetry of runoff (frequency of max and min flows), with higher peak flows

1) MRT: Mass Rapid Transit; BRT: Bus Rapid Transit; TDM: travel Demand Management; NMT: Non-Motorised Transport

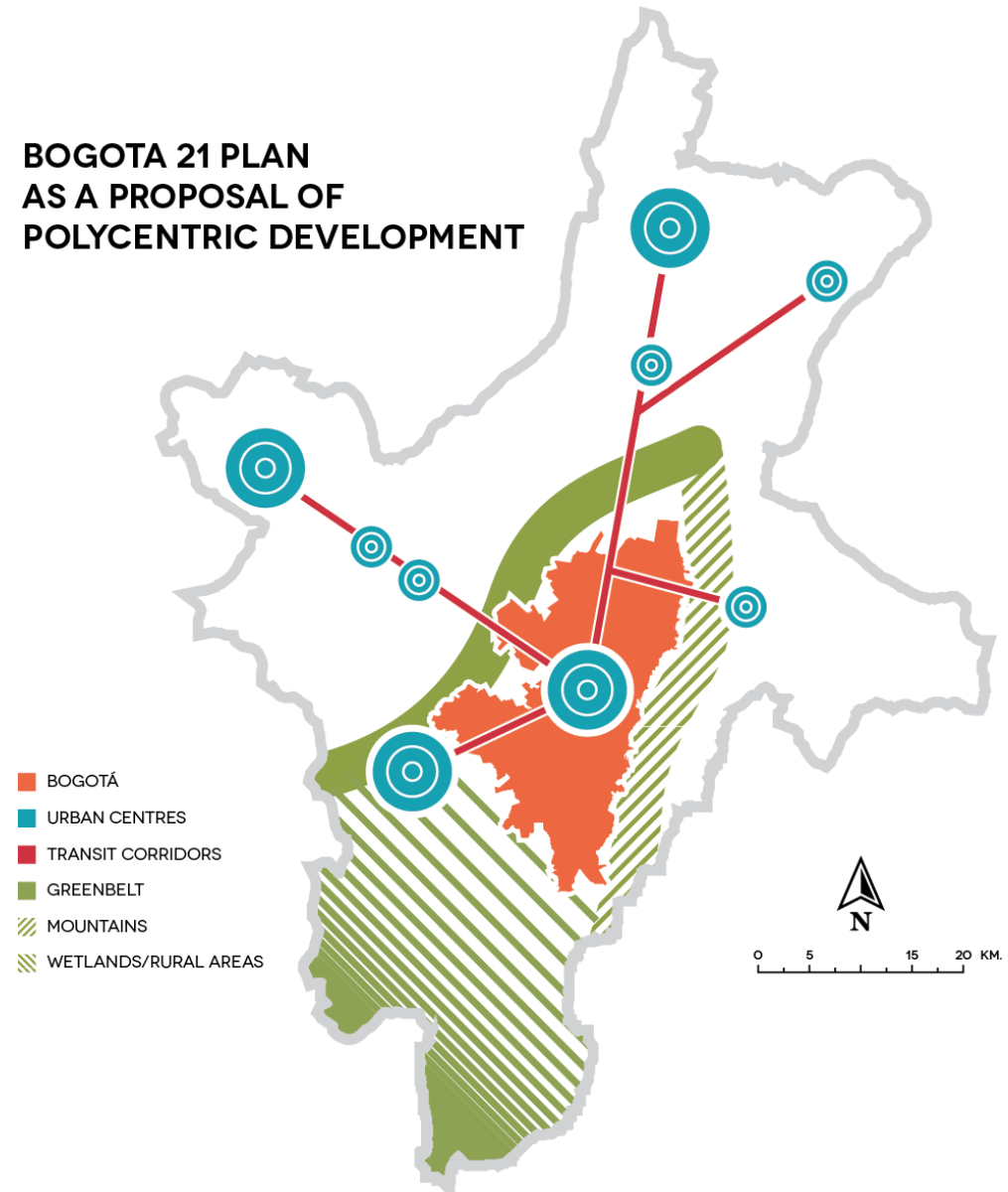
Transit Oriented Development (TOD) - compact nodes linked by mass transit



Goal: Decentralized concentration

- **Polycentric development within Greater Bogotá is proposed, with Bogotá proper being the growth engine of the entire region**
- **The outcome is decentralized concentration in the region, with regional satellites being growth centres in their own right**
- **Satellites have to satisfy all daily needs of the inhabitants instead of just swallowing up the metropolitan population overspill**
- **Hence, satellites cover all urban land uses, residential, commercial, industrial, recreational, educational, etc.**
- **To separate the metropolis from its hinterland, the creation of a true Green Belt is recommended**

BOGOTA 21 PLAN AS A PROPOSAL OF POLYCENTRIC DEVELOPMENT



Prerequisite: metropolitan planning authority

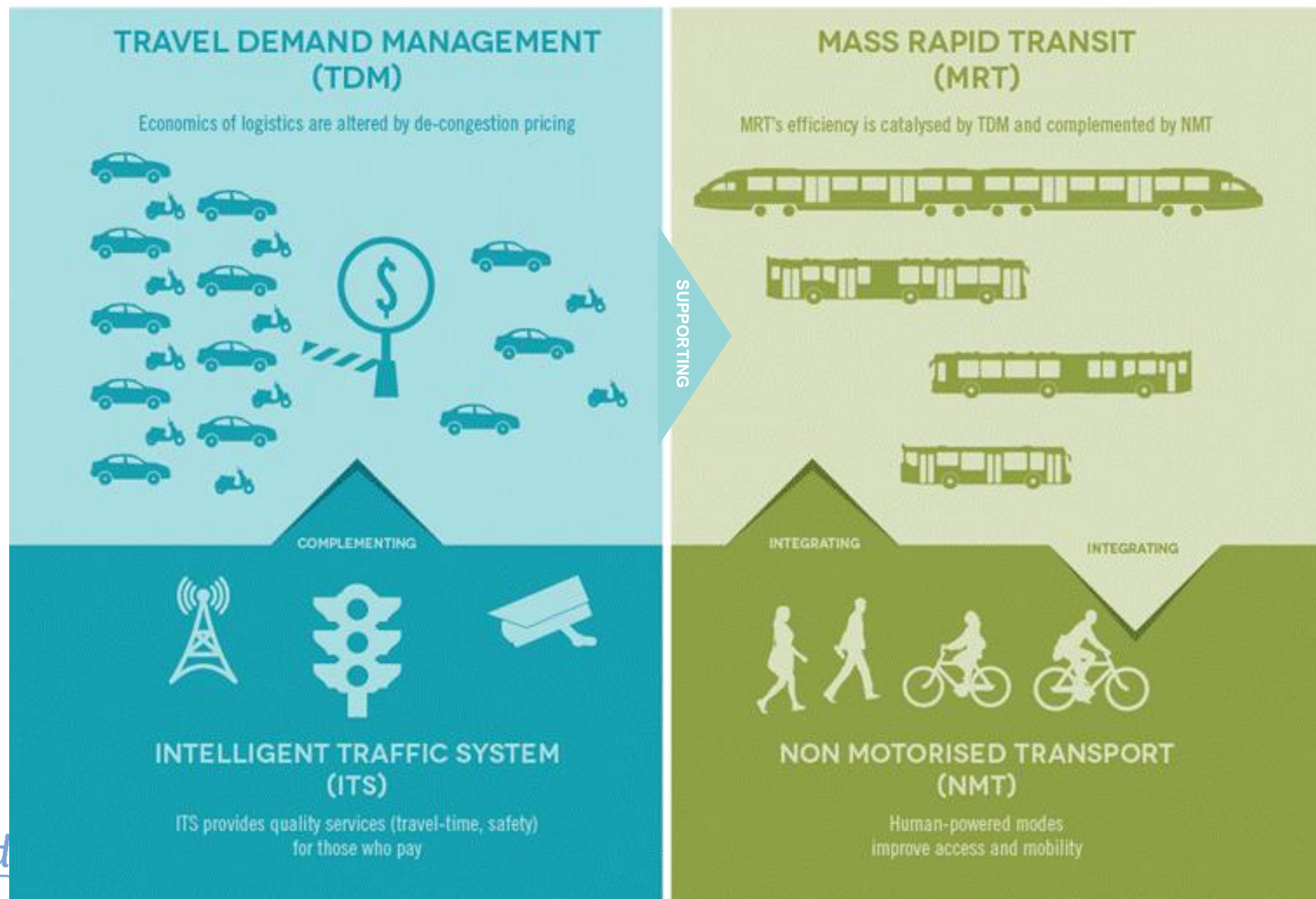
GREATER BOGOTÁ: PROPOSED PLANNING REGION



- It is evident: Decentralized concentration requires a metropolitan planning authority
- It should consist of Bogotá proper and 17 surrounding municipalities
- The region should be as small as possible for efficiency reasons and as big as necessary to satisfy the growth potential at least until 2050
- Potential role model: the Regionalverband Ruhr (planning council for the Ruhr-region in Germany, 4,435 km²) established in 1920



Transit systems deserve an integrated transport environment and convenient transfer stations



Transit systems need operational integration: time tables, interfaces, and ticketing systems



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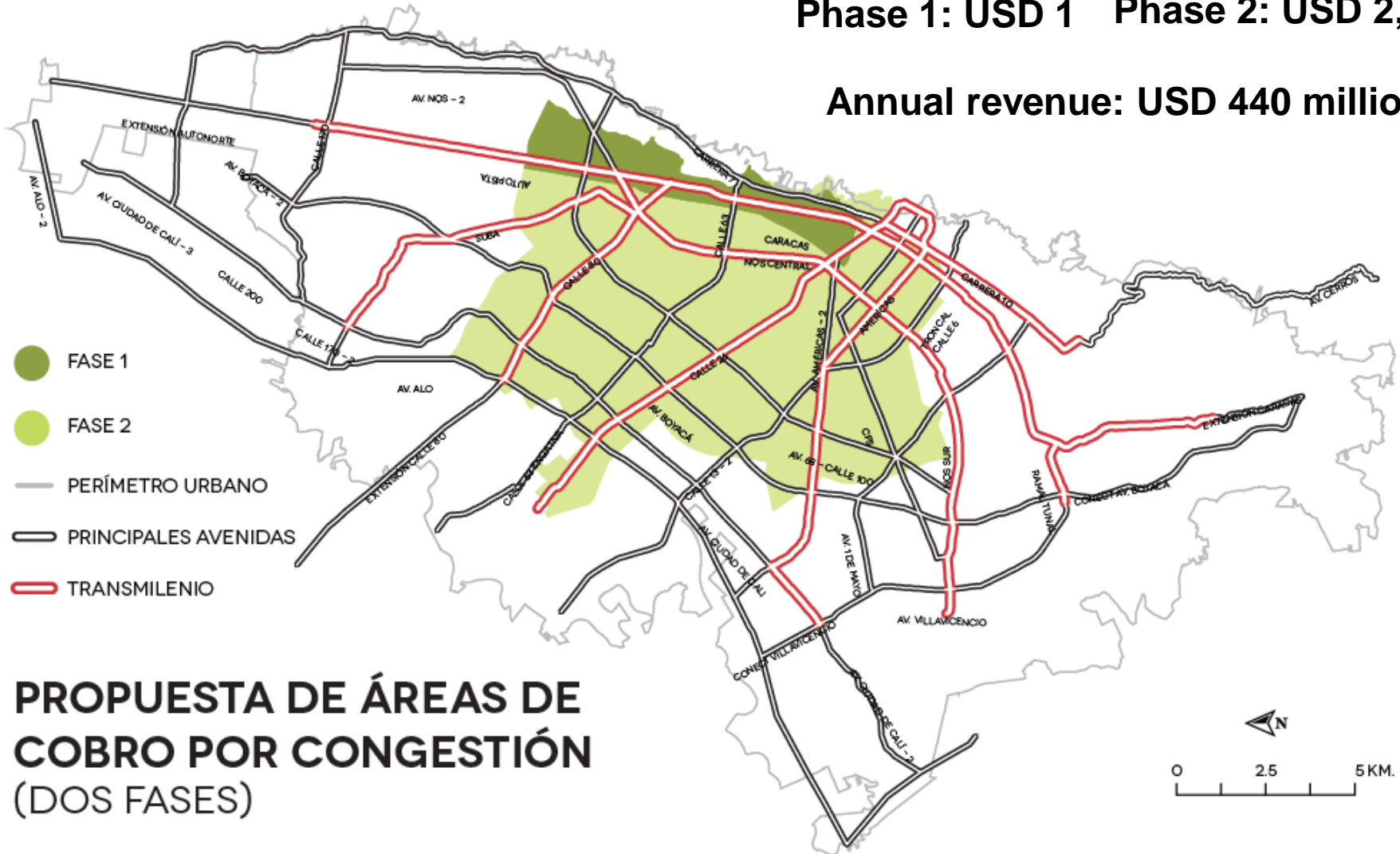
Something can be done regarding operational integration in Bogotá



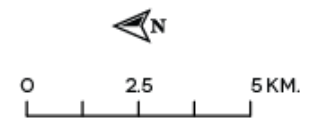
The central areas of the metropolis benefit from a well-tailored congestion pricing system

Phase 1: USD 1 Phase 2: USD 2,5

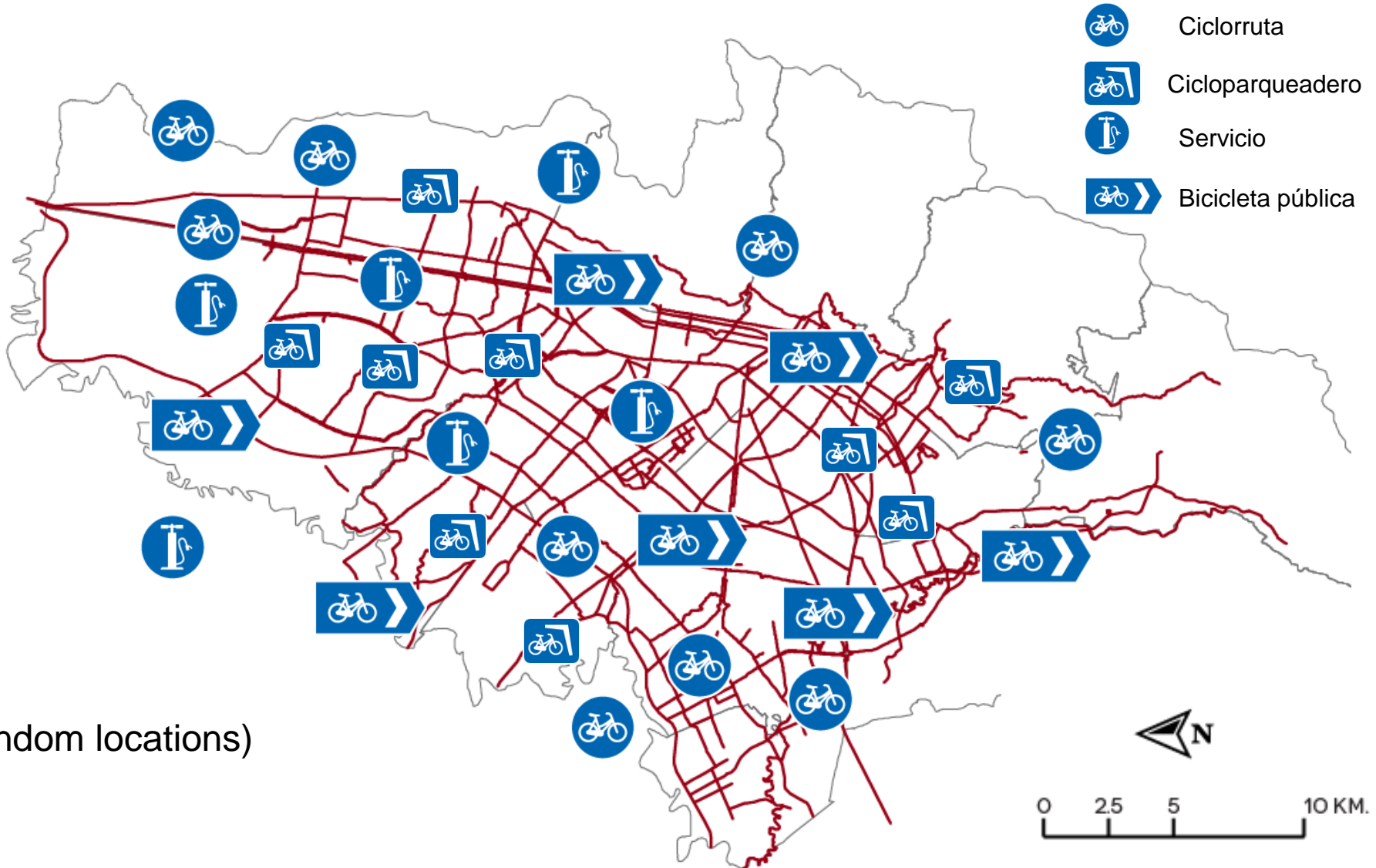
Annual revenue: USD 440 million



PROPUESTA DE ÁREAS DE COBRO POR CONGESTIÓN (DOS FASES)



The central areas of the metropolis benefit from a well-tailored promotion of NMT

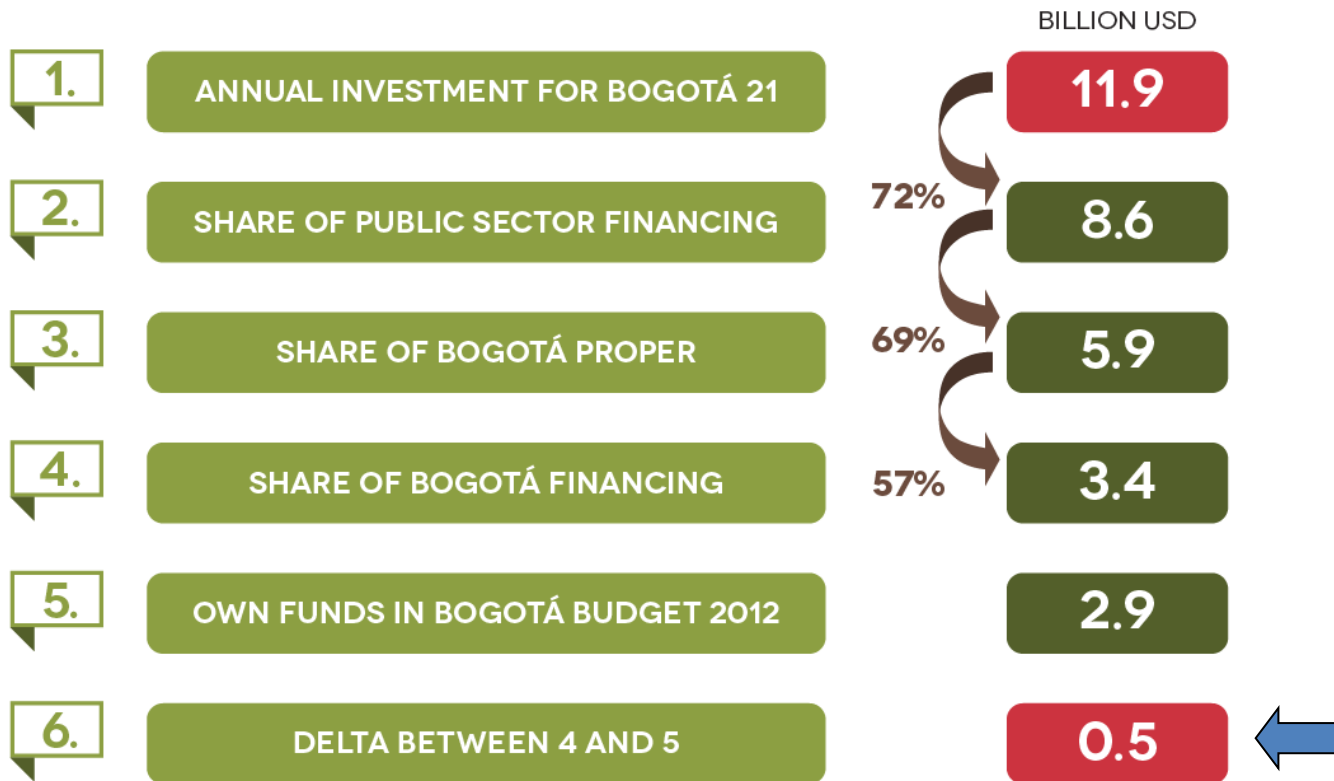


What to do now?

There are follow-up steps to be initiated:

- **Conceptualize** TOD application for Bogotá, incorporating a component on social coherence
 - Kick-start the process for establishing the **metropolitan planning authority** for enabling polycentric regional planning
 - Implementation of the first step of the **congestion charging** system
- Find a way to pay for all that stuff**

Bogotá 21 financing



To be financed from new funding sources such as congestion pricing, capture mechanisms of land and property value increments, etc.

For the latter, we turn to the Hong Kong example

\$
infrastructure

Fiscal

- Land value tax
- Property tax increments
- Betterment levy/special assessments

Regulatory

- Planning gains (outorga onerosa)
- CEPACS
- Land readjustment



Land

TOD



Lower prices

Avoid expropriations

Regulatory

- Construction rights transfer
- CEPACS
- Land readjustments
- Planning gains (outorga onerosa)
- Priority development

Fiscal

- Land value tax

Regulatory

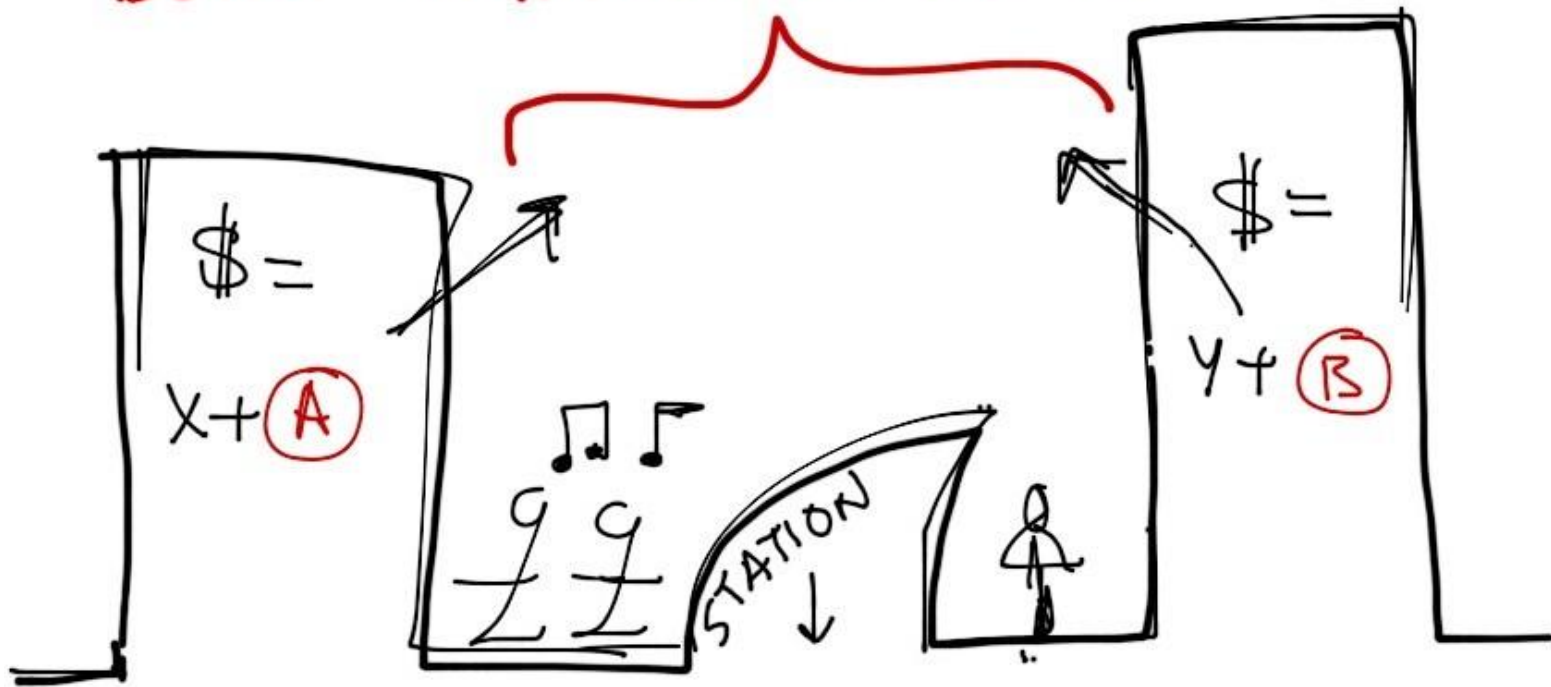
- Project announcement
- Priority development

Regulatory

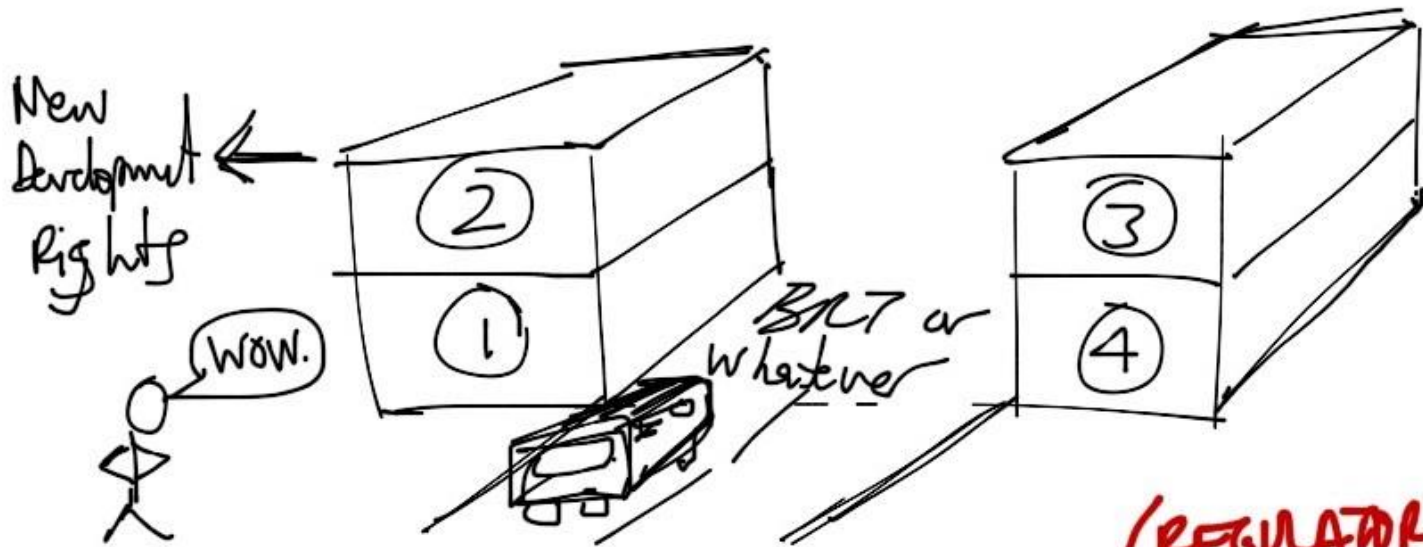
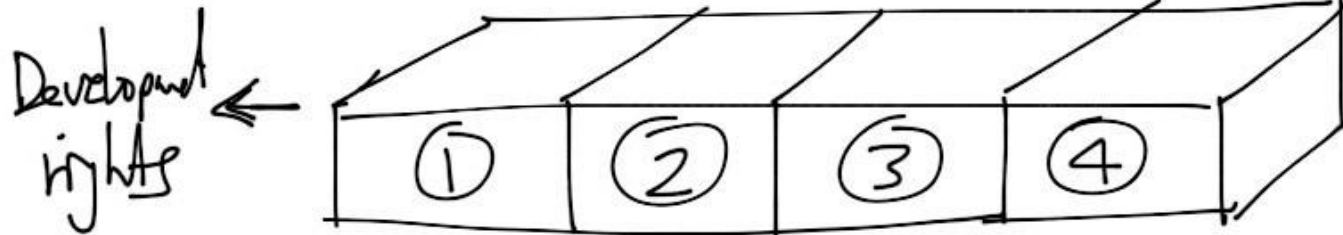
- Construction rights transfer
- CEPACS
- Land readjustments



BUILT WITH PART OF $(A) + (B)$



GET THE LAND AND DO TOO



(REGULATORY)

TOD in Hong Kong



Central, Hong Kong Island



In-town check-in facilities

IFC 2

Subway Station

IFC Mall

IFC 1

Four Seasons Hotel /
serviced apartments

TOD above Kowloon Station

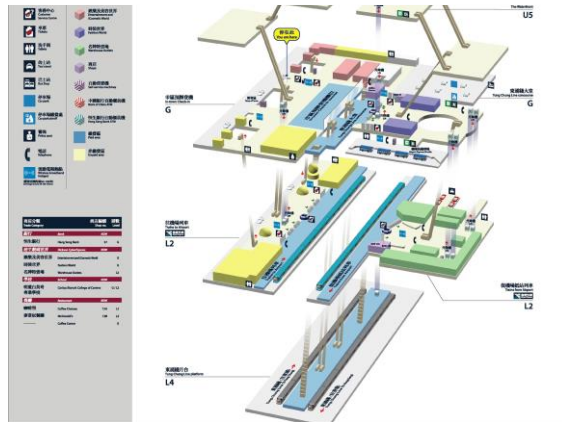


Kowloon Station is a stop of the Airport Express and the Tung Chung Line. It will be connected to the new Hong Kong High Speed Rail Terminus (Hong Kong to Guangzhou, Wuhan and Beijing; under construction). The area on top of it is called “Elements”.

“Elements” above Kowloon Station



Elements is a city in the city. It provides for perfect accessibility, including railways, feeder buses, taxis, and underground parking. It is the largest of the TOD nodes so far completed in Hong Kong.



Tsing Yi at the airport express line

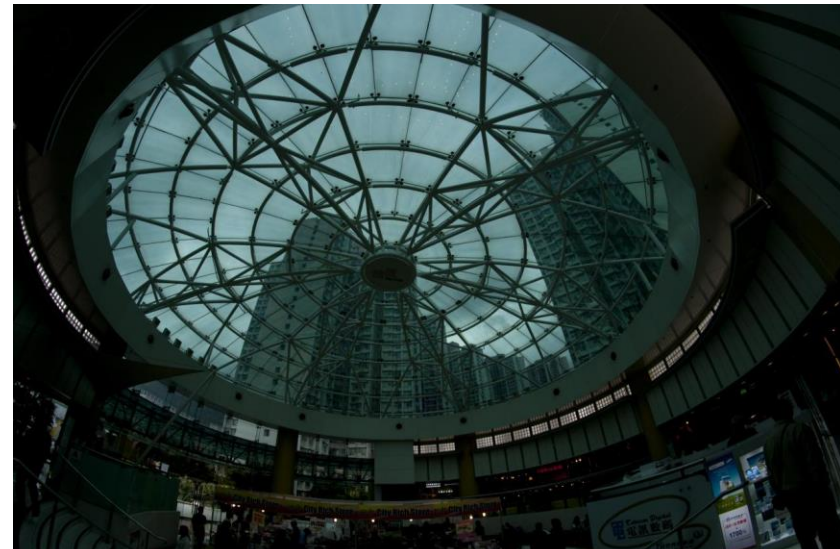


Tsing Yi combines high-rise residential buildings surrounding a community garden with a shopping mall and a railway station which connects the remote area directly to Hong Kong Island and to the airport.



TOD on top of the terminus and depot of the Tung Chung Line

Tung Chung new town contains 32 high-rise residential buildings, half of it for social housing (to tear down the invisible Berlin walls), office towers, retail space, a large hotel, community facilities and gardens, and a railway station to connect it to Hong Kong Island (Central).



LOHAS Park (New Territories)



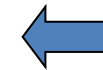
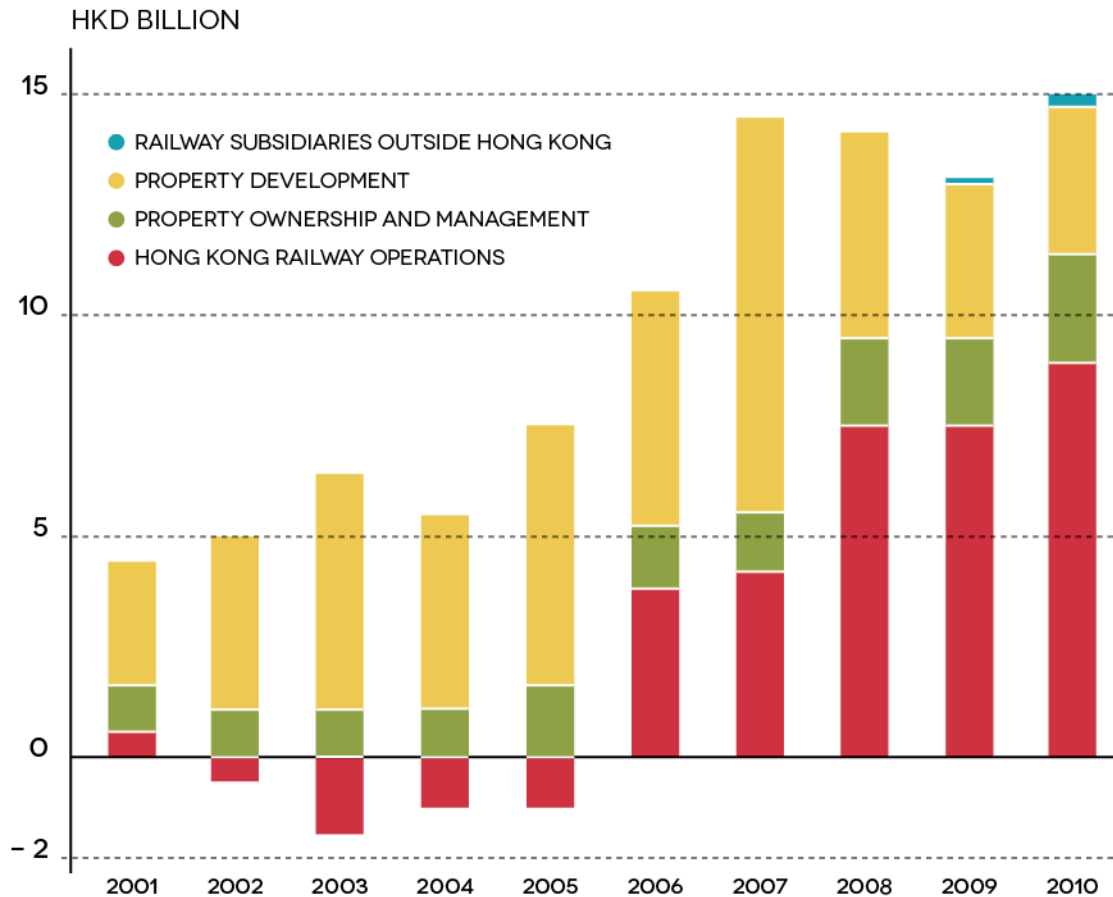
LOHAS Park new town contains high-rise residential buildings for 60,000 people, office towers, retail space, a large hotel, community facilities and gardens, and a railway station to connect the remote area to Hong Kong Island (North Point).

LOHAS Park (New Territories)

The Tseung Kwan O subway line connects LOHAS Park with North Point on Hong Kong Island. LOHAS park includes 40% of social housing.



Profits from TOD in Hong Kong



Property development includes profits from the capture of land value increments plus profits from the development of properties by MTRC, the Mass Rapid Transit Corporation of Hong Kong.

MTRC is a stock registered company; the majority of shares is owned by the Hong Kong Government.

...we need to understand our cities...



Thank you

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External sources of images

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