



RIO+20

United Nations Conference
on Sustainable Development



New Urban Planning & Design: Compact Cities in relation to Electric Mobility



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**Global Forum on Electric Mobility and
Conference on Sustainable Human
Settlements: Session I**

Monday, 18 June 2012

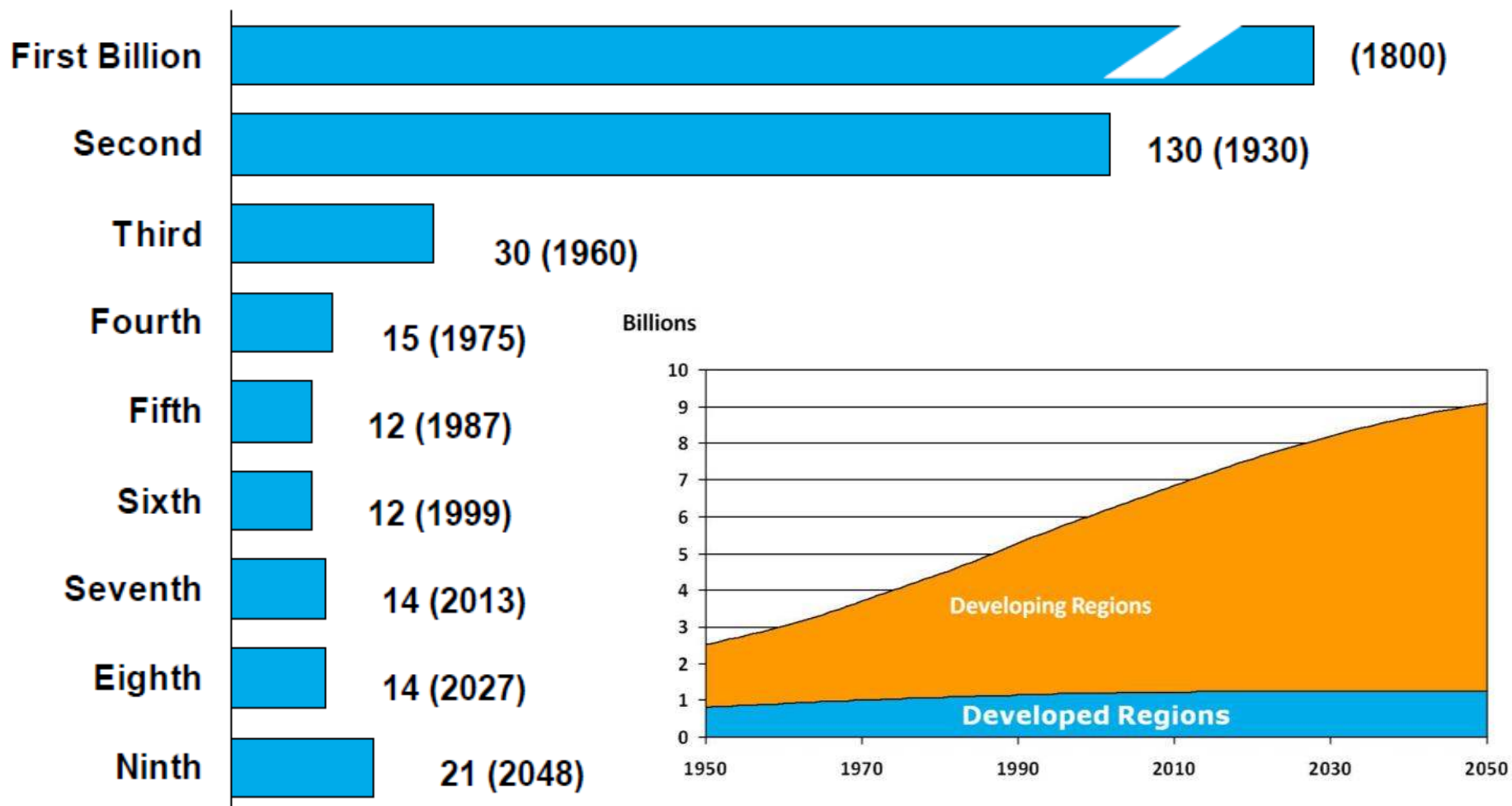
18:00 to 19:20 hours



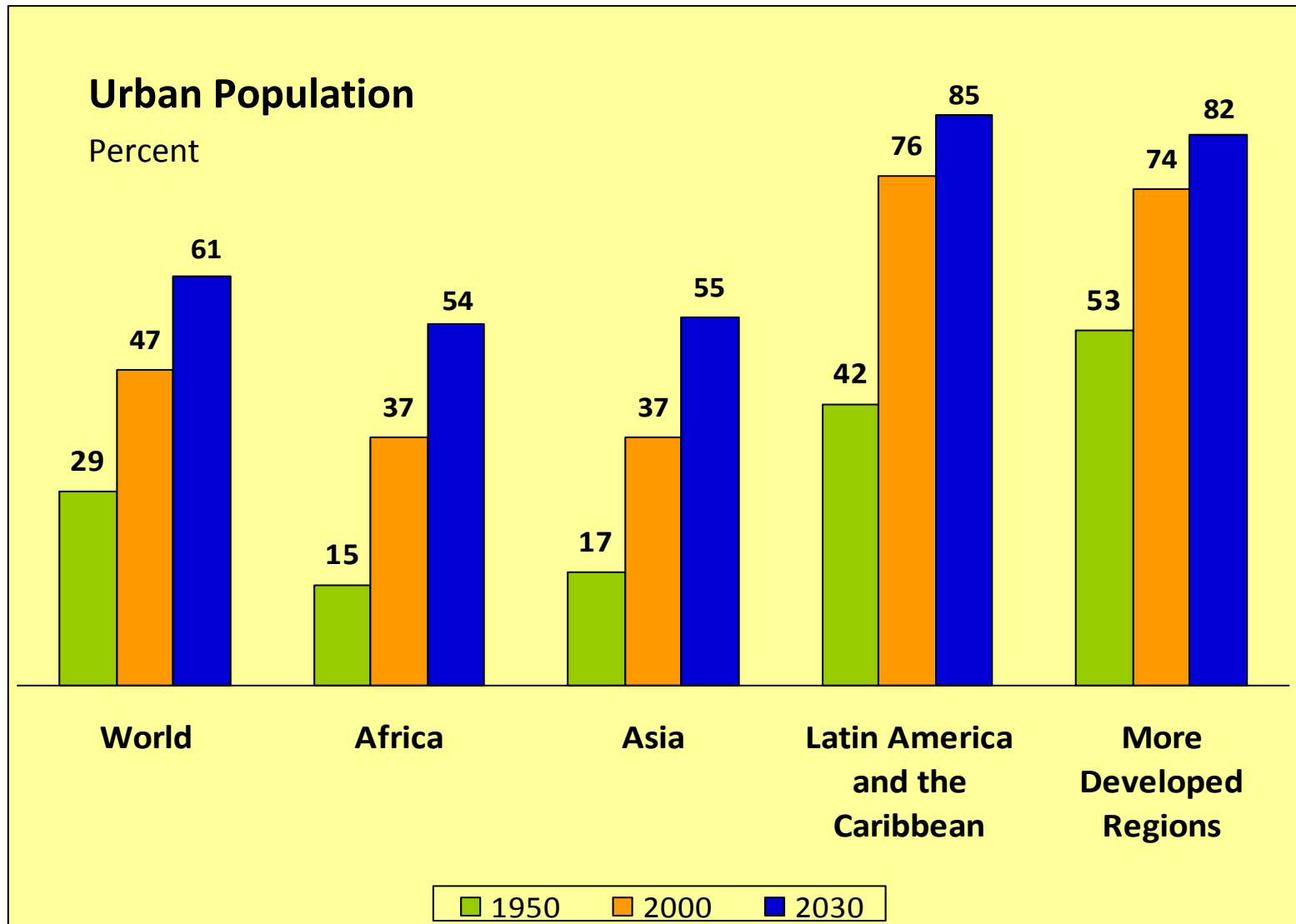
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FOR A BETTER URBAN FUTURE

World Population Growth (in billion)

Number of years to add each billion (year)



Regional Trends of Urbanisation



Source: UN

Concurrent Trends & Different Urban Impacts

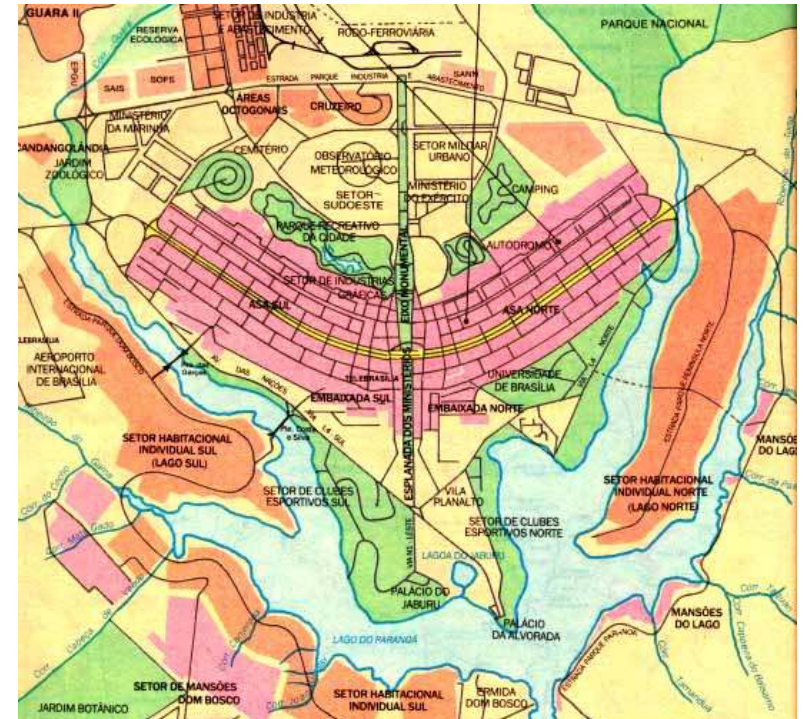
There are 3 concurrent changes with long term and deep impacts:

- Differential Impact of Climate Change
- Differential Impact of Growing and Ageing
- Differential Impact of Urbanization on Economies



The XX century model

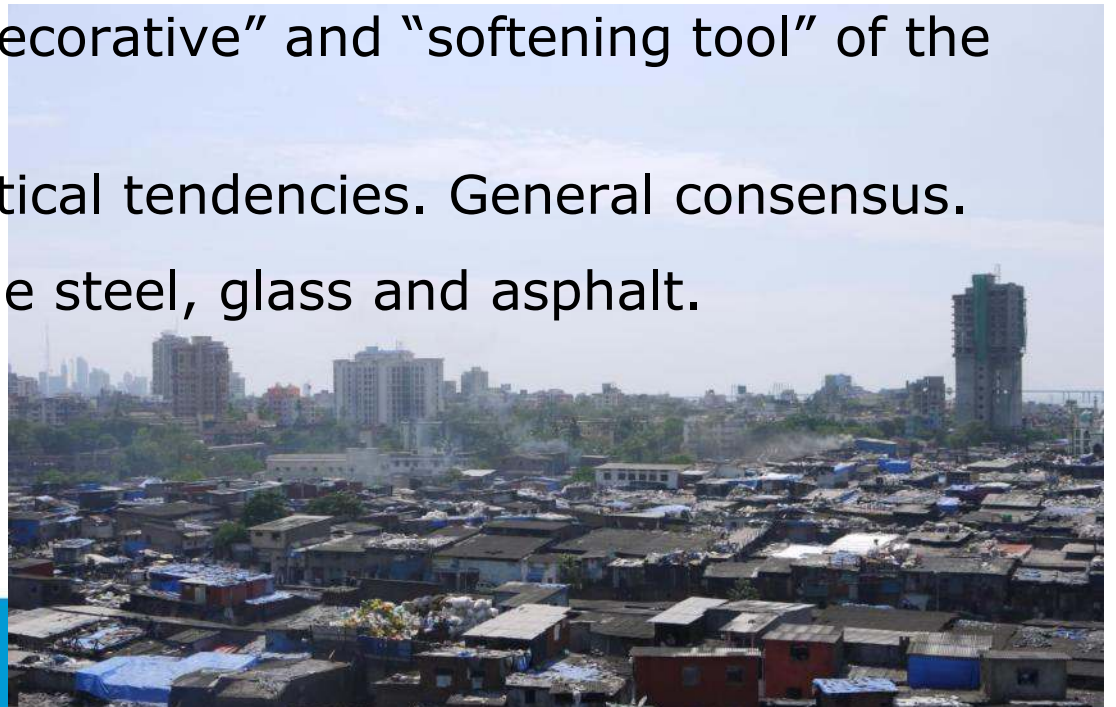
- The modern city movement (congress CIAM 1933 and the functional city – Le Carte d'Atennes – Le Corbussier, Sert):
 - Zoning and specialized uses...
 - Low density. Huge open spaces
- But... unexpected consequences
 - Segregation of spaces
 - Very high demand of mobility
 - Loss of economies of scale (economies of agglomeration)
 - Loss of the “human scale”
 - “Cold” city – “Technique city”. Loss of warmth



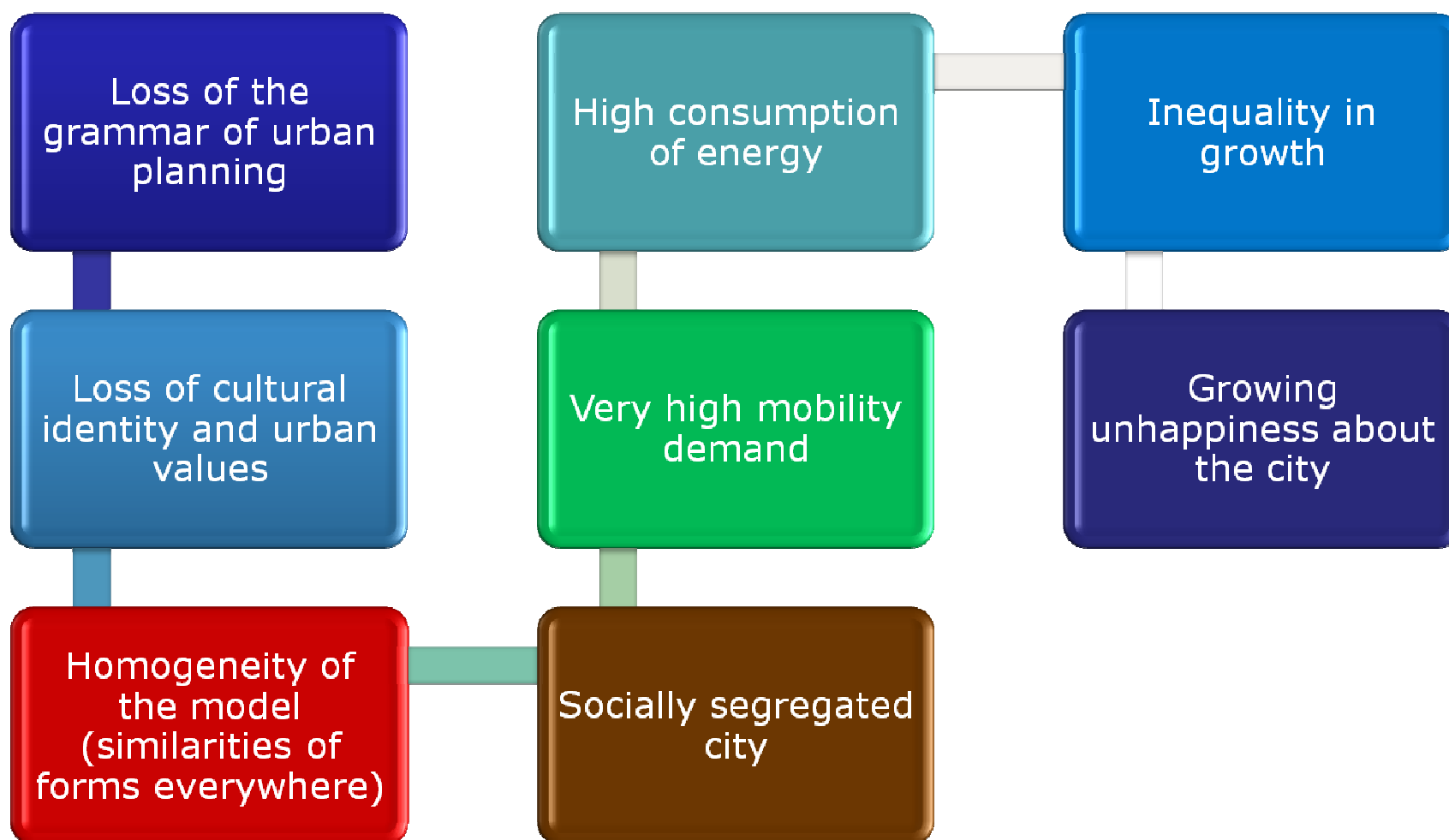
The Post World War II model

Global Standard Urbanization Model (GSUM). For the first time GSUM emerges as a prevailing practice.

- No need for elaborated planning principles. No need for strong local authority.
- High level of zoning.
- Very low density.
- High use of green as a “decorative” and “softening tool” of the model.
- Well supported by all political tendencies. General consensus.
- Prevailing technologies the steel, glass and asphalt.



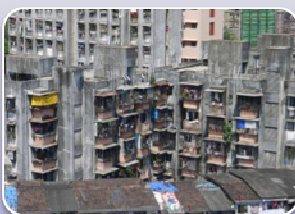
But... also with unexpected consequences



And at the end... the city is broken out



The mall as the social gathering “locus” because there is no other public space. The mall as artificial street. The citizen as a consumer.



The privatization of security... The gated community... the last proof of social failure



The informal growth in slums, favelas...

- Burning districts...
- Subprime mortgages, financial crisis...
- Youth unemployment.



The high-up of the cost of life and prices in cities. Transport cost.

Exponential growth of urban land cost (both developed and developing cities)...

But something is moving...

- New ideas are developing...
- New urban planning... Open spaces
- The creative city and **a growing consensus for:**

- > More and better density
- > More mixture of land uses. End of zoning
- > More social integration

- > Recovery of the truly human scale
- > New balance between car and train
- > Mass transportation systems

- > End of the superblock and the tower in garden
- > Recovery of cultural, social identity & urban values
- > Urban design and recovery of urban grammar

Why the change of urban paradigm is so difficult?

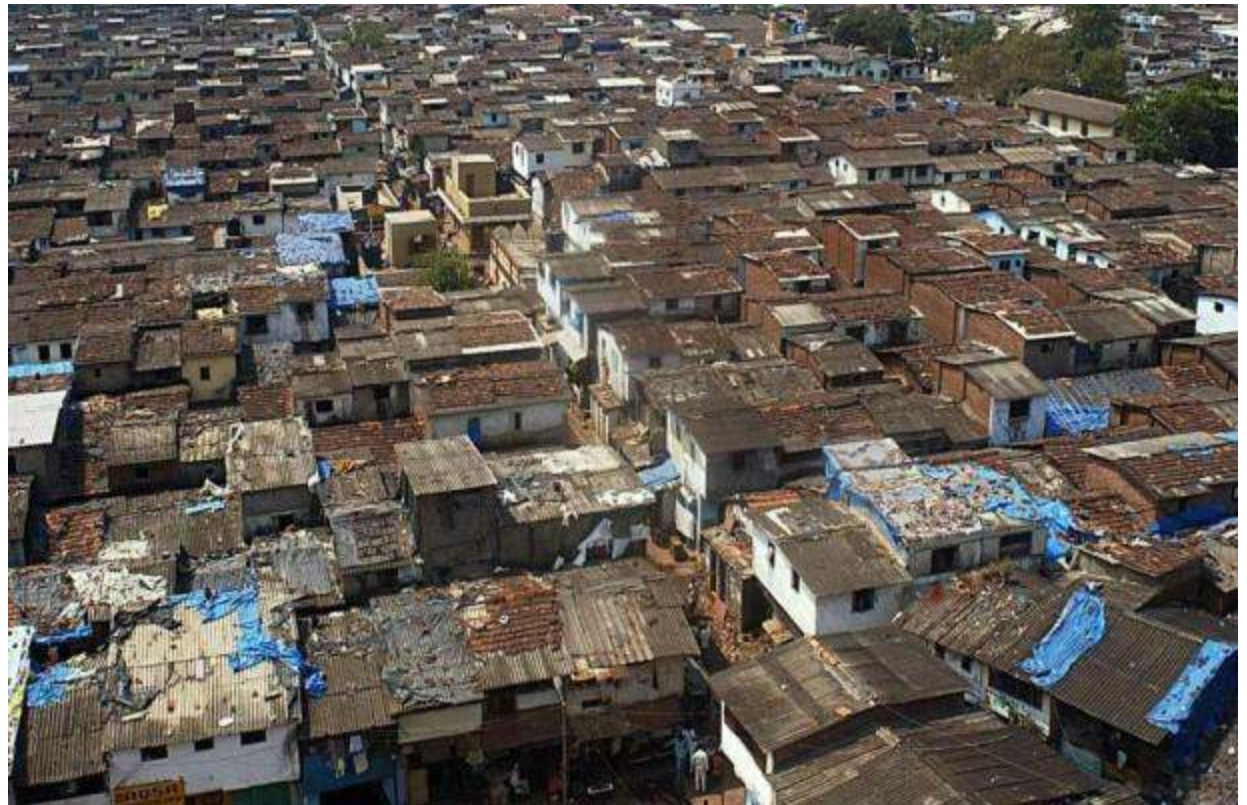
- Replicable and standardized real estate businesses
- Low level of regulation required
- High room for architectural singularity (icon buildings...)
- Apparently “green” city, but with high emission of greenhouse gases. Green in colour, not in substance...



The challenge of Slums

Near 1 billion people living in slums

- Sub-Saharan Africa: 62% of the urban population
- South Asia: 43%
- East Asia: 37%
- Latin America and the Caribbean: 27%



New Urban Paradigm: Improved Urban Mobility

Frank and Ernest



XXI century: **need of a new urban paradigm**

A new urban agenda

Sustainable Urban Planning & Design

- Better Planning & Design with optimal density and diversity
- Plan in advance and to scale of expected growth
- Plan starts with basic streets, water, sanitation networks, energy supply, urban mobility and other services;
- Avoid risky developments on steep slopes, water beds and quake prone zones



A new urban agenda

Mobility and energy efficiency

- Public transport and improved urban mobility
- Increased energy efficiency -decreasing the demand for mobility is key
- Improved telecommunications and connectivity provides for increased urban efficiency and improved environment.



A new urban agenda

Promote urban economy

- **Economies of Urbanization:** Economical value generated by location and proximity to urban services and common goods.
- **Economies of Agglomeration:** Economical value generated by the proximity and diversity of production's factors, diminishing transactions costs, favouring specialization. Massive increase of productivity



Green transport System

- Greening transport systems sooner, allows cities to avoid inefficient, obsolete technologies and stimulate their economies into the future;
- Non-motorised and mass transit systems, most feasible to leverage the agglomeration advantages of compact cities;
- Central tenet of a green economy:
 - equitable growth can occur at lower rates of environmental degradation
 - principles of dematerialisation and the substitution, renewable energy can revolutionise urban transport modalities of the future.





Green Mobility for Sustainable Development



Cities need to mobilize huge investments to finance infrastructure development to enhance green urban mobility



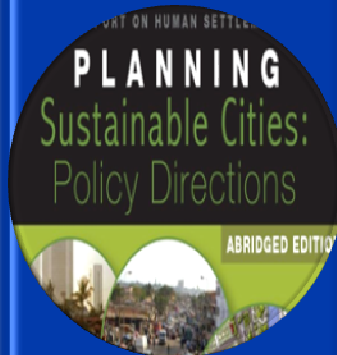
Poor cities need to adopt mass transit systems to increase the chances of prosperous development



Need to integrate para-transit systems into sustainable and safe urban transport systems



Cities need to integrate spatial and transport planning



Institutions need to be strengthened to transfer existing "good" concepts and ideas into a sustainable future reality





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**Thanks for your
attention!!!**