

HOW TO BUILD GREEN & SMART CITIES

PUEBLA, MEXICO 2016

ENERGY INNOVATION 
POLICY & TECHNOLOGY LLC



MEXICO CITY

THE DIFFERENCE OF GOOD PLANNING

COMPARED TO ATLANTA, BARCELONA USES 4% OF THE LAND AREA AND EMITS 90% LESS CARBON FROM TRANSPORT

Atlanta



Barcelona



Population

2.5
million

Urban area

4,280
km²

Transport carbon emissions

7.5
tonnes CO₂/person
(public + private transport)

Population

2.8
million

Urban area

162
km²

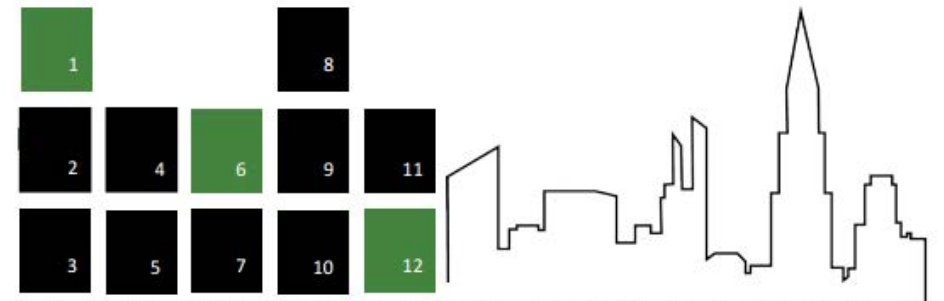
Transport carbon emissions

0.7
tonnes CO₂/person
(public + private transport)

What are the **minimum requirements** to building a great city?

DOWNLOAD:

energyinnovation.org/greensmart



12 GREEN GUIDELINES

CDBC'S GREEN AND SMART URBAN
DEVELOPMENT GUIDELINES

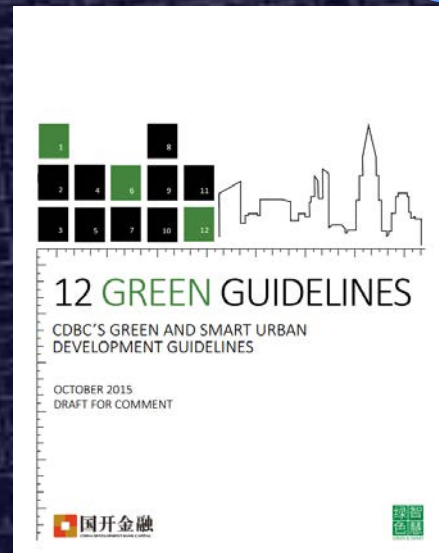
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BENEFICIAL

MEASURABLE

PRACTICAL



FOUNDATIONAL
AND
NECESSARY

DOWNLOAD:

energyinnovation.org/greensmart

1-5: Urban Form

1. Urban
Growth
Boundary

2. Transit
Oriented
Development

3. Mixed-Use

4. Small
Blocks

5. Public
Green Space

6-8: Transportation

6. Non-
Motorized
Transit

7. Public
Transit

8. Car
Control

9-12: Energy & Resources

9. Green
Buildings

10.
Renewable
and District
Energy

11. Waste
Management

12. Water
Efficiency

EVIDENCE FOR THE 12 GREEN GUIDELINES

HAMMARBY AND PORTLAND

- Comprehensive coverage of regulatory, financial, and technical processes that bolster the 12 Green Guidelines
- Shows economic, environmental, and social success



HAMMARBY SJÖSTAD

AN URBAN DEVELOPMENT CASE STUDY OF HAMMARBY
SJÖSTAD IN SWEDEN, STOCKHOLM

CHINA DEVELOPMENT BANK CAPITAL'S GREEN AND SMART URBAN DEVELOPMENT GUIDELINES
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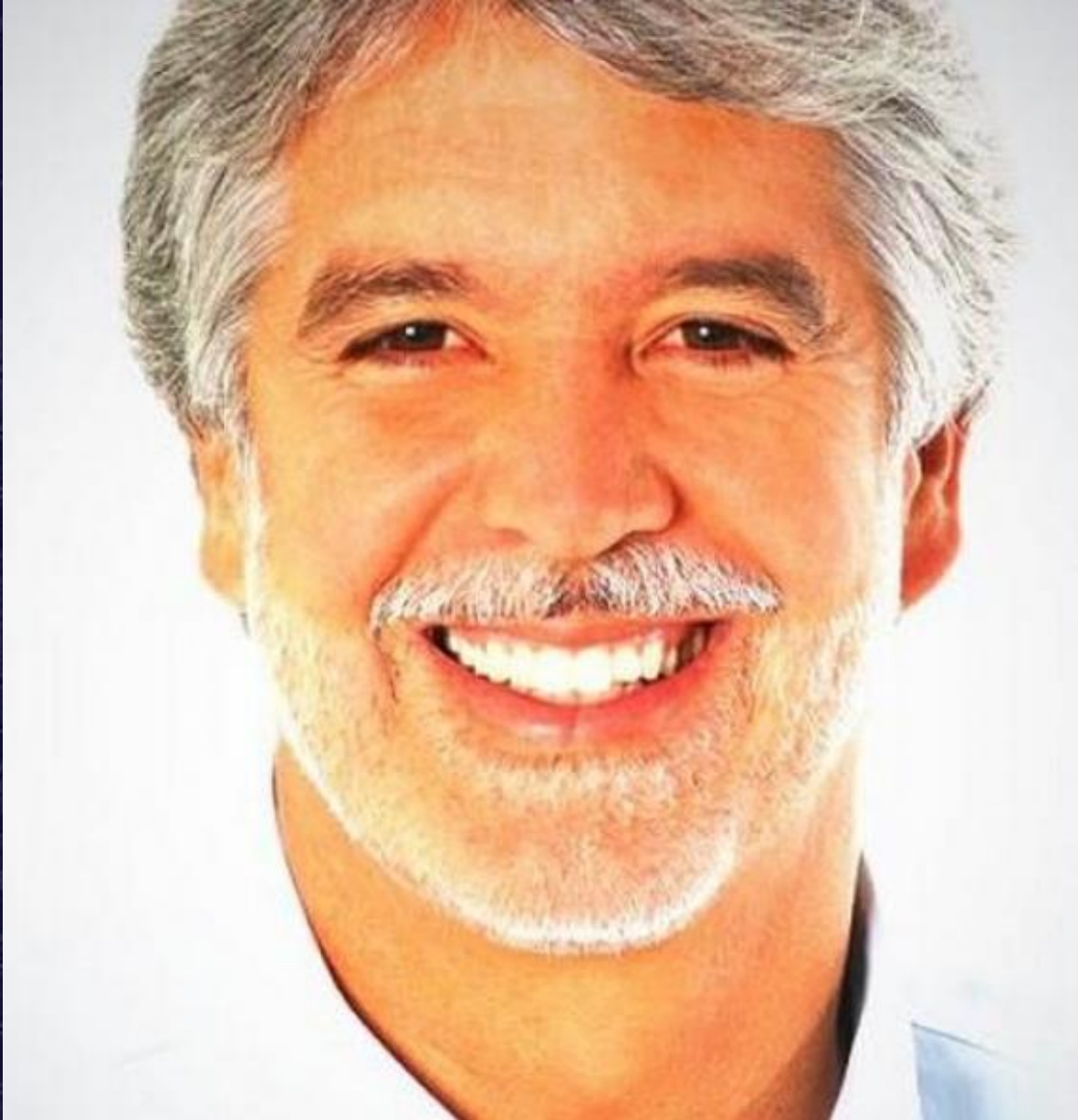
THE PEARL DISTRICT

AN URBAN DEVELOPMENT CASE STUDY OF THE PEARL
DISTRICT AND BREWERY BLOCKS IN PORTLAND, OREGON

CDBC'S GREEN AND SMART URBAN DEVELOPMENT GUIDELINES

OCTOBER 2015
DRAFT FOR COMMENT





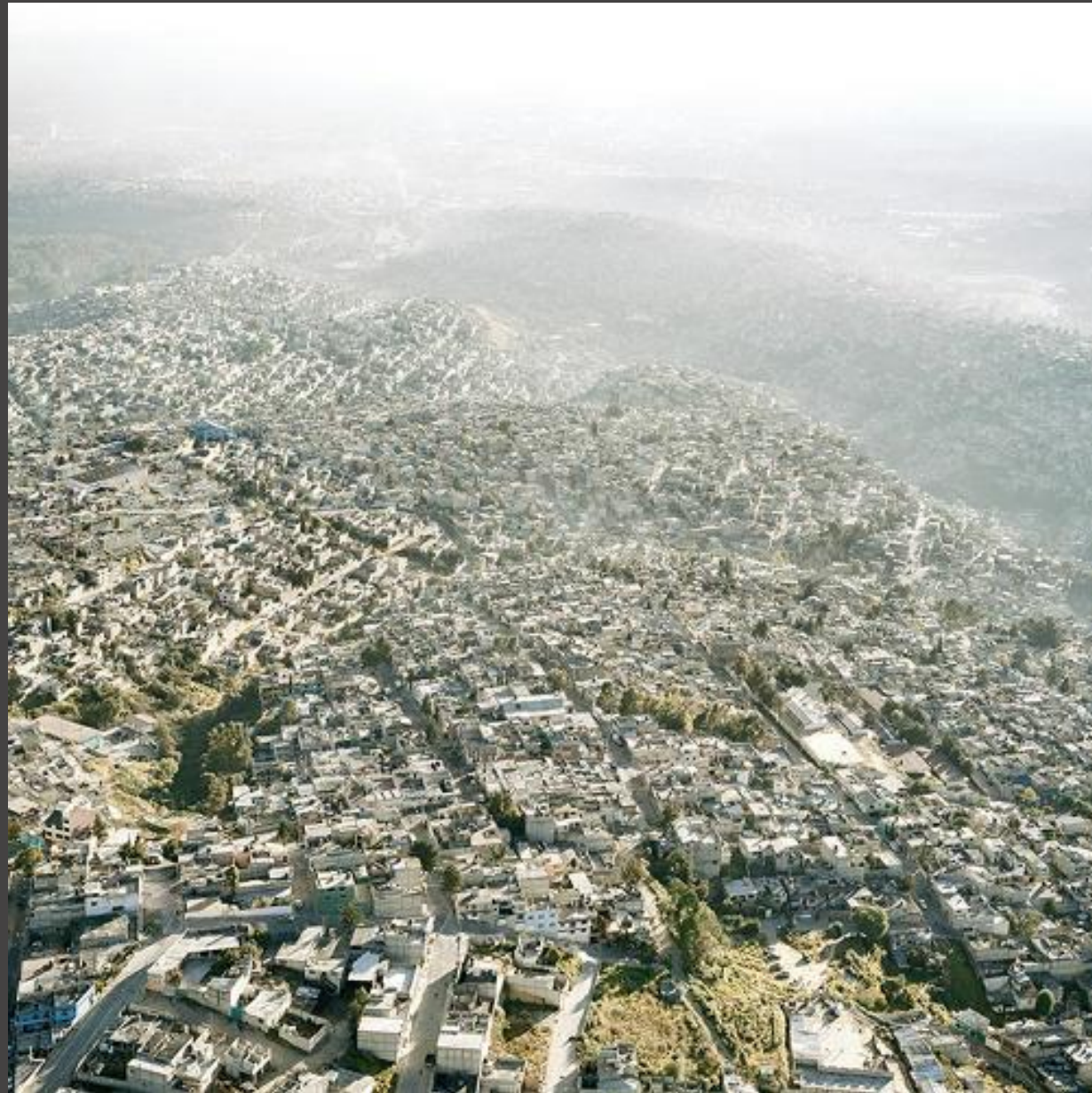
An advanced country is not one where the poor move about in cars, rather it's where **even the rich use public transportation.**

- Enrique Peñalosa,
Mayor of Bogotá

SPRAWL IN MEXICO CITY

▶ 1. URBAN GROWTH BOUNDARY

2. TOD
3. MIXED-USE
4. SMALL BLOCKS
5. PUBLIC GREEN SPACE
6. WALKING AND BIKING
7. PUBLIC TRANSIT
8. CAR CONTROL
9. GREEN BUILDINGS
10. RENEWABLE AND DISTRICT ENERGY
11. WASTE
12. WATER



Source: <http://www.fastcoexist.com/3021756/see-the-stunning-sprawl-of-mexico-citys-20-million-people-from-above#10>

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URBAN GROWTH BOUNDARY IN PORTLAND



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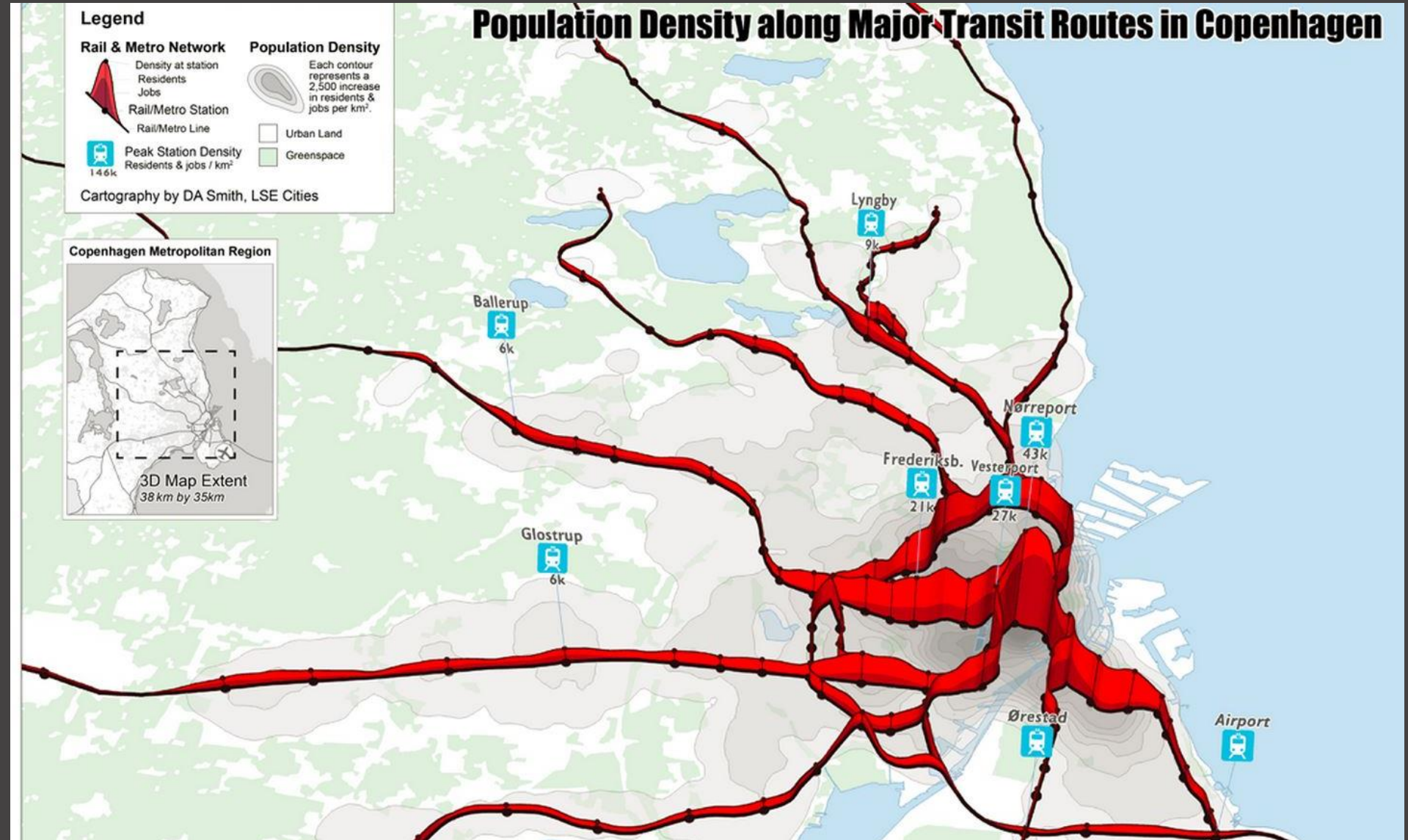
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TOD IN COPENHAGEN



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✘ SINGLE-USE
SUPERBLOCKS
BEIJING



▶ MIXED-USE
DISTRICT IN
PORTLAND



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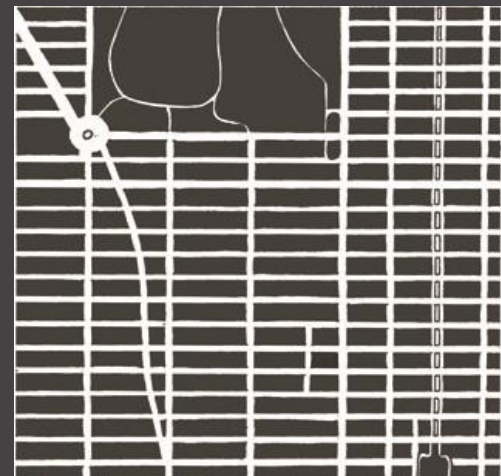
BLOCK SIZES IN DIFFERENT CITIES AT SAME SCALE



San Francisco



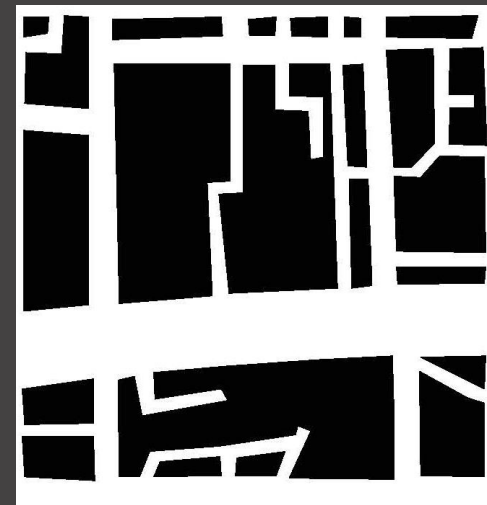
Vancouver



New York



Shanghai



Beijing



Portland

PEDESTRIAN-FRIENDLY CHAPULTEPEC PARK

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“MUÉVETE EN BICI” (“BIKE MOVE”)



ECOBICI BIKE SHARING PROGRAM



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MÉTROBUS: SERVES OVER 1 MILLION EVERY DAY



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BROADWAY AVENUE IN NEW YORK CITY

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✘ BEFORE



▶ AFTER



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MEXICO CITY: 2ND MOST CONGESTED IN THE WORLD

Filter ^	City	Congestion Level	Morning peak	Evening peak
1	Istanbul	58%	76%	109%
2	Mexico City	55%	93%	89%
3	Rio de Janeiro	51%	72%	81%
4	Moscow	50%	77%	103%

SEATTLE'S BULLITT CENTER



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SOLAR PANELS: VAUBAN, GERMANY



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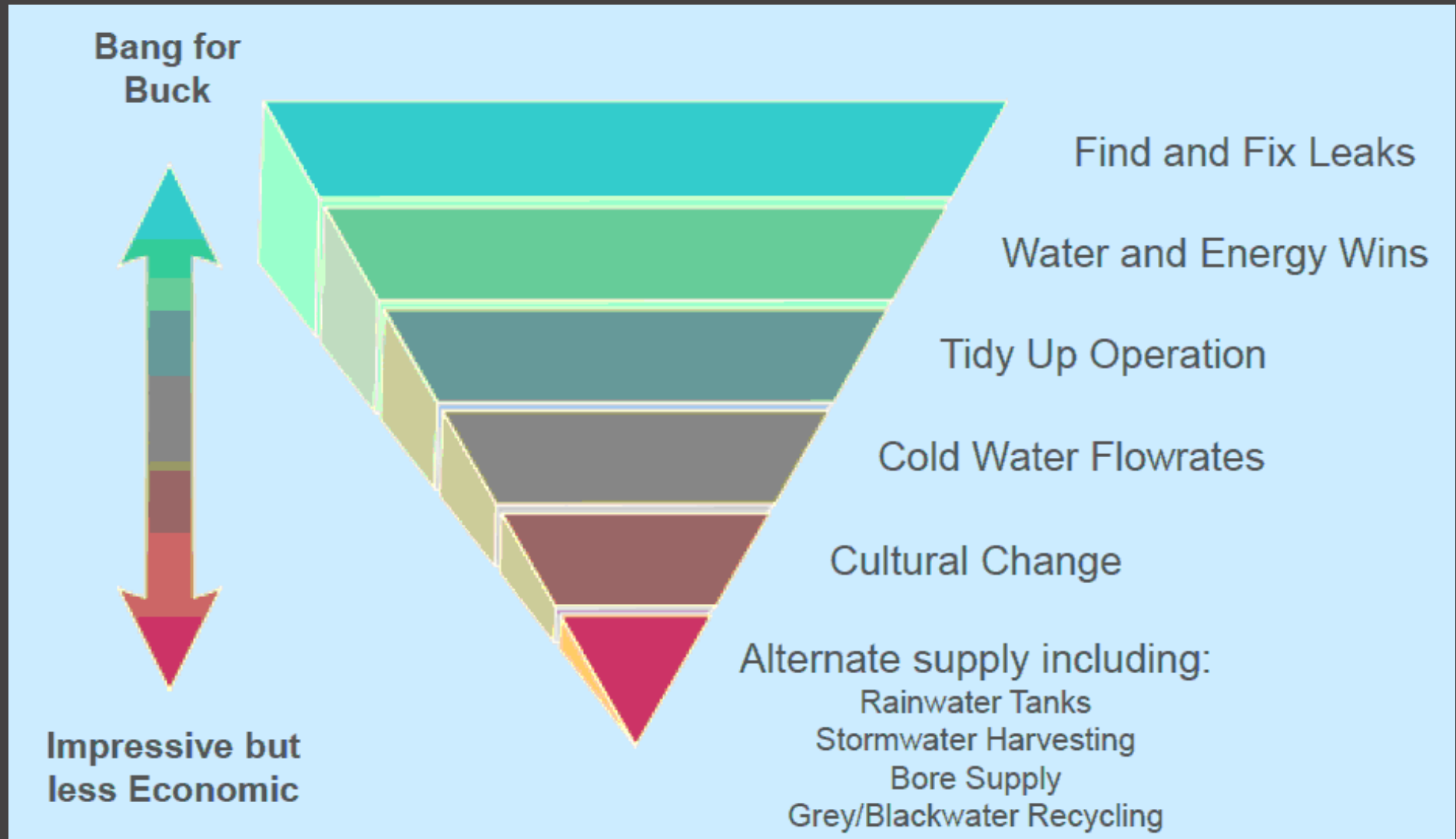
12. WATER

WASTE MANAGEMENT: **SAN FRANCISCO**

- As of 2010, 77% of waste is re-directed away from landfill through PPP with Recology
- Number of corporations using the service increased by 50%, residences increased by 300%



EFFICIENT TARGETING IN WATER



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Nothing in the world is more simple and more cheap than making cities that provide better for people.

- Jan Gehl

An aerial photograph of the National Palace in Mexico City, featuring its iconic golden dome and the surrounding plaza with green islands and fountains. The sky is blue with scattered clouds. A large, white, bold text 'THANK YOU!' is superimposed over the center of the image.

THANK YOU!

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<http://energyinnovation.org/greensmart>

MEXICO CITY

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