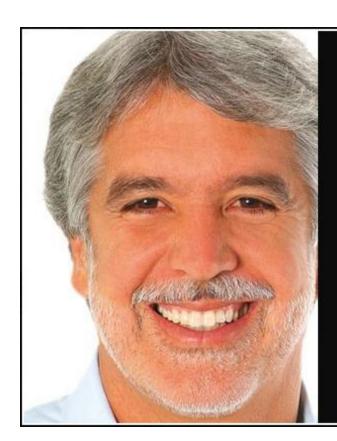


# Smart city: optimizing for happiness





Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people.

— Enrique Penalosa —

AZ QUOTES



## What makes an iPad smart?





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"A smart city has nothing to do with artificial intelligence or sensors. A city is smart when children can walk and cycle freely and safely. Technology is only a bonus."

- Lior Steinberg, co-founder of Humankindcity







## What does this look like? (courtesy urb-i.com)







Kuala Lumpur

Google Street View via urb-i.com







Tokyo

Google Street View via urb-i.com





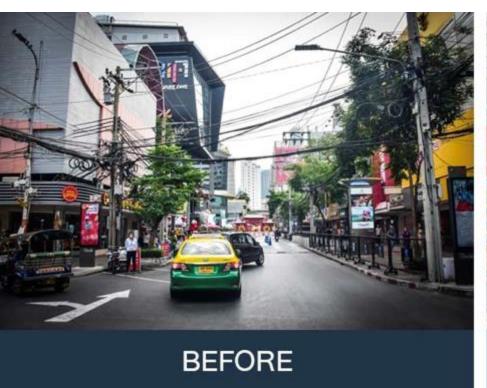
Mexico City

Google Street View via urb-i.com



## Will it work in Thailand? Let's test it

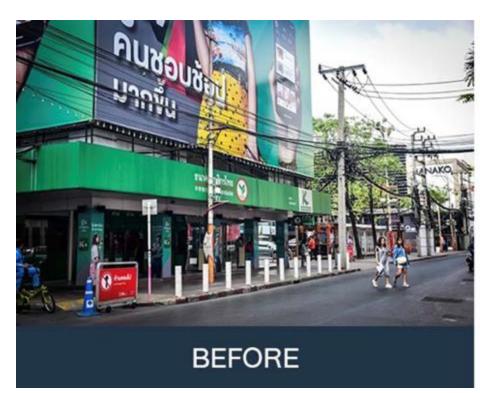






https://pmcu.co.th/siam-square-walking-street/







https://pmcu.co.th/siam-square-walking-street/



#### Mahannop Road

#### **Treatments**

- 1. Lane with reduction
- 2. Curb Extension
- 3. Sharpen the turning radii









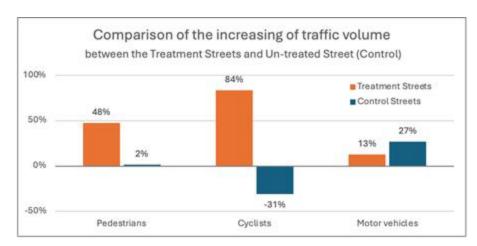




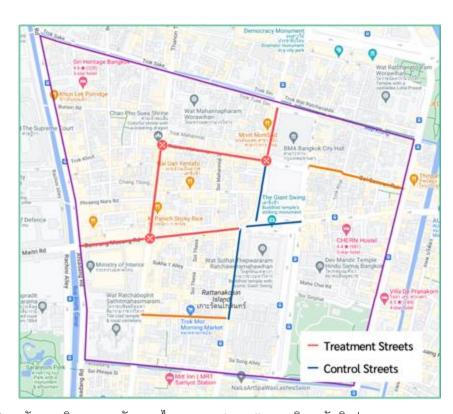
**AFTER** 

#### Design for people, you get people





- The result indicates a significant increasing average of 1,005 pedestrians more on Treatment streets than the Control Streets (p = .011).
- Increasing of **126** cyclists more on Treatment streets (p < .001).
- And 2,938 motor vehicles fewer then on the Control Streets (p < .001).</li>







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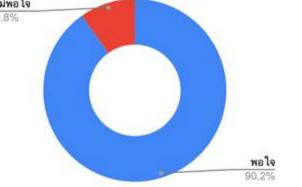
Contribution to GDP: \$500 of ice cream

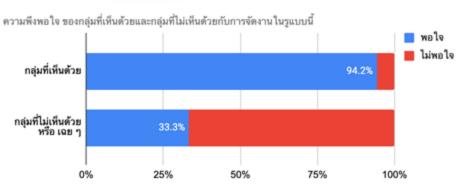
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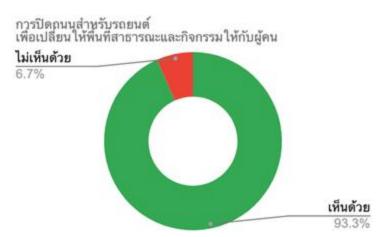
#### How satisfied are you with Car Free Day 2024?











ความพึงพอใจและความเห็นต่อการจัดงาน ไม่มี ความสัมพันธ์อย่างมีนับสำคัญต่อ

- เพศสภาพ
- ช่วงอาย
- รายได้



## Why Bicycles?

#### Kids love it

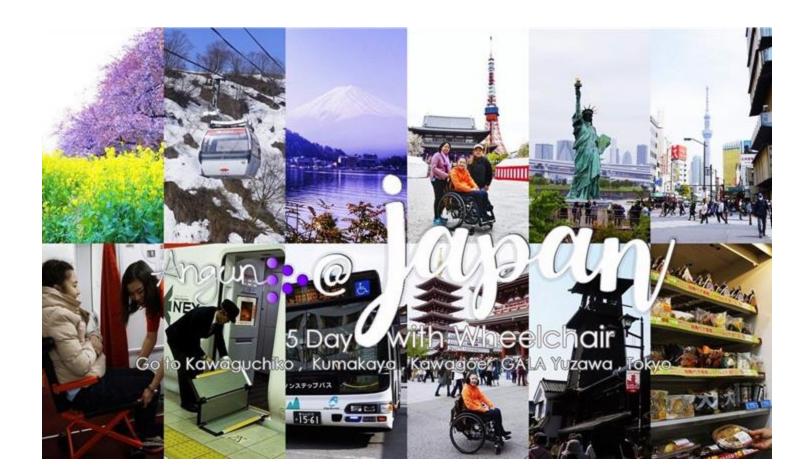




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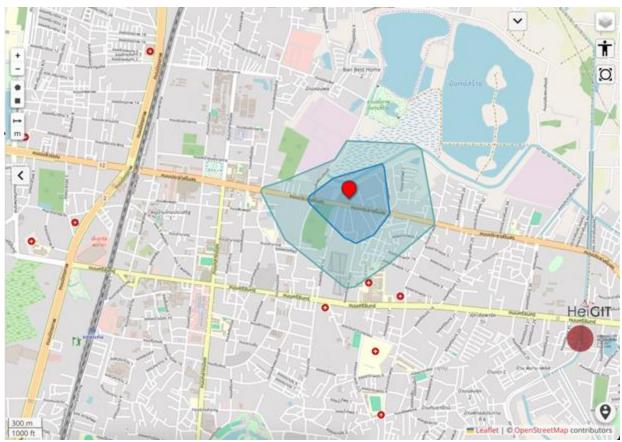
#### Shared infrastructure with wheelchair





### Activity range extender





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### Activity range extender





#### Economic surplus creator



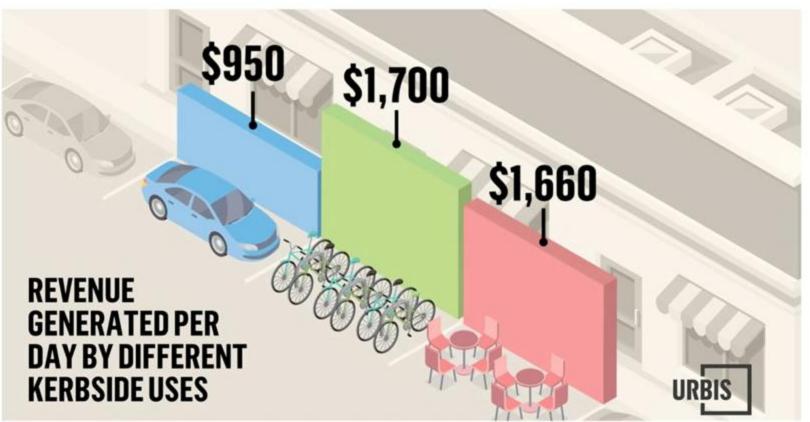
Using UN's HEAT methodology, cycling for 30 minutes contributes 15 Baht to the economy

Driving for 30 minutes costs society 3 Baht

www.who.int/tools/heat-for-walking-and-cycling

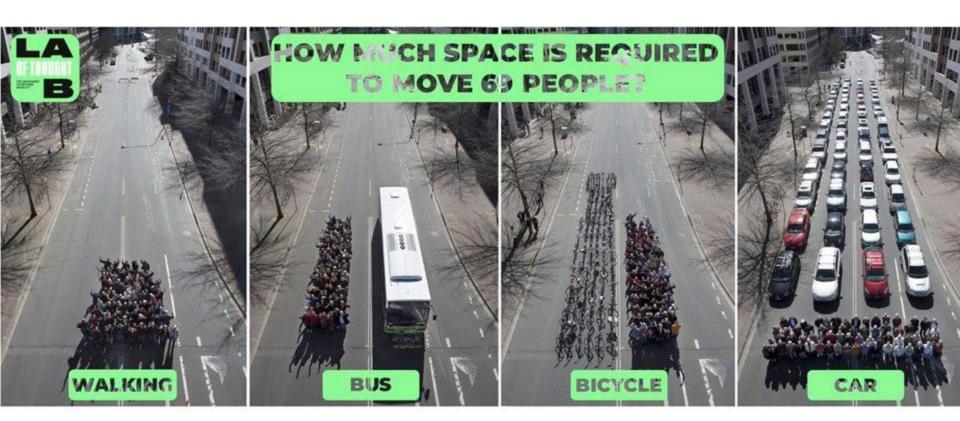
#### Unlocking economic bottleneck





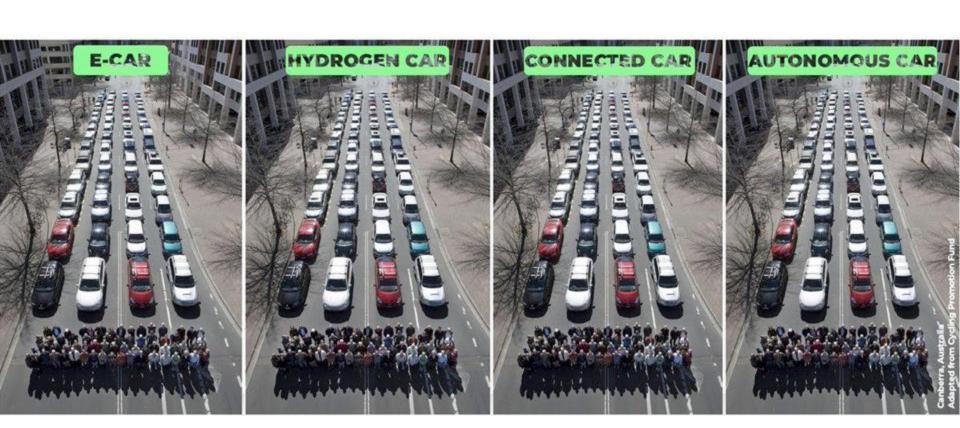
### Efficient use of ways





### Efficient use of ways







## What next?

#### Education: Define, Measure, Improve

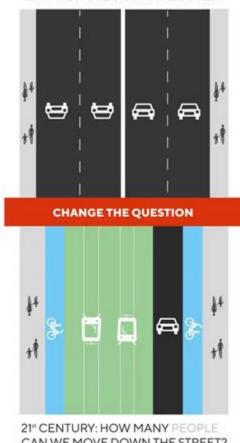




#### Education: Measure the right things







## Education: Car Free Day / Weekends





#### Education: Reduce private car in your organization



- Reduce private car related incentives i.e. official car, petrol allowances etc
- Provide incentives to not use private cars, such as bus passes, shuttle bus services, shared bike, etc.

#### Engineering: Design principles



#### 5 design principles for bicycle infrastructure

CROW's Design Manual for Bicycle Traffic

- Cohesion
- Directness
- Safe & Security
- Comfortable
- Attractive

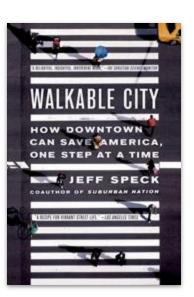


#### The General Theory of Walkability

Jeff Speck's Walkable City

Reason to walk

- Safe walk
- Comfortable walk
- Interesting walk



#### Engineering: Set priorities



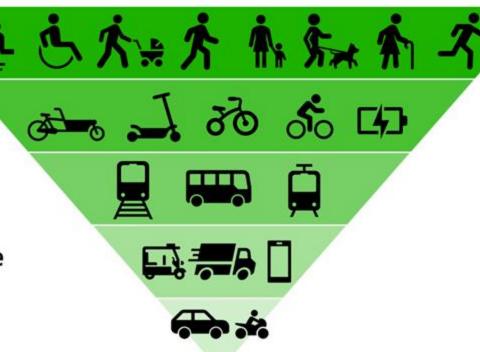
Walking เดินเท้า

Bicycle จักรยาน

Public Transport ขนส่งสาธารณะ

Mobility as a Service รถบริการ

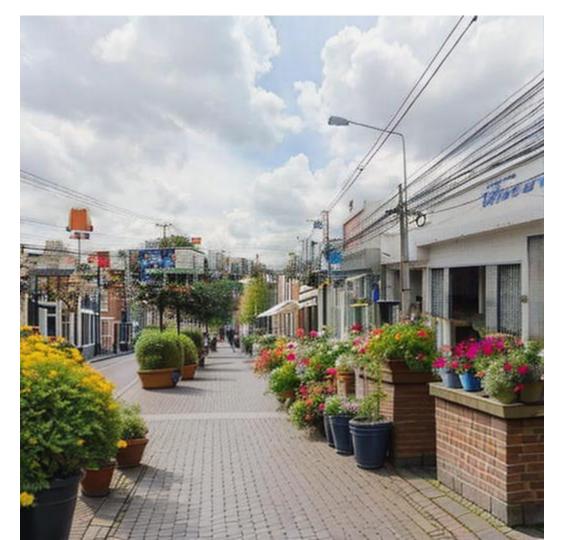
Private Vehicle รถส่วนบุคคล



Engineering: Prioritize people.. Even in wheelchairs













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#### Enforcement: optimize traffic for people flow



#### MAKING THE MOST OUT OF SCARCE ROAD SPACE

people per hour on 3.5-meter wide lane in the city

Depending on vehicle size, occupancy or loading, and speed, the use of space can vary greatly for different modes of travel - potential passenger volumes vary greatly by mode along a corridor. The car is the most spatially inefficient mode. Dense urban centers cannot effectively be served by cars, since not enough people can be delivered to the center.

	MIXED TRAFFIC	REGULAR BUS	cycusts	PEDESTRIANS	BRT (SINGLE LANE BUS)	LIGHT RAIL	BRT (DOUBLE LANE BUS)	HEAVY RAIL (44 Hong Kong, China)	SUBURBAN RAIL (r.g. Mumbail)
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#### Enforcement: limit road speed



- Limit speed of main road to 50km/h
- Minor roads to 30 km/h

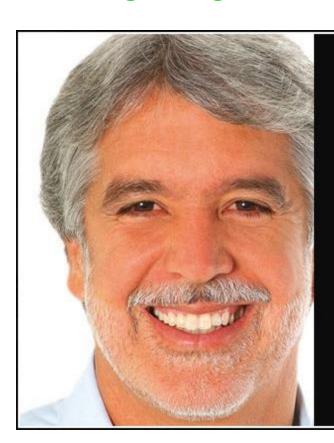
#### The future is already here





#### Parting thought





The essence of the conflict today, really, is cars versus people...We can have a city that is very friendly to cars, or a city that is very friendly to people. We cannot have both.

— Enrique Penalosa —

AZ QUOTES

#### Contact us!



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