

Outline

Singapore transport's 'hard nosed bargain'

Growing tensions

Towards a new bargain

SINGAPORE'S 'HARD NOSED BARGAIN' ON LAND TRANSPORT

What do I mean 'hard-nosed bargain'?

Since 1974, strict policies to slow car ownership growth and restrain traffic

- cars remain out of reach of ~60% of households
- to keep the arteries moving for commerce

In return for 'sacrifice' (either no car or expensive car)

- Speed and convenience for motorists
- Steadily improving public transport system

Ownership restraint most important

Usage-based tools played an important role:

ALS then ERP

Parking restraint (for a time)

Fuel tax

But ownership restraint has been more powerful

ARF, excise duty and road tax

Parking unbundled in HDB

Vehicle Quota System (VQS)



Archives and Oral History Department Singapore

Steady public transport improvements

1970s and since

- Transit-oriented Concept Plan
- Bus consolidation (SBS)
- & professional management
- Bus lane network

1980s and since

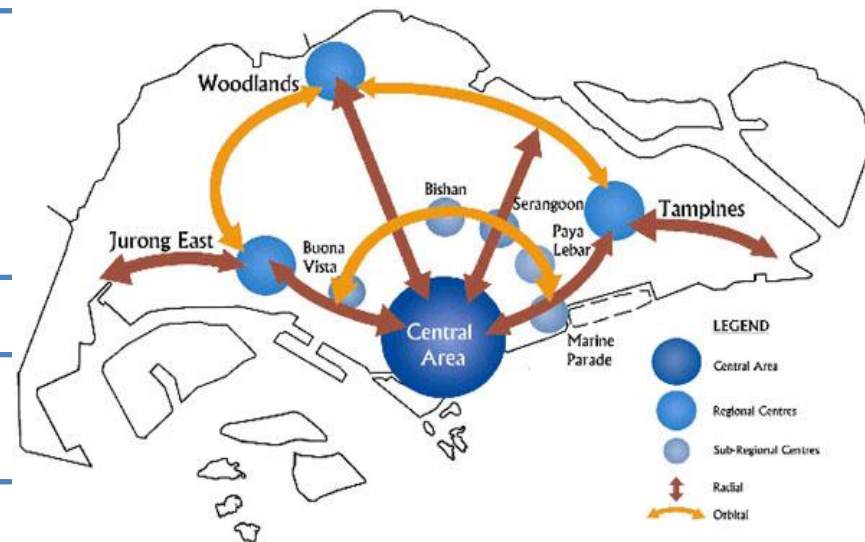
- MRT opens and expands

1990s and since

- Strong integration efforts (eg common ticketing)
- Service standards raised
- NEL

2000s and since

- New bus priority initiatives
- Distance fares
- Circle line and further rapid MRT expansion
- Start of bus line planning by LTA
- New regulatory arrangements coming ...



Road capacity growth since 1980s so speeds generally maintained (with some help from ERP)



GROWING TENSIONS IN THE HARD- NOSED BARGAIN

What do I mean 'hard-nosed bargain'?

Since 1974, strict policies to slow car ownership growth and restrain traffic

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- to **keep the arteries moving** for commerce

In return for 'sacrifice' (either no car or expensive car)

- **Speed and convenience for motorists**
- Steadily improving public transport system

Fast traffic: too much of a good thing

'Free-flowing arteries' for sake of commerce

Promise of fast and convenient motoring

BOTH are central to the hard-nosed bargain

But they encourage too much focus on high traffic speeds

Which undermines the other goals in the bargain

And the tensions are increasing

A mistake to promise 'free flowing traffic' in the old 'bargain'?

At expense of

Space
efficiency

Ideal bus stop
locations

Safety of
walking

Attractiveness
of public
transport



Cycling and
personal mobility
devices

Streets as
places

Traffic flow is a **means**, not an **end**

It should **serve** other goals that
are more fundamental

But can easily **harm** them

Moving people and goods
efficiently

Enabling easy access to
destinations

Enriching the value
of places

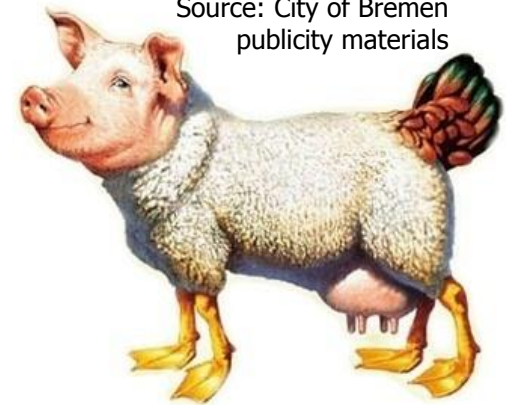


The old 'bargain' also had a narrow vision of the space-efficient alternative to cars

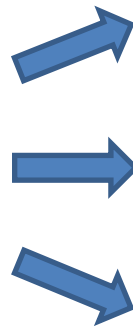
Overly focused on public transport

In fact, overly focused on MRT

Source: City of Bremen publicity materials

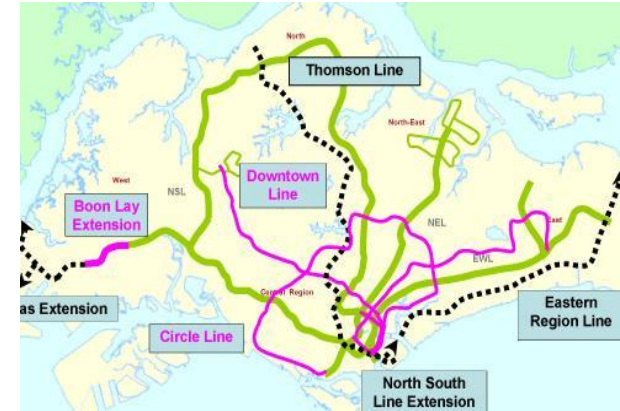
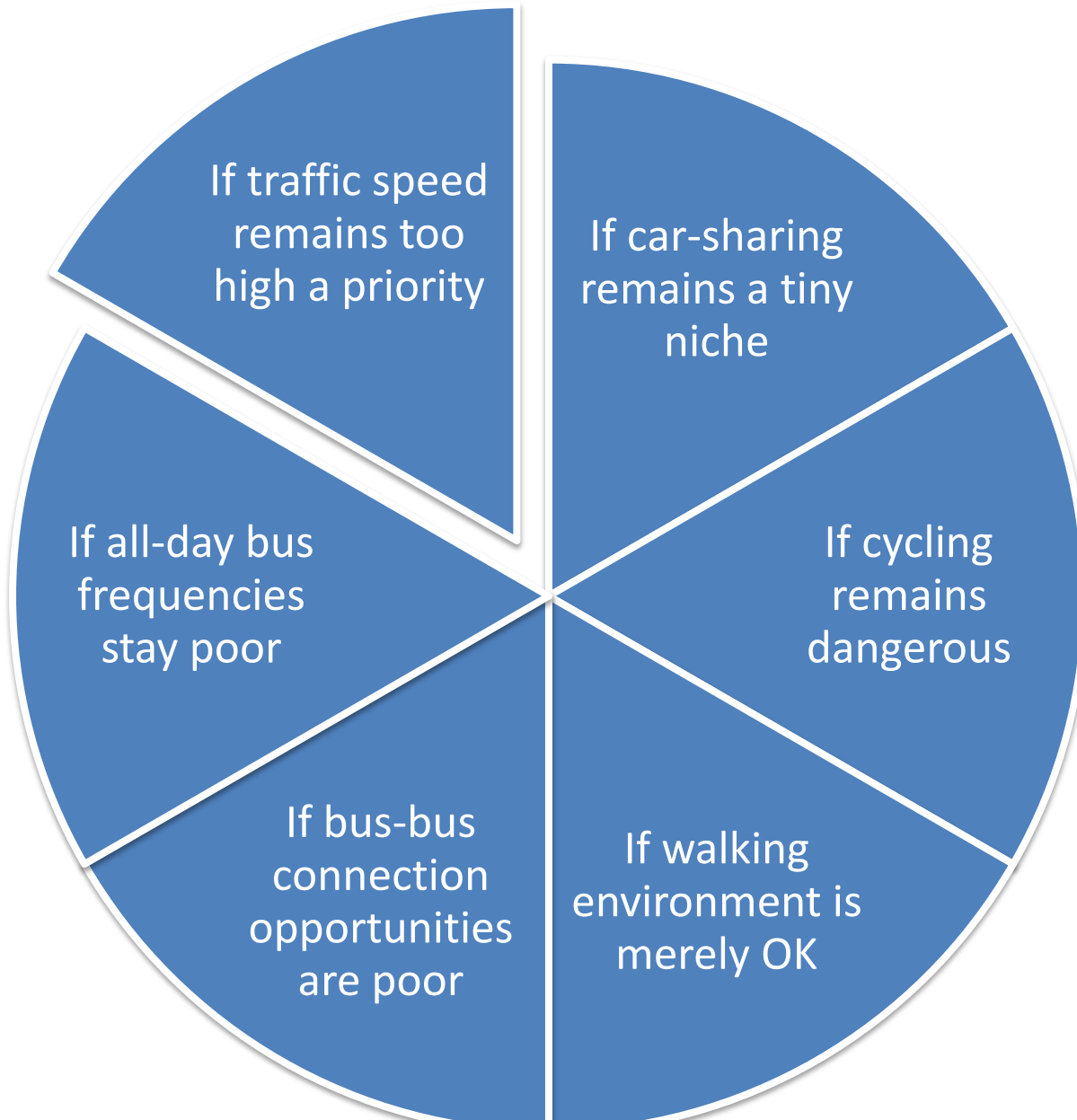


Tokyo rail system



HANNOVERmobile	
<ul style="list-style-type: none">• Public Transport Annual Pass included Timetable + Transit-Map for free	<ul style="list-style-type: none">• Public Car Carsharing-access included Car-Rental discount rates
<ul style="list-style-type: none">• Taxi Discounted tariff, cashless-payment	<ul style="list-style-type: none">• Long Distance Rail BahnCard 25 (German Rail discount card) included
<ul style="list-style-type: none">• Bicycle Various discounts and special services at bicycle stores and bicycle parking spots	<ul style="list-style-type: none">• Delivery + storage grocery delivery-service with special conditions and exclusive online-shop beverage-delivery for free downtown-shopping storage for free
<ul style="list-style-type: none">• Integrated mobility bill for all basic costs, carsharing- and taxi-trips	

On its own, even massively expanded MRT will have trouble competing with the car-owning lifestyle



Free-flowing traffic for sake of commerce

TRAFFIC GROWTH OUTSTRIPPING ROAD CAPACITY

Compact city still needs space-thrifty mobility

Both TDM and road policies focus too much on SPEED

Focus on traffic speed + narrow vision of car alternative
undermine the 'hard-nosed bargain'

Tighter TDM! But politically painful

Speed focus harms public transport and its key allies (walking and cycling)

Dashed aspirations. Excellent mobility equated with car ownership

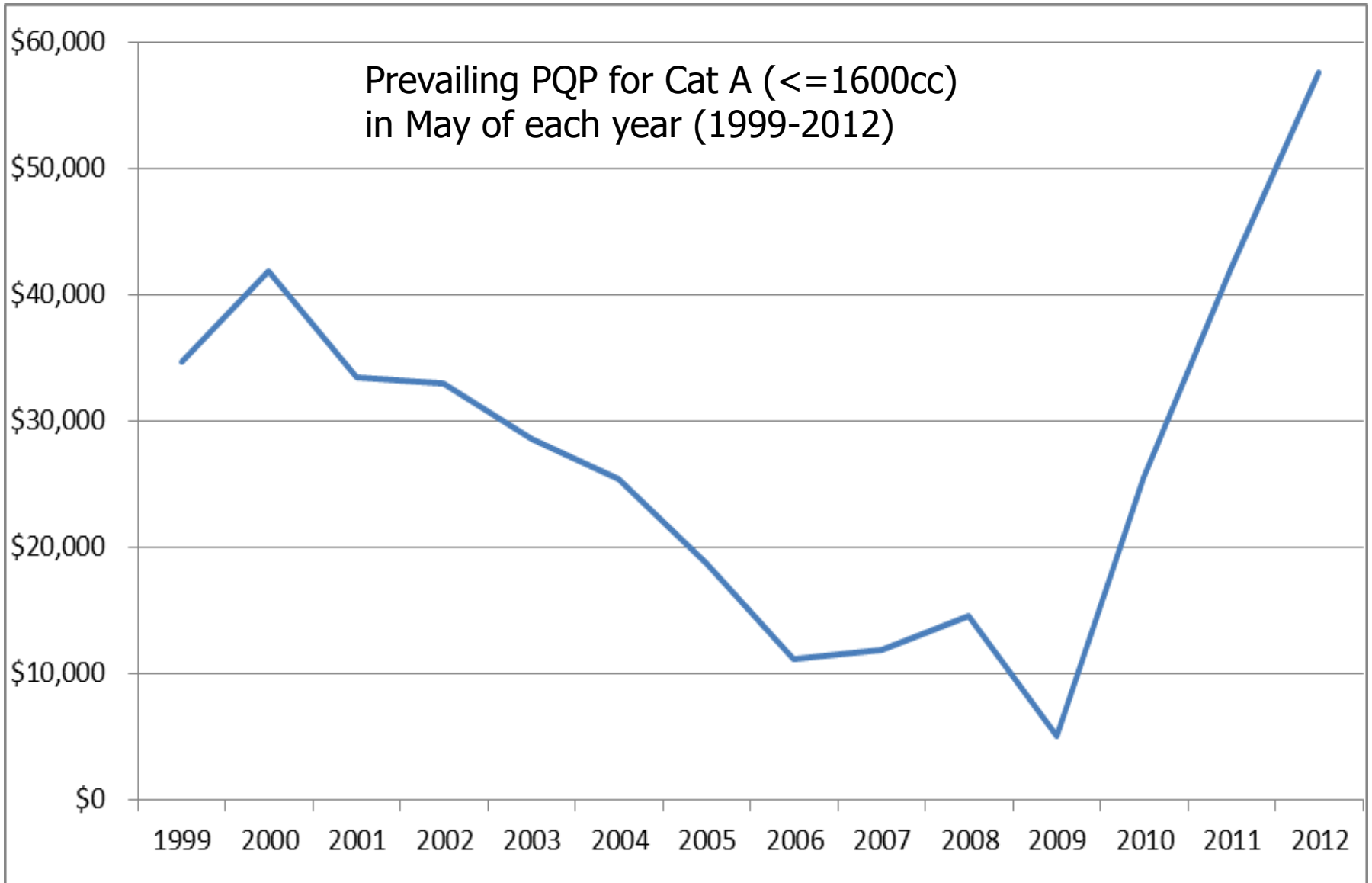
Recent road policies do not seem space efficient (& harm loved places)

Public transport NOT seen as excellent comprehensive alternative

An updated version of our land transport 'bargain' needs to be more positive and more politically acceptable

TOWARDS A NEW BARGAIN

Rhetoric in 1990s and 2000s said that more can have cars (eventually). Now what to promise?



Towards a new more positive bargain?

Transcend our speed focus

- Stop over-promising and over-valuing traffic speed
- Embrace local slowing of traffic to make better places and streets and help alternatives

Aim to make not owning a car an excellent mobility choice

- **Ambitious 'connective' public transport**
- As part of package of alternatives

Make car ownership less special

- Blur the boundaries of owning a car
- Make cars easier to give up or leave behind

Why do we need an ambitious, connective public transport network?

“Transit can compete with car travel not by copying its door-to-door routing (which it can never match) but by providing opportunities for flexible travel throughout an integrated network with convenient, rapid transfers...” (Vukan Vuchic, 1999, pp. 209-210)



Zurich

Public transport speed via high frequencies

Much effort to
improve public
transport
vehicle speeds

Good.

But frequency is
central to public
transport speed

Waiting time
often more
important than
vehicle speed

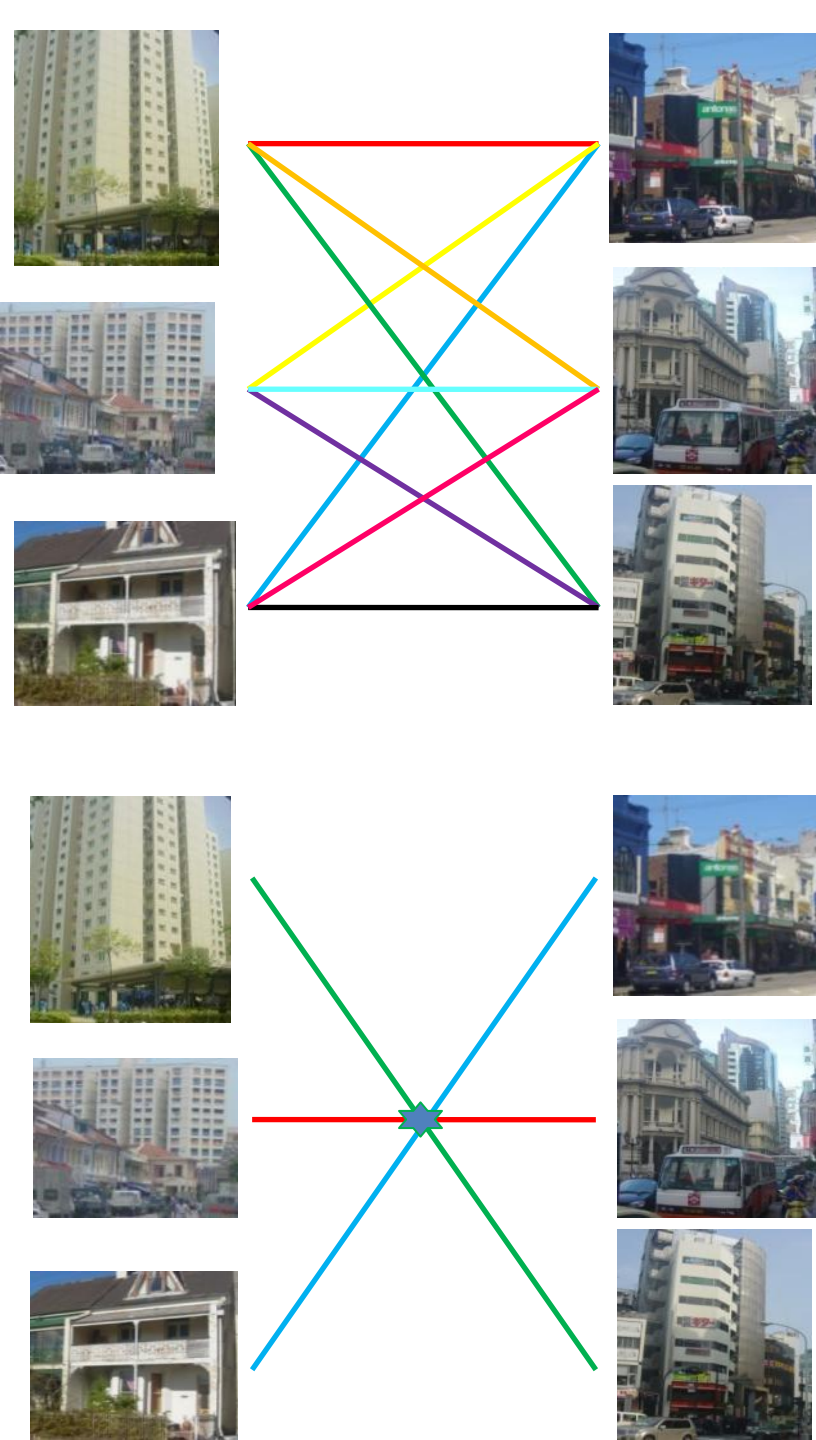
To get high
frequencies
without high
costs, we need
a simpler, more
connective
network
structure

'Connective' versus 'Direct' Public Transport Networks

The
Connective
Network
achieves

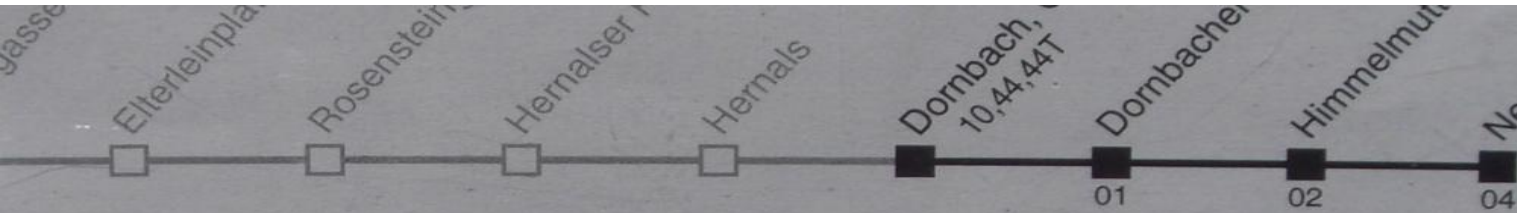
- **More frequent with SAME resources** (in this example, 3 high-frequency lines versus 9 low-frequency lines)
- **Connections are a feature not a bug**
- **Lower total travel time**, despite connections!
- **Simpler network:** easily understood and remembered

Based on a diagram in the excellent book,
"Human Transit" by Jarrett Walker



Example of regular, all-day, frequent service

Vienna



Montag bis Freitag (Ferien)

Gültig vom 7.7.08 - 22.8.08

5	04	-	-	Intervall 2' - 6'	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	19 27 34 42 49 57	-	-	-
21	04 14 24 34 44 54	-	-	-	-	-	-
22	04 14 27 42 57	-	-	-	-	-	-
23	12 27 42 57	-	-	-	-	-	-
0	12 31	42	-	-	-	-	-

Samstag (Ferien)

Gültig vom 5.7.08 - 23.8.08

5	04 16 24 31 44 54
6	04 14 24 34 44 54 59
7	04 14 19 24 34 42 49 57
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22	04 14 27 42 57
23	12 27 42 57
0	12 31 42

Sonn- und Feiertag

5	04 22 37 44 57
6	12 27 42 57
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8	04 14 24 34 44 54
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22	04 14 27 42 57
23	12 27 42 57
0	12 31 42

Auskunft

Wiener Linien: 7909-100

Ambitious public transport requires a compatible regulatory system

Government takes responsibility for outcomes



Government takes little or no responsibility for outcomes



Gross-cost contracts

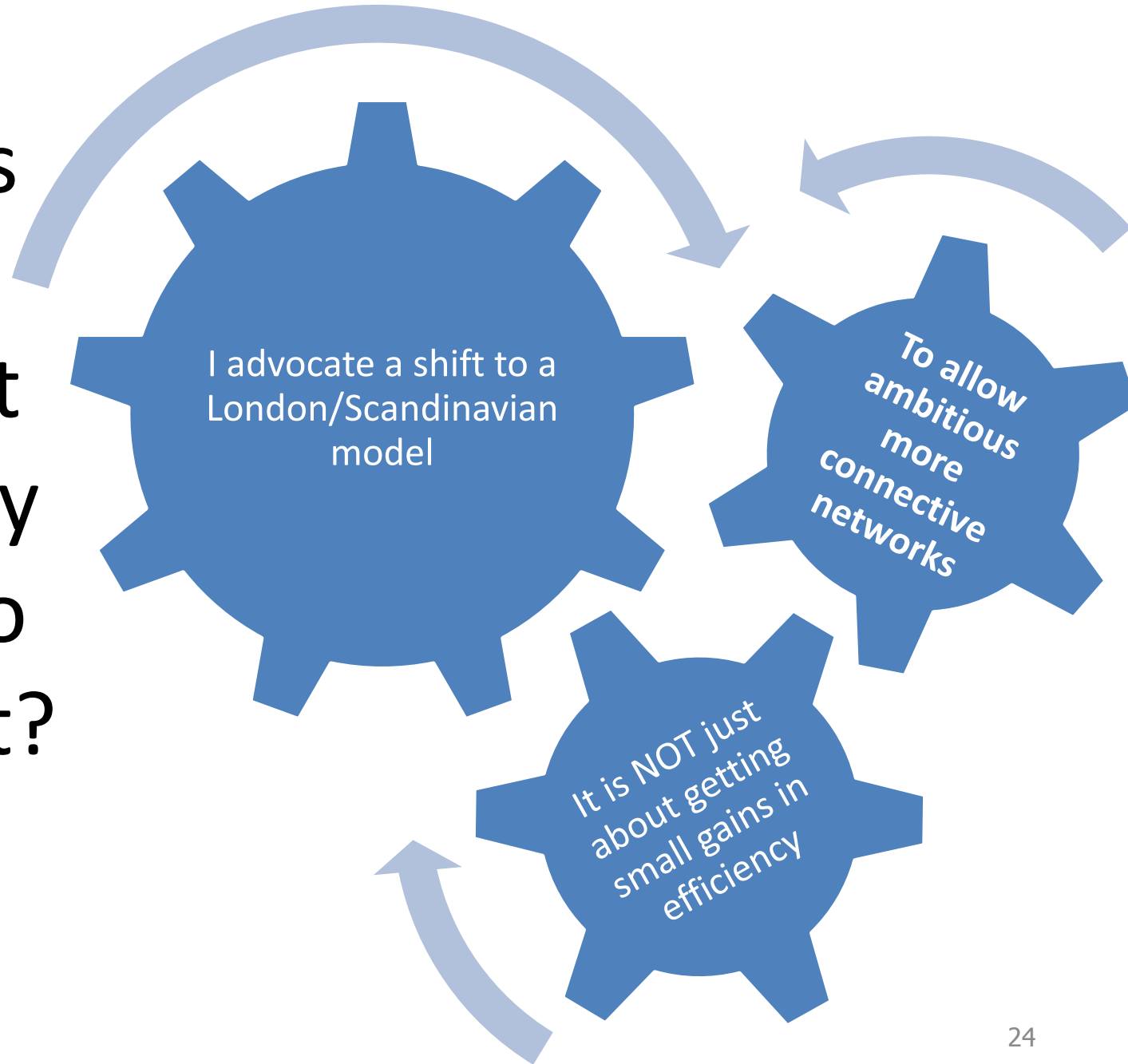
Net-cost contracts

*Compatible with ambitious integration within **and** beyond public transport (assuming the desire)*



Incompatible with integration

So why is
public
transport
regulatory
reform so
important?



A grid: perhaps the best of the connective network types

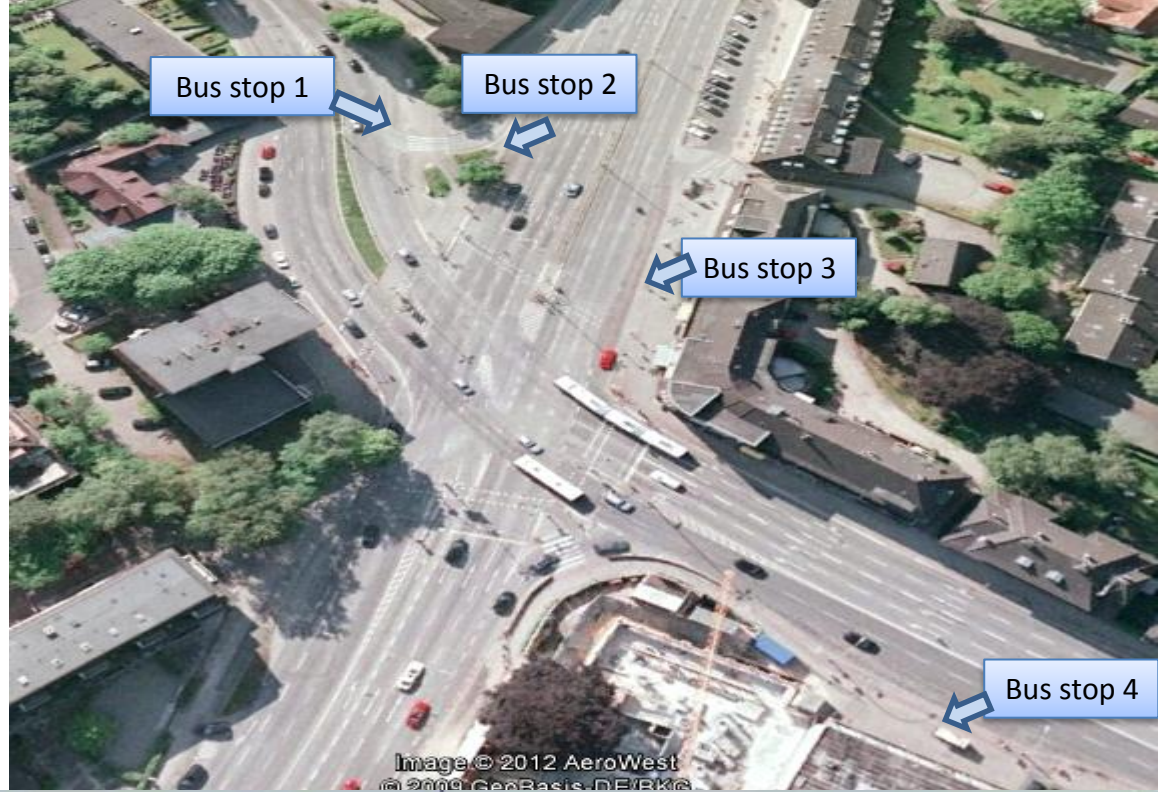
Vienna



A major intersection in
Hamburg's suburbs
(Kollau Strasse and Vogt Wells Strasse)

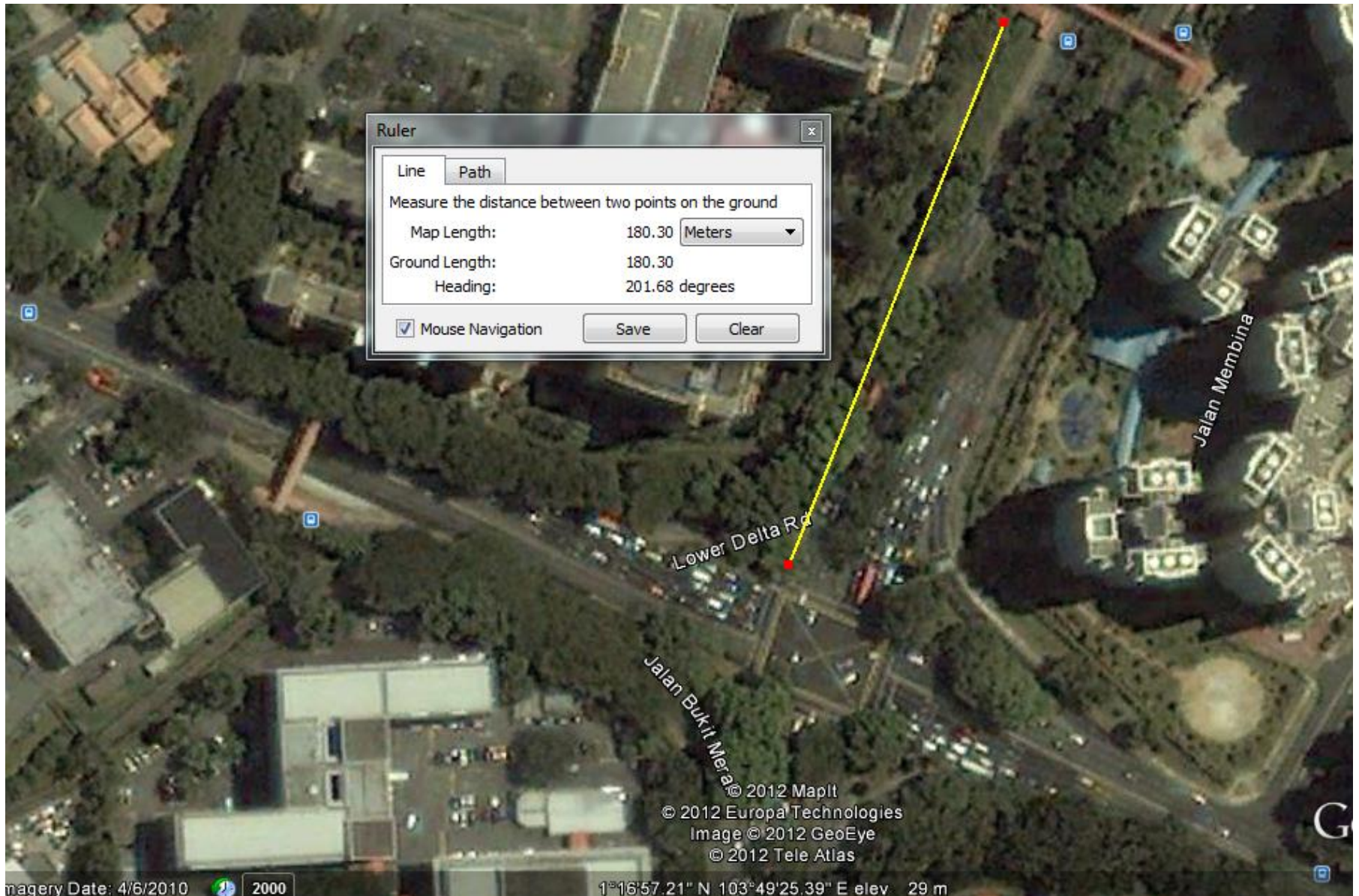
Bus stops close to
intersection

Easy to make bus-bus
connections here



Singapore bus stops far from intersections

Without bus stops close to corners it is difficult to create a grid of bus lines



To make the bus network simpler and more of a grid, would we be willing to sacrifice some traffic capacity to have some key bus stops at intersections?



Jalan Bukit Merah / Lower Delta Road

Our narrow view of alternatives and overemphasis on traffic speeds make us miss opportunities for a more connective network

We emphasise connections to and from MRT

Neglect potential for bus-bus connections

Despite (distorted) grid of roads, no simple grid of bus lines

Bus stop locations prevent grid network

Move bus stops? Traffic flow seems a higher priority



Be more willing to slow traffic where important for better places and streets and to help alternatives

Zone 30 areas in Basel



Karl Fjellstrom, itfg-ch.org



Ben Hamilton-Baillie www.hamilton-baillie.co.uk



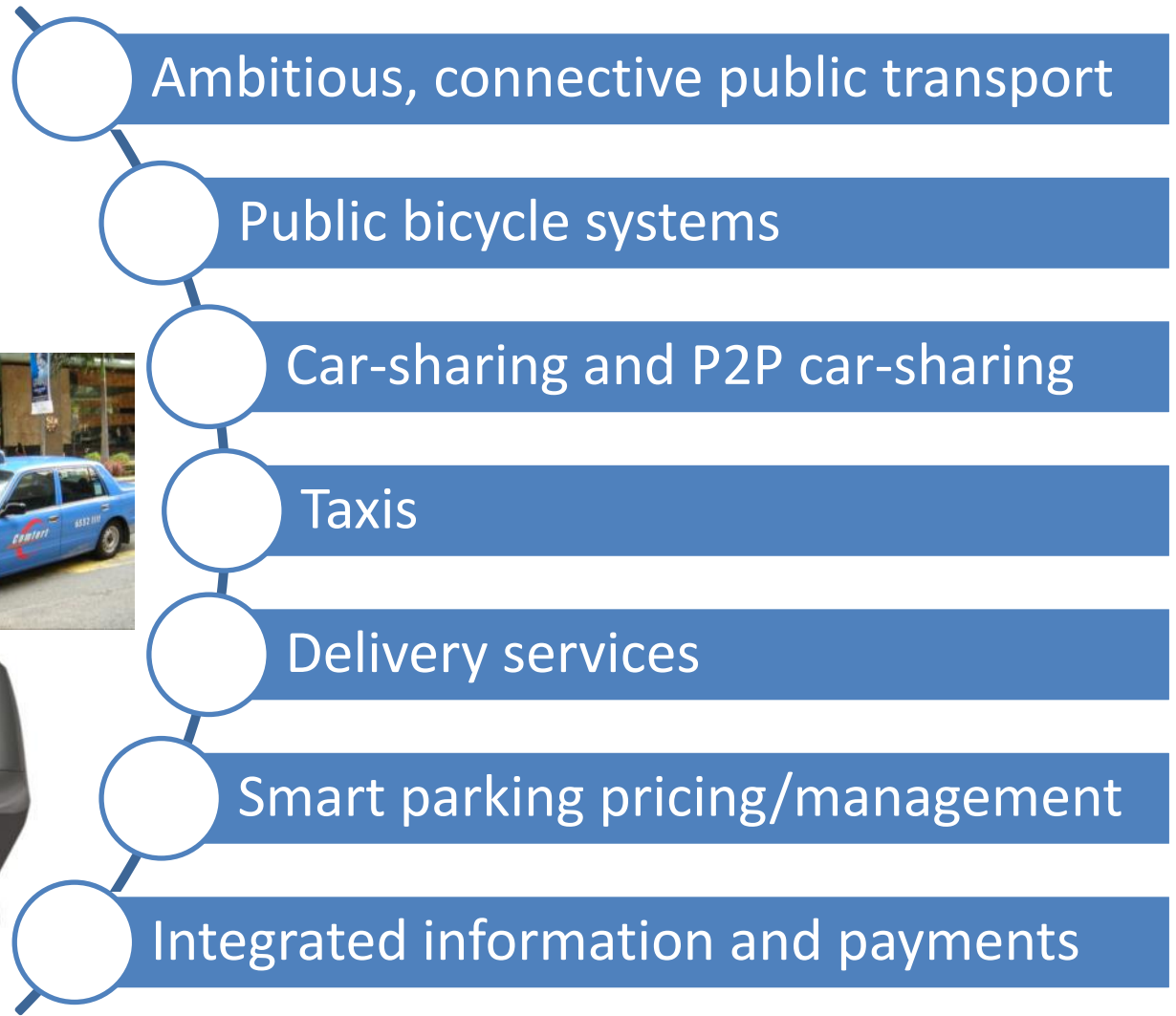
Source: Kim, GC 2007 with permission

To compete with car ownership,
public transport needs help from “allies”

Needs help to fill “mobility gaps”

- Short(ish) trips between 1 and 4 km
- Last kilometre
- Major shopping
- Luggage
- Pets
- etc

'Mobility Mixes' or 'mobility packages' offer to weave mobility services together to rival car ownership



A new more positive bargain?

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Aim to make not owning a car an excellent mobility choice

- Ambitious 'connective' public transport
- Which requires appropriate regulatory reform
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THANK YOU