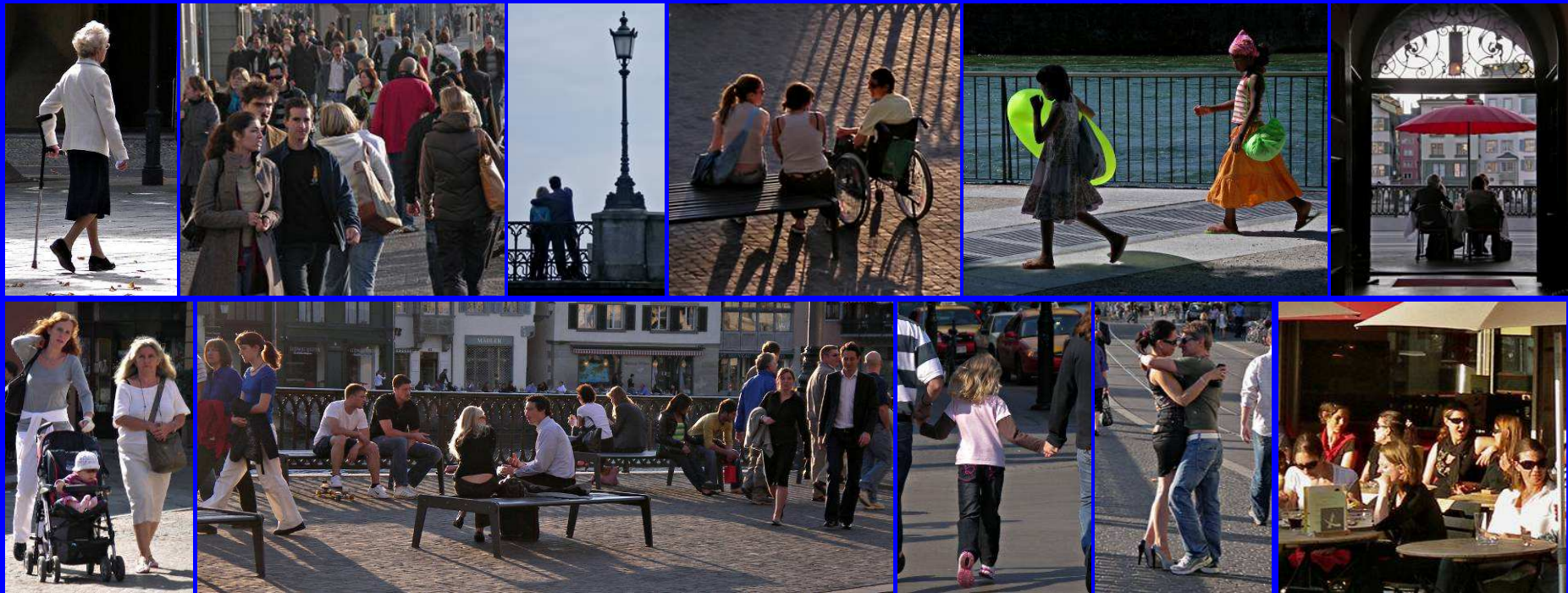


Perceptions, infrastructure design and policy-making

Evaluating the success of implemented schemes

Daniel Sauter, Urban Mobility Research, Switzerland



Seminario Público de Urbanismo y Movilidad Sostenible

Project Mi Ciudad AC2; part of INTERREG IVB SUDOE

Málaga, 22 September 2011

Effects of mode choice...

and measuring perceptions...

...for example, the children's routes to school

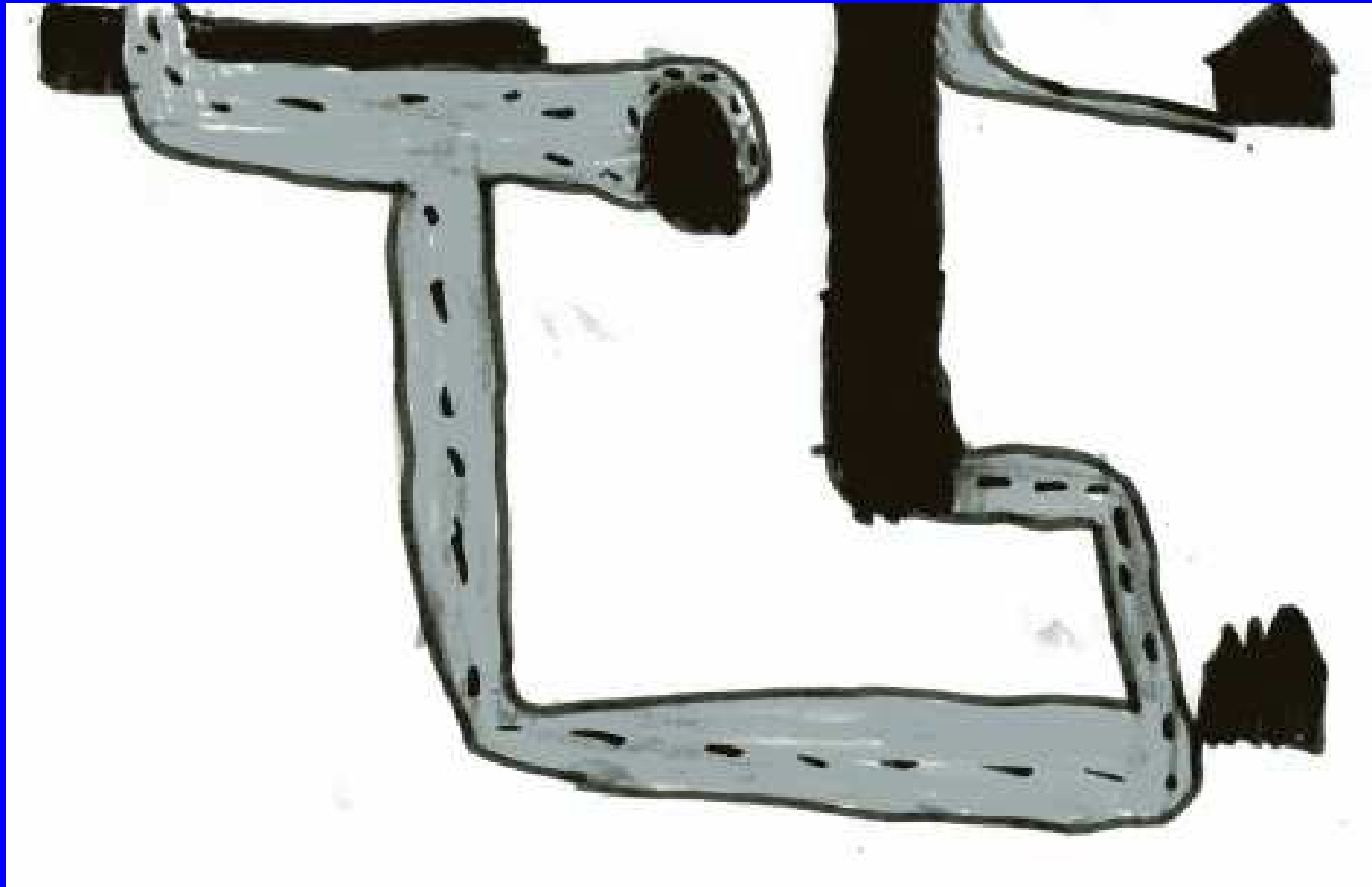
William (7) walks to school...



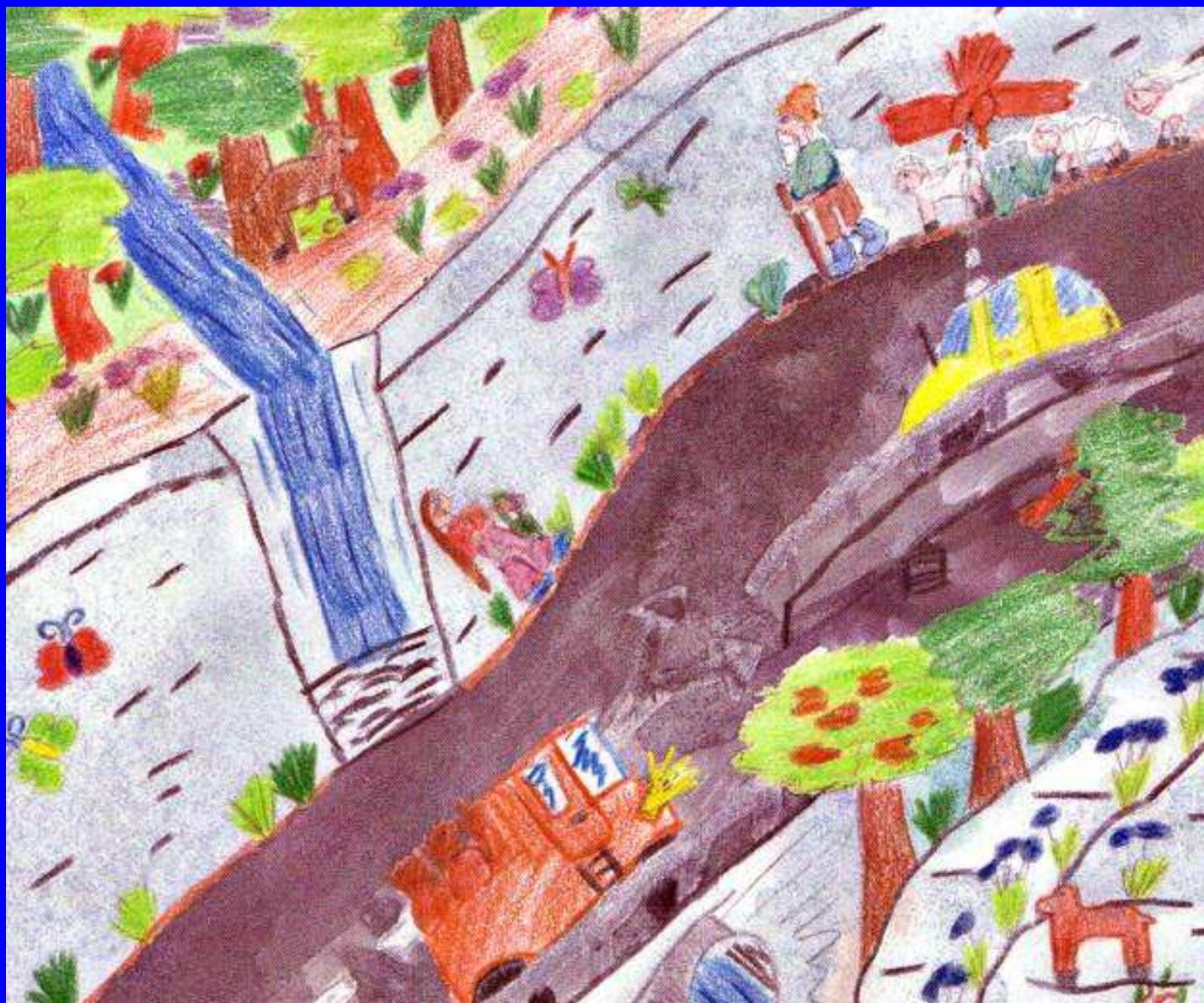
Sandra (7) is being driven to school ...



Samuel (7) is being driven to school ...



Maria (10) walks to school ...



First conclusion:
Walking likely changes our perception of the world

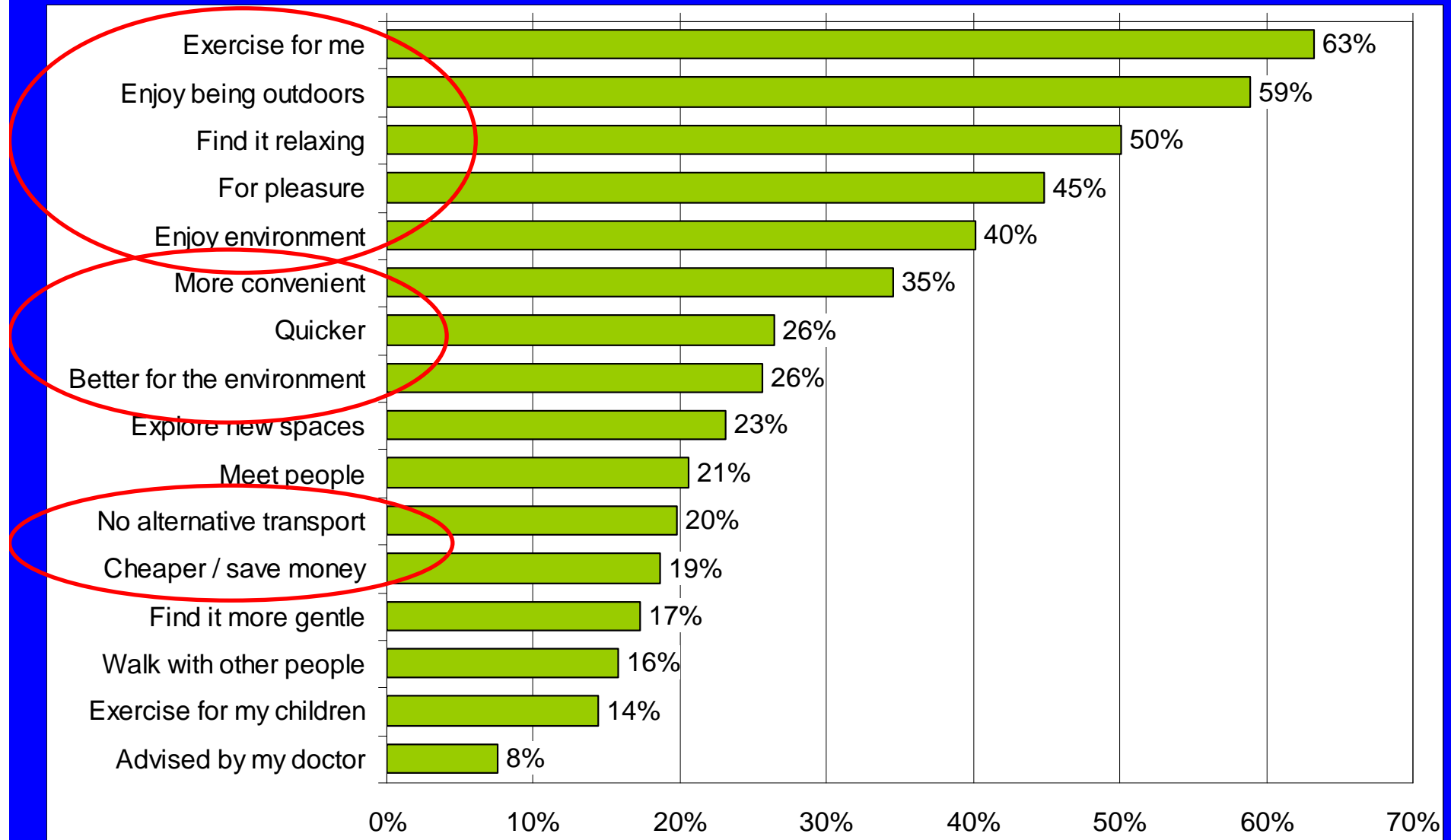
Measuring...

...motivations of people to walk...

...& barriers for people not to walk

Motivations for walking

Making Walking Count survey (arithmetic mean of London, Copenhagen & Barcelona)



Source:

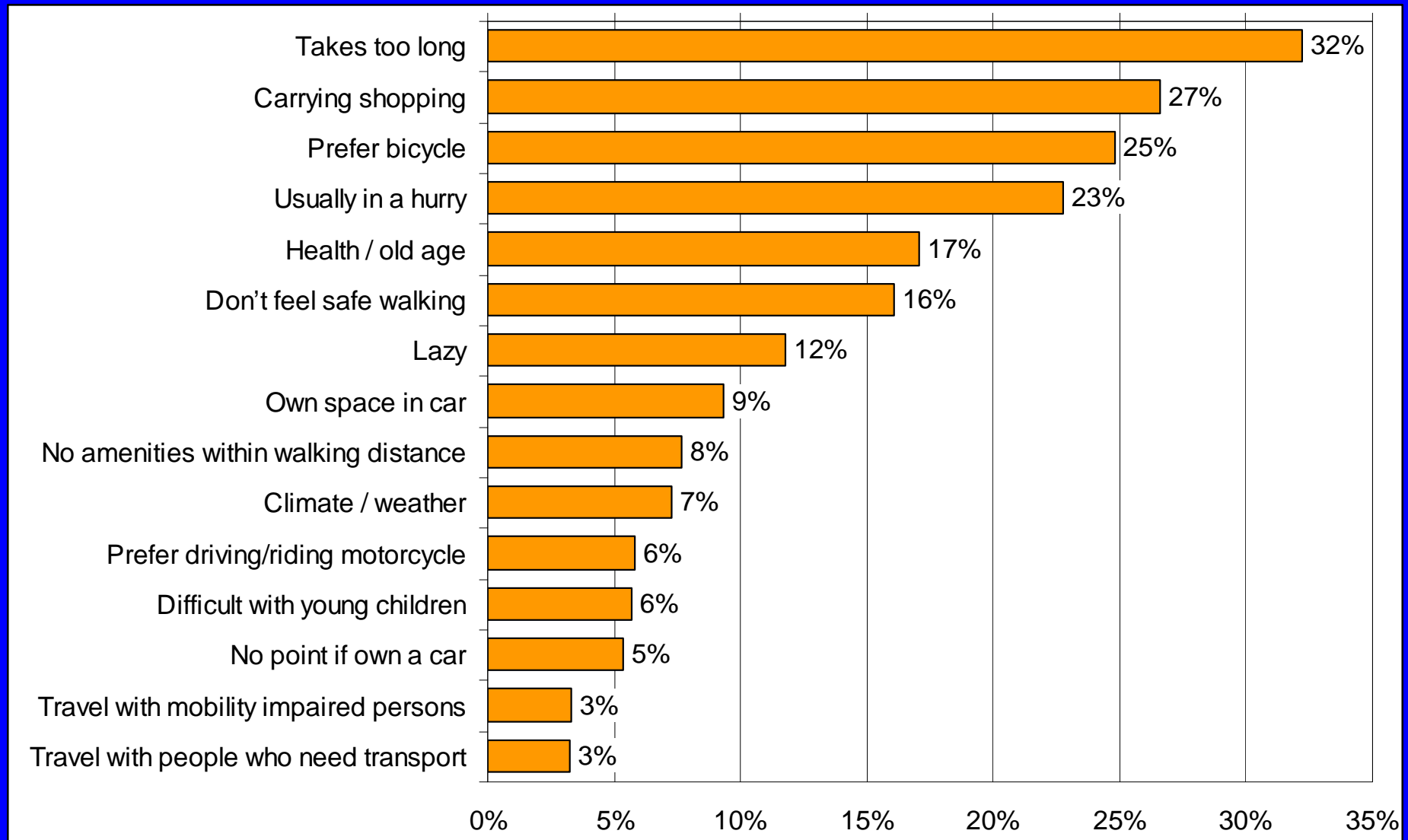


www.walk21.com

Daniel Sauter, Urban Mobility Research, Switzerland

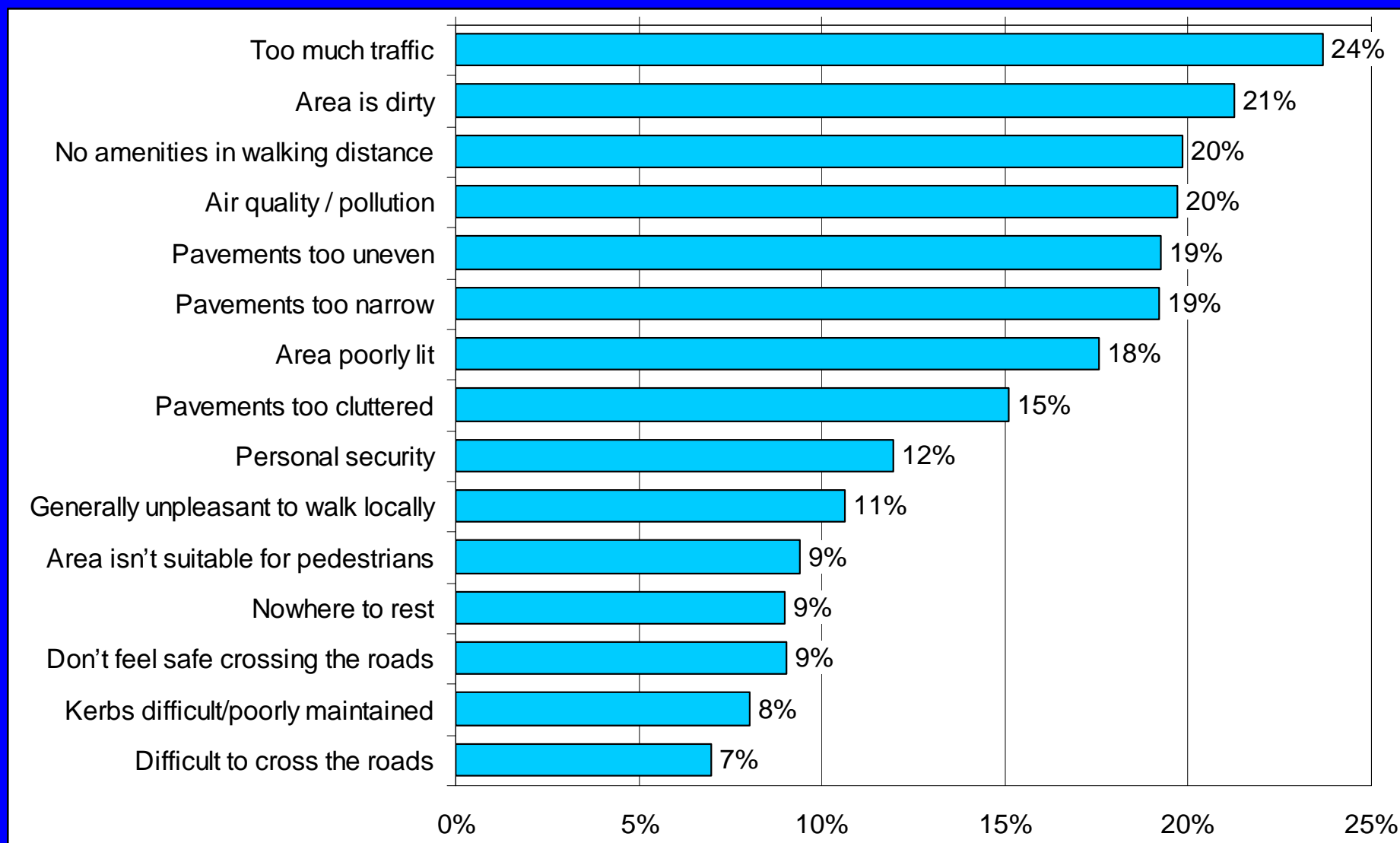
Personal barriers to walking

Making Walking Count survey (arithmetic mean of London, Copenhagen & Barcelona)



Environmental barriers to walking

Making Walking Count survey (arithmetic mean of London, Copenhagen & Barcelona)



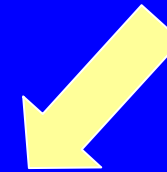
Conclusions from survey

Foster motivations

pleasures of walking, exercise,
leisure, etc.

Reduce barriers

bad & unpleasant infrastructure,
long distances, etc.



Reduce distances
to amenities; provide
services (delivery,
car sharing, public
transport, bicycles)

Provide attractive
walking &
sojourning spaces
(whole city);
reduce & slow
down car traffic

Change
perceptions
of people &
decision makers;
create walking
culture;
communicate

The importance of collecting...

adequate and

good quality data by ...

counting people...



observing sojourning activities...



measuring the smiles...



looking at space qualities...



analysing economic effects...



noting sociability...



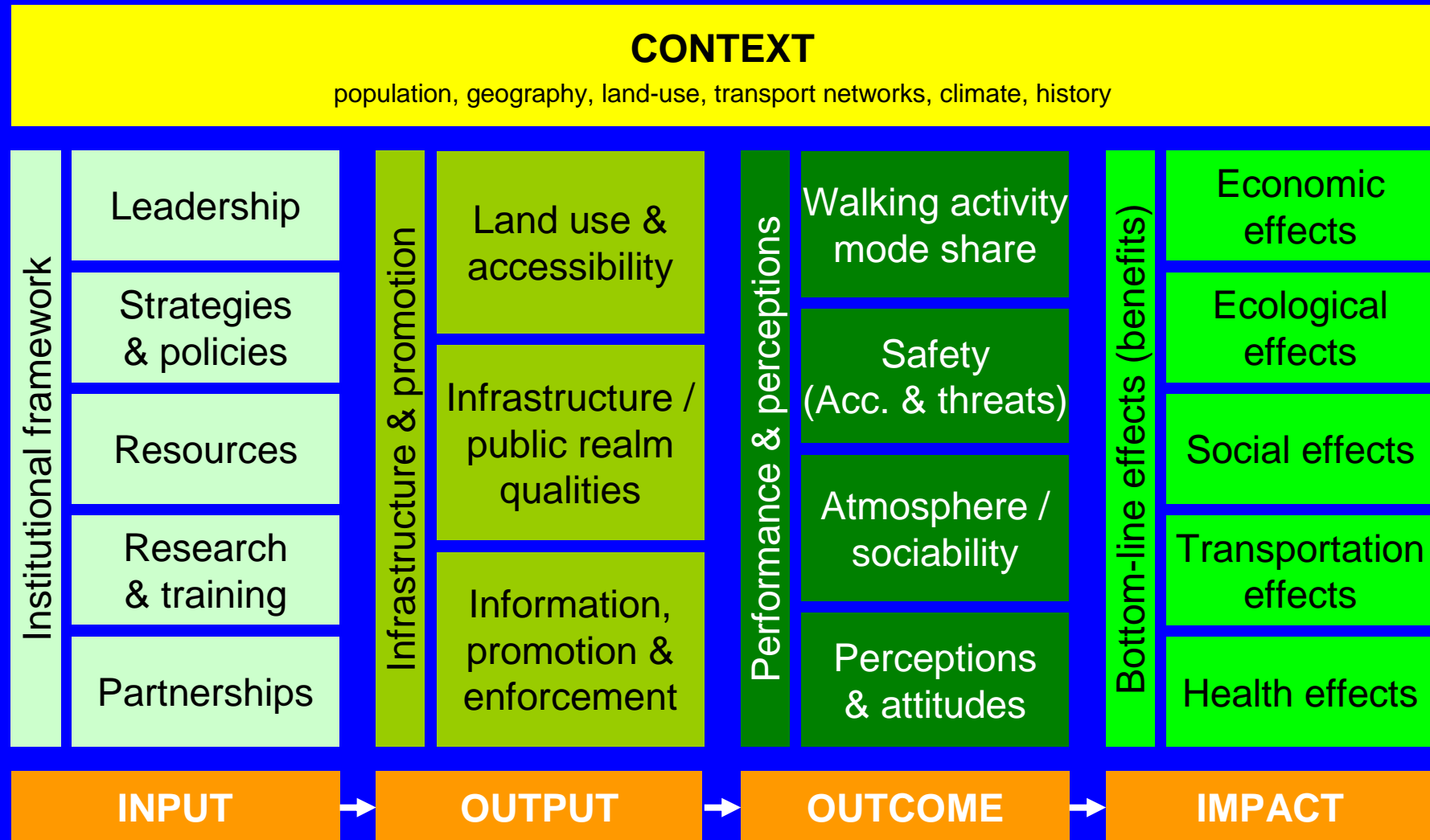
reporting on health benefits...



www.measuring-walking.org

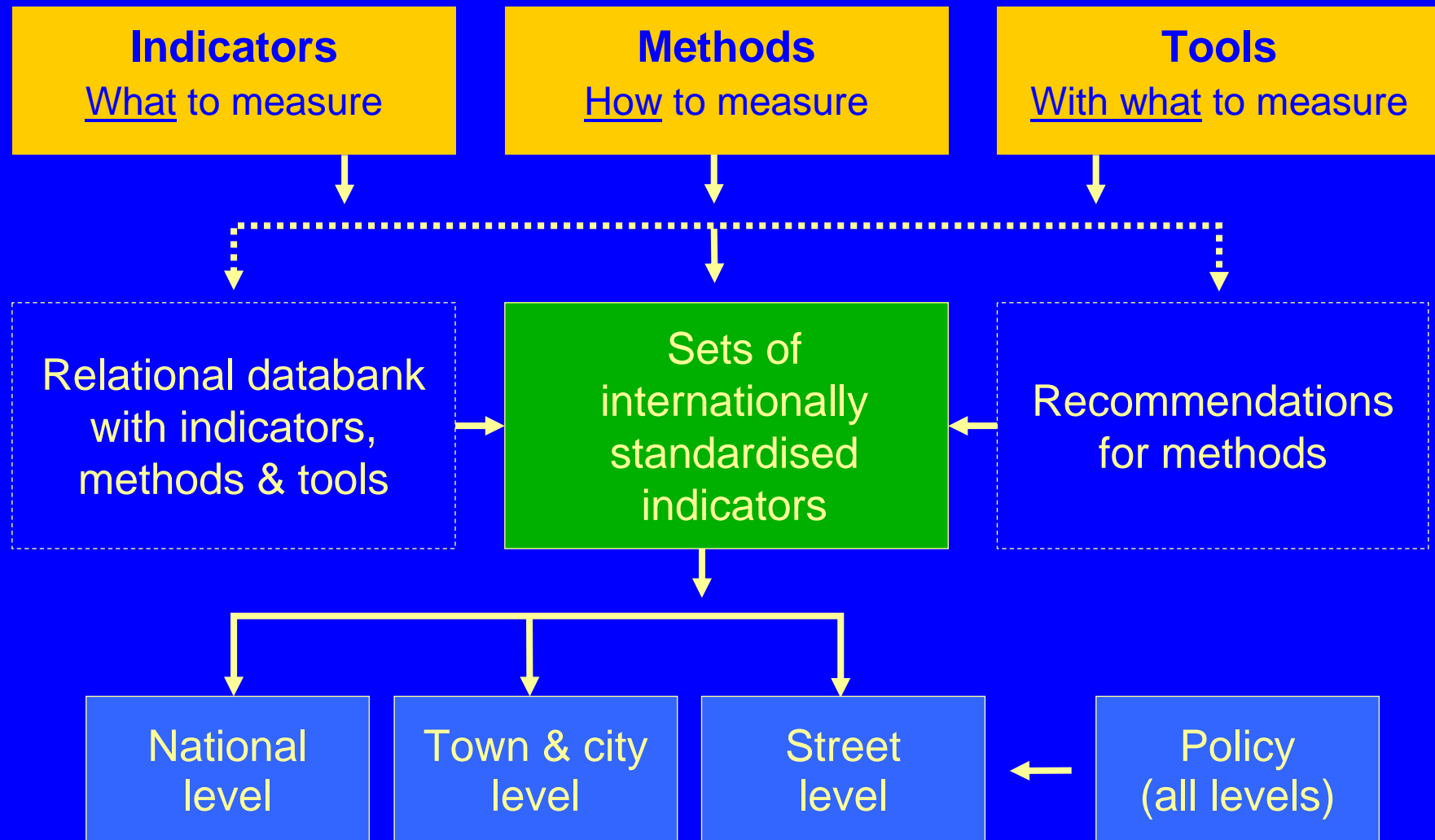
Walk21 Assessment Model for Measuring Walking

(Objective: to standardise internationally some data collection methods)



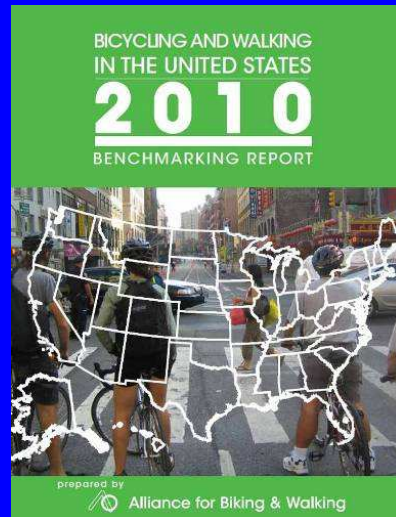
Version: September 2011

Standardisation: steps and possible products

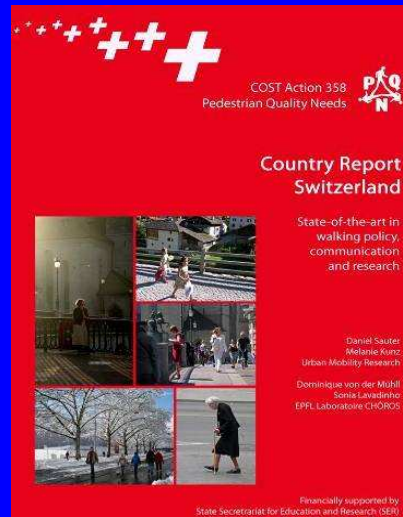


Envisioned indicator sets (examples)

National level



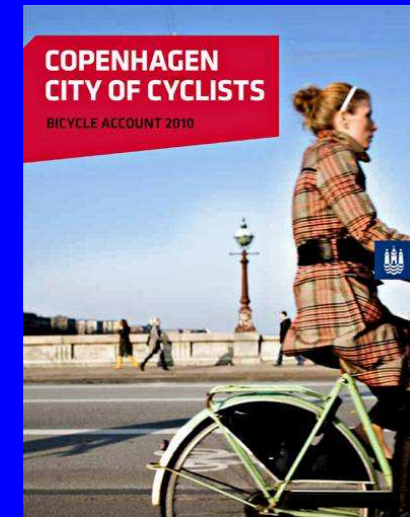
National Report
(provincial, state & cities data)



Country Report
(national data)



Making Walking
Count



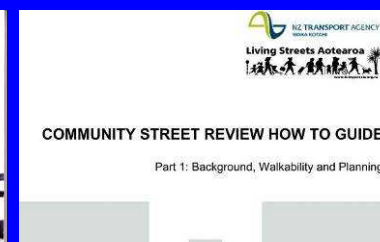
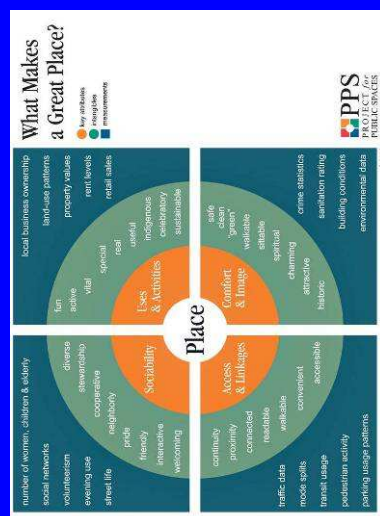
Walking & Urban
Life Account



Policy
(all levels)
Walking Policy Audit

Envisioned indicator sets (examples)

Street level



Public Realm & Walkability Assessment

Community Street Audit (walking audit)

Project for Public Spaces: www.pps.org

Gehl Architects: www.gehlarchitects.dk

Project 'Assess Implementations' (ASI): www.factum.at/asi

Active Living Research: www.activelivingresearch.org

Pedestrian Environment Review System (PERS): www.trl.co.uk

Walkscore: www.walkscore.com

Walkshed: www.walkshed.org

Walkonomics: <http://walkonomics.com>

Active Access: www.active-access.eu

Living Streets: www.livingstreets.org.uk

Fussverkehr Schweiz: www.fussverkehr.ch

Project for Public Spaces: www.pps.org

TRL: rate my street: www.ratemystreet.co.uk

Community Street Review NZ: www.levelofservice.com



International Charter for Walking

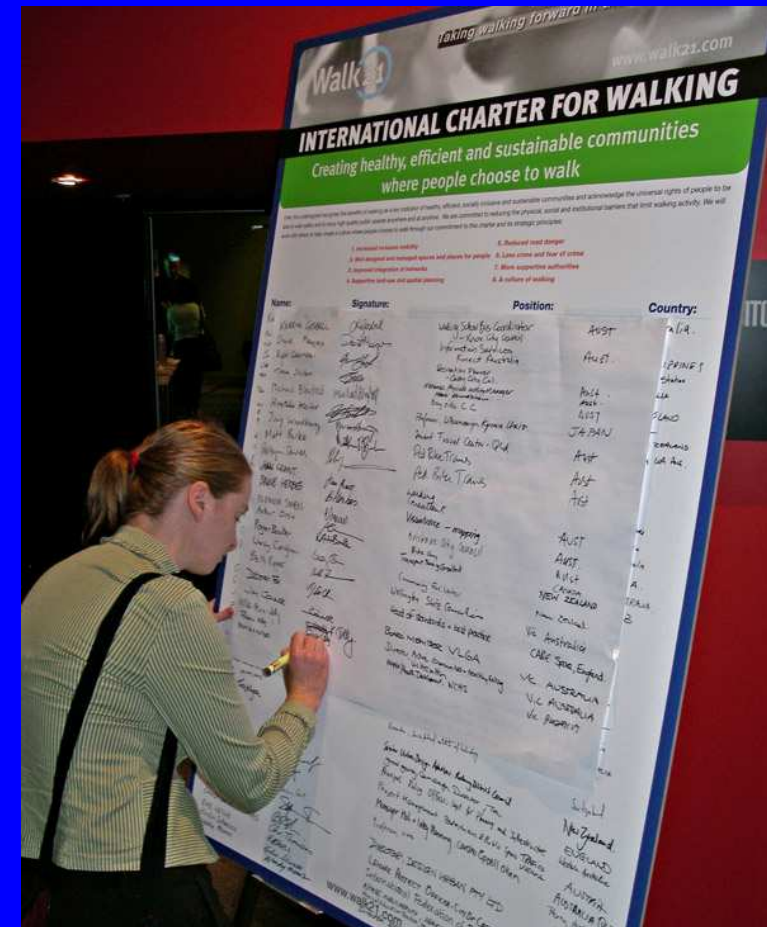
Creating healthy, efficient and sustainable communities
where people choose to walk

I/We, the undersigned recognise the benefits of walking as a key indicator of healthy, efficient, socially inclusive and sustainable communities and acknowledge the universal rights of people to be able to walk safely and to enjoy high quality public spaces anywhere and at anytime. We are committed to reducing the physical, social and institutional barriers that limit walking activity. We will work with others to help create a culture where people choose to walk through our commitment to this charter and its strategic principles:

1. **Increased inclusive mobility**
2. **Well designed and managed spaces and places for people**
3. **Improved integration of networks**
4. **Supportive land-use and spatial planning**
5. **Reduced road danger**
6. **Less crime and fear of crime**
7. **More supportive authorities**
8. **A culture of walking**

Signed _____
 Name _____
 Position _____
 Date _____

www.walk21.com



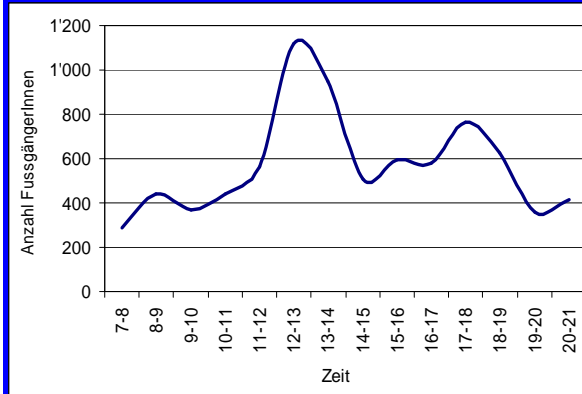
Signing of Charter
Walk21 Melbourne, October 2006



www.walk21.com

Daniel Sauter, Urban Mobility Research, Switzerland

Adequateness: Example Seefeldstrasse, Zurich



Pedestrians

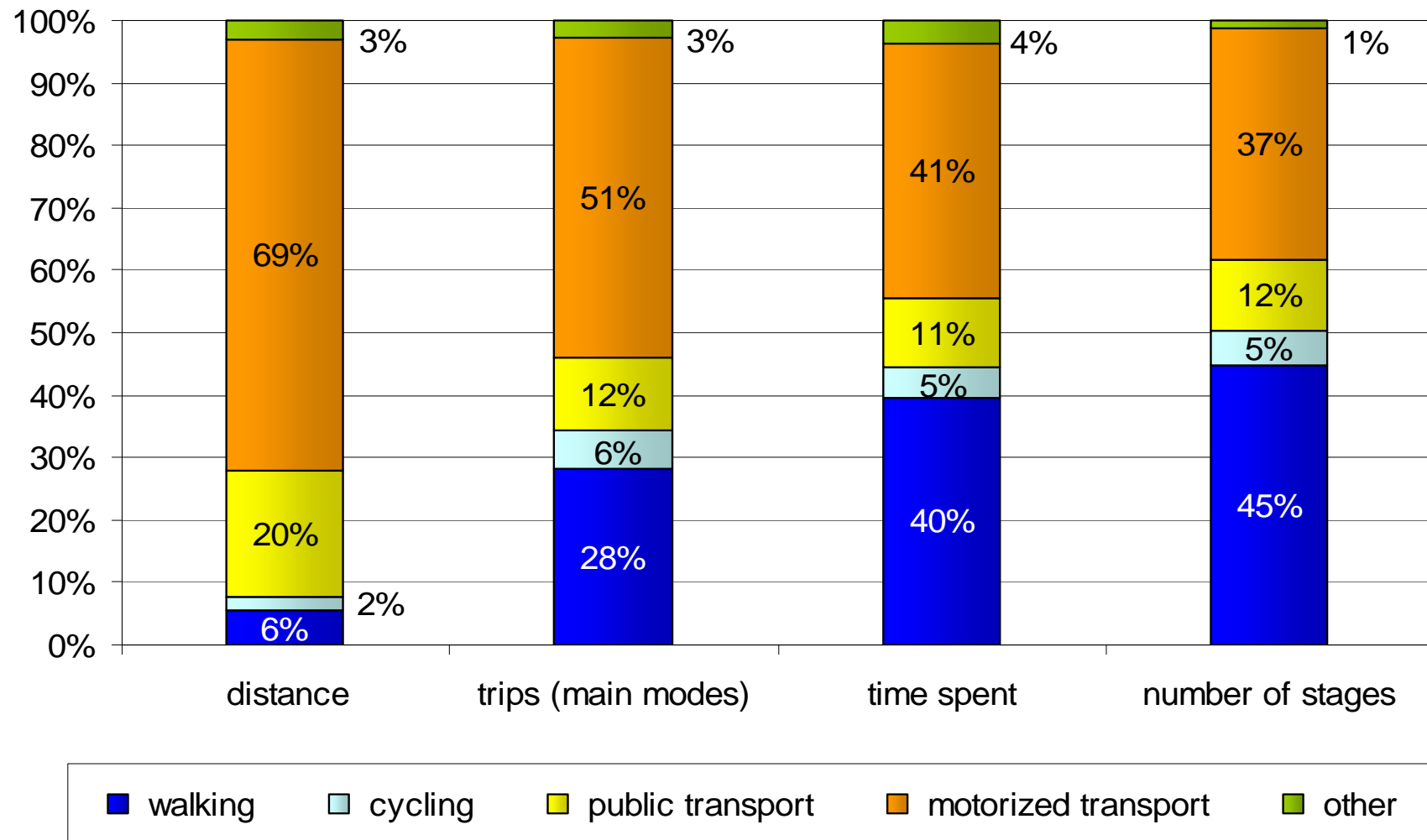


Bicycles



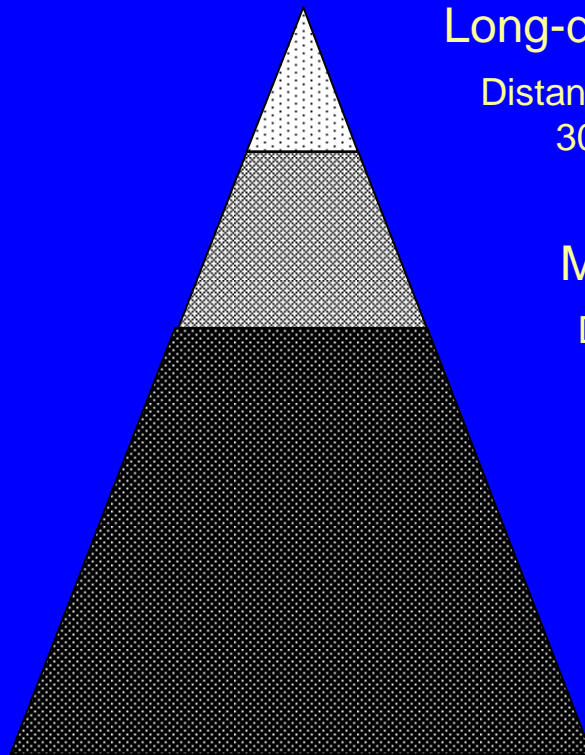
	Engineer.C. Evening (17-18) January	Urban M.: Evening (17-18) September	Difference	Urban M. Noon (12-13) September	Difference
Pedestrians	1'600	2'450	+ 54%	3'170	+ 99%
Bicycles	4	130	+ 3'150%	110	+ 2'625%
Motor vehicl.	676	680	+ 1%	527	- 22%
Sojourners	n.e.	67	+ 6'700%	52	+ 5'200%

Adequateness: distance trips, time or stages? (Example with Swiss data 2005)



Adequateness in policy-making e.g. the spending priorities

Distribution of trip distances



Long-distance trips

Distances more than
30 km (7%)

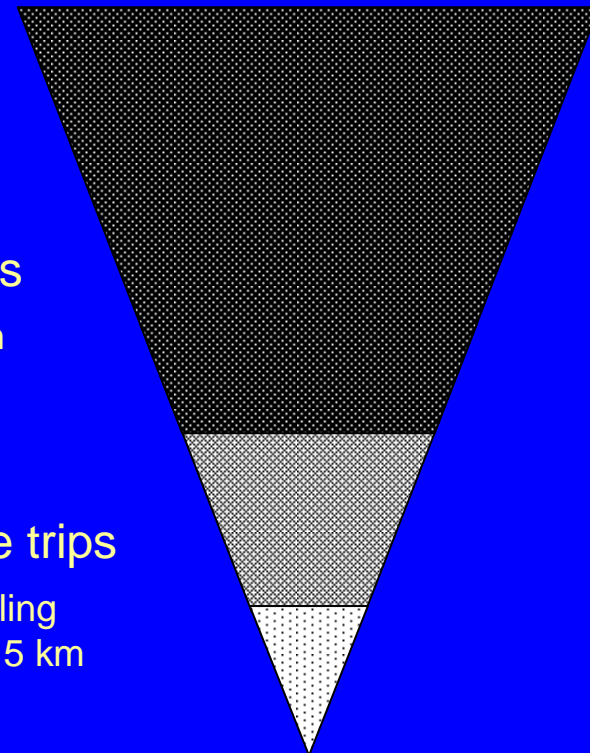
Middle-range trips

Distances 5 to 30 km
(30%)

Short-distance trips

Walking & cycling
Distances up to 5 km
(63%)

Distribution of resources



Measuring...

the effects of improvements...

some examples...

*Lawn chairs can change
the perception and use of spaces...*



Times Square New York



Daniel Sauter, Urban Mobility Research, Switzerland

Effects of reducing car traffic — example: Limmatquai Zurich



Source: City of Zurich; D. Sauter, 2008: Das Limmatquai vor und nach der Neugestaltung
www.stadt-zuerich.ch; enter search words: „Limmatquai Aufenthaltsnutzung“

Daniel Sauter, Urban Mobility Research, Switzerland

Zurich Limmatquai



2004

Number of street
café seats +45%

Positive response:
94% of passers by &
60% of businesses find
situation improved



2004



2008

street café occupation
increased from
21% to 30%



2008

No changes in
adjacent streets



Effects of new pedestrian & bicycle bridges

Examples: Herterbrücken & Ampèresteg (Wipkingerpark) Zurich



Photo: Planungsbüro Jud



Photo: Urban Mobility Research

	Bridges over river Sihl (Herterbrücken)	Visitors to Wipkingerpark (new bridge: Ampèresteg)
Pedestrians	+24% (net increase)	+ 89%
Cyclists	+34% (net increase)	+ 31%
Sojourners	---	+ 39%

Source: City of Zurich: 1) Planungsbüro Jud: Erhebungen Fuss- und Veloverkehr Herterbrücken, 2007
 2) D. Sauter: Spazieren, Spielen und Verweilen im Wipkingerpark, 2008; => www.stadt-zuerich.ch

Effects of new Encounter Zones (in Switzerland, France, Belgium)



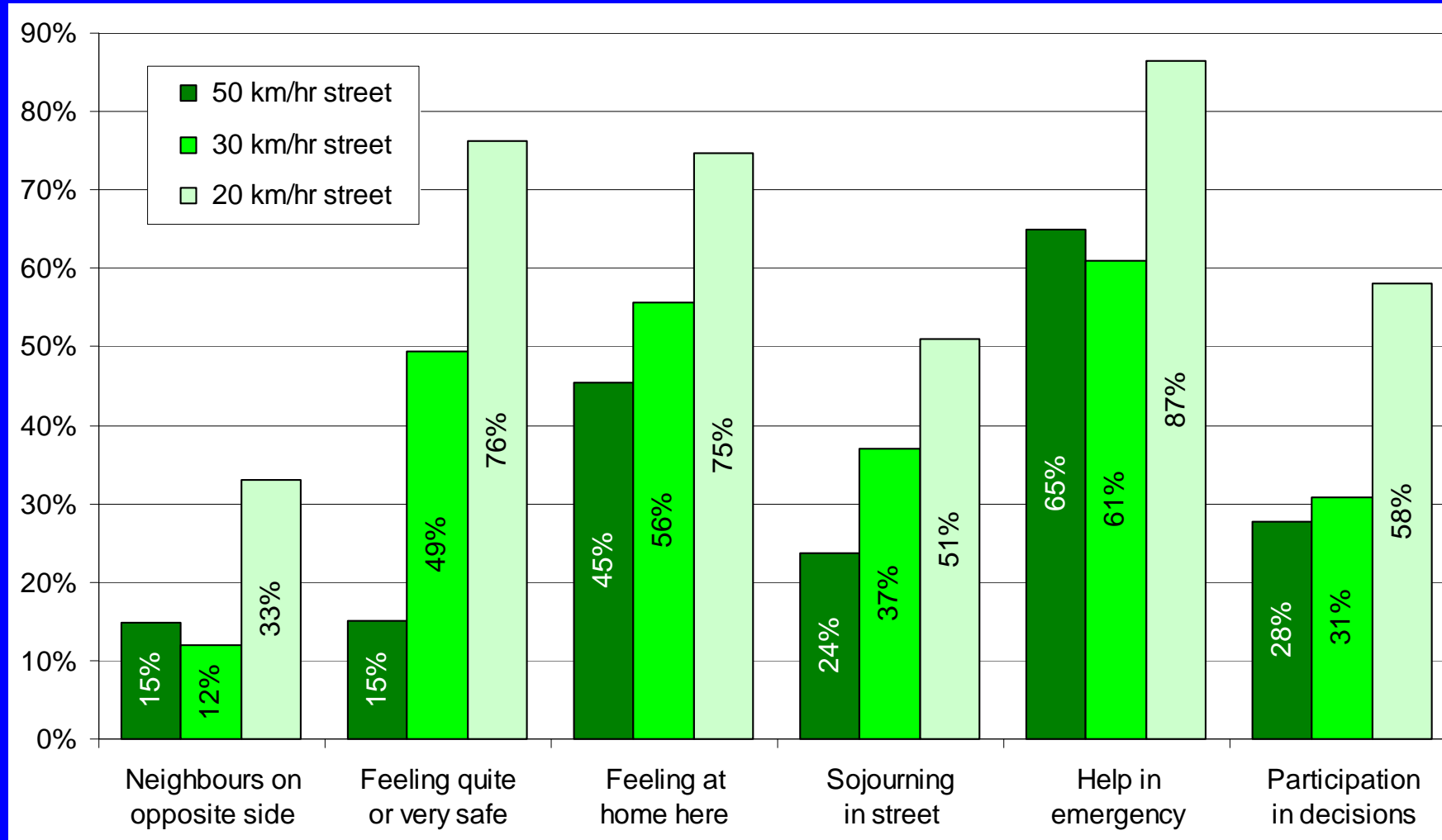
Source: Fussverkehr Schweiz, www.begegnungszonen.ch

Daniel Sauter, Urban Mobility Research, Switzerland

Effects of Encounter Zones in residential areas

Example streets in Basel:

low speeds support contacts, street life, safety, security & feeling of belonging



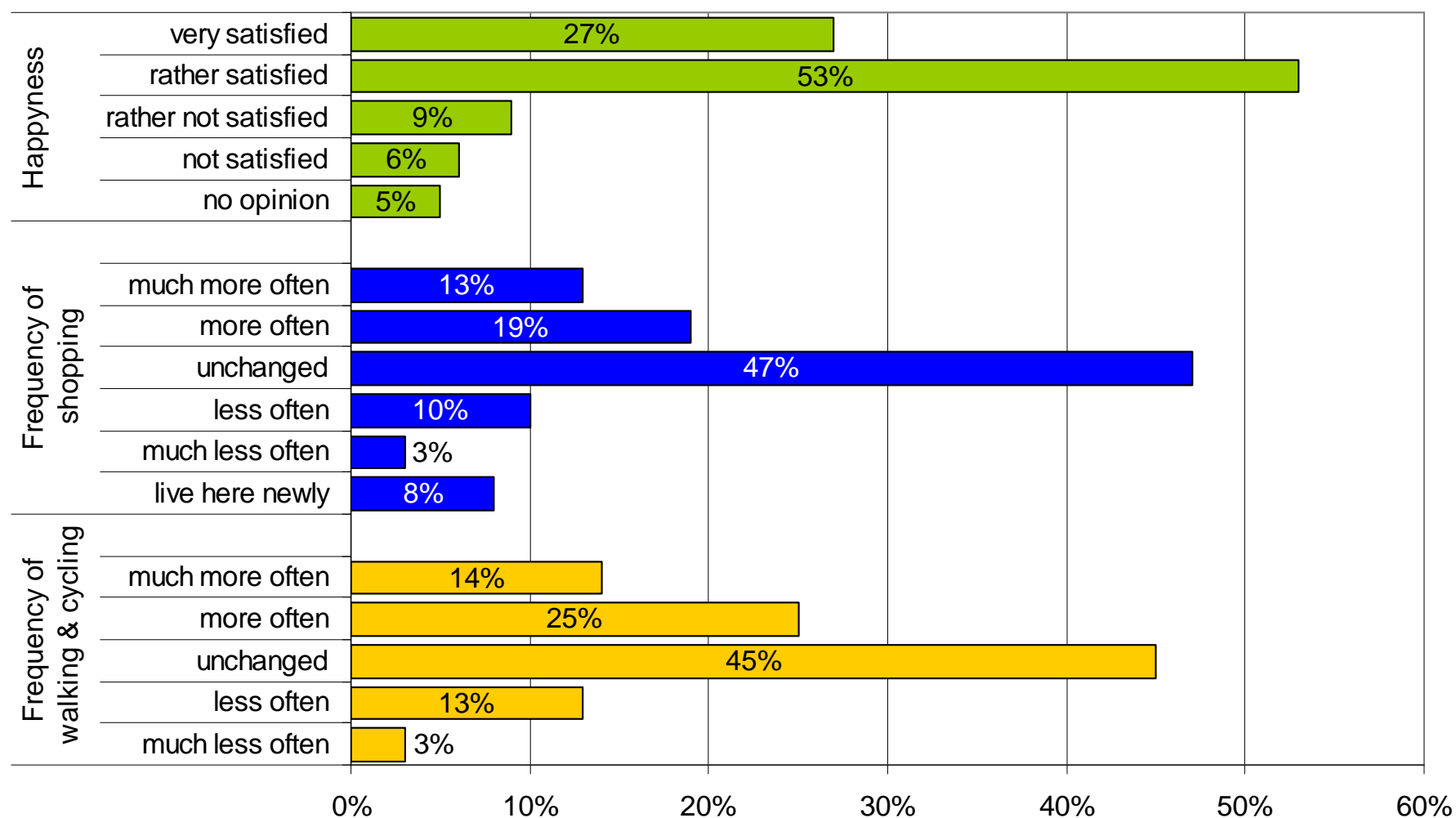
Source: Research project „Liveable Streets and Social Inclusion“ by Daniel Sauter & Marco Huettenmoser;
commissioned by Swiss National Science Foundation; see „Urban Design International“ 13/2 (2008)

Daniel Sauter, Urban Mobility Research, Switzerland

Effects of Encounter Zones in central areas

Example Burgdorf (pop. 15.000), compared to before:

More happy people, more local shopping, more walking & cycling, fewer accidents



Source: INFRAS, 2006: Gesamtevaluation Fussgänger- und Velomodellstadt Burgdorf

Daniel Sauter, Urban Mobility Research, Switzerland

Effects of measuring

Example for automatic counts in Zurich



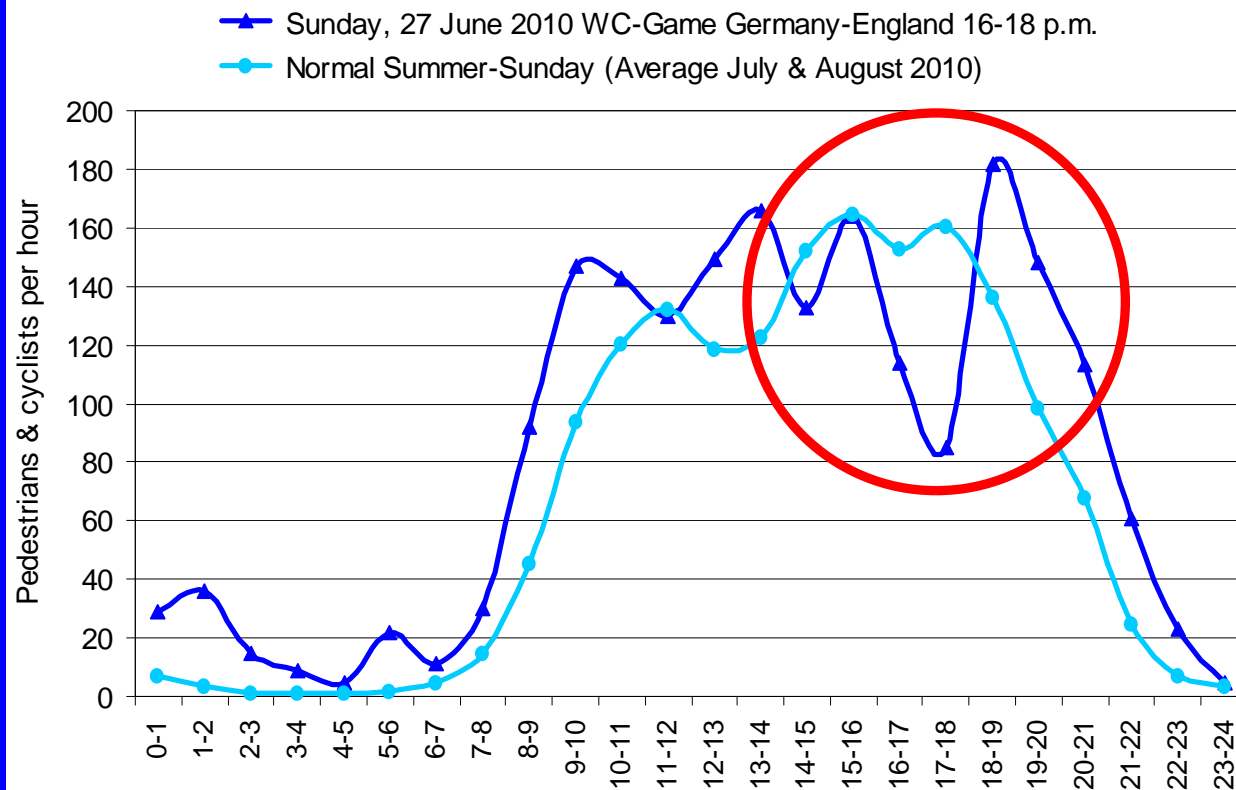
Automatic counting systems by Eco-counter (France)

July-December 2010

Path users along river	158.900
Spectators in city football stadium	158.400
Attendance main theatre (season 09/10)	127.149

Source: Sauter, Kunz, Wyss & Sedlak: Aufenthalt, Fuss- & Veloverkehr im Unteren Limmatraum. Erhebung 2010

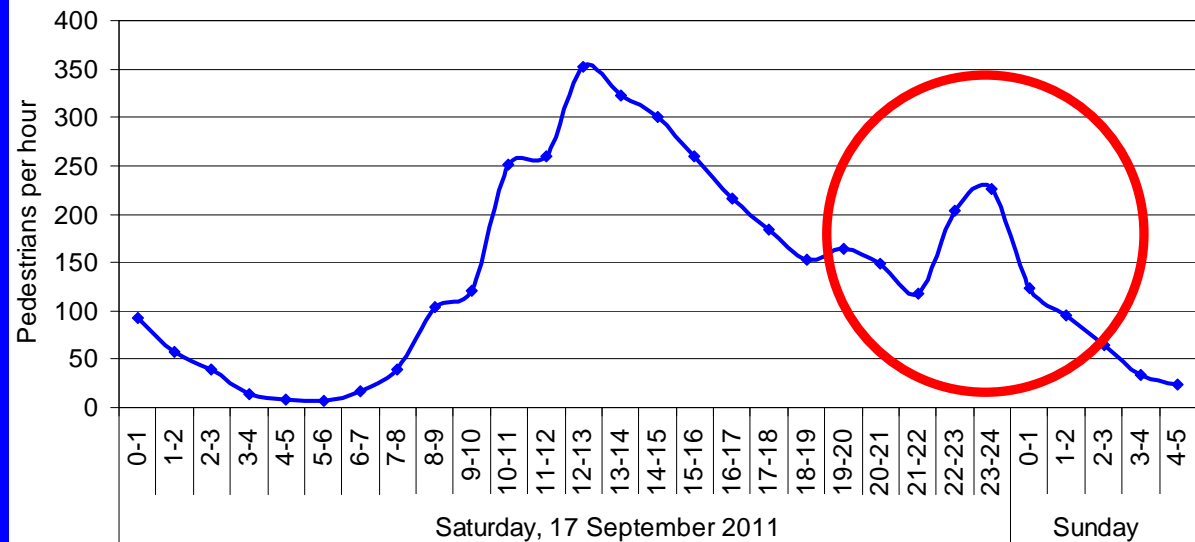
Daniel Sauter, Urban Mobility Research, Switzerland



*Effects of measuring
(automatic counts)*

Understanding patterns;
dynamics of behaviour;
psychological aspects

Source: Sauter, Kunz, Wyss & Sedlak: 2010



“Pedestrians are the indicator species of liveable cities...”

(Rodney Tolley)



*... it is possible to create the right conditions for them
and measure the success ...*

Daniel Sauter, Urban Mobility Research, Switzerland

A photograph of two people walking on a cobblestone street. The scene is captured in high contrast, with the subjects and their long shadows rendered in silhouette against the bright, sunlit pavement. The person on the left is walking towards the right, carrying a bag. The person on the right is walking towards the left, carrying a folder or book. The shadows are cast long and dark, indicating the sun is low in the sky. The cobblestone pattern of the street is clearly visible.

Thank you !

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daniel.sauter@urban-mobility.ch