

WORKSHOP PROCEEDINGS

MAKE WALKING ATTRACTIVE

HELD AT SWOV INSTITUTE FOR ROAD SAFETY

IN THE HAGUE, 4 AND 5 SEPTEMBER 2017



WALKABILITY FRONT RUNNER INITIATIVE



HIGH LEVEL WORKSHOP

MAKE WALKING ATTRACTIVE

HELD AT SWOV INSTITUTE FOR ROAD SAFETY IN THE HAGUE, 4
AND 5 SEPTEMBER 2017

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Tim Pharoah	Living Transport, UK

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1. Summary

- Good insight in walking, walkability and effective measures (technical feasibility) does not suffice to get conditions for pedestrians improved. The key is social and political feasibility. In this context insight in institutional preconditions is crucial.
- Although lack of money is a much used argument for not taking up walkability policies, lacking leadership, knowledge & professional skills and co-operation are more prominent obstacles to change than the lack of resources. In practise walkability interventions are integrated in larger projects.
- Walking and walkability generate huge liveability, economic and health benefits. In practise it is proved very difficult to quantify these benefits. Thus the argument loses weight against more easily quantifiable topics.
- Future planning practitioners are now being educated in walking and walkability. In Breda university this education is built on a new handbook on walking, cascade planning, partnering, financial strategies, people and places and 'practise what you preach'.
- There is need for a walkability Knowledge Bank. In the Netherlands it considers to set up such a bank; the WALK21 website might also be an option, e.g. for opening up the rich database of WALK21 conference contributions and international key figures.
- The State of the Art of walking and walkability policy making is conditioned by the Pedestrian Quality Needs project. Policy making front-runners are amongst others larger cities like London, Vienna and Copenhagen, but also Amsterdam and Utrecht. These cities carry out basic measuring programs, explorative research, and deliver good practise examples. National governments are beginning to support these front-running initiatives.
- In the Netherlands some active municipalities (Utrecht, Amsterdam, Eindhoven, Rotterdam and The Hague) actively promote walking. Induced by crowdedness of the streets impairing key city functions and environmental issues, these municipalities are currently implementing strategies. Particularly in city centres walking is a priority. Support has increased substantially.
- Measuring Walking is taking form. If walking is not counted, it does not count. There is increasing interest, attitudes towards walking ameliorated and there are new methods and technologies for measuring walking. A Measuring Walking Standard has been developed (www.measuring-walking.org). The standard must be diffused more. Already first cities/countries are collecting data based on the Standard.

- Apart from basic measuring (mobility, presence, incidents, health impacts and financial benefits), the workshop participants identified a number of new topics for measuring walking:
 - Social and cultural dimensions of walking
 - Equity, not as a solution but as a precondition
 - Happiness, the joy of walking (smiles in the street) as status quo and as argument for improving walkability
 - New problems are overcrowding and gentrification, as negative impact from mass effects.
 - Academic research on walking and walkability seems to focus on the effectiveness of interventions, street mobility, social impacts, epidemiological research (falls are an increasing problem), and pedestrian behaviour and what lies behind.
 - Universities are seldom able to carry out unfunded research. Walking and walkability research proved to be very difficult to get funded. One way to do it is sneak it in under larger projects. This is successfully done in Manchester.
 - The workshop participants to elaborate four project ideas: 1) Sidewalks and Public Transport, 2) Measuring Walking in Dutch cities, 3) Walkability Index and Awards, and 4) Walking and Society research.
 - A follow-up meeting to this first Make Walking Attractive Workshop will be organised. University College of London (UCL) offered to host the meeting at UCL Transport section September 2018.

Context and Goal

Like the world, our field and work is constantly changing. Therefore, it is important to keep up-to-date and have exchanges with fellow experts in settings that allow for in-depth discussions.

In the past this could be done within the frame of the COST 358 Pedestrians' Quality Needs and OECD/ITF Pedestrian Safety, Urban Space and Health projects, and of course it is done within the WALK21 conference series. The next WALK21 conference is in Calgary (October 2017), which likely not all can attend, unfortunately. Furthermore, time at conferences is always short, so that an in-depth exchange on specific topics is usually not possible. That's why we are taking the initiative for a get-together in an informal workshop that could be called: 'Make Walking Attractive'. The idea is two-fold:

1. the workshop shall provide a format for an in-depth discussion of pertinent issues
2. second, it as a platform to develop new perspectives on potential research projects on a European or even global level – similar to the ones described above.

The workshop includes long-time experts as well as those who are younger and newer in the field. We consider the exchange among experts with different backgrounds, experiences and

from different generations as likely the most fruitful approach to build on the state-of-the-art. The idea is to start with a small group because it is logistically easier and then reach out to other people if the interest is there.

The Program

1. Welcome, introduction and round of introduction
2. Current settings and preconditions for policy making – the Policy Pillars concept
3. Consultancy agent's practise
4. State of art of strategic policy development
5. Local Authorities practise
6. Measuring Walking and research
7. University practises, research and education
8. Perspectives for new research projects
9. Future workshops?
10. Closing and conclusions.

Welcome, introduction and round of introduction

As host of the high level workshop, director Peter van der Knaap of SWOV Institute for Road Safety Research welcomed the workshop participants. He told the audience that, at the start of his directorship of the institute, he was surprised to see that so little research attention was devoted to pedestrians and cyclist, whilst these groups together make up for more than half of the traffic casualties, particularly if falls are included. He stated that this changed over the last couple of years. Cyclists' safety is currently a priority in the SWOV research program; since Rob Methorst took a position at SWOV work on pedestrian safety started to get form. Ageing of the population makes this even more relevant. Peter van der Knaap concluded that it is good to see that there is an international group of experts dealing with the challenging issues on the workshop's agenda.

As not all participants knew each other, a round of introduction was held. All participants are professionals who are actively involved in research or policy development regarding walkability and sojourning in public space

2. Current settings and preconditions for policy making - the Policy Pillars concept

Rob Methorst

This session is introduced by Rob Methorst. PowerPoint slides are printed below.

Context

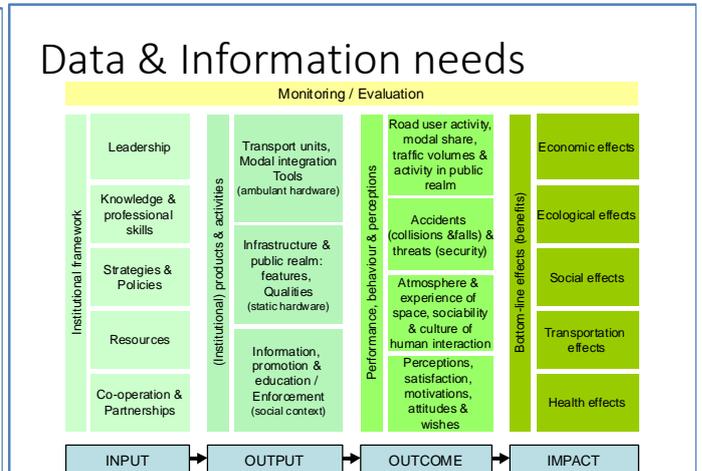
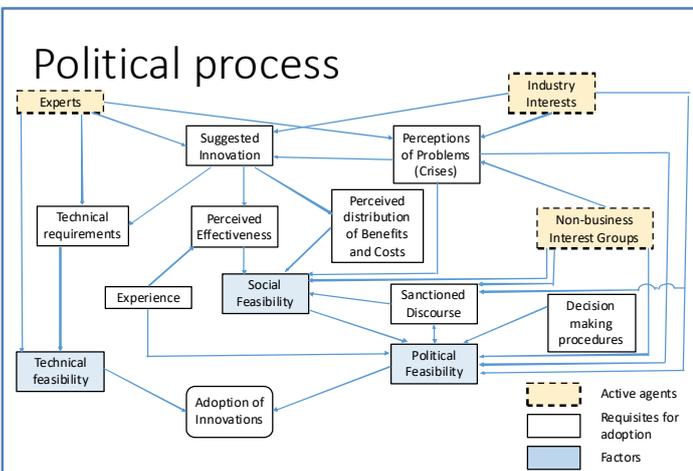
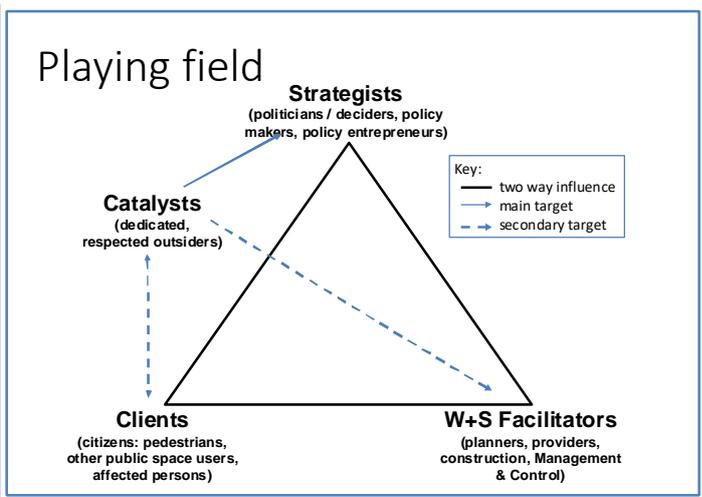
- Most (academic) research incl. COST 358 Pedestrians' Quality Needs: content oriented
- However:
 - problem and effective measures (content) are more or less known. Not much is being done (institutional processes) ...
- **Bax:**
 - Academics focussed on: truth, causes, detail, validity, peer review
 - Policymaker focussed on: power, remedies, speed, feasibility, public support
- **Key to change: mobilisation of institutional framework**

Content re. walking and pedestrians

- **System status quo (availability, quantities, qualities)**
 - Pedestrian population features – Origins-destinations (Land use)/foot-network/pedestrian facilities - Transport connectivity - Norms/rules/values - Information & communication
- **System outcome**
 - **Mobility**
 - Mode – Sub-Mode – Sojourning - Wandering
 - **Accessibility**
 - Universal rights of people with disabilities
 - **Safety**
 - Traffic crashes - Falls
 - **Perception / Satisfaction**
 - Needs & wishes; satisfaction & dissatisfaction.
- **Impacts**
 - Economy, Ecology, Social conditions (incl. social justice), Mobility, Health

How the system is organised

- **Policy environment**
 - Relevant environmental aspects: international preconditions, physical conditions, transportation conditions, social and cultural conditions, economic conditions, technological conditions, political conditions
- **Playing field**
 - See sheet 6
- **Winsemius' Policy Lifecycle → how does it progress?**
 - Stages: Discovery – Political phase – Implementation – Management & Control
- **Critical factors in the policy life cycle**
 - Awareness – Commitment – Competence – Performance
- **Feitelson & Salomon – Adaptation of innovations**
 - See sheet 7
- **Sauter & Tight - Pillars Institutional Framework**
 - See sheet 8



Leadership

- **Role & function:**
 - Setting goals = **choices** = giving direction
 - Putting policy process in motion = **make improvements happen**
- **Key characteristics:**
 - Propensity
 - Power
 - Persistence
- **Leadership is based on awareness and commitment**
(= emotional load) and felt responsibility and accountability
- **Most needed in early and late stages of policy process**
- **Control and success depends on maturity of W+S culture**
- **Status Quo:**
 - centre of gravity is on local level; no clear leadership in the domain.

Knowledge & Professional Skills

- **Role and function:**
 - Position, advance and interpin discussions, implementation and monitoring
- **Key characteristics:**
 - Personal attribute, scarce and takes years to build
 - Needed throughout the policy process
- **Preconditions for effective measures:**
 - Adequate knowledge on how system works and can be improved
 - Adequately educated, trained and skilled staff
 - Inviting, mature policy culture promoting State of the Art
- **Status quo:**
 - Use of sources depend on time available and level of knowledge and prof. Skills; knowledge is limited
 - Experts are mostly self-educated; overview is not a strong point
 - Knowledge mostly limited to traditional definitions of mobility and safety
 - Distribution of knowledge: low level at law enforcement; highest levels at front end municipalities, NGO's, CROW, KC Sports, ministry of Health, Welfare & Sports

Policies & Strategies

- **Role and function:**
 - 'manual' and reference for policy implementation
- **Key characteristics**
 - Relate to policy culture and maturity
 - Streamlines policy process (cascade of actions; Fundamentals cannot be solved on operational level; need to be solved 'upstream')
 - Great variety in policies and strategies
- **Preconditions**
 - Justified
 - SMART formulation
 - Coherent and consistent
 - Embedded in legal framework and organisational structures
 - Flexible enough to enable coping with unexpected developments and policy consequences
- **Status Quo:**
 - Distribution of policy activities: front-end municipalities most active; systems approach not yet feasible; in designing cities the pedestrian never was out of the picture.

Resources

- **Role and function:**
 - Help provide building blocks for the creation of opportunities
- **Key characteristics:**
 - 3 kinds: hardware, software, orgware
 - Need depends on characteristics of strategy
- **Preconditions:**
 - Forceful preconditions can be shaped on national level
 - Availability of resources within umbrella projects
- **Status Quo:**
 - Difficult to identify how much budget and other resources are spent; this weakens argument for action
 - Money does not seem to be the main issue; Knowledge & Prof. skills and staff more important
 - Input of manpower: front-end municipalities ~0.5 fte; dedicated NGO's 1.5 – 5 fte

Co-operation & Partnerships

- **Role and function:**
 - Combining individual spans of control and competences
- **Key characteristics:**
 - One or more shared reasons
 - Policy actors do not have full control over the matter
 - Policy actors expect to achieve aims at tolerable effort
- **Preconditions:**
 - Trust, confidence, senior management support, ability to meet expectations, clear goals, partner compatibility and conflict management
- **Status Quo:**
 - Inter-agent co-operation and partners not feasible because of little working time available
 - Some alliances between NGO's, knowledge institutes and consultants

Institutional improvement potentials

- **Fact finding**
 - International developments
 - Status Quo, developments and impacts
 - Evaluation of policy activities
- **Communication**
 - Communication
 - Participation
 - Events
- **Competence building**
 - References function
 - Learning opportunities
 - Information exchange
 - Guidance on solving problems
 - Personnel management
- **Operational organisation**
 - Legislation and regulation
 - Reinforcement of legislation and regulation
 - Long-term plans
 - Mid-term plans
 - Operational plans and implementation
 - Management, maintenance and surveillance.
- **Direction and allotment**
 - Vision
 - Visibility, position and priority of W+S domain
 - Playing field management
 - Distribution of resources
 - Co-operation and partnerships

Discussion and Synthesis

- Theory helpful?
- What are the (major) institutional shortcomings? What evidence is there?
- What needs to be improved most urgently? Why?
- What remedies can you suggest?

The **discussion** started with the actual role of policy makers as agents of change or as budget managers. Their main concern seemed to be budget allocation, with the main question being “who gets the money”. The question then becomes a power struggle for all who need resources to deliver their legal obligations. The power struggle may become harsher in times of continence, and at the present, there are examples where local governments are facing serious budget cuts - in the UK local governments have lost 1/3 of their budget but maintain all their legal obligations.

Moreover, there are policies and politics. Politics are considered to be concerned with power and with keeping their power, being very sensitive to election cycles. Their vision focuses in the short term and therefore politics are less willing to put money in something whose results they may not see and may not be or recognized for.

And, as we have realized, walking related policies may only bear results in the medium or long term. Desired behaviour change is not immediate.

Also, at the institutional level, change is quite rare. Looking at the local government level, institutions are designed to manage, not to change and only individuals with a vision could make the difference.

In fact, change generally comes from the outside, does not often come from within institutions, as the institutional role is management and control.

Change comes mainly from catalysts, from someone’s vision. The question then is clarifying who these catalysts could be, and how to provide them with evidence for the investment in walking.

But evidence seems hard to get. Evidence of behaviour change, as the number of people shifting from car to walking is hardly found. For the policy makers this makes a difference. Political advisors may but the case for investment in walking in the agenda, but then data is needed to support it.

Data is needed to put facts on the table, to help in clarifying where and how investments should be made, namely in the provision and improvement of the pedestrian environment. For example, the allocation of public space for the use of all transport modes and users is usually overlooked in urban planning only because nobody measures it.

Data that could inform policy makers is not collected. Then again, data costs money. We may fall into a cycle: if there is no money to invest it is hard to get data and if there is no data it is hard to provide evidence to support investment.

Furthermore, data needs a story behind it. Data on itself does not show the underlying issues to be addressed by policy makers. As an example we have the case of pedestrian fatalities – data has always been collected but the pedestrian safety issue remained overlooked for a long time.

In order to put walking in the agenda, to obtain investment for walking, we need a better story.

There are currently some good backup stories that relate to walking – we have the public space story, we have the health benefits story and we have the sustainable development goals. The latter seem to be a big shift in the local gov. agenda.

All in all, public policies can be designed but cities are mainly built by the private sector. Which takes us to the starting point – what can be the role of national and local policy? How can we bring walkability into policy and regulations? At which level – national strategies? Urban planning regulations? Master plans?

3. Consultancy agent's practice

Annemieke Molster,
Tim Pharoah,
Ineke Spapé

In this session Annemieke Molster, Tim Pharoah, Ineke Spapé and Jim Walker presented their experiences and insights, focussed on local level practises.

Annemieke Molster

Annemieke brought us a round of current projects in The Netherlands, focusing on local practice: The Nijmegen healthy air initiative; the the redesigning of Groningen downtown, Kronenburg busstation in Arnhem and Street Art Coehoorn, also in Arnhem.

These projects share the same common goal – improving the pedestrian environment – either by providing more public space (infrastructure) or by improving the experience of walking.

They also share the same challenge, in terms of estimating the impact of the measures. “How are the designs going to affect the pedestrian” or “what figures can I expect of the benefits of this project” are questions posed by local authorities interested in investing in the promotion of walking.

The answer is not easy. Most projects are implemented without a proper evaluation of the before and after conditions. Usually there is no follow up, being difficult to realize if the project/initiative worked and what kind of benefits it brought.

Even at the planning stage it is difficult to provide everything for everybody. In Groningen some design solutions were tested with people with mobility impairments: blind people wanted tactile paving and height difference whilst other mobility impaired and wheelchair users didn't want any height difference in the paving.

Nijmegen healthy air
Reducing short trips, promoting modal shift

- ⦿ what kind of measures
- ⦿ impact
- ⦿ side effects
- ⦿ effort
- ⦿ financing



public spaces for seniors



signage for pedestrians



walking schoolbus

Nijmegen healthy air
Reducing short trips, promoting modal shift



'Living Streets'



improving door-to-door experience



improving P+R locations



guiding people to free parking spaces

Nijmegen healthy air

measures	EC reduction	other effects	effort	funding	stakeholders
walking to school	1,9 – 6,9	health, awareness, education, safety	easy and cheap	+	schools, ..
walking seniors	?	health, self-sufficient	started	+/-	social development, ..
door-to-door	?	public transport	started	+	transport companies, ..
signage	?	retail, tourism	easy and cheap	+/-	tourism organizations, ..
P+R	0,11	public transport	depends on current state	++	transport companies, ..
easy parking	4,8	retail, parking management	easy but expensive	++	parking management, ...
living streets	?	awareness, social cohesion	self organizing with some help	+/-	neighborhood directors, ..

Re-designing Groningen downtown



Re-designing Groningen downtown



Re-designing Groningen downtown



Re-designing bus stop and surroundings



Streetart Coehoorn





Exploring accessibility of pedestrian routes

- ⦿ how to assess the accessibility of pedestrian routes
- ⦿ which items are important
- ⦿ how to fill in the checklist
- ⦿ how to make a usable dataset

Exploring accessibility of pedestrian routes

Categorie	Onderdeel	Subonderdeel	Omschrijving mogelijke waarden	Bron	Locatie
Looproute- Suggestie gebuikmaken van ASVV 2012 ontregt. Bevolkingsgebied van 400m					
		Langste segment looproute	Numeriek	rvt	
		Looproute binnen bewoonde omgeving	3/N	rvt	
		Minimale bodelhoogte (doorkloofhoogte)	Numeriek	rvt	
		Aanwezigheid obstakels	3/N	rvt	
		Type obstakels	Broom/ruisblaar/behouding reclame objecten/rijdrijke objecten/ opvoertuigen		
		Aanwezigheid trottoir	3/N		
		Minimale breedte	Numeriek	Publicatie 251 Handboek nabijplaatsen	2.5.1
		Minimale parkeerwaaiering	Numeriek	Publicatie 251 Handboek nabijplaatsen	2.5.1
		Hoogtevrees	Graden	Publicatie 251 Handboek nabijplaatsen	2.5.2
		Percentage afval	Graden	ASVV	
		Verharings staat en vlak	3/N	ASVV	
		Soort verharding	Gras/ Tegels/ Beton/Winkses/ Grind/Zand	Publicatie 251 Handboek nabijplaatsen	2.4
		Maximale diepte mofgaten	Numeriek	ASVV	
		Aanwezigheid tragevreden	3/N		
		Gedroes treden	3/N	Publicatie 177	
		Hoogte optrede < 150mm	3/N (of numerieke waarden)	Publicatie 177	
		Diepte aartrede > 300mm	3/N (of numerieke waarden)	Publicatie 177	
		Breedte trap > 2000mm	3/N (of numerieke waarden)	Publicatie 177	
		hantel treden	Numeriek	Publicatie 177	
		28 hoogte > 1000 mm halsborden (aanzicht)	3/N	Publicatie 177	



Exploring accessibility of pedestrian route

Checklist -> Important questions

1. Are there any destinations at walking distance?
2. Can I pass by?
3. Can I surpass differences in height?
4. Can I find my way?
5. Can I cross the street?
6. Is there any danger of slipping or tripping?
7. Is there any danger of collision?
8. Can I rest during the walk?
9. Can I use a restroom?
10. Are the surroundings pleasant?
11. Does maintenance obstruct the use of the route?

Level D - C

Level A+

Annemieke also shared her thoughts on two useful tools/applications she is working on: a route planner for people with disabilities and the “walkonomics” tool for the estimation of costs and benefits of the investment in walking.

Again, baseline data on the pedestrian environment and infrastructure is often missing in current practice, making it difficult to develop tools addressing pedestrian accessibility of people with mobility impairments.

Even in terms of identifying the potential benefits of walking there seems to be a lack of evidence that is easy to get, to understand and to communicate. Not that there are no resources available, but just the opposite – there are

many resources and information available just not aggregated in a simple way. Data on the potential benefits of walking is dispersed.

Finally she presented a book in preparation – Walk! – Pedestrians make the city – aimed to inspire policy makers and designers, half text – half pictures, with arguments and examples of before and after examples of pedestrian environment improvement projects: to be published Spring 2018.

Walkonomics

costs and benefits of investments in walking

- ③ overview of knowledge and knowledge gaps
- ③ which benefits are most interesting?
- ③ what kind of tool is needed?

- ▶ prioritizing filling the gaps
- ▶ how to fill in these gaps -> who can fill in these gaps
- ▶ making a tool/tools

- ▶ starting a dataset with examples and before and after data




Walkonomics: which benefits?

- ③ happiness – livability
- ③ equality – social inclusion
- ③ health
- ③ real estate values
- ③ use of space
- ③ environment – air quality
- ③ use of public transport
- ③ traffic safety



- ③ saving car costs
- ③ saving infrastructural costs
- ③ time savings...?



Walkonomics: which kind of projects?

- ③ intensifying density
- ③ more diversity in functions
- ③ improving public transport



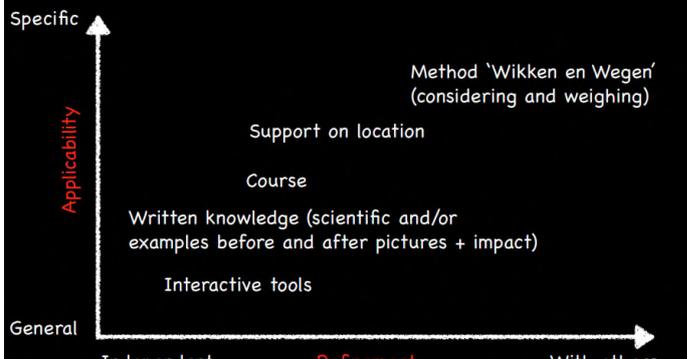
- ③ adding pedestrian routes
- ③ making routes faster
- ③ making routes more accessible
- ③ making routes safer
- ③ making routes more comfortable
- ③ making routes more attractive



- ③ soft measures -> promoting walking



Walkonomics: what kind of tool?



Method 'Wikken en Wegen'
(considering and weighing)

Support on location

Course

Written knowledge (scientific and/or
examples before and after pictures + impact)

Interactive tools

Walkonomics: hurdles

- ③ time (and funding) to find 'all' research
- ③ applicability of foreign research
- ③ biggest gaps:
 - ▶ how many people walk how much more due to the intervention?
 - ▶ measuring livability and other 'soft' benefits
 - ▶ expressing 'soft' benefits in euros



Tim Pharoah

Tim’s presentation addressed the link between walking and public transportation. Trips made on public transportation are usually complemented with walking trips, that is to say, people get to public transportation by walking.

When looking at the goal of increasing walking modal share one should bear in mind that in cities most short trips are already walked, the problem being getting more people walking door to door.

Now, persuading people to change their mobility habits to walk door to door has proven to be extremely difficult. Tim proposed to address this challenge not looking at the promotion of walking per se but by complementing it with the promotion of public transportation. This way, we would be looking at transferring people from car to public transportation which in practice results in transferring people from car to walking.

We all agree:
More walking is good



“Two legs good, four wheels bad”
(with apologies to George Orwell)

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But where will increased walking come from?

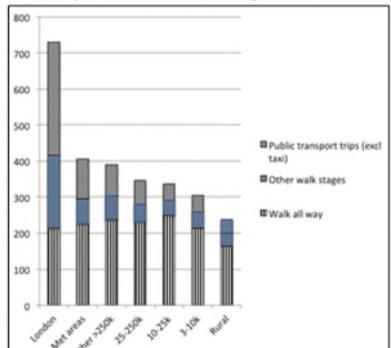
- In cities, most short trips (<1.6km) already walked
- Difficult to persuade longer walks (>1.6 km)

UK in the last 20 years:	
Number of trips (all modes)	down by 15%
Number of walk trips	down by 30%
Distance travelled	Down by 5%

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Bus and walk - the perfect partnership?

The bus (tram) offers an answer:
More bus trips = more walk stages to and from stops

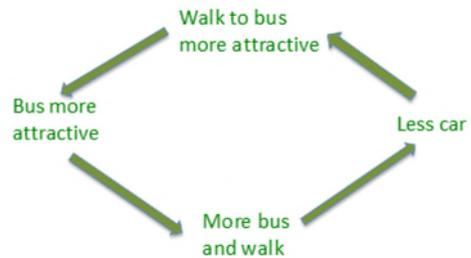


NTS (GB) 2007-2009 special tabulations

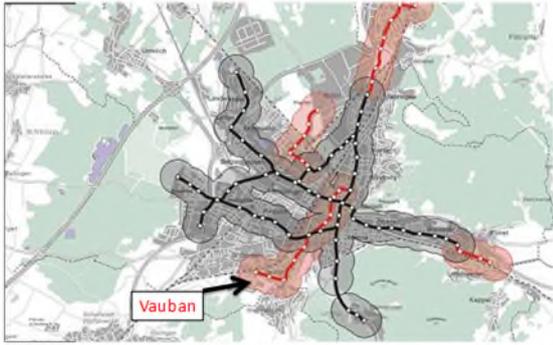
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Coordinated action needed

- Planners (land use)
- Engineers and street designers
- Public transport providers



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Freiburg – TOD urban extensions, 2000s

- Key issues:
- The stops (quality, services, information)
 - The walking routes to and from



The Bridge development, Dartford.
Fastrack busway



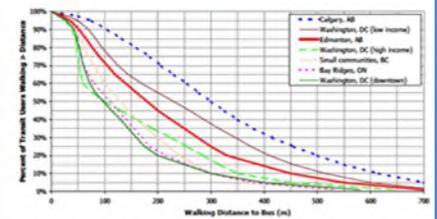


What should the walking catchment be for bus stops?

Custom and practice says 400 metres (¼ mile US) or 5 min

But:

- Research is thin, and based on bus users



- For our purpose, bus users are not interesting – they already choose this mode
- We need to know what walking distance/quality would persuade car users to switch to bus

Many factors come into play, for example

- Implications for stop spacing / cost of bus provision
- Age and ability, encumbered or not (children, shopping etc.)
- Availability of alternatives (income/cars etc.)
- Terrain, not just metres
- Perceived quality, safety of route
- Frequency and speed of service (people walk further for better)
- Actual distance, not air-line distances
- Opportunity for multi-purpose walk

livingtransport.com

NPPF 2012

“core planning principle”- planning should:

“Actively manage patterns of growth to make the **fullest possible** use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.” (my emphasis)

We cannot do that without TOD

To achieve this, a coordinated action is needed. By providing better public transport and by providing better walking conditions to access the transport system a virtuous circle could be achieved: walking to the bus becomes more attractive -> more people using PT -> improved quality bus service -> more people walking-> walking to the bus becomes more attractive.

However, in reality, the circle seems to be going in the opposite direction. This may be due to the current dim coordination between pedestrian planning and transportation planning.

Even in state-of-the-art transport oriented developments, such as Freiburg (Germany), planners rely on distance buffers to transit stops. These are calculated by circular buffers with a standard radius of 400 to 500 meters. Looking at the diagrams, planners are happy to see the development area covered by the buffers, without much planning effort put in what goes inside those buffers.

In order to achieve a better coordination between public transportation and walking, more planning and design effort should be put on the actual coverage of the buffer in terms of pedestrian network (the spider legs) and on the quality of those “spider legs”.

In simple terms, pedestrian accessibility and attractiveness to public transport should be capital in planning, in order to achieve the necessary integration of the transport system with the urban environment (e.g. bus stops connected with street life, even as places/destinations).

Albeit transit-oriented-development is a well spread concept, good examples of its realization seem tough to find. One example from the UK was presented, showing a recent development where bus stops were located at a convenient distance of 300m around schools and facilities. In the plan, the transport coverage seemed very satisfactory but in practice the footpaths leading to the stations are empty – people do not walk there, rather they drive and park close to the station. This is a case where the plan conception was not realized the right way by the private developers.

Finally, Tim highlighted that the standard distance used for pedestrian accessibility measures – the 400 to 500m radius – requires further attention. More research is needed to realize the actual distance people are willing to walk to the bus as well as to understand the impact of service provision and perceived quality of the transport system on their walking behavior.

Ineke Spapé

Ineke started by sharing with us her aspiration in being the first professor of walking in NHTV University, where much attention is already given to specific walking related education.

Walking planning for NL:
what's in NHTV's back**pack**?



'Ingredients'
It's a long walk to....

- **See** walking as a serious way of moving, living, staying and NOT ONLY as way of transport
- **Join** forces towards pedestrian-integrated planning
- **Collect** more knowledge about walking and have it executed by planners
- **Spread** knowledge & benefits of walking: walkonomics, spendings etc
- **Use** walking as 'active modes' in our cities
- **Accept** fact that pedestrian planning is an accepted AND integrated part of urban & mobility planning and that urban mobility needs local framework (hierarchy)
- **Start** with students as future professionals
→ 'between the ears'

Ingredient 1: PUBLICATION as base

Lopen loont:
de voetganger in beleid, ontwerp en beheer



CROW 'Lopen Loont'

- NL: no policy framework: no national, provincial, regional policy on walking
- First Manual for pedestrian planning in NL
- NHTV main author
- Base for planners: transport, green, tourism, aging, sports, economics... → broad expert group: PR
- Benefits of walking for planners
→ first steps in pedestrian planning!!

€ 69,00
excl. 6% btw

Ingredient 2: PLANNING HIERARCHY

Cascade planning: all levels

- Pedestrian planning is not (only) micro-level planning
 - Hierarchy of roads: 'Duurzaam Veilig', 30 zoning, networks
 - Upscaling planning
- Pedestrian needs differ from cyclist's needs
- Pedestrian planning is more than transport planning
- Pedestrians earn their own place (do not organize a battle on sidewalks between cyclists and pedestrians)



Ingredient 3: PARTNERS

Co-operation is crucial

- More partnering to combine forces
- More mixed knowledge to convince politicians and 'educate' professionals
- Walkonomics, arguments, rankings might help
- Partners are crucial
- 28.9: @ NHTV: after 1. conference walking in NL now 1. partner meeting



From Ineke's point of view this is a critical question, being essential to establish a planning hierarchy. And a good example to learn from could be the Dutch cycling planning framework.

Ingredient 4: PECUNIA

Money, money, money

- Hard to organize budget for pedestrian planning, no budgets for research, only on low-scale projects (junctions...)
- Crucial to co-operate and join forces in NL
- Now no budgets, only at local community level
- Let's learn from cycling developments



Ingredient 5: PEOPLE AND PLACES

Connecting urban and mobility planning!

- More pedestrians is not a goal
- Better cities
- Use the rankings: interesting for politicians
- Integrating urban and mobility planning is necessary
- Redesigning our streets, public spaces and places, reclaiming space:
 - Amsterdam (4X...)
 - Eindhoven (3X...)
 - Study Milieudefensie



Ingredient 6: PRACTICE WHAT YOU PREACH: NHTV campus 2019: research: 4 scenario's → making SPACE (not parking places) specially for pedestrians



NHTV research: campus modal splits (current and preferred)

Wensbeeld modal split medewerkers (%)

Scenario's	ParkNorm Huidge situatie, nu/situatie	ParkSlim Minder meer	VIPP fors minder, anders
Lopen	5	6	6
Fietsen	35	41	45
OV	14	15	16
Auto	46	38	33

Wensbeeld modal split studenten (%)

Scenario's	ParkNorm Huidge situatie, nu/situatie	ParkSlim Minder meer	VIPP fors minder, anders
Lopen	5	6	7
Fietsen	40	43	52
OV	48	48	51
Auto	7	2	0

Huidge parkeeraanbod per medewerker of student, op de N-, G-locatie nu en de toekomstige campuslocatie

	N-locatie Medewerks (huidge situatie)	N-locatie Studenten (huidge situatie)	G-locatie Medewerks (huidge situatie)	G-locatie Studenten (huidge situatie)	Campus Medewerks (toekomst)	Campus Studenten (toekomst)
Fietsparkeerplaatsen	0,24	0,2	1 (meer dan nodig, medegebruik)	0,14	0,4	0,8
A topparkeerplaatsen (alleen toegedeeld naar medewerkers)	0,61 (330 pp)	?	0,55 (42 pp)	0	0,33 (225 pp)	0

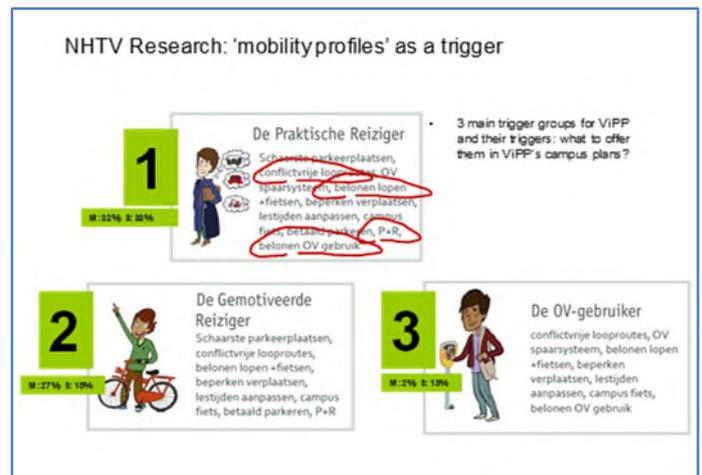
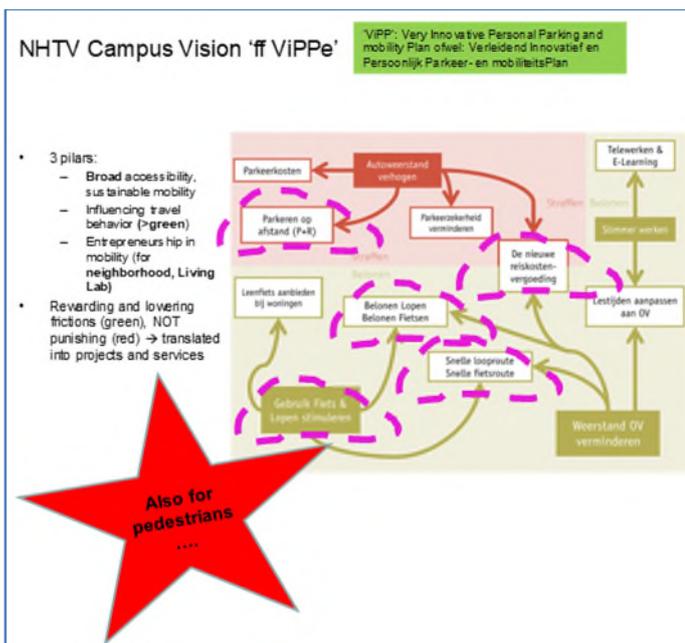
But then again, walking is much more than a mean of transportation. There should be more effort put in helping policy makers and politicians to realize it. A way of achieving it is gathering and using data from other countries.

In this sense, establishing rankings (e.g. best pedestrian zones) could also be a good idea to put facts on the table and to inform policy. The argument could then shift from "money money money" to where to allocate it.

And what should the goal be? Ineke made a bold statement on it: More pedestrians is not a goal, a better city should be the goal. A better city can then attract people.

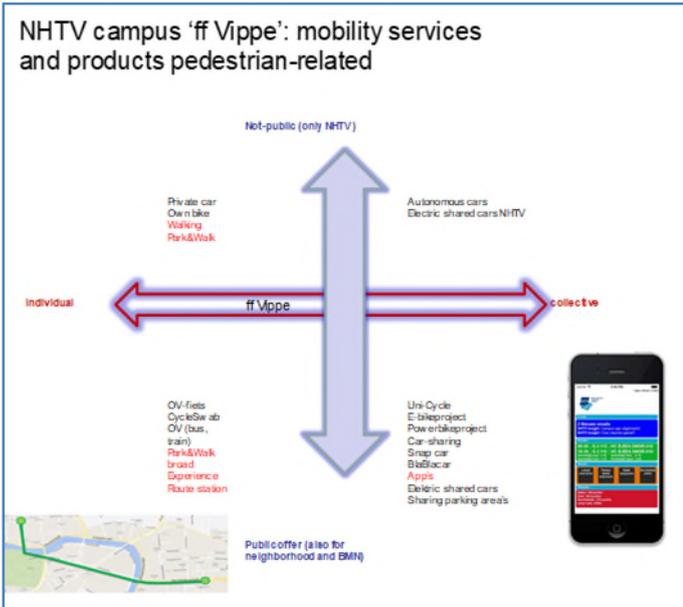
The focus should then be on how to redesign the urban space, on placemaking, on accomplishing good quality public space, on achieving happy streets.

A practical example comes from the NHTV University itself (“Practice what you preach”): the campus expansion plan was made in connection to a pedestrian strategy, resulting in people agreeing in shifting from cars. Also, students are involved in a hands-on approach, participating in urban guerilla actions since they enroll.



This is a promising contribution to educating pedestrian oriented professionals, as currently there is a lack of knowledge and of experts on the subject.

Regarding the accreditation of experts on this field, a very interesting comparison was made to the airline pilots who need 10.000 hours of flying to qualify as commercial pilots.



Ingredient 7: start with educating YOUNG PROFESSIONALS

Passion.....



- Example Urban Guerilla Breda: parking place with truck as (elevated) parklet

Start with students: pedestrians in Urban Guerilla's

- Minor in student program
- Integration urban and mobility planning: rethinking streets, public spaces and places
- Research in Rotterdam Happy Streets
- Executing Urban Guerilla's in Breda
- → Toolbox (publication Urban Guerilla Toolbox for Breda and Province Noord-Brabant, October 2017)

Ingredient 8: PROFESSIONALS → 3 PROPOSALS from NHTV



Professionals: hardly any knowledge / policy

- Knowledge lacks
- Practice lacks
- Professional education lacks
- Advocacy just starting (again)
- Plans are lacking: only few local pedestrian policy plans (last 5 years)

→ NHTV: 3 initiatives/proposals

1. 'Voetangersberaad'
2. Professorship in Walking
3. and....

Any ideas to help us? Want to join us?

Proposal 3: 'WALKING FRESH BRAINS'



NHTV's FreshBrains

- Concept: mixed group of students, 1 week on the spot with supervision, mixed program
- Experiences:
 - FreshBrains Germany (on cycling)
 - FreshBrains Calgary (on reducing car-dominancy)
 - ECOMM, Maastricht, Belgium...
- **Wanted: partners for 'Walking FreshBrains'**

→ Mail me: spape.c@nhtv.nl

Any cases with you?

Jim Walker

Jim brought us an overview of the global insights and new demands that may or should guide the group work at the short term (next 3 years).

The Walk21 association has been overwhelmed by the demand for content. In fact, walking seems to be recognized as a priority in many and very different locations around the globe, such as Colombia, Paris, Seoul or Oslo.

The priorities are maintaining walking and achieving a shift to walking. As Jim stated, the goal should be "not just the right to walk but the right to enjoy that walk". This statement brings together the key factors of the accomplished pedestrian friendly environment – accessible, safe and attractive for all.

Albeit recognized as a source of benefits and considered a priority in many cities, walking on its own is not currently a buzz concept. Other competitive concepts such as smart cities, livable cities, or future cities are gaining more

headlights. Walking should be participating more actively in these concepts. Walking needs to be part of the mix to get more recognition and funding opportunities.

Funding opportunities for walking were again discussed, and again there was the issue of finding a better story, of having a better argument: “They would give us money if we could get our story better structured”.

Jim pointed 5 main opportunities for short term developments:

1. Structure

Improving the structure of the Walk21 and associated work groups, in order to clarify its identity, mission and mandate to the global funding institutions: “Who are you, how organized are you, where is your map of supporters”.

A “walkable city network” should be set up, and a walking city index/ranking could be published annually. These initiatives would contribute for the global recognition/ acknowledgment of Walk21.

2. Knowledge banks

There has been an increased demand for the development of a walking knowledge bank.

Such knowledge bank should provide quick access to the facts. There are similar resources available and attention should be made not to do the same thing and at the same time as other people.

One idea was to gather the vast resources of the Walk21 conferences – 17 years of presentations – and publish the best works for the Walk 21 21st birthday.

3. Accreditation body

The accreditation body would provide institutions a way to make their investment in walking visible. There is currently a lack of the visibility and return on the investments made.

One example on this field is the “State of Place” platform which provides an estimate of the pedestrian environment intervention ROI (Return on Investment). This platform has been gaining attention of start-up investors and is becoming popular in the USA.

4. Scaling up

If walking, often regarded as the forgotten transport mode, wants to sit at the same table with the rail and the airports it must also have an infrastructure backbone. And arguments should be on equity, global and measurable walking infrastructure.

In this regard a proposal should be prepared and be ready by November. The idea is to set Sidewalk Standards and the goal is to model 100.000 km of new sidewalks by 2030. The UITP (International Public Transport Association) has agreed to partner in the areas surrounding transit stations (the standard 500m buffer).

5. The Walk21 Foundation

Finally, a substantial short term development will be changing Walk21 to a foundation. This will change the role of Walk21, enabling it to receive funding from investors and other foundations.

Wrapping it up, a key message was to organize these ideas quickly in order to address:

- The Walkable Index / Rankings: What would it be to make this index, which variables to measure;
- The knowledge bank – Don’t need to own the data resources, providing a good search engine would be a great contribution
- The Walkonomics – How to evolve the Walkonomics platform to provide walking analysis free of charge
- The UITP program on sidewalks – if there is going to be an investment on the 500m area around transport stations how do we evaluate it?

The annual Walk21 International Conference



Highlight and celebrate successful policies and projects

Help steer future investment and create significant legacies

Advance the international agenda for more walkable communities



The International Charter for Walking





Global Imperatives




#GAPPA







MTR Hong Kong and Stockholm

building in: connectivity, permeability, safety



Figure 3: Walkshed Changes Resulting from a Proposed Project at Naylor Road



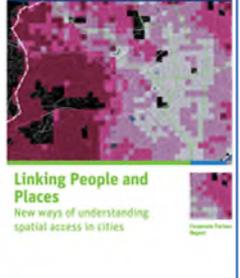
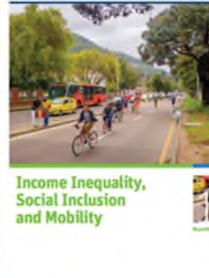
+10 households = +7 trips/week

Metrorail Station Investment Strategy
Washington Metropolitan Area Transit Authority
Office of Planning, August 2016



Professional boundaries and conflicting perceptions

		
Role of walking	Transport and access to other transport modes	Recreational activity
Time and quantity	"Less is more" (time savings)	"The more the better" (exercise)
Measurement	Estimates of trips and time spent walking (travel diary)	Estimate of days where 30-minute threshold exceeded



The walking system for professionals



Understanding walkers



The preconditions for walking in a walkable street*

- Perception of safety and security
- Cleanliness of the streets
- Actual traffic speed
- Number of street lights
- Width of the sidewalks
- Quality of street lights
- Accessibility of sidewalks
- Crossing points
- Respect of speed limits
- Number of seats.



*The Pedestrian Quality Needs project 2010

Understanding priority



15 minute walks

- **Transport hubs** (Railway Stations; Bus Stations; Tram Stops)
- **Education sites:** (Primary Schools; Secondary Schools; Colleges; Universities; Libraries)
- **Health care sites:** (GP Surgeries; Hospitals)
- **Employment / Retail sites:** (Town centres; Shopping parades; Shopping malls; Work Place Zones (over 1,000 employees))
- **Sport / Leisure sites:** (Parks / Green spaces; Leisure / Sports centres)



4. State of art of strategic policy development

Rob Methorst

Rob Methorst introduced the session:

Inventory of exemplary practises:

- By policy actor type e.g.
 - National government
 - NGO's
 - Knowledge institutes
 - Local authorities
 - Consultants
 - Educators of professionals
- SWOTS of these practises regarding State-of-Art
- Dissemination aspects: what are the options?

The discussion regarded the inventory of **exemplary practices**. Nicola opened the debate with the example of Transport for London (TfL) providing a good, exemplary framework that links transport with health (contact: Lucy Saunders). Other example was a London Tube initiative informing users of walking distances to other stations or points of interest. In the UK front end practices most developments are about guidelines. Documents provide orientation and “say nice things”, like in the Healthy Streets program, but in reality things have not changed much. Still, as noted by Daniel, not much is moving but there is progress.

Attracting people to the streets should be paramount. There was the example of the Dwell Time initiative, whose goal was to motivate people to stay longer in the street, which, in turn could result in increased spending in local shops. People in the streets also improve the security perception and this should be a goal on itself. Public spaces could be arranged out of existing parking space. And another goal should be a better understanding of the Happy City. Bring “Happy” to the discussion table.

Daniel introduced another argument to the debate, relating to attracting people - the backfire from walkability improvement. There are cases where the attraction of tourists and visitors lead to **gentrification**. Could the investment in the pedestrian realm make places more desirable and in turn trigger gentrification? Attracting more people to walk has been used as a key to boost the local economy, but at this stage it seems that “investing in downtown is becoming a problem rather than a benefit”. In fact, major investments have been put in central areas neglecting the suburbs. Suburban developments are found to be quite similar across European cities and tend to be large areas where all is very far. All points of interest, all facilities are located outside the suburbs which results in long distances to walk. Moreover, given the (lack of) environmental qualities people that could walk prefer to use their car.

Jenny came back to the pedestrian improvement issue – “The problem with street improvement, happy or health related – is that people with money will move there” (to the improved sites). Tim noted that not all pedestrian improvement projects are successful, giving the example of pedestrianized street centres in the UK that are now reversing their concept. These town centres have experienced a reduction in their foot fall after pedestrianisation and are dying. They want the car back. On this subject, it was pointed out that pedestrian zones won’t work in smaller places – shared space would work better. In smaller places, “you kick out the car, you kick out everything else”.

Rob then called for plans that were moving forward at the national level or at the local level. The examples were about the National Strategy for Norway and the Vienna Mobility Strategy. In Norway there is not a walkability strategy but a smart mobility strategy that embeds walking strategy. In Vienna’s case, their long term vision and strategy has rewarded them with a stable position in the top 5 livable cities in the world. But this has not kept them from wanting to learn more and further improve what they already have. The Active Travel Law for Wales was also mentioned, being currently developed by consultants.

Are European municipalities really concerned about changing? This was the last question on the table, left for reflection: what kind of project would fit this part of the world? For a big project we need a vision. But what vision? A set of factors to achieve walkable destinations? A city ranking assessing a 15 minute walk? Look at scales other than just main cities?

5. State of art of strategic policy development

Alex Tsamakis

Dirk Iede Terpstra

Alex Tsamakis

Alex presented us the case of Utrecht and its program “Utrecht attractive and accessible”. The texts on the PowerPoint slides are not in English; pure-text slides are not presented in this Proceeding.



Waarom Slimme Routes, Slim Regelen, Slim Bestemmen?

- De stad groeit in aantal inwoners, bedrijven en bezoekers.
- Dit gebeurt binnen de bestaande grenzen van de stad.
- Daarmee groeit ook het aantal verplaatsingen naar, van en in de stad.
- Daarom is een nieuwe balans nodig tussen verkeer en schaarse ruimte.
- Dit vraagt om duidelijke keuzes voor mobiliteit en vervoerwijzen.

Doel van het Mobiliteitsplan Utrecht

Het Mobiliteitsplan kiest o.a. voor:

1. Meer verblijfskwaliteit, betere oversteeikbaarheid en betere leefbaarheid.
2. Maatwerkoplossingen: plek in de stad bepaalt de mobiliteitsaanpak.
3. Meer ruimte voor de voetganger en fietser.
4. Goede autobereikbaarheid van bestemmingsverkeer.
5. Efficiënter en schoner goederenvervoer.
6. Verkeersveilige stad, zo veel mogelijk inrichten met een 30 km/u-regime.
7. Nieuwe ruimtelijke ontwikkelingen volgen de capaciteit van de infrastructuur.

Verbinden A-zone met omgeving

1. Uitbreiding voetgangersgebied
2. Oversteek Vonckelaan
3. Route Vaarsche Rijn-binnenstad
4. Verbijfskwaliteit Aarschuing
5. Route Oudeoord-binnenstad
6. Verbijfskwaliteit Westplein-Kanaalstraat
7. Verbijfskwaliteit Voorstraat-Ellstraat
8. Verbijfskwaliteit Reigerstraat-Naamlegaalsstraat
9. Griftocbrug
10. Toegank. Winkel. LRC

Voetvriendelijkheid rondom attractiepunten B- en C-zone

11. Oversteek Kardinaal de Jongving
12. Oversteek Benelustaan / Winkel, Kanalenelend
13. Toegank. Winkel: Overvecht
14. Toegank. Winkel: Vredanweide
15. Toegankelijkheid/aantrekkelijkheid OUV-knopen

Recreatieve relaties / opheffen grote barrières

16. Passage A2 bij Lage Weide
17. Passages NRU (3x)
18. Passage A12 creëren en verbeteren (3x)
19. Passage A27 creëren
20. Passages rondom ARK creëren en verbeteren

The problem has started 10 years ago with the increase of visitors to the city. The City Council set a mobility strategy to be implemented by action plans. The goal of the mobility strategy is to use the available space in Utrecht the best possible way for residents, workers and visitors. In order to achieve this, they have chosen to

- Prioritise cyclists and pedestrians;
- Have cars driving around the city using the ring road as much as possible;
- Improve and stimulate the use of public transport.

The action plans are implemented by the Council's (strong) building department. Streets are being retrofitted to improve pedestrian and bike space.



People seem to favour this change, but opposition still exists. Every street is different and has its own story so people are involved all the time at each project.

There may be more acceptance than opposition to these interventions due to Utrecht being a green party municipality. There is also the support of high educated people who form a considerable part of the population.

Again the gentrification issue following street improvement arises. This population group – white and high educated – seem to be putting pressure in the property prices in central areas. Prices are rising accordingly and the central area is nowadays less mixed.

Utrecht City Council has proven to be capable of developing and implementing a long term mobility strategy (to 2030) that prioritizes pedestrians and cyclists.



Korte Jansstraat/ Dom straat (voor)



Korte Jansstraat/ Dom straat (na)



Zadelstraat (voor)



Mariplaats (voor)



Mariplaats (na)



Dirk Iede Terpstra

Dirk shared the case of Amsterdam and the new pedestrian space improvements.

Amsterdam is a world class destination. The number of tourists has grown 55% since 2009, putting an enormous pressure on the pedestrian space. High streets in the centre have a flow of 15.000 pedestrians /hour up to 20.000 pedestrians/hour in peak periods.

The pedestrian flow can be so intense that a high street had to be momentarily closed to public due to capacity issues.



Space is usually a concern in cities. In order to provide adequate space for transport, the practice is to squeeze all modes in the street space, often at the cost of pedestrian space. In Amsterdam there are cases where the construction of new cycle paths has taken away 20 to 50% of pedestrian space.

This becomes a serious problem – often there is not enough space for the pedestrian. The reasons behind it are related to lack of awareness, lack of knowledge, incipient design guidelines and also the arguing power of other transport modes. For instance, in the Municipality of Amsterdam there is one (1) person working with pedestrians whilst there are 30 to 40 people working with cycling. Also, when mapping the integrated transport network for problems and intervention needs there are 4 networks (bus, rail, car, cycle) but no pedestrian network



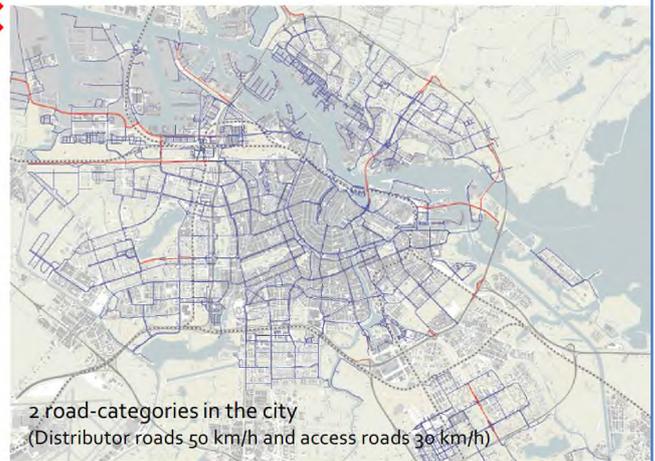
Less space

- Many obstacles (streetclutter)
- Bicycles are parked everywhere
- Separation of modes (for road safety reasons)

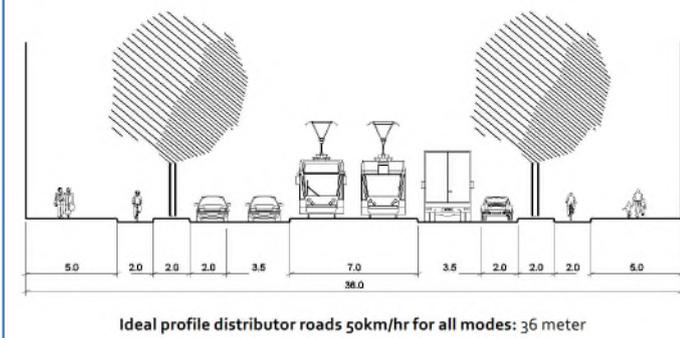
Many obstacles

- | | |
|---|--|
| <ul style="list-style-type: none"> ■ Terraces ■ Exhibitions stores ■ Advertising ■ Kiosks ■ Bicycle parking ■ Traffic signs ■ Mast overhead line (tram) ■ Lighting ■ Trash cans ■ Charging points ■ Building objects (toilet, containers) ■ Small gardens / benches at houses ■ Garbage containers ■ Trees / green ■ Playground equipment ■ Benches, trash can ■ Art ■ Underground Infrastructure (Cabinets) ■ ... | <ul style="list-style-type: none"> ■ Terrassen ■ Uitstallingen winkels ■ Reclame (o.a. mupi's) ■ Staanplaatsen (kiosken, kramen) ■ Fietsparkeren ■ Verkeersborden ■ Masten bovenleiding (tram) ■ Verlichting ■ Prullenbakken ■ Laadpalen ■ Bouwobjecten (wc's, containers) ■ Geveltuinen/ bankjes ■ Huisvuilcontainers ■ Bomen/groen ■ Speeltoestellen ■ Bankjes, prullenbakken ■ Kunst ■ Ondergrondse infra (kasten) ■ ... |
|---|--|

✘ Less space, sustainable safety



✘ Separation of modes



Practice was (is):

- Tried to squeeze everything into street profile
- Often at cost of pedestrian space
- Research 5 mainstreets: Decrease of sidewalk-width with 20-50%, especially by construction of cycle paths





Problem

- Often not enough space for pedestrians

Main reasons:

- Lack of awareness/ attention
- Lack of knowledge. No design guidelines
- Power of the other modes (public transport, bike, car) by:
 - organisation municipality
 - organisation regional transport-authority
 - money
 - interest/lobby groups

Projects:

- New network-policy with pedestrian-network (Beleidskader Verkeersnetten Amsterdam)
- Policy 'Accessible city center' (Nota Bereikbare Binnenstad)
- New guidelines for sidewalk-width (Leidraad Voetgangersruimte)
- Research pedestrian space (Onderzoek voetgangersruimte plusnet)
- Program 'moving city' (Bewegende stad)
- Program 'age friendly city'
- Program 'balance in the city'/'crowded in the city' (Stad in balans/ Drukke in de stad)
- Vision Public Space (Visie Openbare Ruimte)
- Manual Public Space (Handboek openbare ruimte/ Puccinimethode)
- Agenda Highstreets (agenda stadsstraten)
- Streetlabs, focused approach pedestrian space
- Implementation-agenda (uitvoeringsagenda mobiliteit)
- Crowdmanagement-system (pilots and permanent)
- Pedestrian-counting (program 2018)

Starting:

- Bottlenecks-/problem-map (knelpuntenkaart)
- Wayfinding

Awareness/ attention

NRC 01 september 2017

Alderman VVD:

'The car just belongs in a strong city'
The car makes way for cyclists and pedestrians

'De auto hoort er in een sterke stad gewoon bij'

Pieter Litjens

De auto maakt plaats voor de fietser en voetganger. En dat door beleid van een wethouder van de VVD, de autopartij. Maar de grap is: Pieter Litjens is niet tegen de auto. „Bij verkeer en vervoer helpt een partijpolitieke aanpak niet.“

Bas Blokker © 1 september 2017

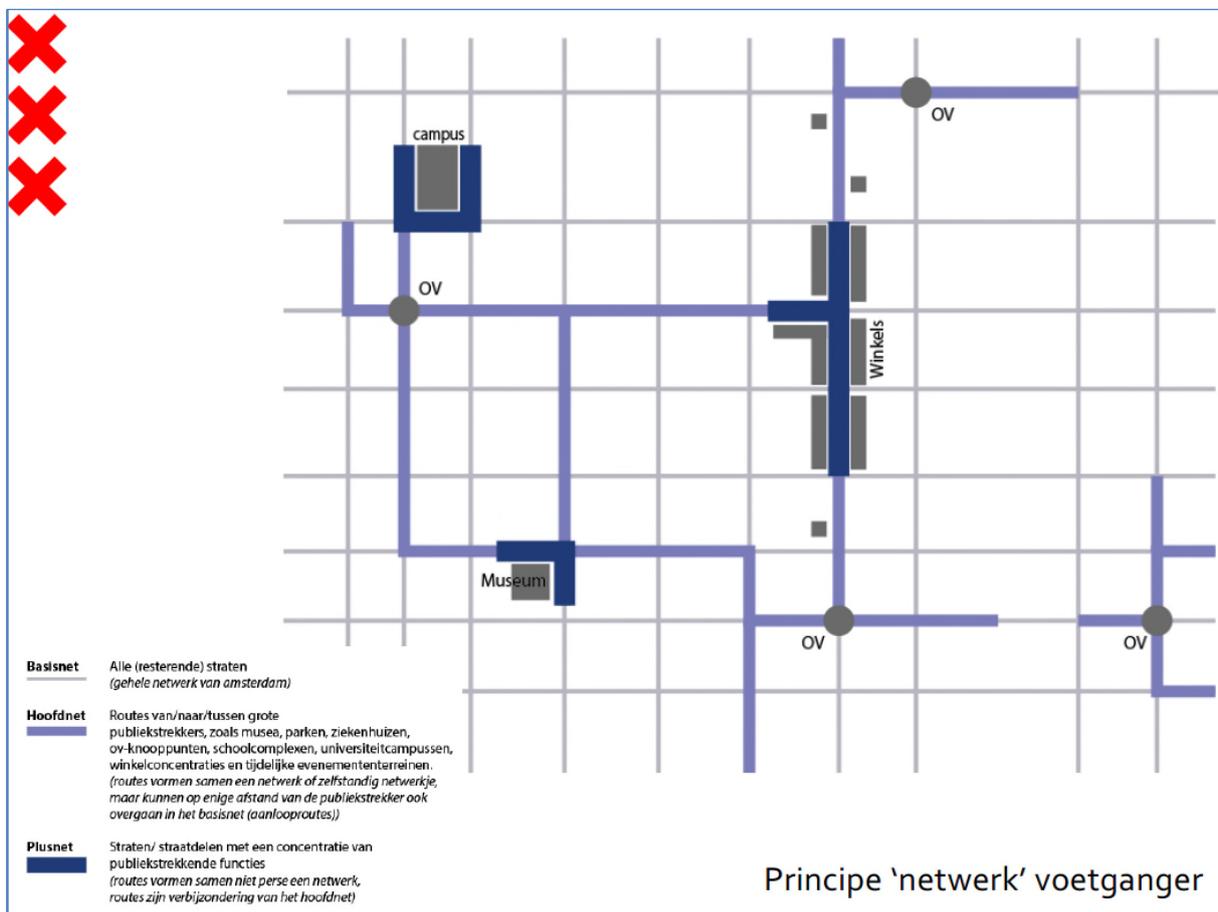
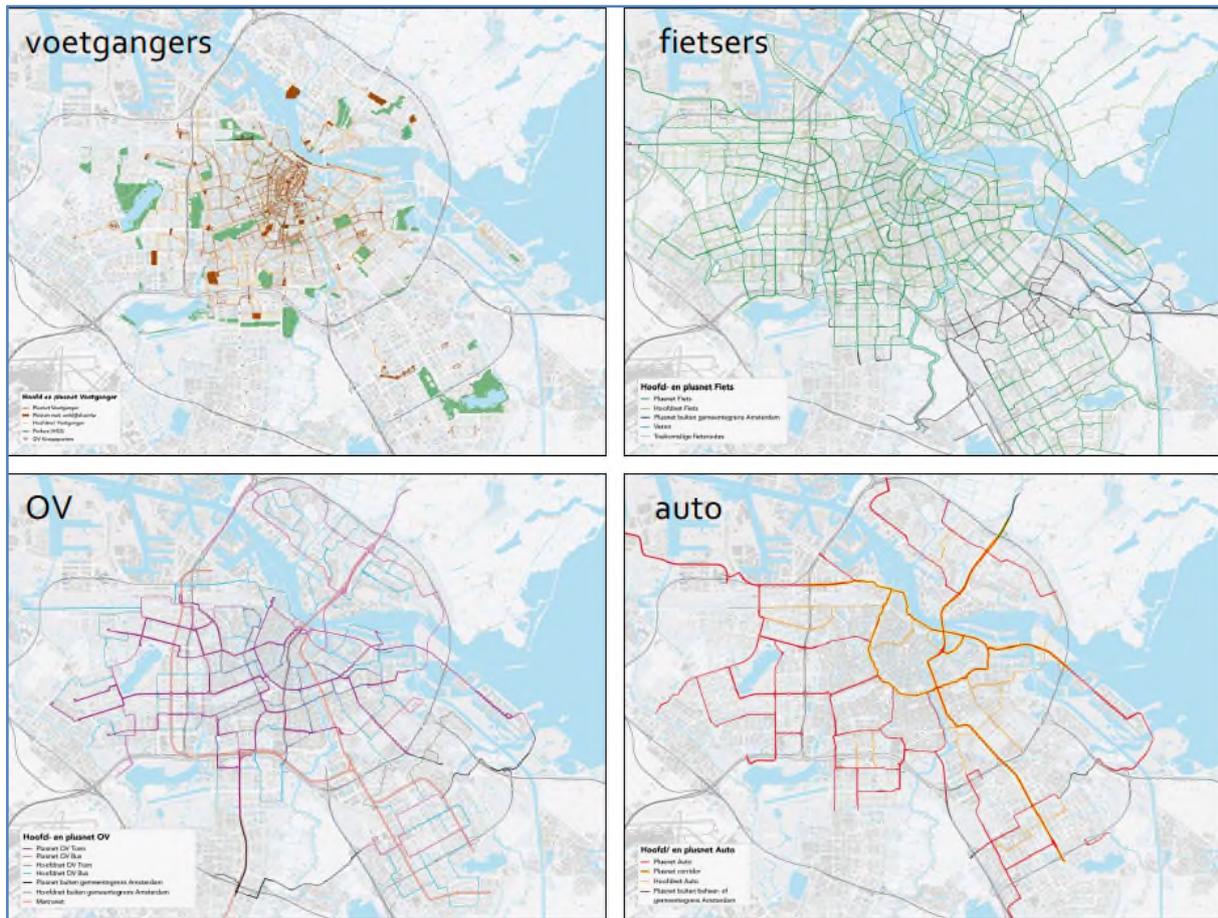
Hier zie je precies wat de bedoeling is, zegt Pieter Litjens. De wethouder staat in T-shirt en spijkerbroek midden op het zebrapad. Het Muuntplein op een zomers ochtend. Onder het torentje is aan het vollopen met winkelpubliek en dagjesmensen. Of zoals de wethouder zegt: „Dikke voetgangerstromen.“ De tram rinkelt voorbij, een vlucht toeristen trapt langs op zo'n te lage huurfiets, over het wegdek kruipt één auto met daarin een verdwaalde bezoeker die even later door een motoragent naar de goede kant wordt gedringend.

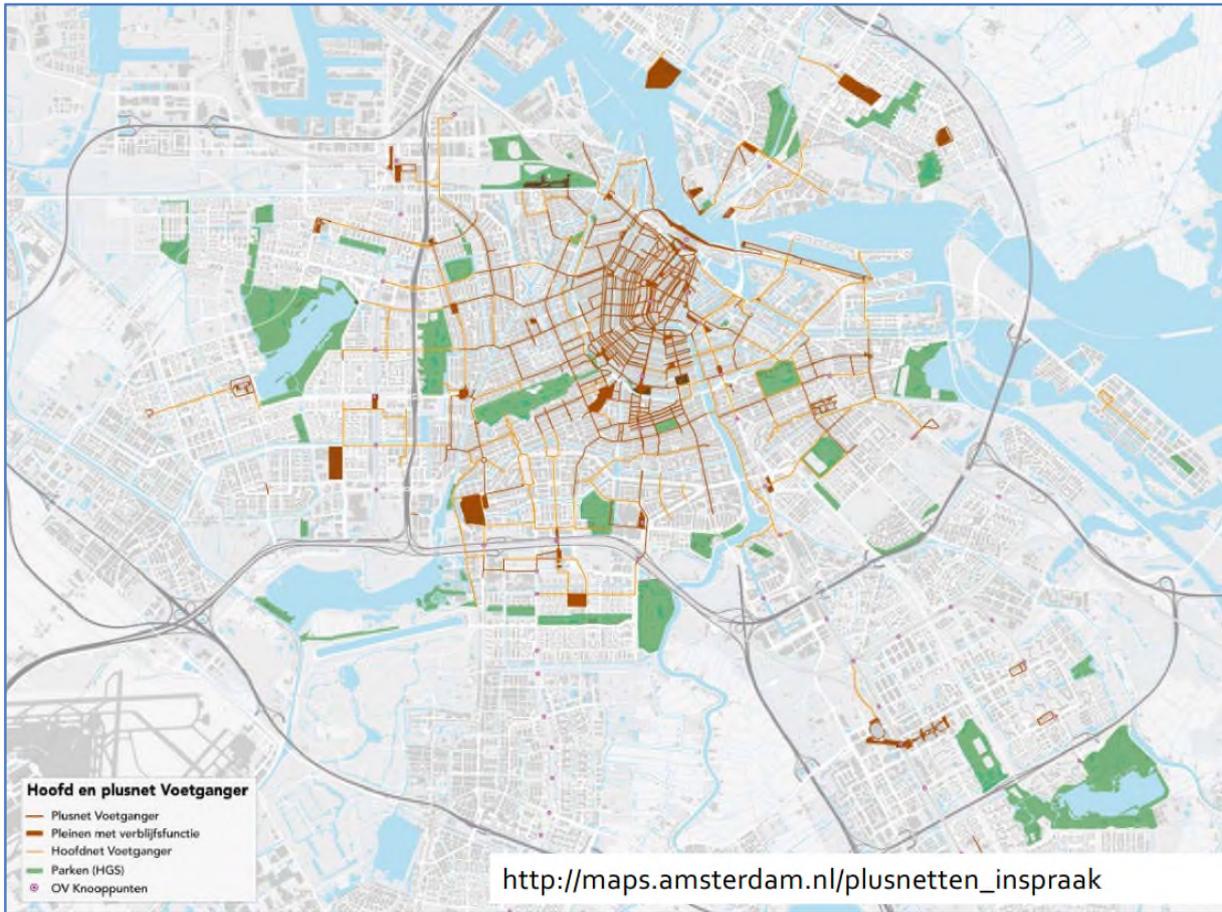
Dit is bedoeling op het Muuntplein, dat enkele jaren geleden nog een onoverzichtelijke maar onmisbare schakel leek voor het snelverkeer: dat fietsers, voetgangers en openbaar vervoer ongestoord de ruimte kunnen inemen. Een klein jaar geleden zette de gemeente een „knip“ tussen Rokin, Singel en Vijzelgracht: hier mogen geen auto's meer rijden. En het werkt, zegt Litjens. Hij wijst naar de auto's die vanuit de Amstel, nu éénrichtingsverkeer, het Rokin op draaien. „Hier stond het vroeger altijd stil.“



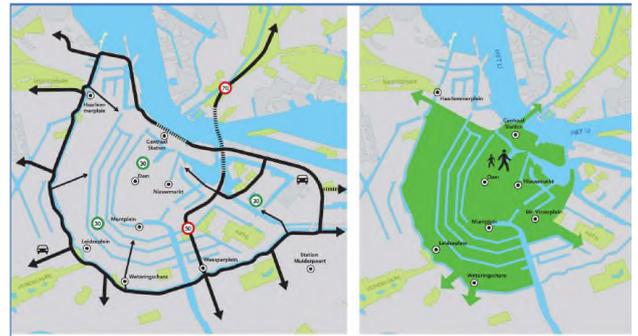
Network policy (2013/2017)

- Set priorities for every street before start of design proces
- Make clear integral choices when needed
- Report with required design principles is made (Nota van Uitgangspunten) and decided by politics.





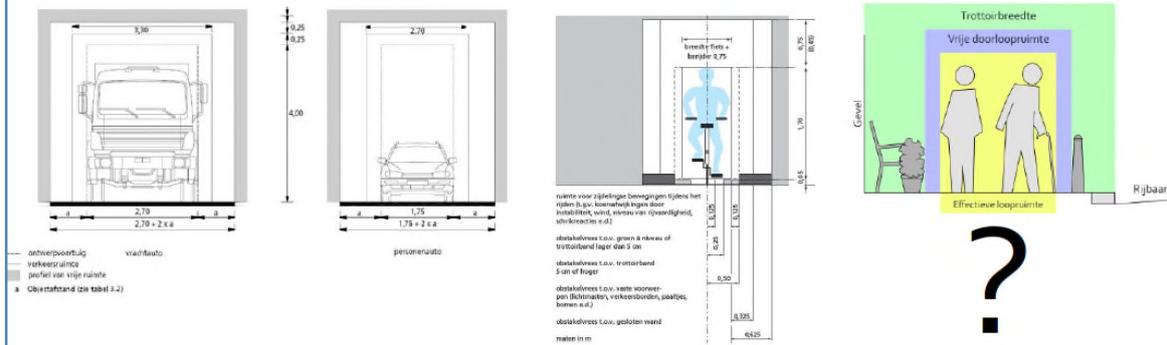
Policy 'accessible city center' (2013)



- Traffic circulation plan city centre (principle). Through traffic cut in city centre to make space for pedestrians and bicycles
- Roadmap towards 2025

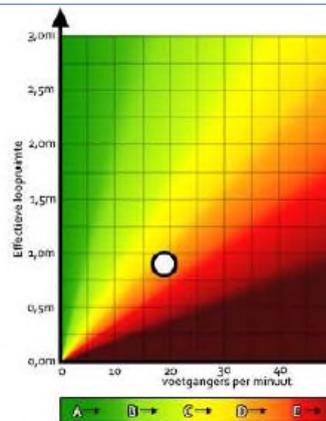
Guideline for sidewalk-width (2017)

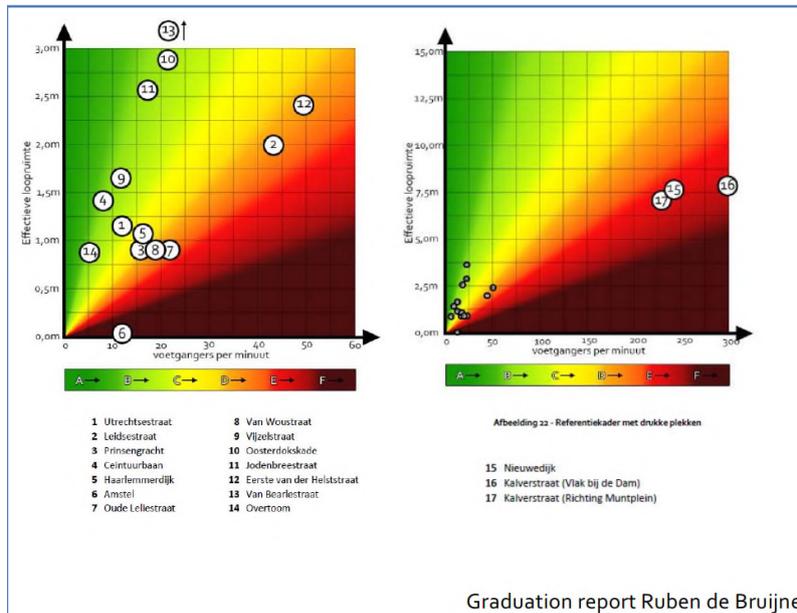
- Projects ask: how much space is needed for pedestrians
- Lack of knowledge, experience and 'feel' requirements and wishes pedestrian



Van Woustraat

straatzijde	: Westelijke zijde
Ter hoogte van	: Albert Cuyppstraat
Nummer in schema	: 8
Totale breedte voetpad	: 3.15m
Effectieve loopruimte	: 0.8m
Voetgangers per uur	: 1056 pph
Voetgangers per minuut	: 18 ppm
Per meter per minuut	: 22 ppm
Datum meting	: Zaterdag 15-05-2016





Graduation report Ruben de Bruijne

Pedestrian Comfort Levels (Transport for London)

- Based on comfort

PCL A	COMFORTABLE FOR ALL AREAS		
A+ < 3ppmm < 3% Restricted Movement	A 3 to 5 ppmm 13% Restricted Movement	A- 6 to 8 ppmm 22% Restricted Movement	
The pedestrian environment is very comfortable at PCL A+ to A- with plenty of space for people to walk at the speed and the route that they choose.			
PCL B	B+ RECOMMENDED MINIMUM FOR ALL AREAS		
B+ 9 to 11ppmm 31% Restricted Movement	B 12 to 14ppmm 41% Restricted Movement	B- 16 to 17 ppmm 60% Restricted Movement	
PCL B+ is the recommended level of comfort for all area types. This level provides enough space for normal walking speed and some choice in route taken. At PCL B and PCL B- normal walking speed is still possible but conflicts are becoming more frequent and, in retail areas, people start to consider avoiding the area.			
PCL C	INCREASINGLY UNCOMFORTABLE		
C+ 18 to 20ppmm 59% Restricted Movement	C 21 to 23 ppmm 69% Restricted Movement	C- 24 to 25 ppmm 78% Restricted Movement	
The pedestrian environment is becoming increasingly uncomfortable, with the majority of people experiencing conflict or discomfort with other pedestrians and individual movement becoming difficult. This is an acceptable level of comfort for peak pedestrian activity in Office Areas and Transport Interchanges, as people in these areas anticipate closeness to others. However, if PCL C- was found in a retail area 40% of users would think about avoiding the area.			
PCL D or E	VERY UNCOMFORTABLE		
D 27 to 35ppmm 100% Restricted Movement	E > 35 ppmm 100% Restricted Movement		
At PCL D walking speeds are restricted and reduced due there are obstructions in the way of slower pedestrians or moving in reverse flows. At PCL E people have very little personal space and speed and movement is very restricted. Extreme difficulties are experienced if moving in reverse flows.			

Breedte-categorieën voetgangersruimte

- Can be used in 99% of the streets
- Simple and fast to apply
- Little data required

Breedte-categorieën voetgangersruimte
In hoeverre voetgangersruimte functioneert, hangt af van de hoeveelheid balken begroeiing en het aantal voetgangers. De breedte categorieën geven een breedte voetgangersruimte in millimeter nodig om op voorafzede wijze te kunnen passeren. De groenruimte breedte is vijf doorgangspunten. Dit is de standaard breedte van de trottoir voor voetgangers. De breedte van de trottoir moet worden bepaald op basis van de breedte van de trottoir. De breedte van de trottoir moet worden bepaald op basis van de breedte van de trottoir. De breedte van de trottoir moet worden bepaald op basis van de breedte van de trottoir.

Onbalans
Het aantal voetgangers en de hoeveelheid loopruimte zijn onbalans. Conflicten tussen voetgangers komen te vaak voor.

Balans
Het aantal voetgangers en de hoeveelheid loopruimte zijn in balans. Voetgangers hebben genoeg bewegingsruimte.

Waarheid niet toegankelijk
Vanaf 0,9 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren. Bij 1,0 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen. Bij 1,1 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen en de armen. Bij 1,2 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,3 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,4 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,5 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,6 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,7 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,8 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 1,9 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,0 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen.

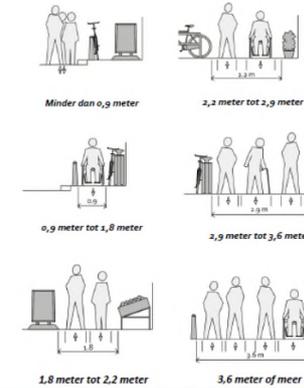
Verder analyse nodig
Bij 1,9 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,0 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,1 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,2 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,3 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,4 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,5 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,6 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,7 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,8 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 2,9 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen. Bij 3,0 meter vrije doorgangruimte kunnen twee voetgangers elkaar passeren met een kleine beweging van de handen, de armen en de benen.

Verkeers en Openbare Ruimte, Gemeente Amsterdam

Research pedestrian space Plusnet (2017)

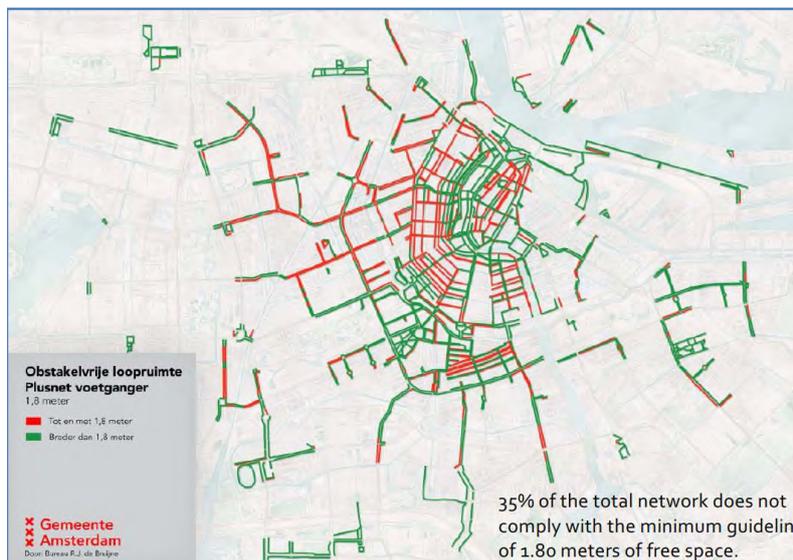
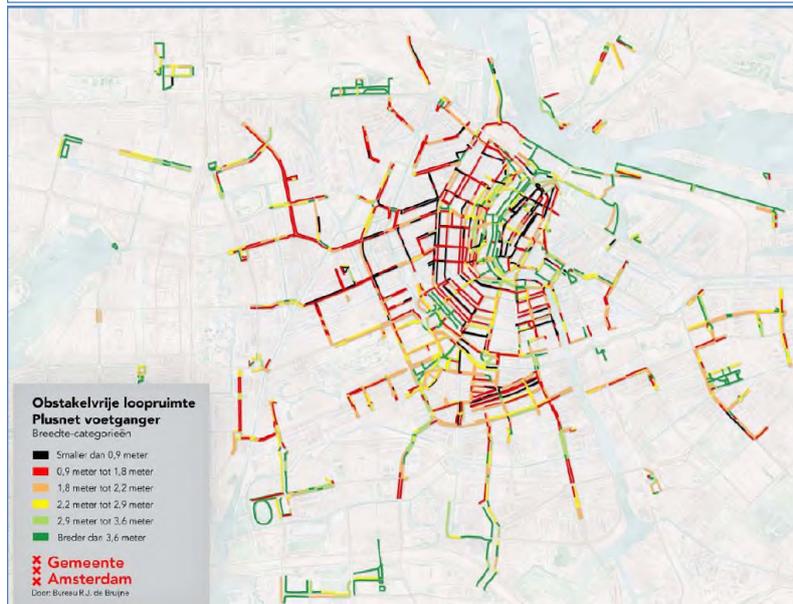
Pedestrian space/ width

Breedtecategorieën voetgangersruimte:



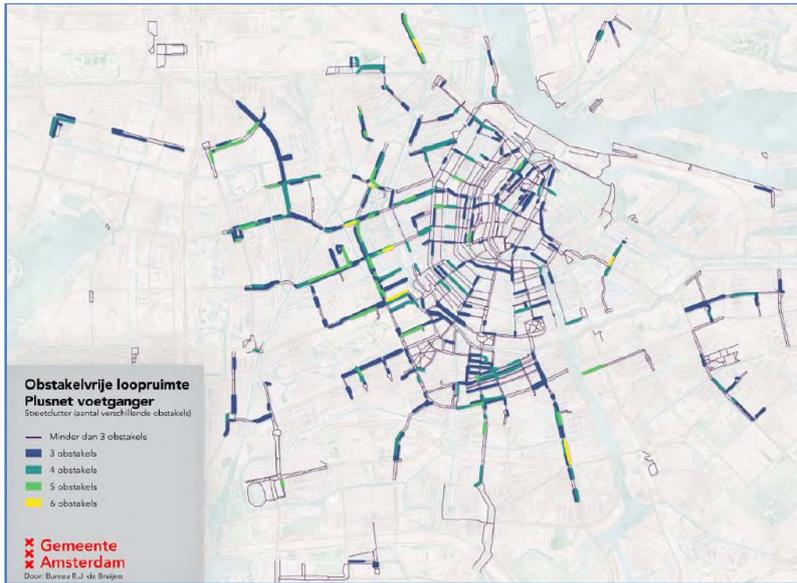
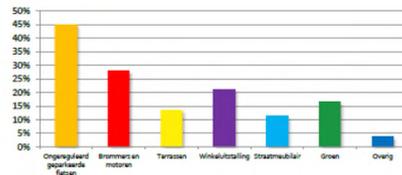
	Alle secties (215km)	Alle behalve voetgangersgebieden (193km)	Alleen voetgangersgebieden (22km)
Minder dan 0,9m	9,7%	10,8%	0,2%
0,9 tot 1,8m	25,4%	28,0%	2,5%
1,8m tot 2,2m	27,4%	24,4%	5,4%
2,2m tot 2,9m	13,5%	14,6%	7,8%
2,9m tot 3,6m	9,3%	9,0%	11,1%
3,6 meter of meer	19,3%	13,2%	73,0%

Tabel 2 - Breedte-categorieën, gehele onderzoeksgebied



Streetclutter

1. **Ongereguleerd geparkeerde fietsen**
In deze categorie vallen fietsen die niet in rekken of netjes geparkeerd zijn. Ook als fietsen rommelig geparkeerd staan bij een fietsrek, worden zij als ongeregeerd geparkeerd beschouwd. Zie Afbeelding 2.
2. **Geparkeerde brommers / motoren**
Tot deze categorie behoren brommers en motoren die op het trottoir geparkeerd zijn.
3. **Groen**
Onder groen vallen overhangend groen en plantenbakken. Zie Afbeelding 3.
4. **Straatmeubilair**
Onder straatmeubilair vallen bankjes en andere zitgelegenheden in beheer van de gemeente.
5. **Winkelstallingen**
Onder winkelstallingen vallen reclameborden, promotiemateriaal en producten die door winkeliers buiten zijn gezet. Op Afbeelding 4 is hiervan een voorbeeld te zien.
6. **Terrassen**
Tot deze categorie behoren terrassen die op wat voor manier dan ook de loopruimte beperken.
7. **Overig**
Tot slot is er een restcategorie voor obstakels die slechts incidenteel voorkomen.



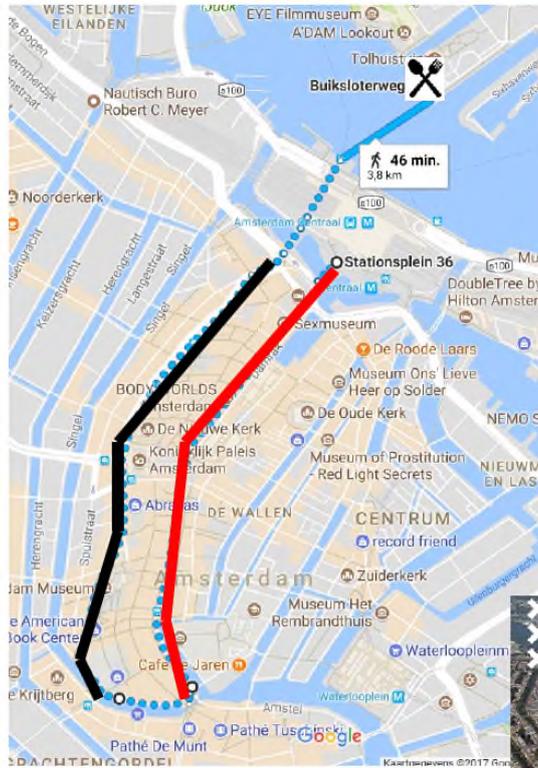
Parked bicycles are the most common cause of a decrease in walking space.

Excursion Amsterdam

Nieuwezijde

Project contains the realization of a second 'red carpet' for pedestrians and bicycles

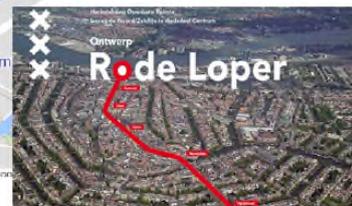
Fase: planning



Rode Loper/ Red carpet

Project contains the redesign of public space above the new metro line through the city centre.

Fase: realized/ in progress

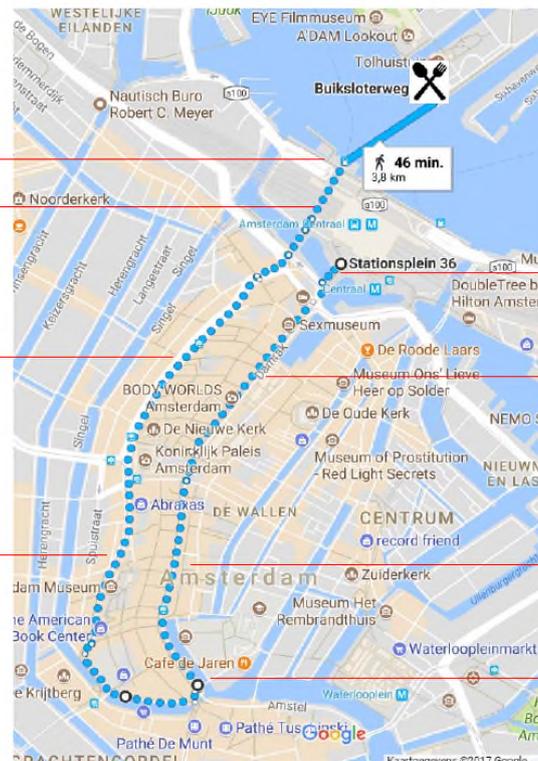


8. 'Shared space' IJzijde

7. Tunnel CS

6. Nieuwezijds Voorburgwal

5. Postzegelmarkt



1. Central Station

2. Damrak Beursplein

3. Rokin/ Oude Turfmarkt

4. Muntplein

Dirk Ide showed us some good insights of local practice:

- The categorization of the streets on a pedestrian perspective in 3 main layers – the basic network; the plus network (that must fulfil certain environmental quality requirements) and the connection network (linking the basic to the plus network).
- The Road Map towards 2025 – no through traffic and pedestrian prioritization
- Started assessing the quality of the pedestrian environment. They have started first by using the pedestrian comfort level (TfL) but now have their own method for Amsterdam. Their method provides the sidewalk free width for the street section (e.g. 2m, 3m) and they have found that 30% of the studied network did not comply with the minimum required width. Also the inventory of obstacles on the sidewalks was made and found parked bicycles to be the biggest problem.

Dirk also presented us De Rode Loper ('The Red Carpet') project, which we had the opportunity to experience ourselves during the visit to Amsterdam. This project consists in the redesign of the street environment following the construction of a subway line in central Amsterdam.

The allocation of space for the transport modes went through significant changes. The car circulation scheme changed in order to restrain through traffic -less space for driving and for parking. On the other hand pedestrian space was improved and sidewalks were enlarged.

Residents in the project area seem to be happy with the new situation, as well as most pedestrians. Businesses were not happy, as now they have more strict access rules.

There were four major impressions when visiting the area:

- There are many people everywhere, local and visitors. The pressure on the street space is noticeable. However there are few opportunities for sojourning, to meet, to rest. All is very fast.
- Conflicts are part of the routine. Along our trip there were many situations of conflict between cyclists and pedestrians. Of course, these are more noticeable to someone that is not used to that particular environment. It is striking how cyclists do not yield for pedestrians in pedestrian crossings (zebras). Pedestrians are still the most vulnerable and neglected street users.
- There were only few parking places available but that does not seem to cause any degeneration to the area's vitality.
- Such a big project would deserve a good follow up, in terms of its impacts in all transport modes, user experience and land use change. This could contribute to the global debate on the allocation of street space to pedestrians vs. other transport modes.

6. Measuring Walking and research

8. Perspective for new research

Daniel Sauter

The focus of the second day of the workshop is on (academic) research and the assessing possibilities for a joint walkability research and/or policy development project.

Daniel started with a brief state of practice in measuring walking: there are a lot of promising changes but actual progress has been slow. On one hand it is certain that what is counted is what actually counts but on the other hand the lack of data is an issue. Existing methods to measure walking are still not adequate.



Background

Problems

- Lack of data
- Single issues, arbitrarily measured
- Methods not adequate

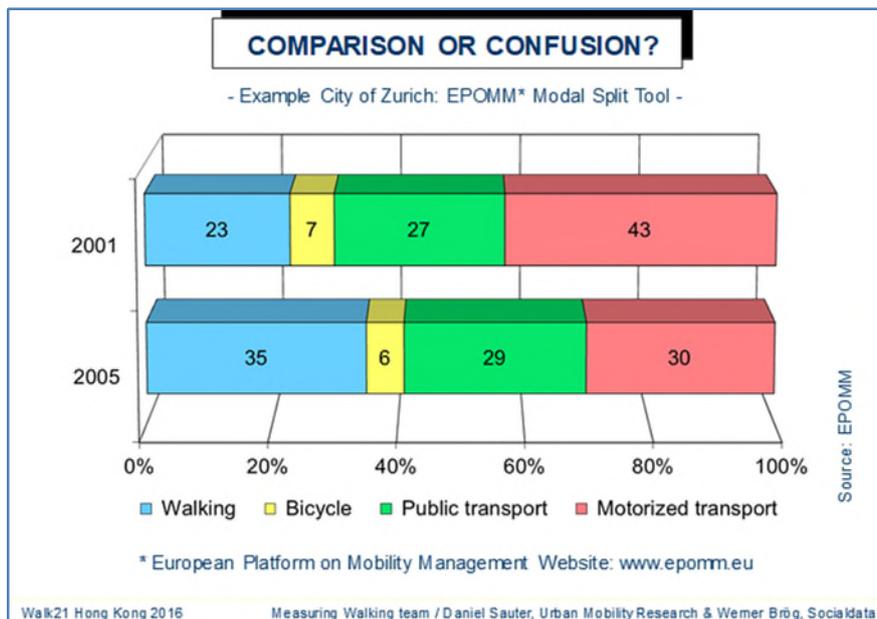
=> *comparisons difficult or impossible*

Promising changes

- Increasing interest, changing attitudes
- New methods, technologies etc.
- Insights: “Only what’s measured, get’s done” (Larry Frank)
 “Only what’s being counted, counts”

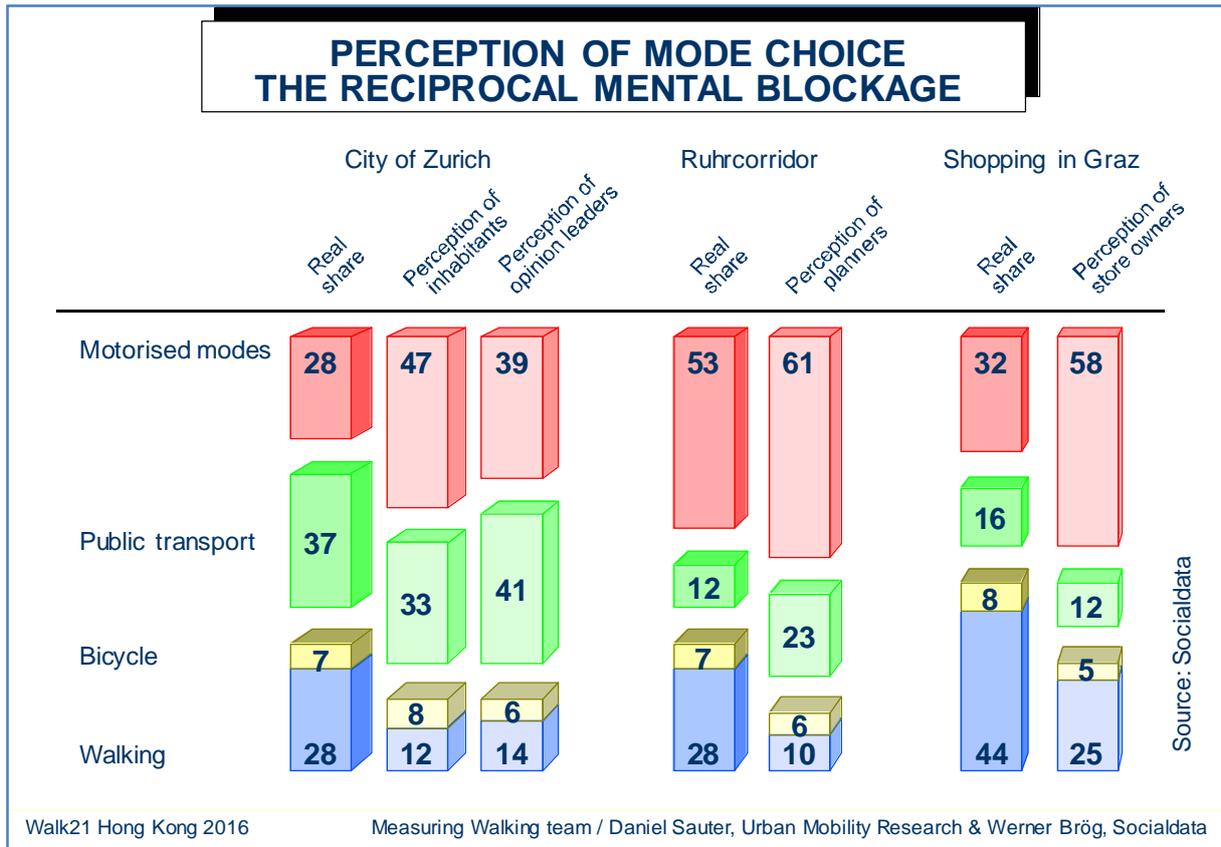
=> *Window of opportunity*

Daniel Sauter, Urban Mobility Research, Switzerland



Without actual and realistic figures, public opinion tends to underestimate the role of walking. To illustrate this “reciprocal mental blockage”, a survey was presented. In several locations different stakeholders were asked to tell what they thought to be the local modal share and the estimates were compared to the actual modal share:

- Residents in Zurich thought there were more motorized trips and less walking;
- Still in Zurich, opinion leaders overrated the share of public transportation and underrated walking;
- In the Ruhr valley the perception of planners was also to overestimate public transportation and to underestimate the walking share;
- In Graz shopping districts, shop owners overestimated the number of private cars over walking.



This example made clear that there is a generalized lack of awareness in the role of walking as a transport mode. Good quality data is essential to correct this situation.

There has been a focus on the infrastructure perspective but it misses out less tangible yet crucial factors to walking such as the “atmosphere” of the place. Sometimes a top quality infrastructure does not create a good atmosphere for walking, as well as the opposite – a place may have bad walking infrastructure but a good atmosphere to motivate walking.

Objective

“Establishing a set of international guidelines for the collection, analysis and dissemination of quantitative and qualitative techniques for measuring walking.”

WALK21 conference conclusions Melbourne 2006
Following the adoption of the International Charter for Walking

European Project: Pedestrian Quality Needs, PQN

- => Discussions during PQN meetings
- => Series of Walk21 pre-conference full-day workshops, usually 40 to 70 experts participating

Daniel Sauter, Urban Mobility Research, Switzerland

The workshops



Daniel Sauter, Urban Mobility Research, Switzerland

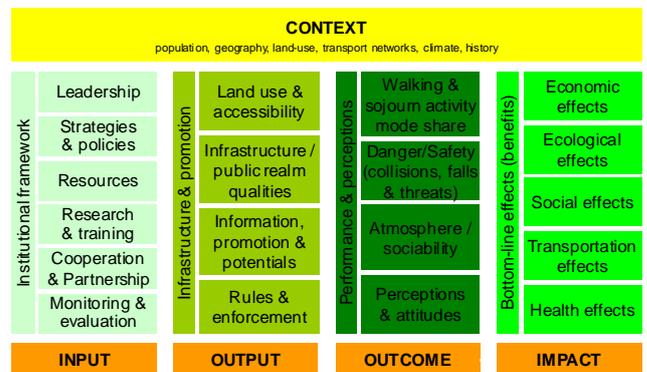
The people behind the project

Measuring Walking team



Daniel Sauter, Urban Mobility Research, Switzerland

Walk21 Assessment Model for Measuring Walking (based on New York workshop 2009)



Version: September 2017

Daniel Sauter, Urban Mobility Research, Switzerland

Key performance indicators: examples

Main Criteria	Key performance indicators (or elements for creating them)
Institutional framework	Leadership <ul style="list-style-type: none"> • Politicians and (senior) officials <ul style="list-style-type: none"> • Extent to which politicians and (senior) officials take a lead and direction in supporting walking and public space improvements • Sensitivity and awareness of walking and public space issues • Content and form of communication about walking and public space • Walking strategy & integration of walking in other strategies <ul style="list-style-type: none"> • Presence and quality (content) of a walking and public space strategy • Presence and quality of strategies/policies closely related to walking e.g. land-use, health, transport/mobility, social integration, environment => Degree of integration between these different strategies/policies: coherence, conflicts • Policy principles supporting walking (e.g. polluter pays, 'true cost' approaches, 'complete streets', 'vision zero' etc.) • Implementation procedures <ul style="list-style-type: none"> • Type of implementation programmes / action plans • Type and degree of integration within 'Input' level, i.e. between policies and resources • Legal framework <ul style="list-style-type: none"> • Laws, norms & regulations; supportiveness of legal framework for implementation
	Strategies & Policies

Daniel Sauter, Urban Mobility Research, Switzerland

Dilemma of data collection

- 1 Building on existing data
 - Data should already be available
 - Reality: hardly any data available, matching difficult
 - Resources and willingness in cities small
- 2 Own data collection (e.g. Make Walking Count)
 - Costly and time consuming, no money
 - Not many cities are willing to do it
 - Option/solution: survey over the internet

Daniel Sauter, Urban Mobility Research, Switzerland

Returning to the data collection issue and to the Pedestrian Quality Needs (PQN) project, it was referred that for each pillar proposed in PQN a set of indicators was delivered, just not applied yet. There seems to be a dilemma there:

- Should we build upon existing data? This is perhaps a too optimistic position, given the dissimilarities between datasets.
- Should we make our own data collection? To implement the “making walking count” project.

Other Indicator Developments (1)



City Level Sustainable Mobility Indicator Descriptions 2015

**European Commission:
Complementing European Urban Mobility Scorecard**

Daniel Sauter, Urban Mobility Research, Switzerland

Other Indicator Developments (2)

World Business Council for Sustainable Development (WBCSD)
Sustainable Mobility Project 2.0

Adopted by European Commission as their main mobility indicator set

Testing in European cities this year



Daniel Sauter, Urban Mobility Research, Switzerland

International Walking Data Standard

Launched at Walk21 in Vienna October 2015

Objectives:

- Raise profile of walking
- Demonstrate the crucial role of good mobility data
- Improve consistency and accuracy of data for all modes
- Enable benchmarking & comparisons

Elaboration with experts worldwide over several years
Goal: wide adoption by cities, national and international bodies

INVITATION to adopt Standard in YOUR city/country

www.measuring-walking.org



Photo: WienEvent_Fürthner
Daniel Sauter, Urban Mobility Research, Switzerland

International Walking Data Standard



International Walking Data Standard

Treatment of Walking in Travel Surveys
Internationally standardized monitoring methods of walking and public space

Version August 2016

Daniel Sauter
Tim Pharoah
Miles Tight
Ryan Martinson
Martin Wedderburn

www.measuring-walking.org

Measuring Walking - Walk21

Daniel Sauter, Urban Mobility Research, Switzerland

On the latter, there have been good developments and ideas but the actual implementation is slow, also due to lack of (paid) time that can be devoted to it. The international data standard was presented in Walk 21 Wien 2015 (www.measuring-walking.org). The objectives were set, the goal was set but work has progressed only slowly.

There are the first cities/countries that collect data according to the Standard, e.g. London, Calgary, Zurich and Switzerland in general. A formal adoption process is difficult as the cities often have their own guidelines. But following the Standard informally will bring us just as much forward. Having a list of cities and comparable data will certainly convince more cities to informally do data collection according to the Standard. Hong Kong has already expressed interest in informally following it and it is known from Walk21 Sydney 2014 that NSW also has good data collection quality. They will be approached to provide their standardized data.

A good development has been the adoption of the data standard by Transport for London. If more institutions adopt it, if more examples are realized, then the more likely the data standard will be spread out.