



NATIONAL WALKING POLICY MASTERCLASS

Walk21

Lisbon, Portugal
12-13 September 2023

Module Overview

Session	Title	Date	Portugal time
1	Introduction to the course and example policies	12th September	9 - 10.30
2	The 8 step process for an effective policy		11 - 12.30
3	Using the global imperatives to set a national vision and objectives		14 - 15.30
4	A guide to the tools and resources that can help create an effective policy		16 - 17.30
	WALK AND DINNER		
5	Inspirational Walking Campaign and Infrastructure Actions	13th September	9 - 10.30
6	Inspirational Land use Planning and Public Transport Integration Actions		11 - 12.30
7	Setting priorities and delivery frameworks for roll out		14 - 15.30
8	Funding options		16 - 17.30
	WALK AND DINNER		

Ground Rules

→ Format:

Presentation (1 hour)

Questions and Discussion (30 minutes)

→ Engagement for participants

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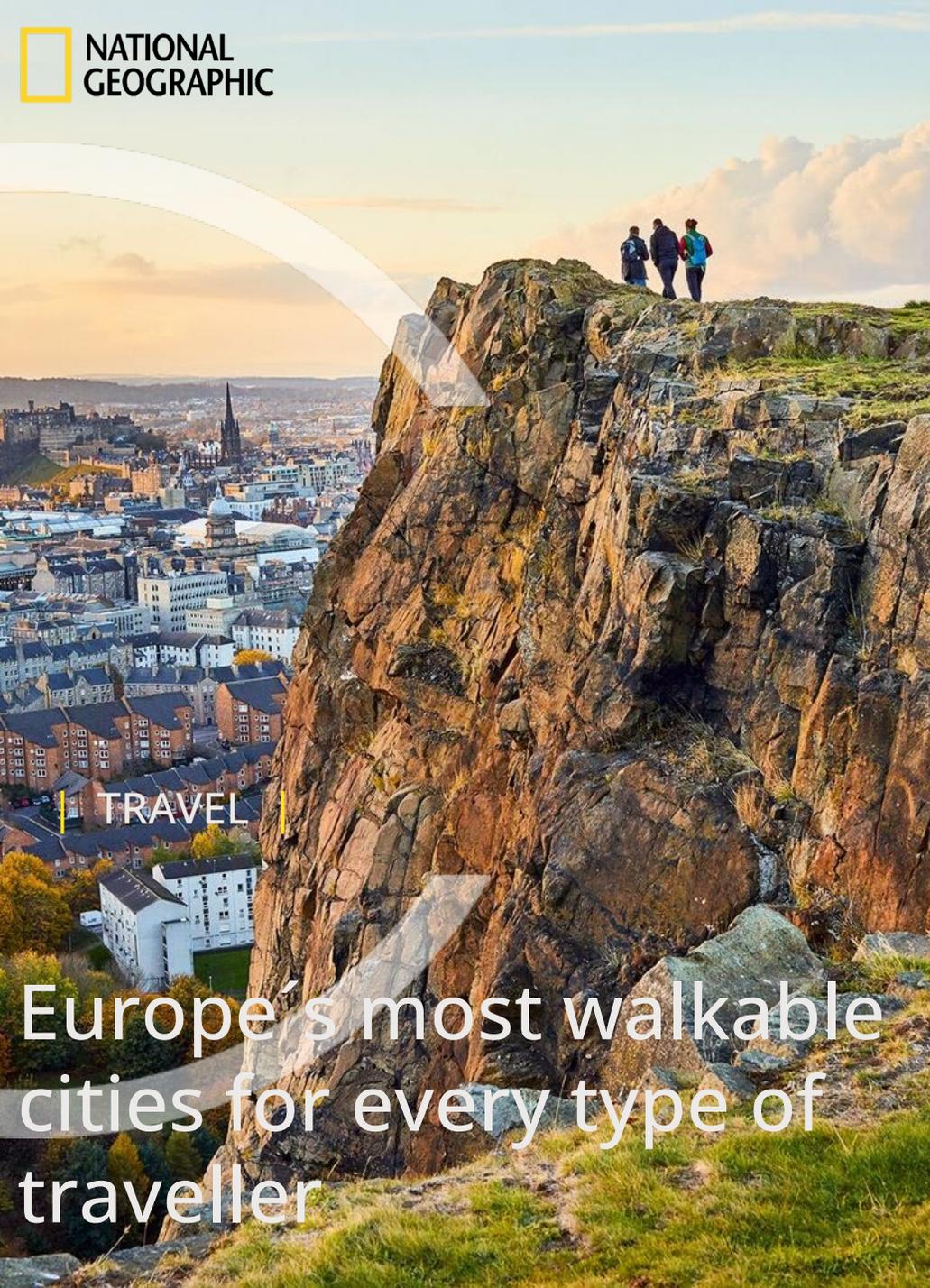
→ Sessions will be recorded!



4

Module Four Agenda

-) What is Walkability and how to measure it
-) Theoretical frameworks of walkability
-) Methods and tools to assess walkability
-) Questions and Discussion



What is a 'walkable city' and how to measure it?

- The way 'walkability' is **defined** and **measured** determines the purpose, commitments, implementation and evaluation of consequent walkability policies

Europe's most walkable
cities for every type of
traveller

Types of walkability definitions for research and policy development



Theoretical definition to establish:

What is walkability

Practical definition to model:

Smaller components or characteristics that define walkability

Methodological definition to propose:

Measurements and formulas to calculate and rate walkability

→) "the extent to which the built environment supports and encourages walking (...), connecting pedestrians with destinations within a reasonable time and effort" (Southworth, 2005)

→) "streets and squares should be safe, comfortable and interesting to pedestrians" (CNU, 2001)

→) "walkability is the quality of walking conditions, including safety, comfort and convenience" (Litman, 2018)

What is walkability?

→) "an area that promotes walking" (Chadwick, 2005)

→) "walkability is the extent to which the built environment is friendly to people walking, living, shopping, visiting, enjoying or spending time in an area" (Abley, 2005)

→) "for walking to be favoured, it must be useful, safe, comfortable and interesting" (Speck, 2012)

→) "a walkable environment is a safe, well-serviced neighbourhood, imbued with qualities that make walking a positive experience, meaning that streets, sidewalks and paths are comfortable and interesting" (Talen & Koschinsky, 2013)

→) "walkable neighbourhoods are those that are pedestrian focused, affording people the choice and opportunity to move about safely and effortlessly to services, facilities, and transport in their neighbourhood without the use of a motor vehicle" (Stafford & Baldwin, 2018)

Vibrancy

Attractiveness

Pleasantness

Comfort

Safety

Accessibility

Convenience

Feasibility

Other key concepts for policy:
Walking activity, Capacity building

What makes a place more walkable? The 'walking needs'

- ➔ Operationalise walkability into a list of characteristics (concepts) that enable and encourage people to walk.

(Alfonzo, 2005; Mehta, 2008; Mateo-Babiano, 2008; Blečić et al, 2020; Bozovic, 2021)

Walking Safety

Risk of vehicle-pedestrian collision



Health hazards while walking



Personal security



Walking comfort, pleasantness, attractiveness, street vibrancy, sense of belonging, etc.



Walking feasibility

Impractical or impossible



Personal abilities



Lifestyle and responsibilities



Walking convenience

Compared to other alternatives



Combined with other alternatives



Commuting + Physical exercise + Social activity





How to measure walkability: What to observe

➔ Walking is an immersive experience and pedestrians interact with a wide range of environmental determinants

CONCEPTS	INDICATORS	VARIABLES
Hazards while walking	Pavement	Width and slope
		Surface
		Obstacles and barriers
		Temporary obstacles
	Extreme weather	Rate of pedestrian injuries due to falls or bumps into obstacles
		Meteorological data
		Presence of infrastructure to mitigate extreme weather
	Exposure to pollution	Air pollution monitoring
		[Noise pollution monitoring
Risk of vehicle-pedestrian collision	Along the street	Traffic speed and volume
		Traffic calming measures
		Buffer areas between pavement and road
		Accident rate at pavements resulting in pedestrian injuries or fatalities
	Pedestrian crossings	Crossing type and pedestrian visibility
		Road accident rate at crossing resulting in pedestrian injuries or fatalities
Crime and personal security	Surveillance	Presence of passive and active surveillance
		Street cleanliness and maintenance
	Neighbourhood appearance	Street lighting
		Land use related to sense of insecurity
		Presence of violent or intimidating people
	Social misconduct	Crime rate on assaults and harassment in public space
		Distance to public spaces for community interaction
	Social cohesion	Neighbourhood associations

How to measure walkability: From definitions to indicators to variables

➔ The walkable environment can be operationalised into smaller and more tangible components, that could be systematically measured into variables and indicators.

Variables and indicators can be objective/subjective, quantitative/qualitative, at different scales, static/dynamic, institutional data/crowdsourced

DENSITY

Residential density

DIVERSITY

Land use mix

DESIGN

Street connectivity

DESTINATION
ACCESSIBILITY

Ease of access to
main destinations
(CDB)

DISTANCE TO
TRANSIT

Distance between
residence/workplace
and bus/train stops

How to measure walkability: Research frameworks

➔ Walkability and the 5Ds (Frank et al., 2005; Ewing & Cervero, 2010)



Connected	Path continuity Path directness Pedestrian network
Convenient	Land use diversity Sidewalk width Commerce and services
Comfortable	Perception by pedestrians Pavement quality
Convivial	Meeting places Anchor places Service hours
Conspicuous	Landmarks Street toponymy
Coexistence	Pedestrian crossing locations Safety at crossings
Commitment	Law enforcement, pedestrian regulations Design standards, planned public space, interventions

How to measure walkability: Research frameworks

➔ Walkability and the 7Cs (Cambra 2012; Moura et al., 2017)



People choose to walk

Everyone feels welcome

Easy to cross

People feel safe

Things to see and do

Places to stop and rest

People feel relaxed

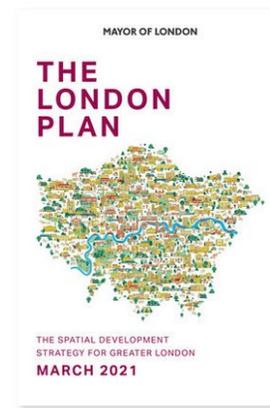
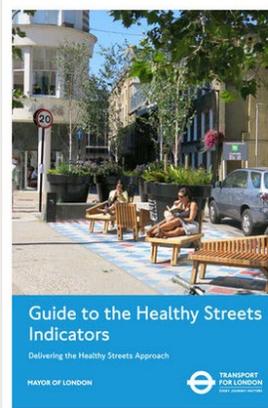
Not too noisy

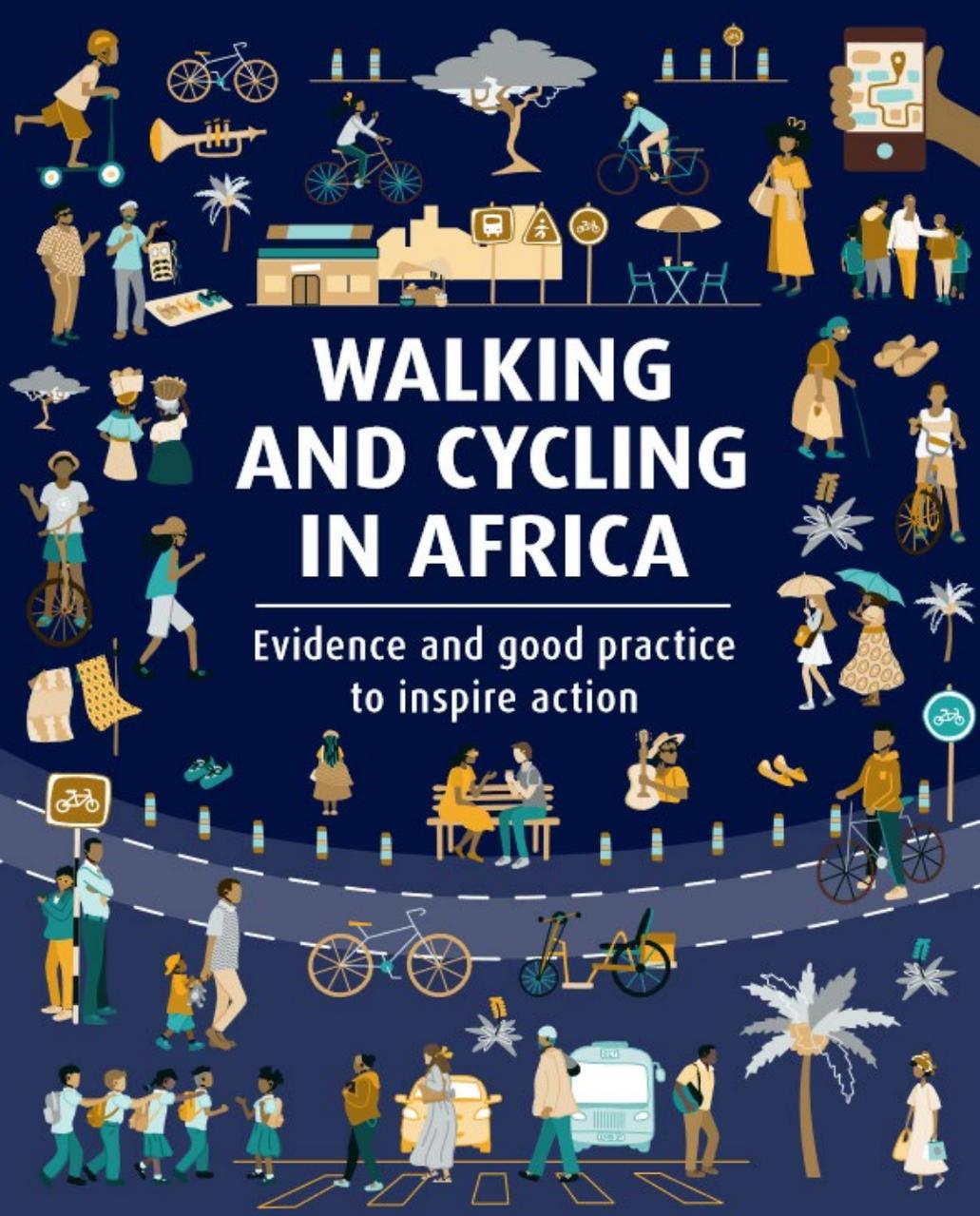
Clean air

Shade and shelter

How to measure walkability: From research to policy

→ Healthy Streets for pedestrians (Lucy Saunders)





WALKING AND CYCLING IN AFRICA

Evidence and good practice
to inspire action

How to measure walkability: Global Indicators with common sources



Country fact sheets based on:

- Activity: Transport related physical activity / day (WHO)
- Safety: Pedestrian fatalities and injuries / year (Global Burden of Disease)
- Accessibility: Public transport within 500m. (UN-Habitat)
- Comfort: Km of 3-star or higher* (iRAP)
- Policy: Policy documents (Review on National Policies)

Indicators for Walking - The Global System

Daniel Sauter, Urban Mobility Research, Switzerland

Walk21, online presentation, 6 June 2023

Global Indicators for Walking with Daniel Sauter

Walk21 129 subscribers

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How to measure walkability: Global Indicators with common sources

➔ What data do we have on walking?

THE PEP Partnership on Active Mobility: Pan-European Master Plan for Walking. Meeting in Vienna, Austrian Federal Economic Chamber, 27 April 2023 (Daniel Sauter)

Walking Activity	Minutes walk/day	WHO
Safety	Pedestrians kill/injured in traffic accidents	National data
Accessibility	Access to public transport	UN habitat
Comfort	Walkability Index on Pedestrian Level of Service	GOHSCities
Policy	National policy plans, targets and funding	National data



No sidewalk,
No safe crossing,
60km/h traffic



Presence of sidewalk,
Pedetrian refuge,
Street lighting,
50km/h traffic

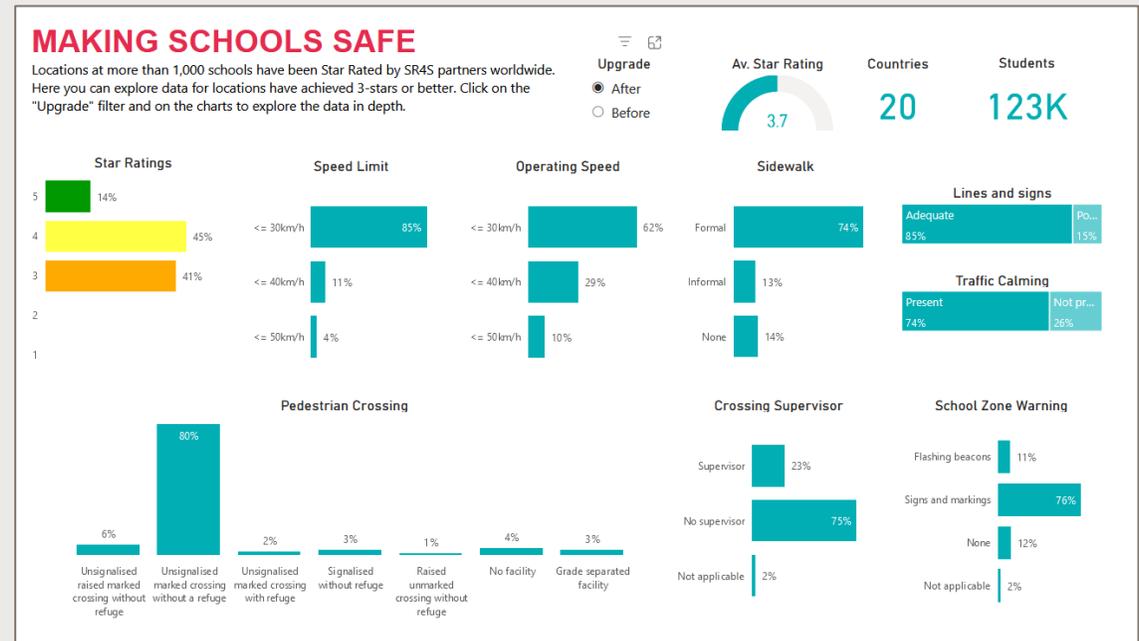


Presence of sidewalk,
Signalized crossing with refuge,
Street lighting,
40km/h traffic

How to measure walkability

Global Indicators: iRAP

→ Five-start walkability scale





NEWS

Neighborhood Environment
Walkability Scale

Other tools to measure walkability Surveys, questionnaires and audits

PEDESTRIANS FIRST
TOOLS FOR A WALKABLE CITY

Pedestrians First measures walkability for babies, toddlers, their caregivers, and everyone in cities.

- VIEW CITY MEASUREMENTS**
See maps and measurements of walkability for cities around the world.
About GO →
- MEASURE INCLUSIVE TRANSIT**
Assess the Inclusivity of a transit system. Transit connects neighborhoods.
About GO →
- EXAMINE A NEIGHBORHOOD**
Use indicators to measure neighborhood walkability in detail.
About GO →
- VISIT A STREET**
Walk a street with a checklist of design solutions for walkability.
About GO →

- Systematic and standardised surveys and questionnaires
- Walk a street with a checklist of design solutions for walkability
- Online platforms to collect and analyse crowdsourced data on pedestrian accessibility and safety



Walk Roll Map





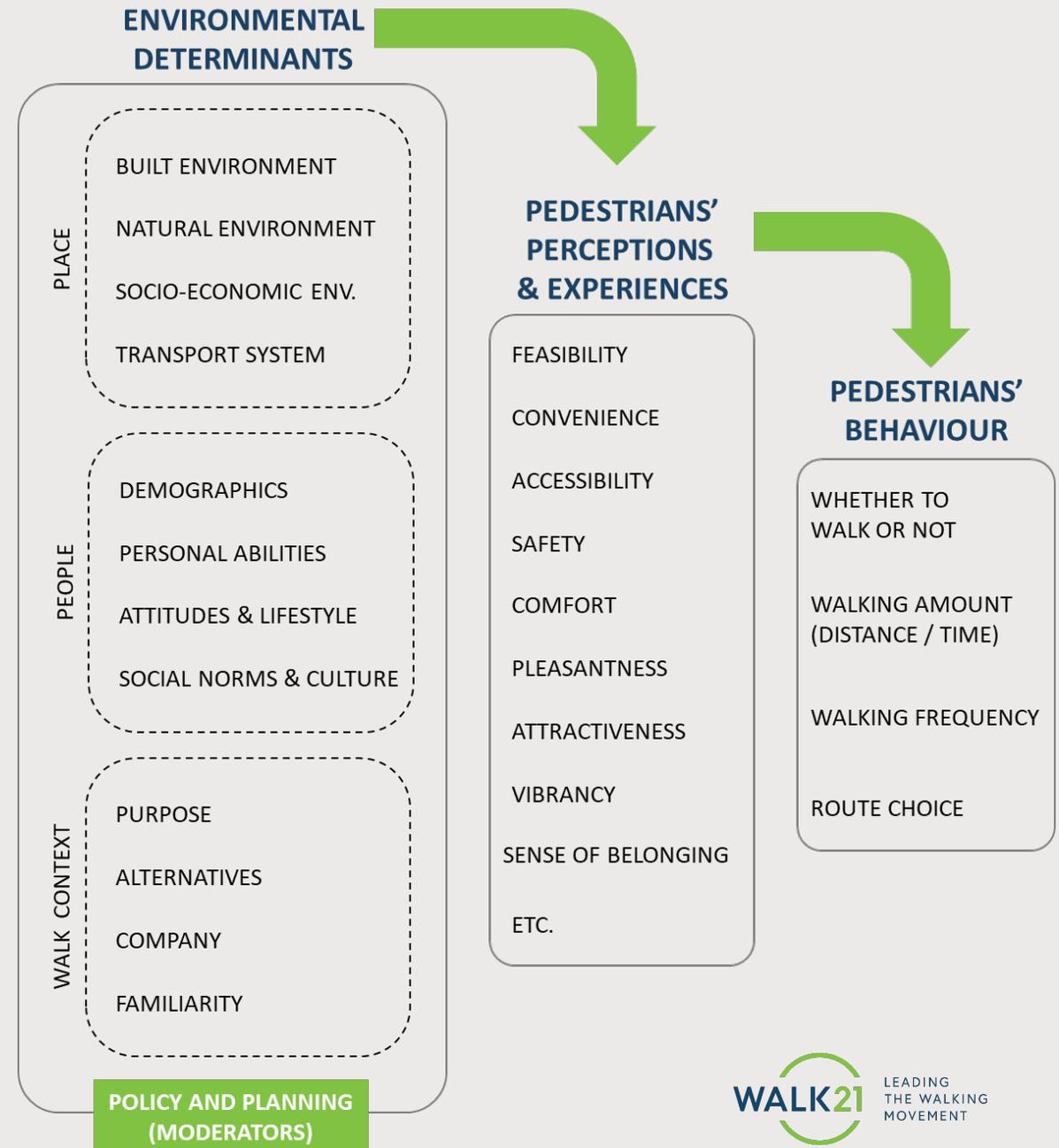
How to measure walkability: Pedestrian-centred walkability assessments

- Walkability.App is a participatory and pedestrian-centred walkability tool to assess perceived walkability linked to observations of elements and characteristics of the public space.



Key takeaways

- Consensus on walkability definitions & indicators are emerging
- Wide range of tools to assess and evaluate walkability
- Existing data on walkability indicators at global scale
- Translating National Walking Policies into walkability at street level requires a multiscale approach





Questions and Discussion

-) What walkability tools to you already use?
-) What walkability tools do you need?