STAKEHOLDER WORKSHOP

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EUROPEAN UNION
2 Seas Mers Zeeën
European Regional Development Fund

Hittestress verminderen – het beslissingstraject

STAP 1

- Erkennen dat een bepaalde plek warm is
- Dat dit de PET van een aanzienlijk aantal mensen beïnvloedt

STAP 2

- Begrijpen waarom de plek warm is

STAP 3

- Het identificeren van de mogelijkheden om dit te beperken

Plaatsen zijn allemaal verschillend

Stewart I D & and Oke T R (2012)
LOCAL CLIMATE ZONES FOR URBAN TEMPERATURE STUDIES
American Meteorological Society

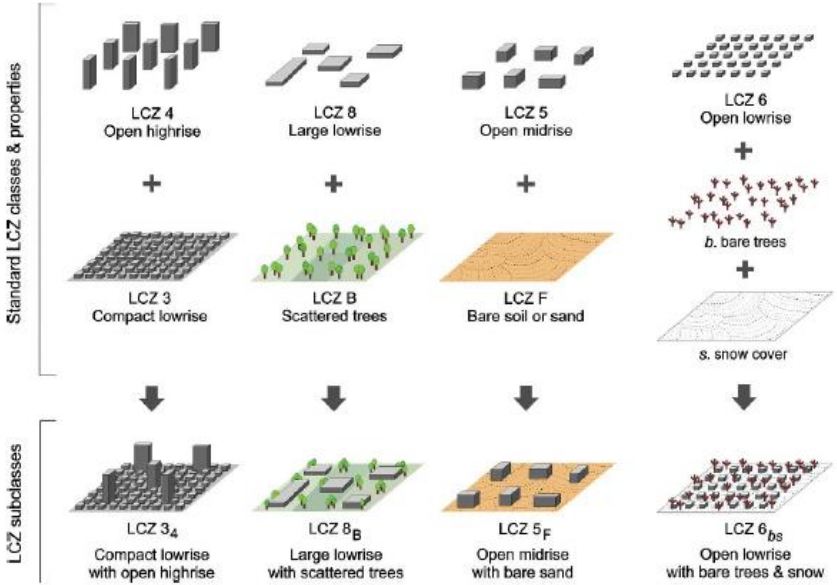

FIG. 6. LCZ subclasses to represent combinations of "built" and "land cover" types.

TABLE 2. Abridged definitions for local climate zones (see electronic supplement for photographs, surface property values, and full definitions). LCZs 1–9 correspond to Oke's (2004) urban climate zones.

Built types	Definition	Land cover types	Definition
1. Compact high-rise	Dense mix of tall buildings to tens of stories. Few or no trees. Land cover mostly paved. Concrete, steel, stone, and glass construction materials.	A. Dense trees	Heavily wooded landscape of deciduous and/or evergreen trees. Land cover mostly pervious (low plants). Zone function is natural forest, tree cultivation, or urban park.
2. Compact midrise	Dense mix of midrise buildings (3–9 stories). Few or no trees. Land cover mostly paved. Stone, brick, tile, and concrete construction materials.	B. Scattered trees	Lightly wooded landscape of deciduous and/or evergreen trees. Land cover mostly pervious (low plants). Zone function is natural forest, tree cultivation, or urban park.
3. Compact low-rise	Dense mix of low-rise buildings (1–3 stories). Few or no trees. Land cover mostly paved. Stone, brick, tile, and concrete construction materials.	C. Bush, scrub	Open arrangement of bushes, shrubs, and short, woody trees. Land cover mostly pervious (bare soil or sand). Zone function is natural scrubland or agriculture.
4. Open high-rise	Open arrangement of tall buildings to tens of stories. Abundance of pervious land cover (low plants, scattered trees). Concrete, steel, stone, and glass construction materials.	D. Low plants	Featureless landscape of grass or herbaceous plants/crops. Few or no trees. Zone function is natural grassland, agriculture, or urban park.
5. Open midrise	Open arrangement of midrise buildings (3–9 stories). Abundance of pervious land cover (low plants, scattered trees). Concrete, steel, stone, and glass construction materials.	E. Bare rock or paved	Featureless landscape of rock or paved cover. Few or no trees or plants. Zone function is natural desert (rock) or urban transportation.
6. Open low-rise	Open arrangement of low-rise buildings (1–3 stories). Abundance of pervious land cover (low plants, scattered trees). Wood, brick, stone, tile, and concrete construction materials.	F. Bare soil or sand	Featureless landscape of soil or sand cover. Few or no trees or plants. Zone function is natural desert or agriculture.
7. Lightweight low-rise	Dense mix of single-story buildings. Few or no trees. Land cover mostly hard-packed. Lightweight construction materials (e.g., wood, thatch, corrugated metal).	G. Water	Large, open water bodies such as seas and lakes, or small bodies such as rivers, reservoirs, and lagoons.
8. Large low-rise	Open arrangement of large low-rise buildings (1–3 stories). Few or no trees. Land cover mostly paved. Steel, concrete, metal, and stone construction materials.	**VARIABLE LAND COVER PROPERTIES**	
		Variable or ephemeral land cover properties that change significantly with synoptic weather patterns, agricultural practices, and/or seasonal cycles.	
9. Sparsely built	Sparse arrangement of small or medium-sized buildings in a natural setting. Abundance of pervious land cover (low plants, scattered trees).	*b. bare trees*	Leafless deciduous trees (e.g., winter). Increased sky view factor. Reduced albedo.
		s. snow cover	Snow cover >10 cm in depth. Low admittance. High albedo.
10. Heavy industry	Low-rise and midrise industrial structures (towers, tanks, stacks). Few or no trees. Land cover mostly paved or hard-packed. Metal, steel, and concrete construction materials.	*d. dry ground*	Parched soil. Low admittance. Large Bowen ratio. Increased albedo.
		w. wet ground	Waterlogged soil. High admittance. Small Bowen ratio. Reduced albedo.

Amsterdam University of Applied Sciences

ECCA

APPROACH: URBAN TYPOLOGIES

- Streets designed according philosophy of era
- characteristic typologies.

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APPROACH: URBAN TYPOLOGIES

- typologies ➔ insight in possibilities for climate proofing

Bloemkoolwijk

Naoorlogse tuinstad hoogbouw

Vooroorlogs bouwblok

Vermindering van directe straling
- Schaduw
- Reflecterende straling

Verminderde geleidbaarheid
- Lichte kleur
- Textuur

Het microklimaat koelen

Perceptie van koelte
- Beweging van water
- Geritsel van bladeren

Evapotranspiratie
- Waterpartijen
- Vernevelen/natte oppervlakken
- Vegetatie

Luchtcirculatie

Elke groep heeft een set foto's van een specifieke plaats

1. Identificeer alle factoren die een invloed kunnen hebben op de PET

2. Welke interventies kunnen worden gebruikt voor mitigatie en het verhogen van het comfortniveau?

3. Rangschik deze - welke zijn volgens jou het meest praktisch?

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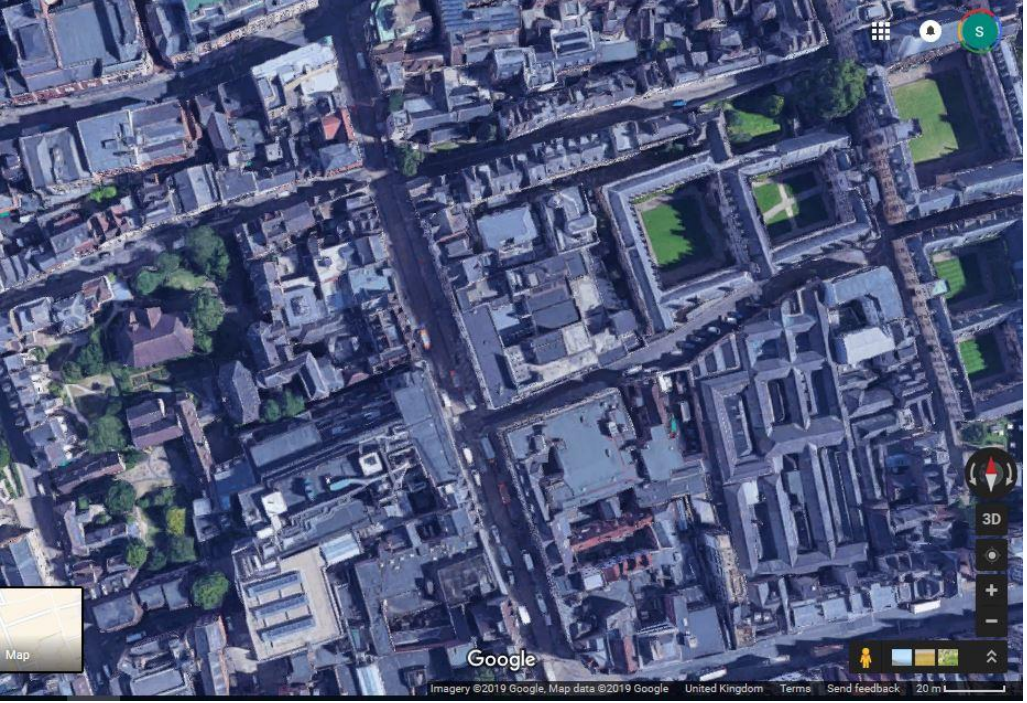
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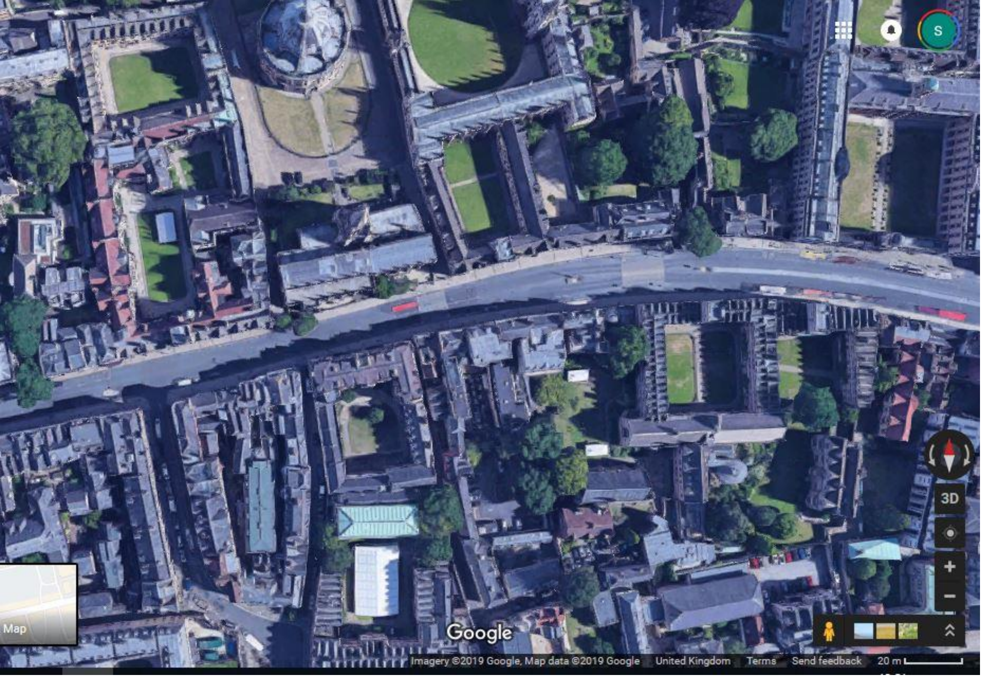
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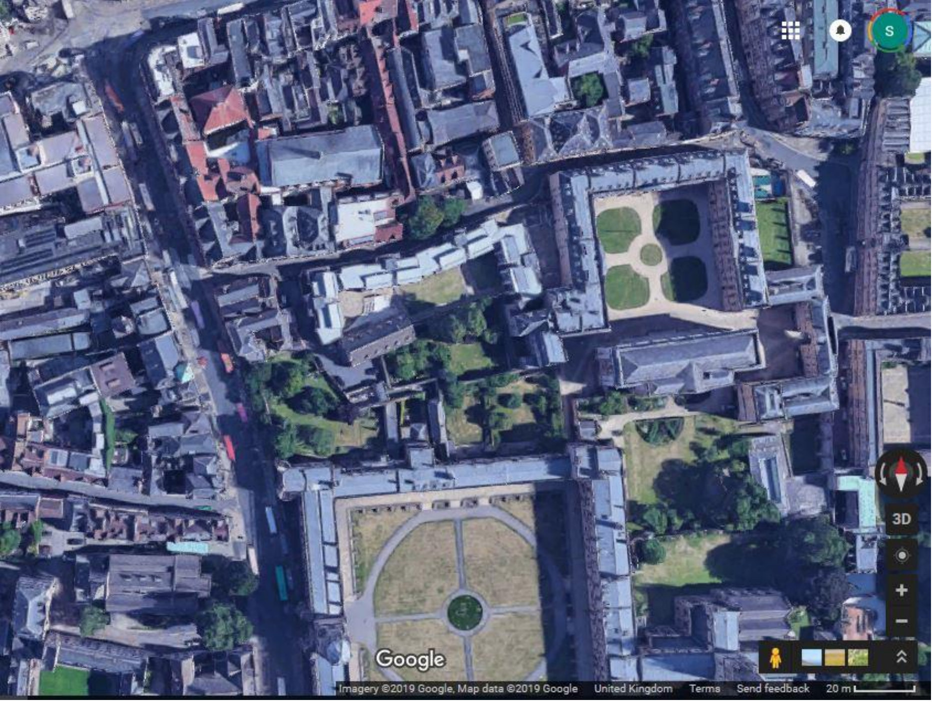
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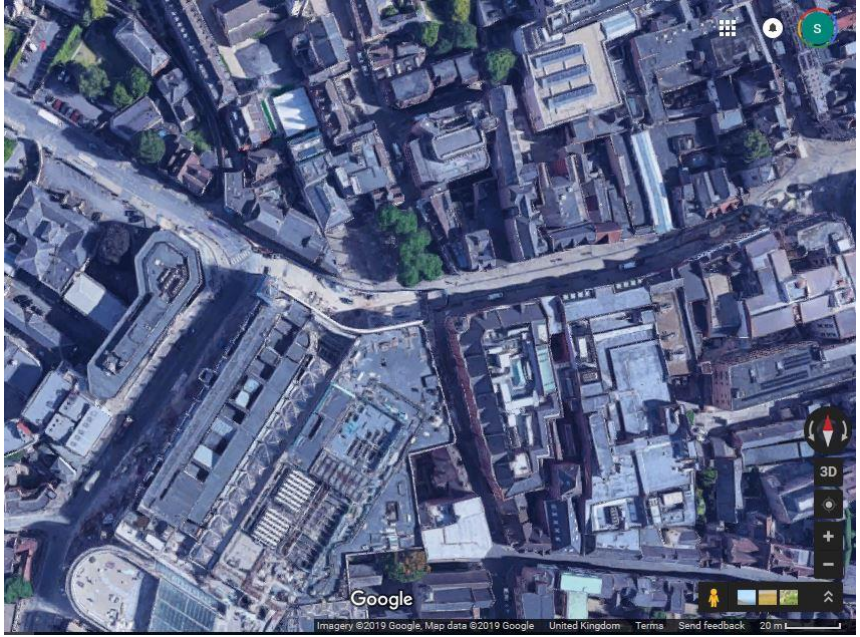
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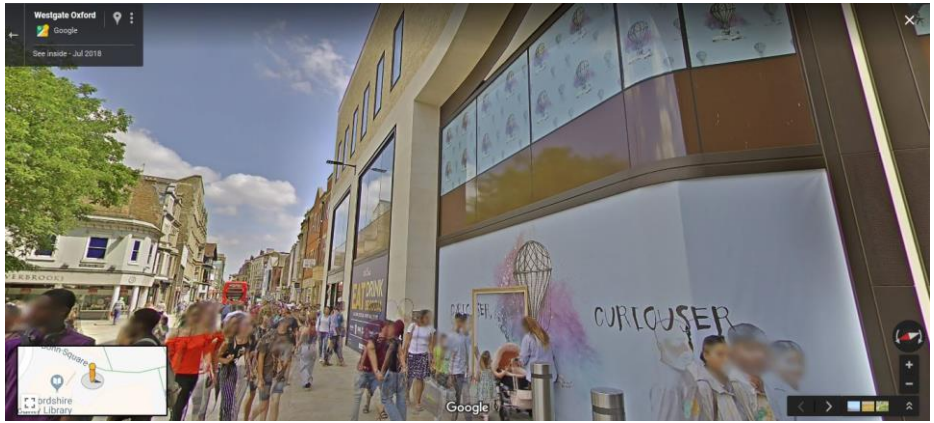
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4. Wat zijn de mogelijke nadelen van de gekozen interventie(s)?

5. Wat zijn de bijkomende voordelen van de door u gekozen interventie(s)?

6. Wil iemand veranderen van keuze?

7. Welke aanvullende informatie zou geholpen hebben om te beslissen?

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