

Urban Narrative Value Based Urban Design

Mark Dyer, Rachel Dyer, Annika Hinze, Tomas Farrari, Shaoqun Wu,
Rebekah Wilkins, Min-Hsien Weng

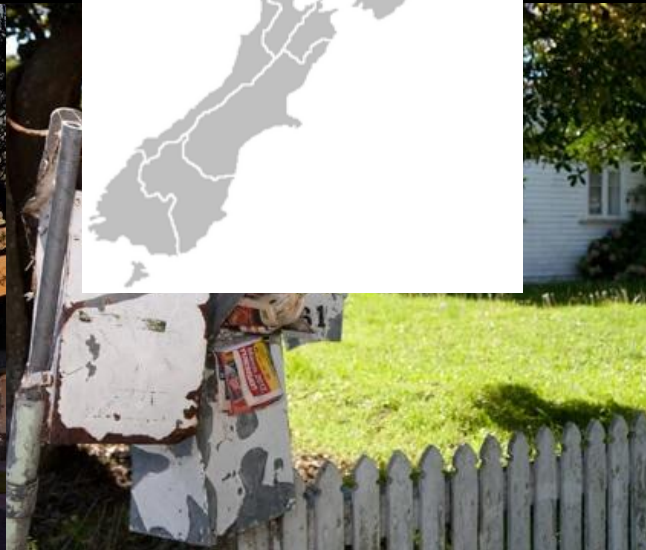
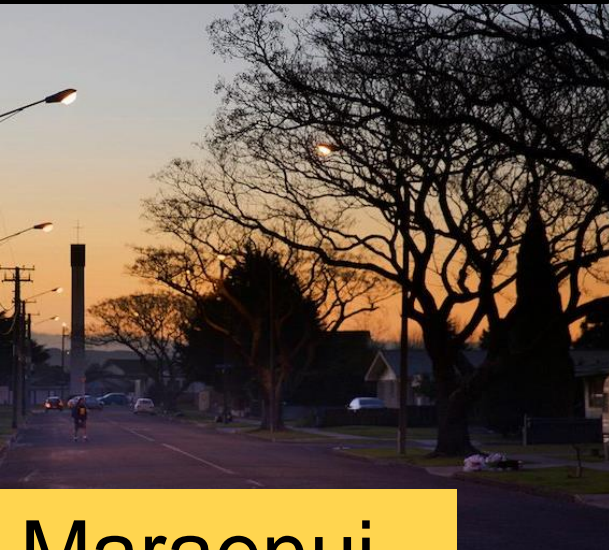
Kate Mackness Rachel Dyer and Mark Dyer
University of Waikato

The Dimensions of Urban Design

- Morphological
- Perceptual
- **Social**
- Visual
- Functional
- Temporal

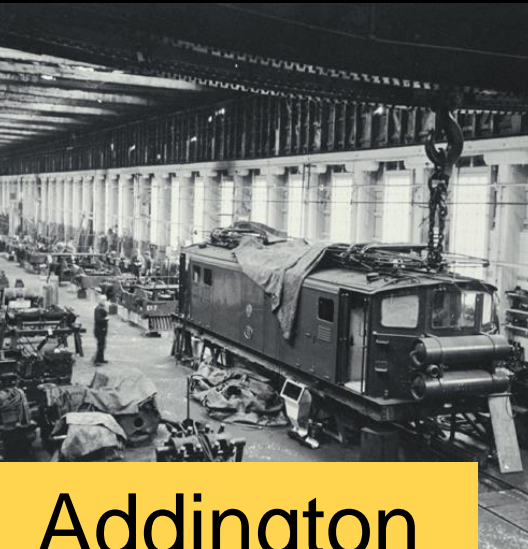


Napier, Hawkes Bay



Maraenui

Christchurch, Canterbury



Addington



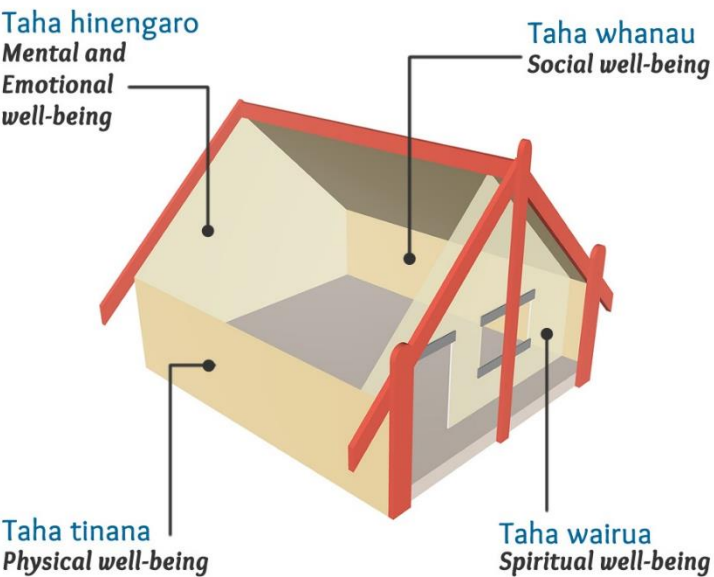
Urban Narrative

Cultural Values and Human Needs

Maslow's Hierarchy of Need (1970)



Te Whare Tapa Whā



Te Aranga Design Principles (2008)

Rangatiratanga

Chieftainship/ Right to Exercise Authority

Kotahitanga

Unity/Togetherness

Kaitiakitanga

Guardianship and Stewardship

Wairuatanga

Spirituality

Manaakitanga

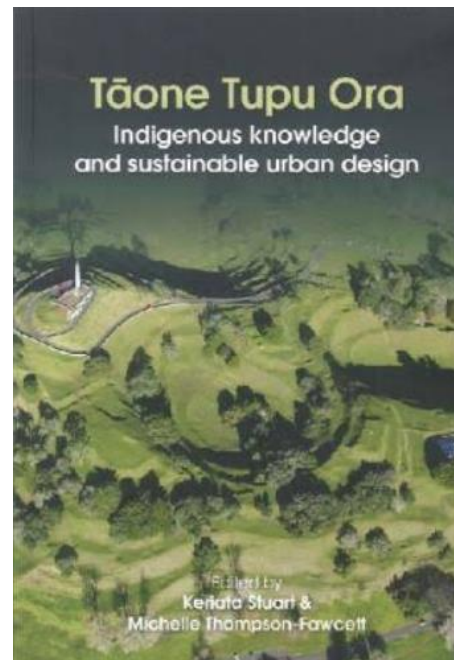
Hospitality and kindness

Whanaungatanga

Relationship/ Sense of Family Connect

Matauranga

Knowledge/Wisdom



Overlapping of Maori and Non-Maori Cultural Values and Human Needs

Te Whare Tapa Wha	Te Aranga Māori Urban Design Principles	Maslow's Hierarchy of Needs
Taha wairua (spiritual health)	Matauranga	Self-Actualization
	Rangatiratanga Manaakitanga	Esteem
Taha hinengaro (mental health)		
Taha whānau (family health)	Kaitiakitanga Wairuatanga Whanaungatanga Kotahitanga Orangatanga Mauritanga	Belonging
Taha tinana (physical health)		Safety
		Physiological



Ranking of Cultural Values and Human Needs by Maraenui Workshop Participants



Whanaungatanga Relationships/Kinship

Physical places where people connect. Quite strong in Maraenui

Spaces where we live, play, mourn etc

Sports, cultural, educational activities and space

Church/community group

Socialising outdoors

Cultural connection to land and plants

Minority engagement with gardening

Ancestors and diaspora

Customs

Wairuatanga Spirituality

Safety

Safe exits for emergency

Connection via broadband.

Safe for children to play and walk

Darkness - poor street lighting

Eyes on the street - know your neighbours

Where people don't go (activity)

Its safe for adults but not for kids. It used to be safe for kids but now its not.

Need safer pedestrian routes and roads.

Poor connectivity of roads - hard to get in, hard to get out

Maraenui: Guiding Principles

Value-Based Urban Design Brief

- Children-friendly spaces
- Safe and accessible spaces for community events and activities (singing, prayers, meetings) including placed to welcome and host visitors
- Online and physical spaces for the community to share information
- Active citizen engagement in decision-making
- Safe pedestrian footpaths that are well connected and well lit
- Access to recreational spaces while protecting the natural environment
- Recognition of community heritage and culture
- Access to health services

Urban Narrative : Data Collection, Analysis, Visualisation

Urban Narrative: Data Collection

WEBCROWD An UrbanNarrative Research Project

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Christchurch

The copy warned the Little Blind Text, that where it came from it would have been rewritten a thousand times and everything that was left from its origin would be the word "and" and the Little Blind Text.



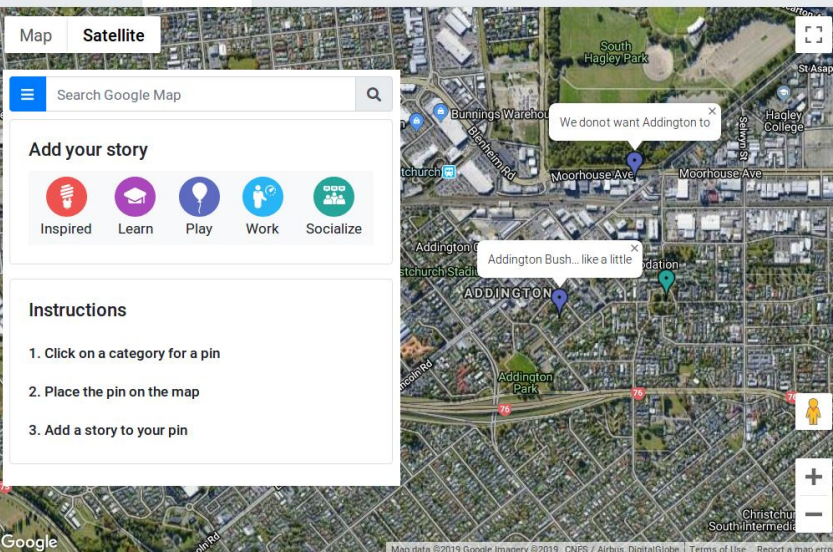
National
Science
Challenges

BUILDING BETTER
HOMES, TOWNS
AND CITIES

for help with building help
askus@nps.gov



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato



Stories about Christchurch

We donot want Addington to

We donot want Addington to become part of the CBD...
that would be devastating.

Last updated at 19/07/2018

13 likes

Addington Bush... like a little

Addington Bush... like a little oasis.

Last updated at 23/01/2018

23 likes

This is where you see

This is where you see the 'old Addington', with so many community minded people. We are losing the 'villagy feel'

Last updated at 23/01/2018

54 likes



Urban Narrative: Data Analysis



Interactive language learning



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Top 100 collocations

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- [city](#) [centre](#) (54)
- [bus](#) [exchange](#) (10)
- [car](#) [parks](#) (8)
- [transport](#) [options](#) (5)
- [shuttle](#) [buses](#) (5)
- [rise](#) [buildings](#) (5)
- [car](#) [parking](#) (5)
- [sex](#) [shops](#) (4)
- [city](#) [living](#) (4)
- [ground](#) [floor](#) (4)

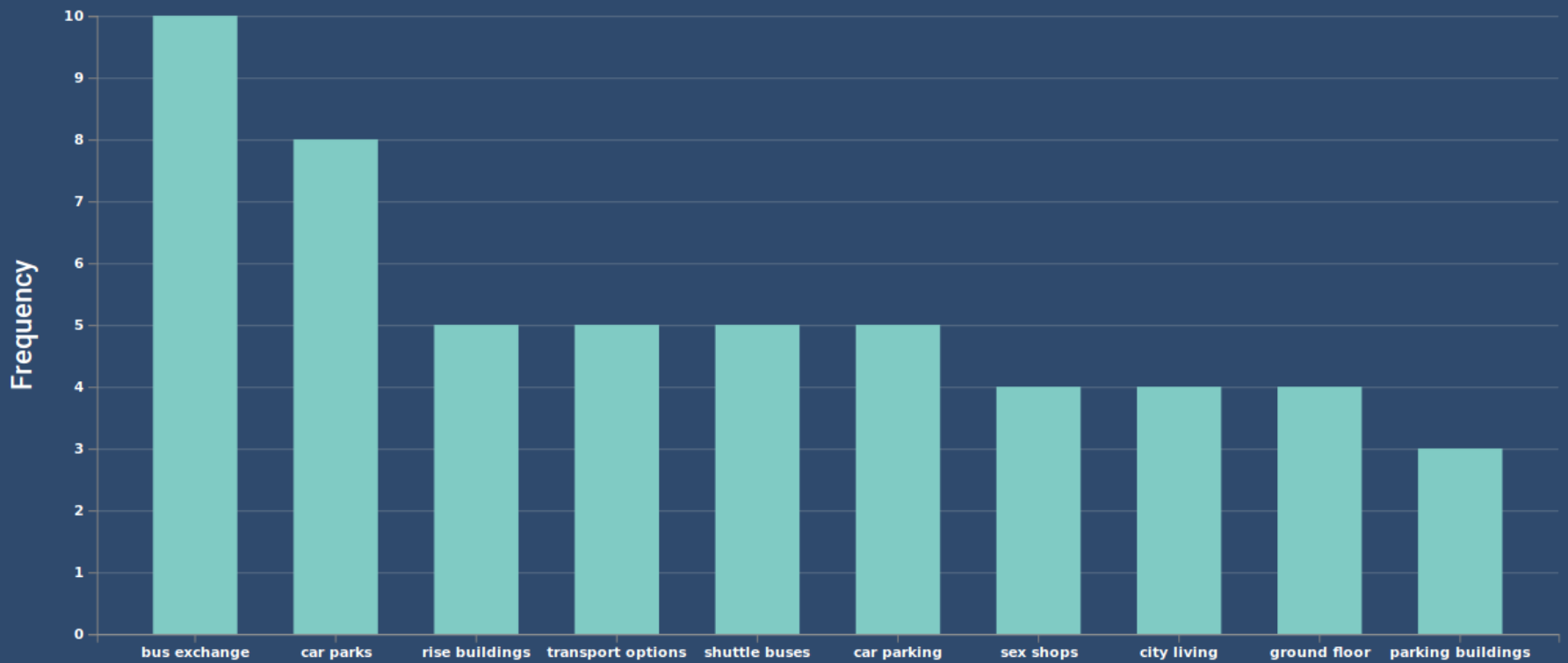
Common Themes

from Public Ideas

Christchurch Central City Plan

21 July 2011
Monitoring and Research Team
Christchurch City Council

Top 10 Flax Collocation (N+N) excluding City Center



Keywords

Source: Common Themes from Public Ideas Report
Powered by Flax interactive language learning

Urban Narrative: Data Analysis

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Top 100 collocations

[Noun+Noun \(100\)](#) [Adjective+Noun \(100\)](#) [Noun+of+Noun \(100\)](#) [Verb+Noun \(100\)](#) [Verb+Preposition+Noun \(100\)](#) [Adjective+Preposition+Noun \(63\)](#)

- [present](#) [at](#) [all](#) [times](#) (2)
- [able](#) [to](#) [farewell](#) (2)
- [great](#) [for](#) [tourists](#) (2)
- [accessible](#) [to](#) [everybody](#) (2)
- [safer](#) [around](#) [the](#) [central](#) [city](#) (2)
- [safe](#) [at](#) [all](#) [times](#) (1)
- [attractive](#) [to](#) [visitors](#) (1)
- [to](#) [its](#) [enhanced](#) [function](#) (1)
- [separate](#) [from](#) [roads](#) (1)
- [available](#) [for](#) [hire](#) (1)
- [interconnecting](#) [with](#) [the](#) [suburbs](#) (1)

Common Themes

from Public Ideas

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Urban Narrative: Data Visualization

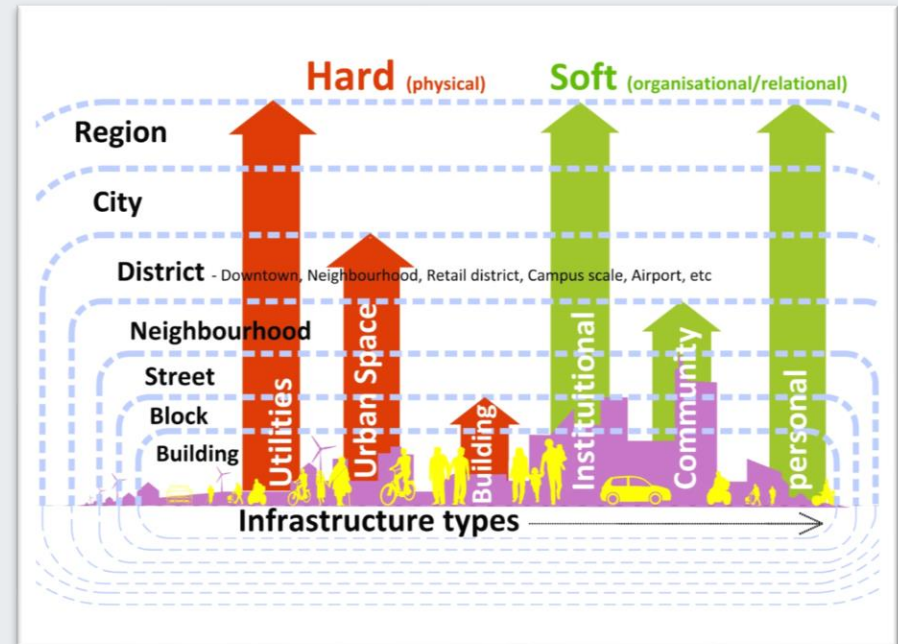
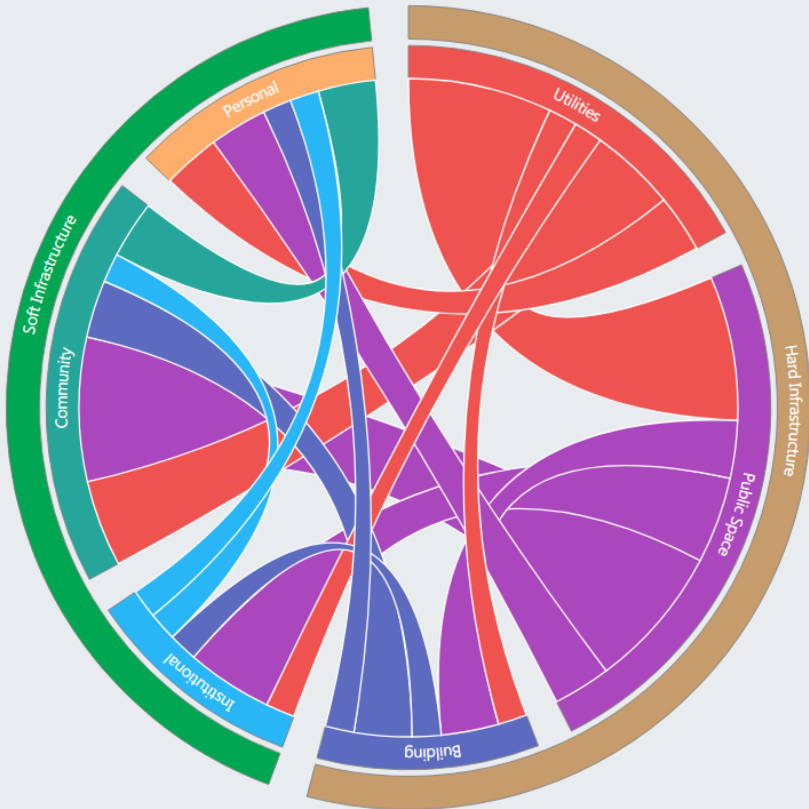
Frequency Chart

Relationship Chart

Bubble Chart

Tree Chart

Pie Chart



examine the relationship between hard and soft infrastructure

Urban Narrative: Data Visualization

WEBCROWD An UrbanNarrative Research Project

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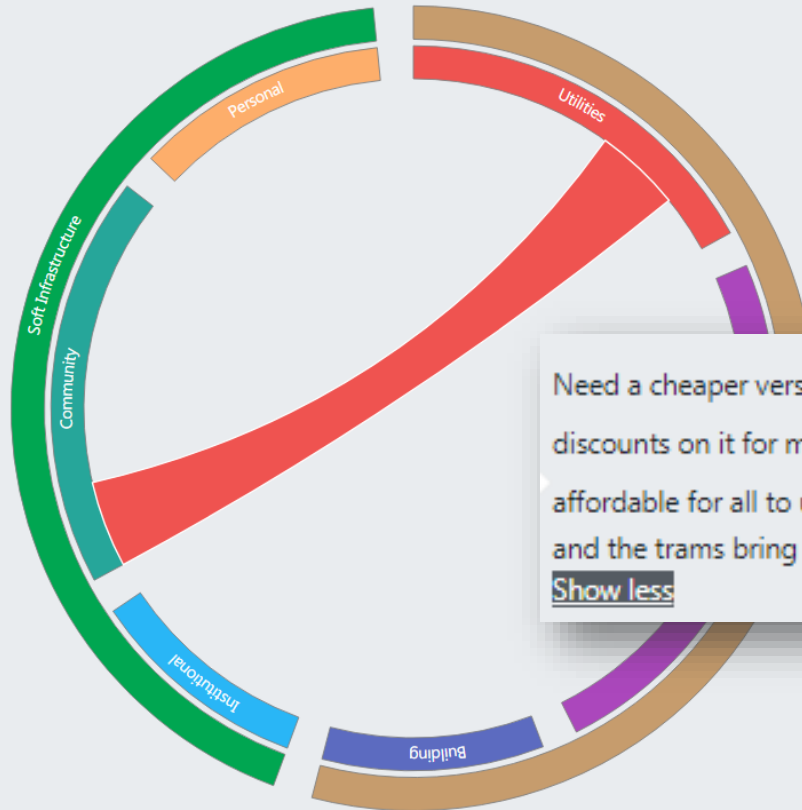
Frequency Chart

Relationship Chart

Bubble Chart

Tree Chart

Pie Chart



Utilities Community 3 stories

"It should be a place for people to gather and relax"" Families will feel safe at all times"
Elements of CPTED (Crime prevention through environme... |
[Read more](#)

Opening until 3am only encourages binge drinking" "No alcohol servd afr 12pm" "Ban drunks from
city bars for 14 days or more" Increased police presen... |
[Read more](#)

"None of us could stand the noise, the pollution, and the proliferation of loitering teenagers
around the bus exchange" "Avoid old bus exchange p... |
[Read more](#)

Need a cheaper version for the locals "Trams in the CBD that are cheap to use" "...Big
discounts on it for multi trip/residents" ".. Please please continue with the tram project but make it
affordable for all to use to bring people into the city while providing outlying car parking areas
[Show less](#)

Urban Narrative: Data Visualization

Frequency Chart

Relationship Chart

Bubble Chart



Utilities Community 3 stories

"It should be a place for people to gather and relax" **Families** will feel **safe** at all times" Elements of CPTED (Crime prevention through environme... | [Read more](#)

Opening until 3am only encourages binge drinking" "No alcohol servd afr 12pm"

"Ban drunks from city bars for 14 days or more" Increased **police presence** and visibility (including **surveillance cameras**), with **low** tolerance towards **trouble-makers** "Police walking the beat" "Nil tolerance for crime and **hooligans**, good **lighting**, **visible** policing, other people around"

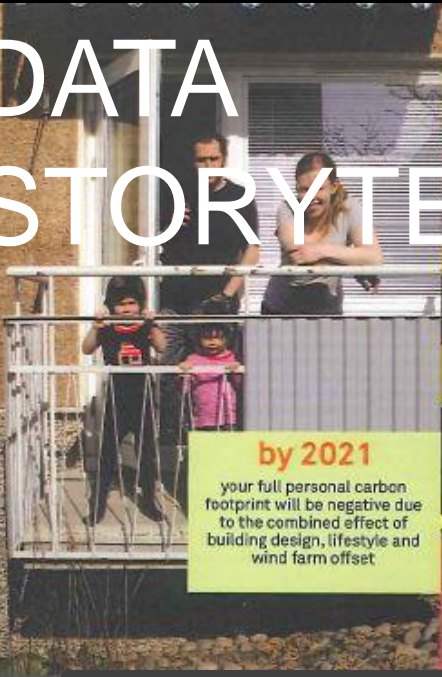
"...zero tolerance on drunks/noise" "More lights, **video cameras** in **dark** alleyways, & a gr8tr **police presence**" Many believe that an increase in **central** city living and people will equate to a safer night time environment

"Have **real people** living in the city centre - **all ages** and stages so everyone has a stake in keeping it safe and making a community" "More **residential** development so that **ordinary** people are coming & going"

Safe **transport options** after dark "Good **transport services** to get late **night workers home**" "Ensure nighttime waiting areas for **public transport** are brightly lit, kept clean, & have police or **security wardens present** at all times" Many comments wanting prostitute and **sex businesses** clustered in a **specific** area away from the heart of the city or eradicated altogether "no **seedy** sex shops" "I would **like** to see the **adult** sex shops removed from the city centre -they give it a **seedy** appearance" "Prostitution, massage/ **pornography** etc regulated in a **concentrated** area"

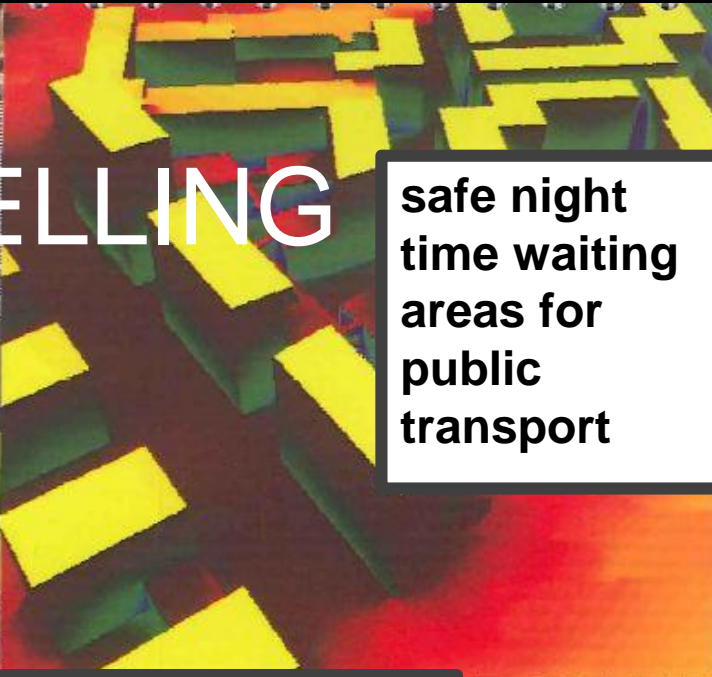
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DATA STORYTELLING

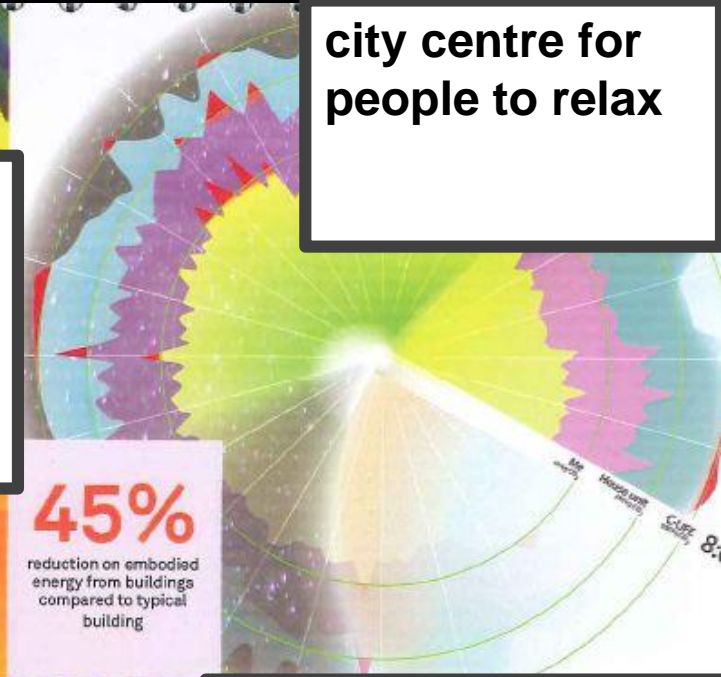


by 2021

your full personal carbon footprint will be negative due to the combined effect of building design, lifestyle and wind farm offset



**safe night
time waiting
areas for
public
transport**



**city centre for
people to relax**

**city centre
attractive for
visitors and
tourists**

**place for families
to feel safe**



**more lights and
cameras in dark
alleyways**



**city centre for all
ages**

DATA STORYTELLING: PERSONAS

Fredrik and Josefiina

age: both 55
occupation: Fredrik, city administration, Josefiina, senior manager
relationship status: married
lives in: 80-150 sqm apartment
reason for relocation: to be able to "walk to cultural attractions, have space in the city centre, be close to Baltic sea"
originally from: the suburbs

"We're willing to contribute to the common cause."

a day in the life

It's Saturday evening and Fredrik is busy in the kitchen singing at the top of his voice; Josefiina is splitting her sides laughing. "Fredrik! Think about the neighbours..." Fredrik is busy preparing the three course meal for the church group dinner. After the evening is over and the last guests have left, Josefiina and Fredrik go for a walk into the centre to see the new beautiful art sculpture: it represents the energy usage of the area, and the couple donated some money to finance the installation.

would like to

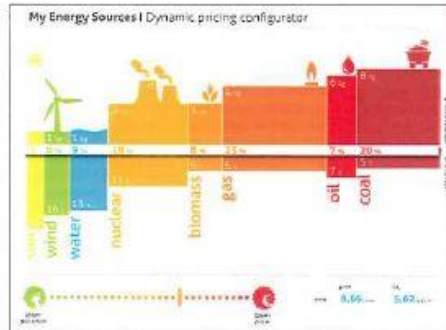
- Produce and sell their own energy
- End the day in their private sauna
- Play an active role in the community and meet new people

clean energy source selector

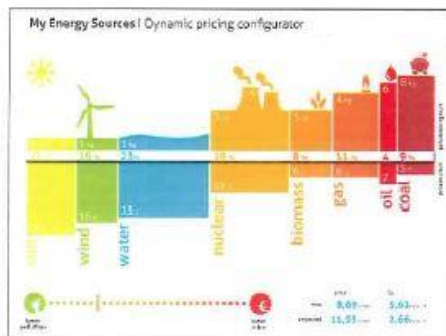
This display shows various sources of energy production, with carbon footprint and price for each type. People can see their usage of different energy sources, and can then modify their desired consumption (e.g. pay more, but use more green energy).

They can charge their next bill based on this preference. This shifts more funds towards green energy, educates people about energy sources and indicates to the energy provider who is willing to shift to green sources and by what amount.

Dynamic pricing offers extend long-term purchases based on personal value systems to short range decisions. Display could be linked to an energy minimizing smart home system.



People can see the breakdown of the various energy sources and costs in euros and CO₂



The selector allows people to shift to greener, more expensive sources of energy and gives an indication of extra costs and savings in CO₂

netbook 800x600

Katariina

age: 38
occupation: service employee
relationship status: single mother
lives in: 55-70 sqm rented Hippias apartment
reason for relocation: access to community services and facilities
originally from: 1960s housing settlement

"I want to be a role model for my son and younger generations."

a day in the life

"Niko, please don't forget to switch off the computer when you've finished with it! The electricity bill was really high last month." Katariina scolds her son. She wishes she could get him to do more outdoor activities, but when 8-year-old Niko isn't at home playing computer games, he is doing the same with friends.

She wishes they could afford to take a holiday but money is tight this time of year. Katariina is thinking about getting a pre-paid energy card to help them keep track of what they are spending – she likes the idea of showing Niko just how much his hours on the computer cost!

would like to

- Have access to sport and school facilities for Niko
- Use public transport more
- Spend more time with her son

pure air travel

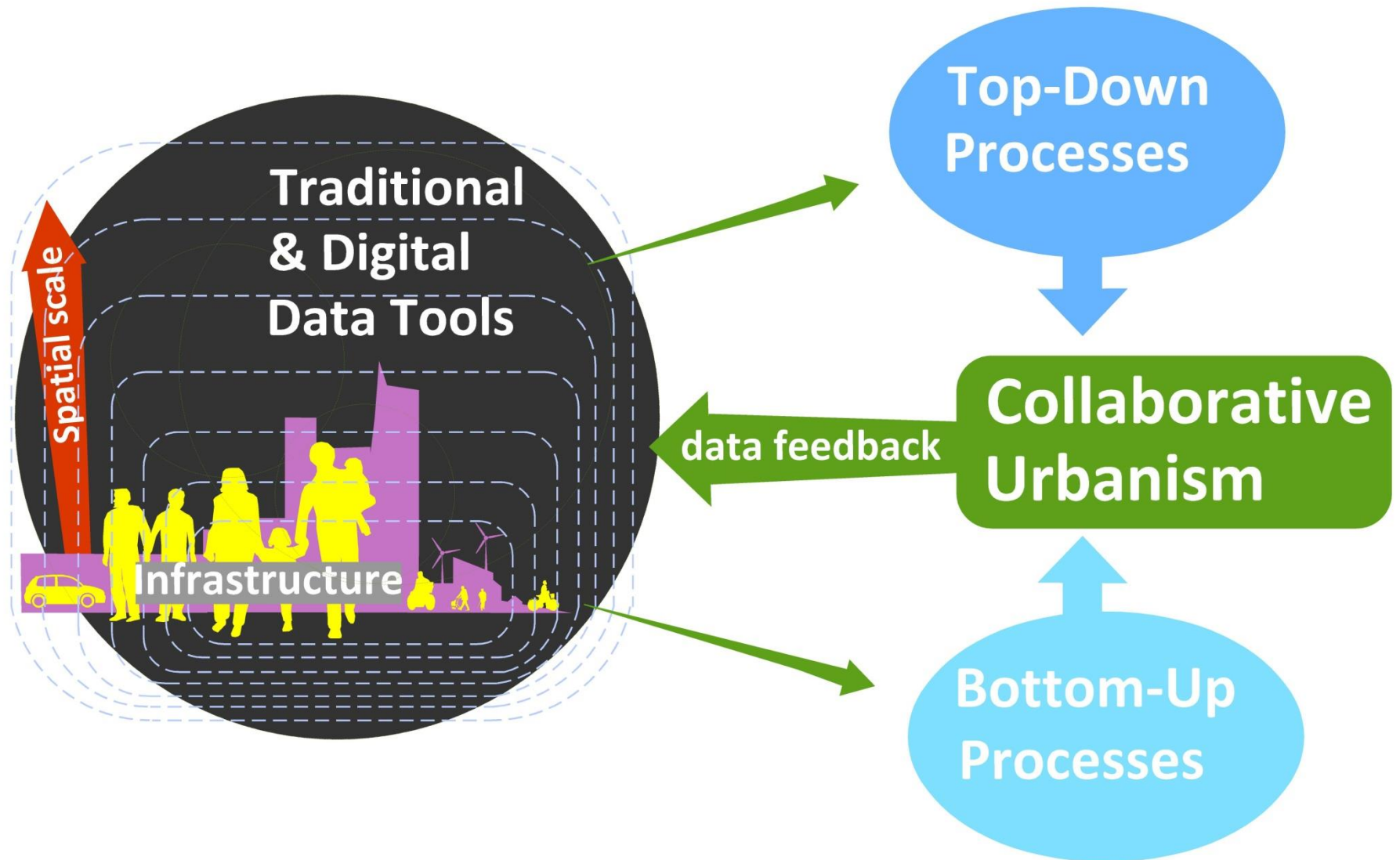
A mobile phone wallpaper that shows individuals how "clean" or "dirty" their travel is. The visualisation starts off as a coloured smoke background. GPS systems track speed and recognise the travel means being used (e.g. car vs bike), then calculate the carbon being used.

Accordingly, the background becomes cleaner or dirtier. Bluetooth systems tell the phone when public transport is being used. The devices are additionally powered by solar energy when available.



Shows one day of travel and the cost in CO₂. The screen turns darker when consumption is higher.

mobile phone 480x320



Conclusions and Priorities

- Capitalise on community capacity building to enable deeper citizen engagement and purposeful data collection
- Use citizen science to bridge the gap between scientific data collection and community shared values
- Manage data as a public good and promote data literacy to start conversations
- Champion evidence based design to enable more effective decision making in urban planning and design.
- Identify 'windows of opportunity' within existing regulatory frameworks to ensure value-based design guidelines are Implemented in practice

Acknowledgements

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kate.mackness@waikato.ac.nz
rachel.dyer@waikato.ac.nz