From making the city to using the city
The infrastructure of everyday life

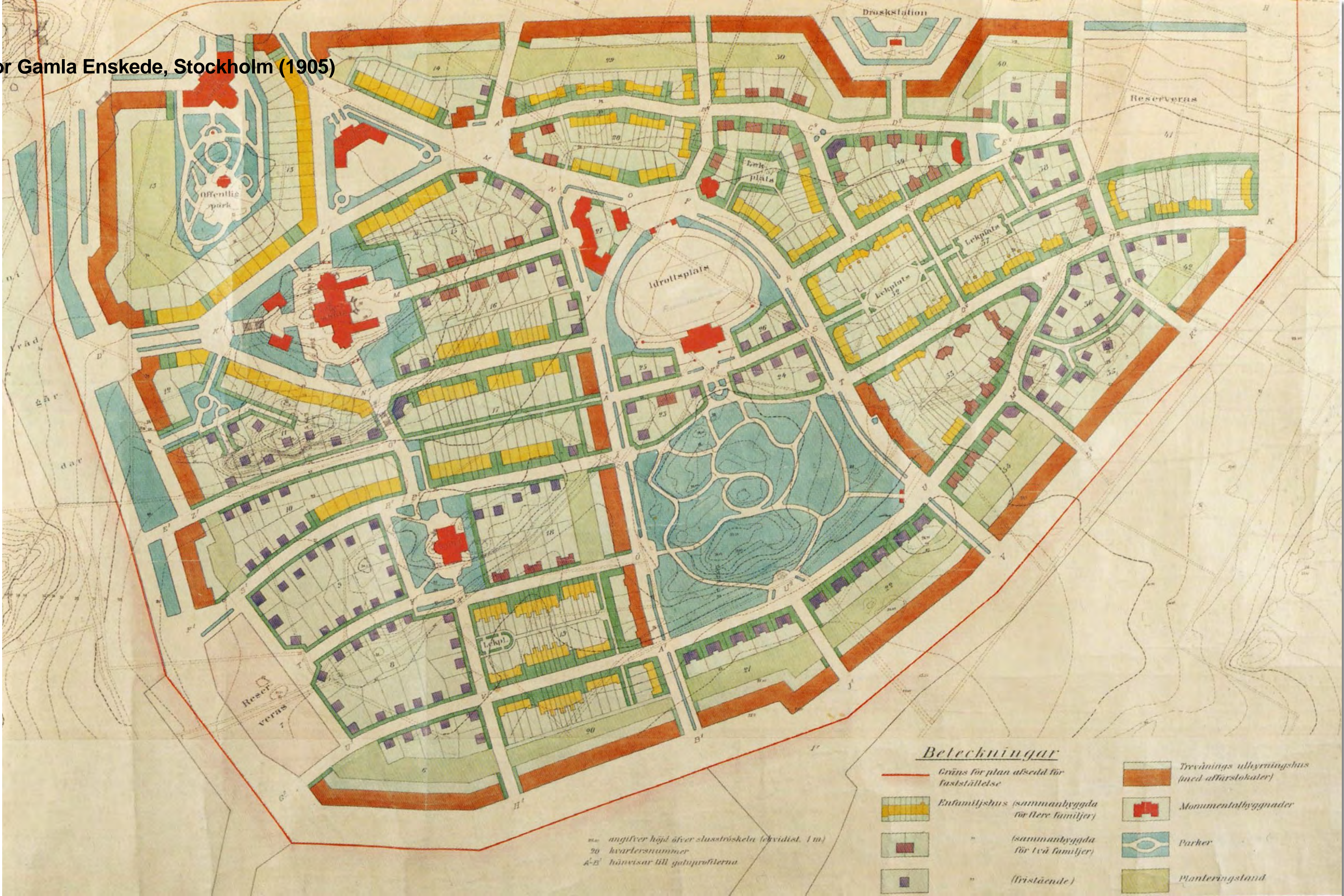**Dan Hill**
Director of Strategic Design, Vinnova, Sweden
—

Visiting Professor, UCL Institute for Innovation and Public Purpose
Visiting Professor, Design Academy Eindhoven
Adjunct Professor, RMIT University
—

@cityofsound
medium.com/@cityofsound

Gamla Enskede, Stockholm (2019)

Original plan for Gamla Enskede, Stockholm (1905)

Gamla Enskede, Stockholm (2019)

Gamla Enskede, Stockholm (2019)

Gamla Enskede, Stockholm (2019)

rad lägenhet. Men enfamiljshuset fanns hela tiden i bakgrunden, redo att kliva fram som det att-raktiva målet för den strävsamma arbetaren.

Men om de första decennierna efter 1930 hade ägnats framför allt åt att bygga flerfamiljshus så var H55 villa- och radhusstadens och bilsamhällets utställning. Sverige var redan 1955 Europas biltätaste land. »Bo med bil« hette ett av småhusen på H55 med inredning i svart, orange och citron. Småhusägarna »behöver bilen för att hålla kontakt med den stad de bor i och utnyttja stads-boendets fördelar«, konstaterade Olle Bengtzon.

Journalisten och debattören Ulla Molin hörde till dem som protesterade mot det svenska folkhemsprojektets vilja att skilja människorna från marken i höga hus. Enligt höghus-

Technology is the answer.
But what was the question?

Cedric Price
1966

We don't make cities to make technology, buildings, infrastructure. We make cities for culture, community, commerce, conviviality, enabled by the infrastructure of everyday life.

Shared and public local mobility services, autonomous and otherwise.

Super-local microgrids, with renewable energy, battery storage and shared ownership.

Cooperative design, build and ownership of dense and diverse neighbourhoods.

Circular, natural materials for buildings, products and infrastructure, with local loops.

Everyday services via active transport, reduced & fossil-free long-range connections.

Privacy-preserving yet public decision-making platforms, with discourse and data.

Tech Envisions the Ultimate Start-Up: An Entire City

Silicon Valley wants to save cities. What could go wrong?

Smart city tech makes things worse, without inventive, capable, responsible, engaged and participative governance, design, and shared ownership.

Uber and Lyft increased traffic delays in San Francisco by 40 percent

35

TECHNOLOGY 8 May 2019

Going nowhere
Getty Images

By **Chelsea Whyte**

Uber and Lyft drivers are on strike to demand regulated fares and livable wages, in the lead-up to Uber's initial public offering on the stock exchange on 10 May. Now there is some more bad news for these services: they haven't lived up to claims of reducing

Individual   **Service**   **?**

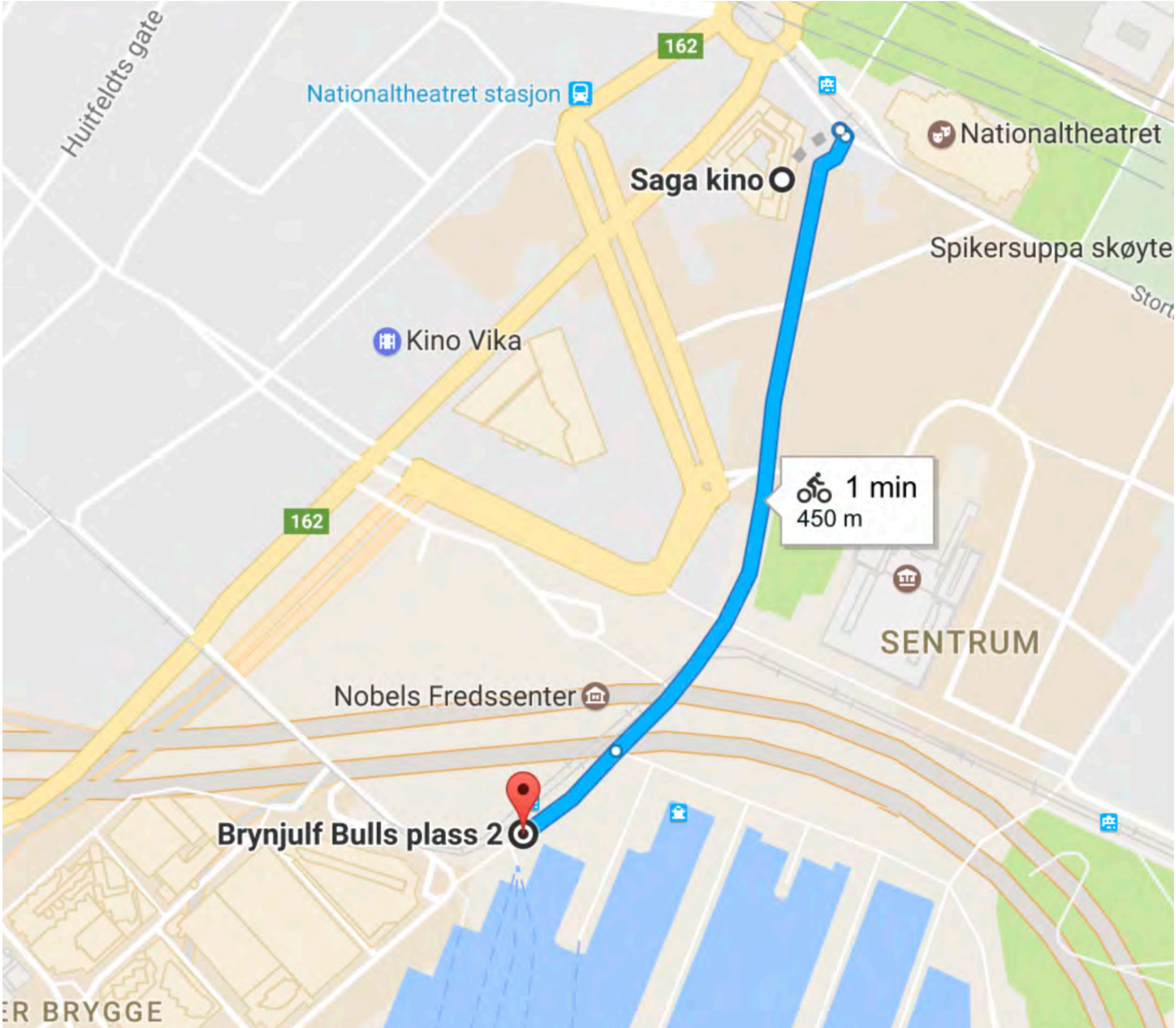**Characterful**

Oslo Bysykkel
2015—

Oslo Bysykkel
2015—

marit_elisabeth_j • Follow
Oslo, Norway

marit_elisabeth_j Min egen bysykkel!
#oslobysykkel #bysykkel #norway #sykkel
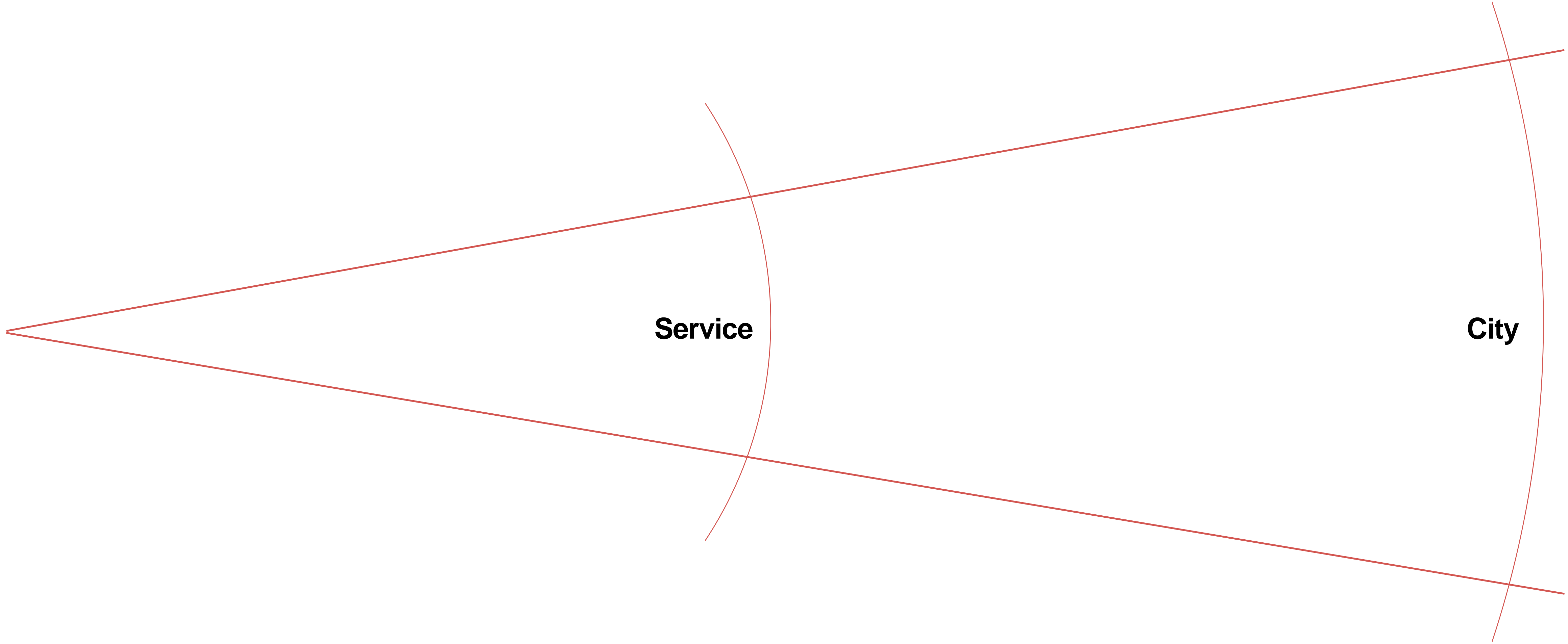
40 likes

MAY 21

Add a comment…

Citizen

Service

City

Always design a thing by considering it in its next larger context—a chair in a room, a room in a house, a house in an environment, an environment in a city plan.

Eliel Saarinen

Strategic design
Shifting lenses
Emphasis on engaging with the systemic impact either side of the question at hand.

You have to anticipate the situation created by AVs in the cities in 2030 and design the rules of the game between now and 2020, in order to explain to the car builders and the service providers the rules of the game. We should announce, before 2020, that in Paris, no private owned AV will be allowed; it will be only mobility as a service; not mobility as ownership. Otherwise, you have the strategy of the car manufacturer.

Jean-Louis Missika, Deputy Mayor of Paris, June 2017

Affordances for shared AV

Getting Around
Sharing an AV

Design questions at scale

Will Anna trade off time against money?

Will she share a small vehicle with strangers?

How do we enable glanceable interactions, without cellphones?

How to make legible machine learning systems in edge networks?

How to coordinate on-demand vehicles on the street?

What is the interplay with public transport networks?

Today

ARUP

Digital Backbone

PUBLIC WIFI

WIFI & SENSOR TOTEM

ARUP

Compact Parking

ROTATED & COMPACTED PARKING

CYCLE LANE

ARUP

Mobility Options

LOCAL SHUTTLE

RIDESHARE PICKUP POINT

NEXT
BUS
5
mins

BIKESHARE HUB

WAITING BENCH

ARUP

Greenery

TREES

GRASS

PLANTERS

NEXT BUS 5 mins

ARUP

Shared Surface

GREENERY

BIKE RACK

SHARED SURFACE

SEATING

NEXT BUS 5 mins

ARUP

Flexible Program

CAFE

CAFE

PLAYGROUND

NEXT BUS 5 mins

ARUP

All Iterations

LOCAL SHUTTLE

TREES

WIFI & SENSOR TOTEM

GREENERY

PUBLIC WIFI

CAFE

NEXT BUS 5 mins

RIDESHARE PICKUP POINT

CAFE

PLAYGROUND

BIKE RACK

BIKESHARE HUB

PLANTERS

SHARED SURFACE

SEATING

WAITING BENCH

GRASS

ARUP

Now

ARUP

Then

CAFE

NEXT
BUS
5
mins

ARUP

Example strategy for healthy streets demonstrator

Value

6
Flexible active program

5
Shared surface

4
Re-green

3
Test mobility options

2
Unlocks space

1
Digital backbone

Note: expensive elements are deployed as revenue can cover them (via increased value, of rent and business, and reduced costs, via better health, safer streets etc.)

0

Today

Note: Initial investments need only minimal capital and operational expenditure.

Near-future

Sloterdijk and Sluisbuurt

People

Parking load v1

Value

Parking load v2

Phase

01 02 03 04 05 06 07

14

Sloterdijk and Sluisbuurt

People

Parking load v1

Value

Parking load v2

Phase

01 02 03 04 05 06 07

fig. 1 Parkeernormen, een lineair verloop

fig. 1 Ambitie en hogere ambitie

fig. 1 Mobiliteitsinterventies/maatregelen t.b.v. ambitie
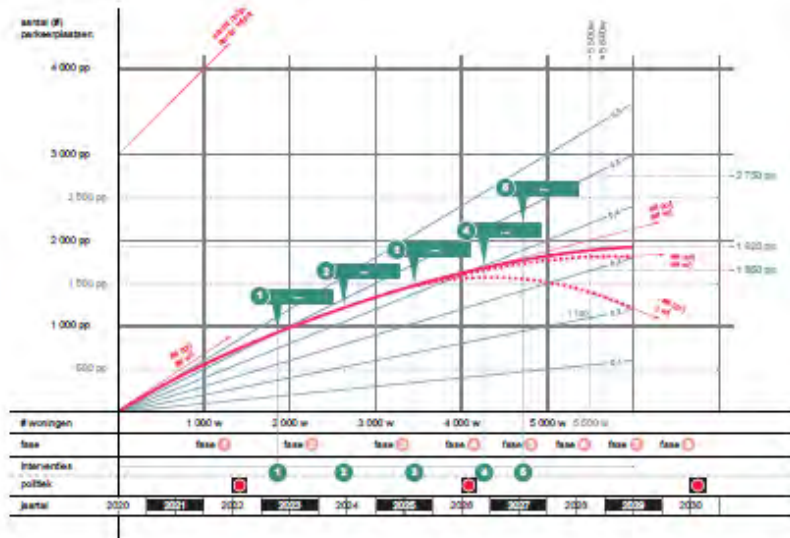
INLEIDING

Ambitie

In de Sluisbuurt is een integrale strategie nodig op het gebied van mobiliteit, specifiek met betrekking tot parkeren. Zeeburgereiland (ZBE), waar Sluisbuurt ca. 5.500 (5,640) woningen en voorzieningen zal huisvesten, is op dit moment voornamelijk bereikbaar met de auto. De IJburglaan en Zuiderzeeweg ontsluiten, en doorkruisen, het eiland waardoor verschillende buurten van elkaar zijn gescheiden. Naast de auto kunnen bezoekers deze buurten bereiken middels OV (tram 26) en met de fiets. In de plannen van Sluisbuurt moeten juist deze modaliteiten domineren over het autogebruik. Deze worden dan ook optimaal gestimuleerd en het autogebruik, en daarmee ook het parkeren, wordt gedemotiveerd. De gemeente kan in de Sluisbuurt over het gehele gebied sturen en de ruimtelijke uitwerking van een parkeerstrategie kan volledig in het karakter van de toekomstige Sluisbuurt aansluiten op een eenduidige ambitie. Die is in essentie een ambitie om zo min min mogelijk parkeerplaatsen te realiseren in Sluisbuurt. Het wonen/werken in de Sluisbuurt betekent geen (primaire) afhankelijkheid van de auto. Dit houdt in dat ZBE in grotere mate beter bereikbaar moet worden.

Mobiliteitsmaatregelen en interventies dienen daarom het demotiveren van autogebruik te onderbouwen door o.a. het fietsgebruik te optimaliseren en bijvoorbeeld deelsystemen te faciliteren. De Sluisbuurt wordt een fietsbuurt.

Mobiliteitsmaatregelen als oplossingen

In de parkeerstrategie gaat het enkel over autoparkeren. Echter is dit niet onafhankelijk van fietsgebruik, OV, en met name de benodigde mobiliteitsmaatregelen. Plannen voor de fietsbrug vanuit het Oostelijk Havengebied (OHG) naar het waterbassin is daarvan een voorbeeld. Dit houdt in dat in de ruimtelijke inpassing van de parkeervoorzieningen een hogere prioriteit, en daarmee ruimtelijke reservering, uitgaat naar mobiliteitsmaatregelen. Mede daarom is de fasering in alle stadia van de parkeerstrategie een belangrijk referentiepunt. Een ander voorbeeld zijn MaaS (Mobility as a Service) projecten. De (nog) onbekende impact van deze ontwikkelingen zijn net als de fietsbrug oplossingen voor het verkeer, bereikbaarheid en mobiliteit van de Sluisbuurt en IJburg/de Oostflank. Voor deze oplossingen wordt binnen de clusters, in
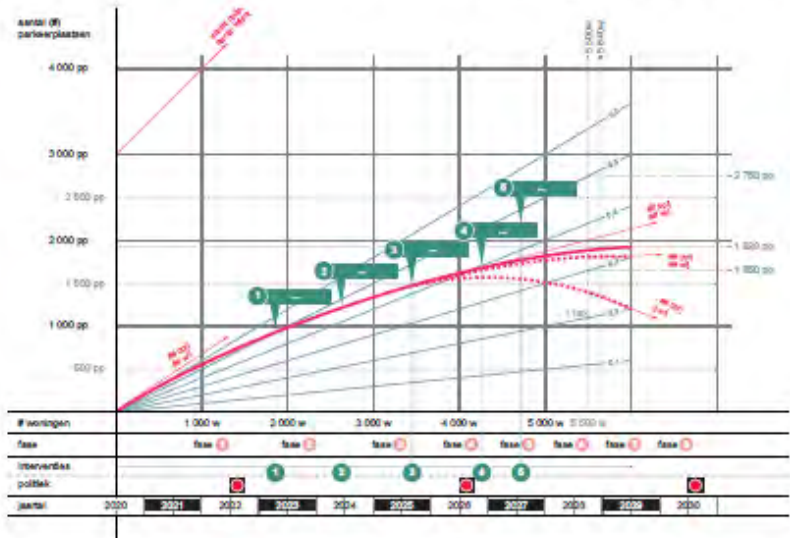
de openbare ruimte, en in de parkeervoorzieningen zelf ruimte gereserveerd. De mobiliteitsmaatregelen zijn nog niet altijd direct zichtbaar maar in de parkeerstrategie krijgen deze een hogere prioriteit ten opzichte van fysieke, conventionele parkeerplaatsen. Deze MaaS voorzieningen zullen zichtbaar aanwezig zijn in plinten en in de openbare ruimte. Ook krijgen fietsstallingen waar mogelijk een open, transparante aanwezigheid in de plint.

Kern van de opgave

Als reactie op het Stedenbouwkundig Plan heeft de Gemeenteraad op 4/10/2018 in een amendement besloten om het punt van parkeren enkele veranderingen door te voeren:
"De parkeernorm voor woningbouw in de Sluisbuurt is in de eerste tenders gemiddeld 0,5 en wordt stapsgewijs naar beneden bijgesteld met als doel te komen tot een gemiddelde parkeernorm van 0,3 voor de buurt als geheel." Daarnaast wordt het totaal aantal parkeerplaatsen onderverdeeld in parkeervoorzieningen en in de straatparkeren, in de openbare ruimte. Deze is vastgesteld: "Ruimtelijk

University of Melbourne Campus User Experience
Arup, 2016–
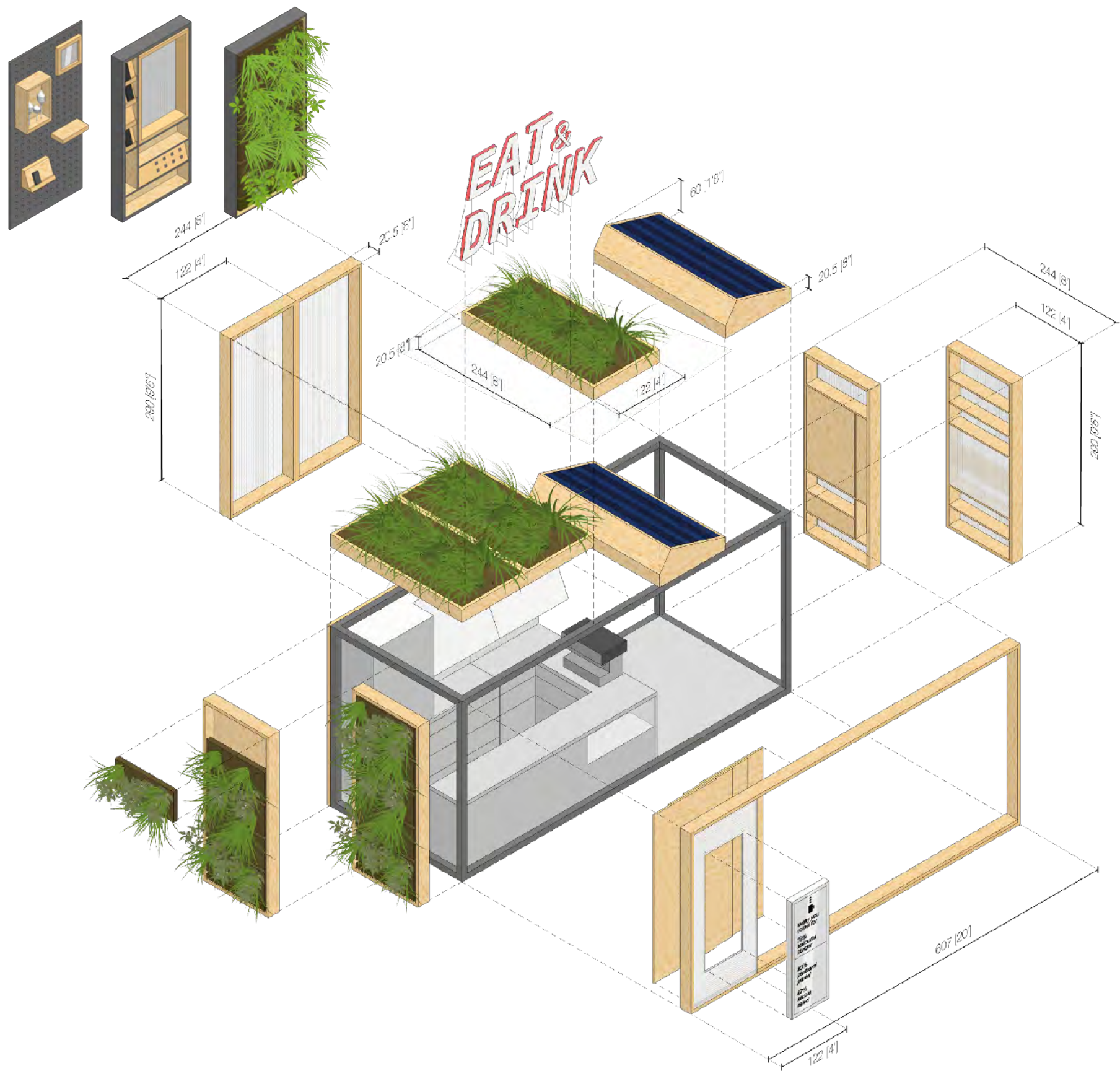
Plug and learn
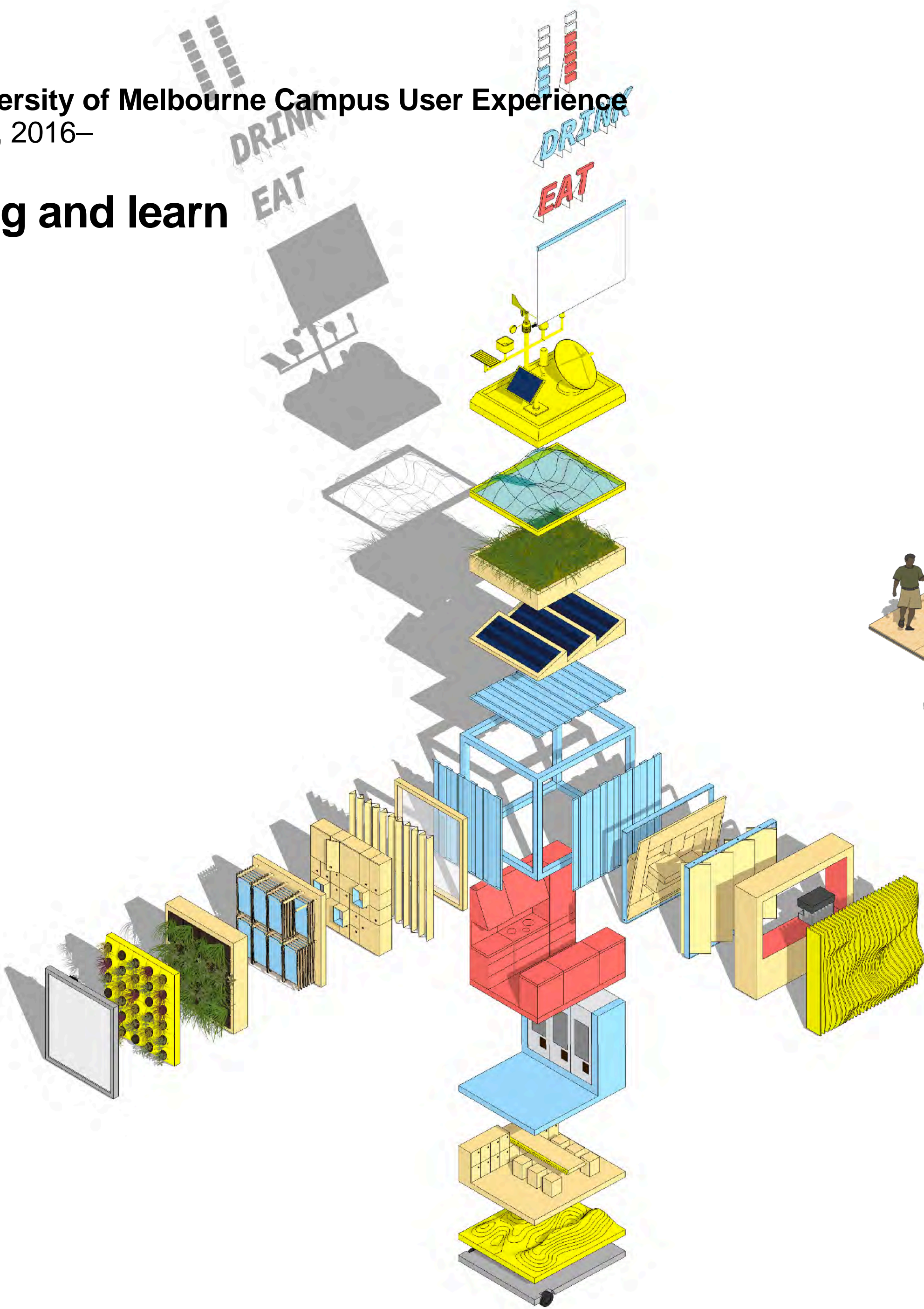
Digital Wayfinding
Responsive e-ink signage
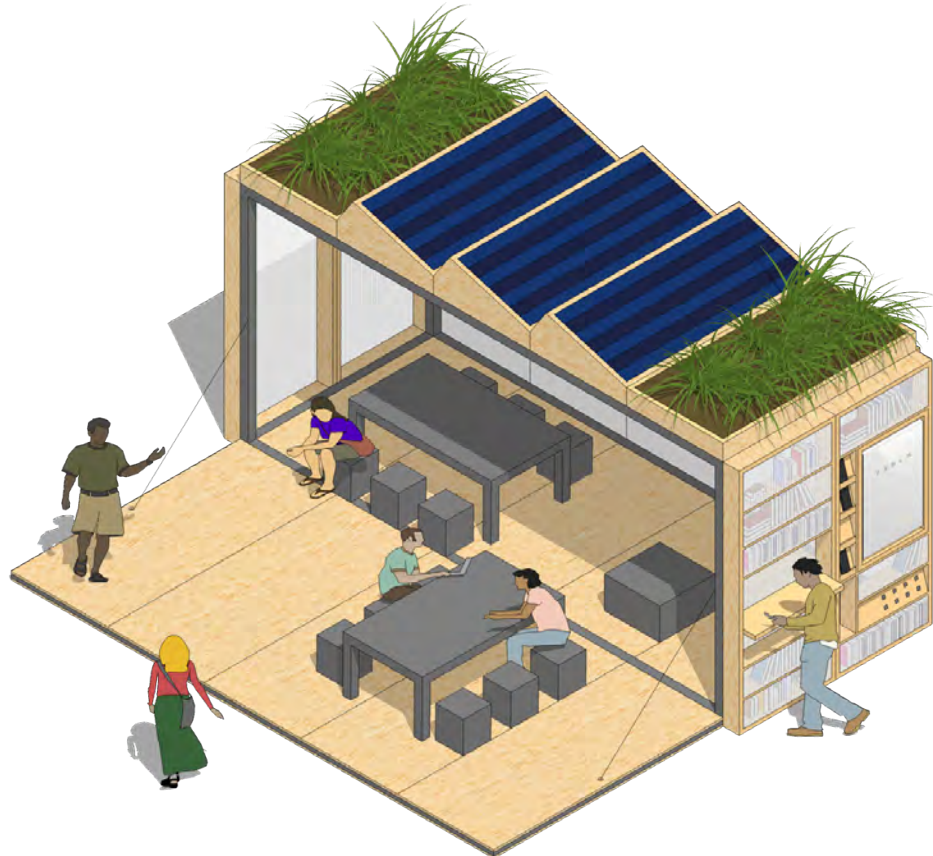
Food Cart
At Gate 8 and Monash Road

Kit of parts

University of Melbourne Campus User Experience /
Arup, 2016–

Food Cart Monash Road

Food Cart Monash Road
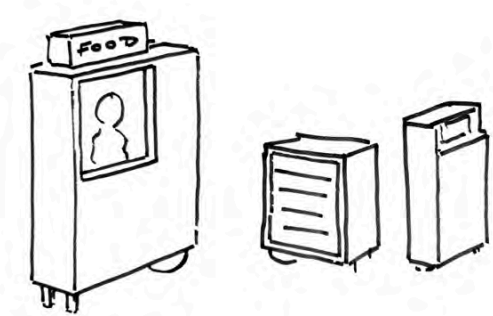
Scalable. A mobile food cart can be duplicated, and deployed in clusters or individually.

Impactful. Mobile carts can provide food offerings at multiple locations around campus, and cover for any temporary closures of other cafes during construction.

Adaptive. The food offering can change, operators can change, it can be used by multiple operators over managed periods of time. It is portable and can be used to service different spaces, or temporary needs (e.g. functions).

Feasible. Easily fabricatable. Partial off-the-shelf solutions possible.

Cost effective. Inexpensive.

University of Melbourne Campus User Experience /
Arup, 2016–

Democracy is a political system for people who are not sure that they are right.

E.E. Schattschneider

Brickstarter / Helsinki Design Lab (2013)

NIMBY to YIMBY

ENG

BRICK N STARTER
YIMBY OVER NIMBY

Start a project   Find a project   About this site   Join/Sign in

Make good things happen in your neighbourhood

1/ **Start your project & build support**   2/ **Fund a project**   3/ **Volunteer your time**   4/ **Share your experience**

Brickstarter is an open platform for community projects. You can use it to kickstart and coordinate your idea, get the community behind it, find professional help and advice, and gain financial backing from others.

BACK THIS PROJECT

NEW PROJECT

BACK THIS PROJECT

The Stables

33% FUNDED   €27 432 PLEDGED   3 DAYS TO GO

» A co-working space, café, shop and community garden in what is currently a parking garage «

Cloud City

NEW PROJECT!   **HELP SHAPE THIS PROJECT**   60 DAYS

» A sustainable block and public space built on top of Merikortelli «

Jätkäsaari windmill

89% FUNDED   €117 312 PLEDGED   23 DAYS TO GO

» A community-owned wind turbine on the tip of Jätkäsaari «

BACK THIS PROJECT

BACK THIS PROJECT

NEW PROJECT

brickstarter.org

Brickstarter / Helsinki Design Lab (2013)

Uusikioski

43% FUNDED €1 432 PLEDGED 17 DAYS TO GO

» We will grow herbs on the roof and vegetables in the square behind, and serve you fresh, local produce with a smile «

BACK THIS PROJECT

Aaltogrotto

62% FUNDED €27,931 PLEDGED 9 DAYS TO GO

» A co-working space in the disused Aalto-designed stairs on Mannerheimntie «

NEW PROJECT

Baana Bike Repair

98% FUNDED €9,942 PLEDGED 52 DAYS TO GO

» Infrastructure for Baana cyclists «

BACK THIS PROJECT

Open Courtyard

82% FUNDED €1,238 12

NEW PROJECT

Tower of Power

12% FUNDED €834 PLEDGED 59 DAYS TO GO

» PV cells on the roof power the

BACK THIS PROJECT

Punkaharju wind farm

62% FUNDED €18 634 PLEDGED 39 DAYS TO GO

» A community-owned wind farm of four turbines for the east Punkaharju area «

brickstarter.org

Mixed Reality Cities / Arup x Ericsson, 2017—

Planning Notice

Arup x Ericsson

Mixed Reality Cities / Ericsson x UN HABITAT, 2017

Mixed Reality Cities / Ericsson x UN HABITAT, 2017

a diversity of space and te...
kinds of high tech and crea...
Transformation will be kick...
rediscovering the remains...
the castle and hidden Riv...
by extending the Gre...
flowering water...
meet the riv...

HS2 and HS3 offer
opportunities to connect
us nationally, as well as to
futureproof the station and its
surrounds.

LEARNING IN THE CITY

OUTDOOR CITY

BUILDING BLOCKS

RESIDENTIAL

COWORK

CAFÉ

BUSINESS

EDUCATION

NATURE

successful central business and cultural
...rdens. Now a similar approach is
...s around Cambridge St and Pinstone
...ces, leisure and homes, often in the
...ing historic streets, spaces and
...ndependent businesses.

The western half of the CIQ is
becoming home to multi-functional
mixed-use blocks combining distinctive
workplaces, training centres, flats of
various sizes with cafés and shops, all with
access to the Porter Brook.

BIODIVERSITY

BROOK

FLOOD RETENTION

POCKET PARK

DAYLIGHTING THE BROOKS

Like most great cities, Sheffield
developed around rivers—yet we
neglected them for decades. Now we are
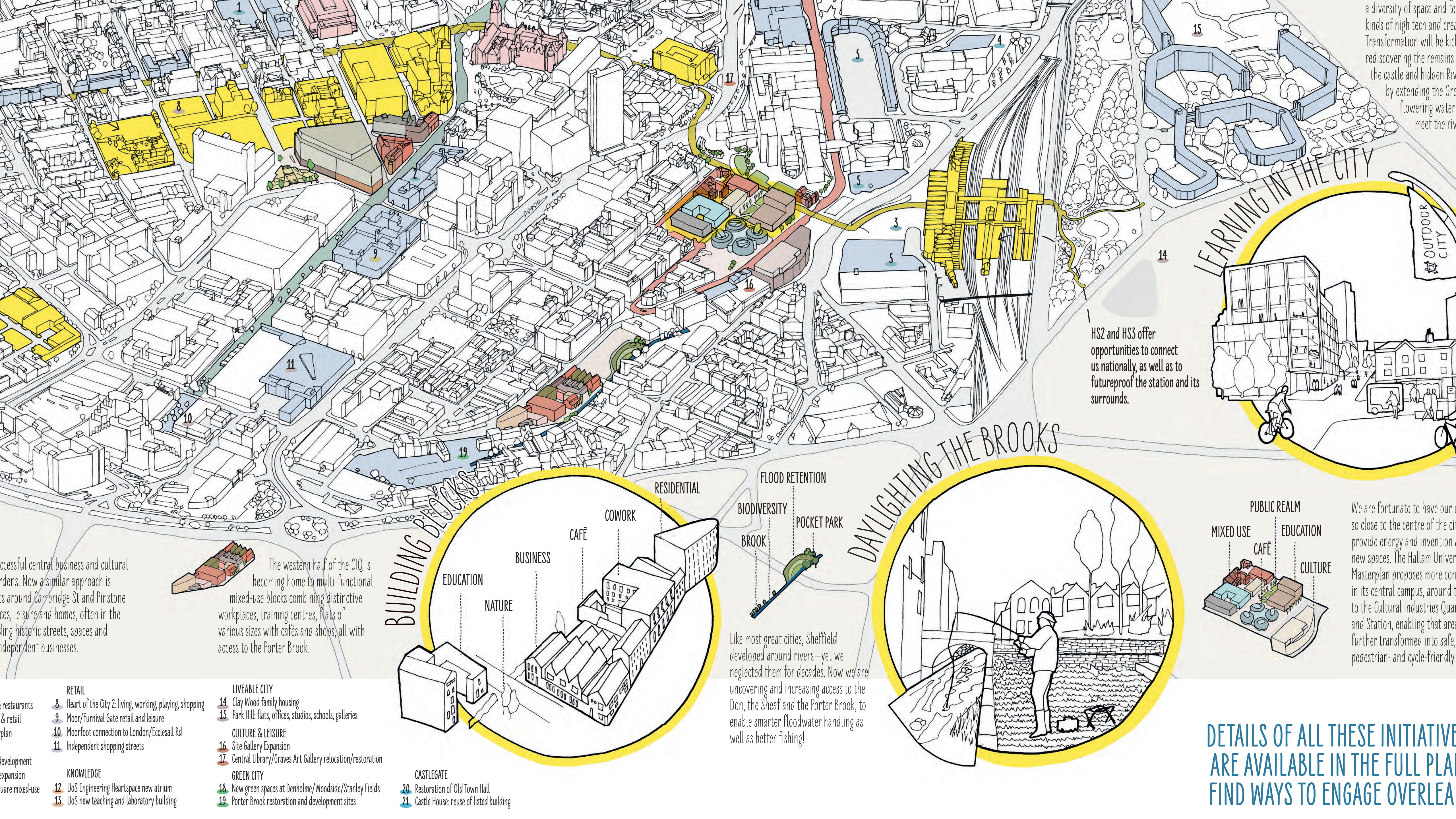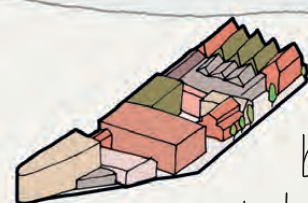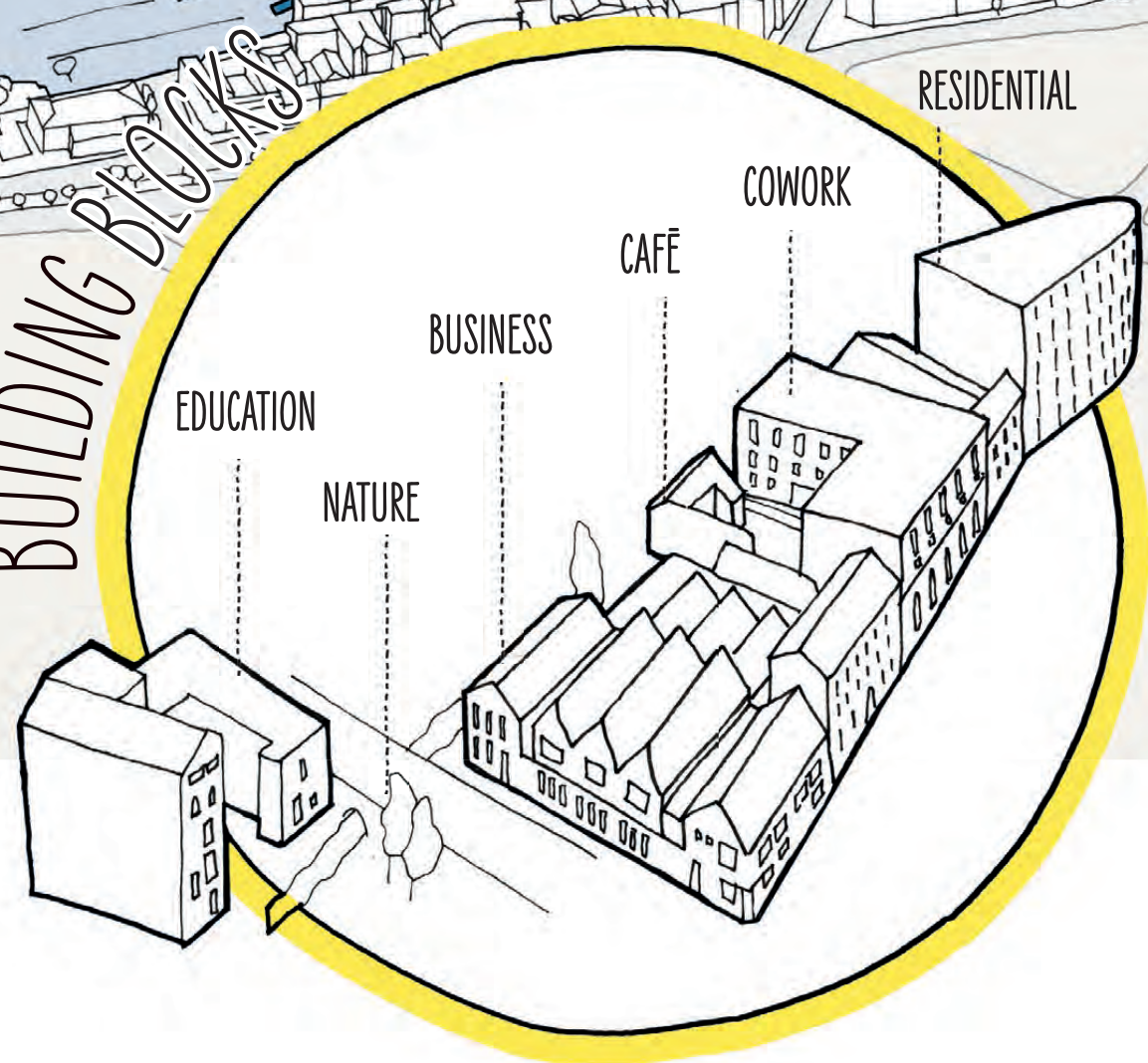uncovering and increasing access to the
Don, the Sheaf and the Porter Brook, to
enable smarter floodwater handling as
well as better fishing!
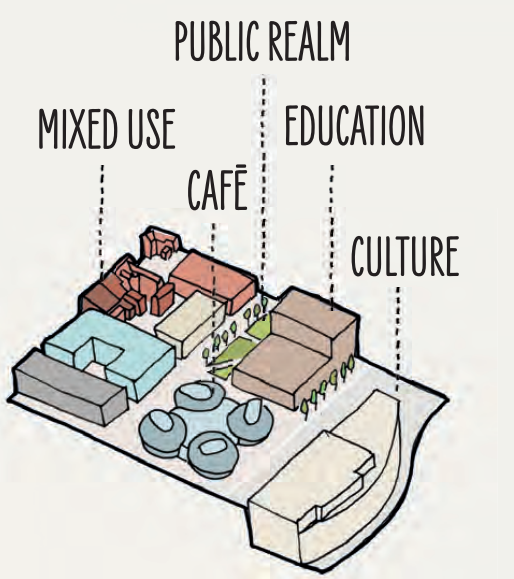
PUBLIC REALM

MIXED USE

CAFÉ

EDUCATION

CULTURE

We are fortunate to have our...
so close to the centre of the ci...
provide energy and invention...
new spaces. The Hallam Univer...
Masterplan proposes more con...
in its central campus, around t...
to the Cultural Industries Quar...
and Station, enabling that area...
further transformed into safe,
pedestrian- and cycle-friendly...

...e restaurants
...& retail
...plan

...development
...expansion
...quare mixed-use

RETAIL
8 Heart of the City 2: living, working, playing, shopping
9 Moor/Furnival Gate retail and leisure
10 Moorfoot connection to London/Ecclesall Rd
11 Independent shopping streets

KNOWLEDGE
12 UoS Engineering Heartspace new atrium
13 UoS new teaching and laboratory building

LIVEABLE CITY
14 Clay Wood family housing
15 Park Hill: flats, offices, studios, schools, galleries

CULTURE & LEISURE
16 Site Gallery Expansion
17 Central Library/Graves Art Gallery relocation/restoration

GREEN CITY
18 New green spaces at Denholme/Woodside/Stanley Fields
19 Porter Brook restoration and development sites

CASTLEGATE
20 Restoration of Old Town Hall
21 Castle House: reuse of listed building

WEST BAR

CASTLEGATE

Castlegate

SMALL BUSINESS
CULTURE
RESTAURANT
DIVERSE RESIDENTIAL
CAFE
RIVERSIDE
RESIDENTIAL
PUBLIC REALM
PUBLIC PARK
RIVERSIDE

NEW CENTRES OF GRAVITY
New developments drive toward the river help mask different centres of gravity within the city centre. These will be high quality buildings with high quality public realm, including the ferry to street networks and creating new public places alongside residence and commercial opportunities, such as upper floor offices, hotels and apartments.

19

18

16

ST GEORGE'S

12

CASTLE REMAINS
MIXED-USE
INCUBATORS
RIVERSIDE
TIME QUAIN

Incubators like Castle House allow start-ups to flourish

A new Central Library would become the city's living room, a place to discover and discover

BACK TO THE FUTURE
Castlegate will be one of the city for development, reinvigorated around new use out of building diversity of space and kinds of high tech and creative transformation will be kickstarted by uncovering the remains and extending the ferry in flowering water

PONDS FORGE CENTRE

22

18

5

HALLAM CENTRAL CAMPUS

14

HSZ and HSI offer opportunities to connect us much better internationally, nationally and regionally as well as futureproof the station and its surrounds.

LEADING IN THE CITY

PUBLIC REALM
MIXED USE
EDUCATION
CAFE
CULTURE

Baugruppen

More Than Housing, Zürich

Cooperative housing district

50 cooperatives.
13 buildings.
400 units.
35 retail + community units.
No public subsidy.
Rent 20-30% below market levels.
Nearly car-free.
Shared daily infrastructure.
2000 Watt society.
45% energy generated on-site.
4 hectares held back for future.

Strategic design
Participative design
Changes what you build. Places emphasis on ownership, care, maintenance, adaptation and incompleteness.

ArenAPoort workshop
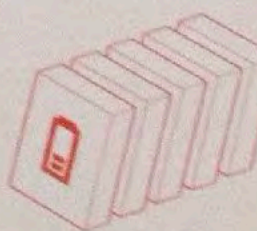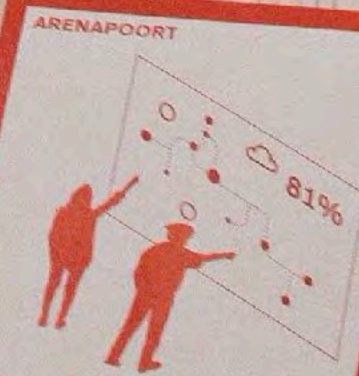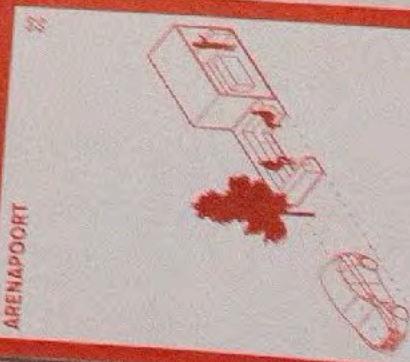
Participation strategy

A participatory game to merge themes into concepts.

Library Themes Exercise: building from a generic core towards a unique identity

1. Theme it.

2. Prioritise.
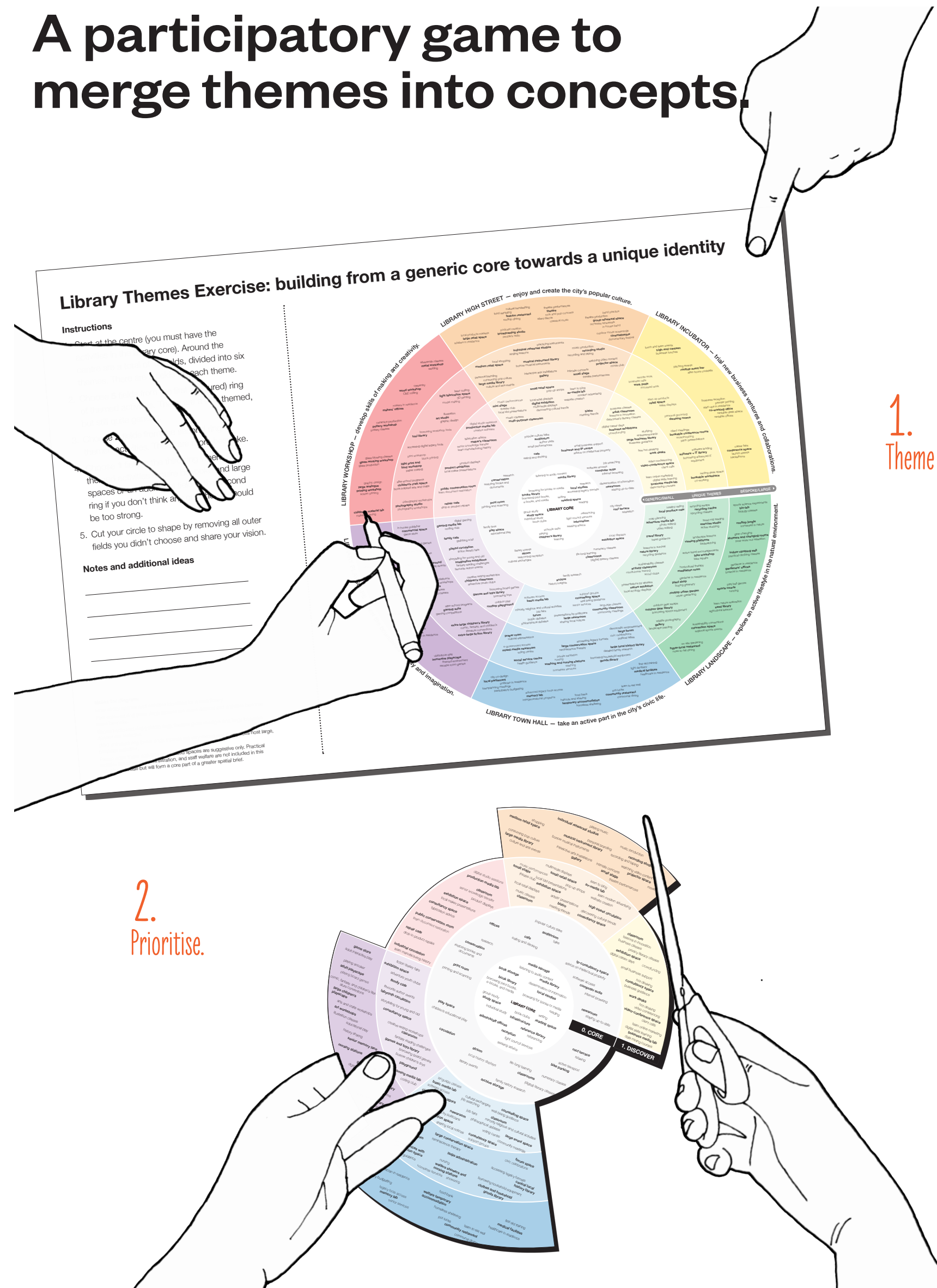
A participatory game to combine spaces into buildings.

Cut out and the space samples turn into complex 3D collages

4. Collate.

Every card represents 50 sqm

A typological illustration in 1:200

Sizes and spaces required

3. Spatialise.
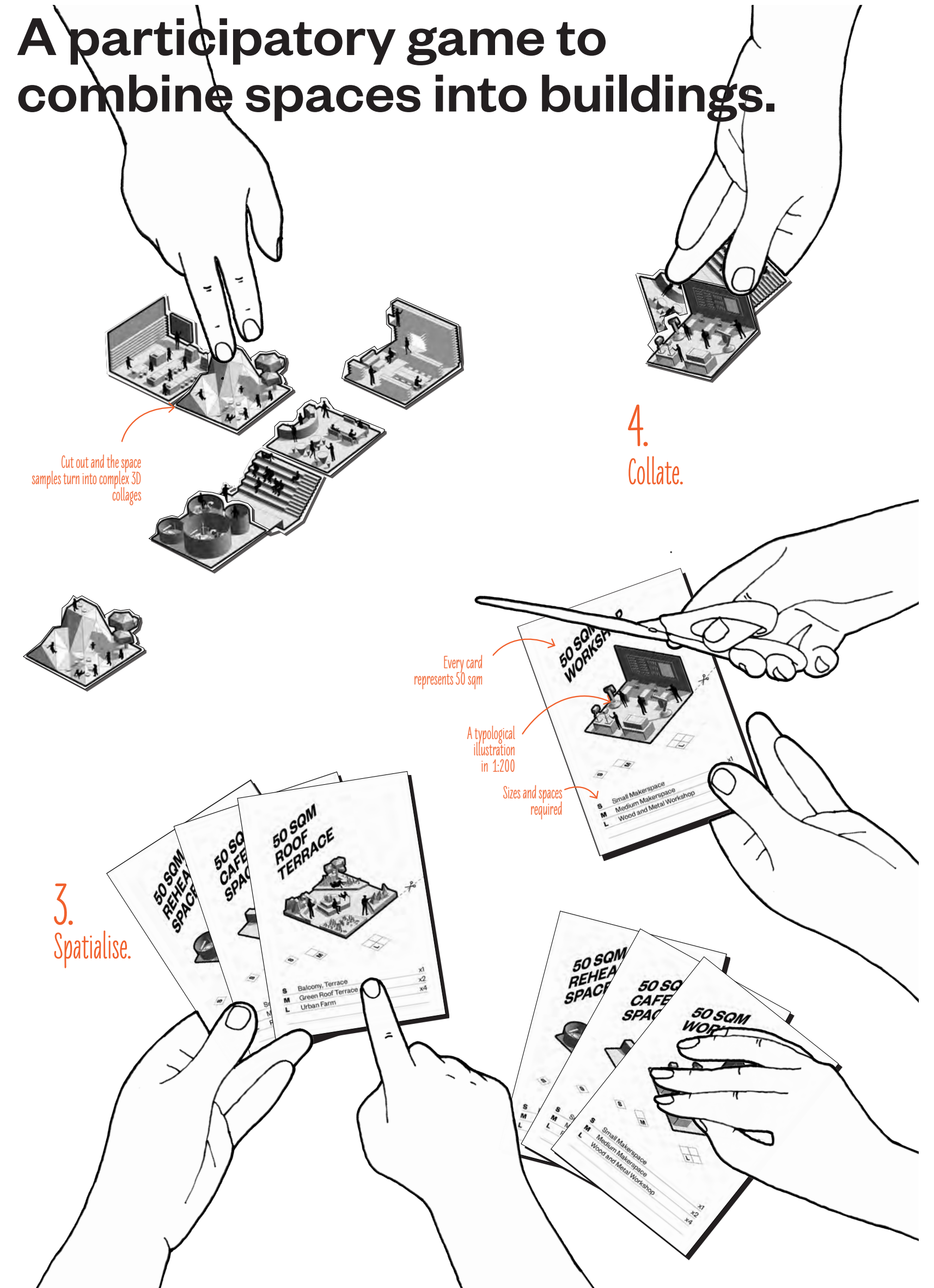
Sheffield central library workshop
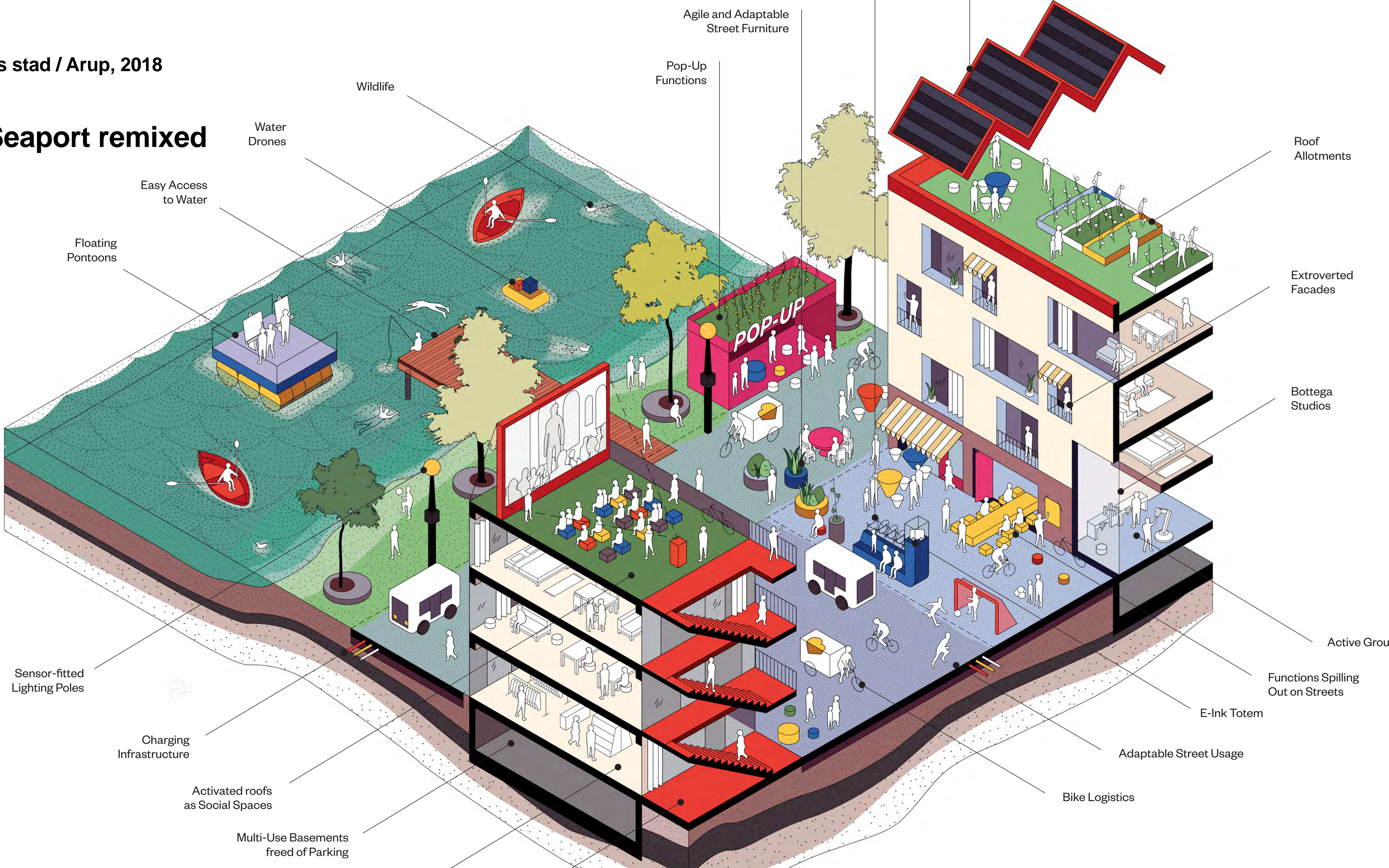
Sheffield Central Library / Arup, 2018—

Total Value Statement

Current costs	Investment	Future value return

Added value

[insert value/outcome here]

City centre increased property rates

Growth of local businesses

Broad range of social and cultural returns

Savings

Decreasing costs of running other council services

Decreasing public health and social care costs

Decreasing sustainability environmental costs

Event and programming costs

General operational costs

Building maintenance costs

Costs

SUBTRACT CURRENT COSTS

TOTAL INVESTMENT POTENTIAL

Stockholms stad / Arup, 2018

Royal Seaport remixed

Agile and Adaptable Street Furniture

Pop-Up Functions

Wildlife

Water Drones

Easy Access to Water

Floating Pontoons

Roof Allotments

Extroverted Facades

Bottega Studios

POP-UP

Active Grou

Sensor-fitted Lighting Poles

Functions Spilling Out on Streets

E-Ink Totem

Charging Infrastructure

Adaptable Street Usage

Activated roofs as Social Spaces

Bike Logistics

Multi-Use Basements freed of Parking

Stockholms stad (2018)

Royal Seaport workshop
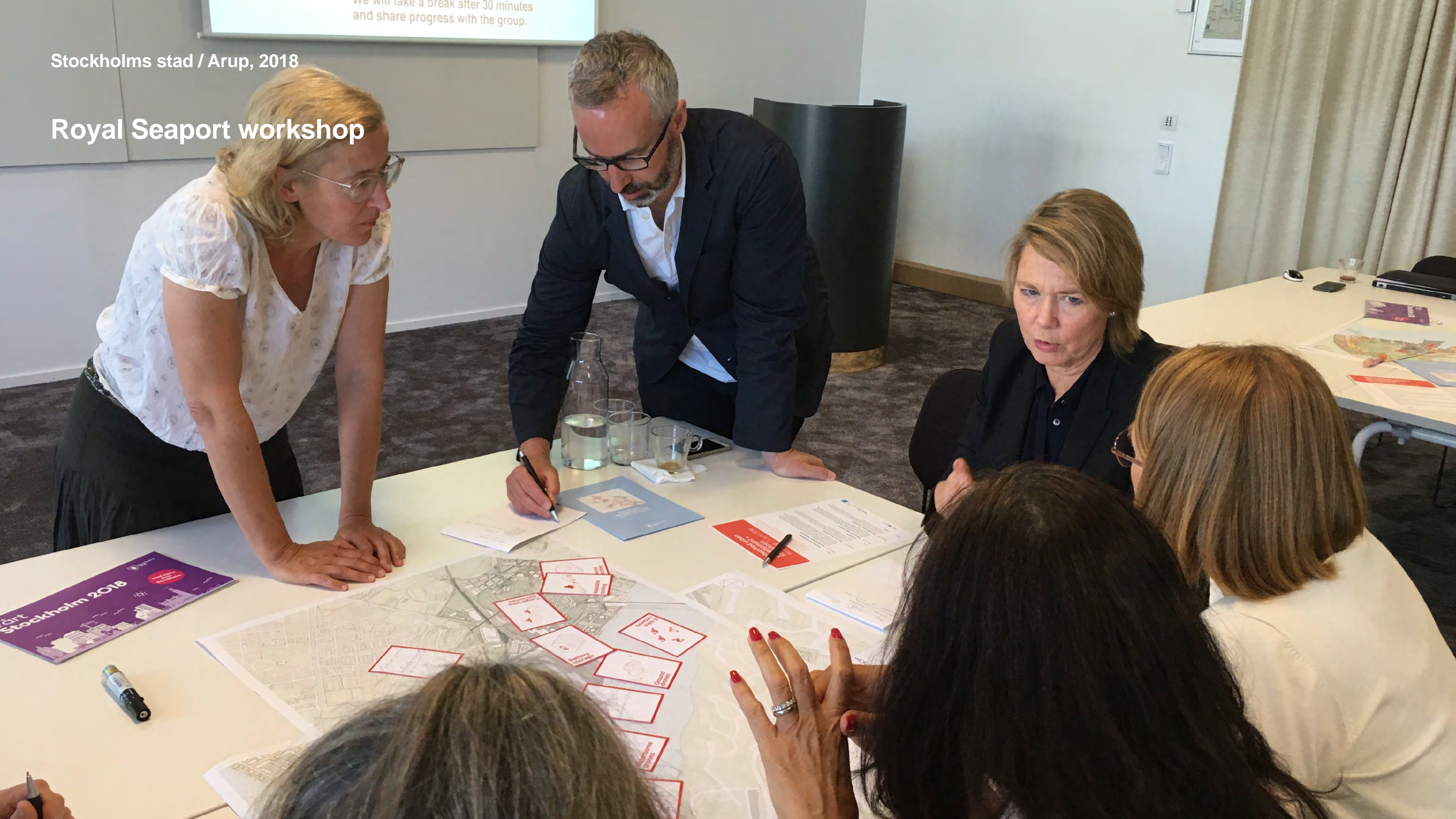
City design and delivery team

21st century city-making team

Urban planner ● ○ Community engagement

Landscape systems ● ○ Sociologist

Architect ● ● Property market liaison

User experience designer ○ ○ Policy design

Data scientist ○ ○ Healthworker

Digital systems specialist ○ ○ Business liaison

Historian ○ ○ Artist

Youth worker ○ ○ Project management

Building

Neighbourhood

City

Ravintolapäivä, Helsinki

Ravintolapäivä, Helsinki

Ravintolapäivä, Helsinki

Day after Ravintolapäivä, Helsinki

Open Kitchen, Helsinki

...alan toimijalle

Konkurssiin menneestä ravintolayhtiöstä tehtiin yli 30 tarjousta.

Hannu S. Vanhanen

Konkurssiin menneen helsinkiläisen ravintolayhtiö Primula sai alan toimijat liikkeelle. Konkurssipesä sai ravintoloista yli 30 tarjousta, joista on valittu yksi ostajakandidaatti.

Konkurssipesän hoitaja **Pertti Ylikraka** Asianajotoimisto Ylikrakasta ei halua paljastaa ostajaa, koska neuvottelut ovat vielä kesken. Sen verran hän vakuttaa tilannetta, että ostajakandidaatti on varteenotettava ravintola-alan valtakunnallinen toimija.

Tällä hetkellä ravintolakauppa on loppusuoralla ja ravintoloiden myynnistä on tehty ostajaehdokkaan kanssa alustava sopimus.

Ravintolat ovat menossa uudelle omistajalle yhtenä kokonaisuutena.

Primulan ravintolat toimivat keskeisillä liikepaikoilla.

Ylikraka sanoo, että kaupat saadaan todennäköisesti vietyä loppuun tämän vuoden aikana.

KAUPASSA siirtyy Primulan neljän ravintolan liiketoiminta ja toimipaikkojen vuokraoikeudet. Ylikraka sanoo, että vanhoja velvoitteita ei uudelle omistajalle siirry.

Valtakunnallisesti toimii maassa Restel. Tämän toimitusjohtaja **Harri Sivula** ei halua kommentoida millään tavalla Primulan ravintoloiden tilannetta.

Voimakkaasti kasvanut ja myös Helsingin seudulle laajentunut tamperelainen Restamax kertoo viime syksynä olevansa kiinnostunut Primulan ravintoloista.

Restamaxin hallituksen puheenjohtaja **Timo Laine** sanoo, etteivät he ole neuvottelemassa Primulan ostamisesta.

Hän sanoo Restamaxin kyllä kiittäneen tarjouksen ravintoloita.

KIINNOSTUKSEN Primulan ravintoloita kohtaan tiedettiin etukäteen olevan kovaa, eikä tarjousten määrä yllättänyt Ylikrakaa.

"Tiedämme kyllä otukseen, että kiinnostusta on. Neuvotteluista ei voida sen tarkemmin kertoa."

POP-RAVINTOLA. Antto Melasniemen vetämällä kurssilla perustettiin ravintola viikoksi Teurastamon Kellohalliin Helsinkiin. Nyt tiloissa toimii taas Melasniemen ja Heikki Purhosen ravintola.

Antto Melasniemi neuvoo

Orientoituminen	Sijainti	Ruokalista	Hinta	Henkilökunta	Tilan suunnittelu	Markkinointi

Kohti omaa ravintolaa

Ravintolapäivä on lisännyt kiinnostusta ravintolayrittämiseen. Kokenut ravintoloitsija Antto Melasniemi

Open Kitchen, Helsinki

Open Kitchen, Helsinki

Open Kitchen & Ravintolapäivä

Impact

2014: Public Works department introduces "agile kiosk activities." Specific areas in central Helsinki designated for food and coffee trucks, everywhere else agile kiosks can be operated quite freely

2015: Public Works Department of Helsinki publicly states it "doesn't want to hinder the popular event" offering only advice for restaurant keepers on tidiness.

2015: Helsinki's Environment Centre, responsible for health inspections, adds specific chapter on Restaurant Day-type events, noting no hygiene requirements are imposed during the event, offering advice on organisation of pop-up restaurants.

2011: Police and Valvira (National Supervisory Authority for Welfare and Health) co-released statements reminding that the sales of alcohol remained prohibited outside actual restaurants.
2012: the same statement had transformed into a simple information bulletin for the event participants.
2013: no further statements were given.

2014: Streat Helsinki event (street kitchens/block parties for 20,000 visitors); associated conference by City's Food Culture Strategy team.

2015: City hires Restaurant Day founder Timo Santala as head of Food Culture Strategy team.

Building code

Helsinki City Library / ALA (2015–)

Finnish timber buildings
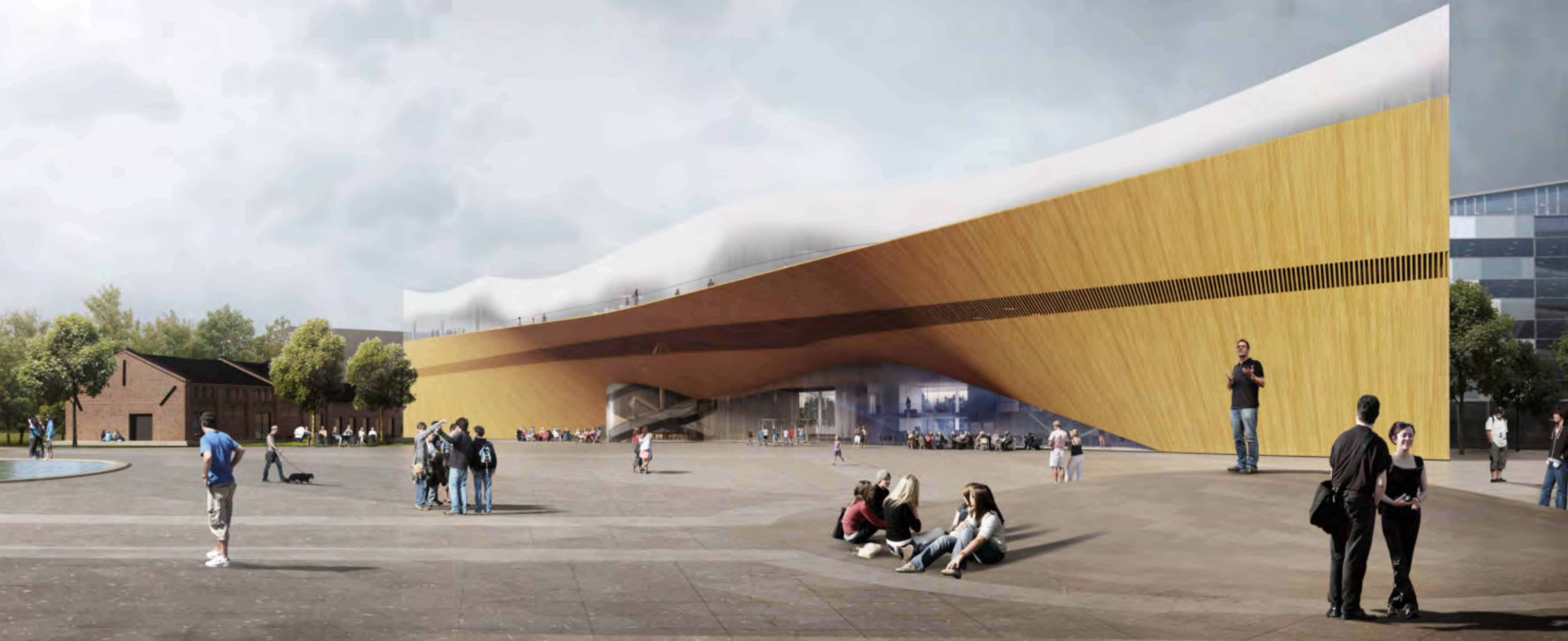
Finnish timber buildings

Finnish forestry industry

Strategic design
Make the context
Designing for using and making the city includes creating the conditions for using and making the city.

Strategic design
Mission-oriented innovation
Shifting the emphasis to place-based innovation, addressing climate resilience, public health, and social justice.

Mission-oriented innovation, Mariana Mazzucato, UCL

Vinnova is prototyping mission-oriented innovation for Sweden, looking at two areas initially: healthy sustainable mobility and healthy sustainable food

WIRED

Technology | Science | Culture | Gear | Business | Politics | More ▾ | Follow ▾

This economist has a plan to fix capitalism. It's time we all listened

Mariana Mazzucato has demonstrated that the real driver of innovation isn't lone geniuses but state investment. Now she's working with the UK government, EU and UN to apply her moonshot approach to the world's biggest challenges

VINNOVA
Sweden's Innovation Agency

LE PARIS DU ¼ HEURE

PARIS EN COMMUN

BIEN MANGER

APPRENDRE

TRAVAILLER

PARTAGER ET RÉEMPLOYER

SE DÉPENSER

15 mn

CHEZ MOI

15 mn

CIRCULER

15 mn

SE SOIGNER

15 mn

S'APPROVISIONNER

S'AÉRER

SE CULTIVER, S'ENGAGER
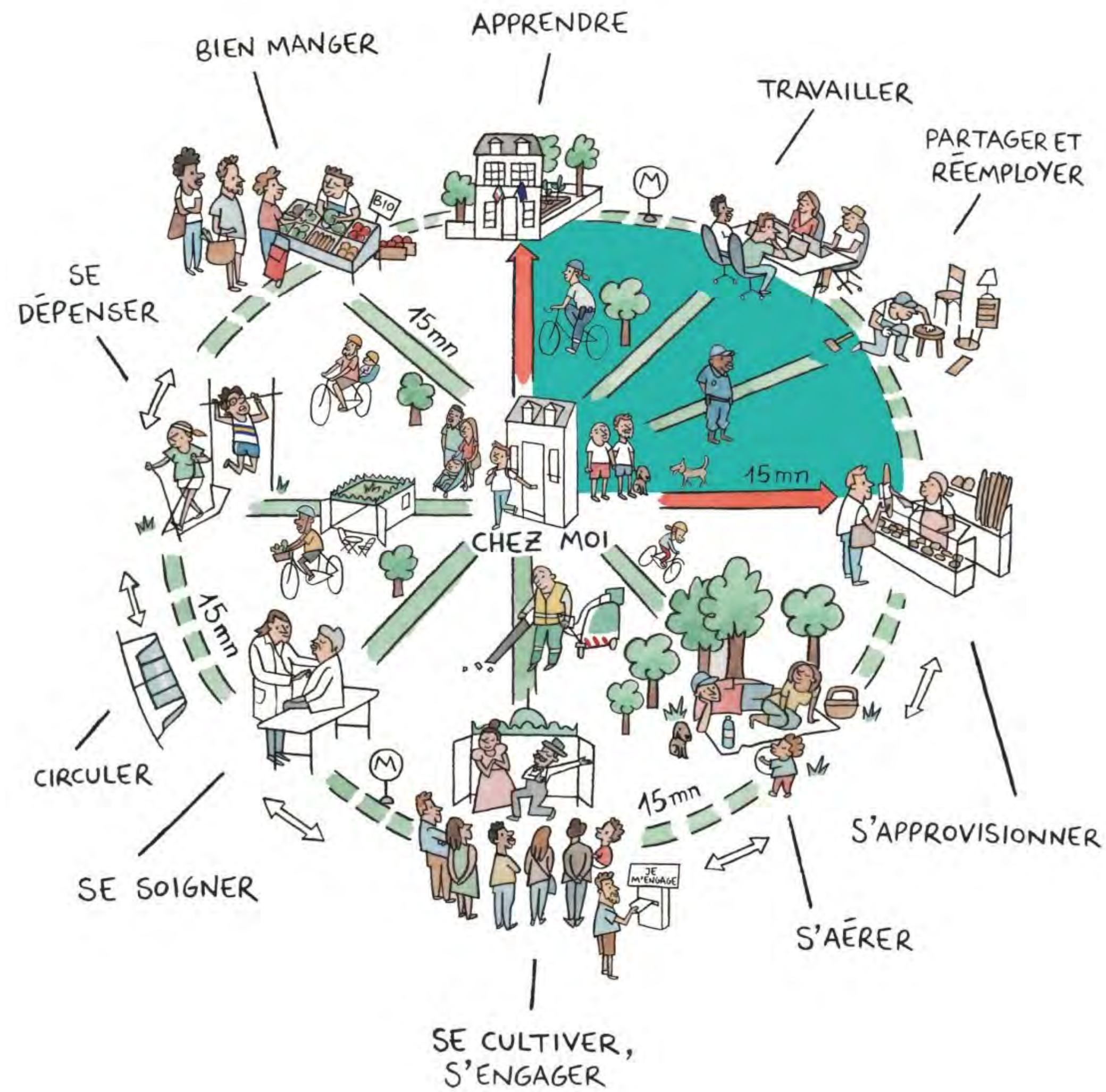
MICAËL
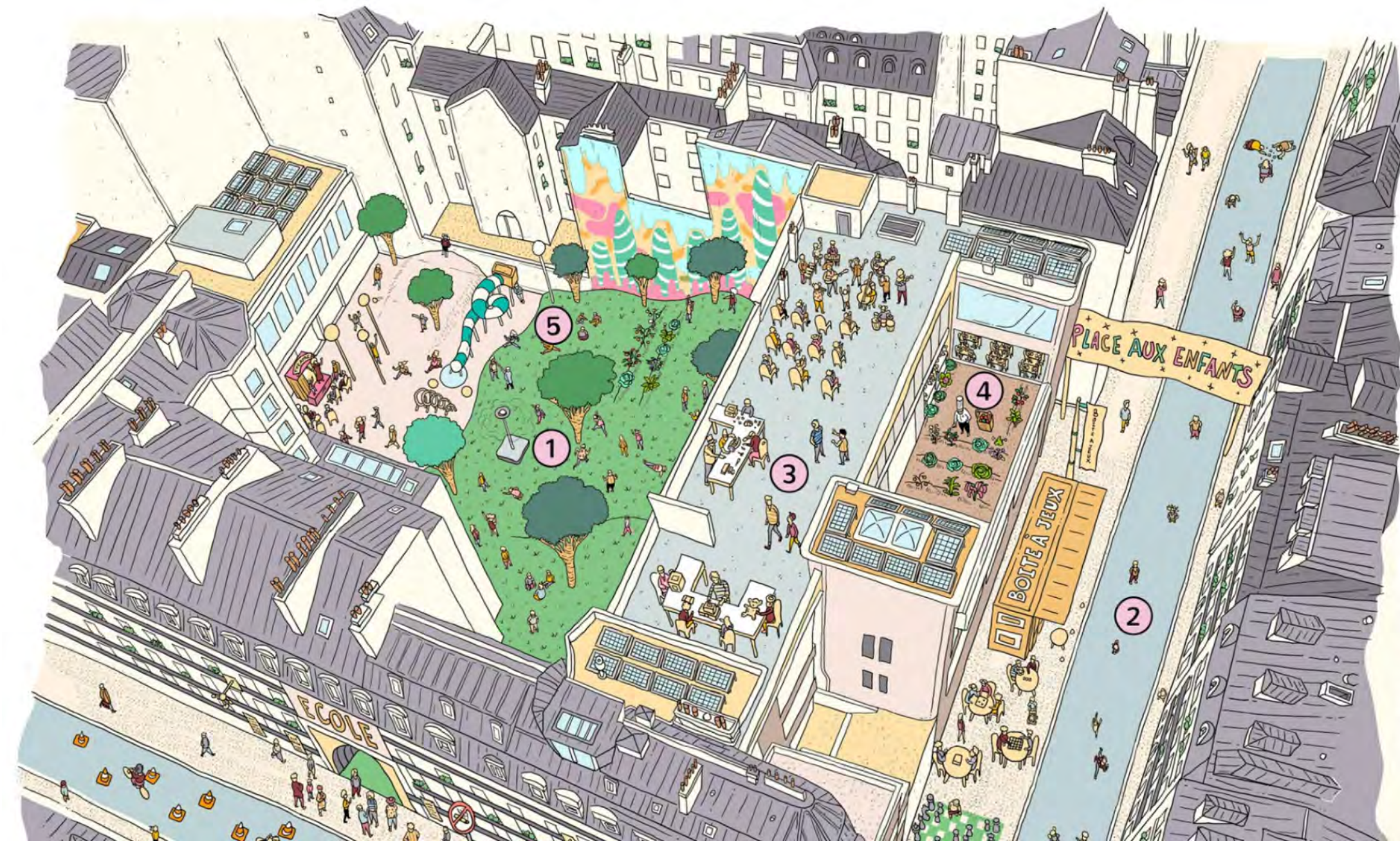
① Une cour de récréation transformée en jardin ouvert le week-end

② Une rue aux enfants piétonnisée au moins aux horaires de dépose de l'enfant, et où l'on peut jouer avec la boîte à jeu

③ De nouveaux apprentissages pour les enfants autour de la culture, l'environnement, le bricolage, etc

④ Des repas bio, en circuits courts servis aux élèves dans les cantines

⑤ Une école avec une garantie environnementale : airs, sols, perturbateurs endocriniens
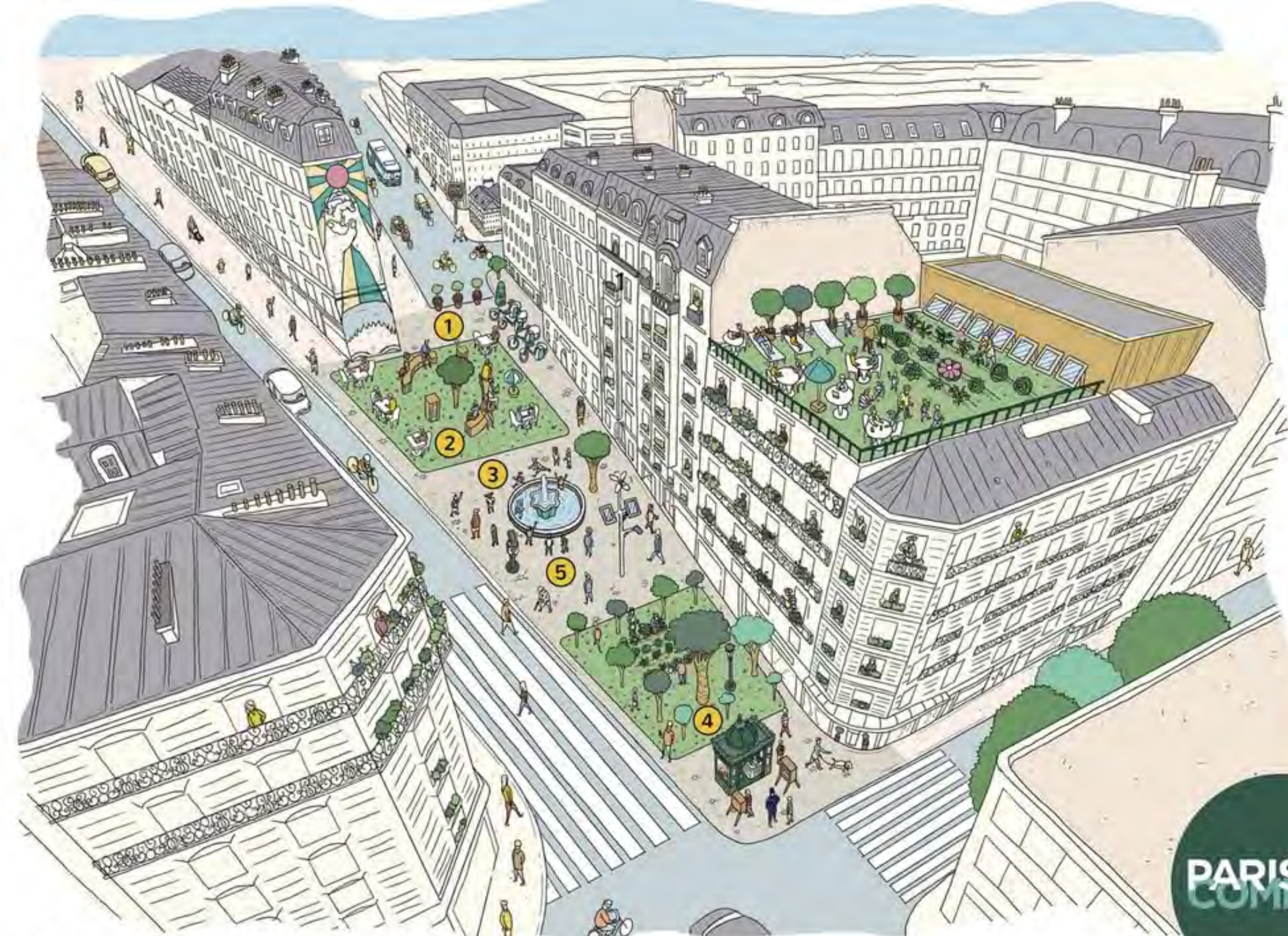
① Un carrefour transformé en place de quartier

② Un espace de convivialité pour le quartier

③ Des jeux pour les enfants

④ Un potager partagé

⑤ De la fraîcheur et des énergies renouvelables

PARIS EN COMMUN

Oslo just decided to get rid of its parking spaces

Oslo hopes to extend pedestrian networks as it eases cars out of the city centre. Image: REUTERS/Ints Kalnins

Barcelona

Superblocks

1– Street.

Ensure that every street in Sweden is healthy, sustainable and vibrant by 2030.

Designing Missions

VINNOVA

Decreased maintenance costs-

Decreased flooding-

Increased soil quality+

Increased water quality+

Local property value+

Increased retail spend+

Increased social interaction+

Increased mental health+

Decreased respiratory illnesses-

Decreased brain cancer-

Decreased diabetes-

Decreased social care costs-

Decreased healthcare costs-

Increased avian biodiversity+

Decreased heat island effect-

Increased safety+

Decreased CO_2-

Decreased NOx-

Decreased property crime-

Increased insect biodiversity+

Reduced embodied CO^2-

Increased cultural production+

Increased local food production+

Increased democratic participation+

Decreased accidents-

Increased public transport performance+

Increased housing affordability+

Increased child sociability+

VINNOVA

Increase in biodiversity
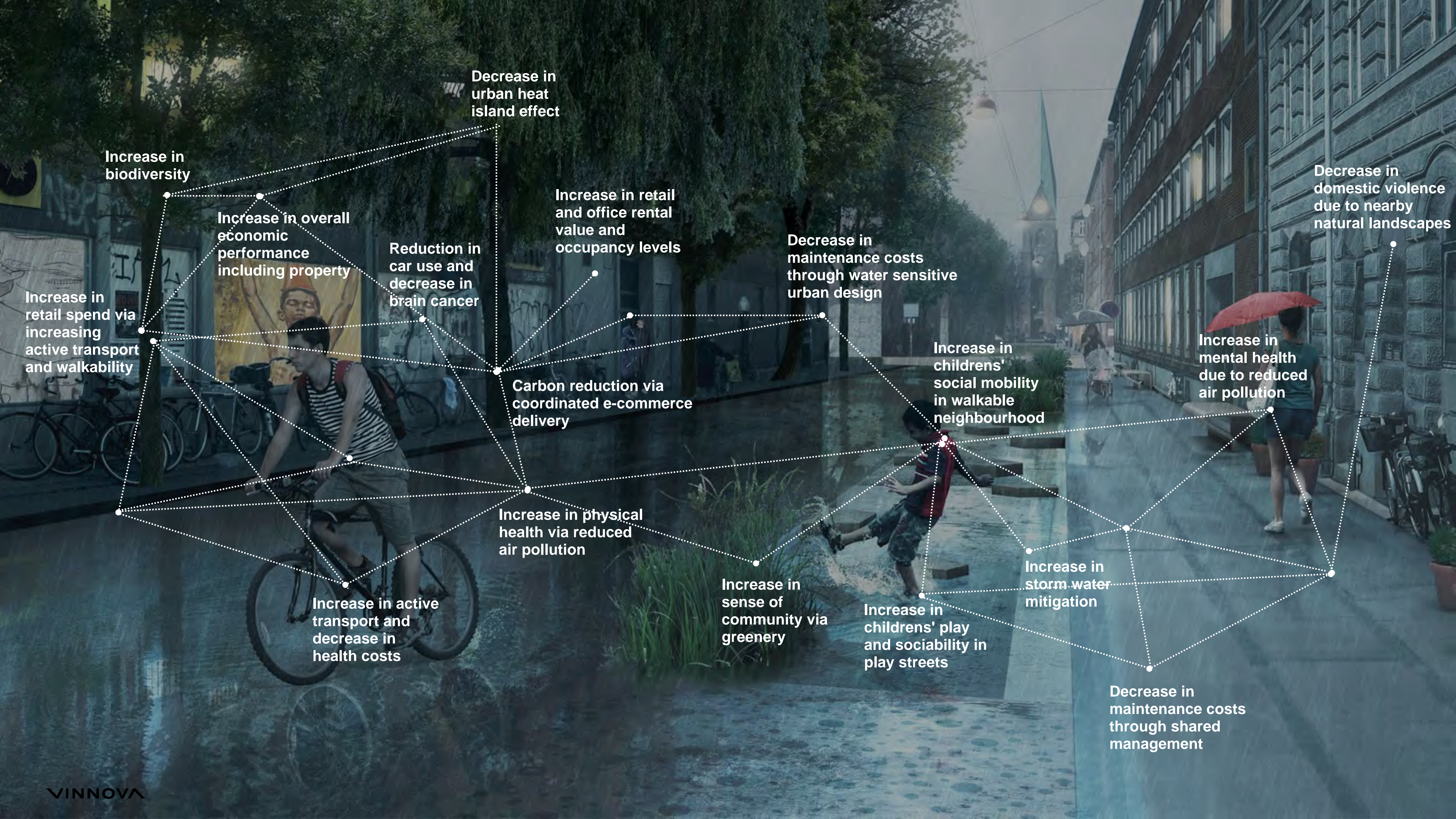
Decrease in urban heat island effect

Increase in overall economic performance including property

Increase in retail and office rental value and occupancy levels

Reduction in car use and decrease in brain cancer

Decrease in maintenance costs through water sensitive urban design

Decrease in domestic violence due to nearby natural landscapes

Increase in retail spend via increasing active transport and walkability

Increase in childrens' social mobility in walkable neighbourhood

Increase in mental health due to reduced air pollution

Carbon reduction via coordinated e-commerce delivery

Increase in physical health via reduced air pollution

Increase in active transport and decrease in health costs

Increase in sense of community via greenery

Increase in childrens' play and sociability in play streets

Increase in storm water mitigation

Decrease in maintenance costs through shared management

VINNOVA

Complex objects
Silo-led delivery

Trafikkontoret

Street

Trafik+

Complex objects
System in the room

Industry   Planning   Healthcare
Culture   Environment
Police   Social affairs

Street

Culture+   Jobs+
Democracy+   Business+

Biodiversity+   Energy costs-
Environment+   Carbon-

Waste-   Public health+   Social fabric+
Water-   Healthcare costs- Crime-

VINNOVA
Sweden's Innovation Agency

Mission platform strategy

Skills and organisational cultures

Standards and guidelines

Data and code

Financing

Policy

Law

VINNOVA

Mission platform strategy

Tangible demonstrators

Billions of apps

Shared systemic change layers

Skills and organisational cultures	Developer community
Standards and guidelines	Standards and UI guidelines
Data and code	Developer software stack
Financing	Licensing and business model
Policy	Core operating system
Law	Hardware and physics

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Design workshop
System in the room

Micromobility startup

Car-sharing company

Energy company

Environment department, municipality

National design agency

National food agency

High school student

Chef

Food retailer and farm

Regulatory authority

VINNOVA

Workshop sketches

VINNOVA

Prototyping systems as a portfolio
Living system diagram

Real-time traffic control systems

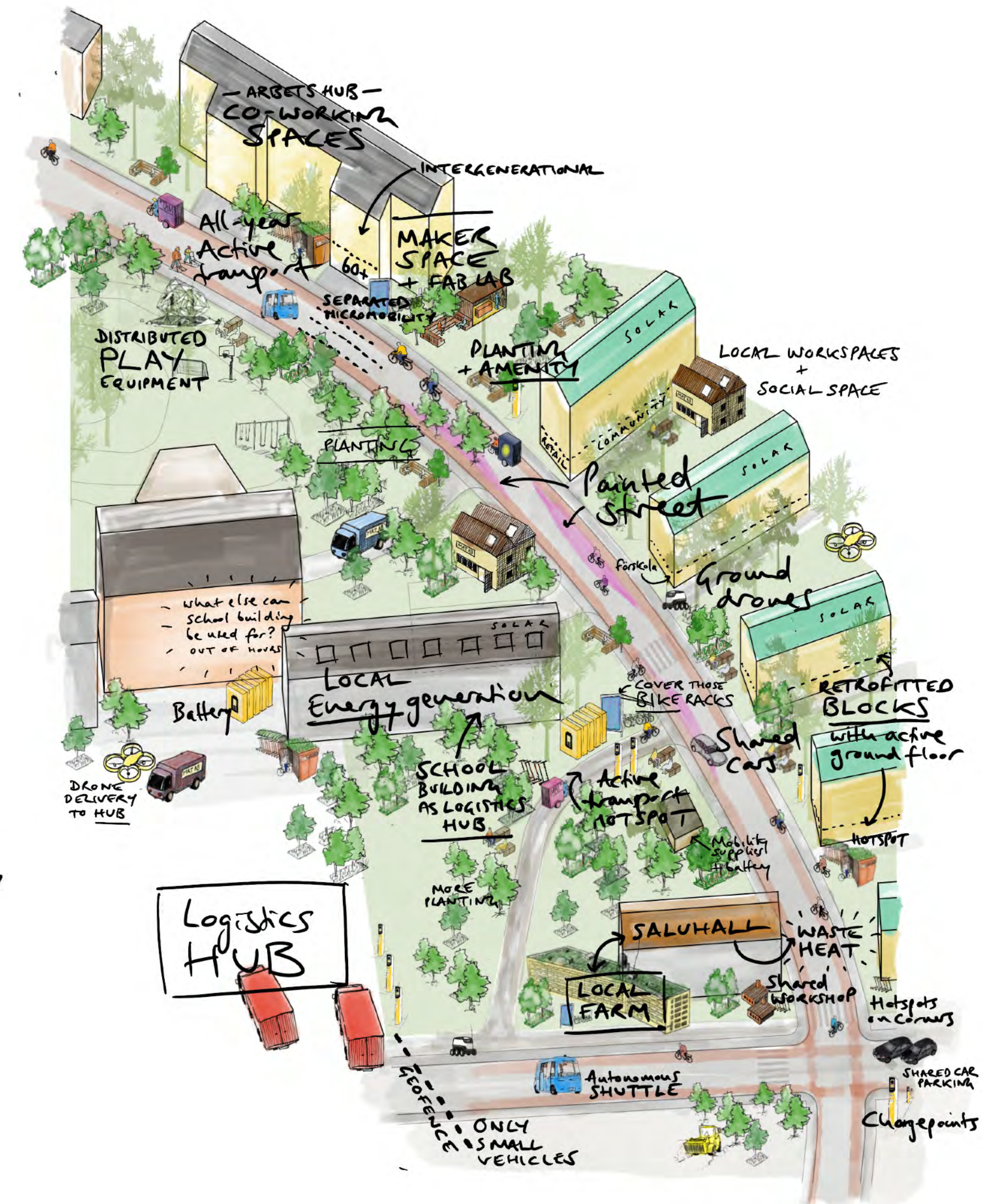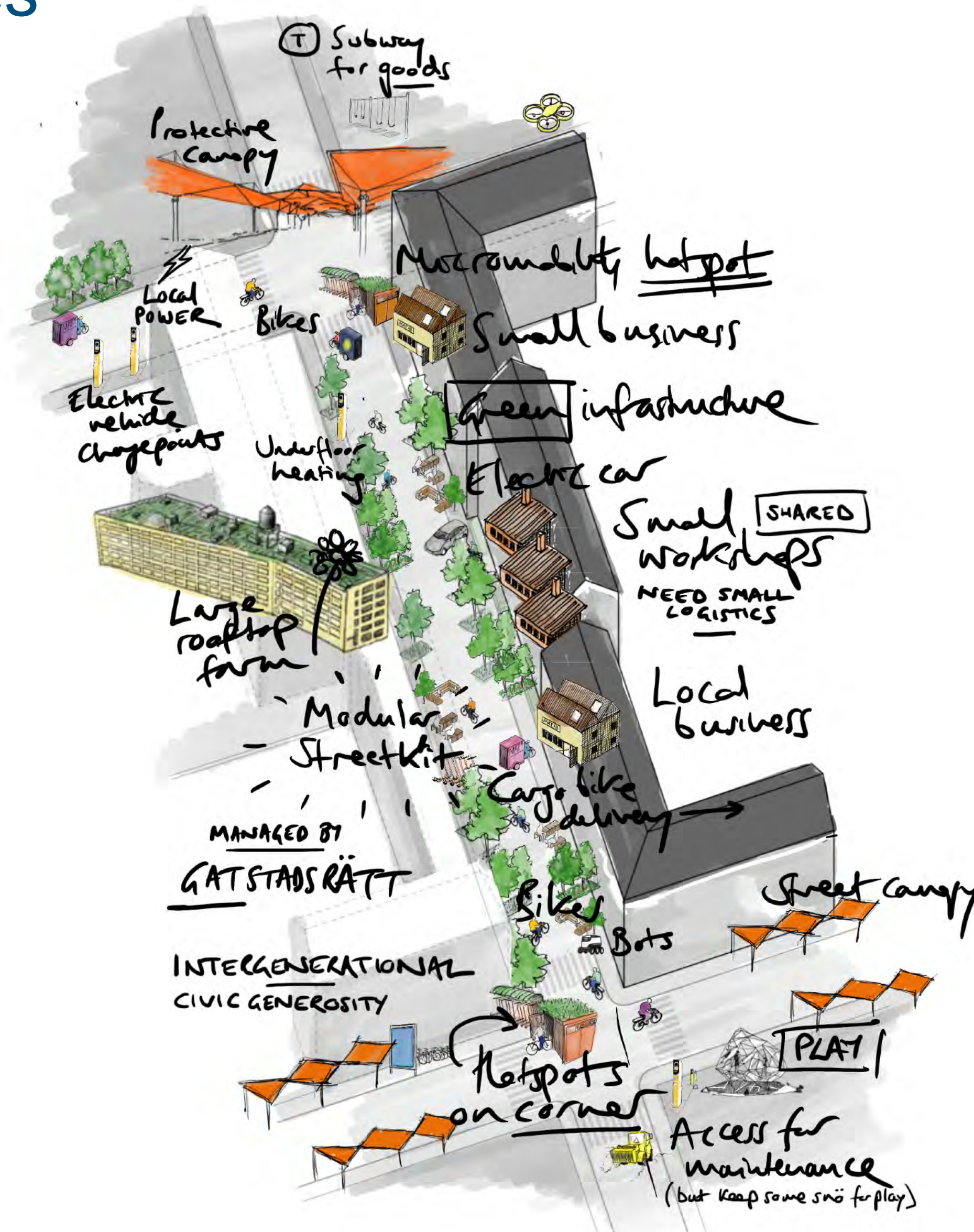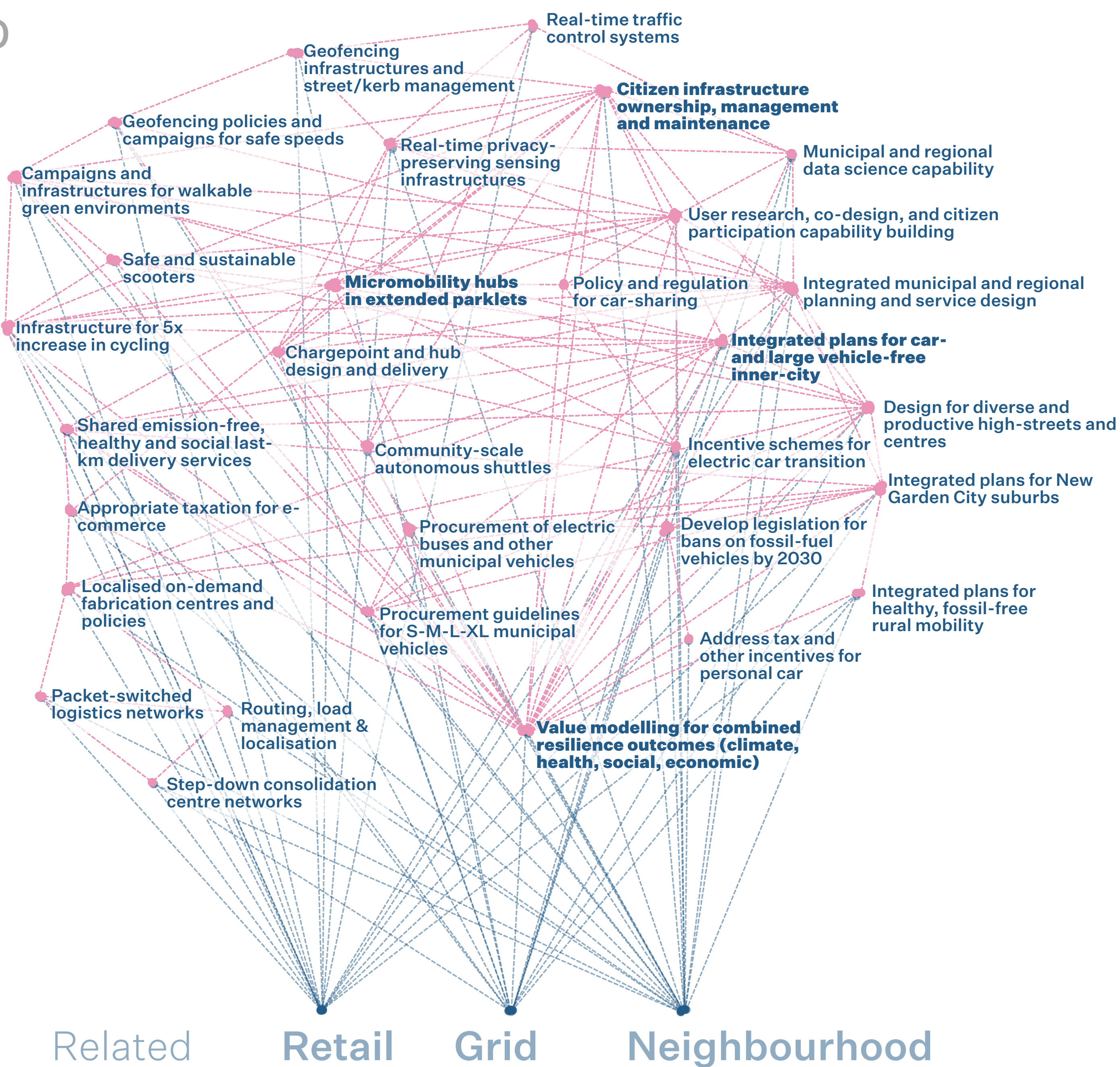Geofencing infrastructures and street/kerb management

Citizen infrastructure ownership, management and maintenance

Geofencing policies and campaigns for safe speeds

Real-time privacy-preserving sensing infrastructures

Municipal and regional data science capability

Campaigns and infrastructures for walkable green environments

User research, co-design, and citizen participation capability building

Safe and sustainable scooters

Micromobility hubs in extended parklets

Policy and regulation for car-sharing

Integrated municipal and regional planning and service design

Infrastructure for 5x increase in cycling

Chargepoint and hub design and delivery

Integrated plans for car- and large vehicle-free inner-city

Design for diverse and productive high-streets and centres

Shared emission-free, healthy and social last-km delivery services

Community-scale autonomous shuttles

Incentive schemes for electric car transition

Integrated plans for New Garden City suburbs

Appropriate taxation for e-commerce

Procurement of electric buses and other municipal vehicles

Develop legislation for bans on fossil-fuel vehicles by 2030

Integrated plans for healthy, fossil-free rural mobility

Localised on-demand fabrication centres and policies

Procurement guidelines for S-M-L-XL municipal vehicles

Address tax and other incentives for personal car

Packet-switched logistics networks

Routing, load management & localisation

Value modelling for combined resilience outcomes (climate, health, social, economic)

Step-down consolidation centre networks

Related   **Retail**   **Grid**   **Neighbourhood**

VINNOVA

The idea is to build elements that can spread across all streets, piece by piece, by working with local communities and municipalities, until the street is ready for fuller transformation.
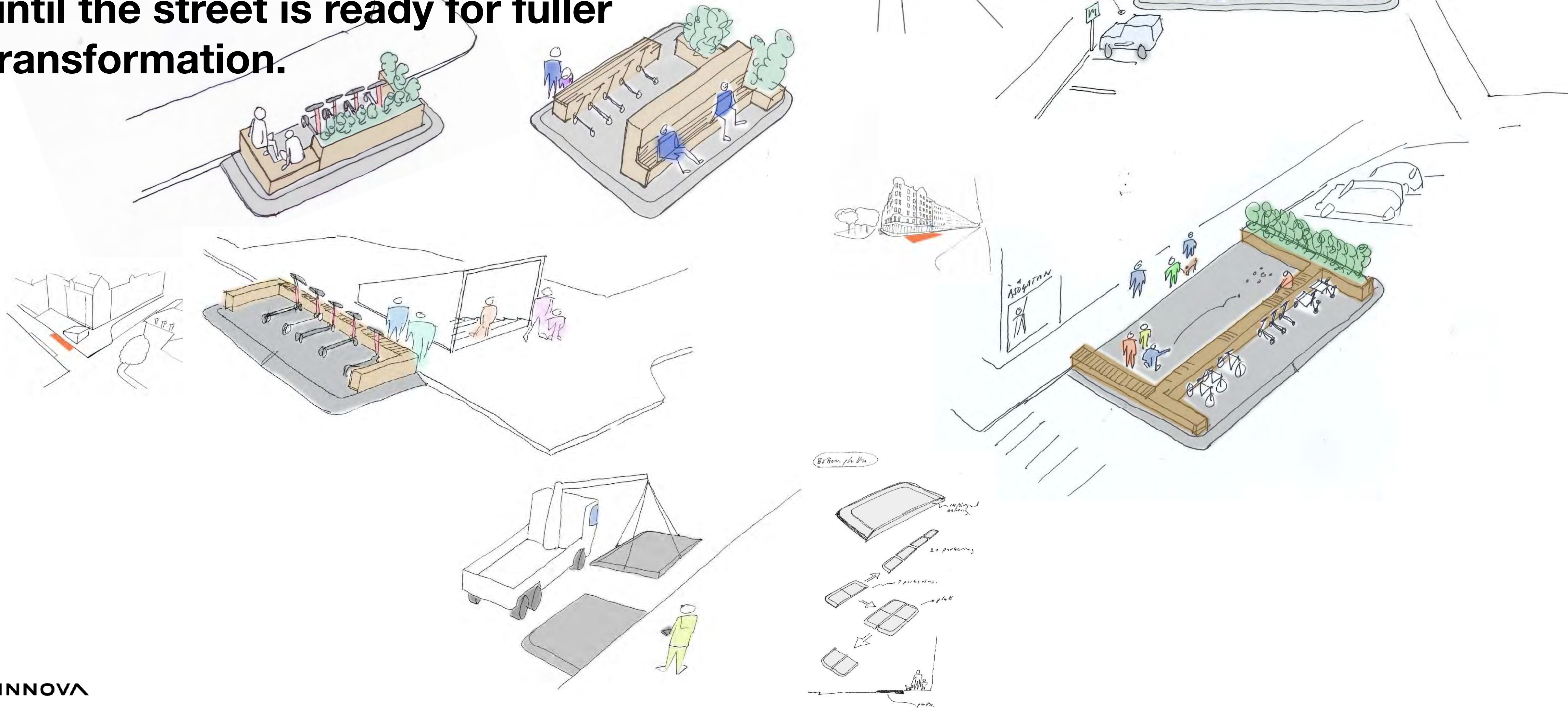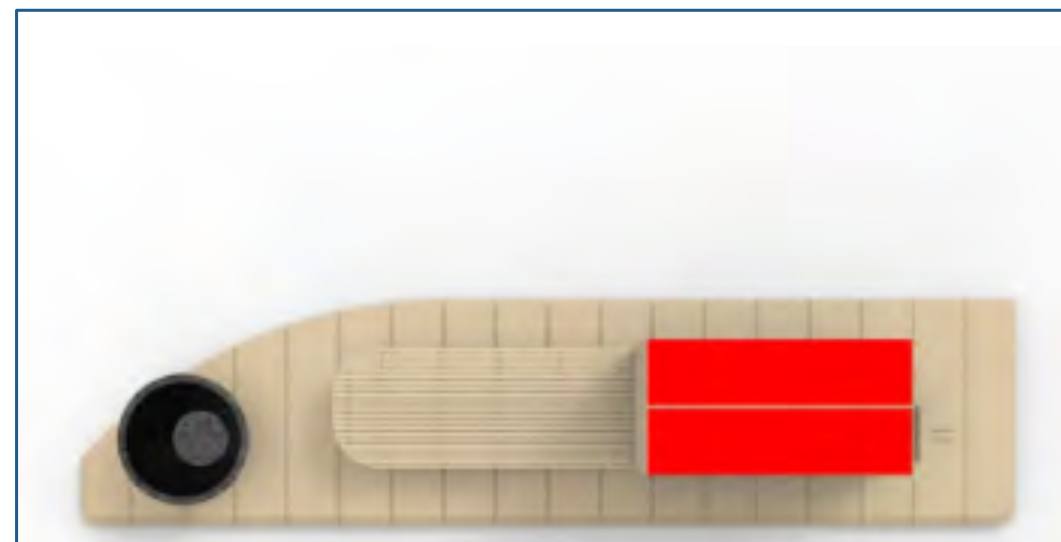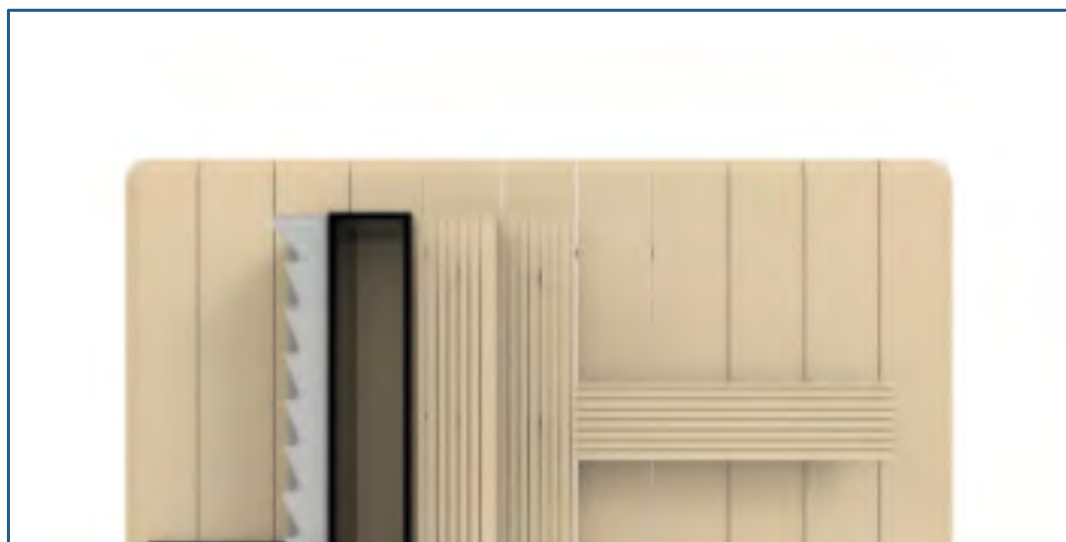
VINNOVA

VINNOVA

Participative design
Levandegator

CYKELSTÄLL

MÖJLIG HOTSPOT
eller annan upplåtelse

påkörning

INSEKT

UTEKLASSRUM
svart tavla

SANDSTRAND
hammock
solstolar

skolentré

6 m
7,7 m
1 m
3,9 m
1,2 m
10 m
1,3 m
1,3 m
0,3 m
2 m
5 m
9,5 m
2,25 m

VINNOVA
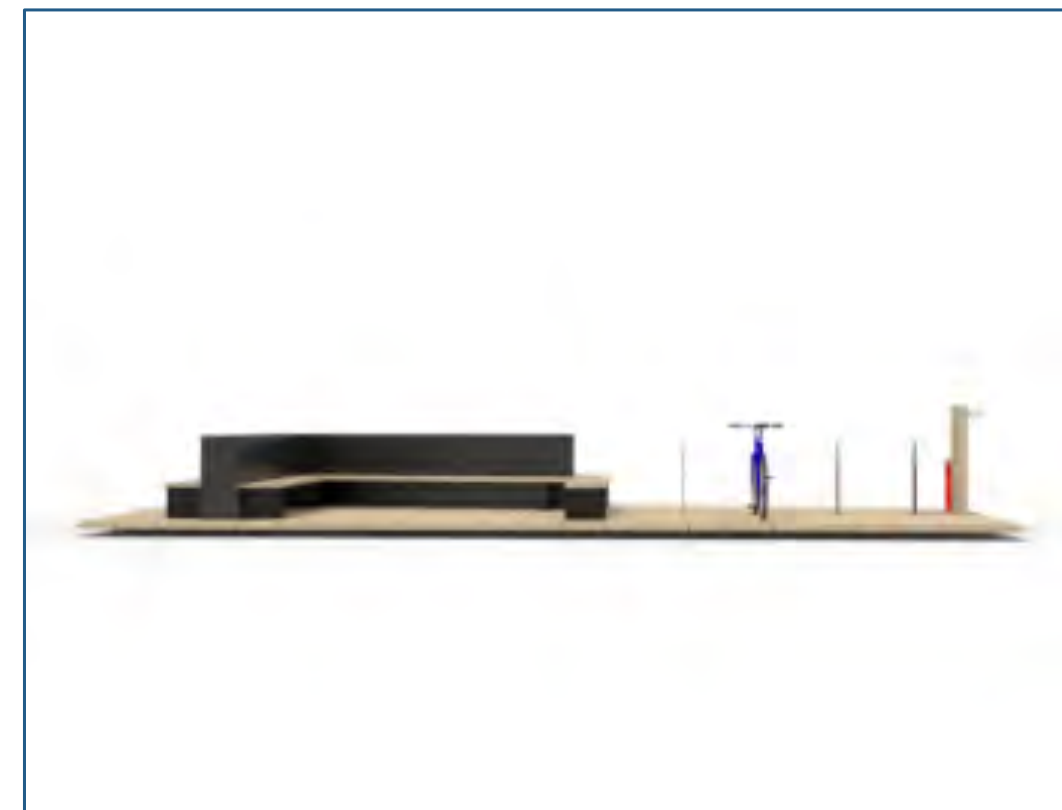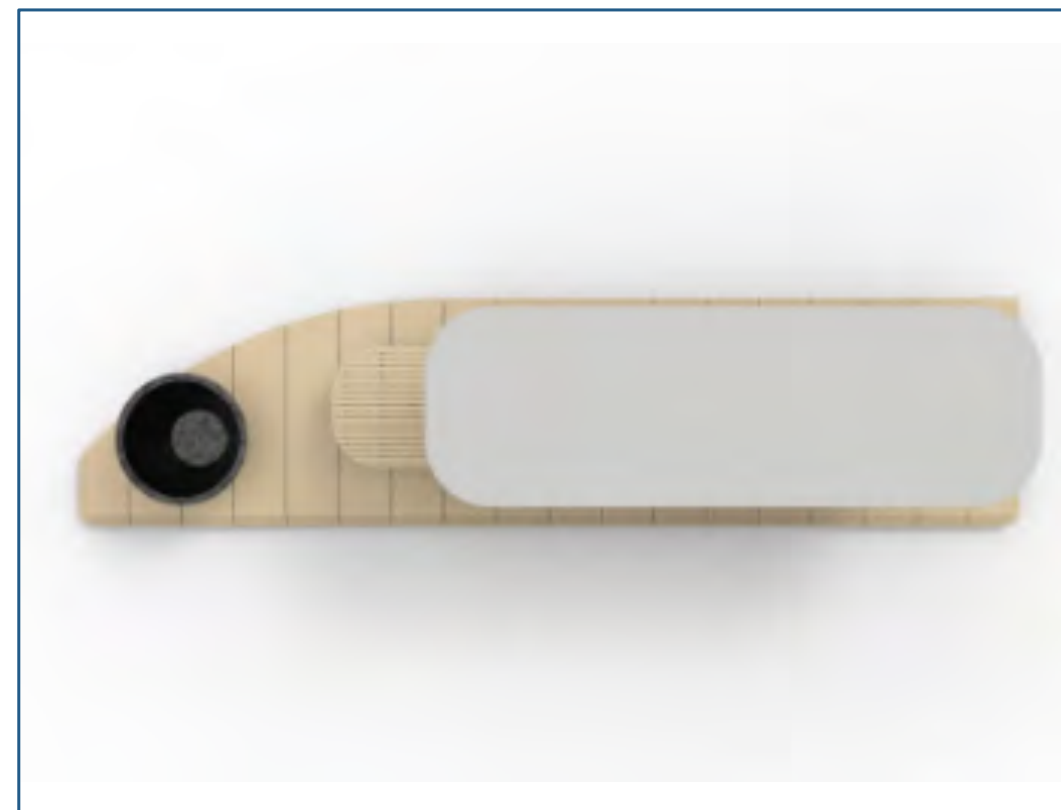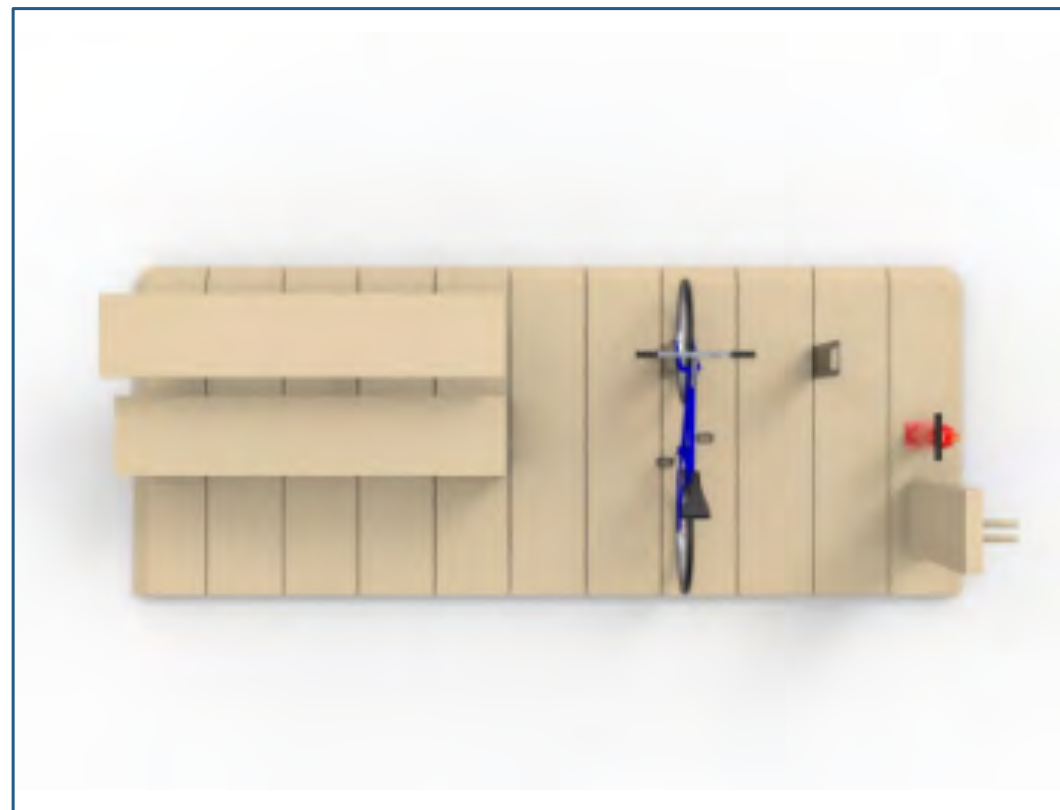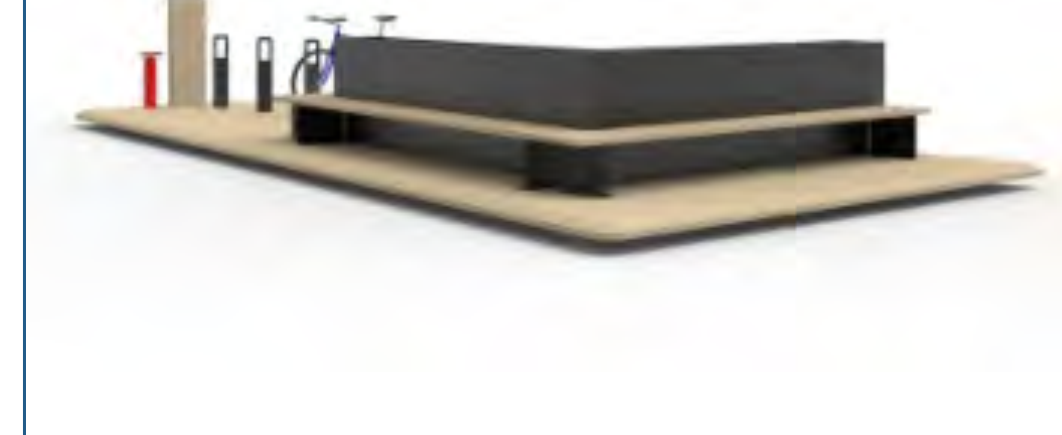
Urban boardwalk prototype
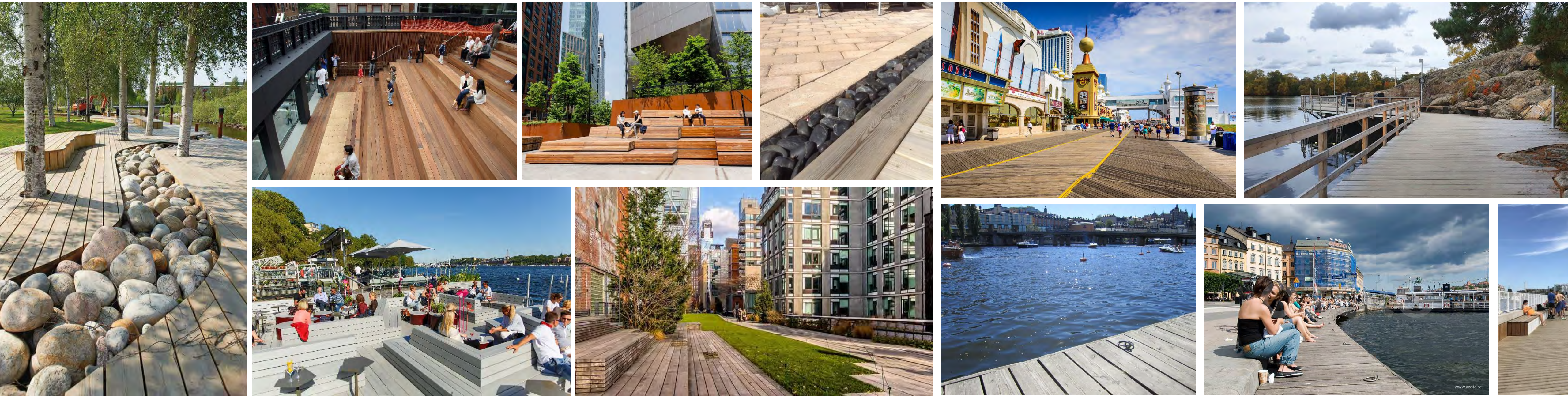
The project uses a strategic approach to collaboration, regulation, policy-making and delivery, ensuring it can scale.

Place layers	In the Street mission		Place-based collaborators
Physical and digital experiences	Physical, digital, and social interventions in streets in Stockholm, Helsingborg, and Umeå, within a wider network of nine municipalities coordinated by Viable Cities.		Stockholms stad Trafikkontoret and Miljö departments; Helsingborg stad; Umeå stad; Stockholm Region planning and health departments; Voi; Volvo M; Lundberg Design; Spacescape

System layers	In the Street mission		System collaborators
Skills and organisational cultures	Urban design/architecture; IoT, data science; user experience; micromobility, transport, and logistics; place-based governance; participative democracy; microeconomics; health and wellbeing; landscape design and biodiversity		ArkDes; Rådet för hållbara städer; Boverket; Voi; Volvo M; Lundberg Design; Spacescape; Stockholm Region
Standards and guidelines	Interoperable mobility standards, street furniture design guidelines, health and safety guidelines for micromobility, civic IoT privacy guidelines, street design guidelines and best practice		Municipal traffic departments in Stockholm, Helsingborg and Umeå; Stockholm Region; Trafikverket; Voi; Volvo M; Lundberg Design; Spacescape; RISE
Data and code	Micromobility data standards; Real-time kerbside management systems; 'digital twins'; Internet of Things kits; environmental sensor data standards; footfall measurement standards		Stockholms stad; Helsingborg stad; Umeå stad; Stockholm Region; SKR; Voi; Volvo M; Ericsson R&D; Vinnova; RISE
Financing	New value models, with 'total value budgeting' based on public health and wellbeing savings, environmental benefits, maintenance benefits; place-based system demonstrator innovation funding		Vinnova; Stockholm Region; Climate-KIC
Policy	Parking space policy; street planning policy; local real estate policy; participative design and planning policy; smart city policy; arts and culture policy; licensing policies		ArkDes; Rådet för hållbara städer; Boverket; Climate-KIC; Viable Cities; Vinnova; RISE; Stockholm Region
Law	Parking space law, traffic speed limits, vehicle definitions, municipal and regional governance and financing law		Transportstyrelsen (national regulatory authority)

VINNOVA

Who decides?

The street, conceived in this way, more than a space in which to represent ritualised routines, is a place in which new forms of the social and the political can appear.
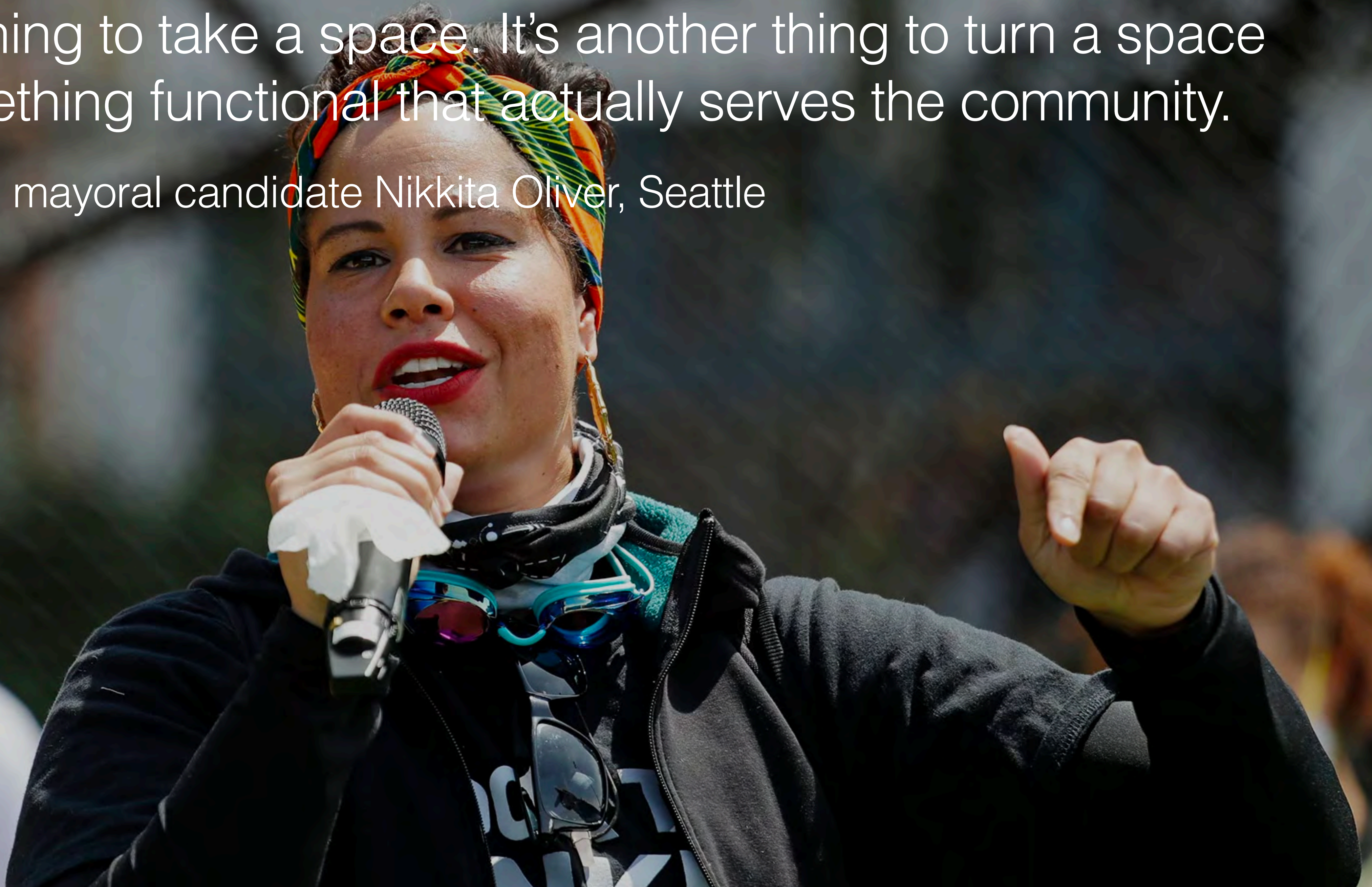
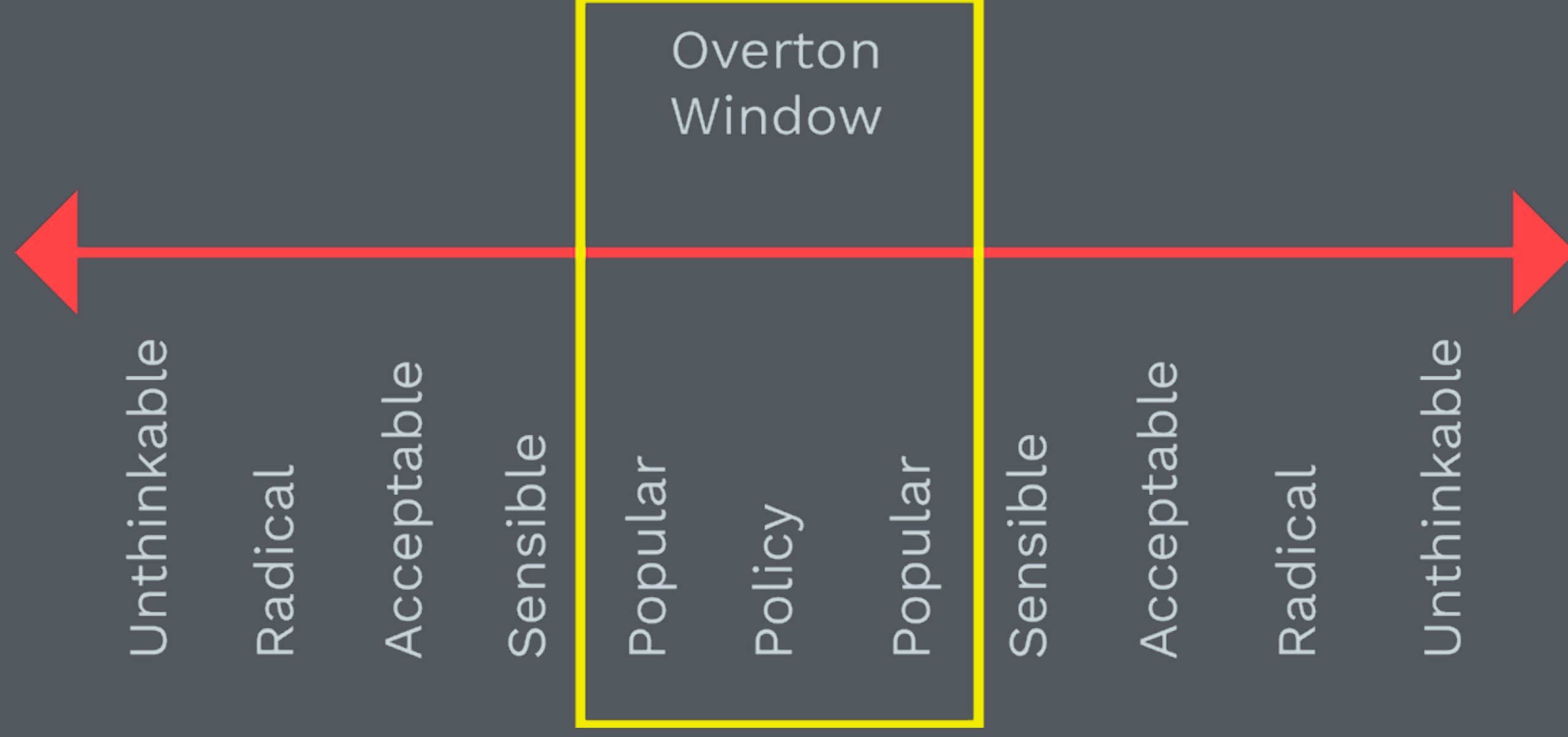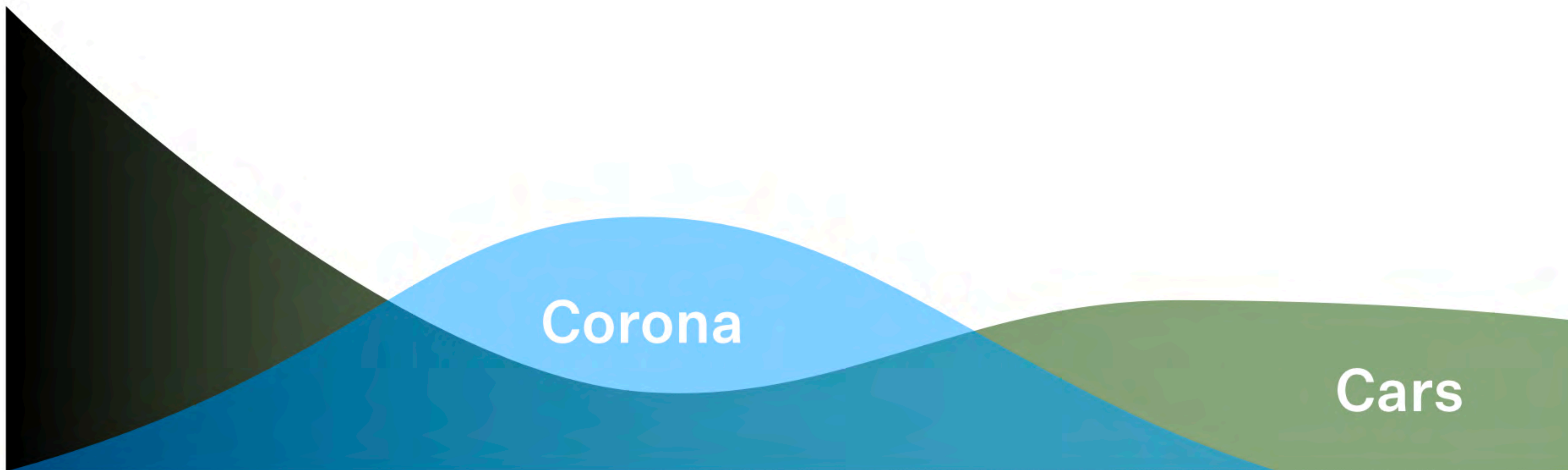Saskia Sassen

It's one thing to take a space. It's another thing to turn a space into something functional that actually serves the community.

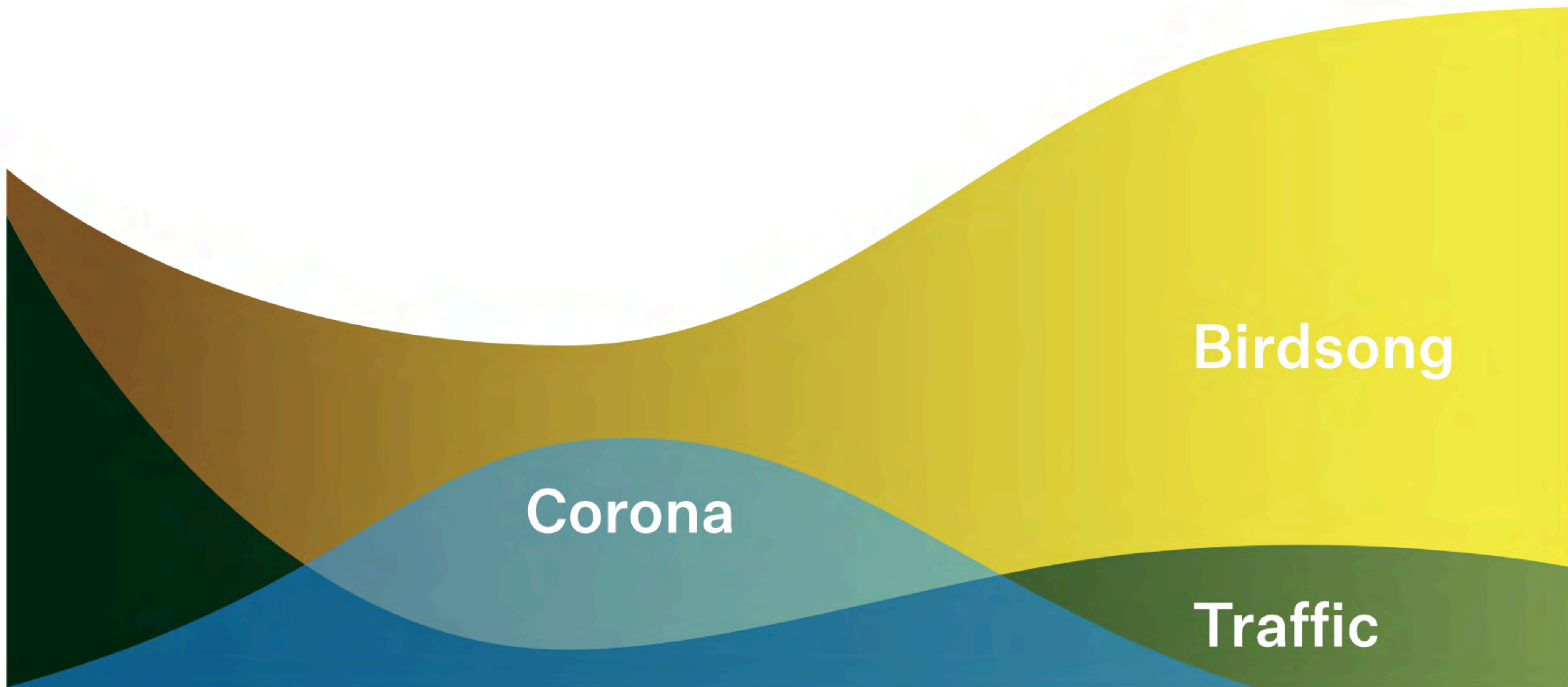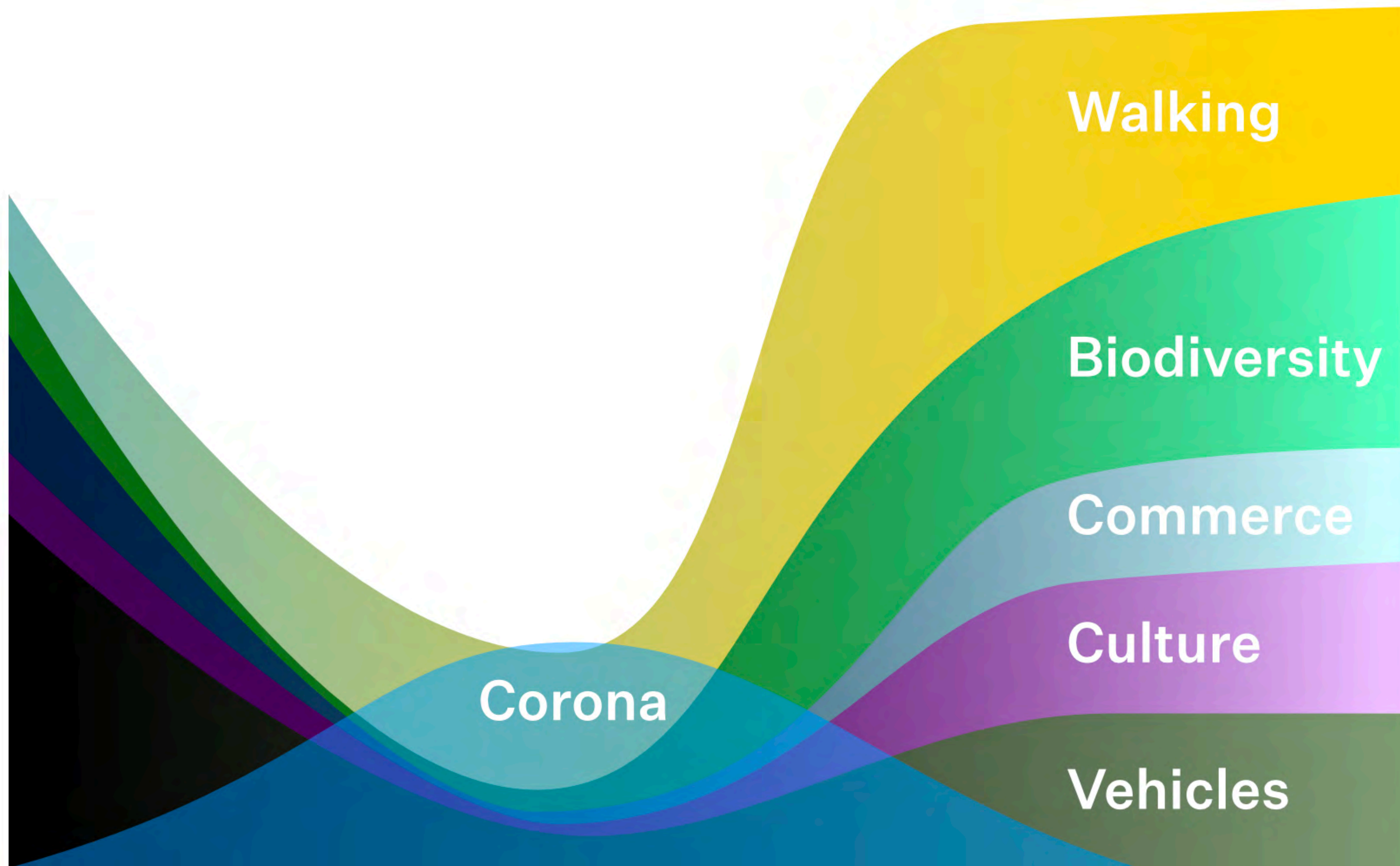Activist and mayoral candidate Nikkita Oliver, Seattle

'Slowdown',
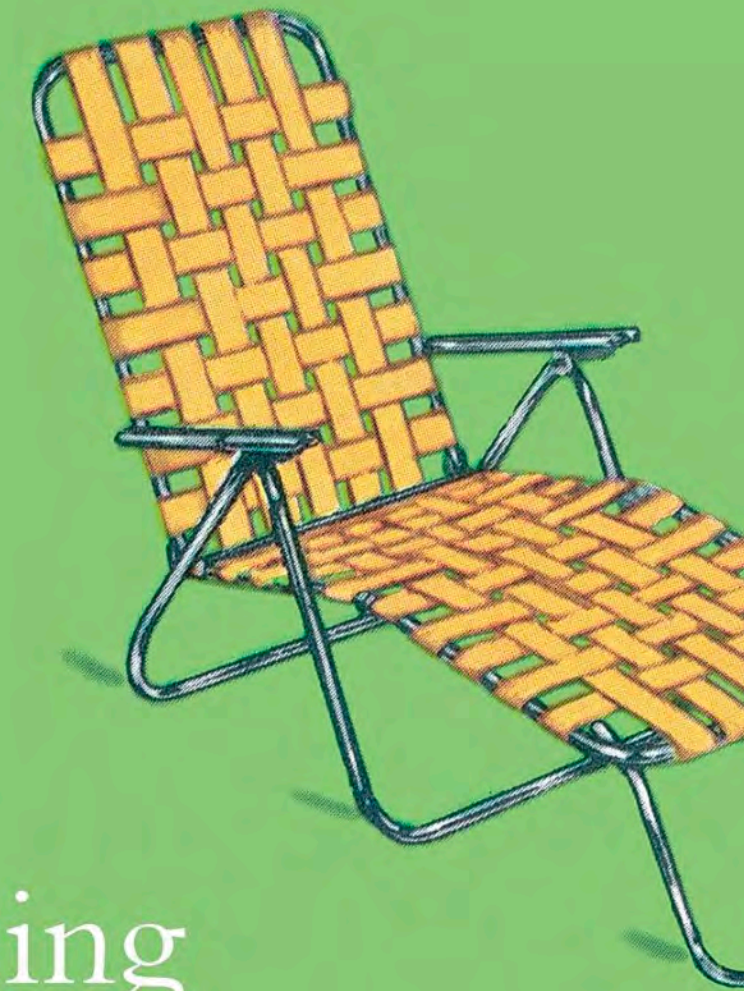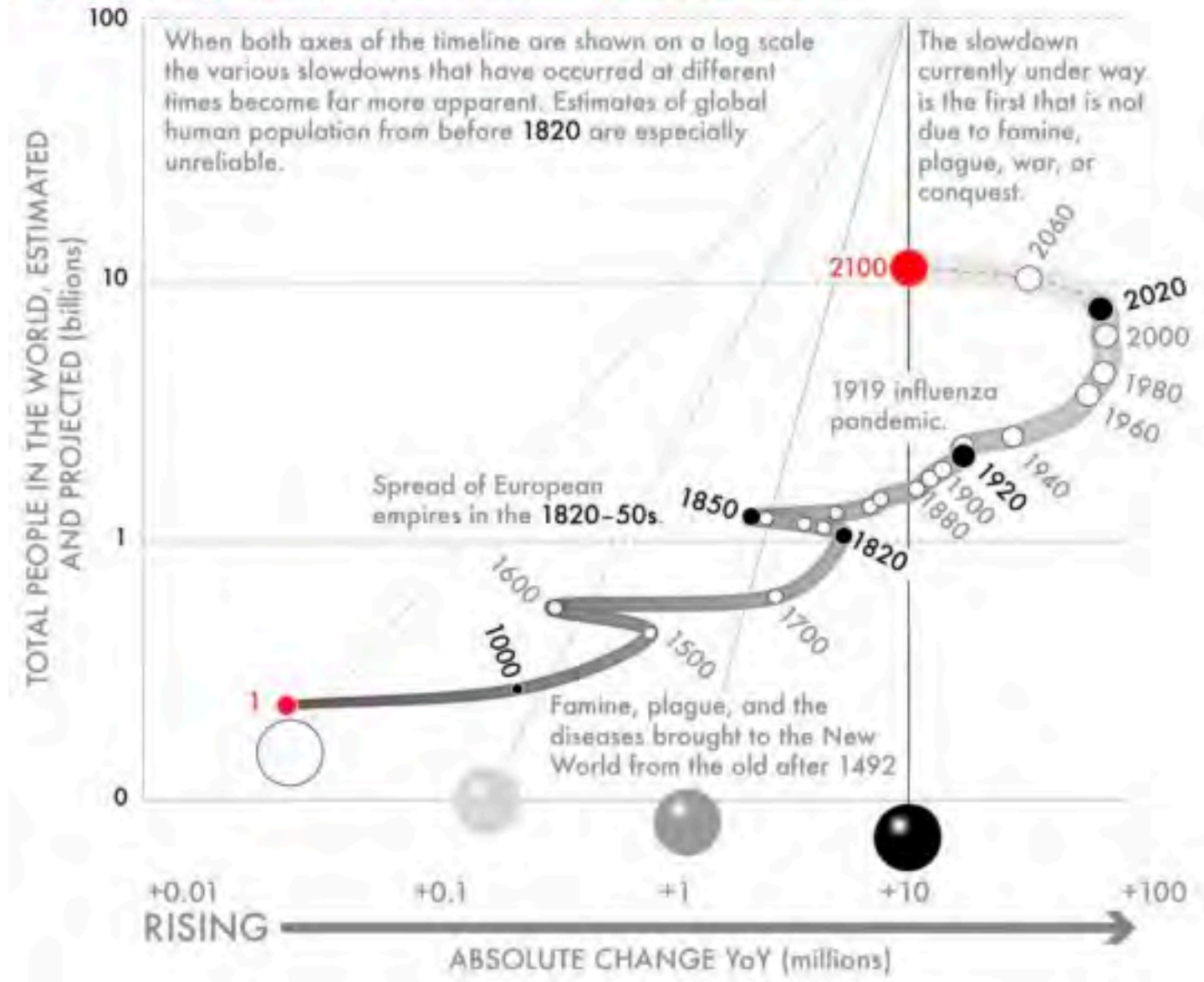Danny Dorling
(2020)

Slowdown

The End *of the*
Great Acceleration—
and Why It's Good *for*
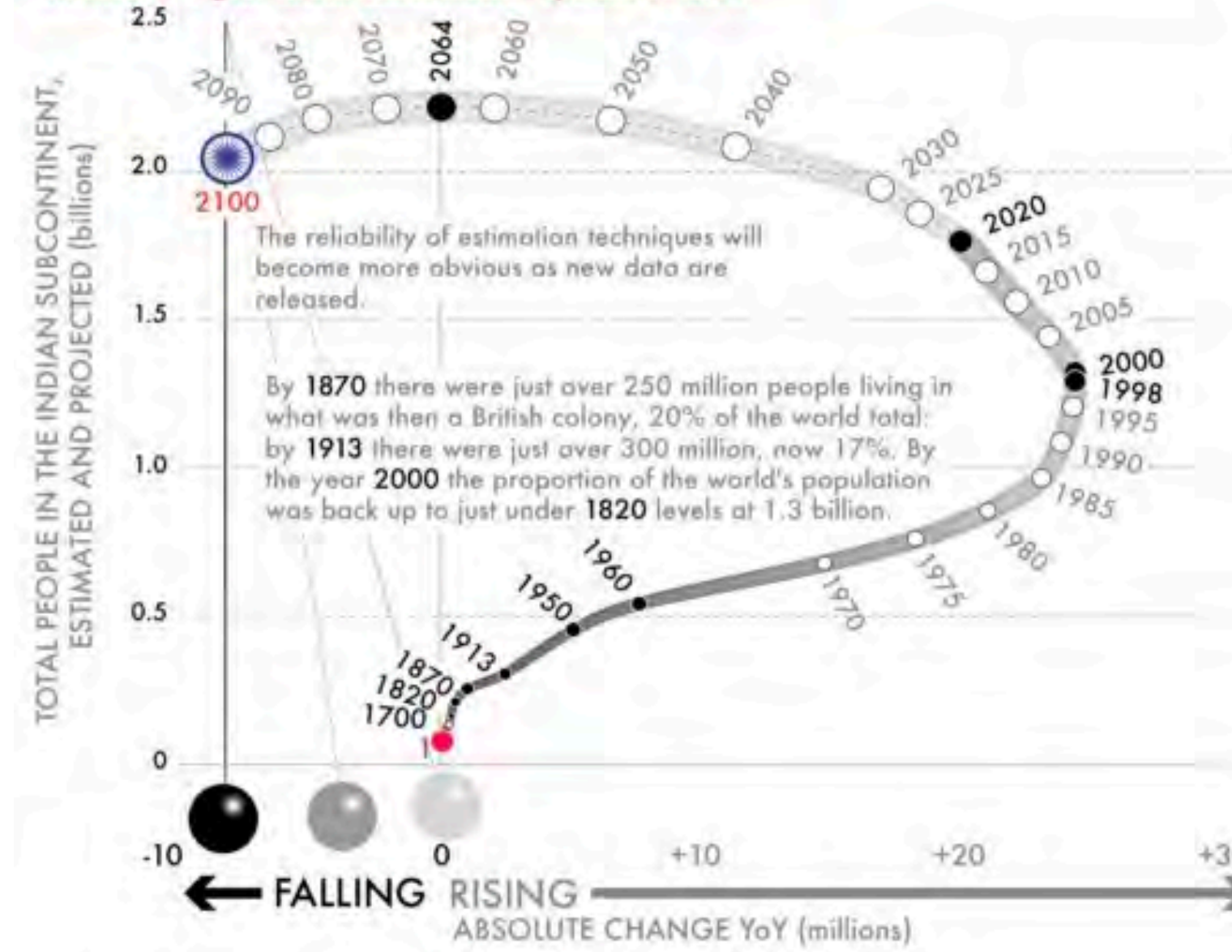*the* Planet, *the* Economy,
and Our Lives

Danny Dorling

"Slowdown" Fig 22 World Population (vertical log scale) Year 1-2100

TOTAL PEOPLE IN THE WORLD, ESTIMATED AND PROJECTED (billions)

When both axes of the timeline are shown on a log scale the various slowdowns that have occurred at different times become far more apparent. Estimates of global human population from before **1820** are especially unreliable.

The slowdown currently under way is the first that is not due to famine, plague, war, or conquest.

1919 influenza pandemic.

Spread of European empires in the **1820–50s**.

Famine, plague, and the diseases brought to the New World from the old after 1492

ABSOLUTE CHANGE YoY (millions)
RISING

"Slowdown" Fig 27 Indian Subcontinent Population 1-2100

TOTAL PEOPLE IN THE INDIAN SUBCONTINENT, ESTIMATED AND PROJECTED (billions)

The reliability of estimation techniques will become more obvious as new data are released.

By **1870** there were just over 250 million people living in what was then a British colony, 20% of the world total; by **1913** there were just over 300 million, now 17%. By the year **2000** the proportion of the world's population was back up to just under **1820** levels at 1.3 billion.

FALLING RISING
ABSOLUTE CHANGE YoY (millions)

"Slowdown" Fig 28 Japanese Population year 1-2100

TOTAL PEOPLE IN JAPAN, ESTIMATED AND PROJECTED (millions)

The atomic bombing of Hiroshima and Nagasaki in **1945**.

1937 second Sino-Japanese War.

Influenza pandemic of **1918/19**.

1822 cholera outbreak.

End of the Russo-Japanese War **1905**

Population grew rapidly following the end of World War II, peaking in **1948**.

FALLING RISING
ABSOLUTE CHANGE YoY (millions)
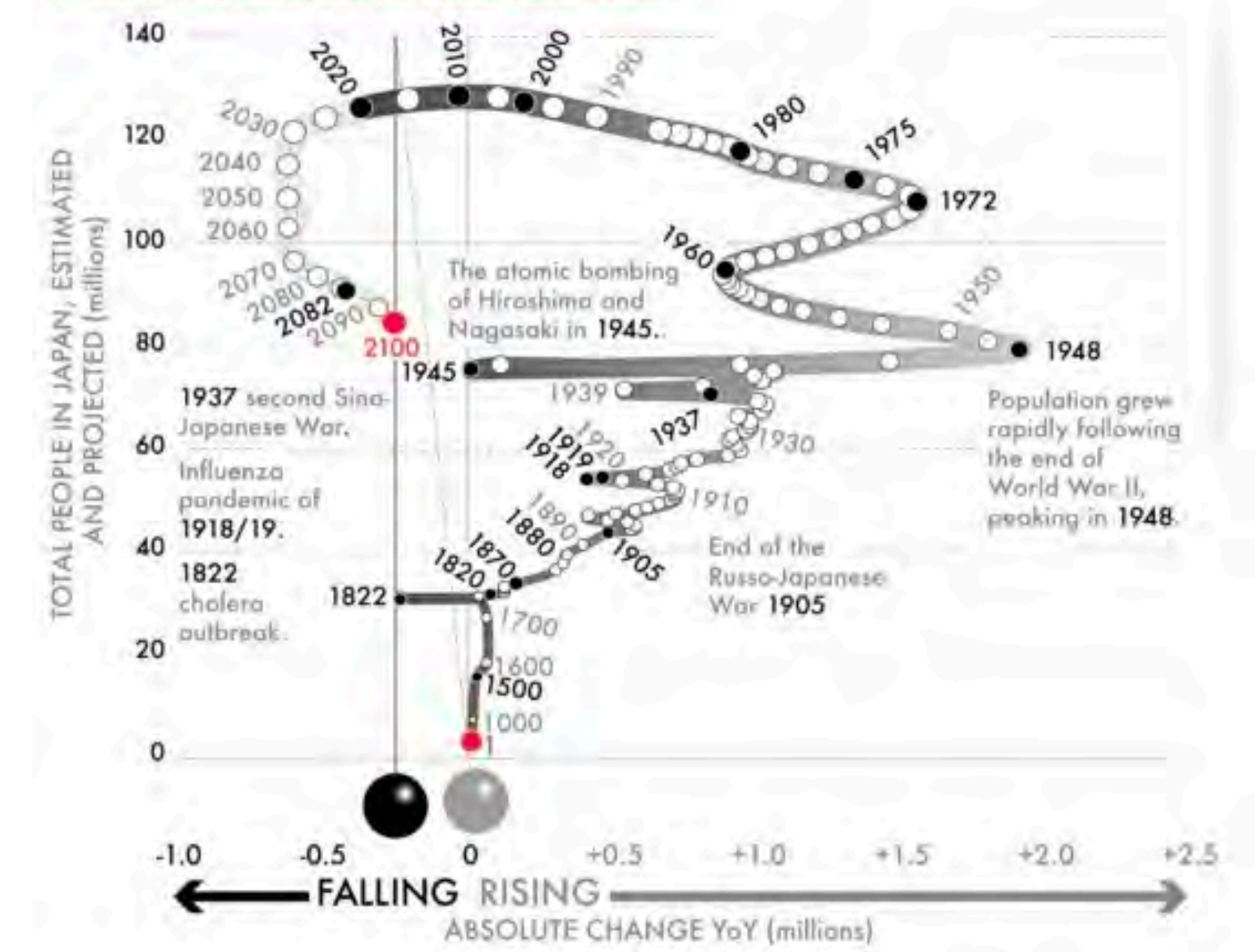
Population projections investigate how the Canadian population might evolve in the years ahead. Statistics Canada publishes several scenarios to highlight the uncertain nature of population projections, making it clear that the future is not yet defined.

Readers can now access the publications *Population Projections for Canada (2018 to 2068), Provinces and Territories (2018 to 2043)*, *Population Projections for Canada (2018 to 2068), Provinces and Territories (2018 to 2043): Technical Report on Methodology and Assumptions*, as well as the new infographic "What will the population of Canada look like in 2068?"

55 million Canadians by 2068?

While the populations of many developed countries are expected to decrease, Canada's population is projected to grow over the next 50 years, largely because of strong immigration.

Population growth, however, is likely to vary across the country, with the population of some provinces and territories increasing and others decreasing. As a result, the provinces and territories may experience diverse opportunities and challenges over the coming decades.

The Canadian population has grown substantially in recent years, increasing from 30.7 million people in 2000 to 37.1 million in 2018.

The projections show that growth would continue in Canada over the next 50 years, and that the population could reach between 44.4 million and 70.2 million inhabitants by 2068. In the medium-growth scenario, the Canadian population would grow from 37.1 million inhabitants in 2018 to 55.2 million by 2068.

According to the low- and medium-growth scenarios, the rate of population growth would slow in the coming years, owing mainly to an increasing number of deaths relative to births. The expected increase in the number of deaths is mainly related to population aging.

In all scenarios, immigration would remain the key driver of population growth over the next 50 years, as has been the case since the early 1990s.

Increasing share of people aged 65 and older, decreasing share of the working-age population

According to all scenarios, Canada's population would continue to become older in the coming years at both the national and the

World population in 2100 could be 2 billion below UN forecasts, study suggests

Changes in population structure due to improving equality and ageing societies will pose policy dilemmas

Fiona Harvey

Wed 15 Jul 2020 14.45 BST

▲ In Nigeria, the working age population is forecast to increase from 86 million in 2017 to 460 million in 2100.
Photograph: Oluwadamilola Ogunsina/Alamy

Global population growth may peak sooner than expected if the lot of women continues to improve, according to a study that says the world's population could be 2 billion below UN forecasts by the end of the century.
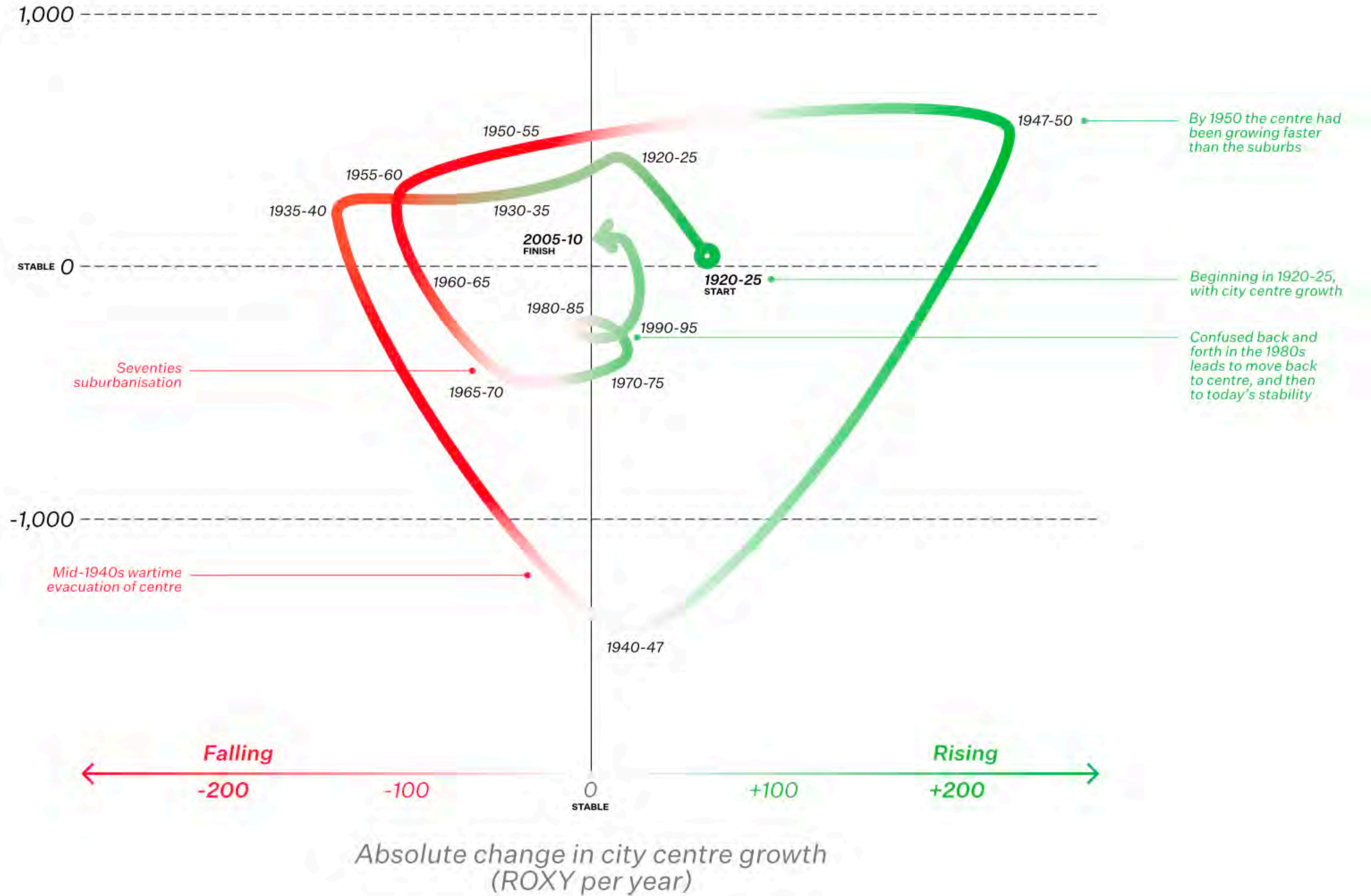
Such a fall would remove some of the projected strain on natural resources but would present governments with stark policy choices over migration and the economy.
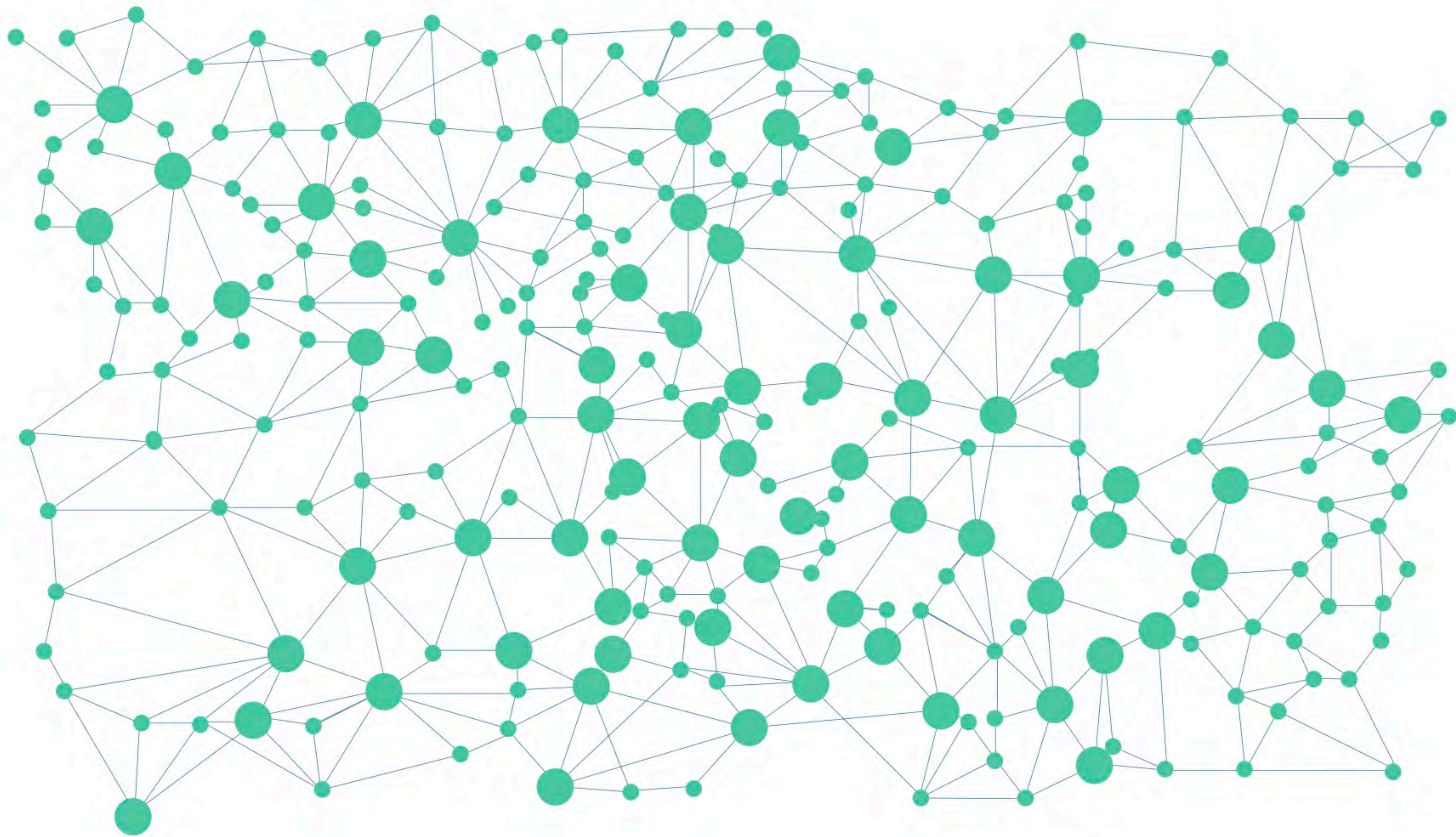
The world's population will peak at 9.7 billion in 2064 and decline to 8.8 billion by the end of the century, according to research led by the University
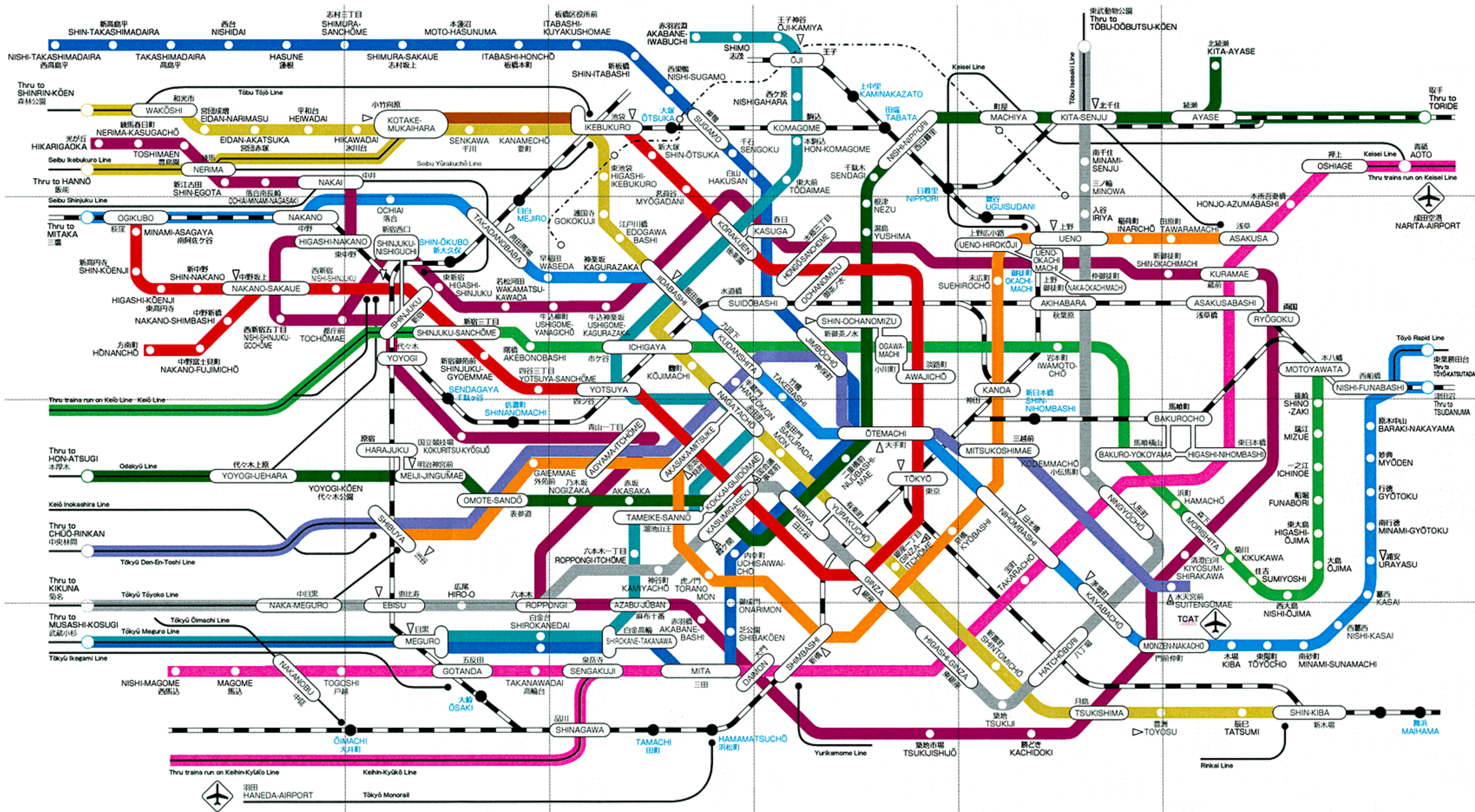
Tokyo is small and slow.

Tokyo population and suburban growth 1920-2010

Absolute change in city centre growth (ROXY per year)

Rise in population in central Tokyo compared to suburban growth (ROXY)

1,000

STABLE 0

-1,000

1950-55

1920-25

1955-60

1935-40

1930-35

2005-10 FINISH

1960-65

1980-85

1920-25 START

1990-95

Seventies suburbanisation

1965-70

1970-75

Mid-1940s wartime evacuation of centre

1940-47

1947-50

By 1950 the centre had been growing faster than the suburbs

Beginning in 1920-25, with city centre growth

Confused back and forth in the 1980s leads to move back to centre, and then to today's stability

Falling

Rising

-200

-100

0 STABLE

+100

+200

The 1-minute City
The street
Massive re-emphasis on regenerative landscape, on conviviality and culture, on shared ownership, on true participation, on adaptation and repair.

The Slowdown
A glimpse of a future
A transition centred on climate resilience, human and non-human health, and social justice.

These are all the same thing.

The failure—or at least the postponement—of the grand is also the survival of the ordinary and the everyday; the survival of citizens over cities; of infrastructures of everyday dignity over big, signature, spectacular projects; of incremental change over instantaneous transformation; of the bazaar over the mall, the shared auto over the expressway, survival over smartness.

Gautam Bhan, India Times, 2017

From making the city to using the city.
Designing infrastructures of everyday dignity, of everyday complexity.

Dan Hill
Director of Strategic Design, Vinnova, Sweden
—

Visiting Professor, UCL Institute for Innovation and Public Purpose
Visiting Professor, Design Academy Eindhoven
Adjunct Professor, RMIT University
—

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