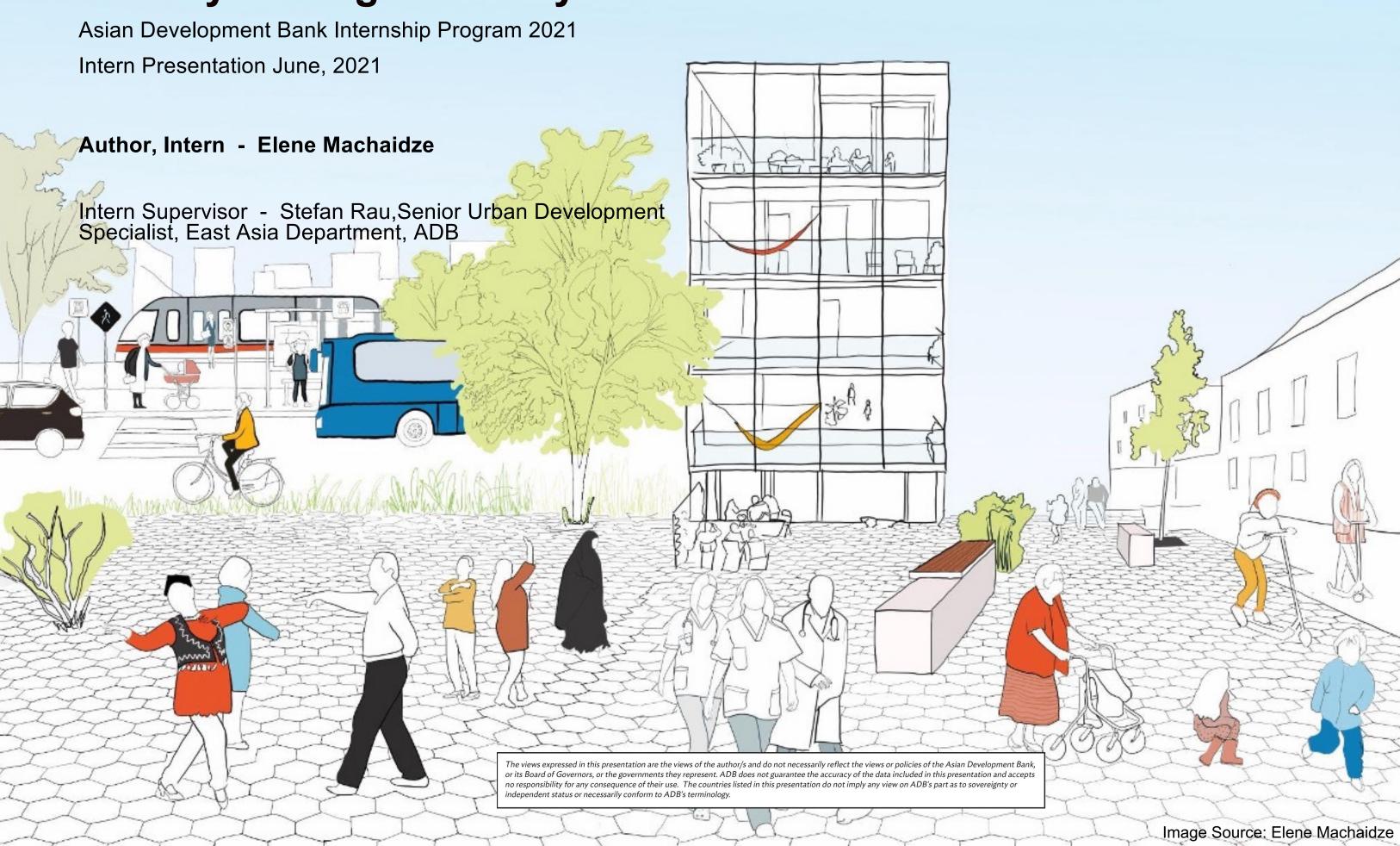
# Healthy and Age-Friendly Cities Best Practices Around the World



#### Index



1.Introduction



2. What is a Healthy and Age-Friendly City



3. Healthy and age-friendly practices Worldwide examples



4. Healthy and age-friendly practices Action plans & city examples

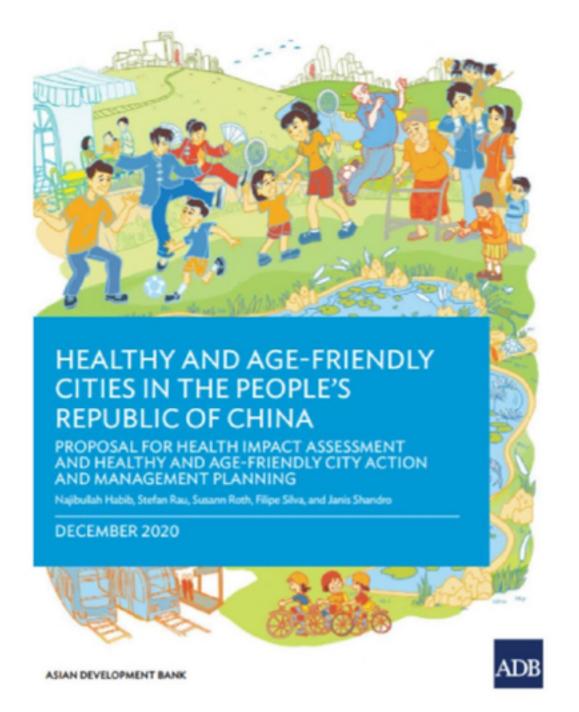


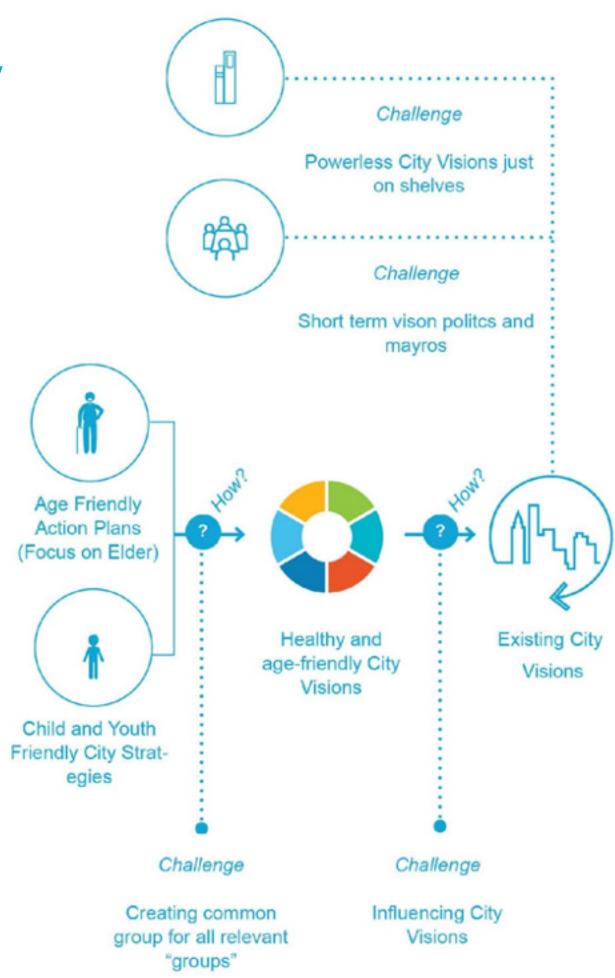
5. HACAMP in Ten steps



6. Appendix

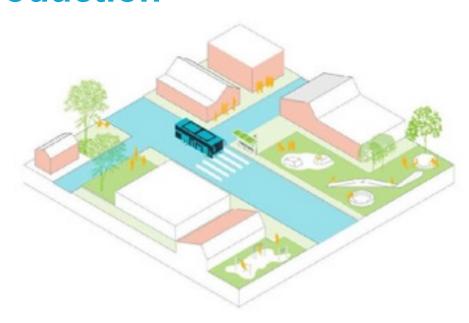
# 1.1 Research Question and methodology





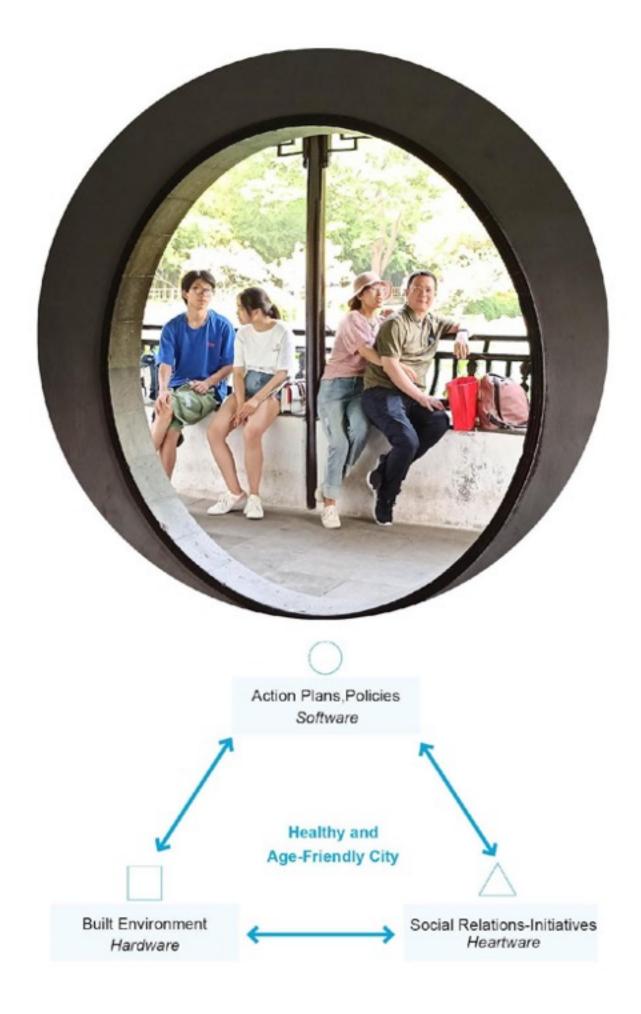


# **1.2 Introduction**



#### Triad Conceptual Space Lefebvre 1974 & Soja 1996

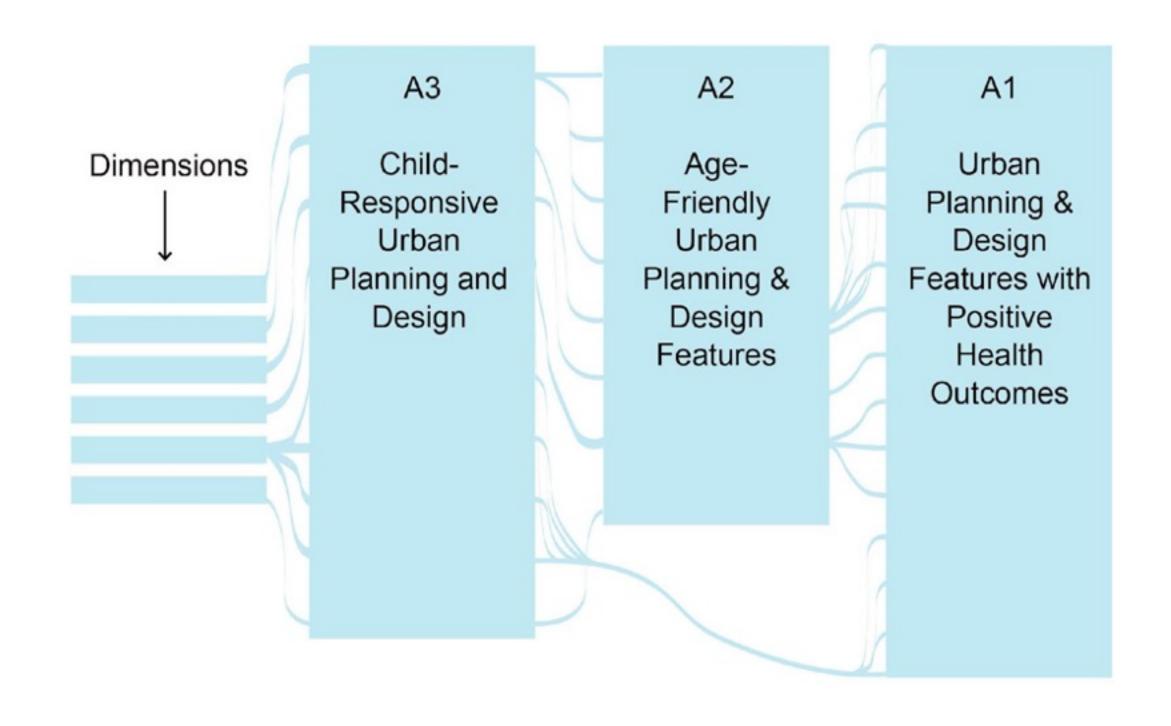
T Material	A conceptual model used to	The lived social relation
Perceived	Conceived	Lived
Particular location Spatial set Level of performance Everyday life Routes, Networks Focus on conventional	-Conceptualized space -Developed by architect planner -Relation to production -Control over Knowledge -System of verbal signs	-Complex symbolism -Partial unknown ability -Mystery and secretiveness -non verbal subliminally -Potential insightful
Physical space Perceived space Spatial Practice Spatial Materiality	Mental space Conceived space Representation of sp. Spatial metaphor	Social space Lived space Representation sp Spatial praxis
First Space	Second Space	Third Space





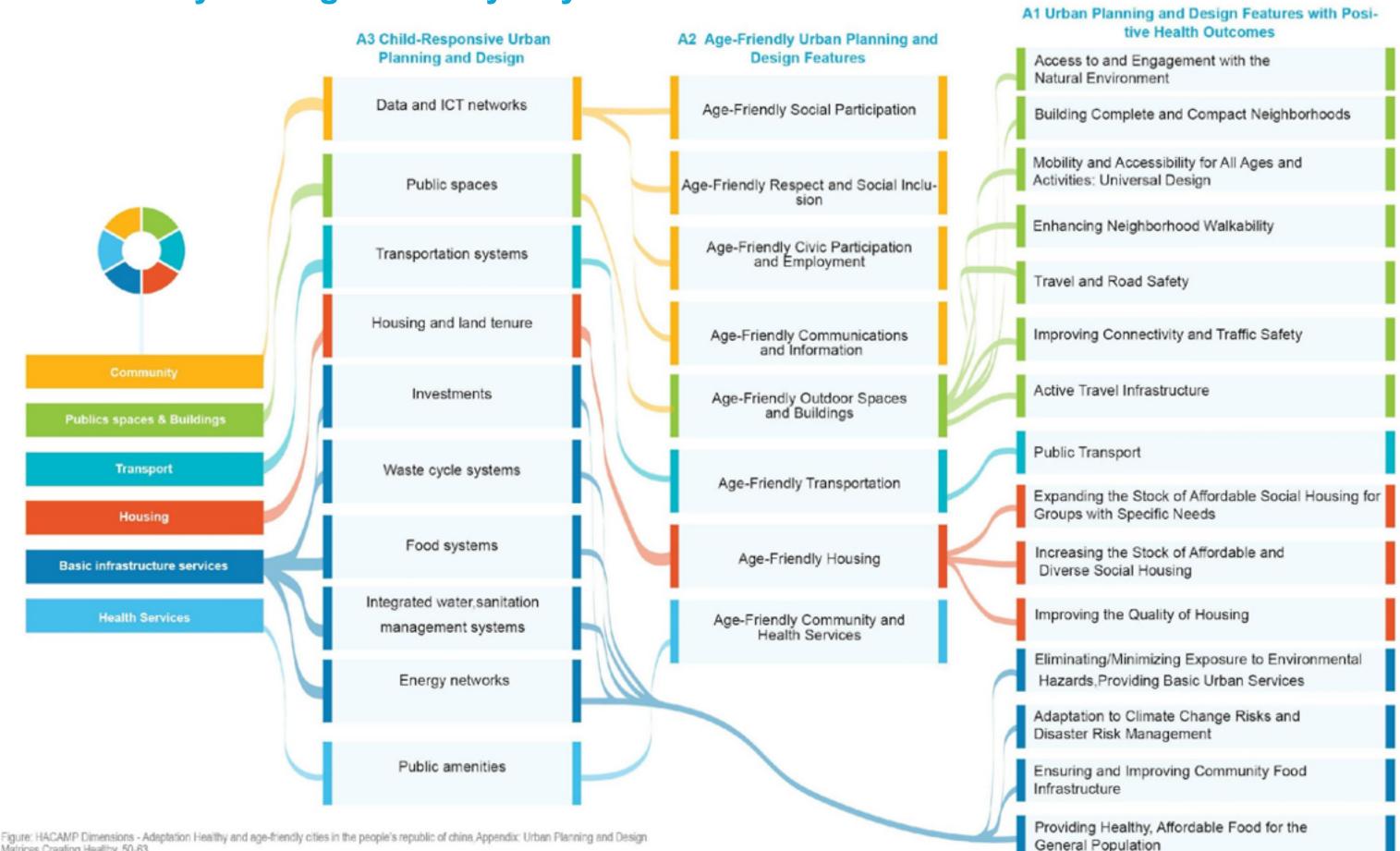


# 2.1 Identifying Healthy and Age-Friendly City Dimensions



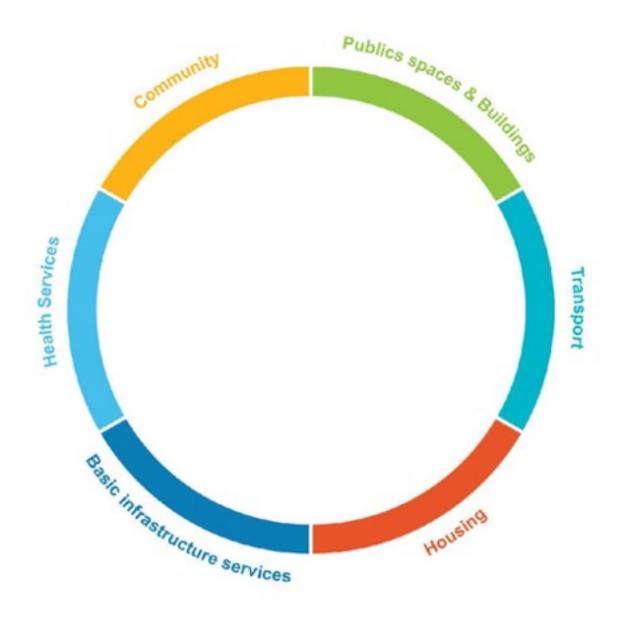


## 2.2 Healthy and Age-Friendly City Dimensions



Matrices Creating Healthy, 50-63

# 2.3 Healthy and Age-Friendly City **Objectives and strategies**









Encouraging civics social Participation

Encouraging employment & lifelong learning











Create access to natural environment & promote relevant design facilities

Prioritizing pedestrians and

Creating walkable city

Creeting codes of universal design principles to all public

Creating inclusive buildings



Creating affordable and accessible public transport







Providing affordable taxis. parking



Develop active transportation and public transit







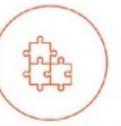
Providing diverse housing typologies



Creating energy efficient



Enabling agoing in place



Encouraging multigenerational housing



Improve natural environment



increasing creating and access to healthy food



Increasing urban green

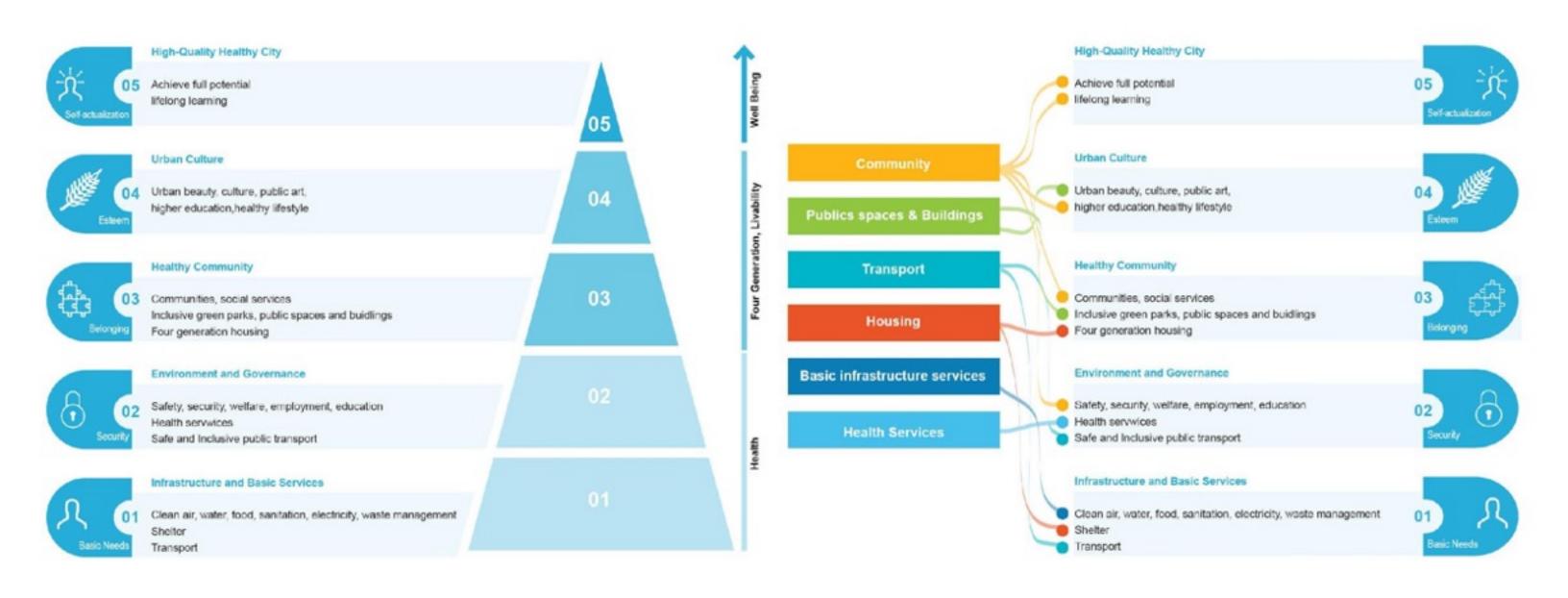


Creating Health and social services citywide

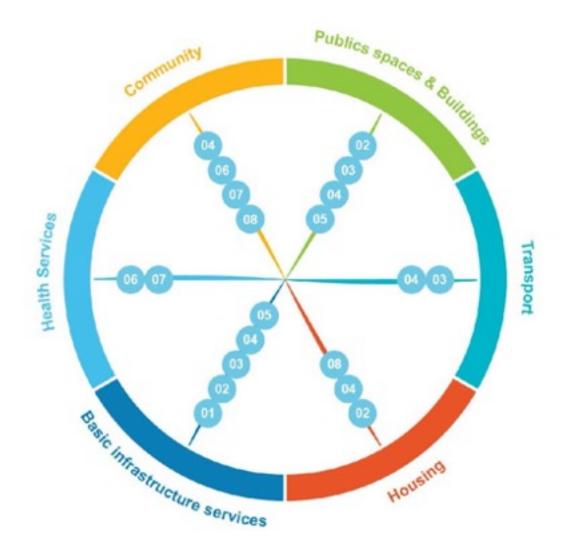




# 2.4 Hierarchy of High-Quality Healthy City linked to HACAMP Dimensions



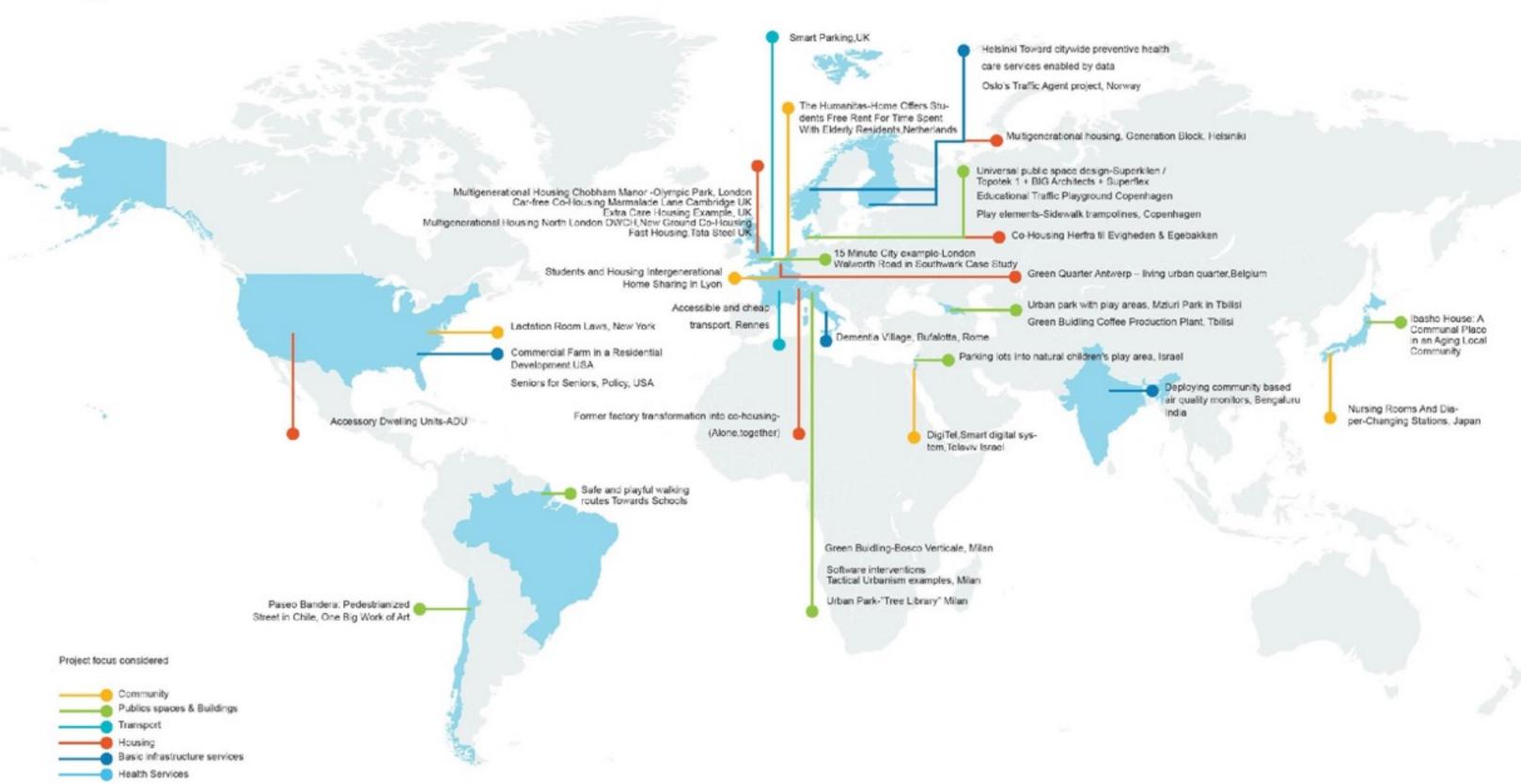
#### 2.5 Health Benefits



- Oreates Sufficient healthy nutrition and drinking water that is essential for health and well-being.
- Reduces risk of Chronic diseases, Cardiovascular diseases, Cancers, Respiratory illnesses, emerging infectious diseases, mental illnesses. infectious diseases associated with medical waste, mortality, the risk of unintentional injury or death.
- Improves physical activity levels (weight status among children, adults, and older adults)
- O4 Social connectivity (Aging in place), Increases social inclusion and self-realization
- Builds a healthy natural environment by Building resilience to climate change, extreme heat, and cold weather. Increases indoor air quality that reduces risks to cardiovascular diseases, respiratory symptoms, sensory irritation, lung cancer, and other cancers. Controls noise.
- Increases engagement with health-care services and the chance of prevention is getting higher by frequent monitoring.
- 07 Increases a Healthy lifestyle among people.
- 08 Creates a safe, and secure environment.



# 3. Healthy and age-friendly practices Worldwide examples







Encouraging social participation and enhance the accessibility of events and activities for all age groups, by civil participation and employment opportunities for all. Promote communications and information understandable for all.



Country-Israel Total Population 9.053 000 (2019) Population ages 65 and above 12% (2018) Median Age 30.5 years (2020) GDP Per Capita 43,592 USD (2019) Average household size 3.3 people

Action-Creating Digital platform Main Driver-Municiplaity, Smart Innovation



#### Health Benefits

#### DigiTel,Smart digital system,Telaviv Israel

This practice is exceptional as it created a smart system to match the needs of all age group people, a Universal system is one of the main tool for the municipality to communicate with people.

The DigiTel Residents Club is a personalized web and mobile communication platform that provides residents with individually tailored, location-specific information and services. The platform facilitates a direct, open channel of communication between the city and its residents, from alerting residents about neighborhood roadwork and directing them to the nearest bicycle-sharing station, to sending targeted reminders for school registration or events and offering discounts to the many cultural events taking place in the city.

MiniDigi is an innovative governance model aimed at improving quality of life for parents and babies. It uses a digital platform to build community, provide relevant services and information tailored specifically to their needs, and integrate babies into everyday life in Tel Aviv, a nonstop city. This resident card gives unique access, free of charge, to a one-stop shop of services and benefits for young families: from coaching for parents and fun events at all hours, to online scheduling of vaccine appointments, tailor-made discounts and benefits and, above all, a community for young families.

Every child born in Tel Aviv is now sent a Digitaf card. Launched in December 2017, Digitaf - which reads in Hebrew as a pun on 'digital for toddlers' is a new addition to Tel Aviv's pioneering online Digitel platform, which connects residents with municipal services. Digital makes it easy for parents to book appointments with 'well baby' clinics, or find out about local childcare facilities or upcoming public events such as storytelling. It offers discounts on products, services and activities.





DigiTel Card

https://www.tel-aviv.gov.il/en/abouttheCity/Pages/SmartCommunity.aspx https://bemardvanleer.org/news/digitaf-e-digital-platform-for-parents-of-young-children-launches-in-tel-aviv/

#### The Humanitas-Home Offers Students Free Rent For Time Spent With Elderly Residents, Netherlands

This policy provides students with a cheap renting fee, in order to live in an elderly community and spend few hours in a month. It encourages multigenerational communications.

project allows students to live rent free alongside elderly resident as part of a project to ward off the negative effects of aging. In return for a small rent free apartment, the Humanitas retirement home in Deventer asks the students to spend at least 30 hours helping residents per month. They can do anything from watching sports, offering company when seniors are ill which can help combat loneliness.

The program ensures a bit of the outside world is brought into the home and that a warmth between all parties is created. Altogether there are around 6 students sharing the building with 160 seniors.





Humanitas daily life

https://internationalsocialhousing.org/2017/05/29/leaming-best-practices-in-housing-for-the-alderly-from-the-dutch/https://www.youtube.com/watch?v=igRtaul/0s/205ab\_channel-HumanitasDeventer https://www.boredpanda.com/student-dorm-edlenly-retirement-home-deventer-humanitas/?utm\_source=gcogle&utm\_medium-organic&utm\_campaign=organic



Country-Notherlands Total Population 17.280 000(2019) Population ages 65 and above 19.6% (2019) Median Age 43.3 years (2021) GDP Per Capita 52,331 USD (2019) Average household size 2.2 People

Action-Policy, Cheap housing for young to communicate with elder Main Driver-Policy





#### Health Benefits





Creating safe, inclusive, accessible slow mobility options, within neighborhoods, city and encourage universal design, sustainable public spaces, and buildings.



Coutry-Italy
Total Population 1,396,059 (2019)
Population ages 65 and above 23% (2019)
Median Age 47.3 years old (2021)
GDP Per Capita \$33,228.24 (2019)
Average household size 2,58 people

Action-Construction of urban green space Main Driver-Municipality



#### Health Benefits

Reduces risk of Chronic diseases, Cardiovascular discases. Cancers, Respiratory lineses, omorging infectious diseases as accided with medical waste, mortality, the risk of uninterferent injury or death.

 Improves physical activity levels (weight status among children, adults, and older adults).

4.social connectivity(Aging in place), Indreases social inclusion and self-realisoline.

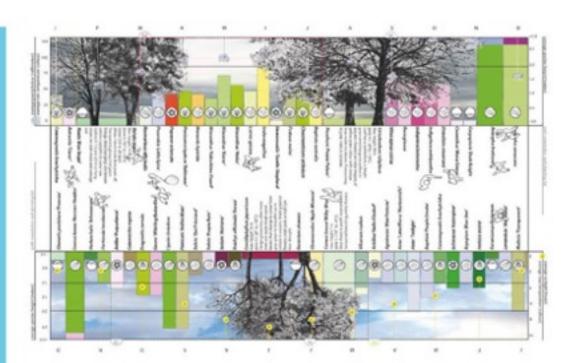
5.Buildis healthy natural environment by Building restlince to climate change, to extreme heat and cold weather increas as indoor air quality that redouese risks to cardiovascular diseases, respiratory symptoms, sensory irritation, lung concer-

#### **Urban Park-"Tree Library" Milan**

In the central part of the city new green public space was created, with soft infrastructural elements and more natural elements, as trees and bushes. It increases walkability in the city and became one of the main parks in the city.

The park acts as urban connector, cultural campus and botanical garden. Paths are drawn from different areas (residential, commercial, governmental) around the site, creating a grid of connections that overlap and cross with one another. These paths, together with the irregular fields that are created in-between, can overcome height differences and underlying traffic tunnels, create sound-walls and bridge streets. The planting design for the fields is composed of a series of carefully selected species. Each plot offers a different type of growth and program. Circular forests are scattered over the site and will grow into roofs of foliage of different color and structure that fl oat above the park. A series of cultural, educational, social and commercial buildings are placed in the park and along its edges, their program triggering interest and income for the area and thus securing a high-level maintenance program for the park.

The park - located between Stazione di Porta Garibaldi and Stazione Centrale - will be the beating heart between municipality and commercial offices, fashion and culture related buildings, vital public transport knots, busy streets and quiet residential areas such as the Quartiere Isola.















https://www.insideoutside.nl/Siblioteca-degli-Alberi-Milan

https://www.insideoutside.nl/fiter/park/Biblioteca-degli-Alberi-Milan https://www.instagram.com/p/Bv64vf2Akca/

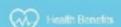


Courry-Italy
Total Population 1,396,059 (2019)
Population ages 65 and above 23% (2019)
Median Age 47.3 years old (2021)
GDP Per Capita \$33,228.24 (2019)
Average household size 2,58 people

Action-Using tactical urbanism to test scenarios Main Driver-Municipality



An Urban Block Software



2. Reduces risk of Chronic diseases, Car diovascular diseases, Cancers, Respirato ry illneses, emerging infectious diseases mental illnesses, infectious diseases as acclated with medical waste, mortality, the risk of unintertional injury or death.

 Improves physical activity levels (weigh status among children, adults, and olde adults).

4 social connectivity(Aging in place), Indreases social inclusion and self-reali-

5.Building resilince to climate change, to extreme heat and cold weather increases indoor air quality that redouese risks to cardiovascular diseases, respiratory symptoms, sensory irritation, lung concer,

#### Software interventions Tactical Urbanism examples, Milan

This project is an example of how tactical urbanism can play a key role to inhabit streets by people and not by cars.

Milan has several examples of using tactical Urbanism as a tool to test possible transformations, having included local residents as well as students and diverse stakeholders.

"Since September 2018, Milan's "Piazze Aperte" project, sponsored by the Municipality of Milan in collaboration with Bloomberg Associates, National Association of City Transportation Official (NACTO) e Global Designing Cities Initiatives, has been experimenting with tactical urbanism to create new public spaces out of redundant roads and intersections through a series of experimental temporary, fast and cost-effective projects. The temporary nature of these project allows for a rapid and reversible solution testing, before investing time and resources in a definitive structural arrangement, anticipating the impacts with immediate benefits and supporting the decision-making process towards a permanent solution."

Example -Sidewalk expansion

Tools: street signs and/or bollards

Reversibility: medium-high

Pedestrian interventions include the possibility of widening sidewalks that do not allow safe distances between people, creating space from the roadway and separating it with temporary devices and other tactical urban planning tools



Source: https://www.comune.milano.it/documents/20128/7117896/Open+streets.pdf/d9be0547-1eb0-5abf-41Cb-a8ca679451367t=1580195741171



Tactical Urbanism-Angilberto square





"Piazze Aperte", before and after the tactical urban planning intervention in Nolo (Via Spoleto, Via Venini)









CountryUnited States Total Population-328.200 000 (2019) Population ages 65 and above 15.2% (2017) Median Age 38.1 years (2019) GDP Per Capita 65,297 USD (2019) Average household size 2.53 people

Action-Building new housing typlogy Main Driver- Policy development

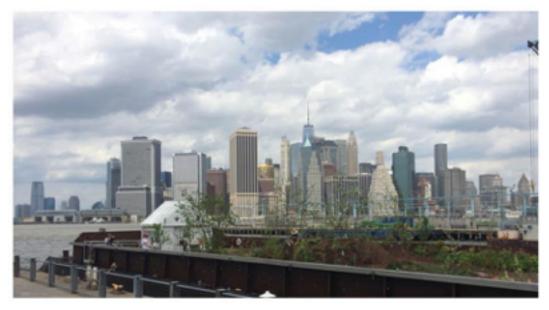




#### A Floating Food Forest In New York City

This project is a good example how to create green spaces in urban areas, that is inetractive and benefits residents mental and physical health issues.

New York's 'barge-to-table' floating farm gives city residents without access to farmland the opportunity to pick their own food. Swale is a public floating food forest built atop a 5,000 square foot barge, currently docked at Brooklyn Bridge Park's Pier 6. Founded in 2016 by artist Mary Mattingly, Swale allows visitors to harvest herbs, fruits and vegetables for free. The project began as an idea to advocate for food to be grown on some of the 30,000 acres of public land in New York City.







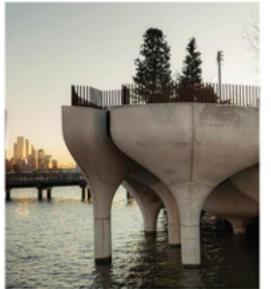
https://www.moderncities.com/article/2017-jun-a-floating-food-forest-in-new-york-city

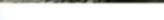
#### 'Floating' park on the Hudson, New York

This project is a good example how to create green spaces even on water infrastructure and create quality public space.









The amphitheater and venue at the park



CountryUnited States Total Population-328.200 000 (2019) Population ages 65 and above 15.2% (2017) Median Age 38.1 years (2019) GDP Per Capita 65,297 USD (2019) Average household size 2.53 people

Action-Building new housing typlogy Main Driver- Policy development





#### Health Benefits





Coutry-Italy Total Population 1,396,059 (2019) Population ages 65 and above 23% (2019) Median Age 47.3 years old (2021) GDP Per Capita \$33,228.24 (2019) Average household size 2.58 people

Action-Green Building Main Driver-Developer, Architect



#### Health Benefits

#### Green Buidling-Bosco Verticale, Milan

This project rethinks the image of residential building in a sustainable way, that tackles the challenge of climate change and creates an almost natural built environment.

The Vertical Forest is the prototype building for a new format of architectural biodiversity which focuses not only on human beings but also on the relationship between humans and other living species



Perspective view



Exterior

https://www.worldgbc.org/news-media/bosco-verticale-not-easy-being-green

#### **Green Builling Coffee Production Plant, Tbilisi**

This project rethinks the image of an industrial building in a sustainable way, that tackles the challenge of climate change and creates an almost natural built environment.

Located on a highway connecting city to the airport, the site is sparsely developed. Surrounded with fields and pine trees, the project houses coffee production plant, its offices, coffee tasting and small coffee exhibits.

The city required a building that escapes the regular factory appearance, the client - a strong visual identity. The program required to fit both, coffee plant, office and public areas with coffee tasting and small exhibits.





Perspective view

https://www.archdaily.com/921231/coffee-production-plant-khmaladze-architects



Country-Georgia Total Population 3,983,284 (2021) Population ages 65 and above 15.1% (2020) Median Age 38.3 years old (2020) GDP Per Capita 4,697 USD (2019)

Average household size 3.4 people

Action-Rethinking Industrial Building Main Driver-Developer





#### Health Benefits



Country-Brazil Total Population 211 000 000 (2019) Population ages 65 and above 9.3% 2019 Median Age 33.5 years (2021) GDP Per Capita 8,717 USD (2019) Average household size 3.0 people

Action-Using tactical urbanism to make schools more accessible Main Driver-Art, tactical Urbanism





dreases social inclusion and self-realli-

#### Safe and playful walking routes Towards Schools

This project aims to create a playful and safe road towards school, in this context, it is an important step forward.

"Educational territory"project to improve walking routes near educational and cultural early childhood services, making them safer and introducing features that encourage playful interactions between children and their caregivers.

The project is part of the Bernard van Leer Foundation's Urban95 strategy in São Paulo.







Tactical Urbanism Near School

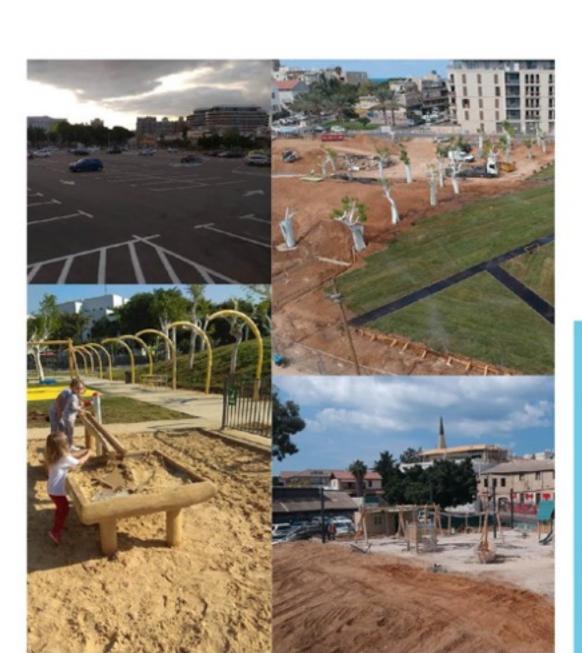
https://www1.folha.uol.com.br/cotid.anc/2018/11/projeto-de-covas-cris-calcade-ludica-em-rota-de-escola-mas-sam-meta-de-expansac.shtmi?fbcfid=lwAR25EH9KcjMi7nh98h8woig/5ZTQyV8szYUkTkYuxXblmcfPg/WUw0TReY

#### Parking lots into natural children's play area, Israel

This project is an example of how to give priority to natural play and kids instead of car-oriented development.

Young children in Tel Aviv have a new play area, incorporated into a former parking lot which the city muncipality has transformed into a community space featuring greenery and trees.

Yoav Ben Yehuda, Director of Parks and Gardens in Tel Aviv-Yafo municipal government, is among the city leaders who has become a champion for the Urban95 programme.



Natural Play environment

https://bemardvan/eer.org/news/tel-aviv-turns-parking-lof-into-childrens-play-area/



Country-Israel Total Population 9.053 000 (2019) Population ages 65 and above 12% (2018) Median Age 30.5 years (2020) GDP Per Capita 43,592 USD (2019) Average household size 3.3 people

Action-Turning parking into play space Main Driver-Art tactical Urbanism





#### Health Benefits

mental illnesses, infectious diseases as-

dreases social inclusion and self-realli-

extreme heat and cold weather increas-







Country-France
Total Population 67.080 000 (2019)
Population ages 65 and above 20.8% (2020)
Median Age 42.3 years(2021)
GDP Per Capita 40,493 USD(2019)
Average household size 2.38 People

Action-inclusive public transport Main Driver-Policy



Softwar

#### Health Benefits

 Improves physical activity levels (weigh status among children, adults, and olde adults)

4.Social connectivity (Aging in piace) increases social inclusion and self-realitation

8.Creates a safe, and secure environment.

#### Accessible and cheap transport, Rennes

This project is a good example how inclusive public transport is promoted, with the help of community.

Rennes is a shining example of how to reconcile the two, by working with local disability groups to provide the best possible transport services for people with disabilities.'

"Everything was discussed and evaluated, tested and approved by the people directly concerned,"



fully accessible for people in wheelchairs



The driverless metro in Rennes, fully accessible for people with disabilities.

https://www.euractiv.com/section/public-transport-accessibility/news/how-to-make-transport-accessible-and-cheap-lisam-fromrennes/

#### Smart Parking, UK

This project is a good example how smart technologies can help parking managment.

Installing sensors in a select number of defined use bays – both disabled and Save-a-Space – as well as SmartSpots, which relay real-time occupancy information to SmartCloud.









Population ages 65 and above 18% (2018) Median Age 40.5 years (2021) GDP Per Capita 42,330 USD (2019) Average household size 2.3 People

Action-Creating Smart Parking Main Driver-Innovation



City Software

#### Health Benefi

 Improves physical activity levels (weight status among children, adults, and old adults)

 4.Social connectivity (Aging in place) increases social inclusion and self-realization.

B.Creates a safe, and secure environment







Creating Affordable, Diverse, and Inclusive Housing, where people feel safe, secure, and integrated into their community.



Country-United Kingdom
Total Population 66 650 000 (2019)
Population ages 65 and above 18% (2018)
Median Age 40.5 years (2021)
GDP Per Capita 42,330 USD (2019)
Average household size 2.3 People

Action-Building New housing typicgy Main Driver-Olympic games, architect



Building Hardwar



2.Reduces risk of Chronic diseases, Cardiovascular diseases, Cancers, Respirato ry illnesses, emerging infectious diseases , montal illnesses infectious diseases as sociated with medical waste, mortality, the risk of unintentional injury or death.

4.social connectivity(Aging in place),Indireases social inclusion and self-realization.

Creates safe, and secure environment

# Multigenerational Housing Chobham Manor -Olympic Park, London

This project creates a new typology of housing that encourages a multigenerational way of living.

The multi-generational home is a new housing typology developed by PRP that is a connected flexible home for extended families who want to live together, while retaining a degree of mutual independence. The corner apartment blocks are four storeys, one with commercial use at ground floor. The Velo block has a retail space on the ground floor with a 'spill-out' area along its frontage. Duplexes and penthouse occupy upper floors and are dual aspect with a view of the Velodrome from private balconies and roof terraces.

Chobham Manor houses work as a successful multigenerational place to live; the home is inclusive, facilitating family longevity to establish roots in the community. Ie ;allenge of designing an innovative home started as an aspiration to address modern family demands through promotion of social interaction and wellbeing. PRP are rightly proud that the seed of their 'multigen' idea has been realised as a high quality home.

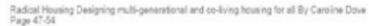




Perspective View

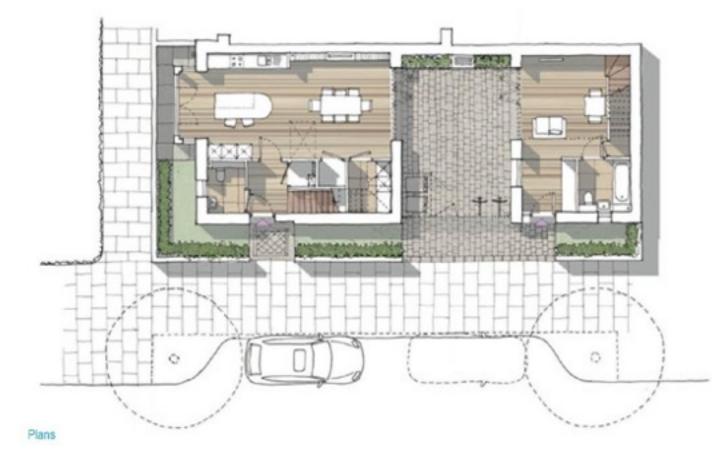














Country-Finland
Total Population 5.518 000 (2019)
Population ages 65 and above 22.6 %
Median Age 42.5 years (2021)
GDP Per Capita 48,782 USD (2019)
Average household size 2.8 people

Action-Building Urban block Housing Main Driver-The municipality, Aalto University, developers, Communities



An Urban Block Hard/Heart War



2.Reduces risk of Chronic diseases, Cardiovascular diseases, Cancers, Respirato ry illnesses, emerging infectious diseases , montal illnesses, infectious diseases as sociated with medical waste, mortality, the risk of unintentional injury or death.

4.social connectivity(Aging in place), Increases social inclusion and self-realization.

3. Creates safe, and secure environment

# Multigenerational housing, Generation Block, Helsiniki

This project tries to create a small community within the city as an urban block, creating shared spaces and encouraging different age groups to coexist together is a very positive side of the project. Also, it builds a new typology of living encouraging multigenerational living and integrates several services.

The aim of the project has been to examine housing innovations in a variety of operating areas through trial construction.

The development goals of the CIN innovation block have been as follows:

- Network management, mobilising city innovation to the block level
- Living and service concept for the block, creating a service concept through a user-centric process.

The original development themes also included modular architecture — the development of modular prefabricated construction technology in an urban environment. When the module supplier pulled out of the project, the CIN project gave up the idea of modular construction. The CIN innovation block has created spaces and an operating model for resident-oriented, multi-generational and international block housing in which the core is formed by the block's inner street, shared yard and centralised services, with undisturbed housing provided above ground level.

The block features a diverse range of urban housing options: rental housing for students, senior citizens and disabled people. Hitas owner-occupied housing is also available.

The project has received the Vuoden Parhaat ARA-neliöt (Best ARA square metres of the year) award



Shared Space

https://sukupolvienkortieli.fi/en/ https://popupoly.net/observations/the-latest-band-in-co-living-multiple-generations-under-one-cool/



Courtvard



Gym



Shared Space



CountryUnited States
Total Population 328,200 000 (2019)
Population ages 65 and above 15.2% (2017)
Median Age 38.1 years (2019)
GDP Per Capita 65,297 USD (2019)
Average household size 2.53 people

Action-Building now housing typiogy Main Driver-Policy development



City Hard and Soft war



2 Reduces risk of Chronic diseases, Car diovascular diseases, Cancers, Respirato ry finosos, emerging infectious diseases , montal illnesses, infectious diseases as sociated with medical waste, mortality, the risk of unintentional injury or death.

4 social connectivity(Aging in place),Indi reases social inclusion and self-realization

Creales safe, and secure environment

#### **Accessory Dwelling Units-ADU**

ADU is becoming a new trend in the USA that serves as a home and for the elder, it is an additional source of income. That enhances the idea of aging in place.

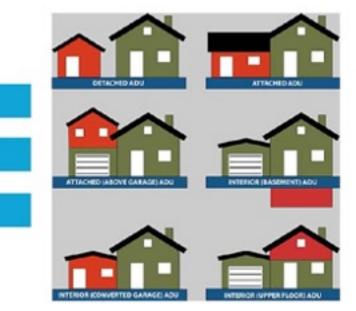
An accessory dwelling unit is a really simple and old idea: having a second small dwelling right on the same grounds (or attached to) your regular single-family house, such as:

an apartment over the garage

- a tiny house (on a foundation) in the backyard
- a basement apartment

"An intergenerational movement is happening. Probably 70% of our ADU work is for families that are multigenerational. Often a young couple with young kids decides to move here and one or both sets of parents say 'Let's move to Portland!' They build the ADU so they have a place to live. It's discouraging that the balance in this equation – which has always been value based – is based on an economic turn. The values were always there. The intergenerational benefits were always there. They were just stymied by the reluctance of the financial industry to recognize them." –Sam Hagerman American example of Changing land Code in order to have possibility to build tiny home, elder people will move out and they have potential income from their existing homes.

About 10 times as many ADUs are now built each year in Portland as compared to before the city changed its fees and zoning rules. The change has even inspired some niche tourism, with bike tours taking cyclists on visits to the most innovative units, introducing the concept to anyone who's curious. As builder Spevak notes: "If you've toured an ADU, you'll be more likely to build an ADU."



Advantages and types of ADUs

Aging in Place

Keeping Close Relations

Source of Possible Income

https://www.aarp.org/content/dam/sarp/livable-communities/livable-documents/documents-2019/ADU-guide-web-singles-071619.pdf https://www.aarp.org/livable-communities/hetwork-age-friendly-communities/info-2015/domain-3-accessory-dwelling-units-portland-oregon.html



Owner-Builder ADU by Kat and Dad





Perspective View

Masterplan



Interior Concept

https://accessoryd.wellings.org/2020/09/30/owner-builder-adu-by-kat-and-dadi-



Country-Denmark Total Population-5.806 000 (2019) Population ages 65 and above 20.2 % Median Age 41.6 years (2021) GDP Per Capita 60,170 USD (2019) Average household size 2.1 people

Action-Building Community Housing Main Driver-Community





# Co-Housing Herfra til Evigheden & Ege-bakken

Community is the main driver to fill their needs as on the market they do not have appropriate options, they initiate and fill that gap, shared spaces and architectural decisions makes that practice successful.

The Højen was initiated by 5 couples whose club grew to 24 families, with the final development providing for 26 houses and a common house. Similarly, Egebakken was initiated by 5 couples who gathered 40 families for an interest list, with 20 families finally committing to an investment for the build. Final development provided for 29 houses and a common house. The interested families invested capital for initiating the development, with final construction costs divided amongst families upon completion.

The need for social integration highlights the importance of the common house which forms an integral part of each development. At the Højen, it is centrally located in the masterplan's overall courtyard configuration. Their common house features a shared kitchen, woodworking space, meeting rooms, library, fitness room, guest suite, and shared laundry facilities. At Egebakken, the common house serves as an entry marker to the larger housing complex, where the individual houses are laid out in an array of four rows. Their common house features a common kitchen, library, and small crafts and fitness area.





https://housingourmatureelders.wordpress.com/2018/09/14/tours-herfra-til-evigheden-egebakken/



Exterior view of the individual houses at the Højen showing distinctive skylights as part of their roofscape.



Exterior view of the residences at Egebakken.



Exterior view of the Højen residences. Source: https://www.hte-roskilde.dk/billeder/5-ar.html



Interior view of the Egebakken common house dining area



Højen's 5 year birthday party



Country-United Kingdom Total Population-66.650 000 (2019) Population ages 65 and above 18% (2018) Median Age 40.5 years (2021) GDP Per Capita 42,330 USD (2019) Average household size 2.3 People

Action-Building Housing with extra care,new Typlogy, Filling the gap Main Driver- X





#### **Extra Care Housing Example, UK**

This project creates a new typology of housing, for people who need extra care but are not necessarily very unhealthy to be a move to nursing homes. This project fills the gap that we have in housing nowadays.

Extra care housing, sometimes known as assisted living, is for older people with care and support needs who want to be active and independent.

Our one or two bedroom extra care housing (ECH) flats, houses and bungalows are part of complexes with public spaces that may include:

- -restaurant
- -activity room
- -lunch club
- -hairdressers
- -shop

These areas can also be used by local older people.

Every extra care accommodation has an alarm linked to a 24-hour control centre.

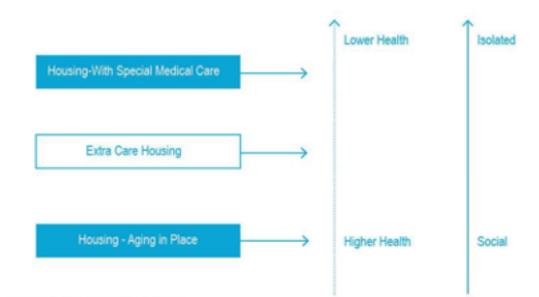
Other services available at an extra cost include:

personal care, such as washing or dressing

domestic help, such as laundry and housework meals

With the Extra Care scheme can rent, buy or part-buy, on your own or as a couple, your own flat, house or bungalow.

You have your own front door, the right level of care and support for you when you need it, seven days a week, 24 hours a day, the chance to be part of a community and take part in activities and interests be surrounded by friends and neighbours as well as extra care housing staff.



That kind of Housing is filling the gap.

https://www.bristol.gov.uk/social-care-health/extra-care-housing https://lkycic.sutd.edu.sg/research/resources/



Courtyard-Lawson House



Hall-Lawson House



Dining Room-Lawson House



Bathroom-Lawson House







Provide health and social services for the community to develop lifelong monitoring, maintaining, and restoring health. Promote a healthy lifestyle.



CountryUnited States
Total Population-328.200.000 (2019)
Population ages 65 and above 15.2% (2017)
Median Age 38.1 years (2019)
GDP Per Capita 65,297 USD (2019)
Average household size 2.53 people

Action-Considering pet as important part of health Main Driver-X



Software

#### (A) Health Renefi

6.Increases engagement with health-care services and the chance of prevention is getting higher by frequent monitoring.
7.Increases a Healthy lifestyle among people.

#### Seniors for Seniors, Policy, USA

This practice is a good example of how soft policy can improve the mental health of the elder as well as for kids.

The Seniors for Seniors adoption program, open to residents of Washington State, is designed to help senior humans rediscover the joys of having a cat or dog in their lives.

The program places senior cats and dogs (typically over 9 years of age) with senior citizens who are 60 years of age or older.

PAWS' expert matchmakers will help you select a companion who fits into your lifestyle and housing situation at a reduced adoption rate of \$35 for cats and \$50 for dogs. Washington USA



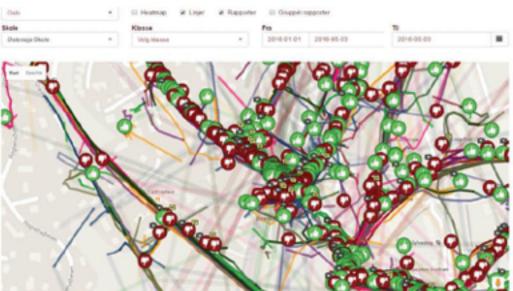
https://www.paws.org/adopt/seniors-for-seniors/

#### Oslo's Traffic Agent project, Norway

#### This digital app helps to build real-time data, with the help of people.

The Traffic Agent is a mobile app to determine road maintenance needs. It targets primary school children, who are some of the most active walkers in Oslo. Using a 'gamification' approach, children can report dangerous spots or problem areas on their way to and from school. This data is fed into the Agency for Urban Environment's traffic and technology section, which uses it to prioritise road maintenance needs for the next year's budget. The app allows children to input anonymously, although data can be filtered by class, school and district. It uses a voice and animations to guide them through the process. The data can be used in class to discuss the safest route to school.





#### nteractive Map

https://www.theguardian.com/public-leaders-network/2016/sep/02/app-celo-children-traffic-road-safety https://use.metropolis.org/case-studies/the-traffic-agent



Country-Norway
Total Population 5.328 000 (2019)
Population ages 65 and above 17.2%
Median Age 39.8 years
GDP Per Capita 75,419 USD (2019)
Average household size 2.1 People

Action-Creating Digital platform Main Driver-Innovation



City Software



Health Renefit

Increases engagement with health-care vervices and the chance of prevention is jetting higher by frequent monitoring. Increases a Healthy lifestyle among secople.



Courry-Italy Total Population 1,396,059 (2019) Population ages 65 and above 23% (2019) Median Age 47.3 years old (2021) GDP Per Capita \$33,228.24 (2019) Average household size 2.58 people

Action-Green Building Main Driver-Developer, Architect





#### Dementia Village, Bufalotta, Rome

Dementia Village is a project that is scaled up worldwide and represents a successful example of how the project can be replicated worldwide. Dementia Village Associations team is working worldwide by creating special guide maps to adopt this model in different contexts.

A village entirely conceived and dedicated to Alzheimer's patients, which faithfully reproduces, first in Italy, a positively experimented model in the Netherlands in a town near Amsterdam, Hogeweyk, to offer them, completely free of charge, an environment suitable for improving the quality of life of the people affected by the serious illness, a stimulating, safe and soothing environment, in which to reproduce as much as possible family styles and ways of life, in order to guarantee an alternative therapeutic approach to the traditional one, so as to preserve longer and effectively the residual cognitive abilities of each resident.



Appartment for the elderly



Indoor living area



Natural outdoor living

https://www.dementiavillage.com/projects/dva-rome/

#### **NEOM New Future-Modern City Vision**

This Coneptual project tries to integrated innovation in all possible sectors and create build city for the future, even though it is concept that elements of each sector can be used worldwide.

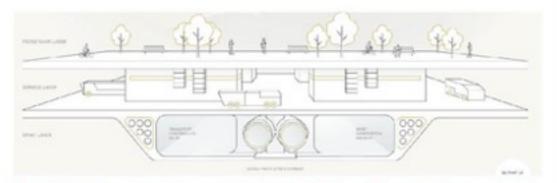
One of the most important secot of the project is health and here they will be using numerous modern tool. NEOM will build an integrated health, well-being and biotech ecosystem that goes above and beyond traditional medical care — an unparalleled end-to-end system entirely centred on the individual. With world-class treatment and inclusive care, NEOM will harness innovative technology, research and education to become a global benchmark in the field.



Sectors



#### Goals and objectives of Health Sector



The invisible backbone running all transport, networks and utilities beneath the surface with unprecedented efficiency and sustainability.

Courry-Saudi Arabia Total Population 34.27 million (2019) Population ages 65 and above 3.4% (2019) Median Age 31.8 years old (2021) GDP Per Capita 23,139 USD (2019) Average household size 6.4 people

Concept Main Driver-Innovation



Health Benefits

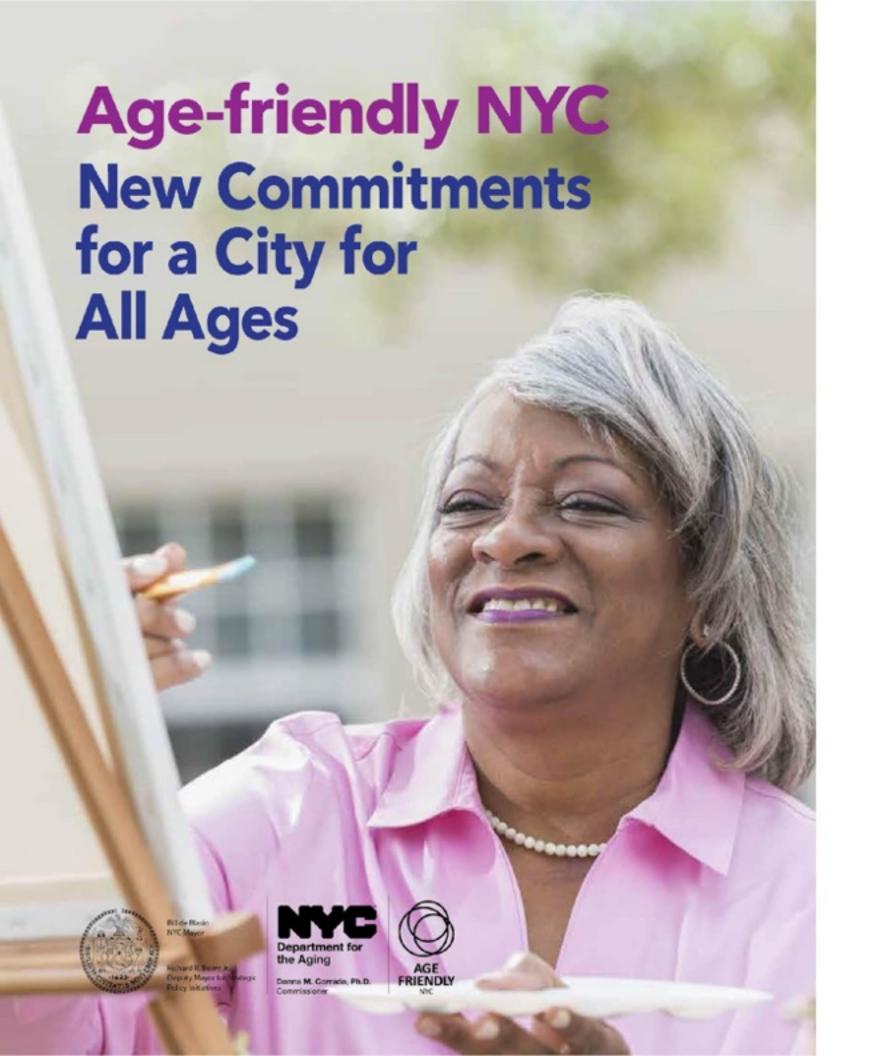












Vision
All New Yorkers can lead happy, healthy and productive lives.

City initiatives-86 actions

Health & social services

Public spaces & Fublic safety
Iransportation

Community & civic participation





#### Parks Without Borders: How It Works

Parks Without Borders focuses on three areas of the park: entrances, edges, and park-adjacent spaces. This new design approach will help unify park spaces with the neighborhoods they serve. It will make entrances more welcoming, convenient and easy to find. It will make park boundaries greener and more comfortable with furnishing and amenities and make parks safer by improving sight lines. It will also create new centers of community activity out of underused areas next to parks.



Emmanded and Garwa Violen mis aroan and realize our m they are well-placed, lower or proper gales, true are access. So of social and solitions



Report parting or add distinctive parameters.





oten, tables, and plays promiting

Action-Linking green spaces. Main Driver-Action plan





dreases social inclusion and self-realli-



Entrances



https://www.nycgovparks.org/planning-and-building/planning/parks-without-borders/how-it-works

#### **Turn Calming Program**

The Turn Calming program is a citywide effort to reduce left and right turn speeds and enforce safe turning behavior. This program is part of the Vision Zero initiative to eliminate traffic fatalities and reduce severe injuries.

NYC DOT chooses locations for Turn Calming treatments by reviewing several criteria including crash injuries, lane configuration and effect on large vehicles' turning movements

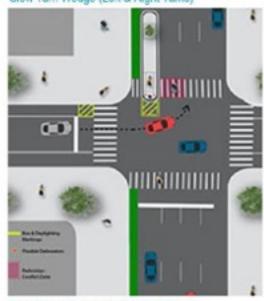




Action-Creating turn calming actions Main Driver-Action plan



Slow Turn Wedge (Left & Right Turns)



Bike Island Channelization (Left Turns)

https://www1.nyc.gov/html/dot/html/pedestrians/turn-calming.shtml



#### Health Benefits



Action-Creating sitting spots Main Driver-Action plan



Hardwa



2.Reduces risk of Chronic diseases, Cardiovascular diseases, Cancers, Respiratory Illneses, emerging infectious diseases, mental illnesses, infectious diseases asacciated with medical waste, mortality, the risk of unintentional injury or death.

 Improves physical activity levels (weigh status among children, adults, and olde adults).

4.social connectivity(Aging in place), I cheases social inclusion and self-real

5.Buildis healthy natural environment by Building resilince to climate change, to extreme heat and cold weather increases indoor air quality that redouese risks to cardiovascular diseases, respiratory symptoms, sensory initiation, lung concer, and other cancers Noise level control.

# CityBench program -Better Benches and Bus Stop Shelters

Over the past decade, New York City's programs to improve its sidewalk benches and bus stop shelters have transformed the experience of waiting by providing 1,500 new benches along with 3,500 new or improved shelters.

In redesigning the basic bench, planners asked, "What makes a bench age-friendly?" For one thing, the bench must fit a variety of body shapes; for another, the armrest needs to be designed and placed in a way that helps a person to sit and stand up again.

The program to improve shelters has been active since 2006. As with the benches, the location of new or improved shelters resulted from a citywide call for community input. In order for the shelters to serve everyone, their design takes into account mobility issues, such as the need for a wide-enough entry and exit to accommodate people using wheelchairs.

#### The Costs

For the benches, a Bus Livability Grant from the Federal Transit Administration funds 80 percent of the \$2.4 million cost. The New York City DOT covers the remaining expenses (approximately \$600,000 so far) to install and maintain the benches.

Waiting still isn't fun, but now it's much more comfortable



Street Bench





Bus Stop

Street Depois



Street Bench



Action-Street Redesign Main Driver-Action plan





dreases social inclusion and self-realli-

#### Street Design Manual

A temporary seating installation in the furnishing zone or parking lane that creates an inviting location for eating, reading, working, meeting a friend, or taking a rest during the warm-weather months. Interested parties apply to DOT, select the design, and install and maintain the StreetSeat. Any type of business or institution (such as a museum or community organization) that owns or operates the frontage at the ground floor of a building may be eligible to install and maintain a StreetSeat. Business Improvement Districts (BIDs) and non-profit organizations without frontage are also eligible, if they work in partnership with a local business that does have frontage.

A marked pedestrian crosswalk at an intersection or a mid-block location constructed at a higher elevation than the adjacent roadway. A raised crosswalk is essentially a speed table that meets the adjacent curbs, and has a full-width crosswalk contained within the flat portion of the table, usually 10to 15-feet wide. It combines the benefits of a Raised Speed Reducer with increased accessibility and enhanced visibility for the pedestrians crossing.

An entire intersection raised above the level of the surrounding roadways. The intersection is typically raised to sidewalk height.







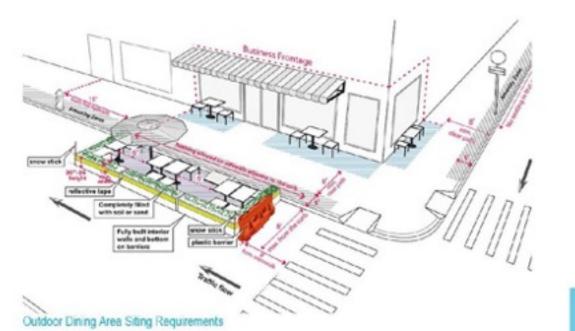


Raised Intersection

#### **Open Restaurants Programme**

NYC's Open Restaurant Program is an effort to implement a citywide multiphase program to expand outdoor seating options for food establishments to promote open space, enhance social distancing, and help them rebound in these difficult economic times.





Action-Street Redesign Main Driver-Action plan Pandemic



#### Health Benefits

https://www.nycstreetdesign.info/furniture/streetseat

https://www1.nyc.gov/html/dot/html/pedestrians/openrestaurants.shtml



# 6. Healthy and Age-Friendly City Action & Management Plan in Ten steps





# **Key Insights**

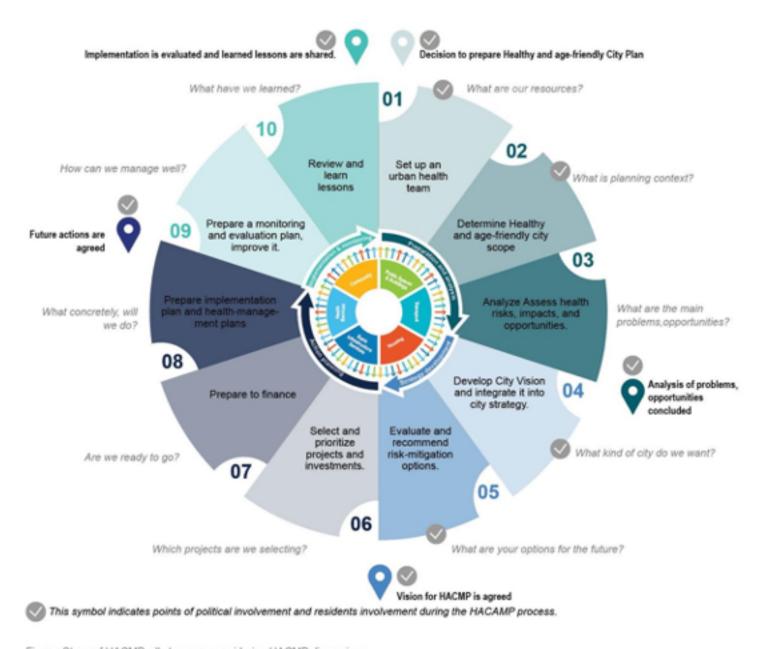
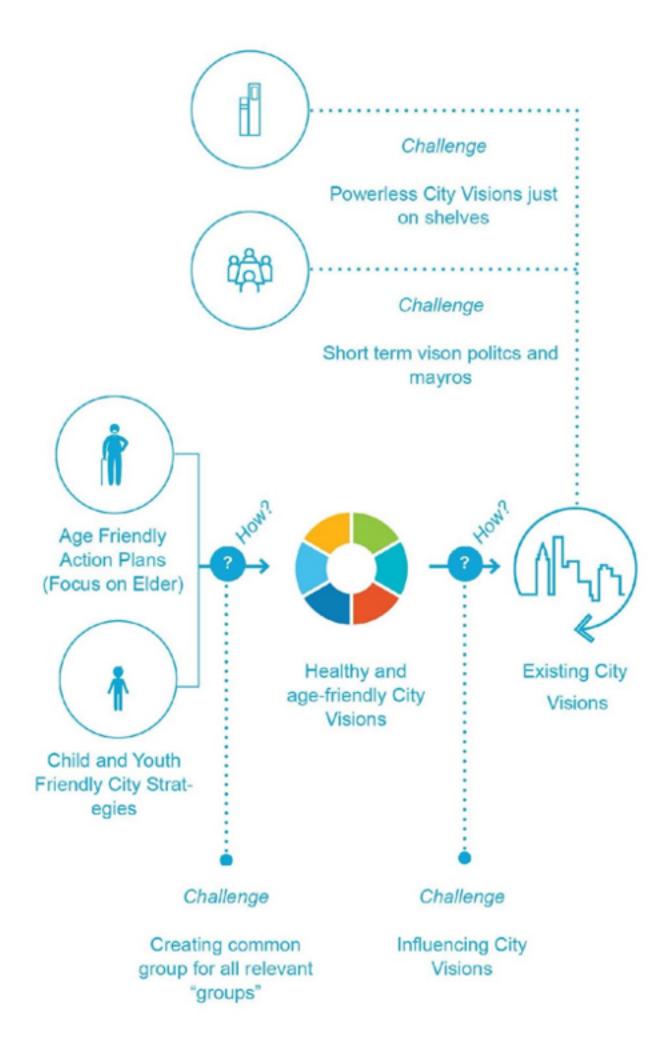


Figure: Steps of HACMP, all steps are considering HACMP dimensions





# 5. Appendix



- 5.1 Appendix A -Events & Organizations
- 5.2 Appendix B- Guideline/Toolbox & Tools
- **5.3 Appendix C-Concepts**

# International Age-friendly Cities Conference, The Hague

Main themes of the conference:

Diversity

Participation

Accessibility

Ageing

Vitality

ICT

Workshops and seminars were organised at various locations throughout The Hague.



# International Conference on Age-Friendly Cities, Quebec, Canada 2013-WHO

Main themes of the conference:

Age-friendly cities as social innovation;

The role of various stakeholders;

The interface between built and social environments;

An evaluation of age-friendly city initiatives.



#### The Age-friendly Cities 2020 Conference

The Age-friendly Cities 2020 Conference and Exhibition (AFC 2020) is an international conference conceptualised to introduce 'best practices' and serve as a mechanism to create a deep understanding of what is involved in the creation of vibrant, cohesive and sustainable age-friendly cities, hence providing the foundation for creating a global network of Age-friendly Cities and Communities.

Aged Care Group is the market leader in Malaysia's aged care industry. Conference was held in 2021 as well. Location-Malaysia



#### Age-friendly Cities and communities Summit

Virtual and in-person Age-friendly Cities and Communities, an event designed to showcase the importance of the development and adaption of environments resilient to the needs of people at all stages of life, inclusive of older people, which will allow sustainable social and economic advancement for cities, communities, and the global community. Held by The International Federation on Ageing in Canada. 9/10/2021



Appendix B Guideline/Toolbox & Tools

#### **Aging-in-Place Design Guidelines**

These Aging In Place Design Guidelines (along with Enterprise Aging in Place charrette tools, an existing building checklist, and prioritization tool) have been created to supplement existing Enterprise resources for sustainable, affordable housing. This Document focuses on the building level.





#### An Urban95 Starter Kit - ideas for action

Urban95 Starter Kit serves as a starting point to help cities understand the value of investing in their youngest inhabitants and the people who care for them, and to provide actionable ideas and guidance on how to do so.

It includes: an introduction to early childhood development and why it matters for cities, an introduction to Urban95, promising ideas for action and implementation guidance for Urban95 initiatives.

#### National Association of City Transportation Officials

NACTO's design guides help cities make the best use of their most abundant resource; their streets.

Several publications can be inspirational for any city.

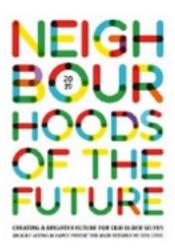


Source:https://nacto.org/publications/#design-guides-design-guidance

#### Neighbourhoods of the Future

Neighbourhoods of the Future 2019 captures the thoughts and predictions of a veritable 'who's who' of distinguished experts and emerging thought leaders. In these pages, you will discover novel concepts for disrupting construction, finance, social and business models.

Made possible by Tata Steel, this report is unapologetically optimistic. Here we look to the future for our older selves and in a spirit of open innovation ask: What If?"



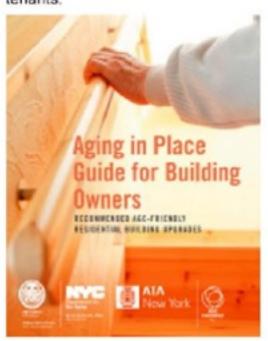
#### New york city Street design manual

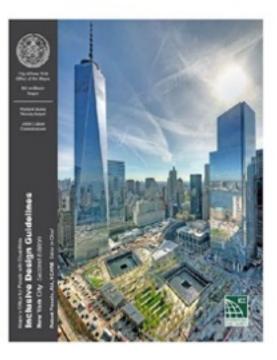
1. The Street Design Manual is New York City's resource on street design policies, principles, processes, and best practices. It aggregates a broad range of resources — from nationally recognized engineering and design guidelines and standards to federal, state, and local laws, rules, and regulations — to provide information on treatments that are allowed and encouraged on New York City streets.



2. This "Aging in Place Guide for 3." The IDG is voluntary technical Building Owners," created through a collaboration of the New York City Department for the Aging and the American Institute of Architects New York Design for Aging Committee, recommends residential building upgrades to accommodate older tenants.

guidance helping designers produce multisensory enhanced environments that accommodate a wide range of physical and mental abilities for people of all ages." Adoption of the ICC A117.1

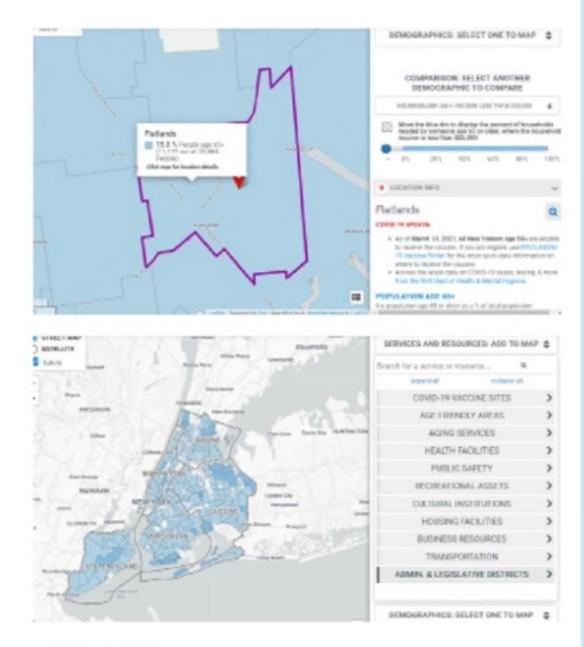




#### The Interactive Map of Aging

Visualize local data to address unmet needs and plan for the future.

An open-source map of New York City's current and projected population age 65 and older, IMAGE: NYC provides overlays of available resources, services, and amenities. Designed for government agencies, elected officials, health care and social service providers, planners, funders, and researchers, IMAGE:NYC is a critical tool to support funding, planning, advocacy and direct services.



http://imagenyc.nyam.org/map/

<sup>1.</sup>https://www.nycstreetdesign.info/about

<sup>2.</sup>https://hochome.humancentereddesign.org/pdf/Aging%20in%20Place%20guide%20for%20Building%20Dw.ners.pdf

<sup>3.</sup>https://www1.nyc.gov/site/mopd/in/batives/inclusive-design-guidelines.page

Appendix B
Guideline/Toolbox
& Tools

#### Milan Sidewalk Map

Mapping the pedestrian infrastructure inevitably brings significant advantages to multiple actors. First, administrations will gain a number of benefits, including:

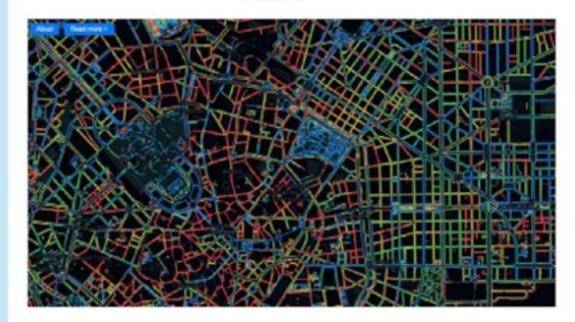
Bolster the capacity to analyze and plan pedestrian spaces

Verify the suitability of pedestrian infrastructures with respect to the rules of social distancing

Prioritize and define the type of interventions based on the existing situation Quickly adapt infrastructure to emerging needs

Once shared, mapping can be a fundamental decision-making tool also for planners and citizens.

# Extremely unsafe Linear Property 1 2 3 4 Property The second distance and produce to the second distance and property and the second distance and processed. \*\*Second distance and property and the second distance and distance and property and the second distance and distance and property and the second distance a



# Boulder's Digital Child-Friendly City Map USA

Growing Up Boulder's Child-Friendly City printed and digital Maps seek to educate and inspire children, families, and community organizations through the creation of a print and online, bilingual, child-friendly city maps that highlight favorite locations in Boulder. They promote universal values of inclusion, diversity, community engagement, collaboration, and celebration. Our map-making project is co-created by children and families for children and families. By working with children and their preschools, elementary schools, homes, and after school programs, we aim to reach a wide cross-section of Boulder's 0-10 year olds.





#### University as a main driver/tool

The DWELL (Designing for Well-being in Environments for Later Life) project was a multi-disciplinary design research project at the University of Sheffield.

This three-year research project at the University of Sheffield was funded by UK Research Councils (EPSRC, ESRC, and AHRC) via the Lifelong Health and Wellbeing Research Programme. The project investigated how the design of houses and neighbourhoods can facilitate mobility and well-being for current and future generations of older people.

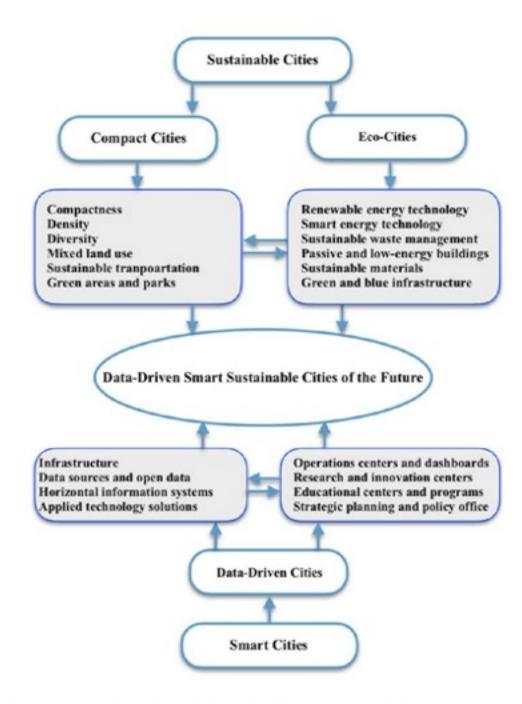
A key feature of the research project is the participation of older residents within the design and evaluation processes. We have worked with a residents and professional stakeholders to better understand how homes and local environment can support people to to live active and fulfilling lives as they get older. This process has led to the production of a series of prototypes and interventions – designed to improve mobility and well-being for current and future generations of older people.



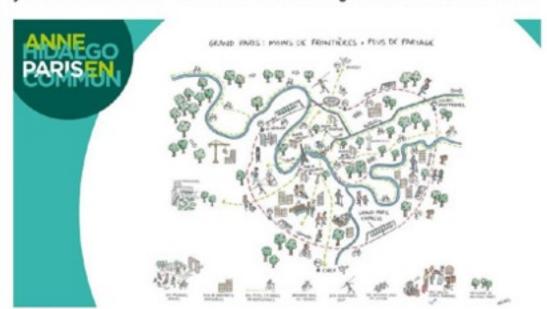


#### Data-Driven Smart Sustainable Cities of the Future: A Novel Model of Urbanism and Its Core Dimensions, Strategies, and Solutions

This paper focuses about the importance of data and how can we use it nowdays. There currently are neither real examples of a truly data-driven smart sustainable city that have actually been delivered to the world.



Mayoral re-election campaign Anne Hidalgo, mayor of Paris, has outlined her vision for the future of the French capital. Her 15-Minute City focuses on the proximity of workplaces, schools and amenities for all citizens. After years of internationalisation we're encountering a revival of urban localism.



Vision



Vision

https://popupoity.net/observations/paris-will-provide-citizens-everything-they-need-within-a-15-minute-radius/

A woonerf is a living street, as originally implemented in the Netherlands and in Flanders, the Dutch-speaking northern portion of Belgium. Techniques include shared space, traffic calming, and low speed limits. Under Article 44 of the Dutch traffic code, motorised traffic in a woonerf or "recreation area" is restricted to walking pace.

- -Visible Entrances: the entrances of the woonerf are distinctly marked by a sign (see below).
- -The woonerf is a shared and paved space, intended for all street users.
- -Using physical barriers (like curves), car traffic is slowed down.
- -The woonerf accommodates landscaping and street furniture.



Vision

Woonerf



Vision

https://popupoity.net/observations/paris-will-provide-citizens-everything-they-need-within-a-15-minute-radius/ https://www.linkedin.com/pulse/what-woorerf-creating-inclusive-ivable-streets-dutch-licr-stainberg



## **5.4 Interview Summaries**



# Special thanks to my main supervisor Stefan Rau

My alternative supervisors Bai Jei and all my interviewees:

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Freek Lapré

Julien Vincelot

Jane Parry

**Estella Geraghty** 

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Sohail Inayatullah

Hong Soo Lee

Sunghoon Kris Moon

Susann Roth

Matthias C. Helble

Wendy Walker

Meredith Wyse

Ankita Chachra

