



Above/Below

Integral Design Method for Public Space

15-03-2022

Joyce van den Berg
(Urban Planning and Sustainability – City of Amsterdam)



Content

- What is the Integral Design Method?
- Healthy and vital soils

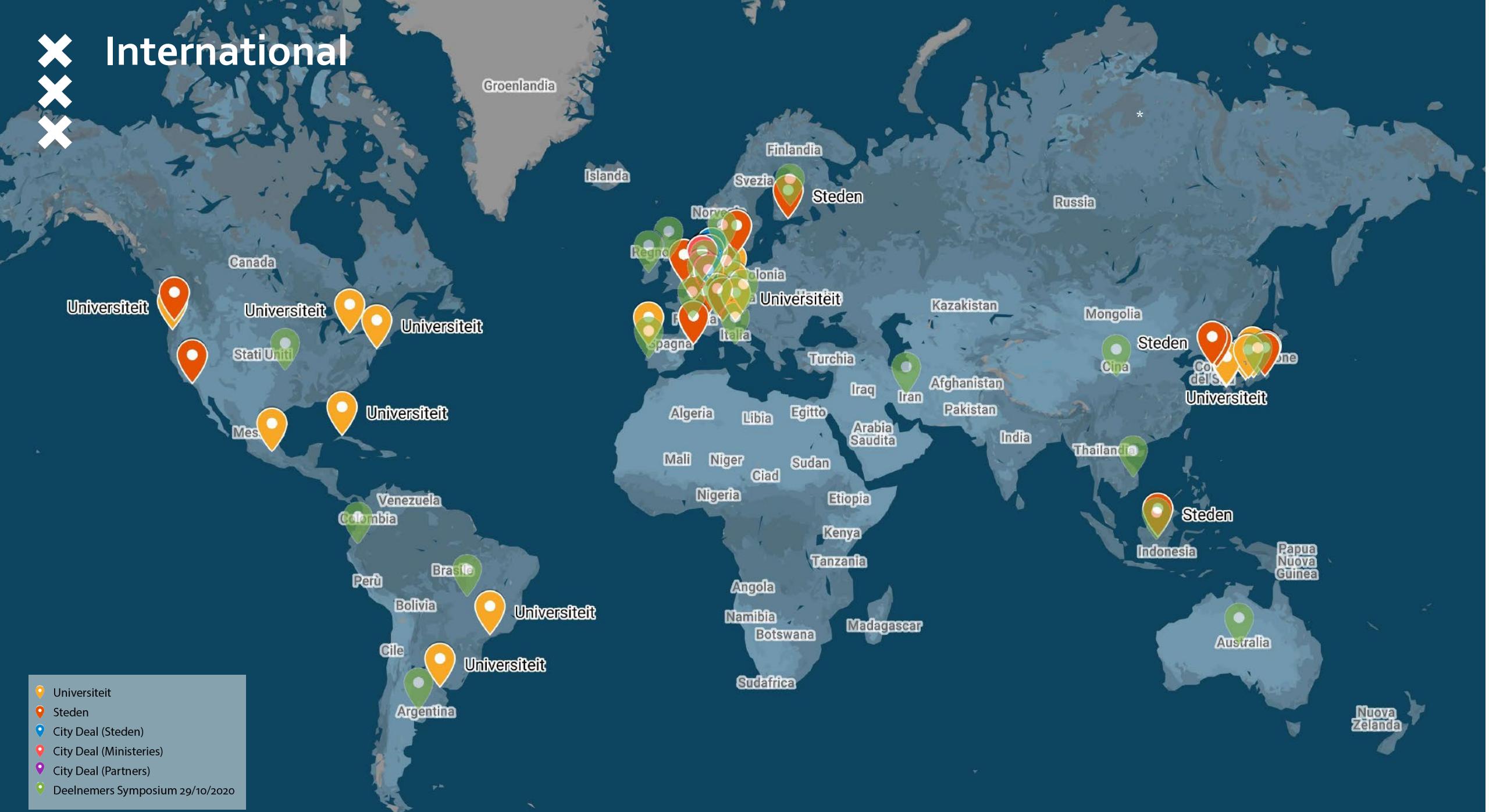


Networks & Contacts



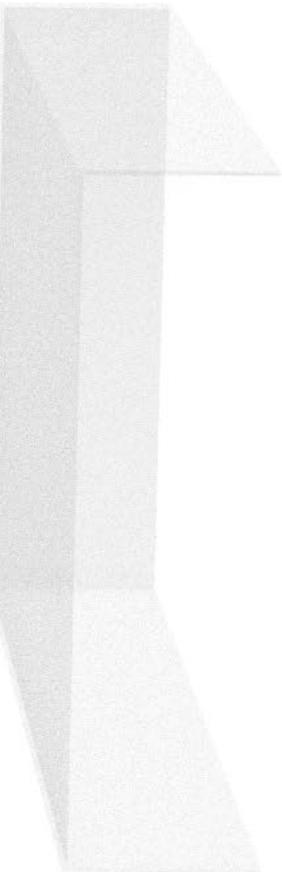
XXX International

- Universiteit
- Steden
- City Deal (Steden)
- City Deal (Ministeries)
- City Deal (Partners)
- Deelnemers Symposium 29/10/2020



What is the IOOR?

XXX



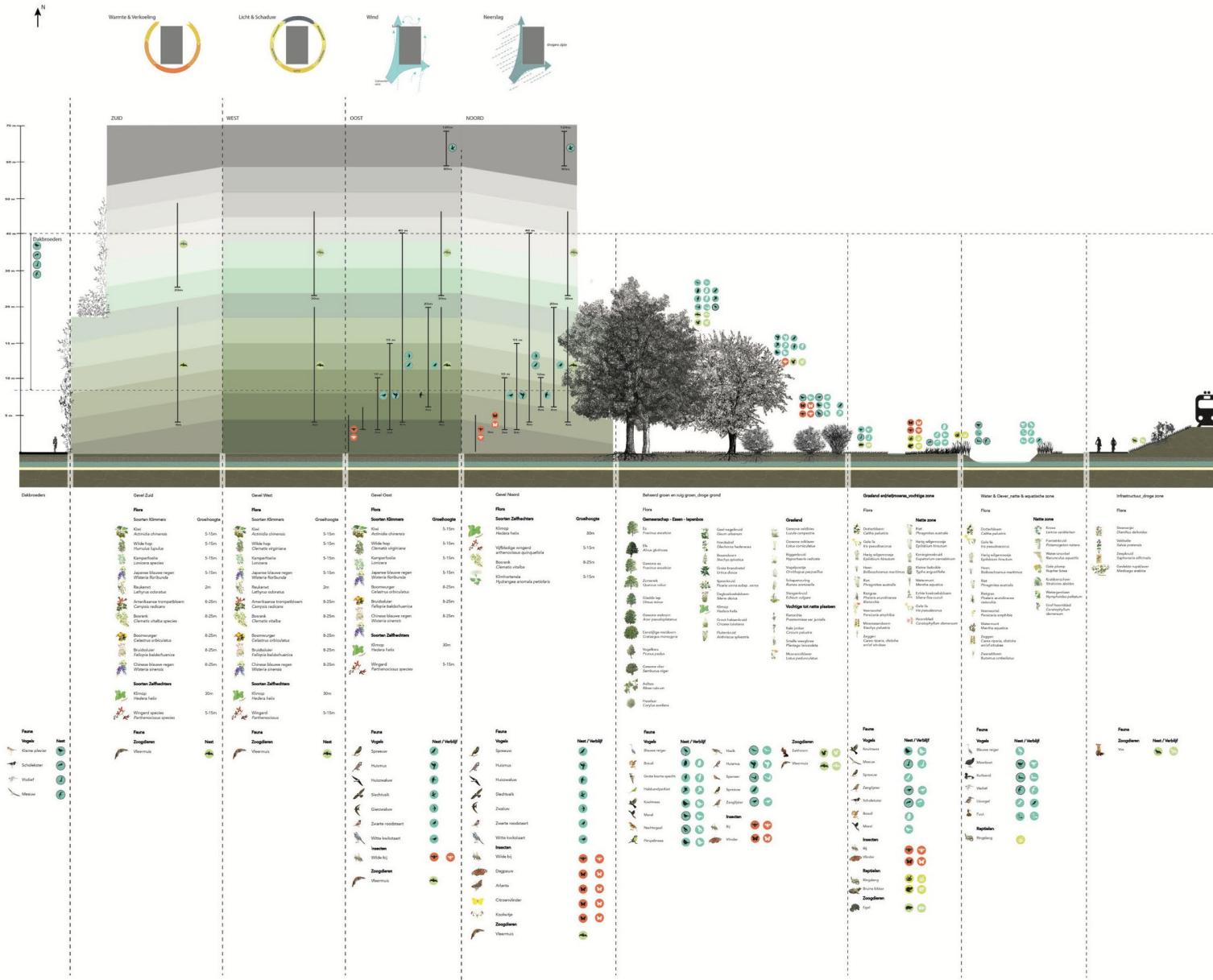
✖ How does it work?





How does it work?

Example of concrete measures

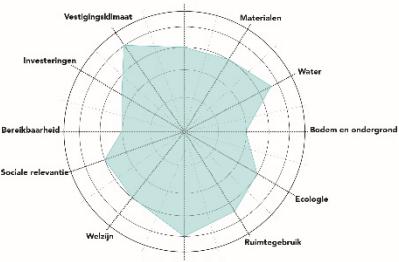




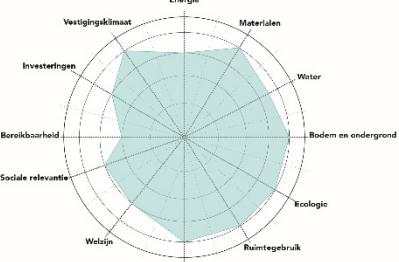
Hogehilweg

Prestaties

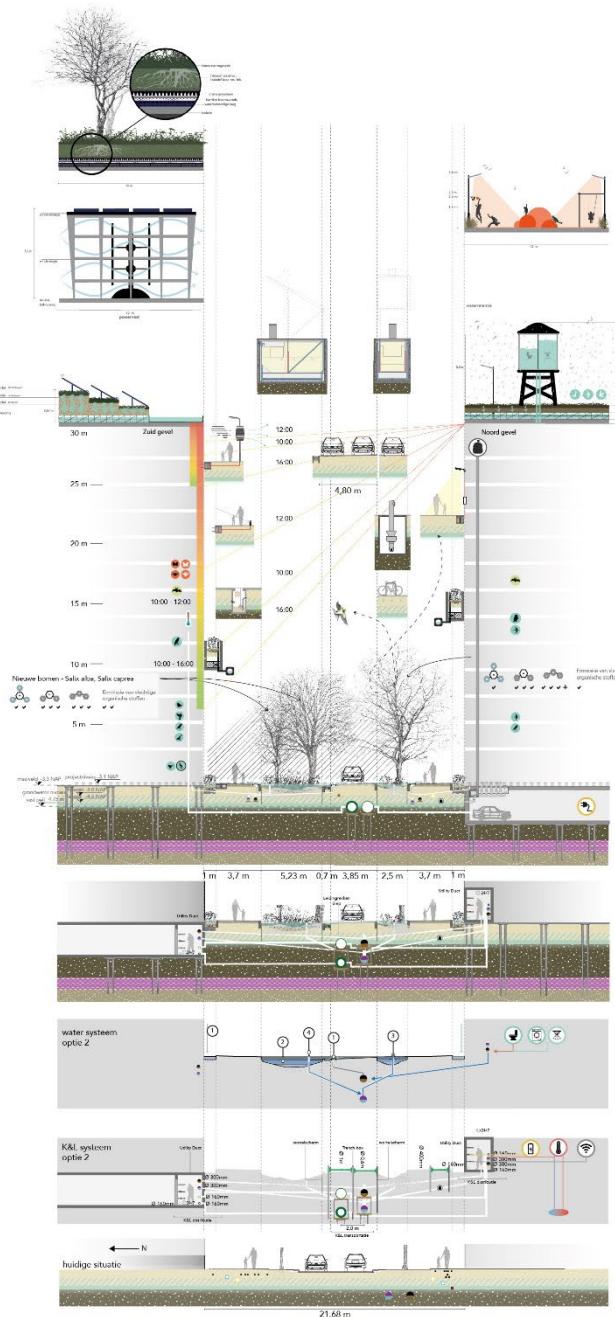
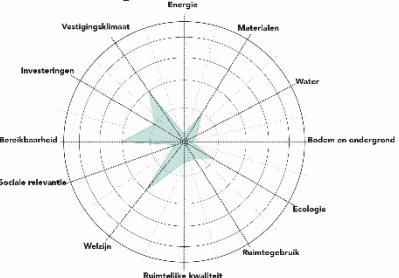
Scenario 3



Scenario 2



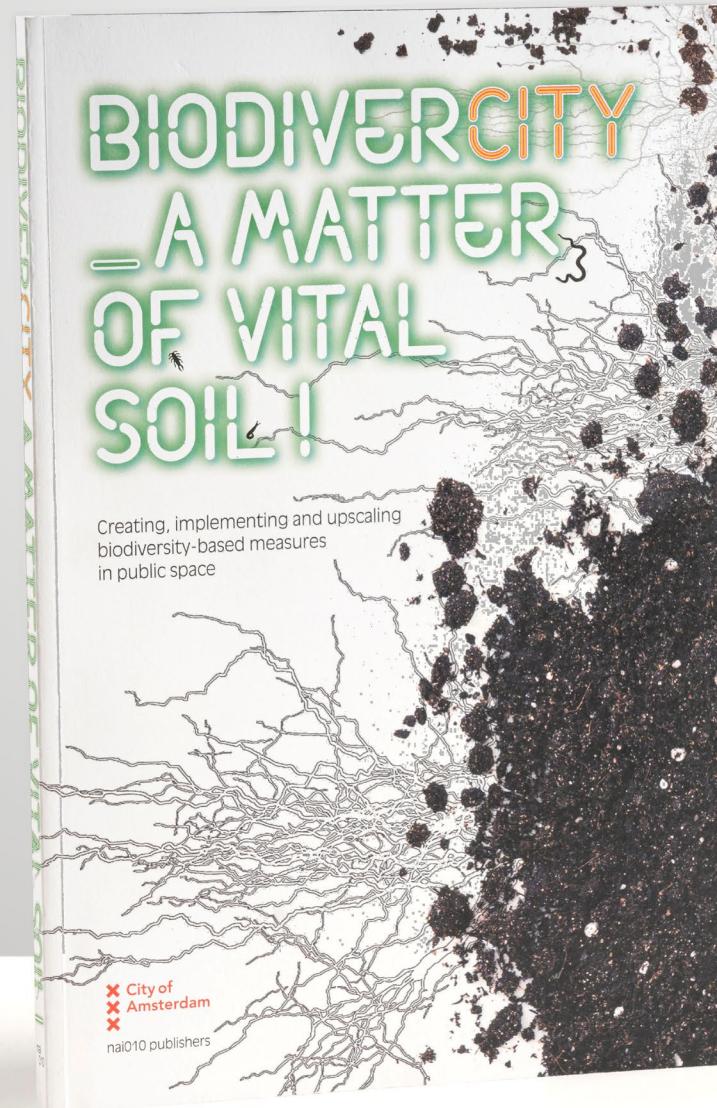
Scenario 1 (huidig situatie)





Healthy and Vital Soils

BiodiverCITY_A Matter of Vital Soil!



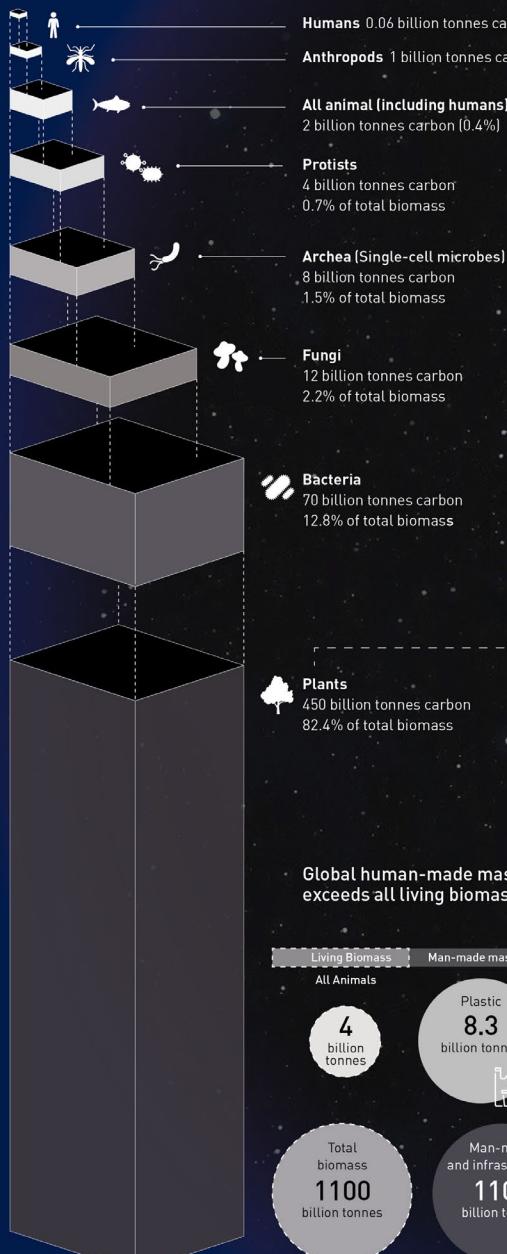


BiodiverCITY



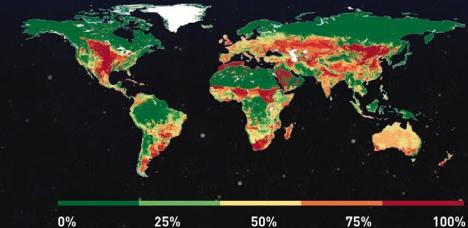
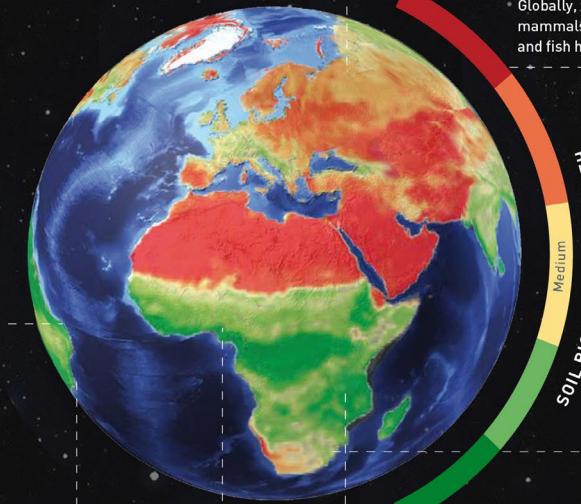


Life on Earth: The distribution of all global biomass



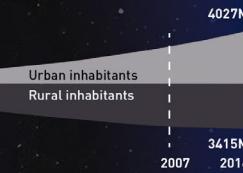
Earth in 1000 BC
Land cover change over time

Human changes to land cover on Earth due to agricultural land use over time



Populations of animal species have decreased by two-thirds since 1970
(Living planet Index)

Urban and rural inhabitants
Worldwide since 1960



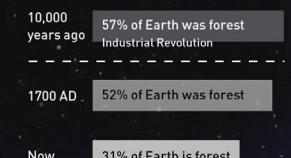
The oldest trees on Earth



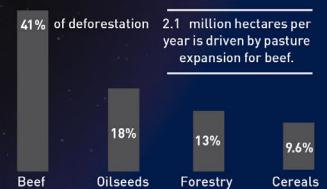
What are the drivers of tropical deforestation?



The world has lost one-third of its forest



In 2021, one-third of global land area is forest

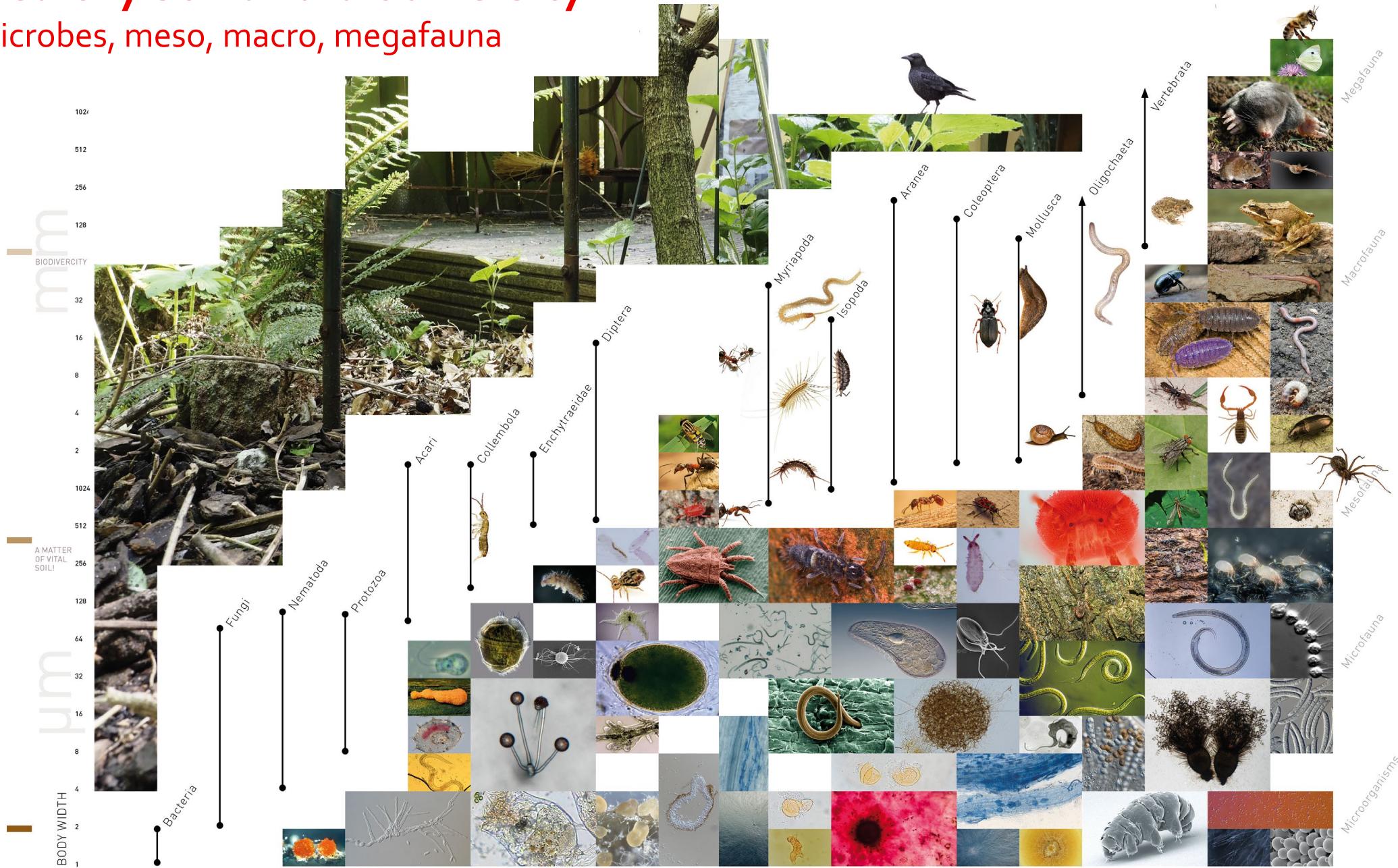


"Agricultural expansion continues to be the main driver of deforestation" FAO



Healthy soil and biodiversity

Microbes, meso, macro, megafauna



✖ New infrastructure



✖️ Soil Degradation

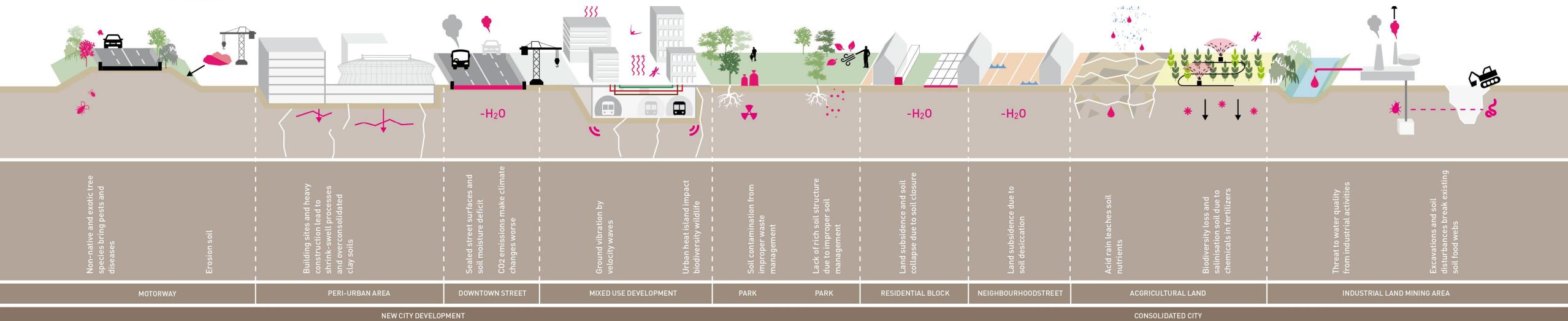
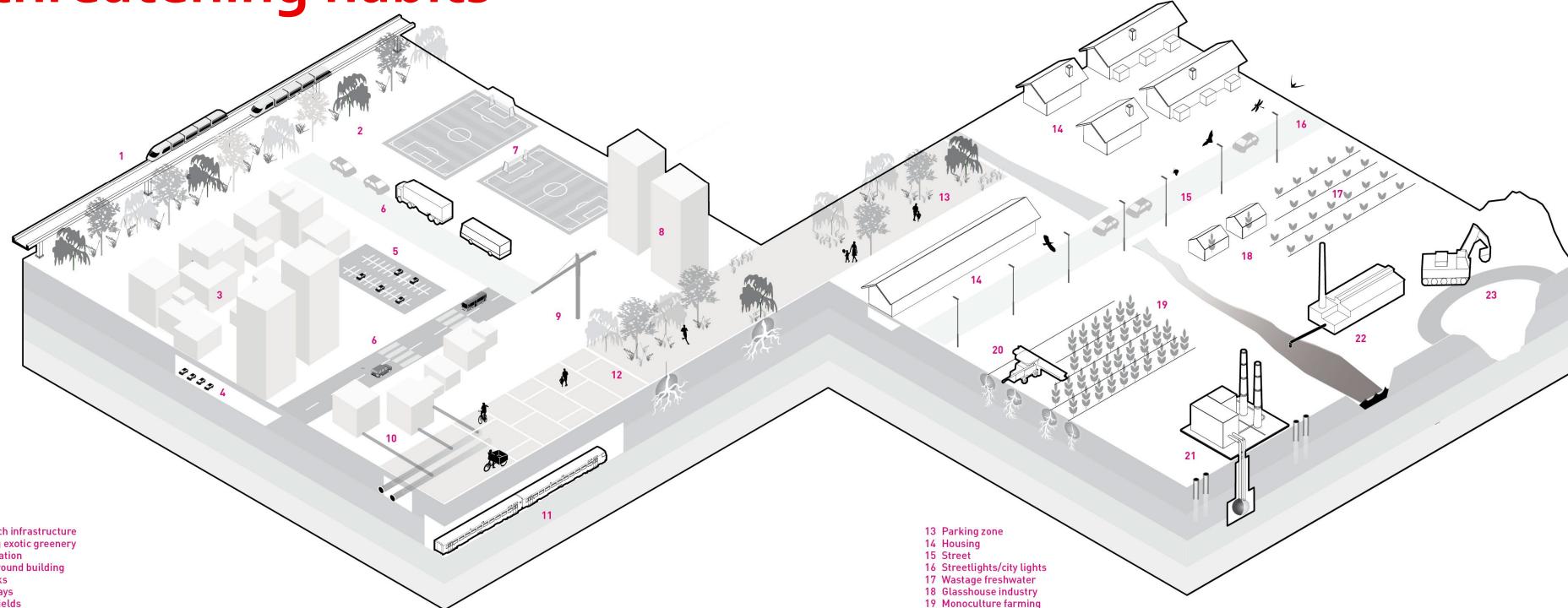


✗ Soil Degradation



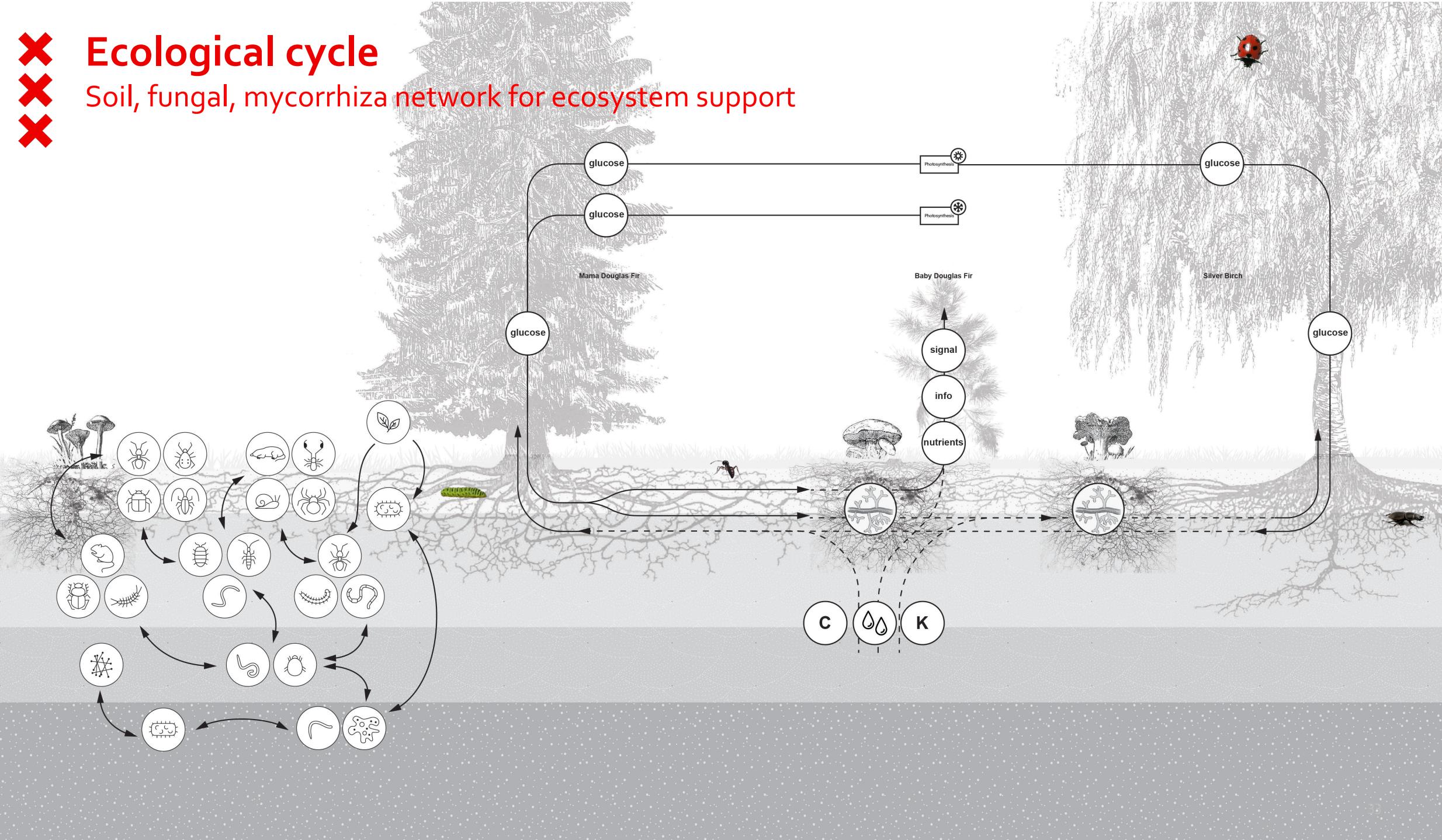


Soil threatening habits



X Ecological cycle

Soil, fungal, mycorrhiza network for ecosystem support





DNA funghis

Naturalis at Artis



7 trees of Amsterdam

Restoring fungal connection of plant to restore healthy cosystem



EUROPEAN ASH
FRAXINUS EXCELSIOR
Height: 25-30m (20-25m in city)



EUROPEAN WHITE ELM
ULMUS LAEVIS
Height: 25-30m (25m in city)



SYCAMORE MAPLE
ACER PSEUDOPLATANUS
Height: 20m (20-25m in city)



SMALL-LEAVED LIME
TILIA CORDATA
Height: up to 40m (25m in city)



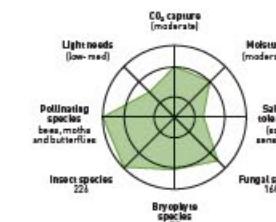
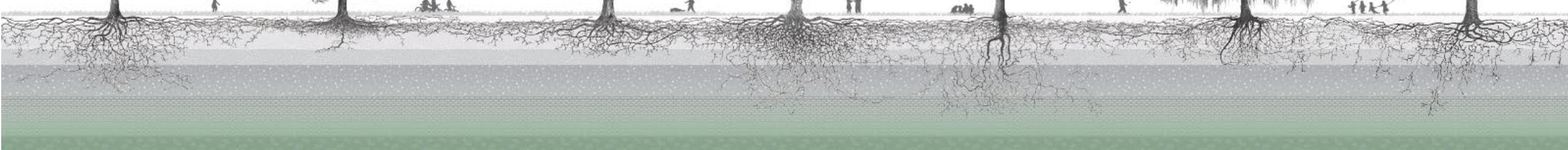
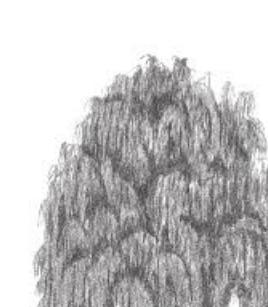
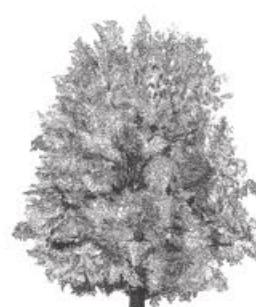
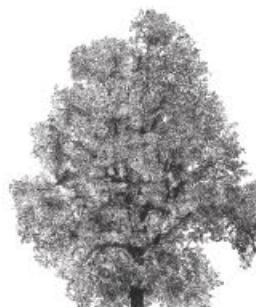
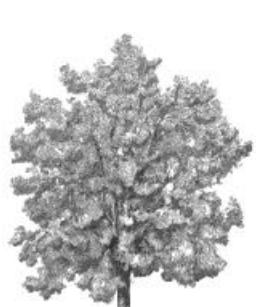
EUROPEAN OAK
QUERCUS ROBUR
Height: 25-30m (25m in city)

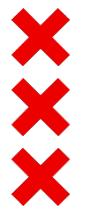


WEEPING WILLOW
SALIX BABYLONICA
Height: 15-25m (15-25m in city)



EUROPEAN ASPEN
POPULUS TREMULA
Height: 15-30m (15-25m in city)





Towards a biodiverse city

Measures for ecological matrix, soil, water and management

ECOLOGICAL MATRIX

E-WA-01	Connect green networks in neighbourhood
E-WA-02	Connect black networks for nocturnal animals
E-WA-03	Connect freshwater banks in neighbourhood
E-WA-04	Urban agriculture: Food forest
E-NE-01	Connect green networks in network
E-NE-02	Connect freshwater banks in network
E-NE-03	Urban agriculture: Tiny forest
E-PS-01	Connect green networks in public space
E-PS-02	Green quays
E-ST-01	Connect green networks on site
E-ST-02	Facilitate nesting and roosting places in green garden fences
E-ST-03	Green roof shed or extension
E-BD-01	Connect green networks on building
E-BD-02	Urban agriculture on roof
E-BD-03	Create porosity in buildings and use nature-friendly building materials



SOIL

S-WA-01	Connect soil networks in neighbourhood
S-WA-02	Work with existing soil layers for new urban development
S-WA-03	Create higher indigenous plant diversity in neighbourhood
S-NE-01	Connect soil networks in network
S-NE-02	Collect and decompose green waste, use organic compost
S-PS-01	Connect soil networks in public space
S-PS-02	Green(ing) tree mirrors
S-ST-01	Connect soil networks on site
S-ST-02	Create [own/shared] compost heap
S-ST-03	Less paving, more green in back gardens
S-ST-04	Create green facade from facade garden
S-ST-05	Create higher indigenous plant diversity on site
S-BD-01	Connect soil networks on building

WATER

W-WA-01	Rainwater retention and buffer zone in neighbourhood
W-NE-01	Rainwater retention and buffer zone in network
W-NE-02	Water square (large)
W-PS-01	Facilitate rainwater runoff into water-buffering strips
W-ST-01	Rainwater collection and buffering in shared/own (back)garden
W-BD-01	Pond on water roof
W-BD-02	Collect and reuse rainwater for watering plants on roof/facade

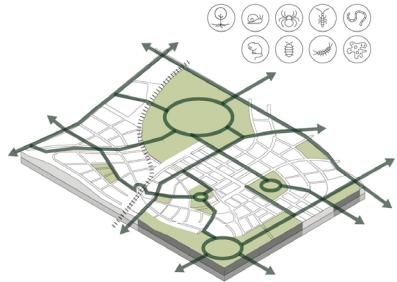
MANAGEMENT

M-WA-01	Foster mature soil
M-WA-02	Facilitate temporary green areas development
M-WA-03	Mowing management: varied, mosaic mowing
M-NE-01	Leave organic matter in place in neighbourhood
M-NE-02	Foster spontaneous vegetation growth in network
M-NE-03	Prevent heavy infrastructural work
M-PS-01	Remove litter sparingly in public space
M-PS-02	Foster spontaneous vegetation growth in public space
M-PS-03	Leave green between tiles in public space
M-PS-04	Create porosity
M-ST-01	Remove litter sparingly on site
M-ST-02	Foster spontaneous vegetation growth on site
M-ST-03	Leave green between tiles on site
M-BD-01	Leave dead organic matter in place on building

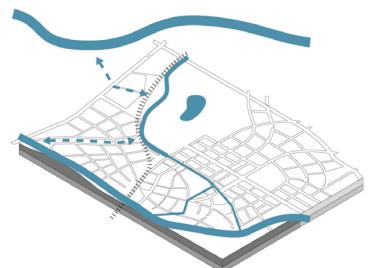
Ecological matrix



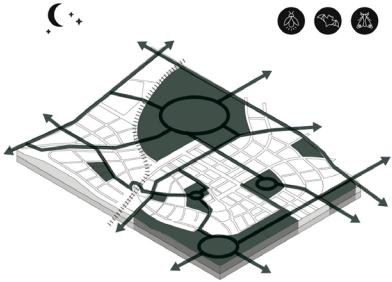
E-WA-01
Connect green networks in neighbourhood



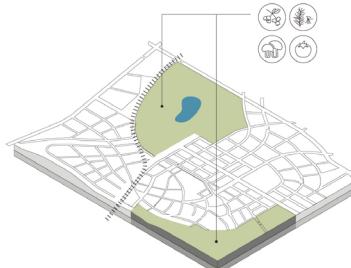
E-WA-03
Connect freshwater banks in neighbourhood



E-WA-02
Connect black networks for nocturnal animals



E-WA-04
Urban agriculture: Food forest



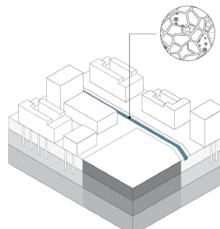
E-NE-01
Connect green networks in network



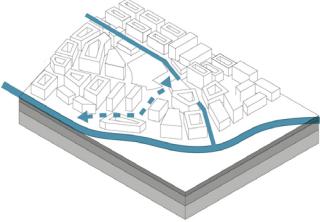
E-NE-03
Urban agriculture: Tiny forest



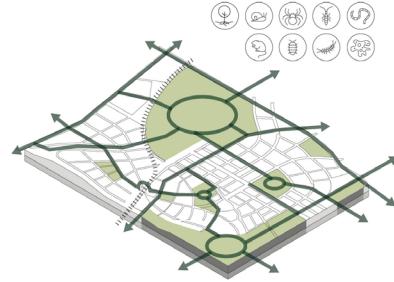
E-PS-02
Green quays



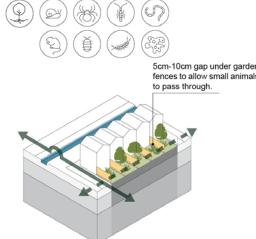
E-NE-02
Connect freshwater banks in network



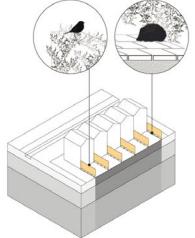
E-PS-01
Connect green networks in public space



E-ST-01
Connect green networks on site



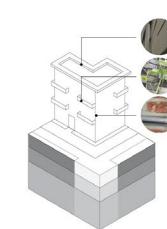
E-ST-02
Facilitate nesting and roosting places in green garden fences



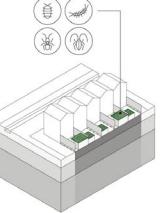
E-BD-01
Connect green networks on building



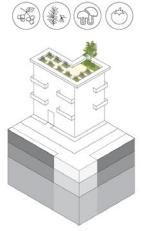
E-BD-03
Create porosity in buildings and use nature-friendly building materials



E-ST-03
Green roof shed or extension

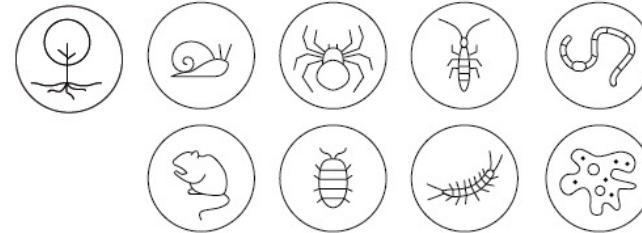


E-BD-02
Urban agriculture on roof

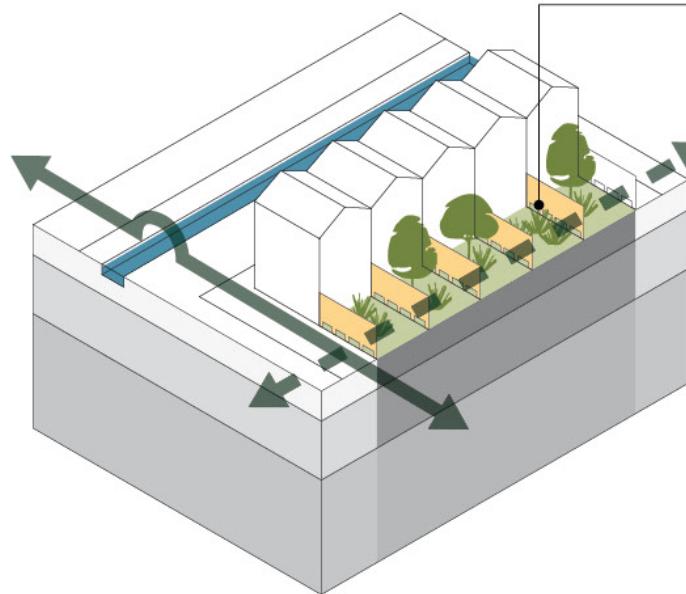


Ecological matrix

Connect green networks on site

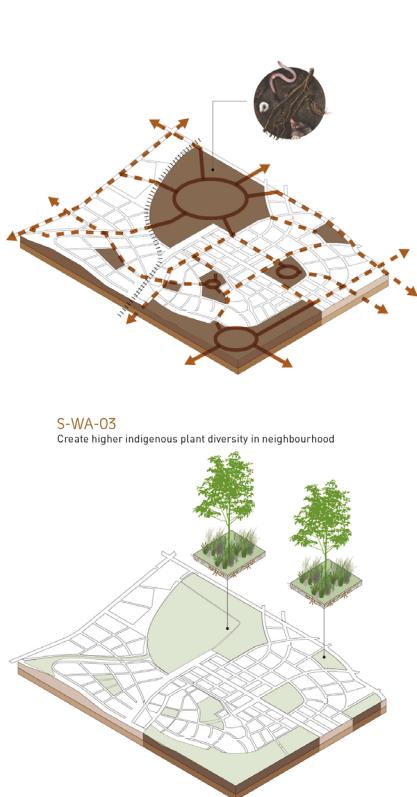


5cm-10cm gap under garden fences to allow small animals to pass through.



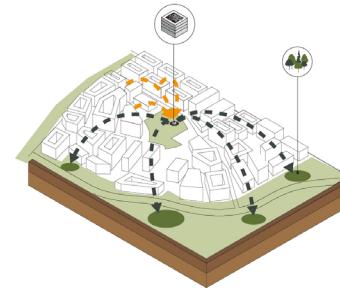


Soil



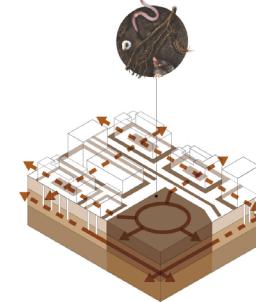
S-NE-01
Connect soil networks in network

S-NE-02
Collect and decompose green waste, use organic compost

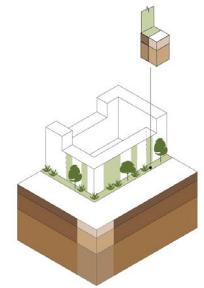


S-PS-02
Greening tree mirrors

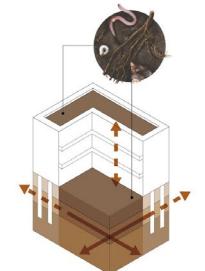
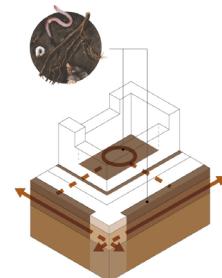
S-PS-01
Connect soil networks in public space



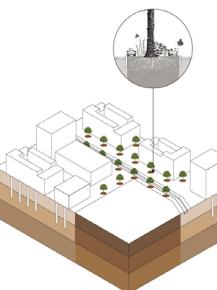
S-ST-04
Create green facade from facade garden



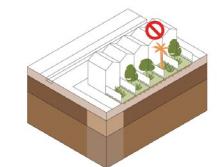
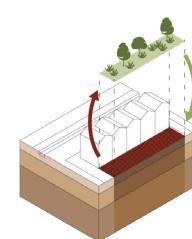
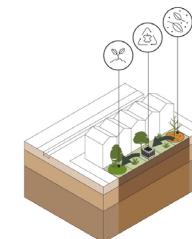
S-ST-01
Connect soil networks on site



S-ST-05
Create higher indigenous plant diversity on site

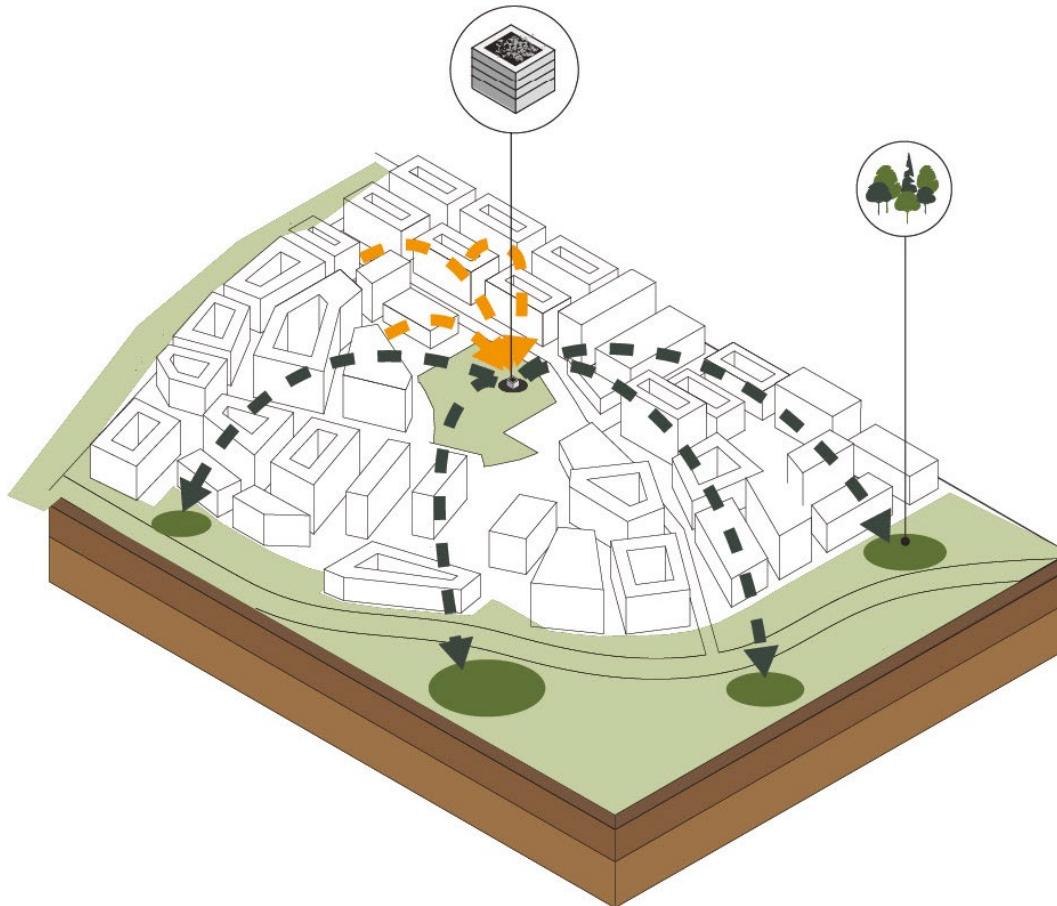


S-ST-03
Less paving, more green in back gardens

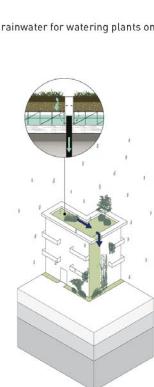
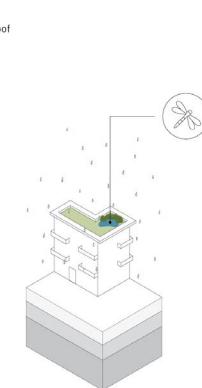
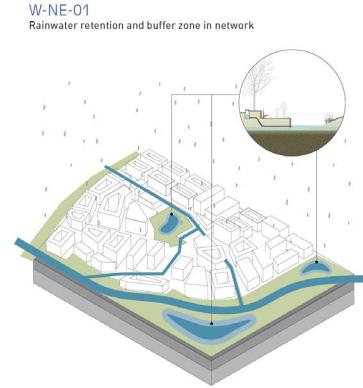
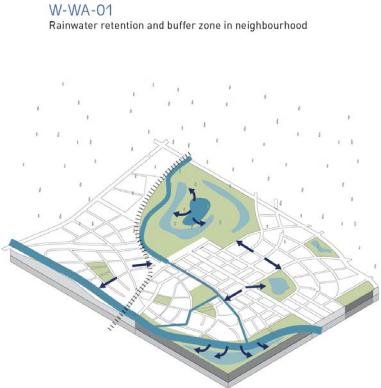


✗ Soil

Collect and decompose green waste, use organic compost

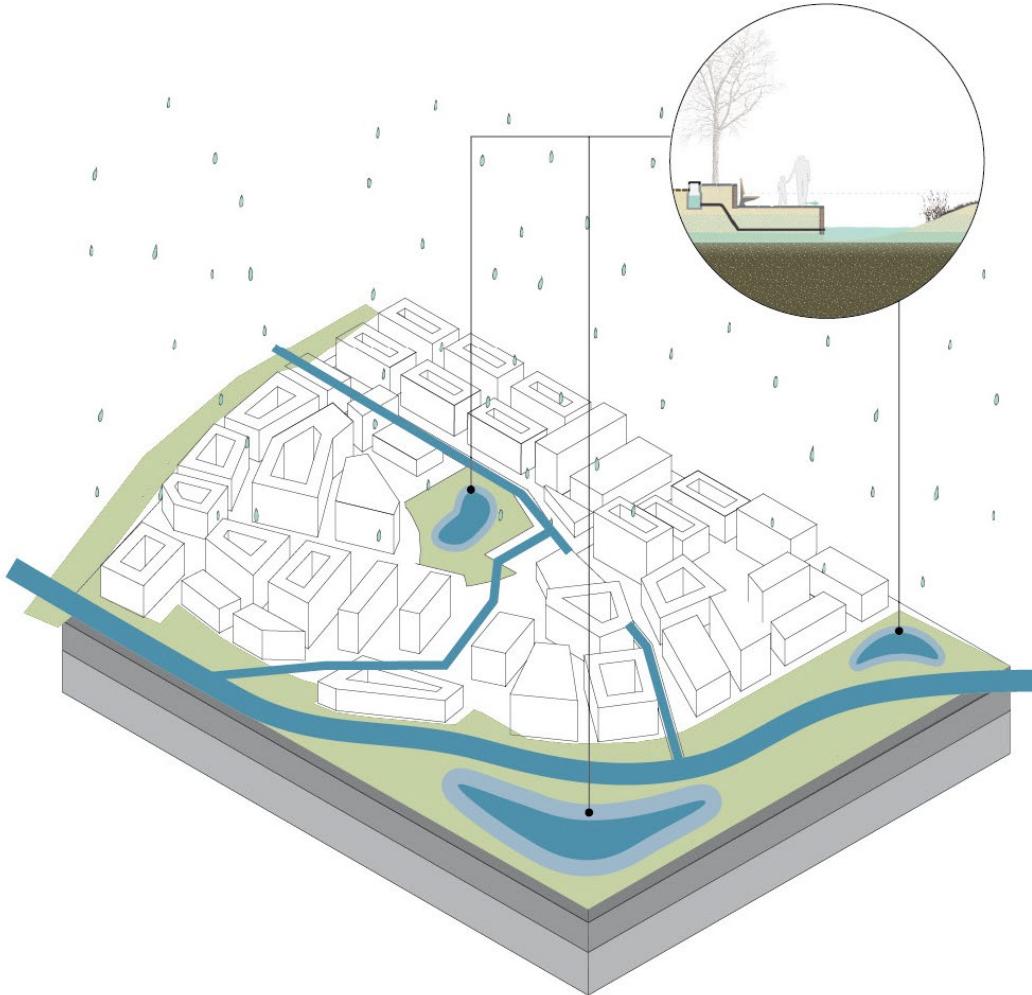


XXX Water



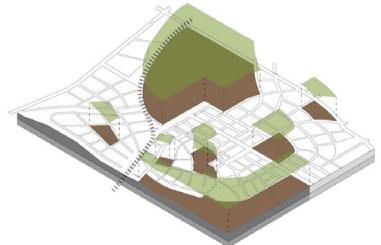
Water

Water preservation and buffer zone

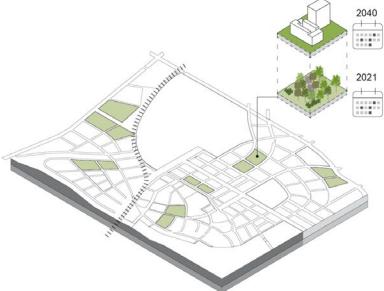


X Management

M-WA-01
Foster mature soil



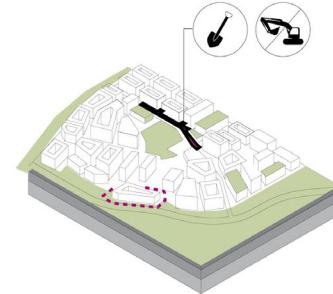
M-WA-02
Facilitate temporary green areas development



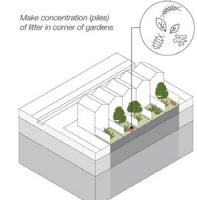
M-NE-02
Foster spontaneous vegetation growth in network



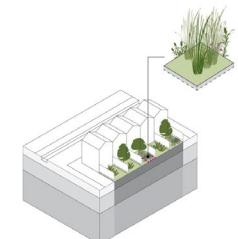
M-NE-03
Prevent heavy infrastructural work



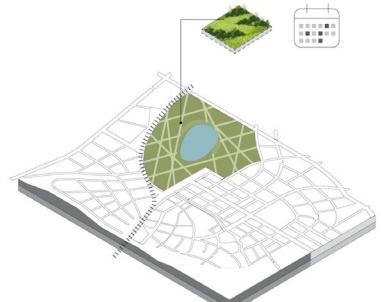
M-ST-01
Remove litter sparingly on site



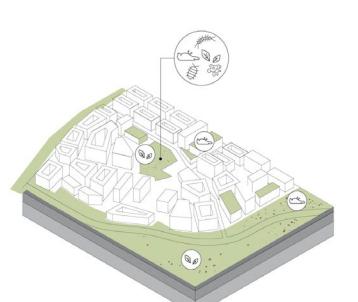
M-ST-02
Foster spontaneous vegetation growth on site



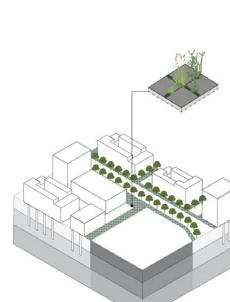
M-WA-03
Mowing management: varied, mosaic mowing



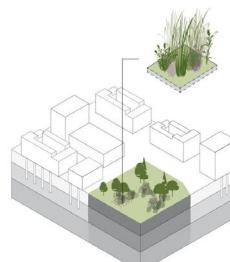
M-NE-01
Leave organic matter in place in neighbourhood



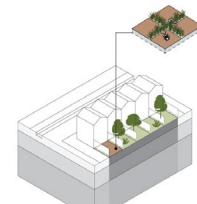
M-PS-01
Remove litter sparingly in public space



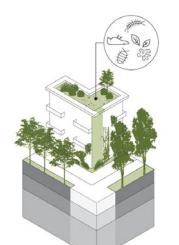
M-PS-02
Foster spontaneous vegetation growth in public space



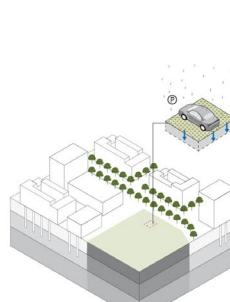
M-ST-03
Leave green between tiles on site



M-BD-01
Leave dead organic matter in place on building



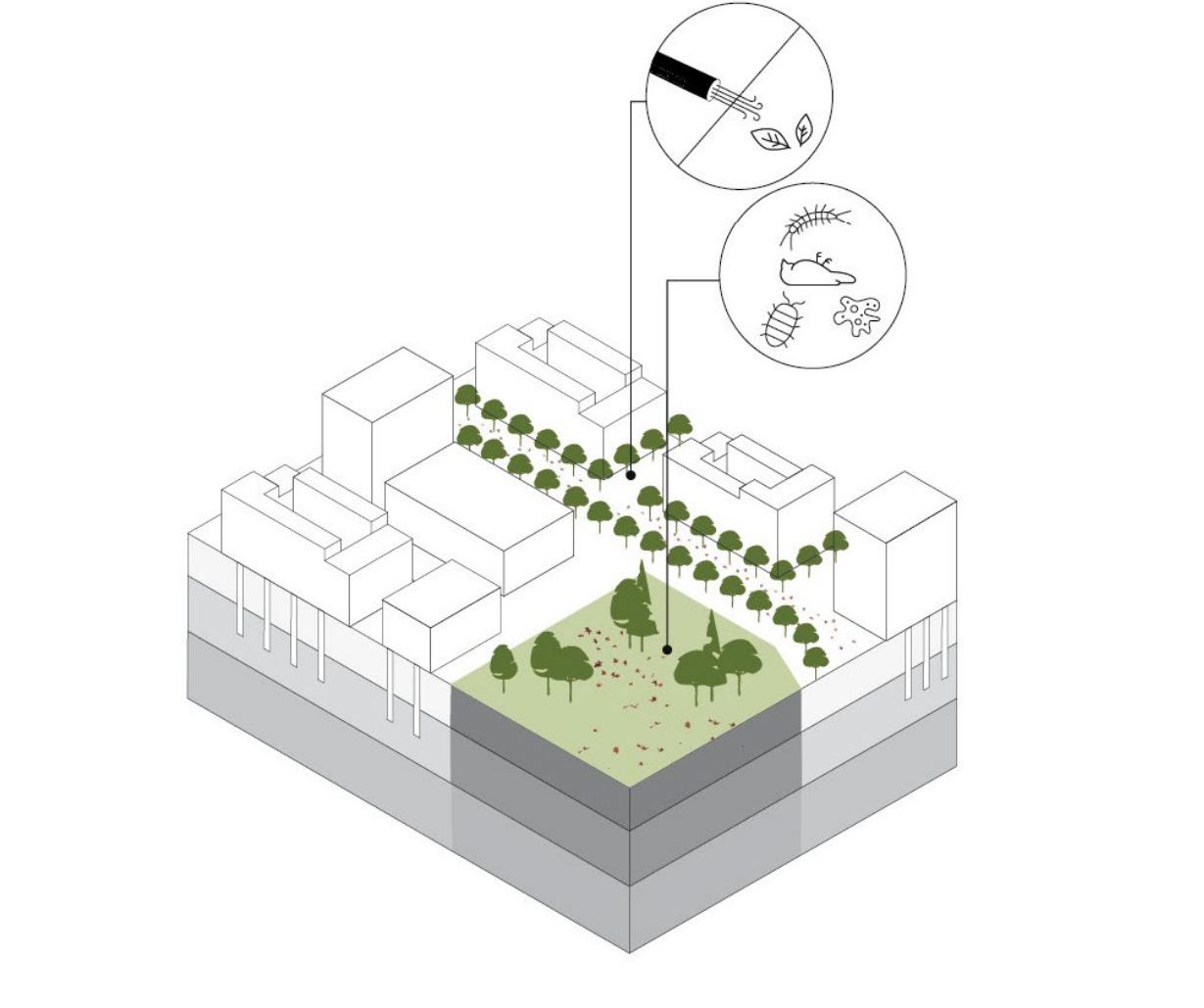
M-PS-03
Leave green between tiles in public space

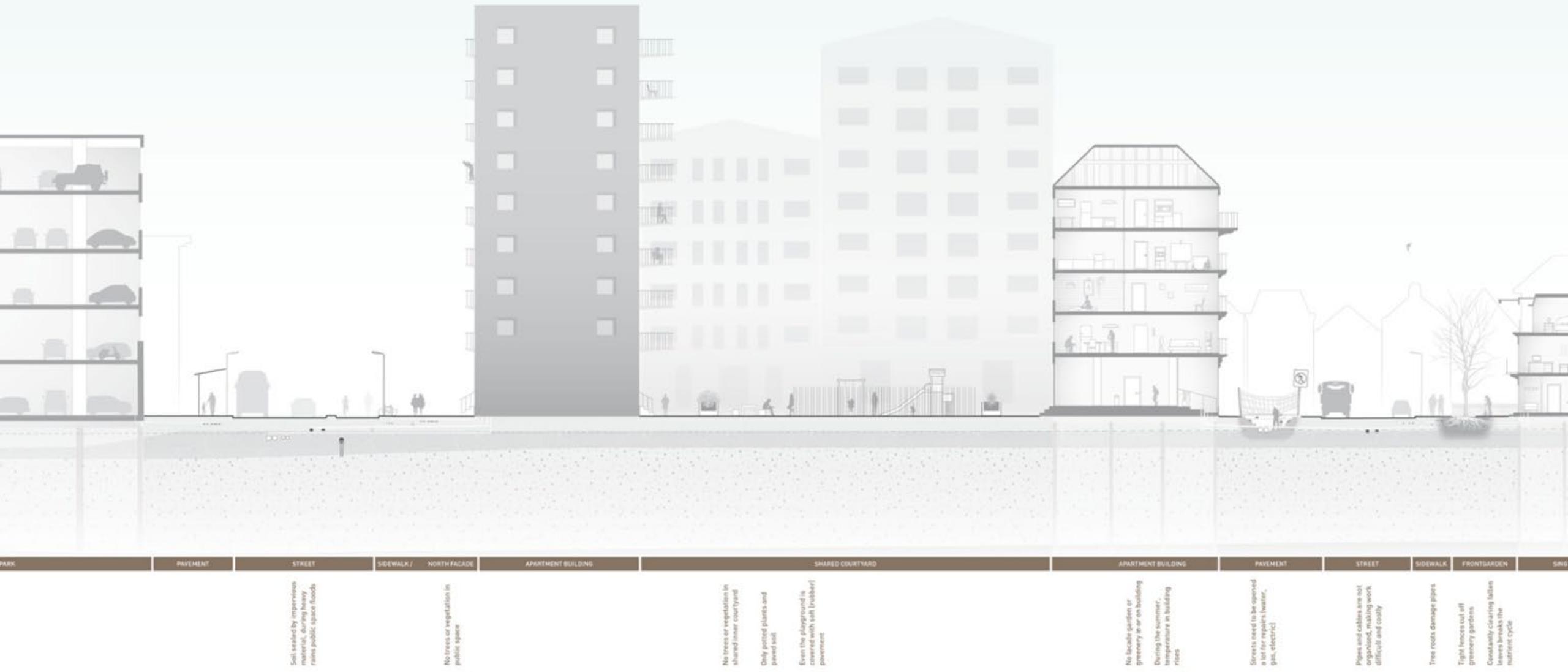


M-PS-04
Create porosity

✗ Management

Remove litter sparingly in public space







Integral Design Method for public space





Thank you

alle publicaties
coming soon

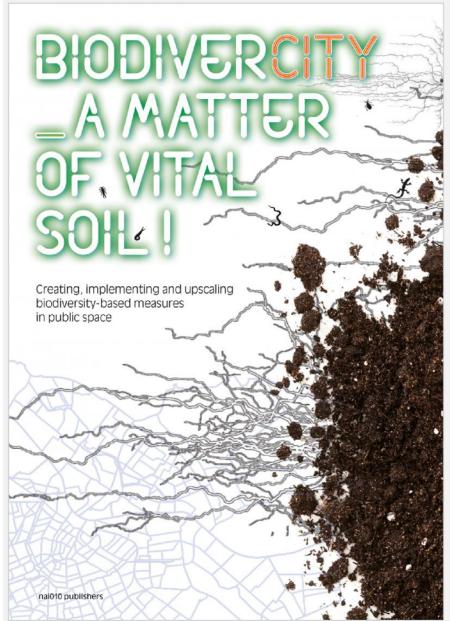
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BiodiverCITY. A Matter of Vital Soil!

Creating, Implementing and Upscaling Biodiversity-based Measures in Public Space

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- > Onderdeel van de programma's Seoul Biennale of Architecture and Urbanism 2021 en Architecture Biennale Venice 2021
- > Boeklancering en webinar in Pakhuis de Zwijger Amsterdam
- > Tentoonstelling Subterra - New roots for underground urbanism, 1 oktober 2021 - 6 februari 2022, ARCAM
- > Luister naar de 'Hier gebeurt het ondergronds' Podcast serie

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ISBN 978-94-6208-656-2 | september 2021 | verwacht | Joyce van der Berg, Hans van der Made, Vincent Merckx, Sylvia Mota de Oliveira, Jorinde Nuytinck, Ingrid Oosterheerd, Marco Roos, Menno Schilthuizen, Michael Stech, Rene Zijlmans, Johan van Zoest | Redactie: Joyce van der Berg, Hans van der Made, Ingrid Oosterheerd, Alessandra Riccetti | design: Joseph Plateau | Engels | paperback | 24 x 30 cm | 114 pag. | in samenwerking met: City of Amsterdam, Urban Planning and Sustainability In collaboration with Naturalis, NIOO-KNAW, Artis, Inside Outside | met steun van: City of Amsterdam, Urban Planning and Sustainability

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The screenshot shows the openresearch.amsterdam platform interface. At the top, there is a navigation bar with links for 'Over', 'Contact', 'Aanmelden', 'Amstel-Stad', 'Dossiers', 'Gemeente', 'Kennisinstellingen', 'Regio', 'Sted', 'Samenwerkings', 'Zoeken', and 'Bewerken'. Below the navigation, there is a main content area featuring a large image of a network of colored lines (representing infrastructure or connections) and a detailed description of the 'Integrale Ontwerpmethoden Openbare Ruimte' (Integral Design Methods for Public Space) report.

Integrale Ontwerpmethoden Openbare Ruimte
Tilman Schindler, Joyce van der Berg, Alessandra Riccetti, Marina Vassarini Lopes

Casus Amstel-Stad, Amsterdam en Werkboek

Amsterdam staat de komende jaren een grote transitieopgave in de openbare ruimte te wachten. Een belangrijke factor voor de klimaatverandering, groeiende bevolking en veranderende doelgroepen is de openbare ruimte. De vraag is hoe we hieraan kunnen aanpassen en dat levert een belangrijke rol op voor de samenleving. Daarnaast groeit de stad gestaag en verdicht steeds verder. De ondergrondse infrastructuur groeit mee, maar raakt vol. De transitie stagneert als wordt vastgehouden aan de huidige stadsgebiedontwikkeling. Bij nieuwe inrichtingsplannen is het traditionele van bovengronds maar ondergronds denken passe. De in deze publicatie geïntroduceerde ontwerpmethoden, waarin de ondergrond en het meervoudig functiegebruik vooropstaan, programeren de openbare ruimte integraal. Politieke en private partijen gaan in een gezamenlijke en transdisciplinaire samenwerking aan de slag om de openbare ruimte te optimaliseren, nieuwe energiesystemen, de hitte- en neerslagproblematiek, de gewenste circulariteit en natuurinclusief ontwerpen. Deze stapeling van maatregelen draagt bij aan een groene, aantrekkelijke en kwalitatief hoogwaardige openbare ruimte, waar het fijn wonen, werken, recreëren, sporten en verblijven is.

Meer informatie

Artikel Integral ontwerpen openbare ruimte Gemeente Amsterdam Webinar 25 juni 2020 15:00 - 17:00 [View details](#)

Artikel INTEGRALE ONTWERPMETHODE OPENBARE RUIMTE [View details](#)

Event Webinar: Integral ontwerpen openbare ruimte Gemeente Amsterdam, Ruimte en duurzaamheid, team Amstel-Stad nodigt jou... [View details](#)

Collectie (6) Deel1 Integrale Ontwerpmethoden Openbare Ruimte... [View details](#)

Collectie (11) Deel2 Integrale Ontwerpmethoden Openbare Ruimte... [View details](#)

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