

**Towards an ecological urbanism**

In the current geological epoch of the Anthropocene, the boundaries between artificial and natural, the built and natural environments, have blurred to become indistinguishable. Far from playing the role of man over nature, we confront the possibility of domesticating a planet beyond our control. The effects of climate change and global scope are increasingly becoming undeniable. The floods that hit central Europe in the summer of 2021, especially Germany, are just one example of how extreme weather events are becoming more frequent. As often happens with crises, these already visible risks are being taken as a warning signal, and economic plans, in the case of humans and endangered in terms of biodiversity, will suffer disproportionately the effects of climate change.

In this context, our proposal turns to ecological systems theory and landscape urbanism perspective to develop the spatial interventions that are needed to tackle the challenge. It is social and environmental planning as an interdisciplinary instrument, we learn from ecology about which conditions increase biodiversity and how habitats become resilient and diverse.

'Selb Step by Step' is a guide to take action in the built environment that proposes a vision for the short and long term future of Selb in relation to broader policies. The European Commission aims to achieve climate neutrality by 2050. It has set key targets to be met by 2030: 32% reduction in greenhouse gas emissions, 37% share for renewable energy, and 12.7% improvement in energy efficiency. Working in synergy with the EU framework, the guide sets out three directions for Selb to follow in order to become a social inclusive and climate resilient city by 2030: Rewilding, Diversifying, and Decarbonising. To achieve them, it proposes and describes a list of tangible steps towards those objectives in the next decade. These steps are divided spatially according to different urban forms and types that can be implemented progressively, both individually and in combination. Their impact can be measured and assessed through indicators, informing the following steps to achieve the targets here.

**steps towards  
REWILDING**

Rewilding is defined as a progressive approach to conserving, restoring and managing natural processes and wilderness areas. It implies 'restoring natural processes to shape land and sea, repair damaged ecosystems and restore degraded landscapes. Through rewilding, wildlife is restored through active wildlife, more biodiverse habitats.

As such, rewilding is one of the methods identified by the UN to achieve massive scale restoration of natural ecosystems and meet climate targets. The steps proposed by this guide in this direction focus on creating the right conditions for nature's self-management (by increasing the Ecosystem Resilience Index), by reducing energy consumption of wildlife populations and by allowing natural forest regeneration, providing connectivity between natural areas. Such actions restore the flow of matter of the ecosystem and promoting and reintroducing keystone species. Furthermore, rewilding contributes to individual and collective well-being, as the current pandemic has demonstrated: connecting with wild nature positively impacts mental and physical health.



The Ecosystem Resilience Index shows more green spaces.

**Selb's Horizon 2050  
steps towards  
DIVERSIFYING**

Diversity refers to all the variety of life found in Selb, including the organisms they form and the habitats in which they live. Biodiversity is essential for the resilience of ecosystems for their intrinsic value and the ecosystem services and benefits they provide. However, diversity in built environments tends to focus not only the diversity of natural species and habitats but also of different people in terms of age, socio-economic status, culture and race. The steps proposed in this guide address biodiversity diversity and restore and keep those diversity in diverse urban forms. By restoring various uses of empty sites within buildings and in neighbourhoods, Secondly, by ensuring affordability of housing, commercial, and allowing natural forest regeneration, providing connectivity between natural areas. Such actions restore the flow of matter of the ecosystem and promoting and reintroducing keystone species. Furthermore, rewilding contributes to individual and collective well-being, as the current pandemic has demonstrated: connecting with wild nature positively impacts mental and physical health.



Views for Lorenz-Hunnenbuckler-Strasse as a slow street.

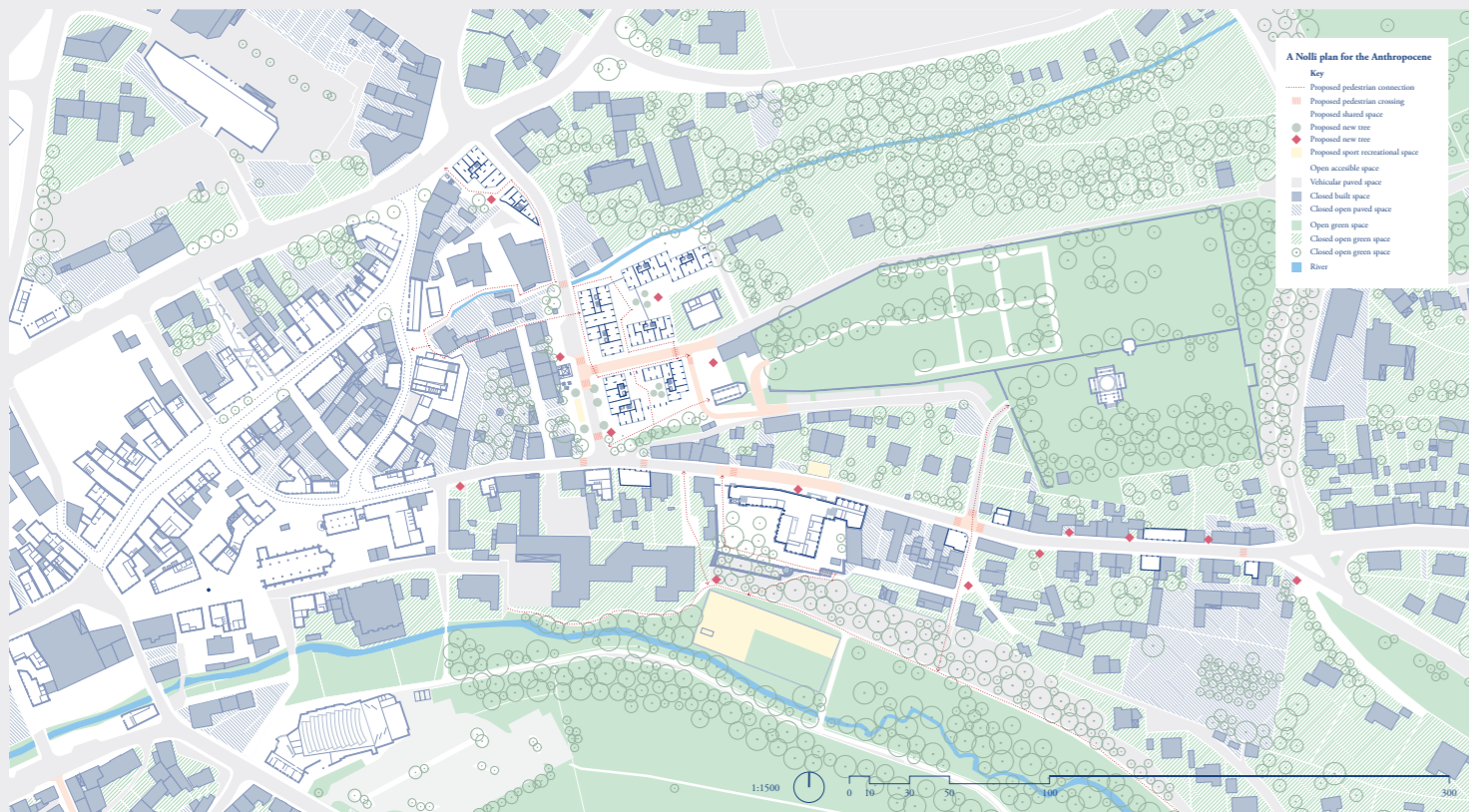
**steps towards  
DECARBONISING**

Decarbonisation refers 'to the process of reducing 'carbon intensity', lowering the amount of greenhouse gas emissions produced by the burning of fossil fuels'. The built environment contributes to nearly 39% of carbon emissions globally. The primary sources of these emissions are mobility, energy buildings, and building materials. Therefore, the steps proposed to focus on these three aspects. First, promoting non-polluting mobility such as pedestrian or active street (like cycling and public transport) between destinations and visitors and keep those diversity in diverse urban forms. By restoring various uses of empty sites within buildings and in neighbourhoods, Secondly, by ensuring affordability of housing, commercial, and allowing natural forest regeneration, providing connectivity between natural areas. Such actions restore the flow of matter of the ecosystem and promoting and reintroducing keystone species. Furthermore, rewilding contributes to individual and collective well-being, as the current pandemic has demonstrated: connecting with wild nature positively impacts mental and physical health.



New access to Grottenackerhofen from Lorenz-Hunnenbuckler-Strasse.

**Selb's urban ecological networks  
People and wildlife**

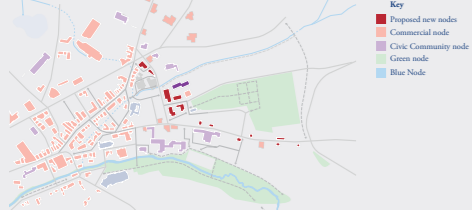


**Territorial strategies  
for enhancing spatiotemporal connectivity of habitats  
in dynamic urban landscapes**

**NODES**

A range in size and type of urban networks is essential to attract a diversity of human activities across time (daily, weekly, and seasonally). Selb's town centre is a linear commercial node of human activity for the area. Similarly, buildings with public functions like the youth centre, the school or the elderly home act as nodes for specific groups. Large green and blue areas work as critical nodes housing vegetation, water and animal species.

The present proposal is structured around a set of nodes in the area between Chores Bergstrasse and Lorenz-Hunnenbuckler-Strasse with a combination of linear commercial uses and singular cultural public uses. Multidirectional dwellings like communal courtyards with permeable grounds, vegetation and water ponds attract wildlife. Uncovering the Ecosystem Resilience Index creates a flood hazard plan, using a new scale for human and non-human alike.



**LINKS**

Improving the connectivity between the various nodes is a crucial aspect that urban design can tackle to strengthen integration and cohesion. Vehicular traffic and asphalt roads are the main current determinants for people and species to dwell in or travel through. All the way proposed strategies promote walkability and restore habitats, such as cycling and public transport, resulting in a safer, barrier-free and pedestrian friendly environment.

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**STEPPING STONES**

Linear connections are not the only way to link nodes, nor are they enough to ensure their continuity: such as the elderly or those with reduced mobility and species - for example, insects - feel welcomed and be able to move between destinations in their journey. We define stepping stones as small-scale public spaces that provide a safe and comfortable place to pause for them to travel across. Their size, location, and number determine the distance that actors can travel and thus are vital to achieving an inclusive city.

Through multiple and complementary steps, the present proposal a range of stepping stones: commercial uses, benches, drinking water, trees and vegetation, etc., along both Chores Bergstrasse and Lorenz-Hunnenbuckler-Strasse. Similarly, paths of stepping stones with public functions are proposed along the green and blue corridors connecting Selb with other urban and landscape centres. For example, we propose planting a bench or large every 100m along when links to provide pause points every 500 steps for those with short step length like elderly people.

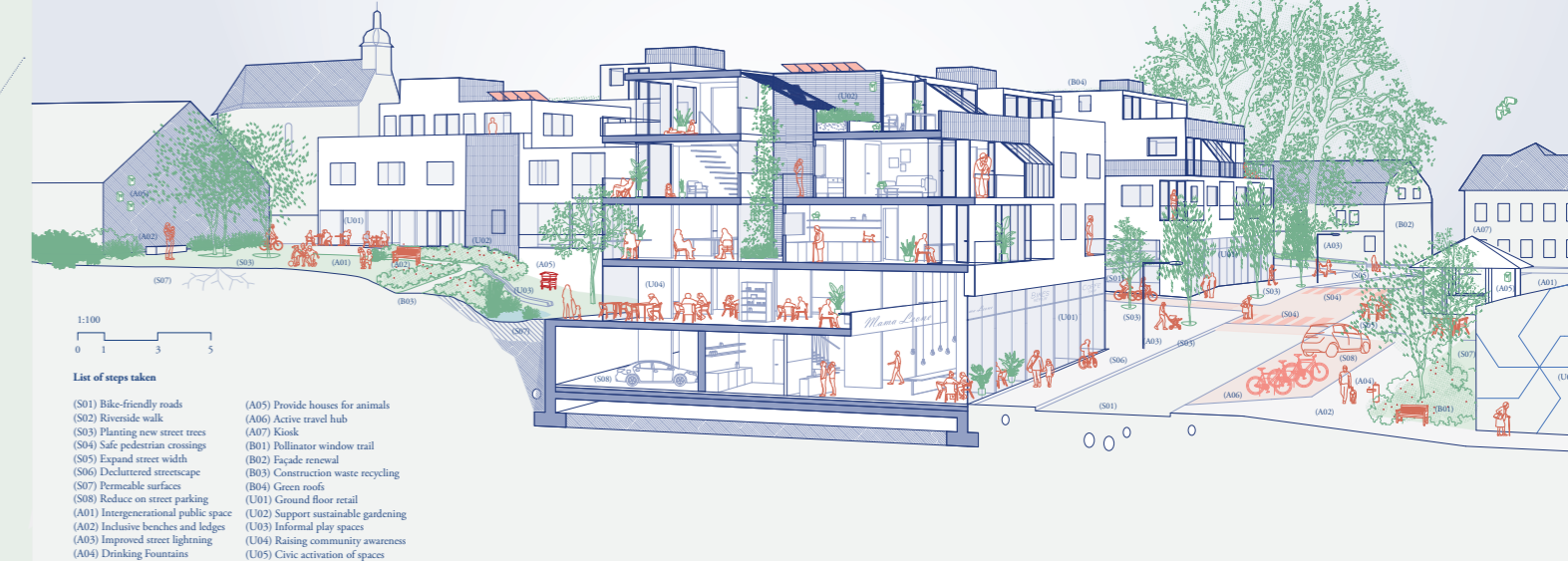
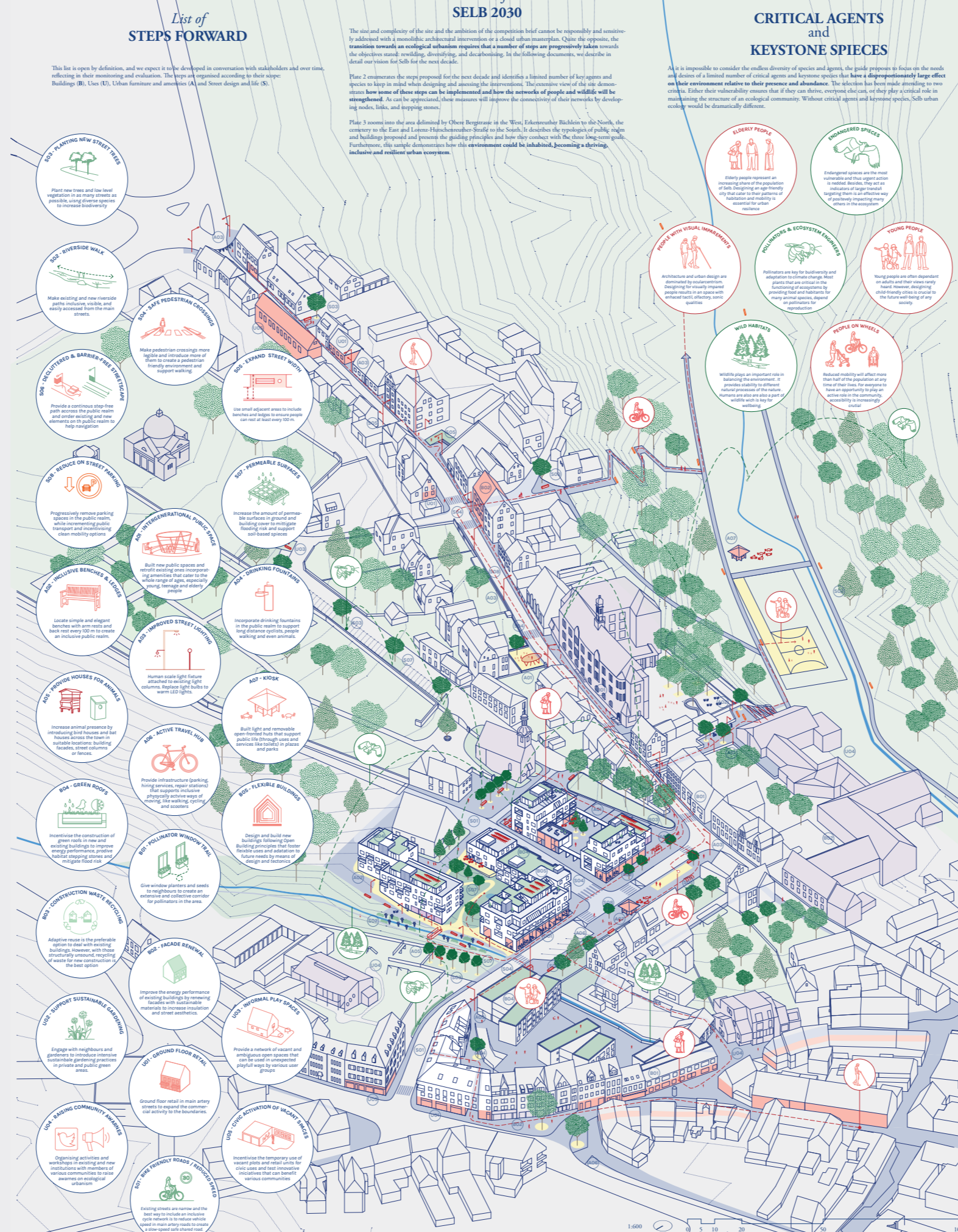


**a vision for  
SELB 2030**

The site and complexity of the site and the ambition of the competitive brief cannot be responsibly and sustainably addressed with a monolithic architectural intervention in a closed urban manuscript. Quite the opposite, the conditions revealed an ecological urbanism requires that a number of steps are progressively taken towards the objectives stated: avoiding, diversifying, and decarbonising. In the following documents, we describe in detail our vision for Selb for the next decade.

Phase 2 encompasses the steps proposed for the next decade and identifies a limited number of key agents and species to help in initial habitat designing and assessing the intervention. The creative vision of this site demonstrates how some of these steps can be implemented and how the networks of people and wildlife will be strengthened. As can be appreciated, these measures will improve the connectivity of their networks by developing new links, and stepping stones.

Phase 3 focuses into the area delimited by Chores Bergstrasse to the West, Ekaerstrasse-Blickstein to the North, the cemetery to the East and Lorenz-Hunnenbuckler-Strasse to the South. It describes the typologies of public nodes and buildings proposed and presents the guiding principles and their number, with the clear long-term goals. Furthermore, this sample demonstrates how this environment could be inhabited, becoming a living, inclusive and resilient urban ecosystem.



**Neighbourhood as  
Inclusive Multispecies Habitat**



**the ecological performance of  
Open Building**

