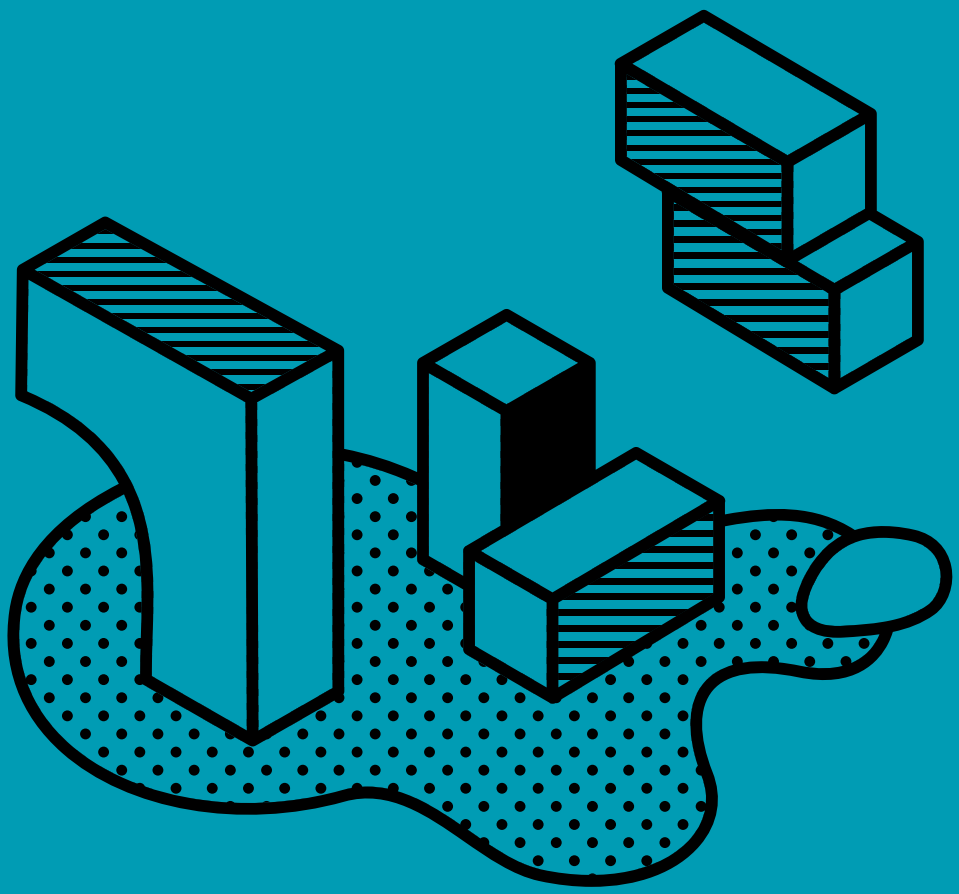
Designing Brussels Ecosystems

Metrolab Brussels MasterClass II



Bernard Declève
Geoffrey Grulois
Roselyne de Lestrange
Andrea Bortolotti
Corentin Sanchez Trenado
(eds)

Metrolab series

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Agriculture

Urban Agriculture COOP's on a Shared Landscape

Jolein Bergers
Rafael Carmago Consolmagno
Laurence Claerhout (stakeholder)
Stefania D'Altiero
David D'Hondt (stakeholder)
Maarten Dieryck (stakeholder)
Sarah Dujardin (stakeholder)
David Errera (stakeholder)
Elena Ferrari
Catherine Fierens (stakeholder)
Fabien Genart (stakeholder)
Bengt Hendrickx (stakeholder)
Joséphine Henrion (stakeholder)
Roselyne de Lestrange (tutor)
François Lohest (stakeholder)
Sylvie Nguyen
Daniel Otero Peña
Marco Ranzato (tutor)
Sabine Solvyns (stakeholder)
Antoine Sterling (stakeholder)
Nathalie Van Den Abeele (stakeholder)
Baptiste Veroone (tutor)

Introduction: evidence of fragility

Food has an enormous impact on our lives and on the city. The food sector is responsible for approximately a third of carbon dioxide emissions in Belgium and a quarter of the overall environmental impact of Brussels households, which makes it a key area in addressing climate change and sustainable urban development.

Policy makers, food producers, and citizens who are aware of this fact are increasingly producing their food locally. As a result, a considerable range of pioneering urban agriculture projects have popped up in the Brussels-Capital Region, connecting city residents, producers, and consumers around the production of high-quality food. A lot of pioneering farmers seek purpose and meaning in their daily lives, making a radical shift from their previous jobs and lifestyles to start urban farming. Recent policy initiatives aim to nurture and empower these pioneers through coaching programmes and financing instruments such as Good Food and BoerenBruxselPaysans. However, despite these government initiatives, it remains extremely challenging for urban farmers to build a livelihood and break through the traditional food system.

The reasons for this, which emerge from the field research underlying this project, are manifold. First, agricultural land in Brussels is scarce, with barely 1.5% of the city's designated for farming. Land is difficult to acquire, since farmers have to compete with other development needs, such as housing, sports infrastructures, and industry. As a result, many farmers are forced to settle for small, less desirable plots with relatively high land prices. Second, low market prices and difficult permeability in the consolidated retail chain limit the growth of local farming initiatives. The price that consumers are willing to pay is too low for the actual cost of high-quality food. Many urban farms rely on subsidies, voluntary labour, or rent-free land to make their businesses run. Third, many of the farmers interviewed refer to the complexity and unpredictability of their daily work. Most pioneering farmers operate alone or as small teams, and are therefore responsible for all aspects of cultivating, distributing, and selling food.

The above-listed dynamics make pioneering practices very fragile and jeopardise their future. During the Designing Brussels Ecosystems MasterClass, we took these fragilities as a starting point from which to imagine an alternative ecosystem, in which long-term viability of pioneering practices could be assured.

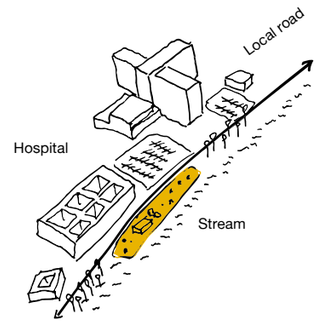
Ecosystems & situations

As mentioned above, during the MasterClass we visited 5 urban agriculture projects (Les Moutons Bruxellois, La Grange en Ville, Cycle Farm, Chant des Cailles and Atelier Groot Eiland) and interviewed 6 pioneers in urban farming (one from each project visited, and one from Linked Farm, a cooperative for urban agriculture logistics). The visited projects were very diverse and included farms focused on innovating and optimising their production methods, educational practices providing training to students and local job-seekers, and community-based projects producing food in close collaboration with the neighbourhood. This showcases the diversity of over 600 existing urban agriculture projects and initiatives in the greater Brussels area.

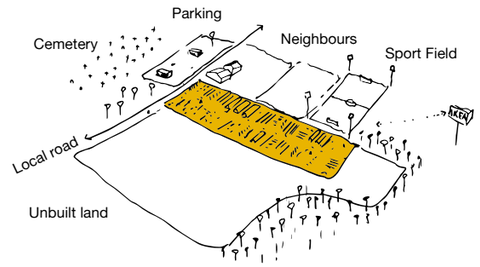
Even though all five projects were very different, they had a common ambition: produce food in a sustainable way, activating a wider range of networks and mechanisms than many practices in the conventional and industrialised food system. The farmers interviewed knew most of their customers personally, worked with yearly subscriptions, and were very transparent about their methods of production. Through these actions and connections, they were actively contributing to and building an alternative ecosystem. To unravel the processes, networks, and geographies underlying this alternative ecosystem, we used a dual perspective in which we looked from the outside (system wide perspective) and the inside (farmer's perspective).

In the outside perspective, we compared the processes involved in current, market-driven models with those of emerging agricultural practices. On the other hand, the farmers' perspective gave us insight into what it means to establish an urban agriculture practice in Brussels today. After this dual analysis, we decided to further focus our attention on the ecosystem that is emerging in the Neerpede, Vogelzangbeek, and Pajottenland area, in relation to the practices of David (Les Moutons Bruxellois) and Nathalie (La Grange en Ville).

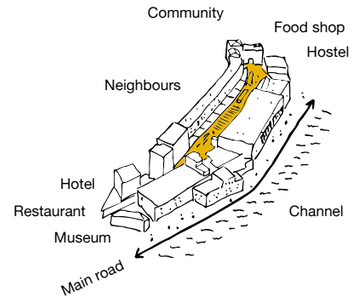
Les Moutons Bruxellois is a private initiative run by David, a school teacher and urban shepherd who takes care of a 10-sheep herd in the city. David's aim with his project is to produce wool and meat in order to create a short supply circuit and raise awareness of issues of meat consumption and biodiversity. Not far from David's site is La Grange en Ville, run by Nathalie, a former nurse who made a career switch and became an urban farmer, producing vegetables on a one-hectare plot of land. Her goal is to produce healthy and sustainable food inside the urban landscape.



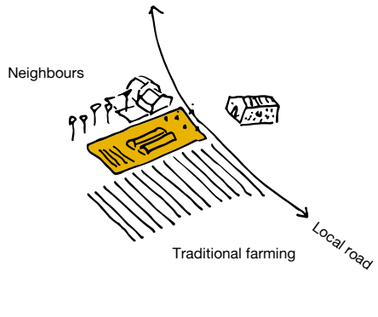
Situation 1: Les Moutons Bruxellois



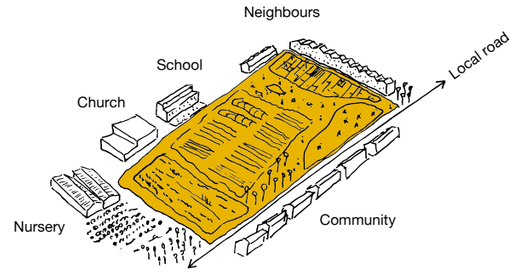
Situation 2: La Grange en Ville



Situation 3: Atelier Groot Eiland

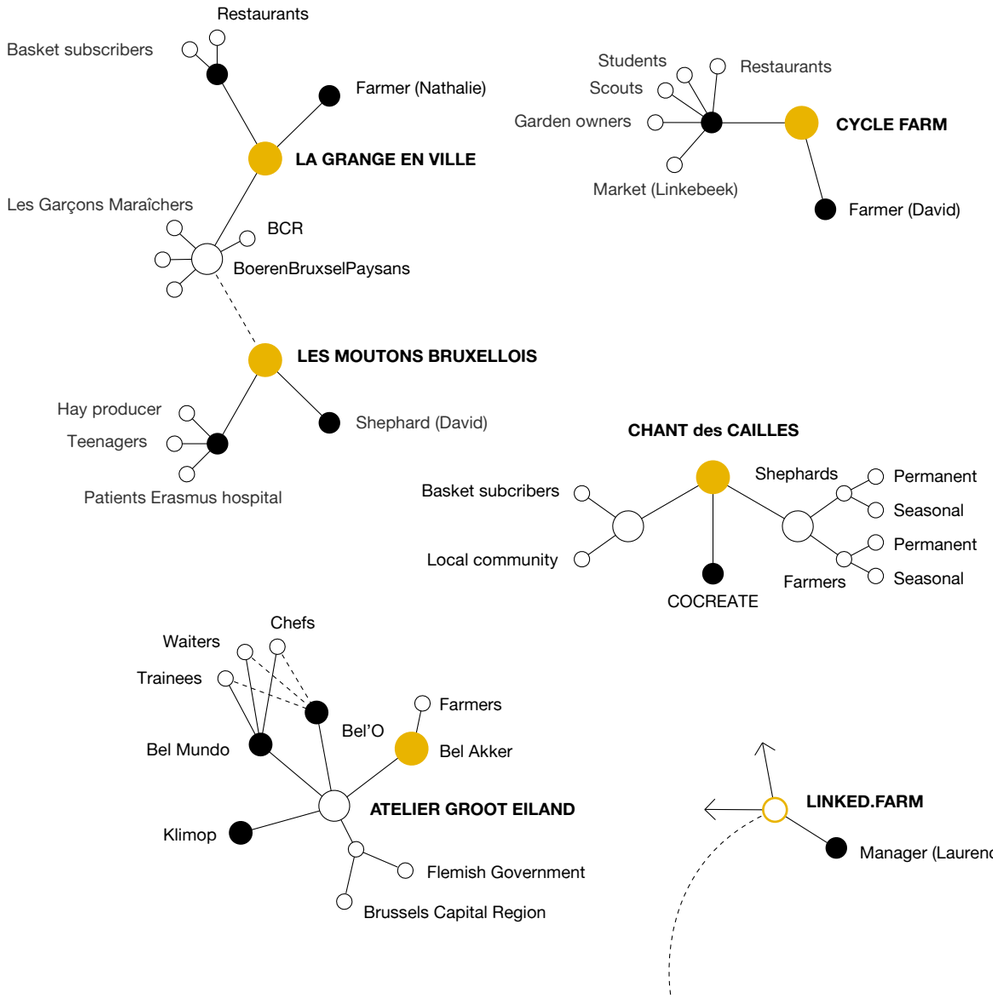


Situation 4: Cycle Farm



Situation 5: Chant des Cailles

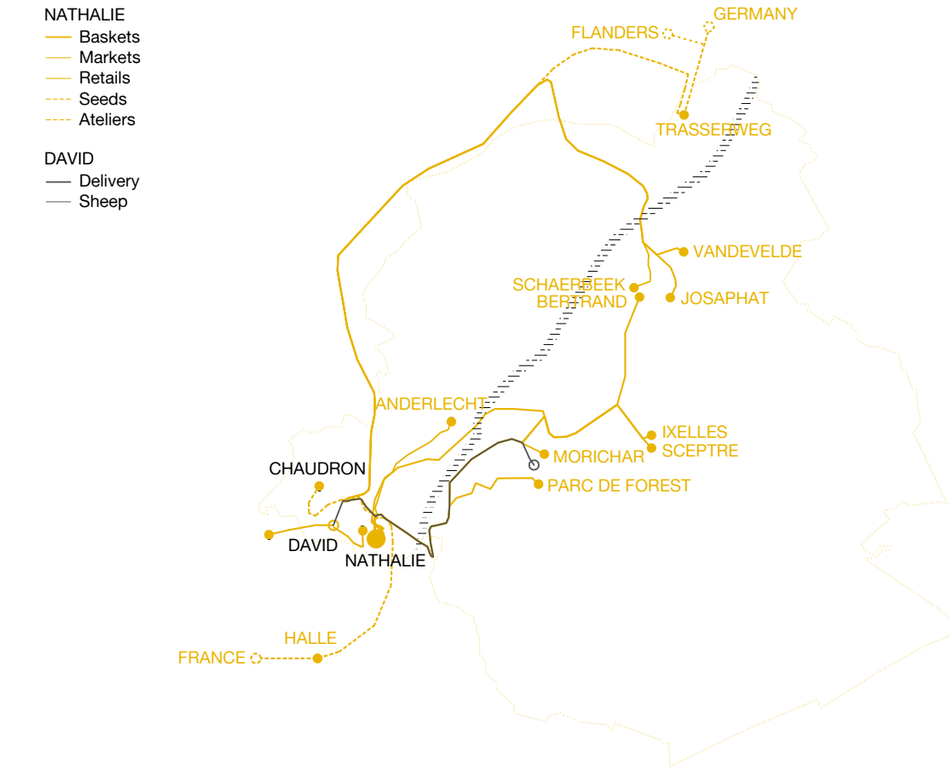
In the course of the masterclass we visited 5 urban agriculture initiatives where we had the opportunity to interview different urban farmers. David from Les Moutons Bruxellois, Nathalie from La Grange en Ville, Maarten from Atelier Groot Eiland, David from Cycle Farm and Antoine from Chant des Cailles. We also had a talk with Laurence from Linked. Farm (not pictured).



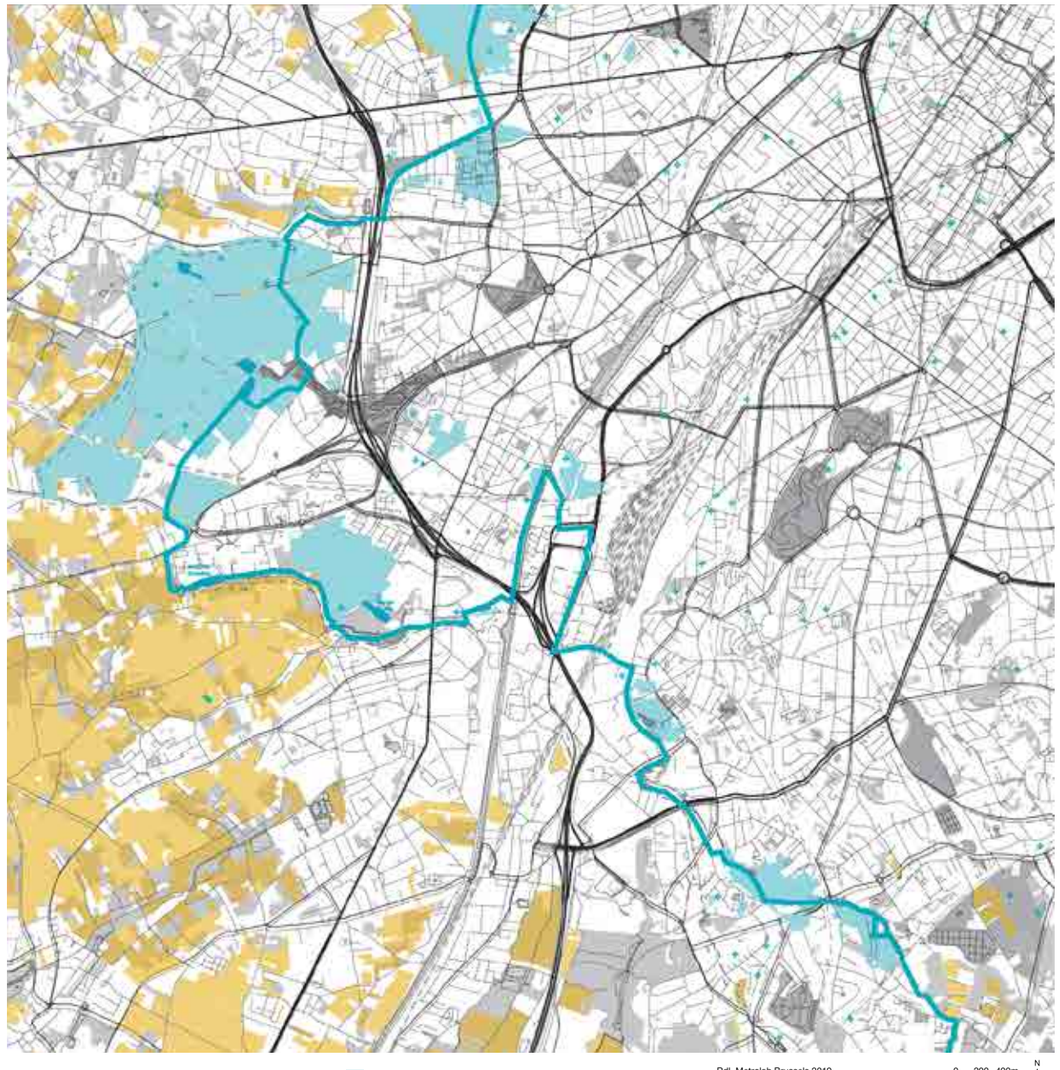
Most practices worked autonomously, covering all aspects from cultivating to selling food. Some were more networked, such as the farm of Nathalie, which was initiated under the umbrella of BoerenBruxselPaysans. Alongside the independent pioneering urban agriculture practices, initiatives such as Linked.Farm are emerging, focusing on the distribution of vegetables and aspects of accounting.

During the workshop, we focused on the establishment of practices in the Neerpede valley. On the one hand, because it's an area with a long history in farming on smaller plots (the so-called 'Boerkozen'). On the other hand, because of the BoerenBruxselPaysans initiative, which gives pioneering practices already a rather networked state.

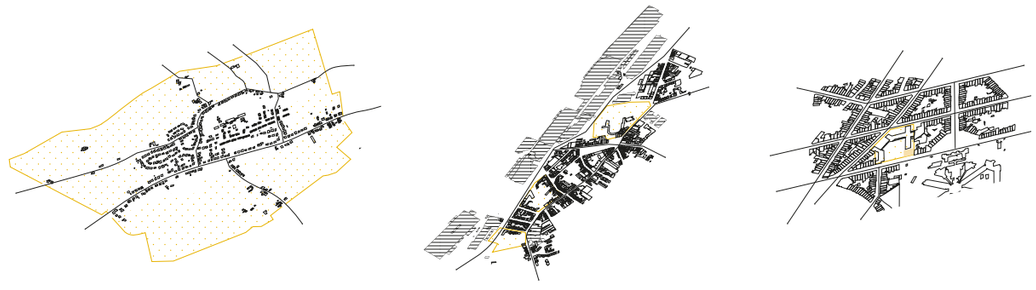
The first practice we further investigated was the practice of Nathalie, one of the urban farmers of BoerenBruxselPaysans, who owns a small vegetable farm on test site in the Vogelzangbeek (top). Additionally, we also looked at David's practice (bottom), a shepherd who keeps his sheep on one of the meadows next to the Erasm hospital in Anderlecht.



We mapped the farmers daily routines in time and space to understand their impact on the physical environments and the social networks they build. Through this exercise, we unraveled new geographies being activated by the farmers.



We observed that the mapped geographies followed the orientation and places of the green network (Green Walk). Through a GIS-analysis, we investigated a pattern of urban agricultural fields that could be identified along the green network, embedded within a larger continuous and diverse landscape of agricultural fields.



The green network is in close proximity to different types of neighbourhoods, with different morphologies, qualities, needs, etc. As a result, there are very different conditions to be found around it for the cultivation and consumption of food, which could be turned into a continuous productive urban landscape.

Designing ecosystem transition

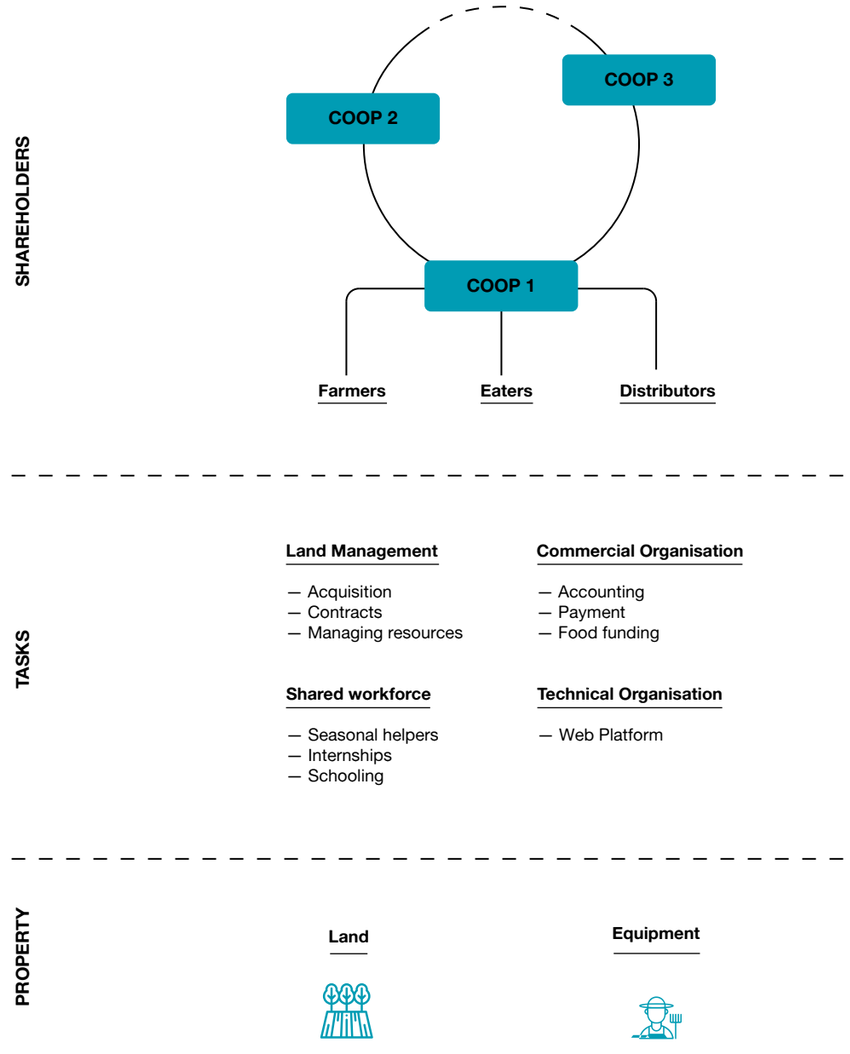
During the MasterClass, we investigated if and how a multi-scalar, cooperative model (COOP) on a shared landscape could improve the daily working conditions of pioneering farmers. This cooperative model is inspired by the activities of umbrella organisations such as BoerenBruxselPaysans and Linked.Farm, but is more strongly tied to a landscape development strategy, including a physical design dimension.

Urban agriculture COOPs…
Many urban farmers today operate in loose, not yet well-consolidated networks, which makes their practice very complex. The urban agriculture COOP suggests a horizontal business model, connecting farmers together, with consumers and distributors as shareholders. Additionally, it also pools technical and commercial resources and includes a more proactive land acquisition strategy.

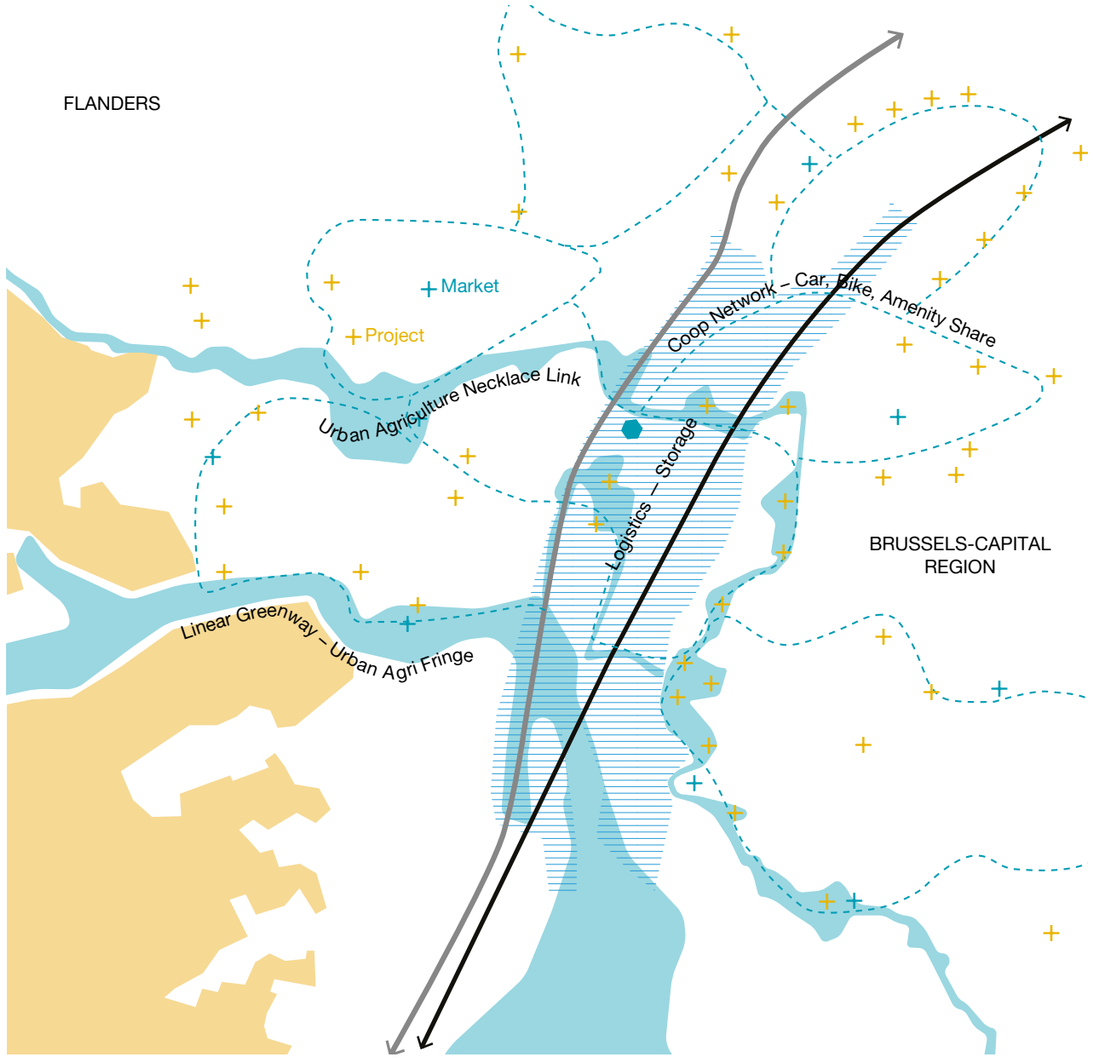
This gives the urban farmer a clear organisational and financial advantage. While the development of pioneering practices currently relies on the individual farmers' inventiveness, enthusiasm and will to innovate, the COOP could facilitate and redistribute some of these tasks, with each farmer becoming a shareholder of a larger organisation. This way, they have guaranteed income during their start-up years, or in case of illness. Land and tools are the property of the cooperative. This also implies smaller start-up costs.

… on a shared landscape
Existing and planned zones designated for urban agriculture were researched as an opportunity to re-organise the fragmented and dispersed small grain urban agricultural plots. A pattern of urban agricultural fields was identified along the region's 'green belt' linking it east to west, as well as a means for proposing diverse and multifunctional activities related to urban agriculture, blue and green infrastructures, and public space activities.

Hotspots were suggested with additional markets and community gardens, based on a catchment zone with a 3 km radius. Collaborations in sharing freight (cargo bicycles & electric vans), collective refrigerated storage, joint retail space and manufacturing plants, or common facilities for manufacturing products are some of the suggestions. Conceptually, the territory promotes the existing blue-green corridors with proposed projects: an 'urban agriculture belt' that would link Flanders to the Brussels-Capital Region.



The urban agriculture COOP is a horizontal organization, in which farmers, as well as eaters and distributors can be shareholders. The COOP eases the farmers work through the organization of administrative, commercial, financial or technical aspects of the urban farmers practice. The organization builds on core values such as transparency and involvement.



The COOP is situated on a shared landscape, which follows the orientation and patterns of the agricultural fields along the Green Walk, as an urban agriculture necklace linking the Brussels-Capital and Flemish Regions. Multi-functional use is designated along the blue-green corridors including the canal, with diversified land uses and related operational activities. One or many COOP's can be in charge of neighbu,0orhood hotspots for the sale and distribution of food.

The neighbourhood hotspots have a catchment area with a diameter of 3km, for all activities related to the production and processing of food.

catchment area
soft mobility loops
hotspots coop
existing ua dynamics
potential ua sites
conventional ua sites
urban parks

Rdl, Metrolab Brussels 2019
Sources: BE, CadMap, Agiv, IGN, Terre En Vue, OSM

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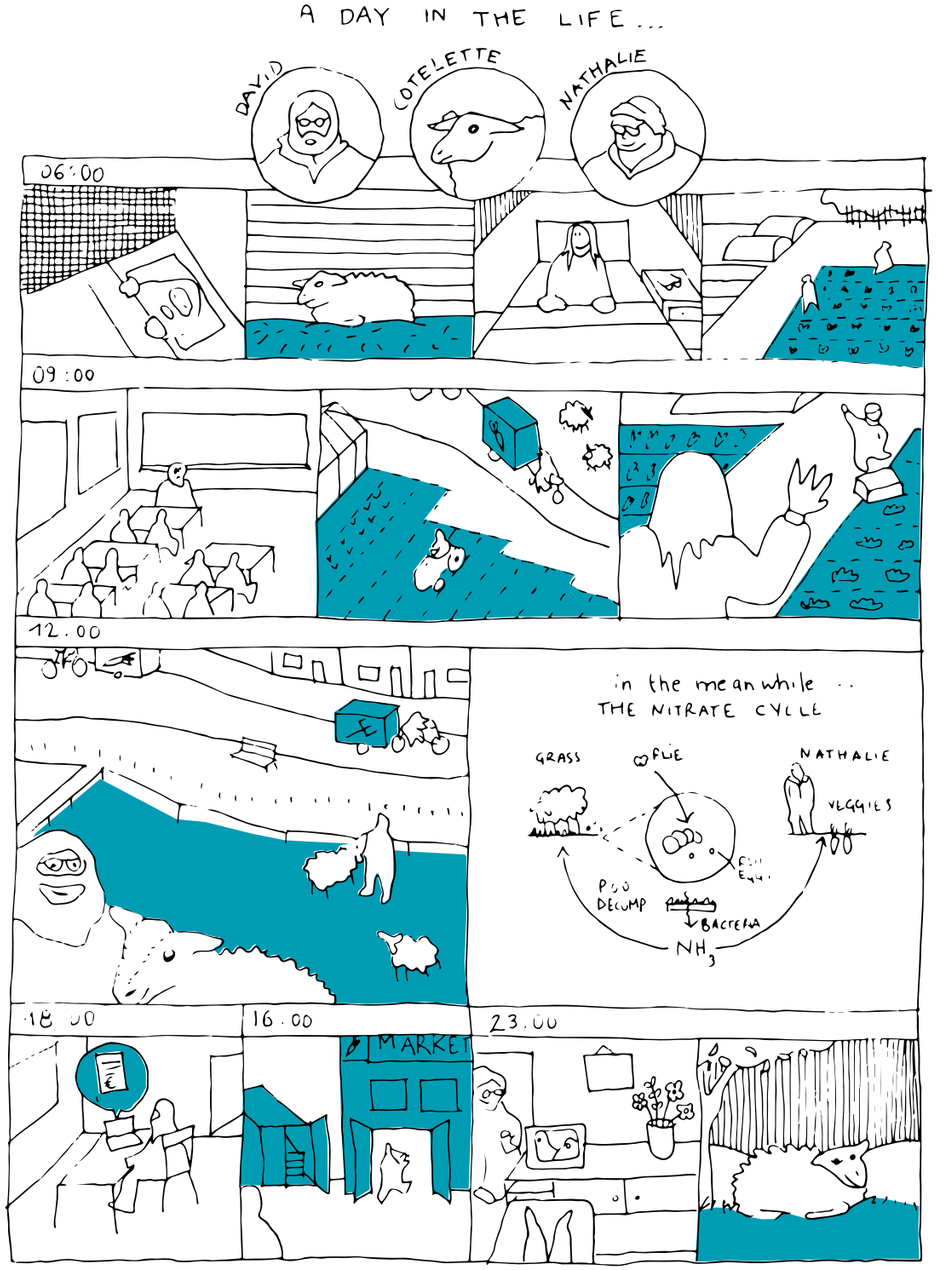
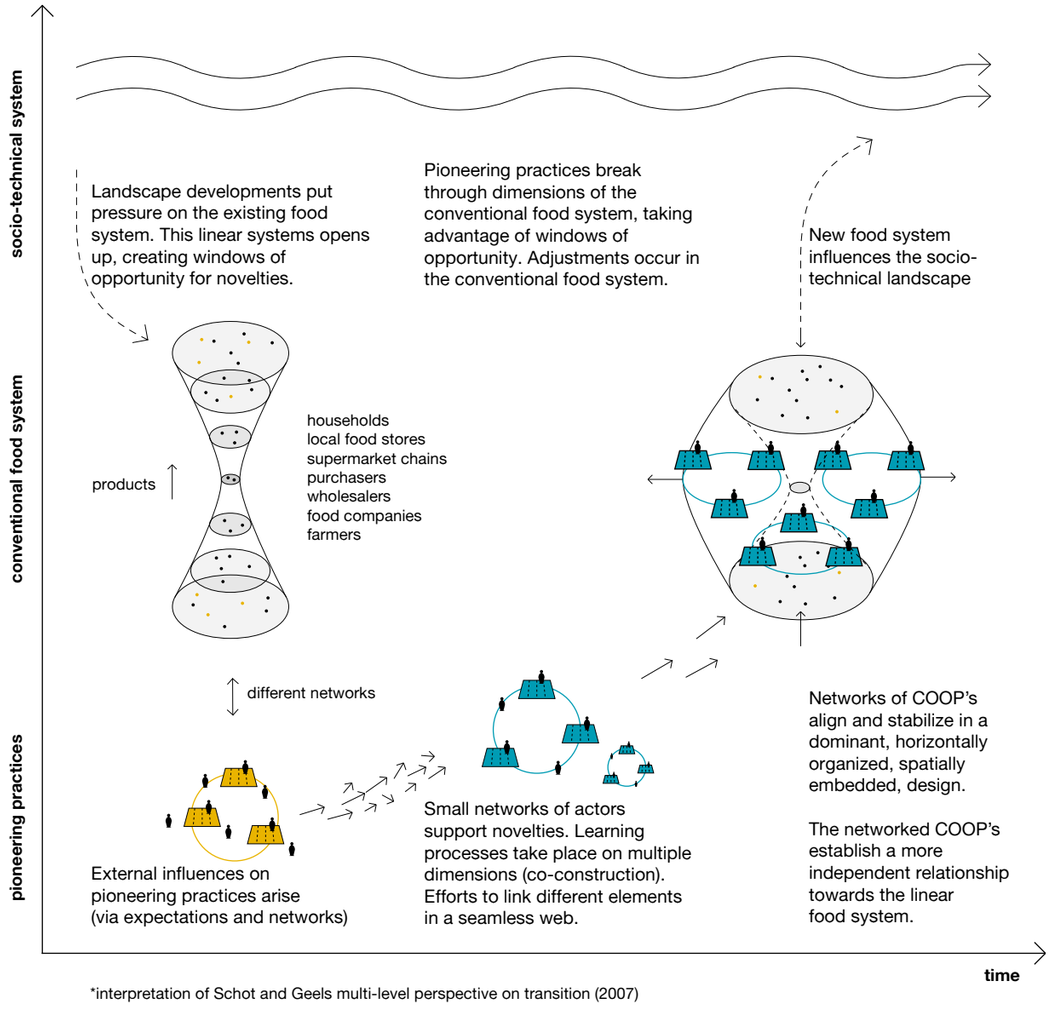
The different catchments are spread and multiplies, covering the entire region. Specific local streets were mapped and identified as physical networks and linkages between potential cooperative project sites. Shared storage and refrigeration facilities are located in the post-industrial buildings located next to the canal.



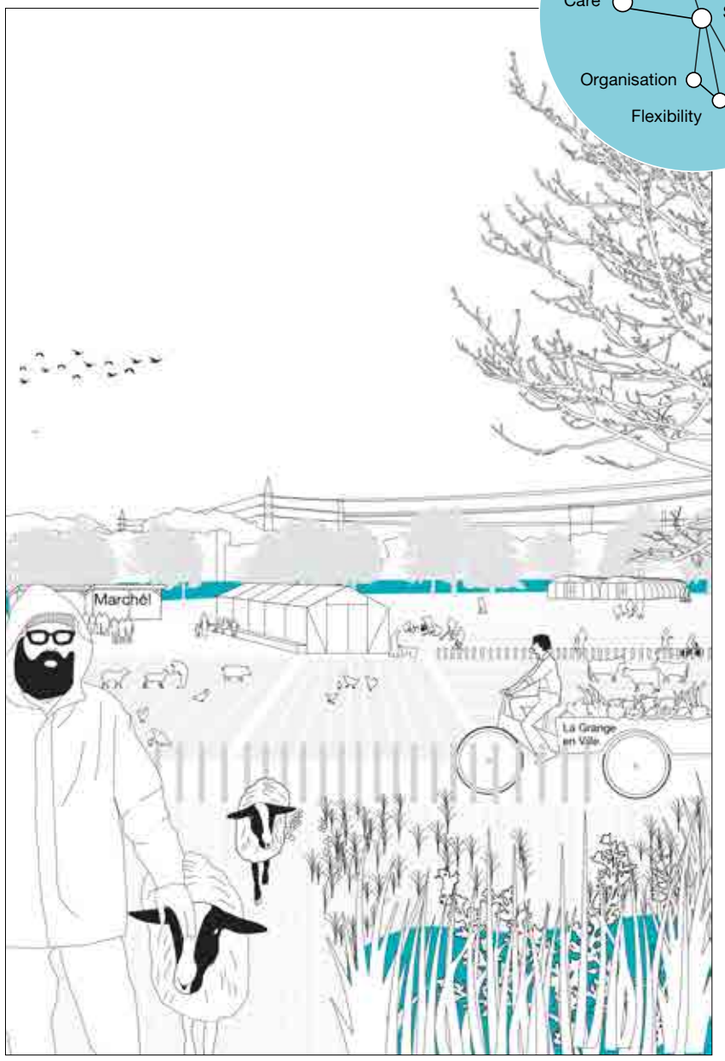
Through the urban agriculture COOP on a shared landscape, the daily routines and practices of urban farmers become more integrated and intertwined. The comic illustrates how the daily lifes of Nathalie, David and Cotelette the sheep become more intertwined.

Increasing structuration of pioneering urban agriculture practices in the conventional food system



*interpretation of Schot and Geels multi-level perspective on transition (2007)

However, for this evolution to take place, shifts will have to be made. The diagram makes an interpretation of Schot and Geels multi-level perspective on transition (2007), and shows how the pioneering practices could break in to the conventional food system.



In this shared landscape, different types of social networks are being built that are based on trust and engagement. The urban agriculture COOP enables productivity as well as a system of trust and care, through the sharing of resources.

Conclusion

Jolein Bergers, Rafael Carmago Consolmagno, Stefania D'Alterio, Elena Ferrari, Sylvie Nguyen, Daniel Otero Peña

To conclude, we would like to refer to pioneering urban agriculture practices as 'transformation seeds', sown over the urban fabric, scattered across the entire area, germinating in urban 'cracks'. Like seedlings, their initial development relies on their own resources.

Today, individual initiatives cannot stand by themselves, and are highly reliant on incentives, subsidies, policies, networks, agencies, and the will of the players involved. However, in their modus operandi, we discover aspects that could contribute to their empowerment.

Like seedlings, pioneering projects are fragile and need favourable conditions to overcome the stress of their initial development phase. In our design, we have investigated how urban agriculture cooperatives on a shared landscape could provide such conditions.

This alternative ecosystem favours community bonds, building up trust relationships and consolidating social dynamics, while also reducing ecological impact and enhancing (bio)diversity.

The latter two points are crucial: it is in this hybridisation with other territorial issues — biodiversity, transport, services, etc. — that the viability of a pioneering agricultural strategy probably lies. This raises the question not only of breaking down the barriers between public governance entities, but also of identifying operational scales, landscape invariants, and multifunctional patterns — that is, sketching out a reference geography.

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Stakeholder insights – Atelier Groot Eiland

**Maarten Dieryck, Bengt Hendrickx,
instructor and coordinator for Bel Akker**

As urban farmers who are in the fields on a daily basis, we get inspired by the professional look from researchers. They broaden the approach to urban farming. In this case, in just a few sessions, they have developed a holistic way to look at urban farming as a structural program of urban development.

Access to land is the main problem of both our own organisation and other farmers. Despite the theoretical intent to develop a farming strategy through existing blue-green urban structures, it doesn't answer this aspect of access to this land.

Our example of using multiple smaller urban plots has inspired the researchers to develop a strategy that could be extrapolated to the entire urban region.

Our organisation focuses on cooperative farming as described by the researchers. We farm within a short distance of our head office in Molenbeek, on small plots and even for short-term land uses. The plots are often located in the in-betweens, in the gaps in the urban fabric. They are never legally described as farmland. Our system aims to pioneer and inspire others to do the same, and to use all given land opportunities. Atelier Groot Eiland's contribution to the fight against climate change is to use urban land frugally. The quality of the soil is also a key topic as urban farming on fringes and post-industrial plots touches upon the problem of polluted soils. Researchers did not focus on this topic but it could be studied in a later MasterClass, as could the issue of access to land.

Stakeholder insights – La Grande en Ville

Nathalie van den Abeele

While an interdisciplinary approach addressing agriculture as an integral part of urban issues is necessary, it is also essential to work on the basics: planners must learn that they cannot always anticipate and be in control; they must accept that living soil has its own rules and that seasons are always changing.

Regarding the MasterClass' proposals, creating a cooperative is an excellent idea. I believe that the ideal scale to consider such a project is the municipality ('commune'), because the territorial base is essential and because it offers a number of opportunities for collaboration and mutualisation such as pooling greenhouses and growing equipment, collectively maintain open spaces, or teach organic growing techniques.

Including logistics, administrative management, and land ownership into the cooperative's objectives is ideal. But the more integrated the cooperative is, the more complex its governance becomes. This is why I believe we need a cooperative dedicated specifically to urban agriculture, and anchored in a territory ('terroir'). The municipality and its residents should be involved, in order to allow direct governance and stability over time.

Urban agriculture is good for the residents as well as the environment, and it creates jobs; the city should seize this opportunity. Maybe we'll have to find solutions to improve aesthetics at certain seasons. But if we make sure that people cross the barrier, that they understand this new landscape, they will appreciate it more. Through education, children are an excellent vehicle for that. There is a civic interest, and public action can contribute to giving it a stable structure that can only strengthen it.