

A typology of Urban Agriculture



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Urban Agriculture (UA) is a highly dynamic phenomenon, which is evolving constantly through space and time. Whilst previous typologies emphasised the distinctions between urban gardening and urban farming, the increasingly complex nature of the discipline has meant that these typologies no longer reflect the full diversity of Urban Agriculture.

A detailed understanding of Urban Agriculture is necessary in research and also for the sustainable implementation and integration of Urban Agriculture within planning and urban development. Urban Farms, Community Parks, DIY Gardens/Farms, Zero Acreage Farms, Community Gardens and Social Farms all offer their own unique advantages. To realise the value of these benefits within practice and policymaking, it is critical to fully understand the spatial characteristics, production features, operational parameters and social dimensions of Urban Agriculture.

The typology presented here reflects a multidimensional approach for describing and classifying UA projects and is based upon a robust body of empirical data. It can be considered as the foundation for the work of the European Forum on Urban Agriculture (EFUA), which is a 4-year project funded under the European Union's Horizon 2020 Research and Innovation Programme. The project is running from 2020-2024. The updated typology will be used to unlock Urban Agriculture's potential and support the mission of achieving better networking, better knowledge, better deployment and better policies in the field.

Daniel Munderlein | Coordinator of EFUA

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement No 101000681



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What is Urban Agriculture?

Urban Agriculture is not new: throughout history, it has played an essential role in the urban food system. Since the earliest towns developed, humans have grown food in (peri-)urban spaces. For instance, a 'villa rustica' was a type of peri-urban farm which was located close to Roman cities to provide food for local markets. Typically, medieval cities had monastic gardens and agricultural fields both inside and outside the city walls (Scazzosi, 2020). Over the centuries, Urban Agriculture has evolved in response to changing urban needs, and thus its characteristics have also developed through time. New farming models have come into existence, and motivations to grow food in an urban context have correspondingly altered. Today, Urban Agriculture is not only valued for its food production, but also for the diversity of economic, social and ecological benefits it can provide.

But what exactly is Urban Agriculture?

A well-known definition of Urban Agriculture is coined by Mougeot (2000):

"Urban Agriculture is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, (re-)using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area."

Put simply, Urban Agriculture is defined as food growing in and around the city, that is in some way connected to the city and its residents. This means that despite considerable diversity, all forms of Urban Agriculture:

- Are located in the urban or peri-urban space.
- Provide food (products) often in combination with other services.
- Are socially, economically and/or ecologically integrated into the urban system.



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The urban context, and thus the needs of cities, are constantly evolving. This is reflected in the current, highly diverse, patterns of Urban Agriculture which we can witness; a resident growing tomatoes on their private balcony, a family harvesting vegetables from their allotment garden or greenhouse, or an entrepreneur growing mushrooms in a cellar in the city centre, are all practising Urban Agriculture. Urban Agriculture initiatives thus have very different characteristics; in terms of production methods, location, size, ownership, stakeholders involved, goals and services. Combinations of these characteristics create specific types of Urban Agriculture. As Urban Agriculture is thriving and Europe's cultural, geographical, and socioeconomic context is extremely diverse, the possibilities may seem endless. Types of Urban Agriculture are continuously evolving and new initiatives regularly come into existence.

Within the context of this dynamic field, one of EFUA's aims is to explore and understand the diversity of Urban Agriculture from a European perspective, by creating a typology of Urban Agriculture. The use of a typology enhances our understanding of the diversity of Urban Agriculture and helps to create a common language. It highlights distinctions and identifies different types of Urban Agriculture, making it easier to discuss these types and their benefits (and drawbacks). Such enhanced understanding and a common language help to better identify and communicate the potential of Urban Agriculture from a European perspective. In other words, a typology not only illustrates the considerable diversity of Urban Agriculture, it also provides a better understanding of Urban Agricultural practices and how these can be linked to the specific needs of the city and its residents.



“Urban Agriculture is always a form of agricultural production combined with activities and services. That combination makes Urban Agriculture, but the degree to which they are combined or how they are combined, that's endlessly variable.” (Food strategy manager of a municipality)

How the typology was created

In literature as well as in the field a number of well-known labels are used to describe Urban Agriculture types, such as “community garden” or “urban farm”. When creating this new typology, however, these labels were dispensed with. The reason not to depart from these well-known labels is that they may in fact be confusing: whilst such terms are intended to refer to specific types of Urban Agriculture, they can, in reality, also relate to very different contexts, since Urban Agriculture operates across exceptionally varied situations. As the aim of EFUA is to circumvent different local and national contexts and offer a European perspective on Urban Agriculture, it was considered useful to start from scratch.

In 2021, EFUA created a typology based on a survey of 112 Urban Agriculture initiatives across Europe (see the map for the distribution of responses over countries). This survey characterised initiatives on the basis of a large number of variables (such as size, location, produce grown and whether the produce is sold). It then clustered initiatives with similar scores according to a set of defined characteristics. The findings from the survey were corroborated through interviews with sixteen experts in Urban Agriculture from eleven different EU countries and a literature review on typologies and characteristics of Urban Agriculture.

The survey led to the following typology of Urban Agriculture:

1. The Urban Farm
2. The Community Park
3. The DIY Garden/Farm
4. The Zero Acreage Farm
5. The Social Farm
6. The Community Garden



If you want to know more about the research that led to this typology, please visit: <https://www.efua.eu/urban-agriculture>

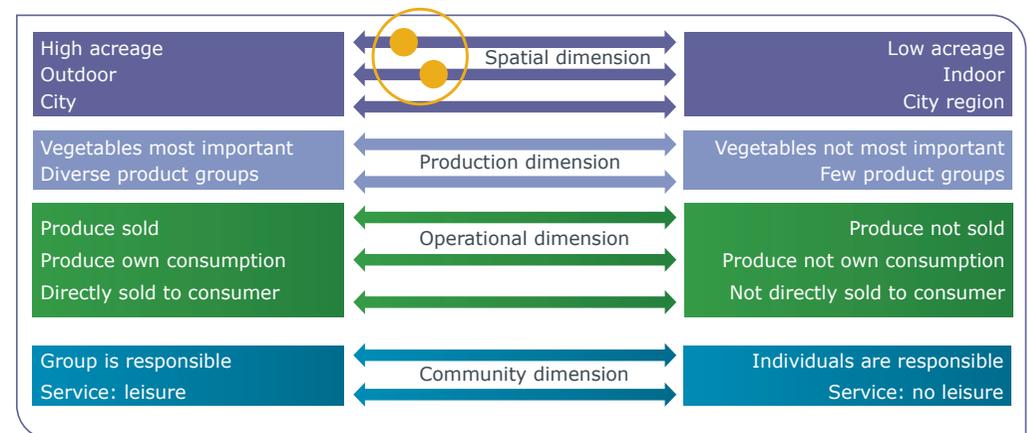


How to understand the six types?

A common finding from the survey, the interviews and the literature, was that Urban Agriculture characteristics are very diverse indeed. Significantly, the survey data revealed ten key characteristics that primarily differentiate the main Urban Agriculture types. These ten key characteristics can be categorised into four main dimensions; the spatial, the operational, the production and the community dimension.

Six types were identified by analysing the combination of characteristics of all projects, thus allowing certain initiatives to be grouped, based upon their similarities. For each type, figures were then created to illustrate how the number of initiatives within each category score in terms of characteristics. As the figures may be difficult to interpret, the figure on this page provides an example to explain how they should be understood. The figure shows the ten key characteristics spread across the four main dimensions. Each characteristic should be considered as representing a spectrum. Taking the first characteristic as an example: the position of the marker on the far left of the spectrum - or line - shows that generally, most initiatives of this type cover a large acreage. The marker therefore provides information on the full group of initiatives that represent this type – rather than representing an average/typical project within the category. With reference to the second characteristic: the marker indicates that most initiatives of this type are located outdoors, but that there are also a number of initiatives located indoors.

The following pages introduce the six types that were identified through this research. Each type includes one or two examples of initiatives within Europe.

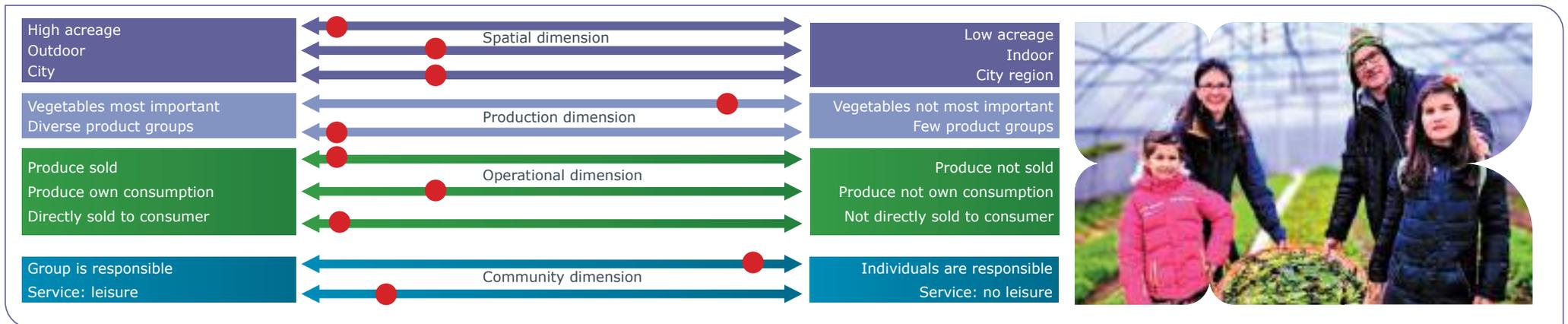


Type 1 The Urban Farm

The Urban Farm is generally characterised by its relatively high acreage and its predominately commercial production, within an urban or peri-urban space. Urban Farms often provide a diverse range of products, which are either sold directly to the consumer, or through shops, restaurants or other catering outlets. A farmer or a farming family is normally responsible for the maintenance of the initiative, however, some enterprises also illustrate high levels of involvement by customers, as in the case of community-supported agriculture or citizen owned farms. However, Urban Farms do not only produce food; they frequently offer diverse (leisure) activities and services and provide opportunities to strengthen the links between producers and consumers. Consumers know where their food comes from, how it is grown, and sometimes can get involved in activities offered by the farm. There is a myriad of different types of urban farms, linked to the local context, the type of produce, the services provided and their connection to their customers.



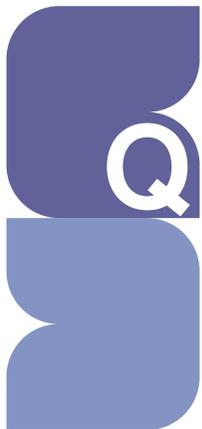
1 Urban Farm



Blizkata ferma (The Nearby farm) | A Regenerative Family Farm | Negovan, Bulgaria

A passion for nature, working the land and sustainable living inspired Ivo and Siana to start their family organic farm - The Nearby Farm. It all started 15 years ago with a small family garden in the village Negovan, just outside Sofia. Today they have several greenhouses and dedicate all their time to producing leafy-greens which they sell to a growing number of customers through subscriptions.

The Nearby Farm goes beyond the role of a traditional agricultural business. Children are always welcome in their outdoor classrooms and summer camps, where they can learn, in a fun way, how to grow food. To nurture healthy soils, Ivo and Siana practice regenerative agriculture, which aims to give more back to the earth than the system takes out. The Nearby Farm perceives its approach as making a small contribution to a healthy ecosystem, biodiversity and education, whilst fostering awareness for future generations.



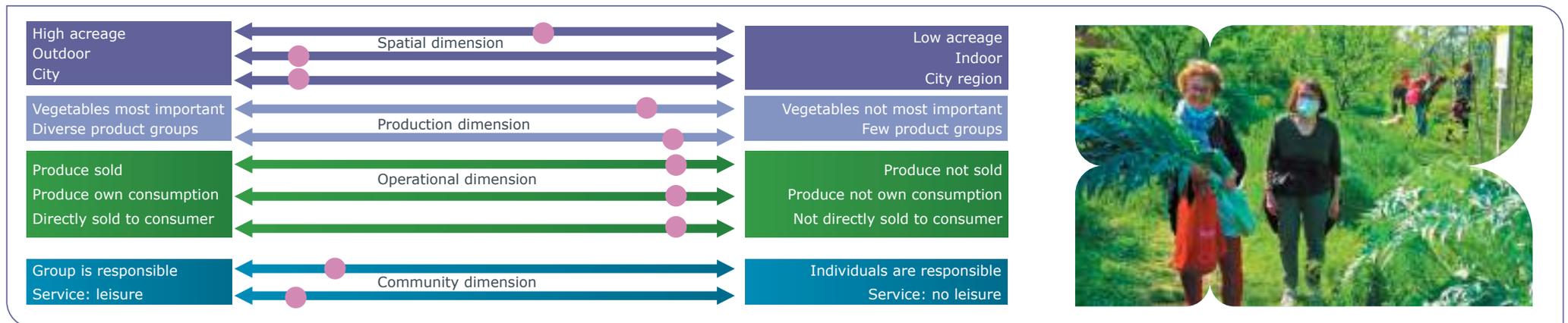
“Our mission is to grow wholesome, seasonal, clean and local food while restoring life and health in the soil and ecosystem.” (Ivo and Siana, owners of The Nearby Farm)

Type 2 The Community Park

The Community Park combines food production in a publicly accessible space with a diversity of activities and services. Initiatives of this type have a strong communal component, often integrating activities with other environmental, cultural, educational or social aspects. Community Parks are often located in the urban space; however, they can also be found within peri-urban areas. They are of medium to low acreage. The products are often diverse and they are mostly grown for own consumption. The responsibility for the Community Park is typically shared between a group of people, such as an association, a foundation, a NGO or an informal group. This type is diverse and ranges from public parks with food facilities, to fully fledged urban food forests.



2 Community Park



The Picasso Food Forest | Reconnecting People to Nature | Parma, Italy

The Picasso Food Forest is an urban community-managed food forest that was born from the citizen movement, Fruttorti Parma, in 2012. The food forest was developed on previously underutilised land. This land now provides a flourishing recreational and educational greenspace for the local community. In an area of 4500 square metres, fruit and vegetables are produced and harvested directly from the plants. This healthy food is accessible to all and aims to promote healthy eating habits. The Picasso Food Forest also provides an important habitat to promote biodiversity: over 300 animal species have been identified, ranging from birds to insects. It is also a place for citizens to connect, to learn and practice agroecology and to share their ideas on sustainability, self-sufficiency, community resilience and empowerment.

Parco Ort9 | Cultivating a Community | Rome, Italy

In the spring of 2017, the Parco Ort9 was inaugurated on the outskirts of Rome when enthusiastic citizens started actively cultivating the area. Since then it has developed into a flourishing project. Parco Ort9 manages 107 allotments which are available for production. In addition to cultivation, the project promotes social cohesion. Whilst everyone maintains their own allotment, there are a set of shared values, which include use of permaculture and the donation of part of the produce to charity. The park attracts not only urban gardeners, but also other local residents, schoolchildren and citizens through diverse projects and workshops, which are organised by different associations and NGOs.

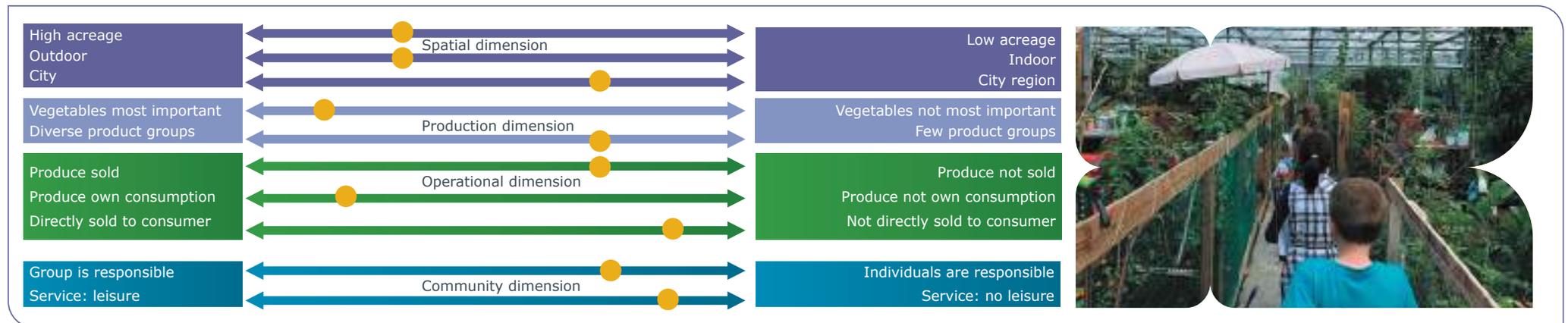


Type 3 The DIY Garden/Farm

Do-It-Yourself Gardens or Farms can include allotment gardens and pick-your-own farms. Compared to the Community Park these initiatives usually focus more on food production and offer fewer activities or leisure services. It is about the individual effort in food. DIY Gardens or Farms are mostly located outdoors in the peri-urban space and offer a medium acreage. Usually, vegetables are the main product and are grown or collected for own consumption. This type might be maintained by a group of people (such as an association, a foundation or another informal group), or occasionally by the owner or farmer/farming family.

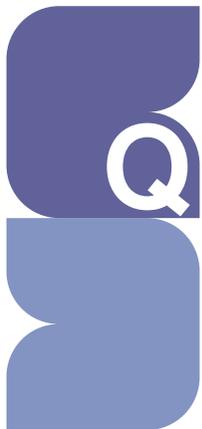


3 DIY Garden/Farm



ONZE | Allotments in a Greenhouse | Almere, The Netherlands

ONZE combines entrepreneurship with the concept of allotment gardens. In 2012 the owner of a professional greenhouse on the outskirts of Almere could no longer financially support his rose growing enterprise. As a new business model, the owner and his family started renting out individual allotments within the greenhouse. People were soon eager to participate: the growing season is longer in the greenhouse and the climatic conditions are also more favourable for the production of exotic crops. This enabled cultivation of fruit and vegetables which are usually not viable within the Dutch climate, thereby attracting a diverse group of gardeners. The overall maintenance of the greenhouse, including equipment, is organised by the farming business. Each gardener maintains their own allotment, but can hire additional help from the owner. Nowadays, the site is also popular with schoolchildren, for learning about vegetable production.



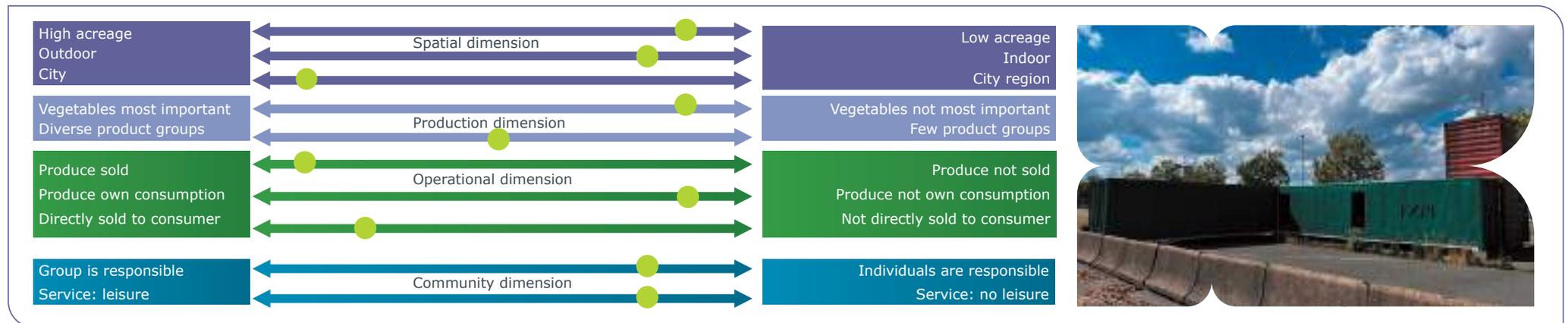
“Thanks to our vegetable garden, we can eat from our own harvest for a very large part of the year. And I think that’s a real gift. I also thought it was important for the children to see where their food comes from.” (Gardener with an allotment at ONZE, Source: <https://stadstuinieren.nl/inspiratie/exotische-sferen-in-almere-buiten/>)

Type 4 The Zero Acreage Farm

Zero Acreage Farms range from high-tech to low-tech, and from non-profit to commercial farming. The key characteristics of this Urban Agriculture type are space efficiency, its emphasis on circularity, resource efficiency, and its integration within (or on top of) buildings. Examples include vertical and floating farms, raised beds on rooftops (or in underutilised industrial areas), green facades and production systems in cellars which rely on artificial lighting. Usually, Zero Acreage Farms are found in urban areas and occupy a small area. Indoor production is dominant, but outdoor production also exists within this type. Predominately, plant-based products are produced, such as herbs, leafy-greens/salads, and microgreens but sometimes also mushrooms, insects, and fish. Most of the produce is then directly sold, to consumers or other customers (including retail, restaurants or catering businesses). Typically, a farmer/farming family, an entrepreneur/group of entrepreneurs, or an NGO is responsible for the maintenance of the initiative. In some cases, leisure activities are also integrated, such as provision of a restaurant where the produce is consumed.



4 Zero Acreage Farm



PLNT | Ecologic Farming on 30 m² | Antwerp, Belgium

In the Port of Antwerp, bright green containers are clearly evident amongst the dockland surroundings. Salad, kale, basil, and many other fresh leafy-greens are produced within the containers, through use of space saving technologies. This is indoor vertical farming in action and is the first project of its kind within the City Antwerp. The founders, see sustainability as a top priority within their business model. PLNT is CO₂ neutral, reuses 95 percent of the water, does not use pesticides, uses returnable packaging, and the produce is delivered by bike.

Østergro | Rooftop Farm | Copenhagen, Denmark

Østergro is the first rooftop farm in Denmark, located in the urban centre of Copenhagen. On 600 square metres organic vegetables, fruits, greens, herbs and edible flowers are grown. Besides this, there is a henhouse and there are beehives. Østergro is a CSA (community-supported agriculture) farm and sells its products to forty members. Part of the produce is processed and consumed in the nearby restaurant. Østergro also provides educational workshops for school classes.

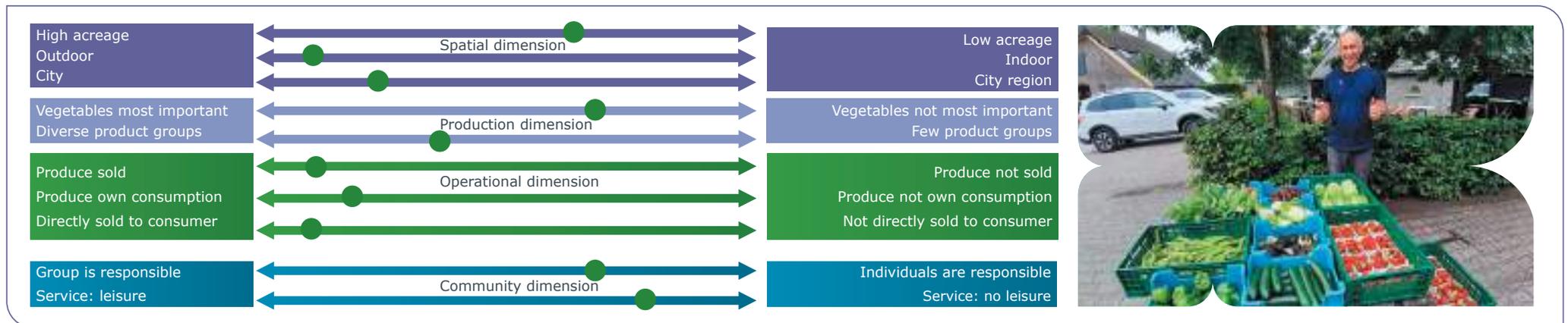


Type 5 The Social Farm

Social Farms combine Urban Agriculture with social care and/or health care. The initiatives within this type provide therapeutic services, intercultural and social integration or support for the socially disadvantaged. Social farms are usually located within the outdoor urban space and range from a medium to low acreage. These farms grow a diversity of products which are normally sold or gifted directly to consumers. Some initiatives produce for their own consumption. The maintenance can be organised by a farmer/farming family, the owner, an NGO or a non-profit organisation.



5 Social Farm



Boerderij 't Paradijs | Healthcare and Farming | Barneveld, The Netherlands

Boerderij 't Paradijs is an organic farm that integrates food production and health care. The motivation was to create a space where nature, animals and humans can interact in harmony. Elderly people and adults with physical or psychological needs can help out with taking care of farm animals (cows, pigs, chickens etc.) and other farm activities whilst being in the company of trained caregivers. Boerderij 't Paradijs also offers day-care for children with autism. Accompanied by professional helpers, they can develop their skills and also do therapeutic horse riding.

Taking care of the environment is a priority of Boerderij 't Paradijs. They grow forty different kinds of fruit and vegetables, organically and according to the season. The manure from the cows is applied as fertiliser for healthy and nutrient-rich soil. In their farm shop, consumers can directly purchase fresh and processed products, fostering a more direct consumer-producer bond.



"Mahatma Gandhi said 'The world has enough for everyone's needs, but not everyone's greed.' It's one of my favourite quotes. It is a lesson we collectively have to (re)learn. But it is also a message of hope. There is enough for everyone!" (Jurian Bijmolen, director of Boerderij 't Paradijs)

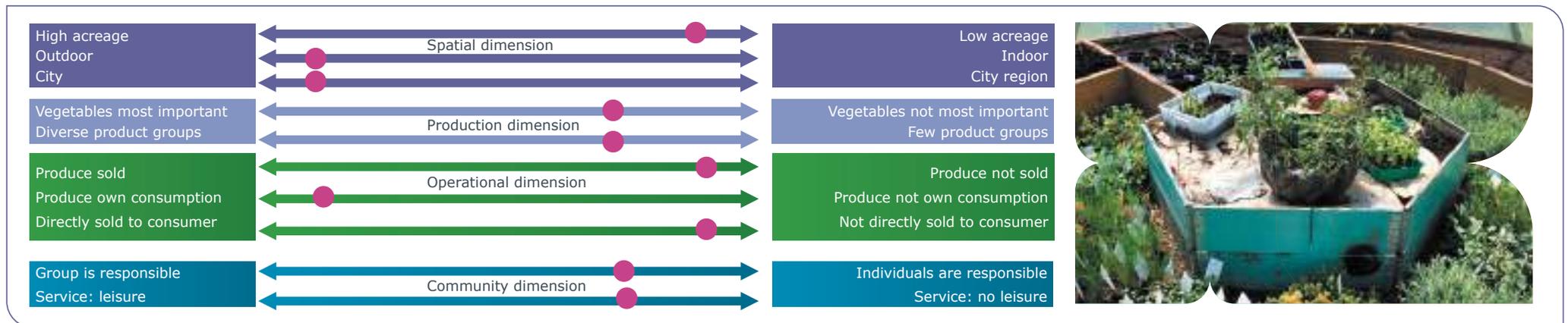


Type 6 The Community Garden

A key characteristic of the Community Garden is developing a sense of community itself. Significantly, this is generally more important than the food growing activity undertaken, although production is still very much a core element of the garden. The gardens are mostly located in the outdoor urban space, within neighbourhoods, and the acreage is rather small. Generally, the produce is diverse and the initiatives within this type mostly produce for their own consumption, whilst also undertaking other diverse additional activities. Community Gardens are generally maintained by their participants or NGO's at a local level.

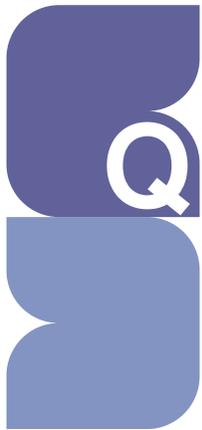


6 Community Garden



Guldängen | A Playground with Cultivation | Malmö, Sweden

Guldängen means "golden meadow" in Swedish. The garden is a space for children to play, to be creative, to build, and to garden. Over an area of 2,500 square metres, the combination of a playground and an urban garden provides a green learning environment and outdoor educational space. Children from pre-school, primary school and after-school groups are the project creators: they develop their skills and senses, follow their natural curiosity and from a young age learn about ecosystems and their role within these. Together, parents and their children can learn about ecology, food and sustainability whilst undertaking practical gardening. The garden was founded by a local non-profit association.



"At Guldängen, the children experience that they CAN. Guldängen builds self-esteem, creativity and insight for the kids about their own potential." (Teacher visiting Guldängen with her school class)



Conclusion | It is a matter of perspective

This document presents a typology of six types of Urban Agriculture. Initiatives within each of these six types share characteristics on the spatial, production, operational and community dimensions. Nevertheless, it is important to stress that the range of diversity within each of these six different types is considerable, whilst there are also overlaps between the different types. Hence, while initiatives of the same type may differ across a number of characteristics, in essence, they also might share many similar traits.

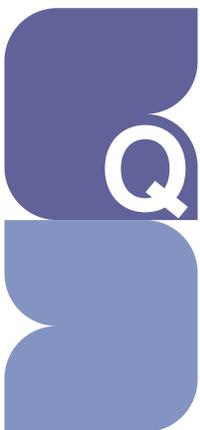
Urban Agriculture in Europe is enormously varied and is still evolving. This diverse reality means that new combinations of characteristics may come into existence, which can lead to new Urban Agriculture types that are currently not part of this typology. However, typologies are always a simplification of reality and will never include every possible site-specific variation of Urban Agriculture. This implies that in the end, it is also a matter of perspective: which typology emerges depends on how one considers Urban Agriculture and which characteristics one focuses on to define the different types.

The new typology helps to structure the complex reality of Urban Agriculture across Europe. It can therefore be a helpful tool for policymakers and practitioners in Urban Agriculture; both as a first step towards achieving a common understanding, and as a means of structuring the diversity encountered within Urban Agriculture across Europe. The typology is based on ten characteristics which have been divided across four dimensions. These are arguably the most important for distinguishing Urban Agriculture types, and are thus the most relevant for trying to understand the diversity of Urban Agriculture as a whole.





The characteristics and dimensions will undoubtedly provide an important starting point for policymakers when trying to understand the benefits, drawbacks and needs of Urban Agriculture in their areas.



"The strength of Urban Agriculture is that it can be very diverse. That you actually have to look at each location to see what is possible there. And what forms of Urban Agriculture are needed there. That can sometimes be a residents' collective, but it can also be an entrepreneur who gets started. A green city is important and Urban Agriculture to me is part of that green city." (Food strategy manager of a municipality)



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The European Forum on Urban Agriculture (EFUA) is a 4 year project funded under the European Union's Horizon 2020 Research and Innovation Programme.

EFUA's objectives are to unlock Urban Agriculture's potential through achieving better networking, better knowledge, better deployment and better policies in the field.

Through establishing an Urban Agriculture (UA) Forum, it aims to develop new levels of stakeholder engagement to inform decision making and to mainstream Urban Agriculture into European, regional and local policy.

For more information, please visit:

<https://www.efua.eu/>



Colophon

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Thanks to	Ian Whitehead for editing the final text, the members of EFUA Working Package 3 for their input and the examples across Europe for sharing photographs and additional information.
Layout	Caroline Verhoeven Wageningen University & Research
Photos	Most of the photos were shared by the examples presented in this brochure. We thank Andernach.net GmbH © 90Grad Photography/Hilger & Schneider GbR (p. 1), Daniel Münderlein (p. 1, 4 below, 21), Østergro (p. 3, 14 above, 15 left, 24), Andrea Straccioli 20200526 Ort9 Urban Gardens - Images www.insidefoto.com (p. 4 above, 11), Fruttorti Parma (p. 7, 10), Blizkata Ferma (p. 8, 9), ONZE (p. 12), PLNT (p. 14 below, 15 right), Boerderij 't Paradijs (p. 16, 17), Växtvärket-Guldängen (p. 18, 19) and Jan Eelco (p. 5, 13, 20) for sharing their photos.

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant agreement No 101000681

