

A proposal for EU Bauhaus

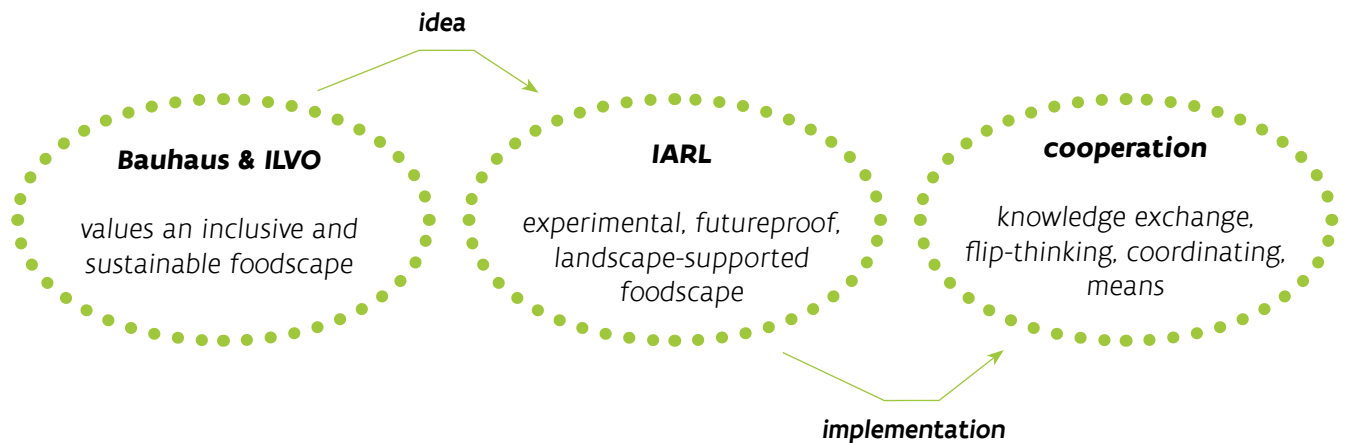
IMAGINING AND BUILDING A SUSTAINABLE FOODSCAPE

ILVO

Flanders research institute for
agriculture, fisheries and food

www.ilvo.vlaanderen.be

TURNING CHALLENGES INTO OPPORTUNITIES: WORKING ON INNOVATIVE AND SUSTAINABLE FOOD-SCAPES AS TEST AND SHOWCASE FOR FUTUREPROOF WORKING AND LIVING ENVIRONMENTS

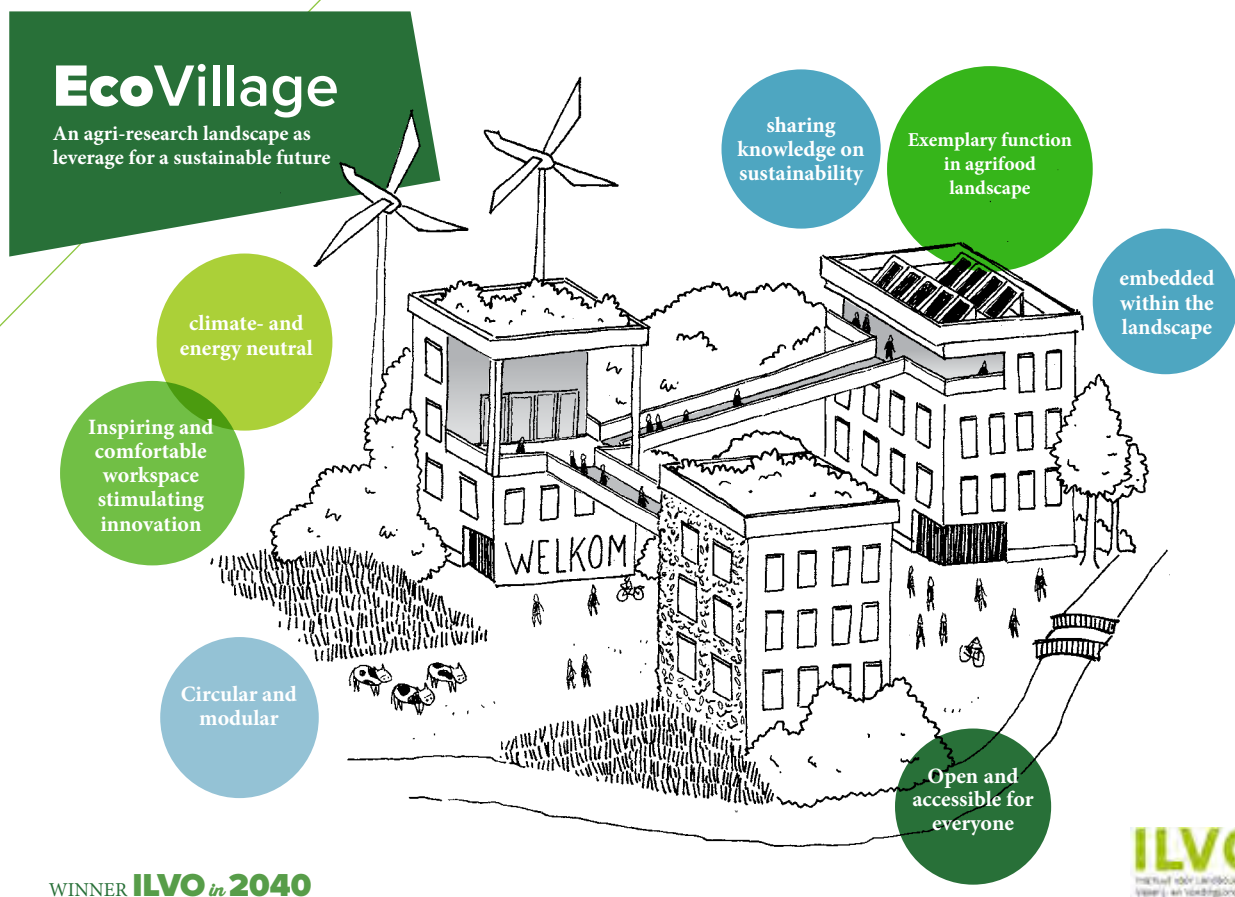


What has a huge impact on how our everyday living landscapes are shaped, what is in need of a sustainability transition, faces huge challenges related to climate, soils, infrastructure and human input but also has an enormous potential impact on the way we will live and work in the future? Food and its production is certainly one of the answers to those questions. As a research institute looking into the disciplines of agriculture, food production, consumption and its spatial impact, these questions and the thought 'practice what you preach' triggered the idea of testing, constructing and showcasing an innovative and sustainable food-scape at the own lands and infrastructure.

This idea resulted in an experiment that we call **ILVO's Agrifood Research Landscape** ('Onderzoekskouter' in Dutch and 'IARL' in abbreviation). It came forward out of the application of systems thinking and is based on the concept of an agricultural park, which is a physical space as much as a networks of actors, often located in a peri-urban area with a specific identity where multifunctional agriculture produces food and delivers other social services in close relation to the urban living environment. It was also inspired by our participation in the EU Horizon2020 project Sure2050, EU policy as the Green Deal and Farm-to-Fork Strategy, and the search to integrate and embed the UN Development Goals in the organization. IARL includes themes as climate-neutral patrimony, landscape and biodiversity, welfare, heritage, digitalization and art.

We see IARL in the spirit of EU Bauhaus as **a tangible space** on the one hand, and as **a platform for cooperation** on the other **to foster innovative ideas for our food landscapes** and peri-urban environments of the future. It aims to create an inspiring and stimulating environment to work in, by gathering many different expertise (spatial planning, biology, bio-engineering, animal sciences, architecture, geography, sociology, agronomy, urbanism, agri-economics, etc). It also aims to bridge human, animal and social sciences, and to stimulate thinking outside the box in order **to create a sustainable living and working environment, with sustainable buildings and sustainable minds.**

By explicitly putting forward **climate neutrality as an ambition**, real estate is in this idea viewed more from a **proactive** rather than a reactive approach. IARL will not only contribute to the realization of climate ambitions, but can also be the locomotive of a train that departs locally and starts a whole lot of other things such as an investment policy, a maximization of use, an improvement of the well-being of civil servants and employees, the development of multifunctional buildings, etc.



A BRIEF LOOK INTO ILVO'S DIVERSE LANDSCAPE



01

OFFICES



GREENHOUSES

02



03

LAB'S



FIELDS & MEADOWS

04



05

COMPOST
INFRASTRUCTURE



STABLES

06

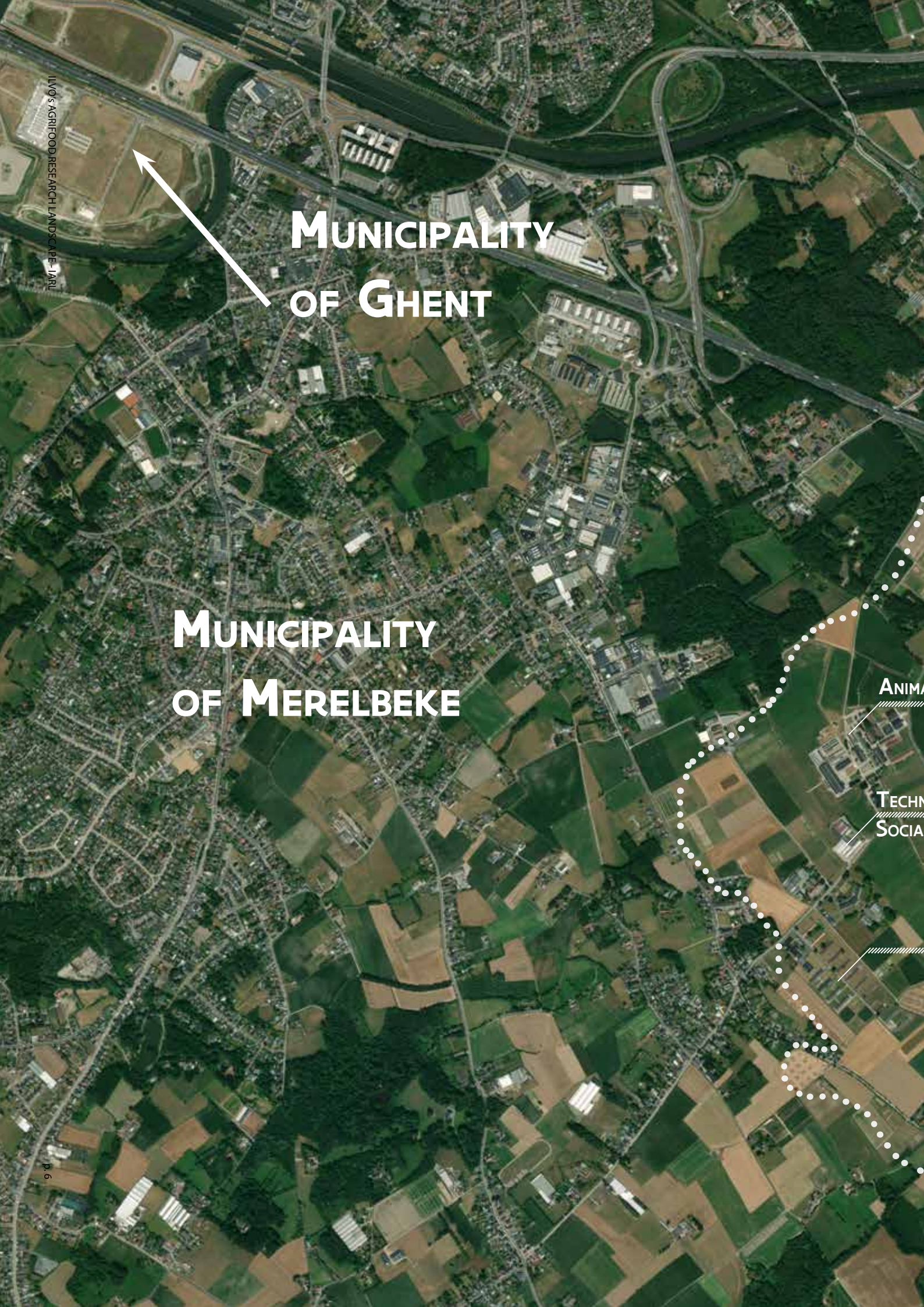
WHAT IS ILVO?

Flanders Research Institute for Agriculture, Fisheries and Food Research (ILVO) is an independent **scientific research institute** of the Flemish government (Belgium). This government has instructed ILVO to contribute in **making the agriculture, fisheries and agri-food sectors more sustainable**: initially in Flanders, but by extension also in Belgium, Europe and the rest of the world. To this end, ILVO unites approximately **680 experts**, field technicians, lab technicians and other researchers from **diverse backgrounds** (bio-engineering, geography, biology, agronomy, spatial planning, agricultural economics, etc) who focus on a wide range of societal themes in relation to agriculture and food. The institute, located in the peri-urban fringe of the city of Ghent, is a partner in many local as well as European and international partnerships.

ILVO's mission is to **build up knowledge to be able to produce sufficient, healthy and varied food in a socially responsible way** for the 10 billion mouths that the world must feed in 2050, and this within the planetary boundaries. To accomplish this mission, ILVO conducts multidisciplinary, pioneering and independent research. In this way, ILVO builds up fundamental and applied knowledge that is necessary for improving products and production methods, for monitoring the quality and safety of the end products and for improving policy instruments as the basis of sector development and rural policy.

To this end, the organization uses a strategy in which **systems thinking**, integration of craft knowledge with new technology, co-creation and five organizational values are central. The United Nations **Strategic Development Goals (SDGs) form the compass** with which ILVO guides its own operations and research.





**MUNICIPALITY
OF GHEENT**

**MUNICIPALITY
OF MERELBEKE**

ANIMA

TECHN
SOCIA



MUNICIPALITY OF MELLE

PLANT SCIENCES

FOOD PILOT

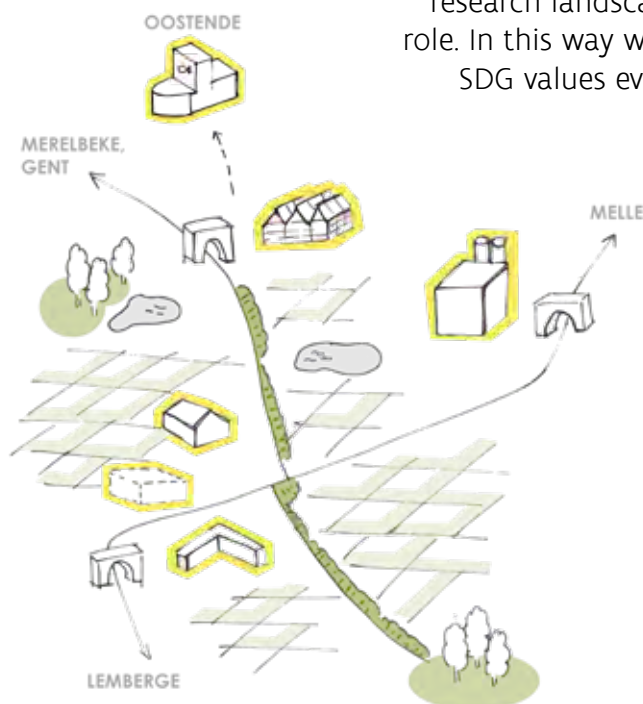
ANIMAL SCIENCES

TECHNOLOGY & FOOD
SCIENCE UNIT

MEET 'IARL'

an idea for an experimental futureproof landscape supported by research in the agrifood and spatial planning sector

ILVO's Agrifood Research Landscape or IARL was born at the end of summer 2020. A tangible story line was searched for in order to continue the ILVO mission in the future, responding to societal challenges and policy issues. This mission includes to remain and strengthen the organization itself as a high-performance incubator for top research in the agrifood sector, as well as to **further shape our exemplary function for others in responding to policy initiatives as the EU Green Deal, the Farm-to-Fork strategy**, Flemish decaling programs, water policy and other measures. We searched and found **inspiration in** the many foreign examples of **'agricultural parks'**. Like many other agricultural parks or food landscapes, we want to **strengthen the landscape identity** internally but also externally. In addition, we want to give the landscape quality and biodiversity a boost, to **build a network around this food-scape**, and at the same time further enhance and improve the quality and inclusiveness of our own operations. From the thought **'practice what you preach'**, we are setting-up a process to communicate and showcase research results in a different way and open up the research landscape and fields to fully fulfill our exemplary role. In this way we can apply the research and the ILVO and SDG values even more in practice, in our own fields, and disseminate it widely.



AGRICULTURAL PARKS AS INSPIRATION

In Europe the concept of agricultural park or 'agropark' has been **mobilized before for various sustainability reasons** such as biodiversity conservation, economic diversification, climate change mitigation and the preservation of open space. Those agricultural parks go by **many different names**, often used in the local language: food parks, agroparks, food-scapes, parc agrari, voedsellandschap, productive park, agriparc, and so on. All these however have general principles and practices in common. Agricultural parks are **physical spaces as much as they are networks of actors**, often located in a peri-urban area with a specific identity where **multifunctional** agriculture produces food and delivers other **societal services** in close relation to the city. They aim to safeguard farming in peri-urban environments, to enhance the historical and architectural heritage, to recover the environment and landscape in degraded areas, etc. An agricultural park was described by David Fanfani¹ as a protective and active tool for the enhancement of planning in agri-environmental, peri-urban areas, and **a viable tool to jointly achieve urban environmental improvement** and the active protection of peri-urban green space. Jarrige & Perrin² gave a political reading, describing it as **a potential support for territorial innovation**. What we do with IARL is adding another layer to the agricultural park concept, including all aspects of the peri-urban environment, striving for a climate-neutral patrimony as well.

1 Fanfani, D. Agricultural Park in Europe as Tool for Agri-Urban Policies and Design: A Critical Overview: Tools for Governance and Planning of Agrarian Landscape, in: Agroubanism, 2019 (pp.149-169)

2 Jarrige, F. & Perrin, C. (2017). Agriparc: an innovation for agriculture in urban areas? Regional & Urban Economics Review, June (3), 537-562



Explorative study on Urban Agricultural Parks. ILVO-Ugent commissioned by the Dep. of environment.

<https://www.ruimtevlaanderen.be/beleidsverkenningen/OpenruimteInStad>



Foto: Parc Agrari del Baix Llobregat

The agricultural park near Barcelona is one of the best known European agricultural parks. It arose from the great pressure on land in the metropolitan region around Barcelona. Very fertile agricultural lands are situated around the Llobregat river. At least 13 municipalities and about 500 farmers have united. The park products have an own label and a large part of the production is sold on local markets in Barcelona. Agricultural parks do not always have to be about short chain sales.



Pictures: Tim Van De Velde



Pilot projects Productive Landscape –
Flanders first agropark 'Tuinen van Stene', Ostend.
ILVO & Team Flemish Government Architect
<http://www.productieflandschap.be>



Foto: Tim Van De Velde

Though each agropark is site- and context-specific, the numerous examples throughout Europe demonstrate the **strategic potential of the concept to deal with social, agricultural and spatial challenges** of open space and farmland preservation in and around our living environment. Despite the dense urban fabric and the high pressure on open space, Flanders (Belgium) wasn't acquainted with the concept until the start of a government induced program 'Pilot projects on a productive landscape' (PPPL) in 2014. Next, a broader framework study was conducted by ILVO and the University of Ghent on the use, benefits and bottlenecks of agroparks in Europe as a concept .

The Belvédère park near Cologne houses an agricultural activity producing for the global market. The farming activity provides here other societal and urban services. In particular, ecological services via afforestation of the outer edge, recreational services via cycling and walking paths, education about agriculture and landscape, etc. The Max Planck Institute for Plant Breeding is also located in the middle of this park. They have built a visitor and educational center called the "science barn" or "WissenschaftsScheune" in an old barn, as well as a demonstration garden of important agricultural and horticultural crops.



PRACTICE WHAT YOU PREACH

Inspiring others with an enthusing realization showcasing and monitoring the advantages

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In the summer of 2020, ILVO's agrifood research landscape was born out of a combination of this own research on agricultural parks and on systems thinking, of the participation in the EU Horizon2020 project Sure2050, the policy quests related to among others the EU Green Deal, and the search to integrate and embed the SDG's further in the organization. With **more than 80 buildings and 200 hectares of experimental fields and research infrastructure** in the open cultivated landscape to the south of Ghent, ILVO occupies a special space for high quality scientific research into agrifood, agriculture and the countryside. From social and policy-related points of attention such as energy efficiency, desealing hard surfaces, water buffering and increasing biodiversity, ILVO chooses to **develop these lands and infrastructure in a maximally climate-neutral way for the benefit of research and society**. In order to give concrete form to that ambition in terms of research, ILVO is working on the **co-creative development of an innovative food landscape on its own sites**, following the example of iconic European agricultural parks such as the Parc Agrari del Baix Llobregat near Barcelona, or the Belvédère landschaftspark near Cologne which also houses the Max Planck Institute for plant breeding.

This agrifood research landscape aims to become a top research incubator with the highest quality landscape and agricultural performance with **an exemplary function for the wider environment**. At ILVO's agrifood research landscape, the experimental field work for food production, greenhouses, labs and other research infrastructure will find their place between flowering borders, hedges and ponds, slow roads for cyclists and hikers, and historical buildings. Visitor facilities and resting points with refreshments and a bit of explanation of ILVO's operations, contemporary practices, and agricultural developments are an integral part of this. **By showcasing our climate-robust open space and climate-neutral infrastructure, ILVO wants to set an example.**

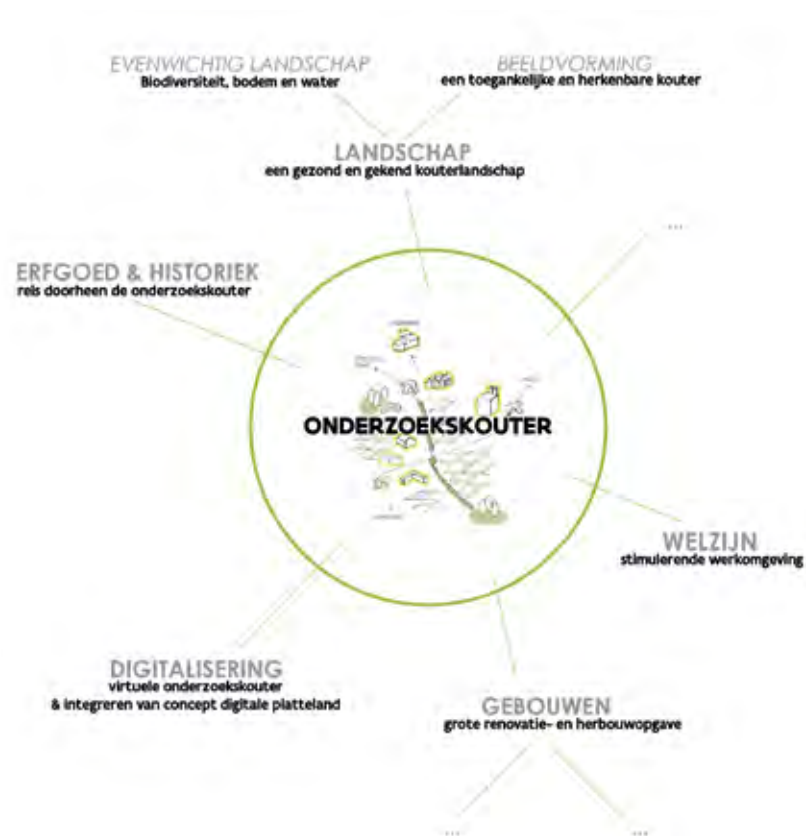
Actions that are integrated in the development of IARL include explorative studies on a **new climate neutral building for lab functions**. This building could also include among other things co-working spaces for other public organizations and a meeting space for all employees and/or a test-space for new ideas or products. Also **biodiversity measures** looking into the use of woody elements in agriculture, extensification of grasslands, flower meadows, bird nest protection and others are being explored. Next, **welfare measures** include a summer pop-up bar for fostering cooperation between various experts, or a corona-proof walking trail with mini-podcasts along the way to explore the idea of IARL

further and to facilitate a co-creation process by opening up possibilities to capture other, fresh ideas about how to develop the foodscape story line in the next steps.

FROM IDEA TO IMPLEMENTATION: A QUEST FOR KNOWLEDGE, MEANS, FLIP-THINKING AND ABOVE ALL AND COOPERATION

During the course of the last year, we started to develop the IARL idea already slightly further. Some **preliminary steps have been taken**. Both for the 'hard' themes as how to **develop a process to make the more than 80 buildings of ILVO climate neutral**, as for the 'softer' themes

as landscape development, inclusiveness and welfare. This welfare theme aims at employees as well as at locals living in or next to the more than 200ha of land that ILVO manages. For the harder theme of the patrimony a **needs analysis and a building living cost calculation** have been executed as first steps towards an integrated vision. Within this context, we are developing a specific program and process applying systems thinking in order to involve diverse expertise and actors while merging different goals and allow the necessary room for creativity. This idea of **IARL, just as any other idea, needs space to develop and is constantly changing and adapted to growing insights**.



'HARD' & 'SOFT' THEMES
(PATRIMONY, DIGITALIZATION, HERITAGE, LANDSCAPE AND WELFARE)

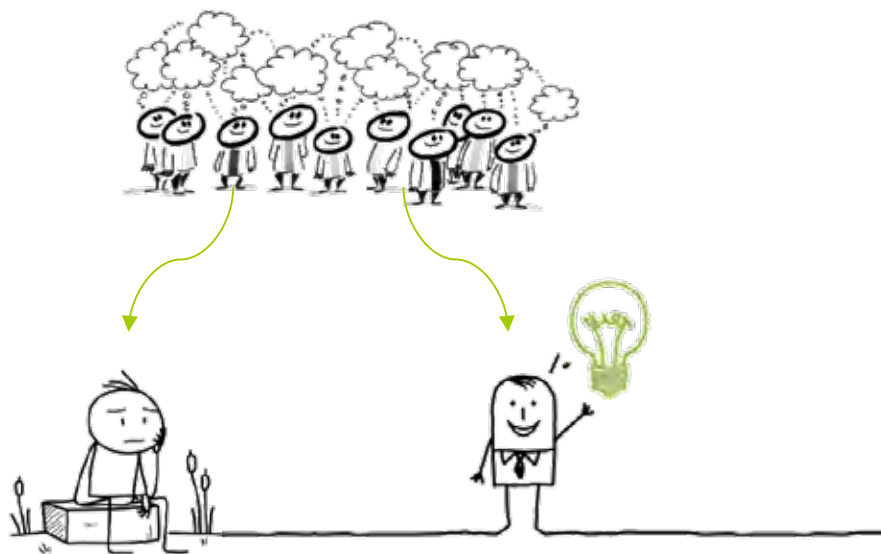
However, in order to actually implement this ambitious idea, more **cooperation and inspiring partnerships will be necessary** and are invaluable.

In this sense, a strong process design and director will be needed to build further on the facilitation of cooperation, the exchange of ideas, and **building on the ability of flip-thinking** (turning problems into opportunities by thinking differently, outside the box). Many facets makes this idea interesting but at the same time challenging. Among various other things, paying attention to the human aspect seems a crucial tipping-point: this kind of ideas implies a far-stretching transition of the working environment that people currently know. This requires **attention for the impact on people** working in the fields, the offices, as well as on the living environment of the locals nearby.

There are still many questions that remain and that will need some work and exchange of ideas in the coming years: how to insure actual involvement of locals, employees, policy makers, how to create a strong basis of support, how to fully explore the exemplary function, how to foster innovative and sustainable and inspiring ideas and cooperation that have an actual impact on the way our environment and our food system is shaped, and so on. In that sense, **we are very much looking forward towards exchanging ideas in the EU Bauhaus community.**







Do you like more information? Do you have good ideas or inspiring examples, do you see possibilities for cooperation, or other suggestions? Everything is welcome!

Please contact our IARL-coordinator Elke Vanempten: elke.vanempten@ilvo.vlaanderen.be