

## **Discover Wageningen Campus**

Click one of the buttons and explore



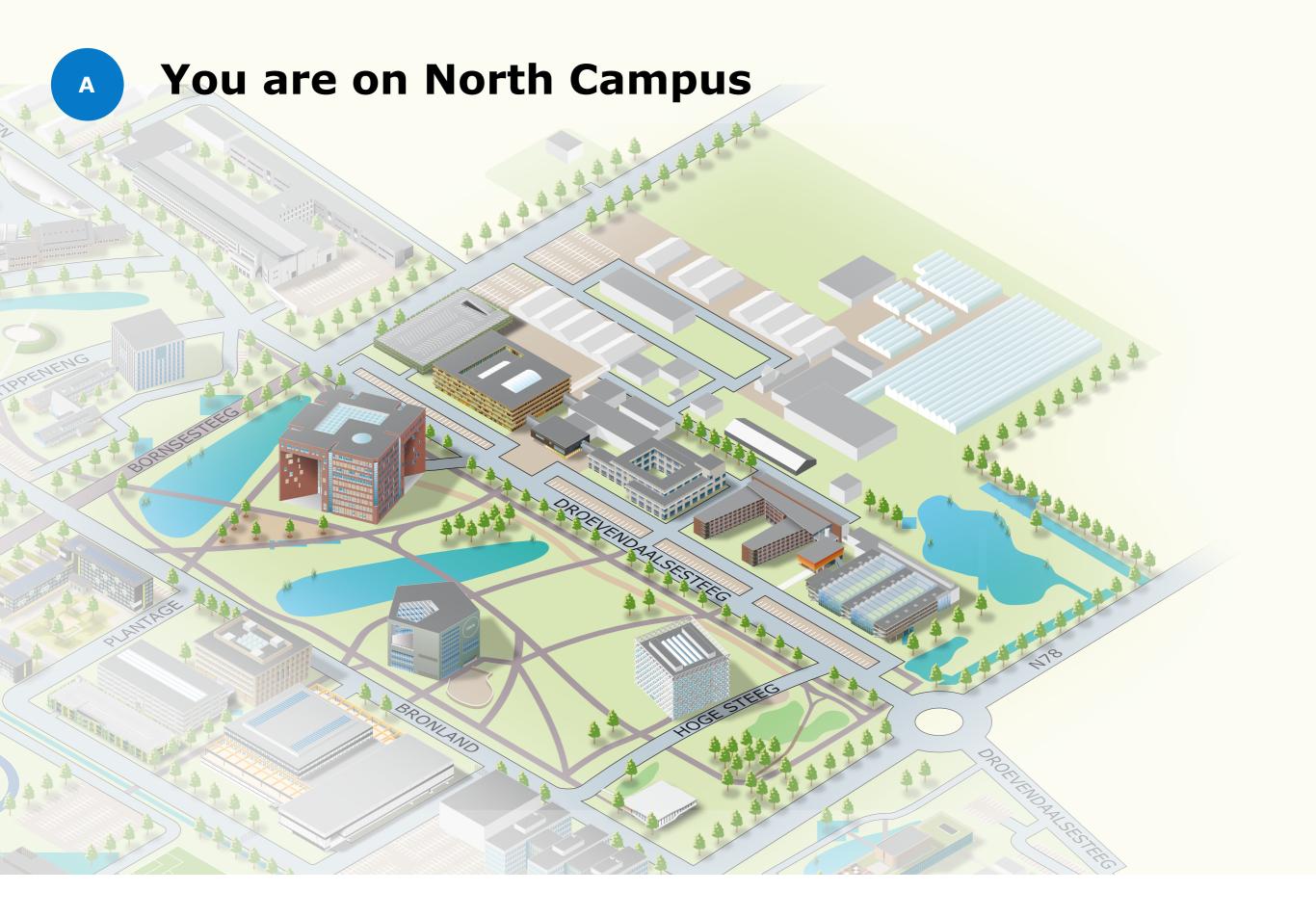
## Explore the campus from where you stand

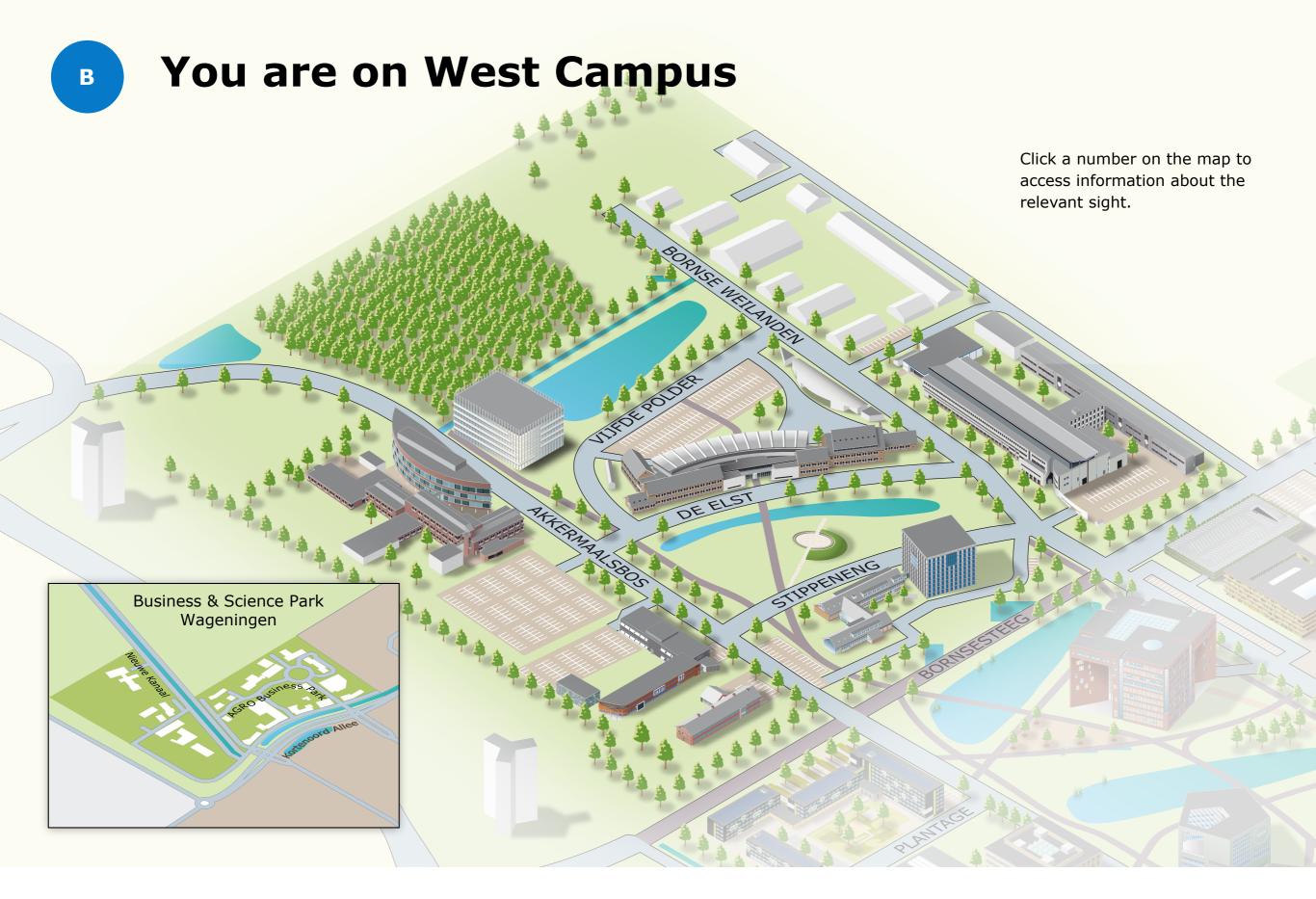
TTTTTT

MANSHOLLANN



Click a letter on the map where you are right now, or click one of the three buttons at the bottom, and you will see all the sights in the area.





## You are on South Campus

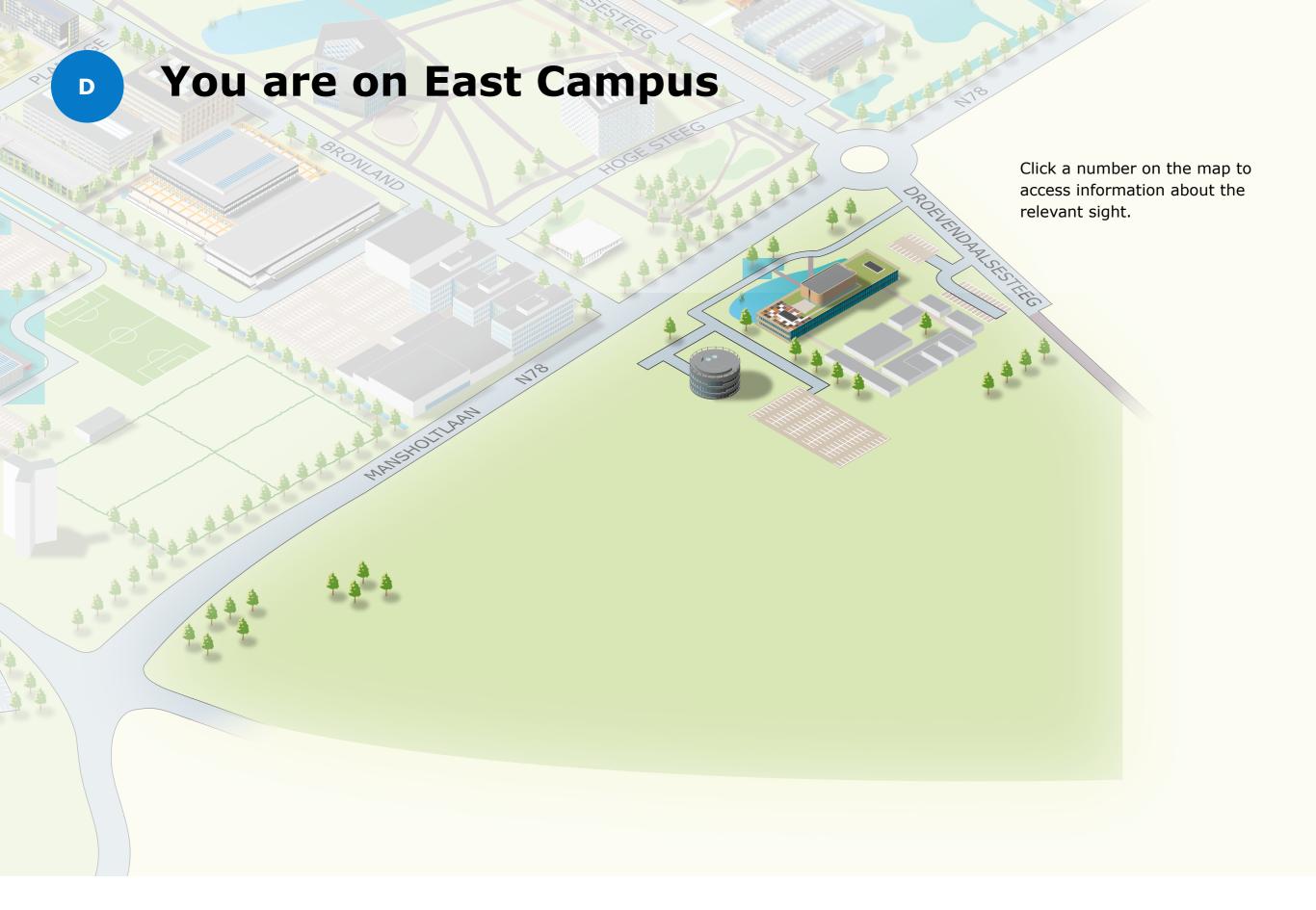
NIJENOORD ALL

BRONIAND

ASHOITLAAN

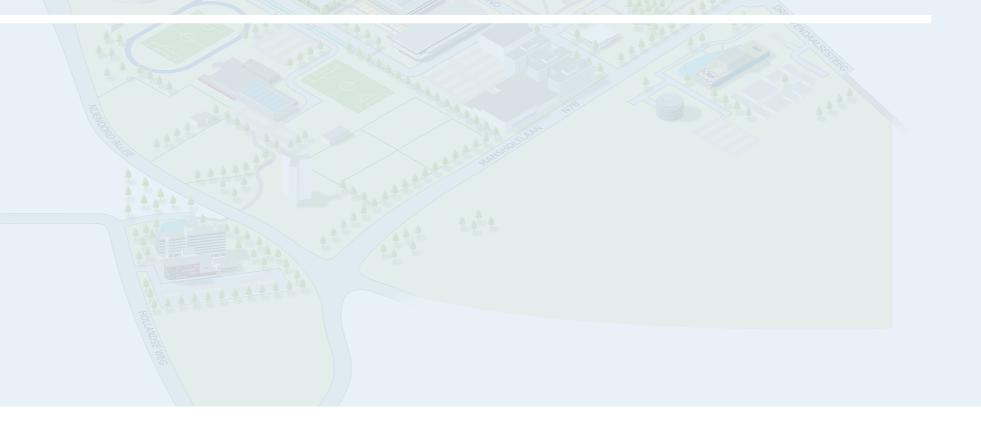
Click a number on the map to access information about the relevant sight.

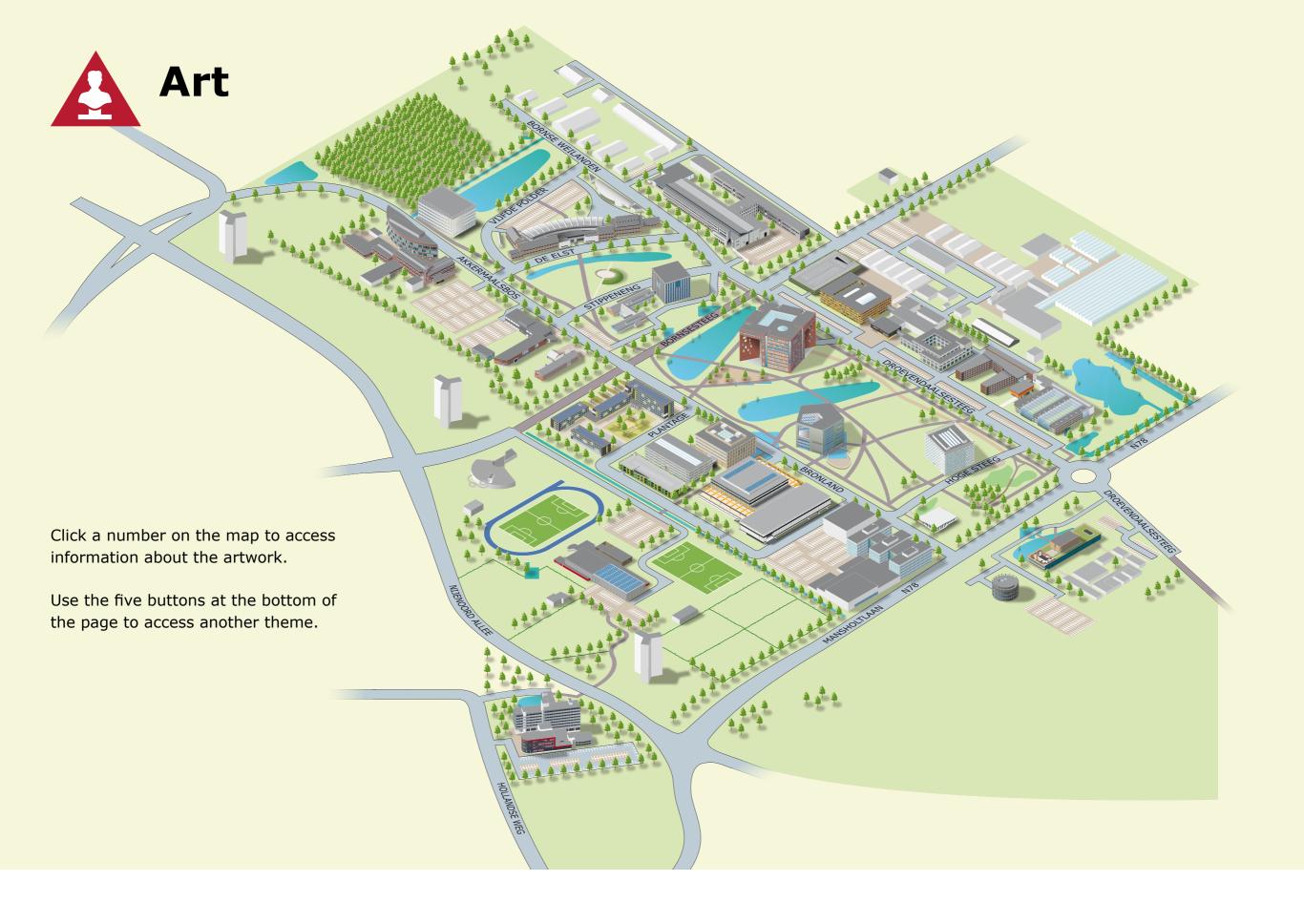
C





Click a theme or click one of the buttons below to see all sights within this theme.





## **Introduction to Art theme**

Wageningen Campus is home to approximately 40 works of art. The collection belongs to Wageningen University & Research (WUR). Wageningen University & Research has always been interested in and committed to the visual arts on its grounds. Art and science can strengthen one another, for example in making new discoveries or sparking a dialogue around what these discoveries mean. Many of the artworks on our campus relate to one or more of the research domains of Wageningen University & Research.

Before the development of the campus, most of these artworks were scattered throughout Wageningen and beyond, at the then Agricultural College or at one of the research institutes of the Agricultural Research Department DLO, now integrated into Wageningen University & Research. They were placed there to mark festivities and events, or in the context of the Per Cent for Art Scheme. This scheme, established in 1951, sets aside a percentage of the construction or renovation expenses of a government building for decoration. This can be indoors or outdoors, freestanding or incorporated into the building. When Wageningen University & Research departments relocated to the campus, they brought many of the artworks with them. Around 2004, this involved about 25 statues. To spread these statues responsibly and attractively around the campus area, a plan was drawn up by the Gelderland Centre for Visual Arts. Many objects were placed near the building to which the relevant group relocated. Some were grouped on a 'sculpture lawn' in the western section of Wageningen Campus.

A few more artworks have been added over the years. In 2019, artworks were restored where necessary and possible, and in 2023, regular maintenance and management agreements were made. Maintenance was mandated to the WUR Arts and Heritage Committee, while management fell under the responsibility of the Special Collections department of WUR Library.

A GPS (geocache) route was created past the artworks, known as The Wageningen Tree (aka Art on Wageningen Campus). To access this route, go to <u>Geocaching.com</u>.



Title of artwork	Fugue (V-forms)
Artist	Ubbo Scheffer
Created in	1989

Fugue is the Latin word for flight, but in this case it refers to the musical term denoting polyphonic music in which a theme constantly appears and disappears. Ubbo Scheffer (1925-1998) expressed this through two converging L-shapes, one in wood and the other in black granite. Scheffer's talent was two-fold: in addition to sculpting, he also had a passion for music, a passion reflected in his sculptures and one he shared with his cousin Marten Scheffer, Professor of Aquatic Ecology and Water Quality Management at Wageningen University & Research. The artwork was originally located outside the De Dreijenborch building on Ritzema Boschweg.





Title of artwork	Growth '68
Artist	Piet Slegers
Created in	1968

Two vertical half circles stand opposite each other, resembling an enormous lava rock split in two. This sculpture is located in the nature garden of the Lumen building. Both stone halves of red lava rock (Michelnauer tuff) are grooved. Artist Piet Slegers (1923-2016) was inspired by the annual rings of a tree. Growth is a common theme in Slegers' oeuvre. This piece was originally located at the Institute for Applied Biological Field Research (ITBON), which opened its doors on 9 May 1968.







Title of artwork	Seed
Artist	Aart Rietbroek jr.
Created in	1970

This sculpture was created in 1970 by Aart Rietbroek jr. (1929-1985) for the then newly built Forestry Experimental Station De Dorschkamp in Wageningen. The sculptor was commissioned under the Per Cent for Art Scheme: 1% of the construction sum was to go towards decorating the new government building. As part of the commission, the Chief Government Architect gave instructions on how to treat the material used for the sculpture, Javanese teak, with a special protective layer. Years of exposure to the elements largely eroded this protective layer, leaving the wood in a poor state. The statue has since been restored.









Title of artwork	Bat Cave
Artist	Krijn Giezen
Created in	1998

Krijn Giezen (1939-2011) was known for transforming locally collected garbage and waste into landscape art. His work was based on themes such as sustainability and recycling. With Bat Cave, the artist also wanted to recycle surplus building materials from the construction of the Lumen building, but his design sketches and proposed materials were not met with enthusiasm. People simply did not associate it with art. Yet art it certainly became, in 1998.

A cave was carved into the western face of the 25 metre by 2.50 m embankment, its wide mouth protected by a steel grate with big openings. In the end, the artwork was made using only surplus paving materials. The artist created this 'bat cave' as a shelter and hibernation place for flora and fauna.







Title of artwork	The Sower
Artist	August Falise
Created in	1926

The symbolic meaning of The Sower is immediately evident to any onlooker. Wageningen artist Auguste Falise (1875-1936) created the design, but did not execute the work himself. The Sower is believed to have been modelled after Benjamin Spee, who worked at the Agricultural College. Falise described his design as a "...symbol of the blessing spread by the Agricultural College..." He created several artworks for the College, including a plaque of Professor Aberson and a bust of Professor Ritzema Bos.

The statue, made from Euville sandstone, was festively unveiled in 1926 to mark the 50th anniversary of the Agricultural College in Wageningen. There it stood, in front of the then main building on Salverdaplein. In 1990, *The Sower* was relocated to the entrance of the new administration centre on Costerweg. The statue was moved once again in early 2012, when the administration centre moved to the Atlas building on Wageningen Campus.









Title of artwork	Genesis, Reclining Sign
Artist	Norman Dilworth
Created in	1993

This artwork was purchased at the 1993 'Beelden op de Berg' art festival in Wageningen. Until March 1998, it was standing in Arboretum Belmonte on the lawn opposite Boeslaan. It was then relocated to the entrance of Wageningen Plant Sciences Experimental Station at Voorburglaan 5.

The weathering steel sculpture has angular horizontal and vertical features and is self-supporting. Nature was an important driving force behind the work of Norman Dilworth (1931). As he wrote in the catalogue for the 'Beelden op de Berg' exhibition: "Here at Wageningen, the analogy my work makes with natural development is easily seen and in the way that the sculpture, once the ground rules have been laid down, is allowed to generate itself."









Title of artwork	Landscape Shapes
Artist	Erzsike Mari
Created in	1985

Erzsike Mari (1945) is a Hungarian native who has lived in the Netherlands since 1971. She studied at the ArtEZ Academy of Art & Design in Arnhem. Her work is characterised by primary shapes and the strength of her materials.

This statue features three folded steel zigzag shapes in blue, yellow and red. The shapes are between 2 and 4.5 metres long. Het kunstwerk was gemaakt in 1985 voor de Wageningse openluchtexpositie 'Beelden op de Berg 4'. It was then purchased by the former Agricultural College. It was originally placed near the Nieuwlanden building at Nieuwe Kanaal 11, which housed four chair groups working in the field of soil and water management.







Title of artwork	Triangular Statuette
Artist	Hans Ittmann
Created in	1960

Sculptor and painter Hans Ittmann (Waalwijk, 1914 - Amsterdam, 1972) was a member of several artists' associations and his work can be found throughout the Netherlands. After training as an artist in Paris, he apprenticed first with Gimondeau and then with Ossip Zadkine. His style developed from figurative to abstract, as can be seen in this black plastic shape resting atop a white concrete base.

The artist called this work Triangular Statuette, which is quite a graphic description of the shape. It resembles a gesturing three-fingered hand. The statue was originally commissioned in 1960 for the entrance of the new Dreijenborch building at Ritzema Bosweg 32A, which housed the then Department of Agronomy.









Title of artwork	Swarm of Bees
Artist	Mirjam Oskam-Van Beekum
Created in	2009

Mirjam Oskam (Arnhem, 1944) studied at the Royal Academy of Art in the Hague in the 1960s. She draws, paints, sculpts and develops projects. Having lived and worked in Bennekom for many years, she has participated in several editions of Bennekom's regional Art Route '14 Karaats'. She created a first, smaller version of her *Swarm of Bees* artwork for the 2009 edition of the Art Route on the Wageningen Eng.

The structure consists of a five-metre-long recycled lamppost topped with a fan-like shape made of bent steel representing a swarm of bees. The wind creates a circling motion. The larger rendition of *Swarm of Bees* on campus is a crowd-funded artwork that was presented to Wageningen University & Research on the occasion of its 100<sup>th</sup> anniversary in 2018.







Title of artwork	Growth Stages
Artist	Willem Berkhemer
Created in	1970

Three vertical white outcroppings made of Portuguese marble are an artistic rendering of the three growth stages of rye (Secale cereale): the pre-germination stage, the early germination stage, and the late germination stage with its spicate inflorescence. This artwork by Willem Berkhemer (Jakarta, 1917 – Bilthoven, 1998) was placed around 1970 outside the Agronomics building on Haarweg 333. Another artwork by Willem Berkhemer located on Wageningen Campus is Man with Bull.







Title of artwork	The Dance of the Cauldrons
Artist	Bas Maters
Created in	1987-1990

The seven spherical cauldrons that once stood near the Administration Building at Costerweg now rest, slightly tilted, on the lawn near the Atlas building. With black mouths agape, some of the cauldrons seem to have a quizzical look about them. The bronze patina on these cast aluminium shapes has weathered nicely over the years. Sculptor Bas Maters (1949-2006) was known for his many public sculptures and some large-scale environmental projects. In this sinuous group of identical shapes, whose tilted positions lend them an air of individuality (hence the word 'dance' in the title), image and environment form a harmonious whole. The meaning of the word 'cauldron' and the accompanying image is familiar to many agrarian cultures. The seven pots refer to the seven continents.





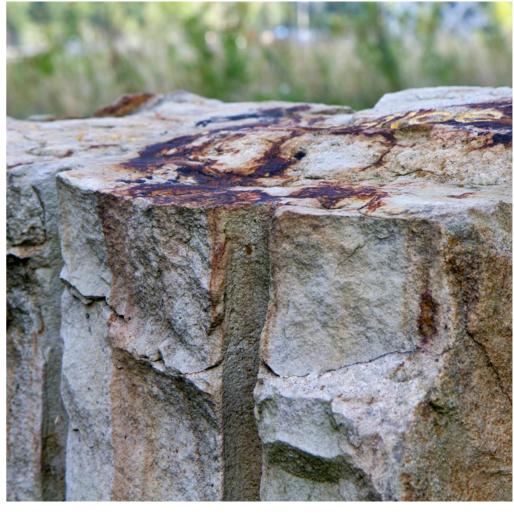






Title of artwork	Veritas Existentiae
Artist	herman de vries
Created in	2015

Internationally renowned artist herman de vries (1931) wants his name written in lower case to avoid hierarchies. He represented the Netherlands at the Venice Biennale in 2015 in the exhibition 'to be all ways to be'. One particular work, this stone from a quarry near Venice with the text 'Veritas existentiae' engraved in gilded letters, was placed near the entrance to the Rietveld pavilion of the exhibition. The text refers to a key concept in the work of French philosopher Pierre Gassendi (1592-1644): "The truth of existence is hidden in the things themselves". De vries' work is often inspired by nature and natural processes. The two Ginko Biloba trees standing near the stone are part of the artwork. Herman worked as a botanist/analyst at, among others, the Institute for Applied Biological Field Research (ITBON), a predecessor to Wageningen Environmental Research. His 1968 Random Objectivation v67-36, which he created for ITBON, is currently on loan at the Rijksmuseum in Amsterdam.







Titel kunstwerk	Must Leave ('de kever')
Artist	Vagn Iversen
Created in	2018

An enormous water beetle, the Dytiscus marginalis, takes flight over the pond between Orion and the Forum, his wings illuminated at night. The idea behind the sculpture: societies are just like ponds. Sooner or later, problems force people to migrate. That's why the water beetle has wings. Migration creates tension but is also a catalyst for innovation. *Must Leave* stands symbol for the diverse international campus community that enriches the campus culturally, scientifically and philosophically. This artwork was developed by Danish sculptor Vagn Iversen (1951), known for his hyper-realistic installations, in collaboration with Wageningen Professor of Aquatic Ecology Marten Scheffer on the occasion of the 100th anniversary of Wageningen University & Research in 2018.

The beetle is connected to an artwork that can only be heard: Simona, 'the Sensitive Infinite Musical Offering Naturalisation Angle'. Responding to its surroundings, Simona produces 'music' that deepens the emotional dynamics of the eternal play of the elements, like gusts of wind or the sun emerging from behind a cloud.









Title of artwork	A Rose of Steel
Artist	Rob Logister en Marie Raemakers
Created in	1996

A Rose of Steel was created by Rob Logister (1959) and Marie Raemakers (1959) for a farm and art route through Zonnemarie, Zeeland in 1996. The work is 6.5 metres long and approximately 2 metres high. It was unveiled by Secretary of Wageningen University Theo Theijsse on 17 November 1997 at its original location: the field near the 'building with the clock', the Plant Taxonomy building in De Dreijen Arboretum. The Rose now stands on the lawn by the pond between Forum and Orion.







Title of artwork	The Wageningen Tree
Artist	Sjoerd Buisman
Created in	2008

In front of the Forum building, centred underneath the large 'Forum' sign at the entrance, a tree-like statue with a realistic bark pattern and three tapering branches stands atop a cylindrical concrete plinth. In 2008, Wageningen University celebrated its 90<sup>th</sup> anniversary. To mark the occasion, the Wageningen University Fund gifted this piece to the university. The 13 metre high tree is made of cast aluminium. It was designed by Sjoerd Buisman (1948), who sought inspiration from nature. The tree was made by applying a moulding compound to a real tree, allowing it to set, and then using it as a mould to cast an aluminium shape. A small bronze model of this statue serves as the trophy for the Dissertation Prizes awarded annually by the Wageningen University Fund. The Wageningen Tree is one of the largest sculptures by Sjoerd Buisman.









Title of artwork	Reclining Figure (The Gleaner)
Artist	Cor van Kralingen
Created in	1963

A reclining man examines the underside of some leaves. Known as Reclining Figure and later as The Gleaner, this sculpture by Cor van Kralingen (1908-1977) was installed in 1963 near the Laboratory for Insecticidal Research (LIO) at Marijkeweg 22. It depicts a person examining a plant for insects and diseases.

Cor van Kralingen worked as a sculptor, illustrator, medallist, and painter. One of his best known works is The Falling Man, from 1950, a three-metre-tall statue that stands in Crooswijk General Cemetery.







Title of artwork	Growth Principle
Artist	Chris Elffers
Created in	1962

This bronze sculpture was dubbed the Blue Dragon. From the top of a dark, rounded body with many legs and arm-like protrusions, a head seems to emerge. Viewed up close, the statue is slightly blue, hence its nickname. The theme of the two-part sculpture by Chris Elffers (1926-2018) is change (in agriculture), which creates new life. The statue used to stand at the research institute ITAL, Institute for Application of Atomic Energy in Agriculture, which was established in 1957. This institute was located on Keijenbergseweg, between Bennekom and Renkum. In 1995, it was moved in front of the Radix building.





Title of artwork	Kneeling Woman
Artist	Fri Heil
Created in	1954

Since 1954, this limestone statue of *Kneeling Woman* by Fri Heil (Surabaya, 1892 – Oosterbeek, 1983) has adorned the façade of the former CILO (Central Institute for Agricultural Research) building on the campus road now known as De Elst. The woman can be seen kneeling and harvesting a cornfield. She holds a fruit or other object in her hand, with the ears of grain being visible in the background. The statue is approximately 150 centimetres high and 120 centimetres wide. The façade stone was eventually removed and placed freestanding on the grass in front of the Radix building on Droevendaalsesteeg.







Title of artwork	Phytodendron
Artist	Margot Zanstra-van Wilgenburg
Created in	1990

This white steel geometric artwork dates from the time when the quarantine station ('Q-Station') of the Plant Protection Service was housed in the Unifarm building. When presenting her prototype, the artist explained that she chose this open shape as a counterpart to the closed nature of the Q-Station.

Margot Zanstra (Laren, 1919 - Amsterdam, 2010) had two big talents: she was both an artist and a well-known dancer and choreographer with the Dutch National Ballet. In 1976 she exhibited her aluminium sculpture Intertwiner III at the first edition of the 'Beelden op de Berg' exhibition in Belmonte Arboretum. Her work often features geometric figures. "I like logical structures with variations. The best part is that if you walk around it, it looks different every time; none of the sides are ever the same." In 1991 she received a special second prize at the Henri Moore Grand Prize Exhibition in Japan for one of her works.









Title of artwork	Portals
Artist	Tim Hoving
Created in	1987

Near the northern entrance to Wageningen Campus, on Bornsesteeg, are three tall, frame-shaped steel portals that symbolise the campus gates. The largest portal is approximately 7 metres tall. Four wedge-shaped concrete blocks lie on the grass. This artwork by Tim Hoving (1957) functions as a gatehouse and ritualises as it were the transition from everyday life to the world of academic research and education. Until 2016, it fulfilled this function at the entrance to the former campus of Wageningen University & Research, De Dreijen.







Title of artwork	Agriculture and Horticulture Façade Panel
Artist	Cor Hund
Created in	1953

Cor Hund (1915-2008) was a sculptor and advertising artist. In 1947, he won the prestigious Prix de Rome for his sculpture work. His Agriculture and Horticulture represents the harvest. A woman can be seen carrying ears of grain. Next to her is a man with a crop on his knee. The sculpture measures  $1.5 \times 1.5$  metres.

This façade graced the Laboratory for Crop Science on Haarweg starting from 1953. In 2010, the building was demolished and the façade panel was lost during various renovations and relocations. In 2019, it was found weathered and mossed in a storage yard. The WUR Art and Heritage Committee had the sculpture restored and placed behind Radix, in front of the Nova building, at Bornsesteeg 48.









Title of artwork	The Ploughman
Artist	Willem Reijers
Created in	1954

This imposing sculpture carved from light limestone once adorned the IMAG building (Institute for Mechanisation, Labour and Buildings) on Mansholtlaan. Following the building's demolition, the façade stone was placed atop a low concrete plinth on the 'sculpture lawn' on the west side of Wageningen Campus. A ploughshare rises up to the left, the figure of a man faces out on the right, and the middle is dominated by gears and other technical attributes. Perhaps Willem Reijers (1910-1958) intended to highlight the human and technical side of farming.

Reijers was friends with Lucebert, a Dutch poet and painter from the group De Vijftigers. Lucebert wrote an In Memoriam about him:

in each newly created image statue or idea had to be the homecoming with me to have taken all the transitions and curves at the risk of death and who then said with me: – here I am there is no other image of death than a living image –









Title of artwork	Nine Gates to Heaven
Artist	Janneke van Dijk
Created in	2007

A lotus is rooted in mud and reaches upwards, towards heaven. The lotus root was the inspiration behind Nine Gates to Heaven, which Janneke van Dijk (1944) designed for the pond near the bust of Linnaeus in the Arboretum on De Dreijen. The dimensions were specifically tailored to this location. The idea for *Nine Gates to Heaven* was born in the run-up to the 300<sup>th</sup> anniversary of the birth of Linnaeus, the Swedish botanist and biologist who established the practice of binomial nomenclature of organisms. This sheet steel cross-section of a lotus root reveals the cellular structure – the nine 'black holes' symbolising the unknown, the unexpected.





Title of artwork	Man with Bull
Artist	Willem Berkhemer
Created in	1965

Man with Bull was created for Schoonoord, the building of the Institute for Livestock Research (IVO) in Zeist. This imposing work is made of pebble concrete and artificial stone, and weighs 23,000 kilos. It was removed from its base in 1995 and relocated with the research group from Zeist to Lelystad. In 2015, it was added to the Wageningen Campus art route. Another artwork by visual artist Willem Berkhemer's (Jakarta, 1917 – Bilthoven, 1998) that stands on Wageningen Campus is Growth Stages.







Title of artwork	Untitled Façade Panel
Artist	George van de Wagt
Created in	1969

George van de Wagt (1921-2007) created this artwork around 1969 for the Poultry Breeding Experimental Station Het Spelderholt in Beekbergen, founded in 1921. The panel moved with the research group from Beekbergen to Lelystad. In 2022, it was relocated to Wageningen Campus, where it stands on the right side of the entrance to the Zodiac building.

The imposing 250 x 250-centimetre square work consists of 68 elements made of different stone types, including white marble and basalt. The artwork is untitled, but with some imagination, a stylised chicken (the head on the right) can be detected in it.





Title of artwork	Batara
Artist	Anne Holtrop
Created in	2013

'Batara' is Arabic for 'cutting away' or 'carving', which is a method used in building. Batara was created for the 2013 'Beelden op de Berg' exhibition held at Belmonte Arboretum in Wageningen. Holtrop (1977), an Amsterdam-based architect and artist, drew his inspiration for Batara from the famous tombs of Petra, Jordan. He decided to create a 'pavilion' of irregularly shaped walls.

made of foamed concrete that was moulded in holes in the ground. The result is a cave-like construction. The foam concrete weathers and crumbles under the influence of the elements. This cannot be prevented or repaired. Batara will therefore eventually collapse. Wild roses have been planted around it, which will surround the future ruin, but also protect visitors from falling chunks.

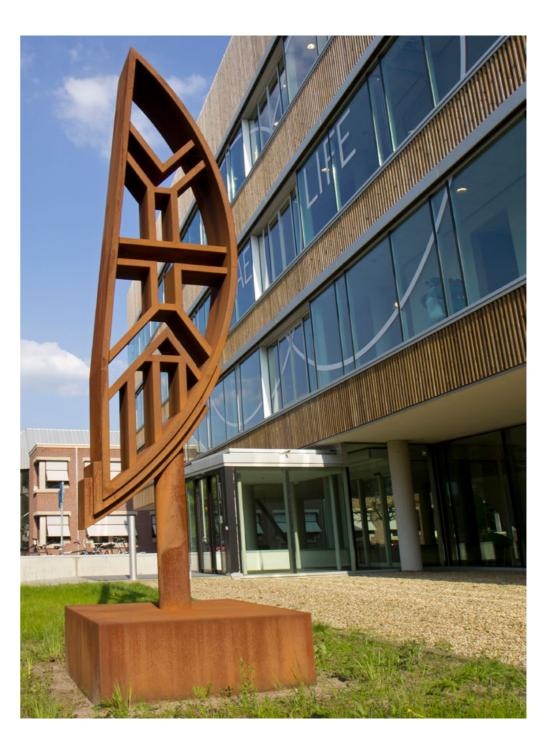






Title of artwork	VITAE
Artist	Eric Cuijpers
Created in	2010

This piece is an enlarged version of the winning entry in a creativity competition for staff members of Wageningen Food Safety Research on the occasion of the official opening of the new Vitae building in 2009. The assignment was: "Create an original and visual interpretation of the Vitae building, the word VITAE, or its meaning". The winning entry was an earthenware sculpture depicting the new crescent-shaped building. The inside of the sculpture was inscribed with the Vitae building's name. It was subsequently decided to enlarge the sculpture and place it at the front of the building. Segno D'arte from Groot-Ammers was commissioned to design this larger sculpture in collaboration with the artist, designer and chemist Eric Cuijpers. The weathering steel sculpture was sandblasted to ensure an even and protective oxidation layer to protect it against the elements.





Title of artwork	Steel Plate Artwork
Artist	Gerard Walraeven
Created in	1979

Along the western edge of the campus, behind Vitae, stands a large, curved, rust-coloured steel shape. Some of its surfaces are covered in moss and the large steel plates have been bent in a way that suggests that steel is in fact a flexible material. The front of the artwork is open and bent forward. This piece could be described as a form of applied art, as Walraeven (1942-2010) was commissioned by the Government Buildings Agency to "use visual means to further shape the ventilation ducts in the outdoor areas." In this he fully succeeded. The object is certainly striking, although passers-by usually do not recognise it as a work of art. Walraeven used limestone, stainless steel and COR-TEN steel, and formed these hard materials into remarkable curves and folds.

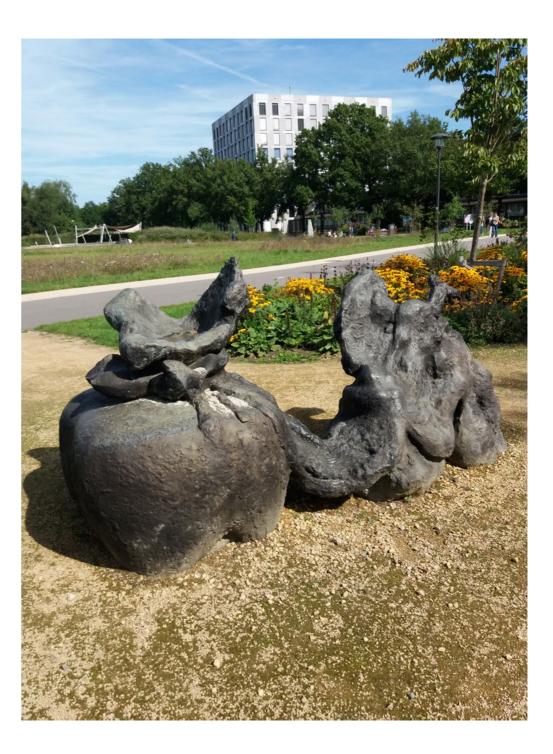






Title of artwork	Clot (Fossil Forms)
Artist	Carel Kneulman
Created in	1966

This bronze sculpture by Carel Kneulman (1915-2008) consists of several dark, interconnected, reclining and roughly hewn shapes, including a fossilised bird and perhaps the outline of a reclining human figure. Kneulman is considered one of the great sculptural innovators of the post-1945 period. His most famous work is Het Lieverdje from 1959, which was made famous by the Provo counterculture protests on Amsterdam's Spui square in the 1960s.





Title of artwork	Ceramic Frieze
Artist	Henk Tieman
Created in	1980

Ceramic Frieze was created in 1980 by Henk Tieman (1921-2001) for the Biotechnion building on De Dreijen campus. It consists of grey, hand-formed tiles, some of which are thicker and with a different profile than the rest, causing them to protrude from the base. The ceramic was made by the Delft earthenware factory De Porceleyne Fles, where Tieman worked for years. This monumental artwork was integral to the architecture of the Biotechnion. When the building was demolished, it was not possible to remove all sixteen panels without damaging them. Jan van IJzendoorn was therefore commissioned to design six panels that did justice to the original idea: the transition from simplicity to complexity. The panels were encased in rusty COR-TEN steel and relocated to the west side of the campus. Together these objects form two slightly offset braces that create an orthographic perspective.









Title of artwork	Flower Calyx and Starry Sky
Artist	Vinh Phuong
Created in	1993

The sculpture was created by Vinh Phuong (1959) for the new Botanical Centre (De Banaan) near De Dreijen Arboretum in 1993. It consists of two angular concrete forms, one standing and one reclining, with a kind of copper horn between them. The artist described this as a flower calyx. Originally, a large bronze shield stood next to the calyx. This shield has disappeared. In the shield, the artist had made a hole pattern in several circles, which when backlit was meant to give the impression of a starry sky. The artist wanted the "soft, cool elements" of the bronze "against the tough concrete forms" to represent the contrast between the new, sleek and modern building and its surroundings.







Title of artwork	Reflection Bench
Artist	Arjanne van der Spek
Created in	2003

At first glance, the Reflection Bench doesn't look like a conventional artwork. The orange bench holds a sturdy parcel tied with a kind of ribbon. The bench itself bears the inscription: 'Reflection Bench; in commemoration of Bernadijn ten Zeldam-Hartelust (1928-1982)', donated by the foundation bearing the same name on 10 December 2003. Bernadijn was born in Surabaya in the former Dutch Indies and was affiliated with the Agricultural College as a senior lecturer in Agricultural and Horticultural Architecture. In 1973, she became the first female chair of the General Council of Wageningen University of Applied Sciences. She was the first woman within Dutch academia to hold such a prominent position. With this piece, artist Arjanne van der Spek (1958) is making an obvious statement: by sitting on the orange bench, you can actually connect to Bernardijn's ability to find her place in society. The contents of the parcel will forever remain a mystery. The Reflection Bench was originally placed outside the Administration Building on Duivendaal.



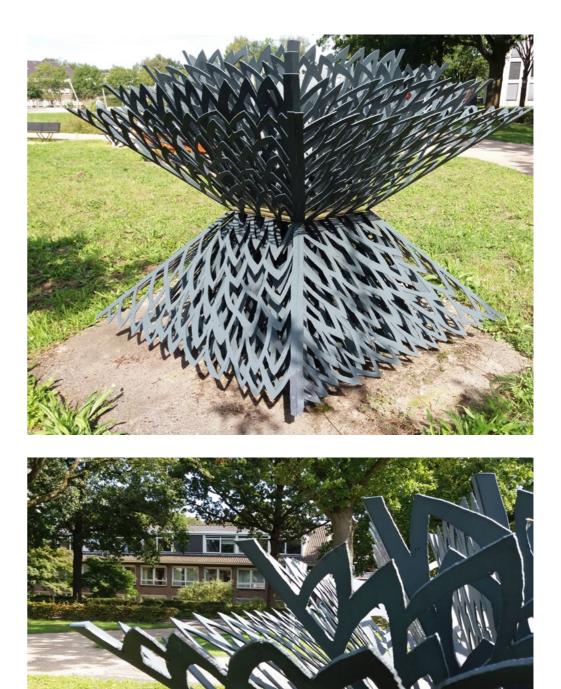






Title of artwork	Hebban olla uogala (Wheat Sheaf)
Artist	Tine van de Weyer
Created in	1986

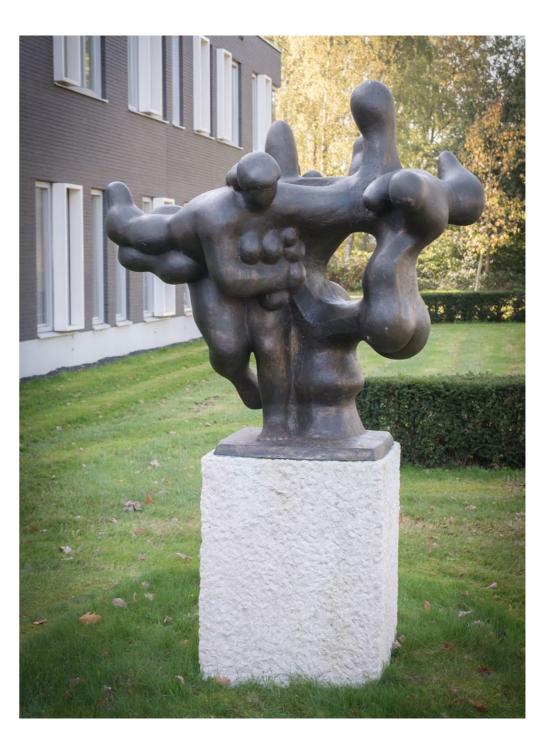
A five-sided, hourglass-shaped sculpture made of perforated steel by Tine van de Weyer (1951) using a goldsmith technique. The title refers to the oldest surviving medieval text, the love song 'Hebban olla Uogala' (All the birds are building their nests, except you and I? What are we waiting for?). Wageningen University and Research purchased the steel object in 1988 on the occasion of the renovation of the Plant Agriculture building on Haarweg 333.





Title of artwork	The Apples of the Hesperides, Fertility
Artist	Nic Jonk
Created in	1967

A bronze sculpture of stylised dancing women, the Hesperides. One of them is clutching apples under her arm. According to Greek mythology, the Hesperides were three or seven nymphs who protected a tree that produced golden apples. The statue, cast in dark bronze, was created in 1967 by Nic Jonk (1928-1994) and placed on the lawn outside the Actio building.





Title of artwork	Tectona Grandis
Artist	Marinus Boezem
Created in	1993

A stack of ten rounded stone discs with inscriptions of the Latin names of trees. The edges are rough and the surfaces polished smooth. The inscribed tree species are: Larix laricana, Catanea sativa, Tillia cordata, Populus nigra italica, Cedrus atlantica, Fagus silvatica, Quercus ilex, Fraxinus ornus, Platanus orientalis and Tectona grandis. The latter is a teak tree, which can grow up to forty metres high. The sculpture was purchased at the exhibition 'Beelden op de Berg' in 1993. By incorporating both wood and stone, artist Marinus Boezem (1934) offers a subtle nod to the past, which brings us fossilised trees and animals, and the future, which can transform wood into a fossil. Similar discs bearing the same title can be found on Ecuplein square in the Osdorp district of Amsterdam. Larger slabs of wood can be found near the entrance to the Netherlands Food and Consumer Product Safety Authority on Geertjesweg in Wageningen.

The work of Marinus Lambertus van den Boezem (the artist's full name) is exhibited in museums in the Netherlands and abroad.





Title of artwork	Zum Schlafen Gehen
Artist	Stefan Strauss
Created in	1993

This arched sculpture consisting of seventeen blue perspex windows in a steel frame is lit from below by a spotlight. It is 260 cm high and 230 cm wide. The diagonal base is made of two blue steel tubes, each five metres long. This title of this artwork by German artist Stefan Strauss (1957) is Zum Schlafen Gehen, whch translates as 'going to sleep'. The steel object was installed in 1993 at the edge of the Duivendaal site in the centre of Wageningen. It was moved to Wageningen Campus in 2016.





Title of artwork	Earthbound
Artist	Jan Praet
Created in	1996

The works of Belgian-born artist Jan Praet (Eisden, 1955), who lives and works in Italy, can be easily identified by their materials, forms and figurative themes. Praet's human figures acquire a kind of mythological force that radiates strength and movement due to their dress and position. The statue's name is not entirely clear: it is sometimes also called The Master.

The bronze figure with mitre, cloak and spear is located in the courtyard of Leeuwenborch. It is large while also exuding an intensity that commands attention. This may be why a miniature replica is used as the Teacher of the Year Award trophy presented annually by Wageningen University & Research to one of its lecturers. The statue was commissioned specifically for Leeuwenborch, which houses the Social Sciences Group. It was unveiled on 19 September 1996 by Professor of Marketing and Market Research, Thieu Meulenberg on the occasion of his farewell.





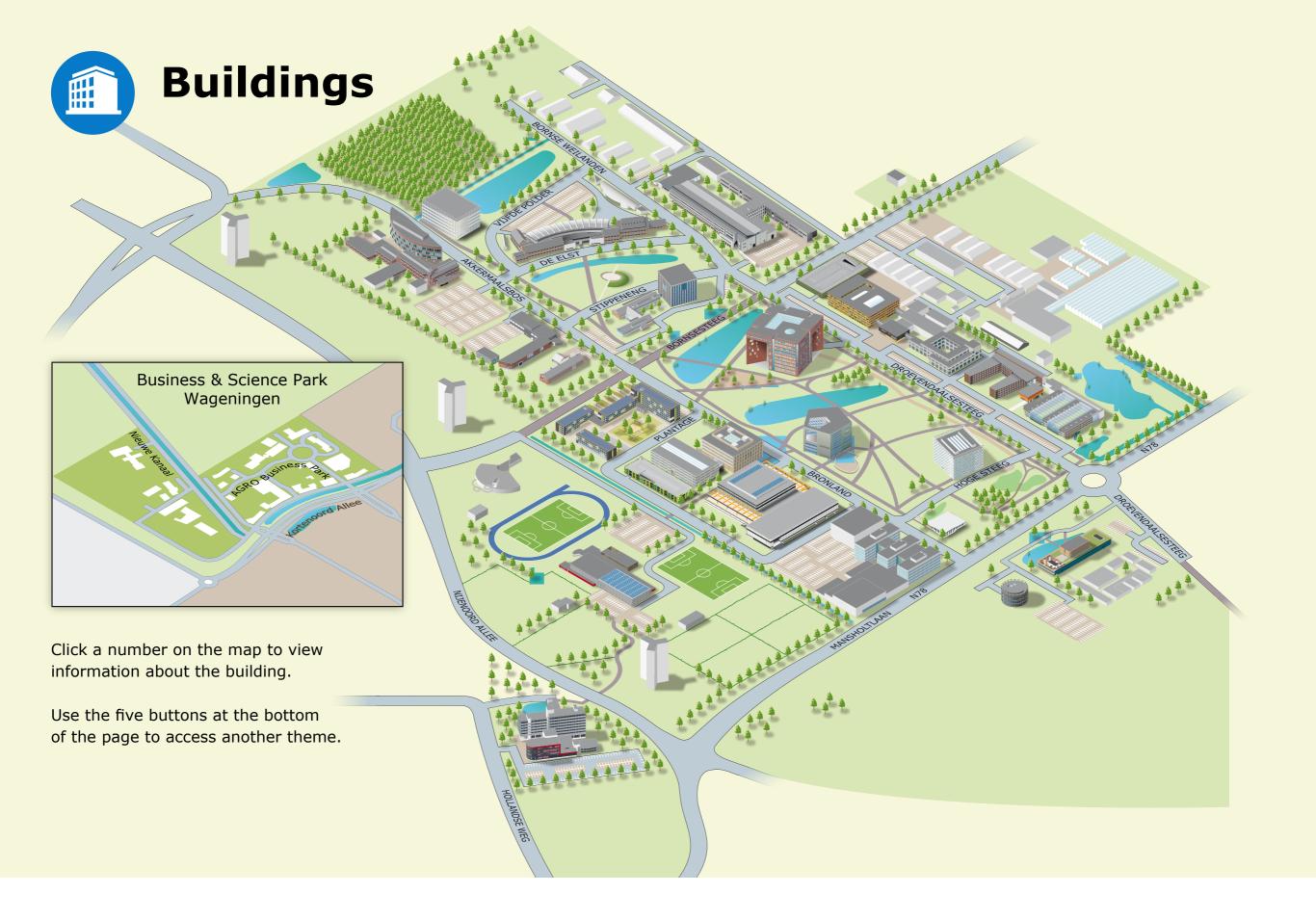


Title of artwork	Turbulent Flow
Artist	Bart Lebesque
Created in	2022

Bart Lebesque is a metal artist. The shape of this artwork is inspired by a phenomenon that occurs everywhere, both in the cosmos and on Earth: turbulent flow. You can see the flexible flow reflected in water, in air, and even on other planets. It symbolises moving forward while remembering to look back at the result. The steel work was placed in 2022 in front of the newest education building Aurora.







# **Introduction to Buildings**

It was always Wageningen University & Research (WUR)'s ambition that Wageningen Campus would continue to grow into a hotspot for innovation and knowledge sharing in the fields of healthy nutrition and food production, natural resources, and the living environment. With incubators for young talent, the establishment of the R&D centres of national and international organisations and business incubators for SMEs and other companies, Wageningen Campus has grown into one of the 10 top campuses in the Netherlands. Wageningen Campus is also highly rated internationally as a knowledge centre for nutrition, agro and food production, health sciences, biobased products, AI, and the living environment.

# **Origins of Wageningen Campus**

In 2010, the Municipality of Wageningen finalised its zoning plan for Wageningen Campus, the culmination of much hard work, that began in 2000. The main reason for developing the campus was the 1998 integration of the Agricultural College (now Wageningen University) and the Agricultural Research Organisation DLO (now Wageningen Research) into Wageningen University & Research (WUR). The university's teaching was previously spread over dozens of buildings scattered across Wageningen, most of which were in need of renovation and modernisation. The same was true of the research organisation (Wageningen Research), which had begun around 1992 to merge research groups scattered across Wageningen and the Netherlands. In the process, Wageningen Research constructed modern buildings on its grounds north of Wageningen. It therefore seemed logical for Wageningen University to establish its new buildings on the same site. In 2010, the Netherlands Institute of Ecology (NIOO) selected Wageningen Campus for the construction of its new buildings. In the years that followed, a growing number of organisations settled on the site.

# **Urban design**

The urban design follows the linear alley structure of the historical cultural landscape in which the campus is located. Between two brick roads running from east to west, a landscape strip has been designed with monoliths rising up from the greenery: tall buildings without protrusions in a single façade cladding style. The first monolith was the Atlas building, built in 2006 at the main entrance to Wageningen Campus. The landscape strip is flanked by relatively low buildings in line with the Wageningen Research institutes that were already located there, such as Lumen, Gaia and Radix. All buildings have their own history and features, which are covered in more detail under this theme.



# Lumen, WUR building 100

Lumen means 'light' and it is a fantastic name for this exceptional building, designed in 1992 by German architect Stefan Behnisch as an example of an environmentally and people-friendly building. Three floors, finished in wood, flank two large courtyard gardens. The courtyard gardens can be accessed from any room through galleries and bridges overgrown with climbing plants. Michael Singer designed concrete base slabs for the ponds and tiles with special relief structures. These give the impression that the building was built around an archaeological site.

The large pond in the nature garden near Lumen is a rainwater basin connected to the ponds inside. As a result, the water level remains stable without the need for supplementation with tap water. The original idea was that the ponds and vegetation would contribute to a pleasant climate in the offices, but this turned out to be difficult to realise in practice. Lumen is therefore also connected to WUR's thermal storage ring.







## Gaia, WUR building 101

In Greek mythology, Gaia is the goddess of the Earth. A fitting name for a building that was built in 1998 to house WUR's soil, water and land sciences. BD Architectuur designed the building, with sustainable construction as one of the main principles. The design for this energy-efficient building revolves around the central atrium. From here, air from the offices moves to the roof of the laboratories where the heat is recovered. The glass lift takes visitors past a water cascade and a series of soil profiles.

In 2014, Gaia and Lumen were connected with a joint entrance, above which the World Soil Museum was built. On display here are thousands of soil profiles collected from all over the world. EGM architects designed the museum, which floats like a thick turf layer between Gaia and Lumen. With its striking façade of strips in shades of orange, the building is a metaphor for a soil profile.

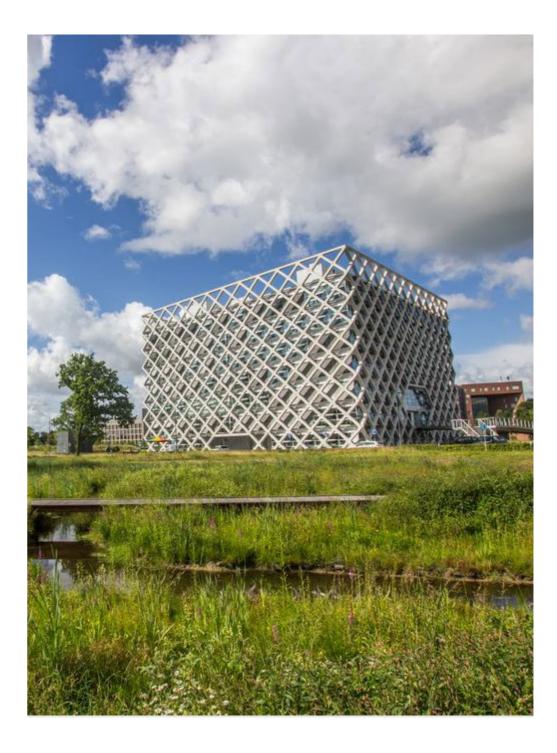




#### Atlas, WUR building 104

Atlas, the Greek god who carries the Earth on his shoulders, is also the name of a sturdy building at the entrance to the campus. Not surprising when you think that this building was intended to also house climate sciences. Rafael Vinoly Architects designed the eye-catching building with a brief to prioritise sustainability and flexible space layout. Connecting the building to the thermal storage made it very energy-efficient.

In 2006, Atlas was the first monolith on campus: a building without protrusions executed in a single façade cladding style. The external concrete grid is a load-bearing structure, that was originally supposed to be overgrown with climbing plants. However, since there are no plant species that can green the building's full height, the architects opted for self-compacting concrete with a self-cleaning finish. Once every three years, the 5500 m<sup>2</sup> of concrete and 4400 m<sup>2</sup> of aluminium are sustainably cleaned by polishing with hot water.





## **Omnia, WUR building 105**

Omnia is the building where everything comes together, the heart of Wageningen Campus. Here, science and society meet to engage in dialogue on topical issues. It is the venue for academic activities and celebrations, such as PhD defences and the Dies Natalis of Wageningen University & Research.

The building, which was completed in 2022, was designed by Broekbakema. The transparent structure with views over the campus 'floats' in a wetland garden. The building and its surroundings meet the highest sustainability standards. The plentiful greenery and wood give Omnia a natural appearance.







## **Orion, WUR building 103**

After the first education building (Forum) was delivered in 2007, student numbers at Wageningen University & Research continued to grow. Ector Hoogstad Architecten was therefore commissioned to design a sustainable building that could flexibly accommodate all forms of teaching. Completed in 2013, the five-sided monolith is covered in enamelled glass. Of particular note is the large auditorium, with its convex underside hanging above the restaurant. The hall has a fan shape that can accommodate 720 visitors at any one time, but that can also be split into two, three or six separate rooms with all modern facilities.

Orion is designed to minimise energy use. The most heavily used spaces are on the north side. The five-storey patio, located outside as a cavity above the auditorium, keeps the rooms on the south side free from direct sunlight. On the west side, a large terrace with windbreak provides access to the student café The Spot.







## Forum, WUR building 102

Forum was the first education building on Wageningen Campus. Until its completion in 2007, students cycled criss-cross through Wageningen to attend lectures in Wageningen University's scattered buildings. In Forum, the university's needs were translated into a wide range of teaching facilities and support. As a 'public space', the Forum also houses a number of WUR-wide functions, such as a university restaurant, the Grand Café, the IT Service Point, and WUR Library.

Forum is a monolith designed by Quist Wintermans Architekten. The castle-like building is built in brick around a high courtyard, which receives daylight from two giant 'gates'. Large balconies and wide bridges with study areas form a play of lines above the square. WUR Library is an impressive open space, thanks to its spherical shape that has been carved out over several floors. The top of the sphere is a large skylight on the Forum's roof.



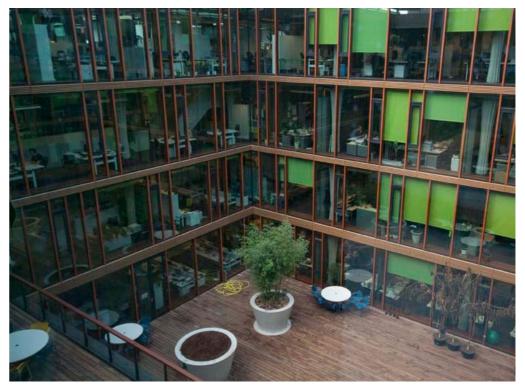


#### Radix, WUR building 107

The building, which houses Wageningen Plant Research, was renovated and expanded in 2009 to allow integration with Wageningen University's Department of Plant Sciences. The complex was named Radix, the Latin word for root. DP6 architects' studio designed the new building, in which laboratories and ancillary rooms were positioned in such a way that chair groups and business units could work together and share equipment optimally.

Daylight enters the building from all sides through the courtyard gardens and the glass façade, which consists of floor-to-ceiling windows between wooden posts. This was the first building with open-plan offices, intended to allow flexible and efficient use of the available space. Through the glass façades and open spaces, one can literally see what is happening 'behind the walls' of the building. Users can blind the windows with screens in various shades of green. As a result, the appearance of the building constantly changes depending on the need for protection from sun and light.







Radix Nova, Serre, Klima and Agros WUR building 109

In the 1970s, Wageningen University combined support for experiments in greenhouses and test fields under the name of 'Unifarm'. In early 2000, Unifarm moved into the 1980s building now called Radix Serre. These days, Unifarm facilitates and supervises the cultivation aspects of all plant and crop research at Wageningen University & Research.

Apart from the staff building, Radix Serre also includes greenhouses. The complex has been renovated starting in 2019 with highly energy-efficient greenhouses, including greenhouses that are safe for experiments with quarantine organisms. Radix Klima facilitates research on insects and climate, and Radix Agros on outdoor crops and mushrooms. Radix Nova was built in 2020 to house three chair groups of the Department of Plant Sciences.





#### Axis, WUR building 118

The site of Axis has been home to industrial buildings for agro and food technology research since 1950. The building, with its white façade extended with a long, open-worked wall, was completed in 1990. It was conceived at the time by Ruijssenaars Damstra architects to hide an old brick building section from view. This brick building was later demolished.

The design is based on three elements that come together like axes of a graph in a bright central hall. This has earned the building the name Axis, which also fits well with the agro-technological sciences the building has always housed. The layout of the building was repeatedly updated over the years to accommodate the latest testing and laboratory facilities. A new section will be added in 2024 to meet the growing need for research space.

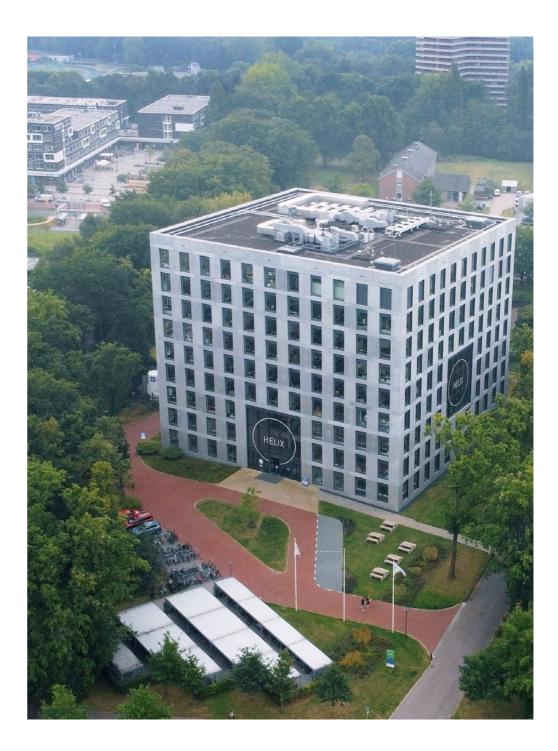




# Helix, WUR building 124

The Wiegerinck-designed Helix building opened in 2016. It was specifically intended to house research and teaching in molecular sciences. Since the helix or spiral is the basic structure of the macromolecule DNA, the carrier of hereditary information, the name fits well with the building's function.

The helix shape is also reflected in the design. It consists of four tall atria revolving around a central core. These atria contain meeting areas and conference rooms. On the outside, the helix shape can be seen in alternating rough and smooth concrete elements and the placement of the atria's windows. Technologies such as thermal storage, concrete core activation, and LED lighting make Helix highly sustainable in use.





# Phenomea, WUR building 125

In 2017, Axis was expanded with Phenomea. This facility is full of innovative equipment for conducting research on the quality and shelf life of fresh produce and the deployment of robots within the agri-food sector. In addition, the building offers partners the opportunity to attend or organise their own workshops, training sessions, and meetings.





#### Carus, WUR building 120

The new research facility of the Wageningen University Department of Animal Sciences, Carus, was completed in 2012. Shortly before this, the staff had already relocated from the old building on Marijkeweg in Wageningen to their new home on campus: the Zodiac building.

At Carus, researchers work on animal behaviour and welfare, interaction between humans and animals, and the most appropriate feed for animals. Carus means 'deemed valuable' in Latin and is related to the verb 'to care'. These are two core principles of WUR's animal research, which complies with the highest scientific, humane, and ethical principles.

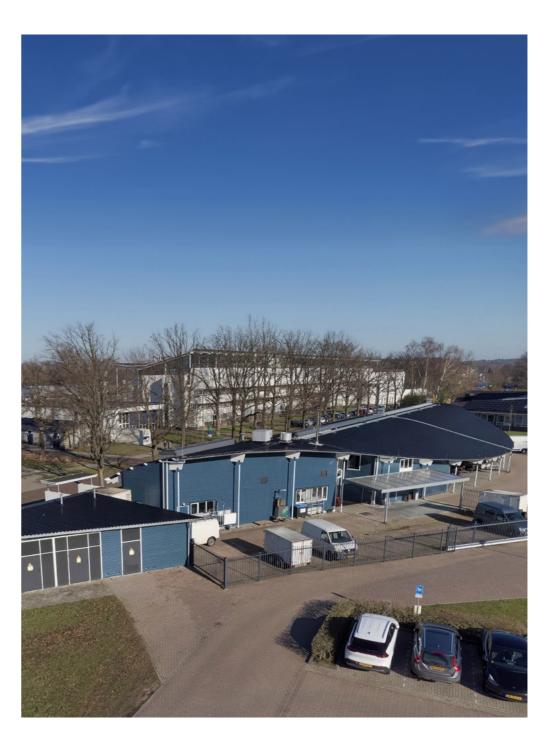




## Innovatron, WUR building 121

This curved building finished in blue-painted wood was built at the same time as Axis. During this period, starting from 1990, several reorganisations took place at Wageningen Research within the agro-technical and technological institutes. The Innovatron building was created to house the development workshop.

These days, the development workshop is known as the Technical Development Studio. The TD studio produces equipment for research and education that can not be bought elsewhere. The studio staff dispose of modern machinery and the skills required to work with researchers to find solutions for their technical questions. This can range from complex instruments to service and repair of existing equipment.





## Zodiac, WUR building 122

The basis for Zodiac dates back to 1950, when the state purchased land north of Wageningen for agricultural research. The brick wings date from those years. These sections were modernised over time and eventually connected. In 2005, Ruijssenaars Architects designed the current building, at that time the site of Wageningen Research's agrobiological research.

In the reorganisation and integration of the University and Wageningen Research, prior to the development of Wageningen Campus, the building was eventually earmarked for Wageningen University's Department of Animal Sciences. Zodiac was already the name given to the department's former building on Marijkeweg in Wageningen. The staff moved into their new accommodation around the time of the delivery of the Carus animal testing facility in 2012.







#### Aurora, WUR building 127

WUR's third education building, Aurora, opened its doors just before the start of the 2021 academic year. The building was named after Aurora, the Roman goddess of the dawn. On a sunny morning, you can see how the new university building came by its name. When the sun rises in the east, natural light immediately fills large parts of the building. Aurora was designed by LIAG architects and building consultants.

Aurora is a sustainable building: it is almost entirely energy-neutral and uses no gas or fossil fuels. Instead, solar panels have been installed on the roof, there are two heat pumps in the basement for heating water, and the building is connected to WUR's thermal storage network.

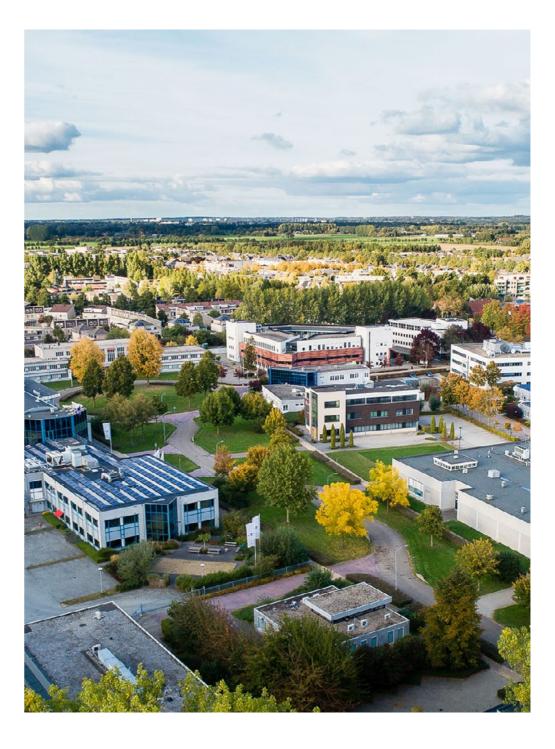




# **Business & Science Park Wageningen (BSPW)**

Around 1980, the Municipality of Wageningen laid the foundations for one of the first knowledge-intensive business parks in the Netherlands: the Agro Business Park. The site on the north-west side of Wageningen was already home to a number of agribusiness companies, including the headquarters of Alfa Accountants, which emerged out of the Accountancy Office of the Christian Farmers and Horticultural Union (CBTB) around the time of WWII.

What was unique at the time was the concept of Agro BTC, a collective building where young, innovative companies could not only flexibly rent space, but also use shared facility and secretarial services. This concept was later also applied elsewhere on Wageningen Campus, for example at Impulse and Plus Ultra. Around 1990, the park, now called Business & Science Park Wageningen (BSPW), expanded considerably. In 2018, BSPW became part of Wageningen Campus.

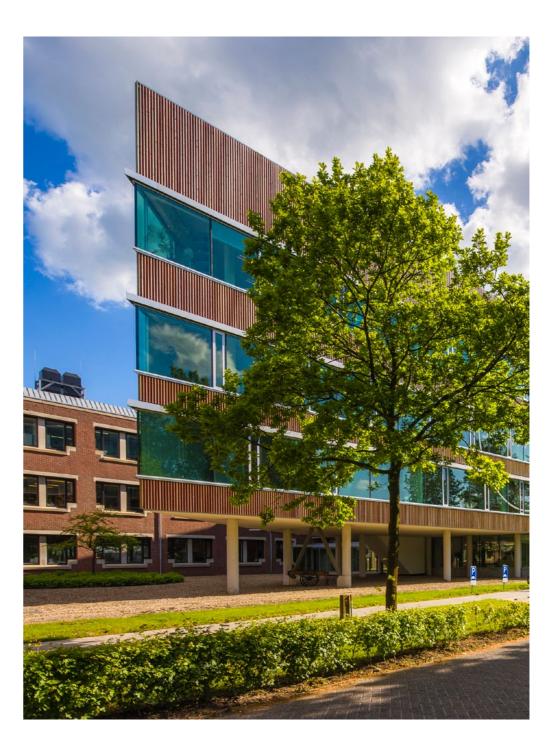




# Vitae, WUR building 123

On this site, the Dutch government built the Experimental Station for Arable and Pasture Agriculture in 1950. In 1975, a building that contained mostly laboratories was built next to it for the newly established National Institute for Agricultural and Horticultural Products (RIKILT), which also moved into the 1950 building. In 2005, Broekbakema designed the 'half moon on pillars' that was connected to the 1975 building. The resulting complex was named 'Vitae', which literally means 'of life'.

The 1975 building can also be gleaned between the pillars from the street side, and from the transparent meeting space in the substructure of the 'half moon'. The superstructure houses labs and offices. After the new building was completed in 2009, the 1950 building was demolished. In 2019, RIKILT merged with the Feed and Food Safety Laboratory of the Netherlands Food and Consumer Product Safety Authority and continued as Wageningen Food Safety Research.





# Actio, WUR building 116

Actio was designed by architect Peter Elemans, who specialises in bringing in as much light as possible while keeping heat out. A white roof cover and a connection to the thermal storage system ensure sustainable cooling and heating of the indoor spaces. The new, 'black' building was inaugurated by Facilities & Services (FB) in 2011. In 2014, the existing 'orange' south wing was refurbished for the FB's IT department.

The spaces are designed for flexible working. Upon entering, an employee retrieves their belongings from a locker or m<sup>2</sup> closet and looks for a spot that suits their work at that moment. This could be a place in one of the open spaces, a consultation area, or a focus space. The fresh, green, and homely interior was designed by Rietmeijer's interior designers. In 2021, the layout was changed to further facilitate interaction and hybrid working.







#### Impulse, WUR building 115

In the 1950s, the site of Impulse was occupied by a barn complex of Wageningen Research (WR). In 1990 this was converted into office space and a restaurant, after which the then WR Management moved into the building. A special feature was a large atrium at 'basement level', with a bridge over it leading to the offices on the ground floor. Following integration with Wageningen University, the WR management and staff moved to the Administration Building on Costerweg.

The idea then arose to create a place where students, researchers, and entrepreneurs could meet, connect, and inspire each other. A sanctuary. SW Architects took up this idea and created an open lounge with an arena in the atrium: the Speakers Corner. Rietmeijer's interior designers provided the inviting, fresh decoration. The outdoor space also exudes the atmosphere of a 'sanctuary', which has made Impulse the perfect stage for anyone with creative and innovative ideas ever since its opening in 2012. This has resulted in an ongoing range of activities, from lunch lectures to evening debates, and from lunch concerts to exhibitions. In 2017, Impulse was linked to Helix.



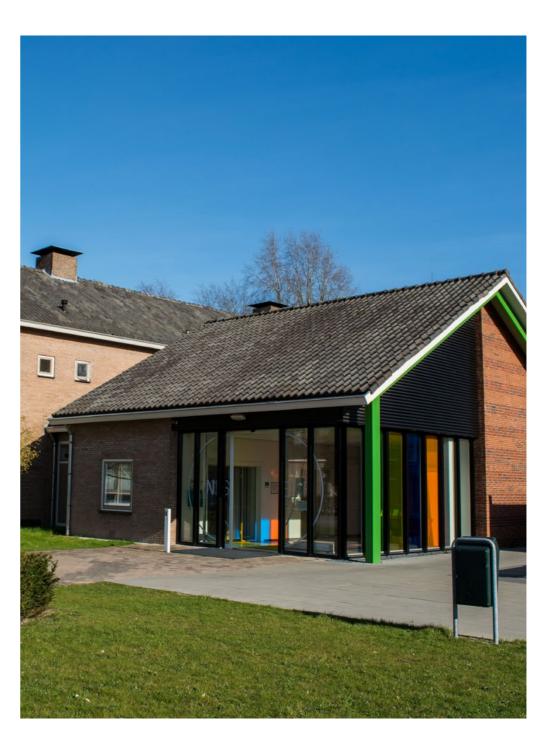




#### Nexus, WUR building 117

Nexus was built in the late 1960s. It has since housed many different groups and undergone substantial changes. For years, it was known as the 'switch' building. For a while, it was connected to barracks, and until 2014, it was attached to the 'orange' building that now forms Actio's south wing.

That year, architectural firm Elemans gave the old main building a make-over to take it to the next phase: Nexus. It is now home to WUR-affiliated social and medical support services, such as the Occupational Health Officer, the student chaplaincy, and the student housing office.

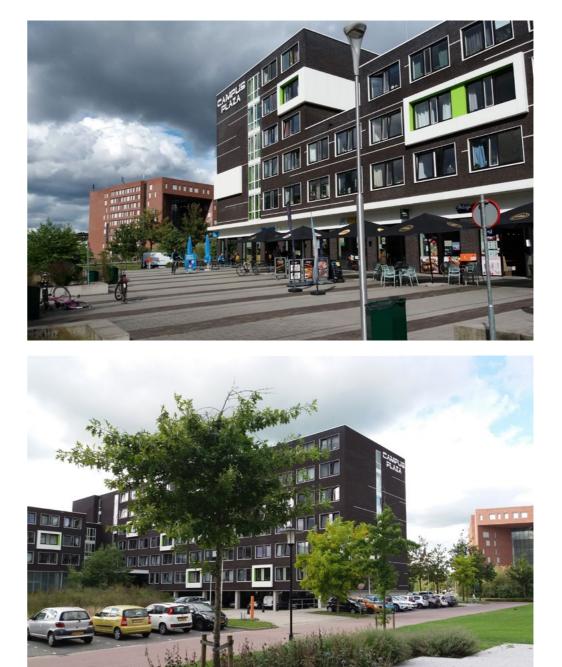




**Campus Plaza** 

Campus Plaza is a multifunctional building. Part of it consists of student housing units. The area at the rear is designed as a communal area for residents, and has a green and undulating character.

The complex also houses a childcare centre, a vaccination centre, and a lounge for international students. Around the square at the front is a small-scale catering and retail area, with services like a bicycle repair shop and a bookstore. The owner, an international organisation, operates and manages the building and grounds through Dutch contractors.

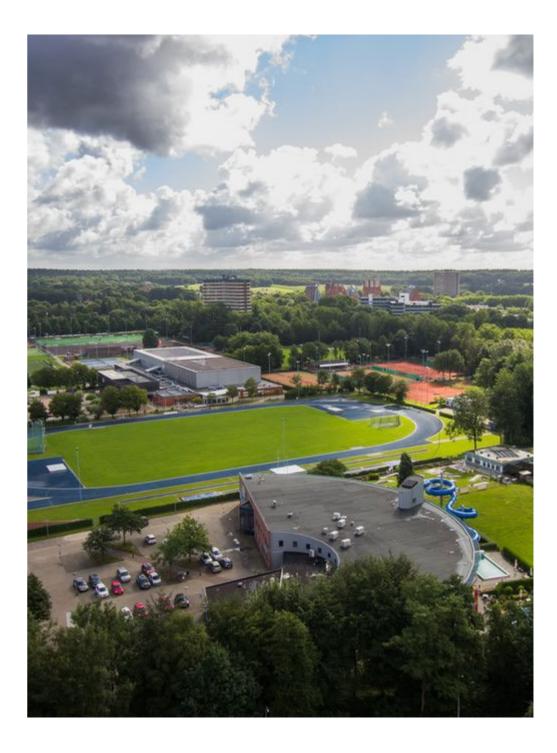




#### Sports Centre de Bongerd, WUR 130

In the early 1970s, Wageningen University gained access to the current site of Sports Centre de Bongerd. Following integration with Wageningen Research, the sports facility was made accessible to all students and staff of WUR and other organisations on Wageningen Campus. The latter especially tend to use the gym a lot.

In 2012, an extension was added to the building, finished in larch wood. This allowed for the creation of twice as many fitness facilities and two additional sports halls. The grounds also underwent several changes. In 2006, for instance, the 1972 cinder track was replaced by a blue synthetic athletics track. SCB literally keeps moving to meet the needs of growing numbers of athletes. This ranges from mentoring top athletes to providing space for new sports, such as Quidditch, derived from the Harry Potter films.

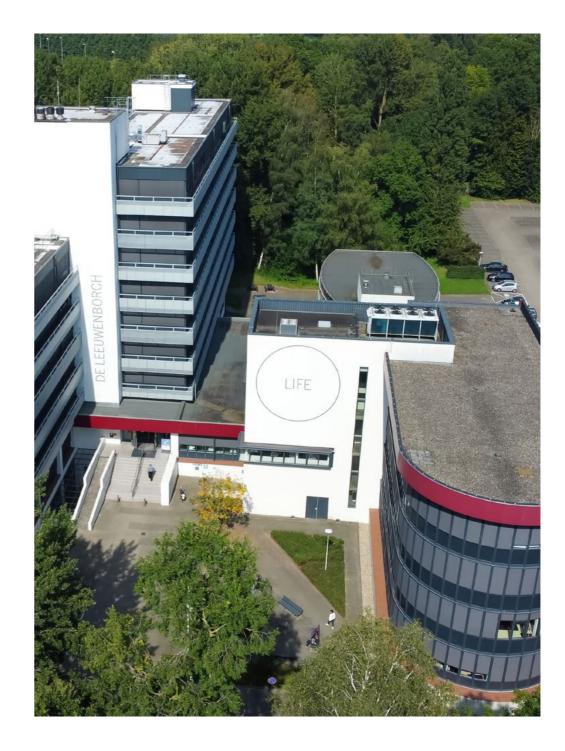




# Leeuwenborch, WUR building 201

The Leeuwenborch building was designed by ir W.R. de Vries and built in 1974 to house the social science chair groups. The building is named after the old hamlet that used to be located in this area. The building's original design consisted of a central core with three wings attached. These opened onto a plateau with warehouses and technical rooms below, and lecture halls and a canteen on top. A striking characteristic was the red cladding on the balconies.

Since 2000, the building has been repeatedly expanded and renovated. In the process, the red cladding was replaced with a durable, light-grey variant. The red colour recurs here and there, for example above the main entrance and in the roof line of the new, rounded wing to the right of the entrance.





### Plus Ultra I, II (and soon III)

Plus Ultra I was commissioned by Kadans Science Partner and designed by architect firm Wiegerinck Urban Architecture. The building's spatial design focuses on synergy, meeting, open innovation, and collaboration between the various companies. Plus Ultra I was completed in late 2015, and serves start-up and mature knowledge-intensive companies and institutions in the agri-food sector by renting out spaces ranging from offices, research space to techno halls.

In response to the surge of interest, a few years later Kadans Science Partner commissioned Proof of the Sum Architects to design Plus Ultra II. Completed in 2020, this building is connected to Plus Ultra I by an airlift. Wageningen University & Research is renting space in Plus Ultra II for, among other things, the StartHub, an incubator where entrepreneurial students, PhD candidates, and recent graduates can get support in giving shape to their innovative ideas. Both buildings and all installations meet the highest sustainability criteria (BREEAM and BIM). Meanwhile, there are plans for a third business hub, Plus Ultra III, which will be situated on the lawn in front of Plus Ultra I and II.

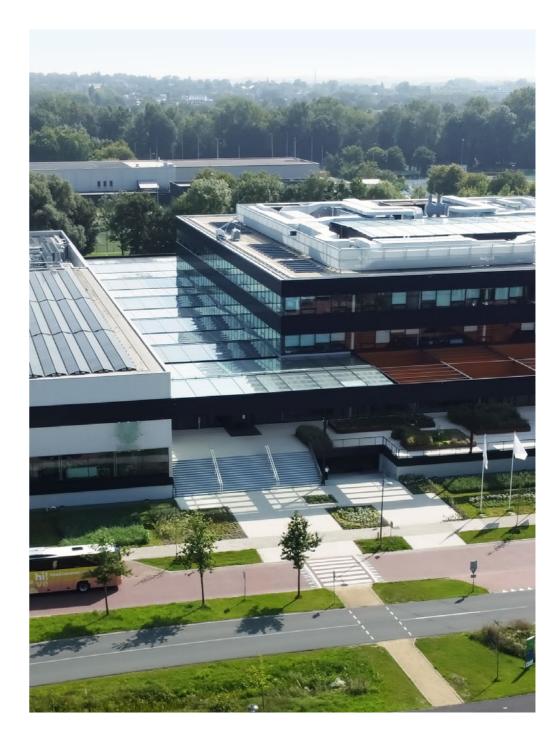




**HIVE**, Unilever

In late 2019, Unilever opened the new HIVE building for its R&D branches from Vlaardingen, Poznan, and Heilbronn. Paul de Ruiter Architects designed the state-of-the-art research facility for healthy and sustainable food innovations in co-creation with the contractor, installation company, and interior designer. The building is energy-neutral and at the time of its completion, it was the most sustainable multi-purpose building in the world. For example, the roof consists of solar panels, and the kitchens are fitted with equipment from the previous locations. There are 129 charging stations for electric cars in the car park.

Besides sustainability, the other central concept of the design was facilitating interaction, which was Unilever's main reason for relocating to Wageningen Campus. Entering the six-metre-high public hall, visitors are struck by the openness, transparency and food experience. Here, a traditional reception desk has given way to a generous bar. Any visitor, student or other interested party is welcome for a cup of tea or a healthy lunch with a direct view of the Pilot Plant, Unilever's mini factory. Like many buildings on Wageningen Campus, HIVE is BREEAM certified.





Upfield

Upfield Food Science Centre opened its doors in 2022. The design, by Fokkema & Partners, is aligned with Upfield's vision of creating a better, plantbased future by developing new plant-based foods and sustainable packaging materials. The design focused primarily on sustainability and employee wellbeing. This was expressed by seeking balance between rationality and rhythm on the one hand, and spontaneity and variety on the other. The façade reflects this vision with its open, natural look in a rhythmic pattern of wood and greenery.

The interior is carefully designed with attention to every detail and a focus on energy efficiency with low environmental impact. A narrow sensor grid adjusts the indoor climate based on people's presence. Climate ceilings heat the building in winter and cool it down in summer. Rainwater and sewage drains are separated for rainwater reuse. These are just some examples of the extremely sustainable design of this state-of-the-art building.

At Wageningen Campus, all buildings are built according to BREEAM guidelines. These guidelines help create sustainable buildings with minimal environmental impact. Like many buildings on Wageningen Campus, Upfield is also BREEAM certified.





FrieslandCampina

FrieslandCampina's R&D & Innovation Centre opened its doors in 2013 as the first building on the Wageningen Campus business strip. Designed by OZ Amsterdam, the building includes research facilities, laboratories, a pilot plant, and offices. In the experience centre, innovation kitchen, and test bakery, visitors and FrieslandCampina employees from all over the world can taste, smell, and feel products in an inspiring environment.

Sustainability was taken into consideration from the start in the building's design. In addition to the thermal storage plant and solar panels, the building uses green gas produced at affiliated dairy farms (purchased via certificates). The building is also very well insulated and uses an innovative adiabatic cooling system. Lighting is extremely efficient and LED lighting is used wherever possible. There are charging points for electric cars, bikes, and scooters. To encourage cycling, showers have been installed for the staff.

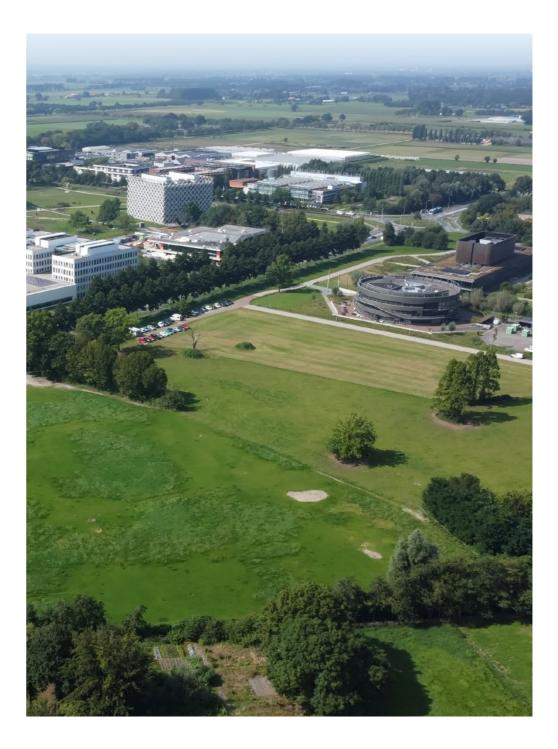




**Campus East** 

Interest in Wageningen Campus as a business location remains strong. The WUR site around NIOO-KNAW and Aeres University of Applied Sciences is therefore being developed for organisations with a focus on research, development, and/or innovation activities. The site will also include around 250 student housing units. The proposed development will slope down eastwards from Mansholtlaan. The space between the gardens of the houses on Grintweg, Wildekamp, and Houtwal and the new buildings will sport a wide strip of greenery, keeping the view as attractive as possible.

Standards for sustainability and sustainable mobility will be high. Parking facilities will be provided under buildings wherever possible. Strict appearance requirements also apply, and local ecological connections will be strengthened.





### Aeres University of Applied Sciences

Aeres University of Applied Sciences Wageningen is a unique, small-scale training institute for teachers and knowledge managers in the green, catering, and product and service sector, among others. In 2013, the institute, known at the time as the Stoas University of Applied Sciences Wageningen, moved into its new location on Mansholtlaan. The building's designers, BDG Architects, took as their starting point the school's educational philosophy: ecological intelligence. Learning and development, human behaviour, relationships between humans and nature, ecosystems and sustainability form the basis for the study programmes, and therefore also for the building.

The cylinder is the second most durable shape, after the sphere, resulting in a highly favourable ratio of floor to façade area. As a result, energy loss through the façade is minimal. The installations are visible and cleverly integrated, making the building energy-efficient and sustainable. A cylinder is also non-hierarchical: in this bright, spacious and welcoming building, every floor has essentially the same shape and view.

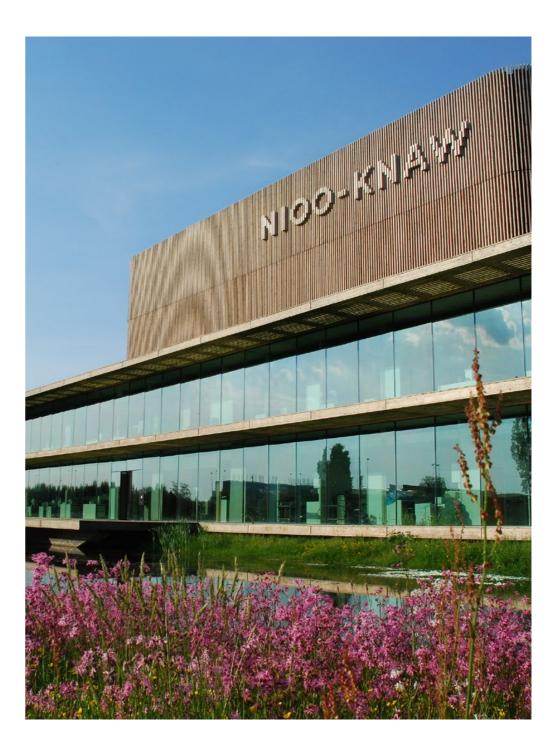




#### **NIOO-KNAW**

The new building of the Netherlands Institute for Ecological Research (NIOO) was opened in 2011. Designed by Klaus and Kaan Architects, the building was a testing ground for ecotechnology. It has an experimental green roof, makes innovative use of solar energy, and takes an alternative view of 'waste water'. The cradle to cradle philosophy, aiming as it does to close as many circles as possible (energy, water, nutrients), was also an important source of inspiration for the building.

The starting point for the building and site was 'integral sustainability'. This was achieved with new (and not yet fully developed) techniques in energy generation, renewable energy use, water technology, choice of materials, and  $CO_2$  emissions. But also with a focus on biodiversity on the grounds. The building has become an architectural eye-catcher that reflects the ecological research it houses. It is often used as an example of sustainable construction.





Click a number on the map to access information about the sustainability item.

Use the five buttons at the bottom of the page to access another theme.

### **Introduction to Sustainability theme**

Wageningen Campus is one of the 10 top campuses in the Netherlands. Here, connections are made every day between research, education, and business, accelerating the transformation of knowledge into actual innovation of products, processes, technologies, and platforms. Here, research and education, spin-offs, NGOs, and companies all work together on themes like healthy food, circular economy, and biodiversity.

### Buildings, sites, and operations

Wageningen Campus also applies its knowledge to create and operate sustainable buildings and sites. Sometimes experimentally, as with the NIOO-KNAW building, which has won several awards for applying a cradle-to-cradle philosophy in both construction and operations. Sometimes as a pioneer, as with Wageningen University & Research (WUR), which uses a thermal storage ring to heat and cool buildings. Although this is usually not visible on the outside, almost every building scores above average on the sustainability criteria in place at the time of its design and construction. You can find more information about this under the 'Buildings' theme.

### Work, learn, and share knowledge

Wageningen Campus stands for working, learning, and sharing knowledge together. Much of this takes place on site, with researchers and lecturers using the laboratories, greenhouses, test fields, and other experimental spaces on campus. This means thousands of people travelling to and from Wageningen Campus every day using various forms of transport. Reducing and making these traffic movements sustainable is a major theme on Wageningen Campus.

### Locations of the descriptions

Within the 'Sustainability' theme, various aspects of sustainability are explained in more detail with the help of elements that are physically present on the site. Each point on the map is connected with such an element and links to the text on the relevant topic.



Topic

### Thermal storage system (CHP)

Several buildings on Wageningen Campus are heated and cooled using thermal storage technology, which involves storing heat and cold in deep underground wells. When heat is required (in winter), the hot water is pumped up. A heat exchanger (TSA) transfers the heat from the groundwater to the water of the internal building plant, bringing the water up to 55 degrees Celsius. The cooled water then goes back into the cold spring via the TSA. In summer, when cooling is needed, the process is reversed.

The NL2120 Landscape Garden features a maintenance well from a cold spring of Wageningen University & Research (WUR), with a transparent dome. This allows visitors to see a bit of this technology. The well is part of a CHP ring, completed in 2020, to which all WUR buildings are or will soon be connected.

Applying CHP technology can save millions of  $m^3$  of natural gas and thousands of tonnes of  $CO_2$  every year. That is why almost all buildings and greenhouses on Wageningen Campus will eventually be heated and cooled using CHP.







Topic

#### Sustainable water management

Water use has been reduced in several ways on Wageningen Campus. In the Gaia, Lumen and NIOO-KNAW buildings, so-called grey water (including rainwater) is used instead of drinking water wherever possible, for example for flushing toilets or replenishing the ponds in Lumen's indoor gardens. The Vitae building's cooling system is set to use less water.

The Campus also includes several large water features, which are part of Wageningen's ecological water system. Through a network of waterways, rainwater collects in the ponds and sinks to deeper groundwater layers. In this way, rainwater flows via the waterways and groundwater, for example to the Wageningen canals.

Locks are used to regulate the water level on campus, to support and encourage the development of flora and fauna in and around the waterways and ponds. Especially in the wetland garden at Atlas, it is important to maintain a minimum water level to keep the soil around Plant-e's plant-based electricity system constantly wet (see also the explanation under 'The Story Behind...').







Topic

#### Sustainable mobility

Working, studying, and meeting on campus often requires people to be present in person. Wageningen Campus must therefore be easy to access, preferably with as few transport movements to and on the site as possible. Visitors are encouraged to switch to more sustainable transport: bicycle, train and bus, instead of the car.

Commuting employees can make use of schemes such as a contribution to the purchase of an electric of regular bicycle. In the middle grounds of the campus, pedestrians and cyclists are given more room. The network of bicycle lanes connects as much as possible to the surrounding cycling network. Wageningen Campus works with the Province, local municipalities, and transport companies to create good public transport connections. A mix of digital facilities is also provided to allow people to work independently of place and time.

The ambition is to make necessary car use, for example to get to hard-to-reach destinations with research equipment, as sustainable as possible. With Mobility as a Service (MaaS), we are developing a wide range of shared transport: for business-related transport, employees can make use of shared electric cars. The campus has charging facilities for e-bikes and electric cars. Visitors who come to campus by car can use a solar-powered tyre pump to keep their tyres inflated for free. This saves fuel and reduces  $CO_2$  emissions.









Topic

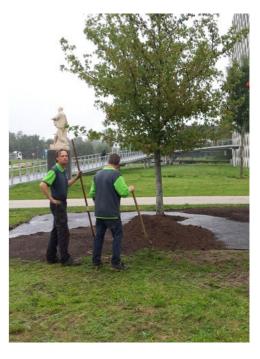
#### Sustainable site management

The grounds around the various buildings of Wageningen Campus are designed, constructed, and maintained in a way that suits the organisation and meets the needs of its users. NIOO, for example, focuses on creating and maintaining native ecosystems on its grounds. At Plus Ultra, the emphasis lies more on meetings and collaboration in peaceful greenery.

The Campus' public roads, parking spaces and publicly accessible green spaces are largely located on the grounds of Wageningen University & Research (WUR). WUR has outsourced the maintenance of this 'park' to a gardening company that works together with WUR experts. Management plans have been drawn up for the various greenery types, such as the phased mowing of flower meadows, banks of waterways and ponds, but also for nature gardens and tackling invasive exotic species.

Management is based on sustainable and environmentally friendly maintenance techniques such as steaming weeds and reducing Japanese knotweed by smothering them with cloth or electrocuting the roots. Attention is also devoted to fauna management. This ranges from environmentally friendly control of pest organisms, such as the oak processionary caterpillar, to supporting animals living on and around the site. This is done, among other things, by creating ecological corridors.











Topic

Solar panels

Many Wageningen Campus buildings sport solar panels. Sometimes a building does not lend itself to this or other choices have been made regarding roofing, such as a Sedum roof. The roofs of the monoliths (such as Atlas, Forum, Orion), for example, contain many technical installations and a large part of these roofs is made of glass to let natural light into the buildings. In older buildings, the load-bearing capacity of the roof is often insufficient. In these cases, the option of installing solar panels – possibly in combination with a Sedum roof – will be considered once the building is due for renovation.

Installing solar panels is one way to produce renewable energy. Wageningen University & Research initially invested mainly in other options, such as the construction of the wind farm in Lelystad (2005) and the thermal storage system (CHP) on Wageningen Campus. WUR's net production of electricity exceeds the electricity used in the WUR buildings. Under the 'Buildings' theme, you can find a list of specific measures taken in the various buildings to reduce reliance on fossil energy.







Topic

### **Construction and renovation activities**

At Wageningen Campus, all buildings are built according to BREEAM guidelines, which help create sustainable buildings with minimal environmental impact. BREEAM's assessment criteria cover a wide range of indicators, from energy and water use to health and well-being. Buildings on Wageningen Campus that are BREEAM certified upon completion have always been rated excellent or outstanding.

Each building focuses on different sustainability aspects, depending on its function. NIOO, for example uses the building and surrounding grounds to test new nature-inclusive methods. This means deliberately creating space for biodiversity on, near, or in the building or its surroundings to attract more plant and animal species. The 'Buildings' theme contains more information on how sustainability has been implemented in the various buildings.

Any construction, renovation or demolition project on Wageningen Campus always begins with what is known as a natural values survey. Based on this survey, an action plan is formulated to offset any negative impacts, for example by installing sparrow hotels or bat boxes. If construction or renovation requires trees to be cut down, a plan is made to compensate for this.







Topic

### **Charging points**

Electric charging points for cars and bikes can be found at various locations on Wageningen Campus. The first charging stations for cars were installed on campus by Wageningen University & Research (WUR) around 2013. Charging points for e-bikes are also available in most bicycle sheds.

As the use of electric cars increases – also because WUR has started using shared electric cars – the demand for charging stations is also growing. A charging plaza has been created for the shared cars at Impulse. Charging poles demand a lot from the electricity grid on campus, which is why expansion is given careful consideration. The Unilever car park has 129 charging points for electric cars.

It is also possible to charge a phone or laptop on site. The charging points can be found in solar picnic tables. These are located in the NL2120 Landscape Garden and near the amphitheatre.







Topic

#### Resource and waste management

Many organisations on Wageningen Campus are working on making their operations circular. This means not only controlling waste flows, but also purchasing as sustainably as possible to reduce residual flows. Opportunities are constantly being sought to reuse the released streams. For example, a research group from Wageningen University & Research has set up the Together Against Food Waste Foundation. In collaboration with many partners, from government to industry, the Foundation has already implemented a number of results from research.

Researchers are working on new, nature-friendly raw materials to reduce overall residual waste streams. Wageningen Campus provides all kinds of opportunities to convert this knowledge into new business activity by supporting starters who want to launch a business, for example at the Starthub and Startlife in Plus Ultra. Students have for instance set up a project, in collaboration with a sheltered workshop, to create new products out of plastic waste from Wageningen Campus laboratories and other places.





Topic

### Sustainable building and other materials

Wageningen Campus uses as much as possible sustainable building and other materials, taking into account the entire life cycle of the material. This means not only looking at whether a material lasts a long time and can be reused, but also at how it was produced in the first place: Where and how were the raw materials extracted? What treatments did the material undergo? How was it transported? And what maintenance does it require? This requires a lot of knowledge, which is often still being developed.

For example, Wageningen Campus researchers study new, environmentally friendly raw materials and the reuse of materials such as plastics (see also 'Resource and waste management'). Other researchers are looking at replacing tropical hardwood with wood from ecologically managed, preferably European forests. This usually involves tree species that produce soft wood, which needs treatment to prolong its lifespan. The techniques required for this are also improving all the time.

Wood is widely used on Wageningen Campus. The cladding of the car park at Radix, for example, is made of Accoya, a material made from soft pine wood produced in New Zealand, which has been treated in an environmentally friendly way. The wooden cladding of the outdoor furniture on the landscape strip is made of untreated, European oak. This wood does not remain smooth and can give off brown stains from tannic acid on the concrete, but it is extremely durable in all respects.







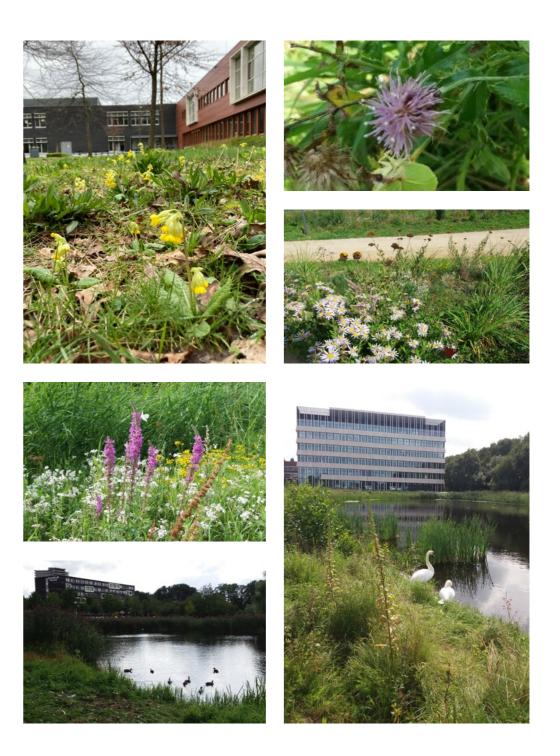
Topic

### **Biodiversity**

Biodiversity is the living aspect of nature and it refers to the variation in life on earth, whether at genetic, species, or ecosystem level. Research shows that biodiversity is declining all over the world. At Wageningen Campus, work is underway to develop knowledge and methods to tackle threats such as eutrophication, desiccation, acidification, pollution, and fragmentation.

The campus area itself has traditionally been a relatively species-poor ecosystem of wet grassland and 'swamp forest', which was reclaimed starting in the Middle Ages to make it suitable for hay meadows and coppice. When Wageningen Campus was first developed, the site included some research institutes with test fields. Since then, there has been a lot of construction and a huge increase in the number of site users. Despite this, the area still consists of about 40% greenery with a high level of diversity. There are nature gardens, flower meadows, mixed vegetation of herbs, shrubs and trees, and ponds with slowly sloping banks. More information about this can be found under the 'Nature' theme.

Researchers, lecturers, and students use the campus to learn about and research biodiversity. Sometimes in the form of long-term projects, such as the bird migration station in Badger Wood. Sometimes in small projects or practicals. The green space management team uses this knowledge to maintain and, where possible, encourage biodiversity on campus.



Click a number on the map to access information about the nature item.

Nature

Use the five buttons at the bottom of the page to access another theme.

# **Introduction to Nature theme**

Wageningen Campus is as busy as the centre of a big city, but much greener. Approximately 40% of the campus consists of greenery, compared to about 18% in urban areas. Much of the greenery on campus is found on the central landscape strip sporting Wageningen University & Research's tall buildings, known as the monoliths. This strip starts with the nature gardens on Mansholtlaan and ends at Badger Wood on the west side. Avenue trees, hedges, wooded banks, and ditches flank the roads. They form ecological links to the surrounding nature (Veluwe and Binnenveld).

### **Development of the area**

The original ecosystem of the campus is grassland and swamp forest on 'slightly basic seepage water soil'. Already in the early Middle Ages, the area was made more accessible by reclaiming land and straightening streams and roads. Farmers used the grasslands as hay and grazing land and the woods as coppice. Midway through the last century, the Dutch government established the first research institutes here. They cultivated and enriched the soil for experiments, and planted the sites with ornamental shrubs and trees.

### Vegetation

The campus vegetation reflects the campus research. The landscape strip consists of a mix of colourful wild plants and ornamental plants. These contribute to biodiversity, but also to the experience and appreciation of greenery by campus residents and visitors. The ponds, which are connected to Wageningen's ecological water system, provide space for all kinds of water and bank flora and fauna. Closer to the edges of the campus, where it is quieter, the emphasis lies on green elements with native species.

### Locations of the descriptions

Many topics in the 'Nature' theme in this iPDF can be found scattered across the campus. However, only one location has been chosen on the map for each description.



#### Lumen nature garden

The Lumen nature garden is a botanical garden created in 1998 after a design by Ger Londo. Among other things, Londo wanted to show how ecological knowledge can be used to 'return' agricultural and building land to nature. By introducing variation in relief, ground water and soil, and creating nutrientpoor conditions, a small-scale, varied landscape was created. This oasis of flowery grassland, marsh vegetation and a wooded bank attracts many insects, birds, and other animals.

To keep the soil of the flower meadows nutrient-poor, the grassland is cut once or twice a year using light equipment. It is then left for a while to allow seeds to fall out, but not too long to avoid nitrogen leaching. Annually changing patches of the nature garden are skipped so that insects and other invertebrates can overwinter there. The management of the wooded bank focuses on maintaining the characteristic layered vegetation, which provides a habitat for a variety of birds and small mammals. The wooded bank also partly protects the garden from negative external influences, including nitrogen deposition.







Wetland garden

Anyone driving onto Wageningen Campus from Mansholtlaan in 2015 would have seen mostly grassland, with a grove and some solitary trees on the left. By 2016, that picture had completely changed. A path now leads hikers via a boardwalk across a watercourse surrounded by flowering banks. The garden continues on under the bridge to Atlas and around Omnia.

The garden responds to the natural conditions of the site, thanks to the seepage water that rises up to the surface here. Seepage collects in the waterway, creating a flowing, meandering stream. These dynamics and the pure, nutrientpoor seepage water contribute to the garden's biodiversity. Locks are used to regulate the water level. The soil is kept nutrient-poor by mowing once or twice a year and removing the clippings. At the centre of the nature garden, 'the grove' has been preserved for birds and small mammals.







**Flower bulbs** 

During the construction of Wageningen Campus, fields of daffodils were planted in the grass in a few places. With the changing use of the grass fields, they slowly disappeared. In 2017, alumni of Wageningen University & Research (WUR) planted a wide variety of flower bulbs in strips leading from the artwork The Sower. The idea and design of these 'sowing trails' was put forward by Peter Kurstjens and Jan van IJzendoorn (Ruimte Denken Foundation) on the occasion of WUR's 100th anniversary. Over the years, the strips have been repeatedly restored and supplemented with species that thrive in the soil south of Atlas: crocuses, daffodils, and snowdrops.

Bulbs are an important food source for insects in early spring. In 2021, a strip of wild stinzentuin bulbs was therefore planted as a pilot in the berm along Bornsesteeg. This turned out to be such a success that a 2022 fund-raising campaign raised enough money to create a lane of stinzen bulbs in the grass strip along Droevendaalsesteeg. Bulb-filled grass fields and strips are included in the first mowing of flowery hay meadows around June. They are then maintained as low grass vegetation. This promotes the naturalisation of the bulbs. Ornamental and semi-ornamental plantings include bulb species such as Camassia and ornamental onion.





**Green roofs** 

The roofs of some buildings, including Lumen, NIOO and Omnia, have been planted with Sedum. The technical buildings of the thermal storage system (CHP) have also been made as nature-inclusive as possible, with stone basket walls filled with climbing plants and a green roof. The main function of a green roof is to protect and insulate a building. Although Sedum is the most common species, any drought-tolerant and shallow-rooting species is suitable. This can create relatively natural nutrient-poor grasslands on the roofs. These small, flower-rich ecosystems benefit insects and birds.

The precise developing ecosystem depends on the planting material used, the slope and orientation of the roof, and maintenance. Anything that could damage the substrate, drainage system, or roof structure should be removed. This includes leaf litter, which enriches the substrate, and seedlings of trees or coarse herbs. Native herb mixtures also need a thick substrate, which in turn requires a heavy support structure. Depending on the location and type of roof, green roofs on Wageningen Campus therefore differ in their composition.





### NL2120 Landscape garden

In 2020, Wageningen Environmental Research (WEnR) released a report entitled 'The Netherlands in 2120' (NL2120) and articulating a vision by researchers from various fields on the spatial planning of the Netherlands. WEnR translated this into a map showing how much greener the Netherlands could be in 100 years if we prioritise nature-based solutions.

The Landscape Garden was created by applying the NL2120 double dyke principle, a concept for creating new landscapes in water-rich landscapes. Strategically placed low ramps create an 'inner world' where visitors can rest, meet, and work. Rainwater collect in depressions (wadis), keeping the paths dry most of the time. The water is however retained in the area itself so it can continue to replenish moisture for a long time during dry spells. This is in line with the NL2120 principles for higher sandy soils. The high-low and dry-wet gradients with low-maintenance and flower-rich grasslands provide space for a wide variety of plant and animal species. An artificial 'scarp face' allows specific bees and insects to nest.







### Flower meadows and fields

The central landscape strip of Wageningen Campus consists mainly of grassland. It is partly mowed short as sunbathing lawns or event grounds, partly rough growth, such as fields and strips along ponds and waterways. These areas are sown with wildflower mixtures, found in traditionally managed hay meadows on nutrient-rich soils.

The hay fields start flowering around May and peak in June. Many species then seed and slowly die off. Mowing allows light and air into the turf, giving the species room to spread. Perennials often flower again around September. A second round of mowing in October prevents the tall crop from 'flattening' and choking the soil. Alternate areas are left uncut as overwintering sites for insects.

In some places, grassland species are mixed with non-native plants, for example in the Landscape Garden. These flower fields are not mowed, but only cleared of coarse herbs and woody vegetation in spring. This results in the flower fields being in bloom from March to November. Throughout the year, insects and small mammals can find hiding places here.









### **Timeline of apple production**

An important aspect of Wageningen University & Research (WUR) remains its agricultural research. WUR researchers unravel the life processes of plants and animals, and devise methods to influence them. They do so to develop sustainable systems for producing healthy food.

The planting of apple trees on Wageningen Campus is a great example of this. It began with wild apples from Kazakhstan, the gene centre of the apple. Selection and targeted breeding subsequently led to the creation of our current apples. Production was improved by grafting new varieties onto a vigorous and healthy rootstock: standard orchard trees. Later, slow-growing rootstocks were developed, leading to the low-growing, easy-to-harvest orchards we see everywhere today.

Around 100 different historical and modern apple varieties, including the WURdeveloped Elstar, can be found on Wageningen Campus. The NL2120 Landscape Garden contains wild apple varieties, standard apple trees can be found near Forum and the amphitheatre, and an orchard of low-growing trees has been planted on The Field. The varieties are provided by the Wageningen-based Centre for Genetic Resources Netherlands (CGN), which works to preserve the genetic diversity of agricultural and horticultural crops. 'Apple' is one of the collections managed by WUR.









### Green car parks

The above-ground car parks on Wageningen Campus, such as at Radix (P1) and the car park behind Plus Ultra, have been given the greenest possible appearance. A wide variety of climbing plants, such as vine, Clematis and honeysuckle species, cover the façades. For good, natural ventilation of the building, it is important to not allow everything to grow shut. At P1, grates made of sustainable wood (Accoya) have been installed at the ventilation spots. This garage also has tubs with flowering shrubs, connected to an irrigation and feeding system. This gives the garage a green character both on the outside and on the inside.

Green car parks blend better into the surrounding landscape, especially when natural elements in the area are also taken into account. At P1, a semi-natural stinzen woodland garden has been created on the Bornsesteeg side. This creates an additional habitat and settlement zone for flora and fauna from the wooded bank opposite. On the east side, many ornamental plants have been planted, in reference to Wageningen Plant Research's work in the adjacent Radix building. The garage behind Plus Ultra provides nesting places, and the flowers attract many insects. This benefits birds from the wooded bank along the Plantage.







### Solitary and monumental trees

Most trees on Wageningen Campus are found in wooded banks and in rows along roads and ditches, characteristic of the former, line-shaped cultural landscape. A number of trees that were there before the campus was developed have been integrated into the landscape design. For example at the entrance to Unifarm, with its six monumental trees dating from 1890, and the group of trees east of Forum. These used to stand in the garden of a former servant's house.

Since 2007, over 100 new free-standing trees have been planted across the campus with enough space to grow to their full height. Species were chosen that can in principle cope with the growing conditions on campus: alternating wet and dry with impermeable soil layers here and there. New species are given at least three seasons to catch on to test which species are really suitable. The results range from beautifully flowering insect attractors, like the honey tree, to less disease- and pest-prone varieties of native species, such as pin oak, white elm, and narrow-leaved ash.











### **Ornamental grasses**

Inspired by American prairies, landscape architects started using ornamental grasses. These are low-maintenance plants with beautiful winter silhouettes. They are therefore widely used in ornamental plantings around commercial buildings, for example at Plus Ultra and Campus Plaza.

At Axis and Helix, large groups of Miscanthus (elephant grass) and Panicum virgatum (crabgrass) symbolise the research conducted in these buildings. These are species that grow very quickly without needing much water or fertiliser. They are therefore interesting for supplying biomass as well as feedstock for biobased products such as bio-asphalt, in which 50% of petroleum-based bitumen has been replaced by lignin from Miscanthus. WUR is conducting research on this material, and in 2017 put down the world's first bicycle lane with a coating of lignin asphalt along Bornsesteeg.







Ponds

Wageningen Campus houses several larger and smaller ponds. The oldest large pond is in the nature garden at Lumen. Built in 1998, it has a clay soil. The pond is connected to the ponds in Lumen's indoor gardens. When the water in those ponds evaporates, it is replenished with the water from the outdoor pond. The small pond in the Lumen garden was excavated to groundwater level. Clean seepage water rises to the surface here, leading to the development of unusual marsh and riparian vegetation.

Of the four large ponds on the central landscape strip, the one between Zodiac and Impulse was created in the 1960s. The other three were excavated between 2005 and 2010 as part of Wageningen's ecological water plan. The ponds collect and filter water to purify Wageningen's canals via the groundwater. The smaller water features in the south-west corner of the campus are also part of this water plan.

The ponds have gently sloping banks or storm berms, which are mowed in phases to give marsh and aquatic life more chance to thrive. As a result, the ponds have slowly but surely transformed from bare pits excavated to groundwater level into small natural areas. The large pond behind Zodiac connects to the flora and fauna of Badger Wood via a transitional vegetation corridor.









### Badger Wood and experimental forest garden

Badger Wood is a 3.5-hectare woodland. There have been trees on this site for centuries. Sometimes on walls with ditches between them for drainage (rebates), for example for oak trees, whose bark was used in tanneries in the 18th and 19th centuries. At other times, it was part of larger woodland areas designated for hunting or coppicing. Another rabbet structure was probably constructed around 1930. After 1960, this was not managed as such, so the vegetation continued to develop naturally.

In 2013, NIOO (Netherlands Institute of Ecology) established a Bird Migration Station in Badger Wood. Here students learn to ring birds and researchers collect data on the role of birds in the spread of infectious diseases. The forest structure and light penetration have also been measured for years. In 2022, an experimental woodland garden was created on the north side, where students can follow the development of dense plantings of native shrubs and trees into a forest. Because of research and teaching activities, Badger Wood and the experimental forest garden are not open to the public.





Topic



#### The Field as a nature element

The Field is an experimental garden, offering students and researchers space to experiment with production and ecosystems. The basis is a design by landscape architect Fiona Morris (Atelier Rabbit). Her challenge was to use native plants and traditional water management techniques to revive the raised 'dead', dense, and wet soil.

The site is divided into five compartments by walled hedges of willow and dog rose. The walled hedges were raised using soil from the ditches dug along them. The ditches are connected to canals and water features and lead to a pond-like swampy area for willow cultivation ('griend') where water can collect. Naturefriendly projects such as the flower borders, the picking garden and Wageningen Student Farm's food forest, flower meadows, and the apple orchard have greatly improved soil quality and increased biodiversity. For example, a large number of blackthorn butterfly eggs were observed in the mixed hedgerow on the east side in 2022.







### Wooded banks and stepping stones

Wageningen Campus is located between Hoge Veluwe and Gelderse Vallei. To the north of the campus lies the Wageningen Municipality's ecological corridor connecting these two nature reserves. Linear greenery, including wooded banks, and groups of native shrubs (stepping stones) on the campus connect to these ecological structures.

Wooded banks and stepping stones are maintained as woodland, meaning they are thinned in stages and old wood is removed. This allows light and air to filter through the vegetation, giving new shoots room to grow. Wooded banks with many large trees, for example along Bornsesteeg, are managed as natural forests. Dead or fallen wood is left on the ground, contributing to biodiversity and providing space for new plants. Only trees and shrubs that may pose a safety hazard due to their location in a wooded bank or stepping stone are preventively pruned or uprooted.







### Hedges and hedgerows

Until the invention of barbed wire during the First World War, yards and pastures were separated by hedges and hedgerows. On Wageningen Campus, they are mainly used to separate greenery from paving, such as roads, parking spaces, and bicycle parking areas. Initially, this was done using field maple *(Acer campestris)* and beech *(Fagus sylvatica)*. The latter does not grow well on campus. In recent years, new hedges have included mixes of several other native species, such as hornbeam *(Carpinus betulus)*, privet, yellow and red dogwood, juneberry, and birch.

In some places, entire grass strips have been replaced with wide hedgerows of ornamental shrubs. In this context, species were selected that remain relatively low and are attractive to humans and animals year-round, for example along the south side of the bus lane. Hedges and hedgerows should never be allowed to obstruct the view of the traffic, and this is reflected in the pruning policy.







#### **Ornamental plants**

In addition to the flowery hay fields, which add a lot of colour, especially in summer, the campus also sports borders with flowering perennials and shrubs, and areas where ornamental plants are mixed with wild flowers (flower fields). The vegetation in these areas is composed in such a way that the plants cover the ground quickly, allowing maintenance to be limited to manual removal of coarse herbs and woody vegetation. Only in early spring are plant residues removed to give light and air to the young plants. This allows insects and other animals to find food and protection in these vegetation layers all year round.

#### Wageningen Centennial daylily

Daylilies grow very well on campus, where they are pollinated by bees and bumblebees, and the flowers are also edible. In June and July, you can see them blooming in various places on campus. In honour of Wageningen University & Research's centenary, hobby hybridizer Seerp Wigboldus selected a new daylily species in a project at The Field. The formally registered *Hemerocallis 'Wageningen Centennial'* stands in a border on the terrace of Impulse.







Nest boxes

On Wageningen Campus, you will find many nest boxes on trees or near buildings. During periods of renovation or construction, these are installed as a mitigation measure for bats, sparrows, or owls.

In 2019, 100 nest boxes were put up, mainly for tits. This network is used in research and teaching to study the behaviour of birds in the human-made (urban) environment during breeding and non-breeding seasons. The boxes are hung in busy and in quiet places, sometimes in combination with food, extra light, or some other variable, to see what deters or attracts birds. Tits can contribute to the ecological management of pests, such as the oak processionary caterpillar, which is unfortunately also present on campus.







Waterways

Wageningen Campus is located in a seepage area, which means it can get very wet in some places. To manage groundwater and water levels, large ponds have been created on campus. Old and new waterways were connected and equipped with locks. These are part of the Wageningen water management system and are all located on the grounds of Wageningen University & Research (WUR). WUR is therefore responsible for maintaining the waterways, with the Water Authority ensuring that the flow is in order. Wherever possible, banks were made to be slowly sloping or storm berms were created to promote biodiversity. In the central landscape strip, this is not feasible due to underground infrastructure.

WUR mows the banks of the waterways once a year in two phases. One half is mowed in spring, always in a staggered fashion from one bank to the other, and the other half in autumn. As a result, there are always plenty of places for animals to hide and live. If the vegetation on the banks grows too heavy, minerals are removed by mowing the banks completely twice a year. This impoverishes the soil and increases species diversity. The wetland garden is an important element in the water management system. At times of substantial rainfall, the garden can flood and in this way capture and retain water, preventing flooding.







**Avenue trees** 

Wageningen Campus is located in a former polder district. The area was made more accessible and productive as early as the<sup>12th</sup> century with ditches and roads on embankments. Trees were planted along the roads and ditches. These were mainly utility timber species such as willows, alders, and poplars, which contributed to the water management of the predominantly swampy area and provided protection from the elements. For access roads to estates, owners used stately trees such as beech and oak. Bornsesteeg, for example, was an oak lane that ran from Wageningen to Nergena Castle, a 'fortified house' located north of the campus.

This linear landscape with tree-flanked roads forms the basis of the campus' landscape design. The rows of trees form migration routes for bats and treebound species such as squirrels and stone martens. Depending on the species, they provide nesting opportunities and food, store  $CO_2$  and have an air-purifying effect. Since the trees stand along the roads, safety is a concern. Once every three years, therefore, all trees are checked for health.







Click a number on the map to access information about the item with a story behind it.

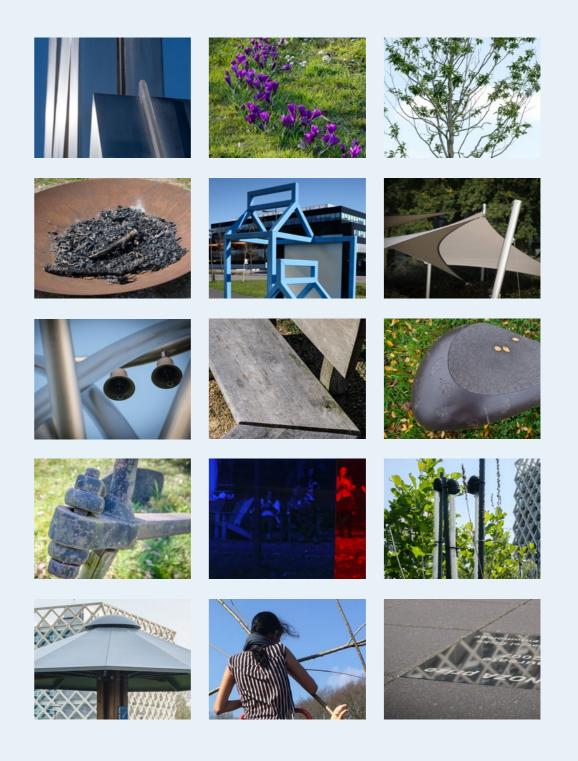
Use the five buttons at the bottom of the page to access another theme.

# Introduction to The story behind... theme

Here and there throughout the campus, you sometimes see something that makes you pause and think: 'What is that?' or 'Why is it standing there?' These are usually creative expressions by employees and students to mark a special event. 'The story behind...' tells you more about it.

Every year, people submit ideas for placing new objects on campus, whether to celebrate the anniversary of an association, commemorate a special employee, or lift the veil on the most recent innovations in research and education. Like the lights that run on energy generated by bacteria around plant roots, the projects on The Field, or the science display windows. These objects are therefore also expressing what happens behind closed doors in the campus buildings.

Many objects are both functional and a beautiful addition to the campus landscape. These include the sitting stones, the Social Sofa, the WU Peer Bench, and the wind barrier around the terrace at Orion. If you see something you would like to know more about that is not included in the list, have a look at the other themes.



Object	'Tubes' by Plant-e in the wetland garden
Initiative	Plant-e
Placed in	2016

An alumna of Wageningen University, Marjolein Helder, translated her PhD research on energy generated by plants into a system for sustainable lighting: the 'Plant-e' technology. The system works around the roots of plants, where electrochemically active microbes feed off the nutrients the plants excrete. This releases electrons. An underground tube system captures these electrons and converts them into an electrical current.

The bacteria need a continuously moist environment. The wetland garden at Atlas offered the ideal conditions for a demonstration installation. The sticks are the underground tube system's inlets and outlets. The energy thus generated is used to activate a switch on the information board about the wetland garden. Pressing the button turns on LED lights above the board. In severely dry conditions, the stream in the wetland garden can dry up and the system will cease functioning. When that happens, it can take some time for the microbial life around the tubes to recover and for the lights to come back on.





Object	Sowing trails of spring bulbs
Initiative	Stichting Ruimte Denken
Design	Jan van IJzendoorn
Placed in	2017

In 2017, nearly 19,000 flower bulbs were planted in the shape of sowing trails on the west side of Atlas. This was an initiative by the Ruimte Denken Foundation on the occasion of WUR's centenary. The trails fan out from The Sower into the surrounding space, just as WUR has been spreading its knowledge across the globe. Initially, a wide range of bulbs was tested to see which varieties would do well on the sometimes quite wet turf at Atlas. Although you can occasionally glimpse a snake's head fritillary or spring snowflake, daffodils and crocuses are the main eye-catchers.

Donkergroen, which was responsible for greenery maintenance on campus in 2018, donated another 8,000 crocuses and 3,500 daffodils to WUR for its 100th anniversary. The designer and consultant from the Ruimte Denken Foundation, Jan van IJzendoorn and Peter Kurstjens, went to work with the bulbs, and together with a team of WUR alumni, they supplemented the planting around The Sower and added more crocuses to the more distant trails.





3

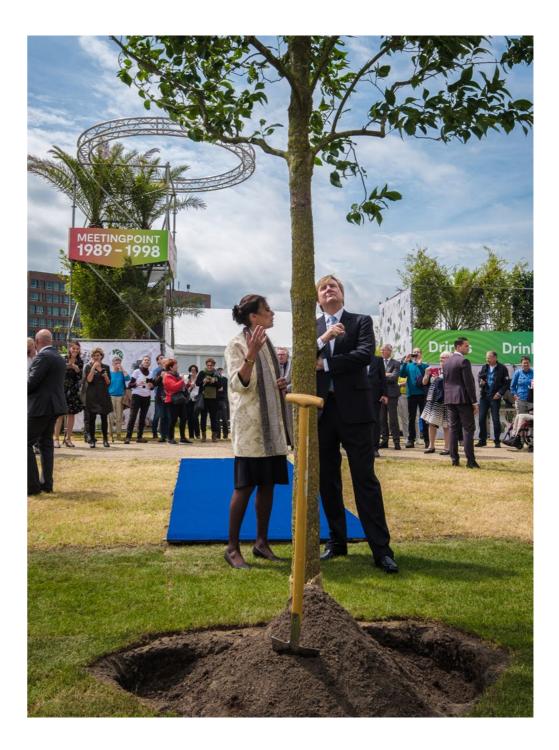
### The story behind...

Object	UniversiTREEs and other memorial trees
Initiative	WUR Centenary Organising Committee and others
Placed in	various

The idea for 100 trees for 100 years of Wageningen University & Research (WUR) came from a Wageningen University alumnus. WUR embraced this idea and set its network in motion to plant the trees. Slowly but surely, a forest of UniversiTREES is being planted worldwide, marking the connection with Wageningen.

On 23 June 2018, His Majesty King Willem-Alexander planted a UniversiTREE on Wageningen Campus (the 'King's Tree' at Atlas). It is a gum tree (Eucomnia ulmoides), which produces rubber from which hard 'plastics' can be developed. In China, the bark is used for medicinal purposes. The Eucomnia was also part of a study on new tree species for urban areas, which are increasingly affected by the changing climate. The study revealed that the gum tree can withstand temporary flooding and longer periods of drought, typical of the growth conditions on campus.

Commemorative trees were also planted elsewhere on campus. There are usually no signs near the trees because signs tend to be easily damaged or stolen.

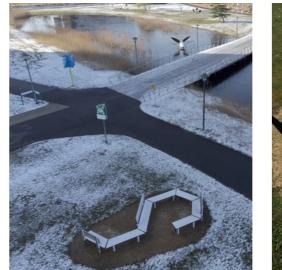


Object	WU Peer Bench and memorial tree
Initiative	Bench: Association of WUR Professors and WU Peers partners   Tree: Study association Sylvatica
Design	Bench: Gabrielle Bartelse and Annet Kempenaar (WU Landscape Architecture)   Tree consultancy: Leo Goudzwaard
Placed in	Bench: 2013   Tree: 2015

At the corner of the event area stands an oak bench in the shape of a question mark. A text plate states: 'WU Peer Bench | Construction: G. Crum, Renkum'. The bench was a gift from the association of professors and their partners, the 'WU Peers', on the occasion of the association's 50th anniversary. It was designed by Gabrielle Bartelse and Annet Kempenaar of Landscape Architecture (Wageningen University Environmental Sciences). The question mark refers to the research and teaching taking place on campus.

Near the bench stands a stately European white elm (Ulmus laevis), planted by study association Sylvatica in 2015 to mark their 75th anniversary. They sought advice for this project from their lecturer, WUR forest ecologist Leo Goudzwaard. The campus offers the right growing conditions for elms, but they are rarely planted due to Dutch elm disease. However, the elm tree beetle, which is responsible for spreading the disease, seems to avoid this native elm species. This led to more white elms being planted in 2016, together with Dutch elm disease-resistant varieties developed at WUR.







4

The story behind...

5

Object	'Parasols'
Initiative	Wageningen University & Research
Design	At Forum and Orion: Samosa – Ontwerp op maat
Placed in	2013   2018

The metal parasols at Forum, Orion and Atlas are former smoking areas. Smoking was already legally banned in buildings around 2012, but it was only banned in outdoor areas in 2020. Until then, smoking areas were created with bus shelters, spots under bicycle shelters and under the overhang at building entrances. Especially the latter was a thorn in the side of non-smokers.

In 2013, Atlas residents agreed to a smoking area in the grassy area across from the service entrance. It became a colourful, metal parasol over a picnic bench surrounded by native shrubs. In 2017, Orion and Forum opted for a similar solution. Samosa created the design of the hexagonal parasols out of zinc-coloured stainless steel. Below are four oak benches with high backs, providing some shelter from the sun, wind, and rain. The parasol at Atlas was eventually painted zinc as well. These are now places to to sit outside, even when the weather is bad.





6

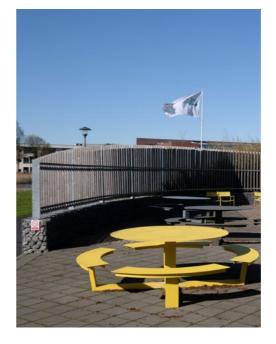
## The story behind...

Object	Orion terrace windbreak
Design	Studio Maatwerk
Placed in	2017

With its southwest location, the spacious 1000 m<sup>2</sup> terrace around Orion is a beautiful, sunny place, but also a wind trap. Due to the tall building, wind velocities are much higher than in an open field and turbulence occurs in both horizontal and vertical directions. Some form of shelter was required, but without obstructing the view and interfering with the terrace's open, sunny character.

Studio Maatwerk designed the half-open construction, which acts as an effective windbreaker, and is constructed from elements with slats of Douglas fir wood in galvanised steel. The elements are connected with posts that go into the ground through the stone baskets. Since the Douglas slats hang in the steel construction, they do not touch the stone baskets. The slats are of different lengths, and placed in such a way that the top creates a wide undulating movement over the stone baskets.







7

Object	Science display windows
Initiative	Wageningen Campus Strategy Project Group Communication & Hospitality
Design	Studio Maatwerk
Placed in	2017

In 2013, the majority of the buildings and infrastructure outlined in the 'Wageningen Campus Master Plan' were completed, and the 'Wageningen Campus Strategy' was published. This provided direction for the next step: developing the campus into a world-class knowledge centre. The primary themes were attracting businesses and promoting interaction between students, researchers, and entrepreneurs. One of the ideas was to use the grounds to make visible what Wageningen Campus stands for.

This request was submitted to Studio Maatwerk, who designed science display windows: light boxes in campus blue depicting the major themes in Wageningen research. Each light box contains a poster with three merged images. A few metres in front of the light box is a frame with three sight glasses in red, green, and blue. Each of these glasses makes one of the three images on the poster appear. This symbolises the different perspectives or 'glasses' you can use to examine a problem. The display windows invite visitors to initiate a conversation on the topic.





8

Object	BBQs and fire bowls
Initiative	Wageningen University & Research
Design	Samosa – Ontwerp op Maat
Placed in	2013

In 2013, all of the university's programme teaching relocated to Forum and Orion, and most teaching staff moved to campus. The campus had just been landscaped and felt like a large, abandoned lawn. This was no place for socialising outside of lecture hours. Students were especially missing a place to barbecue.

That is why a couple of 'braaien' were placed at the Forum pond in 2013: a large braai on a concrete base directly on the ground for lighting a fire in, as well as a small one on a tripod, above which you can hang a grill. Campus residents can reserve these and other BBQ spots at the Forum reception desk.

The BBQs are designed by Samosa – Ontwerp op Maat. They came up with this idea during their internship in the townships of South Africa, where they built playgrounds together with boys who wanted to learn the carpentry trade. Upon their return to the Netherlands, they set up a company based on this philosophy.



Object	Logo of Wageningen Agricultural University
Initiative	Wageningen University & Research
Design	Ad van der Have in collaboration with Bas Neon (firm)
Placed in	2012

The university celebrated its 75th anniversary in 1995. In honour of this event, the Municipality of Wageningen, the Dienst Landbouwkundig Onderzoek (DLO, now the research branch of Wageningen University & Research) and Wageningen's business community donated a sculpture in the form of the university's former logo. This stylised W is made of steel with a neon light tube inside.

The first logo dates back to 1968, 50 years after the Dutch government established an Agricultural University of Applied Sciences in Wageningen. A simple, open Ih which stands for Landbouwhogeschool (Agricultural University of Applied Sciences) appears on the official papers. In 1986, universities of applied sciences were permitted to call themselves universities. The new logo represented the new name: Wageningen Agricultural University (LUW).

When DLO and the university formally joined forces in 1998, they ratified their partnership in a joint corporate identity and logo: Wageningen UR beneath a green 'gate' on a blue base. In 2016, the two organisations merged into a single brand: Wageningen University & Research, often abbreviated to WUR. The logo remained more or less the same, with the new name appearing under the 'gate'.







9

**10** The story behind...

Object	Carillon
Initiative	University Fund Wageningen
Design	SW Architects
Placed in	2018

Wageningen Campus has a carillon. The idea originally came from Emeritus Professor Rudy Rabbinge, who noticed that many universities have a bell tower with a carillon that plays at official events. The University Fund Wageningen (UFW) presented the idea to its donors, who thought it would make a great gift for the University's 100th anniversary. The eighteen bells play for about ten minutes during festivities such as the Dies Natalis and graduation ceremonies.

The design is by SW Architecten from Wageningen. The bell tower consists of a tubular circle supported by five curved steel legs. Eighteen bells are attached to the circle, which has a diameter of three metres and hovers about seven metres above the ground. The whole contraption rests on a sloping concrete base. The bells were cast by the world famous Eijsbouts bell foundry in Asten, Brabant.









Object	H17 Anchor
Initiative	Heeren XVII Study Association
Placed in	1995   2014

Heeren XVII was founded in 1965 as the study association of the former study programme in Agricultural Technology. The association owes its name to the fact that when it was founded, only men ('heren'=gentlemen) enrolled in this programme. Agricultural Technology was also the 17th study programme in Wageningen at the time.

The study association presented the anchor to the University in 1995 on the occasion of its 30th anniversary. It was then moved to Agrotechnion on the De Dreijen Campus, where it served as a symbol for the anchoring of the chair groups, the study programme, and Heeren XVII in the building. In 2014, the chair groups moved from Agrotechnion to Axis on Wageningen Campus.

Today, the study programmes are called Agrotechnology and Biosystems Engineering and the chair groups in question are located elsewhere on campus. However, the anchor behind Axis remains as a reminder of these bygone times.





Object	Sitting stones
Initiative	Wageningen University & Research
Design	Van Berlo (firm) in collaboration with Ton Kooymans SW Architects
Placed in	2008

In 2008, fifty concrete cast stones were placed across Wageningen Campus. They have different nature tones and are approximately  $80 \times 50 \times 40$  cm in size. Each stone features imprints of oak leaves and has a polished oblong cut-out. The stones are placed in such a way that you can sit on them alone or in a group.



13

# The story behind...

Object	Social Sofa
Initiative	KVL Wageningen Alumni Network
Deisgn	Elise de Reu, Social Sofa (company)
Placed in	2015

The KLV Wageningen Alumni Network presented this colourful mosaic bench to Martin Kropff in 2015 on the occasion of his retirement as Rector Magnificus of Wageningen University & Research. The sofa was placed by the pond in front of Zodiac, which turned out to be a perfectly chosen spot: Martin's first workplace in Wageningen was in the current Zodiac, in an office that now looks out onto the sofa. Martin unveiled the sofa together with Elise de Reu, the pupil from RSG Pantarijn Wageningen who designed the sofa.

This sofa is part of a four-part series spread across Wageningen. The Social Sofa was designed to boost the fight against the weakening of social ties. The public could buy mosaic pieces and glue them on themselves, making the bench both a crowd-funding and a social project. The proceeds went towards the production of the documentary 'Love to live', about Margreet Bos from Wageningen, who became disabled after a terrorist attack.



14

Object	Amphitheatre
Initiative	Levendigheid Wageningen Project Group 2013 Campus Strategy
Design	MTD Landscape Architects and Sweco (firm)
Placed in	Theater en text: 2016   Canopy: 2019

The amphitheatre offers all residents of Wageningen Campus a place to meet. The sunken forecourts of South American pyramids formed the inspiration for the design. Ad van der Have, former Head of Buildings and Sites at Wageningen University, had encountered them on one of his journeys.

Louise Fresco, President of the Executive Board, came up with the idea for the motto on the amphitheatre. This one is by Francis Bacon (1561-1626), who, as a pioneer of the Enlightenment, laid the foundation for experimental science. The text reads: *In arbitus et scientiis, tanquam in metalli fodinis, omnia novis operibus et ulterioribus progressibus circumstrepere debent* (Art and science should be like mines, where the noise of new works and further advances is heard on every side)

Impulse uses the amphitheatre as an open-air stage for small-scale activities such as theatre events, concerts, and workshops. To create more options for and encourage such activities, a flexible canopy was added in 2019, designed by Studio Maatwerk in collaboration with the supplier, Trimmings.







**15** The story behind...

Object	The Field
Initiative	Wageningen University & Research
Design	Fiona Morris, Atelier Rabbit
Placed in	2015



In 2014, Wageningen University & Research made funds and the approximately 1.5-hectare field in the southwest corner of the campus available to fulfil a long-cherished wish: the creation of an experimental garden: The Field. Here, campus residents are given space to put their ideas and knowledge into practice alongside their regular work and studies, under the motto 'learning and sharing'.

The most active user of The Field is the Wageningen Student Farm (WSF). In recent years, WSF has grown into a large group of enthusiastic students from many different disciplines who work on various projects every week. Beekeeping, composting and experimenting with mushroom cultivation, permaculture, crop rotation, flower borders, and a picking garden.

WUR employees guide and support WSF in its activities. The Centre for Genetic Resources of the Netherlands (CGN) has planted an orchard of around 80 apple varieties on The Field, and offers courses in tree maintenance. Willow branches are used for plaiting courses. In a 'gypsy wagon', WSF organises educational activities for children.







Object	Walk of Fame
Initiative	Wageningen University Fund
Design	Wageningen University & Research
Placed in	2013

This path consists of what appears to be normal graphite-coloured tiles. A closer look reveals that the tiles have been replaced here and there with plaques, containing texts and illustrations of special moments by students, employees, associations, and other groups affiliated with Wageningen University & Research.

If you have something to celebrate or commemorate, you can have it memorialised with an engraved stone on this path. The Wageningen University Fund is responsible for coordinating applications and donates part of the placement costs to the Anne van den Ban Fund, which supports students from developing countries. Over time, the path will describe WUR's history based on memorable moments: the WUR Walk of Fame.





# Colophon

**Photography** Mostly Guy Ackermans

Drone footage Ergo Media Productions

*Nature and Sustainability* Mostly: Bobby De Vos, Michiel Peters & Elike Wijnheijmer

Specific contributions Antonio Valente (Art 11, Growth Stages at sunset; Art 12, Cauldron at dusk; Art 15, Rose for Atlas) Marcel Gerritsen (Art 40, Turbulent Flow) Esther Dekkers (Nature 3, Flower bulbs in early spring) Hans Hebbink (Sustainability 7, Solar table)

**Design** Wageningen University & Research, Communication Services

#### Text & editing

Art Liesbeth Missel (text), Joke Webbink (text & editing)

Sustainability Elike Wijnheijmer (text), Erna Maters (editing)

Nature Elike Wijnheijmer (text), Wieger Wamelink (editing)

The Story Behind Ad van der Have (text), Elike Wijnheijmer (text & editing)

Buildings Elike Wijnheijmer (text), Nicolien Pieterse (editing)

Other text sources

- Wageningen Sculptures Art in the public sphere.

- WUR Image Collections: Art on Wageningen Campus

- Resource 16-10-2019, Roelof Kleis (façade panel of Agriculture and Horticulture, Cor Hund)

- Resource 24-10-2022, Roelof Kleis (untitled façade panel, George van der Wagt)

#### Final editing

Sil traas

© Wageningen University & Research