Interreg

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Latvia – Lithuania

Resilient and climate-adapted green spaces in JELGAVA and RIGA

Information on public open space sites visited during the project study trip

- Experimental urban meadows plots in Jelgava (Latvia University of Life Sciences and Technologies)
- Business Garden Riga
- Rain garden in parking lot Shopping mall «Spice Home»
- Riga urban meadows
- Victory Park in Riga and the Mūkusalas Promenade (Aleksandra Grīna bulvāris 15, Rīga)
- Mūkusala promenade
- National Library of Latvia

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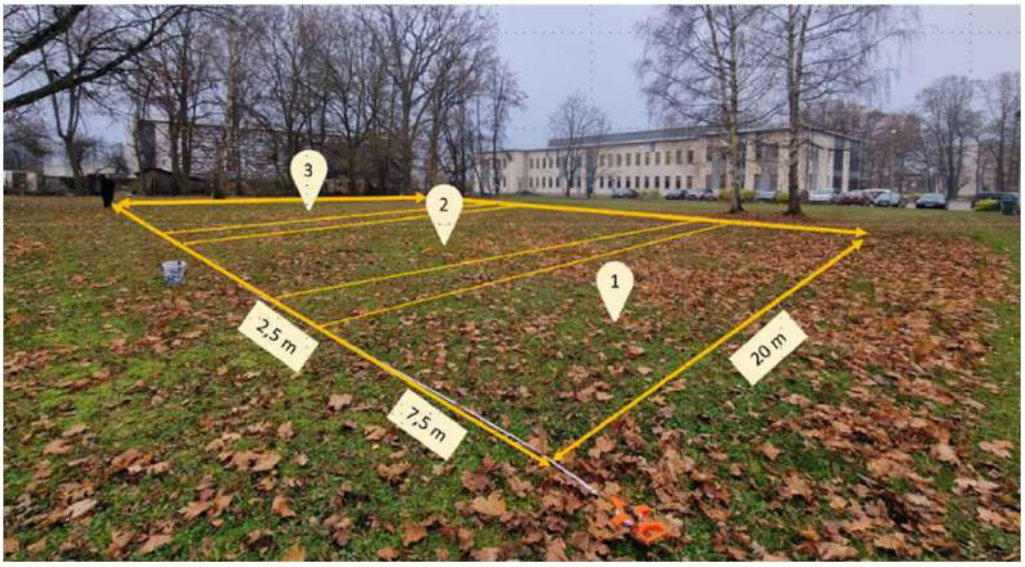
Lietuvos inžinerijos kolegija

Latvia University of Life Sciences and Technologies

Experimental Urban Meadow Pilot Plots at Valdeka Palace, Jelgava

As part of the research project *Urban Meadows as a Tool for Sustainable and Climate-Resilient Urban Development*, three experimental urban meadow plots were established near Valdeka Palace on the Latvia University of Life Sciences and Technologies (LBTU) campus in Jelgava. The pilot site functions as an open-air laboratory for testing meadow establishment techniques, monitoring biodiversity, evaluating soil processes, and assessing the long-term performance of urban grassland systems



The pilot area consists of three 150 m² plots (450 m² in total), each representing a different meadow establishment approach:

Plot 1 – Topsoil Removal and Meadow Seeding

The existing turf layer was removed and replaced with a sand–gravel substrate before sowing a species-rich meadow seed mix. This approach reduces competition from existing vegetation and creates conditions similar to semi-natural grasslands.

Plot 2 – Turf Scarification and Meadow Seeding

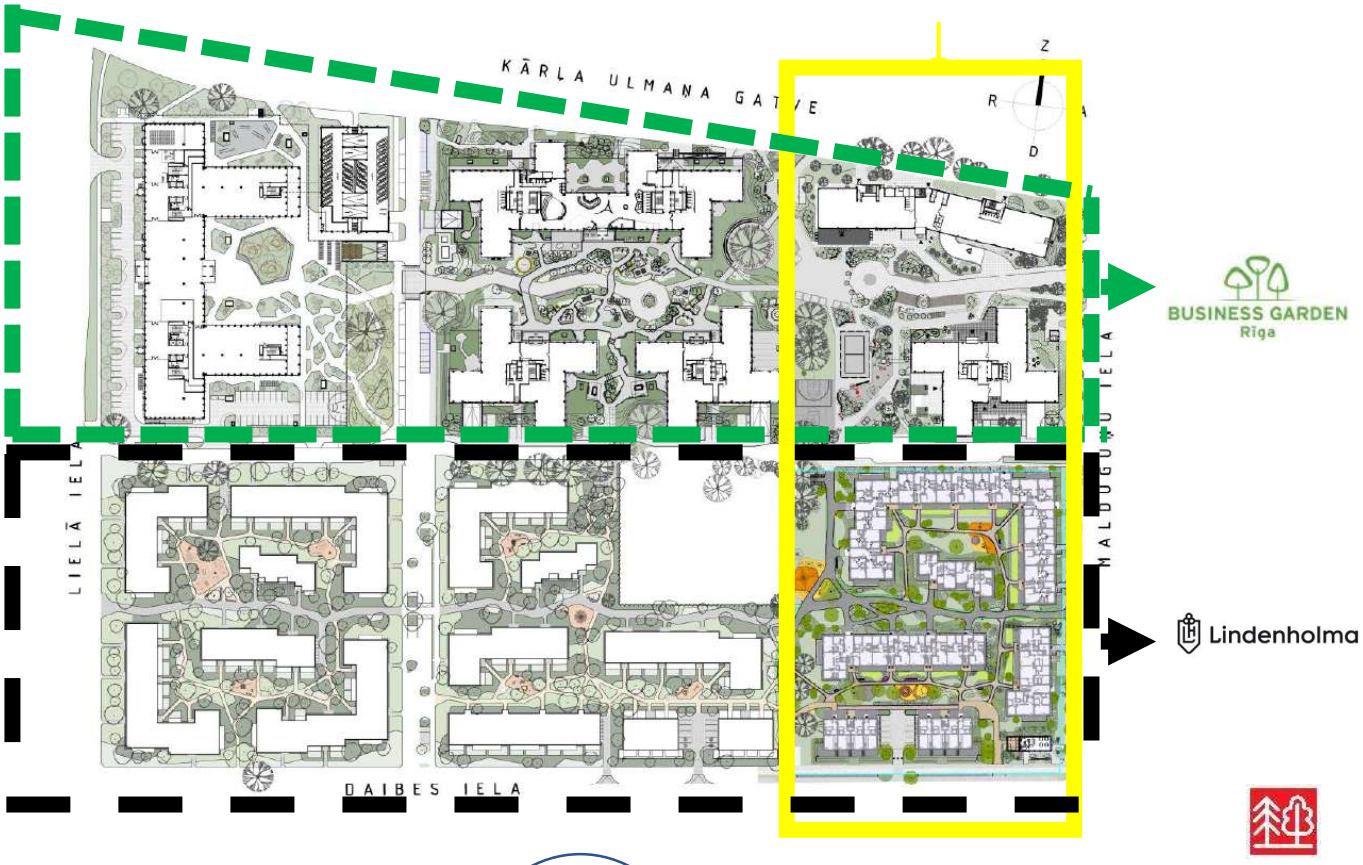
The existing lawn was scarified and directly oversown with the same meadow seed mixture. This method represents a lower-cost intervention while maintaining much of the existing soil structure.

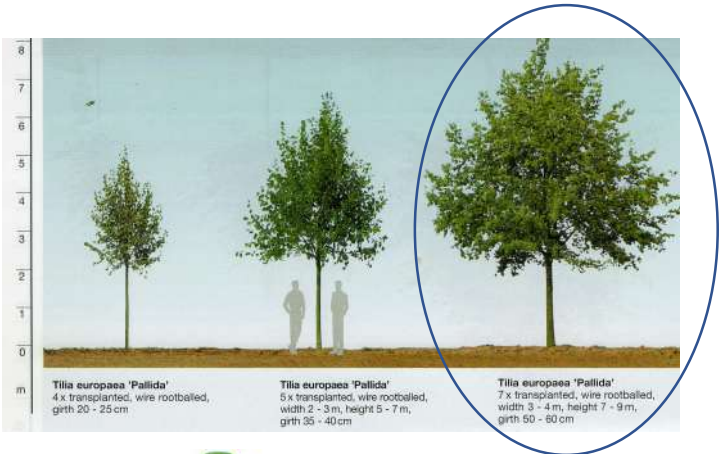
Plot 3 – Existing Grassland Control Plot

The existing vegetation was retained without soil disturbance and managed as a comparison plot, allowing researchers to evaluate the effects of the two establishment techniques.

The seed mixture included 25 native meadow species selected by grassland experts, such as oxeye daisy (*Leucanthemum vulgare*), bird's-foot trefoil (*Lotus corniculatus*), red clover (*Trifolium pratense*), yarrow (*Achillea millefolium*), cowslip (*Primula veris*), and yellow rattle (*Rhinanthus* spp.).

Business Garden Riga and Lindenholma are large-scale mixed-use developments by Vastint Latvia located at the gateway between Riga and Mārupe. Construction of Business Garden Riga started in 2018, with the first phase completed in 2019, while Lindenholma has been developed in successive phases since 2020. The projects are based on Vastint's long-term philosophy of creating human-scaled, sustainable environments where architecture, landscape and everyday life are integrated through extensive green infrastructure, pedestrian-oriented public spaces and high-quality outdoor environments. Business Garden Riga is organised around a 1.7-hectare central garden and became the first development in Latvia to receive LEED Platinum certification. The project received 1st Prize in the Latvian Construction Annual Award 2019 (New Public Building category) and 3rd Place in the Latvian Building of the Year 2019 competition. Lindenholma, conceived as an urban residential quarter with park-like courtyards and car-free interior spaces, was a finalist of the Latvian Architecture Award 2021 and received recognition in both the Latvian Construction Awards and Sustainable Project Awards for its innovative approach to housing and landscape design.



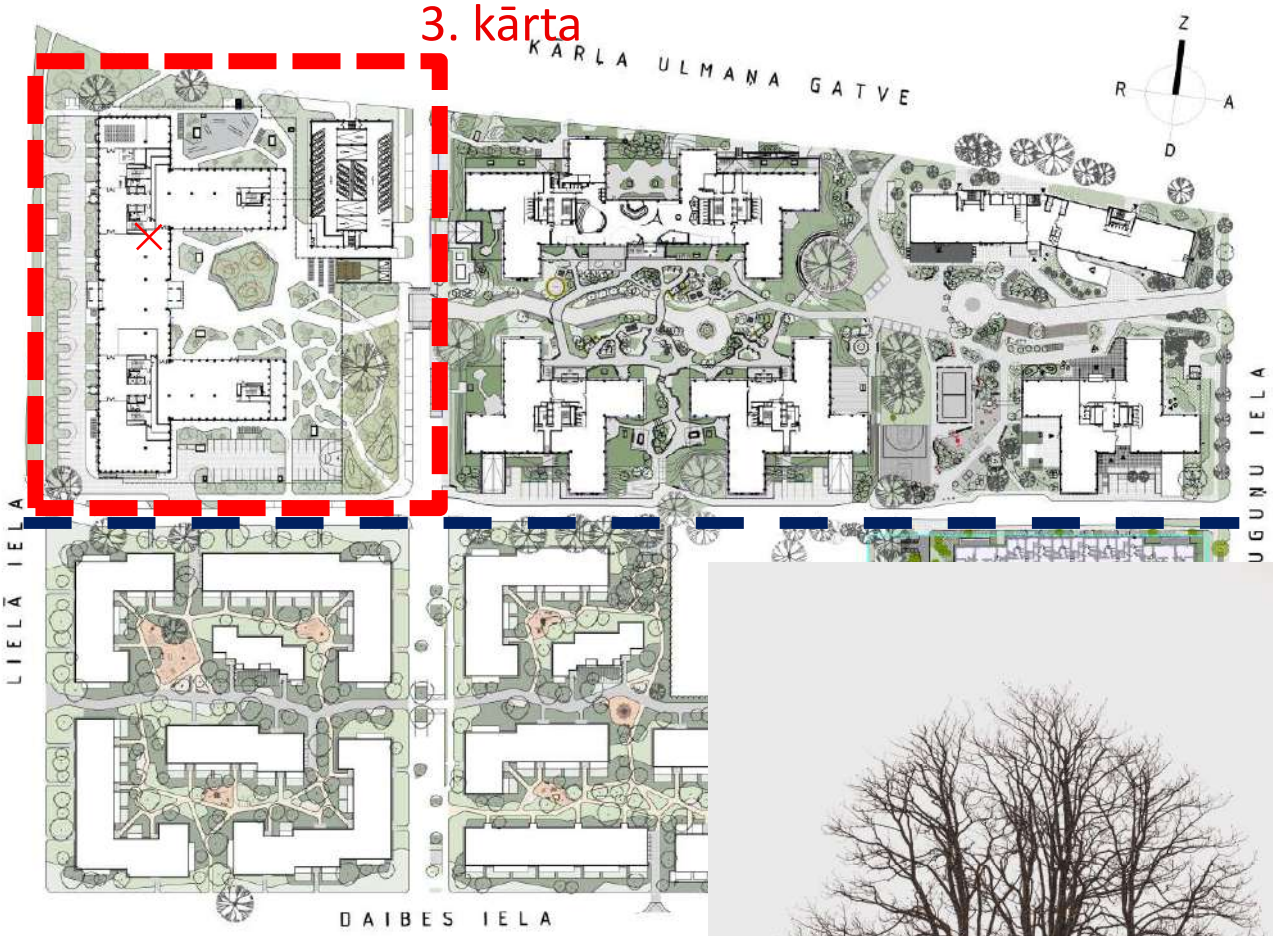


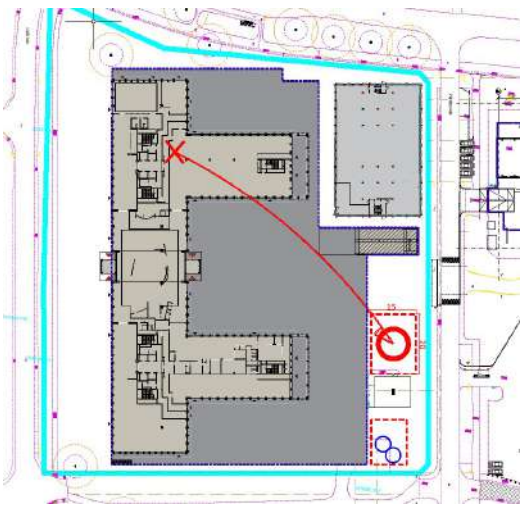
BUSINESS GARDEN Rīga

Lindenholma

LABIE KOKI projekti

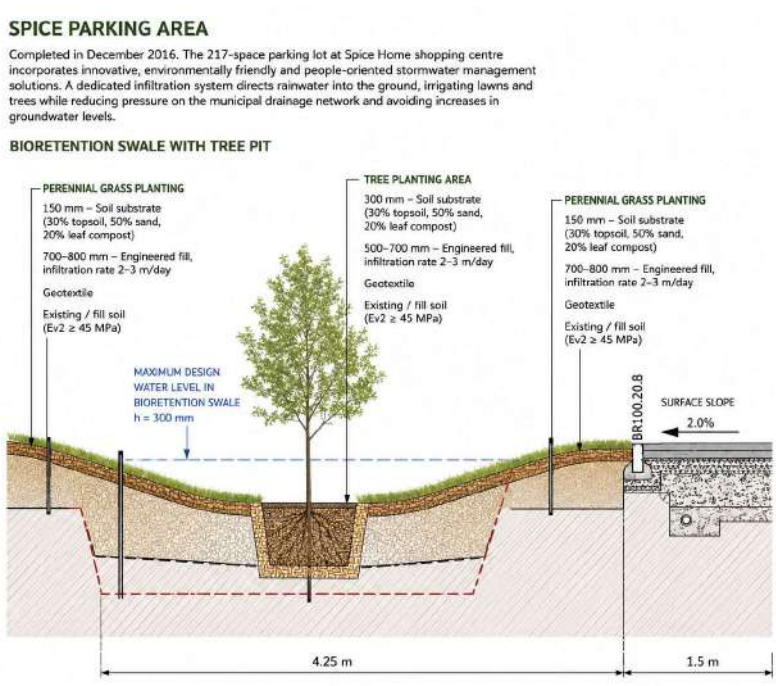
One of the highlights of the Business Garden Riga and Lindenholma developments is the successful transplantation of a mature horse chestnut (*Aesculus hippocastanum*), demonstrating Latvia's growing expertise in integrating valuable existing trees into contemporary urban development. Led by the arboricultural company *Labie Koki* in cooperation with the developer Vastint Latvia, the operation involved relocating a 104-year-old tree approximately 97 metres within the site. **The tree is about 20 metres high with an 18-metre-wide crown and an estimated biomass of 150 tonnes**, including a root ball measuring approximately 12 × 15 metres together with its associated soil ecosystem. Rather than removing the tree, the project team chose transplantation as a commitment to preserving landscape identity, ecological value and sense of place, illustrating how mature trees can become a central element of sustainable urban development.





Spice Home Car Park – Blue-Green Infrastructure

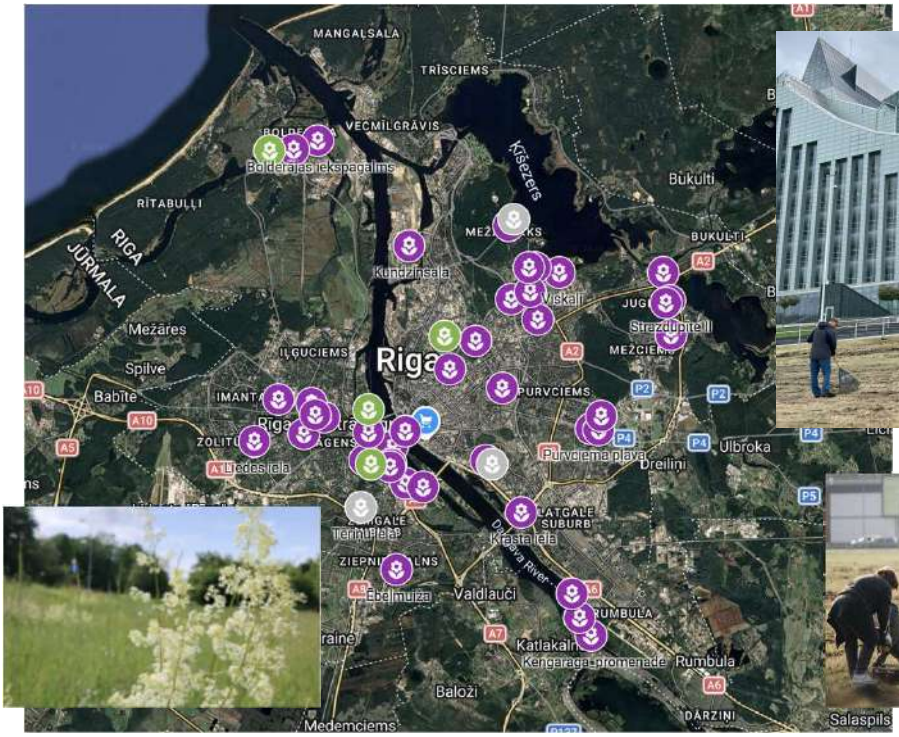
The **Spice Home** car park showcases one of Latvia's early nature-based stormwater management solutions. The first phase was implemented in **2016–2017** during the construction of a new **10,000 m²** parking area, including approximately **2,100 m² of landscaped green space**. Vegetated bioswales, permeable surfaces, and curb openings were introduced to address recurring flooding problems and manage stormwater on-site. Designed to accommodate a calculated stormwater flow of **87 l/s** (20-minute rainfall event, 5-year return period), the system limits discharge to the municipal network to just **5 l/s**.



In **2025**, a second phase expanded the system, creating a more comprehensive blue-green infrastructure network across the site. The bioswales collect, infiltrate, and naturally filter stormwater, reducing pressure on the drainage system while enhancing the visual quality of the parking area. The planted areas also support biodiversity by providing habitat for pollinators, insects, and birds. Compared to a conventional underground pipe drainage system, the nature-based solution achieved construction costs approximately **30% lower**, demonstrating both environmental and economic benefits.

Riga Urban Meadows

The **Riga Urban Meadows** initiative is one of the largest urban biodiversity projects in Latvia, transforming traditionally mown lawns into species-rich meadow habitats across the city. First introduced in **2021**, the project promotes biodiversity, supports pollinators, improves climate resilience, and reduces maintenance intensity. Urban meadows are established in parks, road verges, and other public green spaces, where native flowering plants create seasonal landscapes that enhance ecological value while offering residents new opportunities to experience nature within the city. The initiative is supported by dedicated municipal management guidelines and has become an important example of nature-based urban green infrastructure in the Baltic region.



The first of two innovative bee houses has been installed in Victory Park. This 3D-printed insect habitat is designed for solitary bees—important pollinators that support urban biodiversity and healthy ecosystems—and serves as a pilot project combining nature-based solutions, architecture, and advanced technology to explore new approaches for enhancing biodiversity in cities.

Uzvaras Park Through Time – Key Historical Milestones

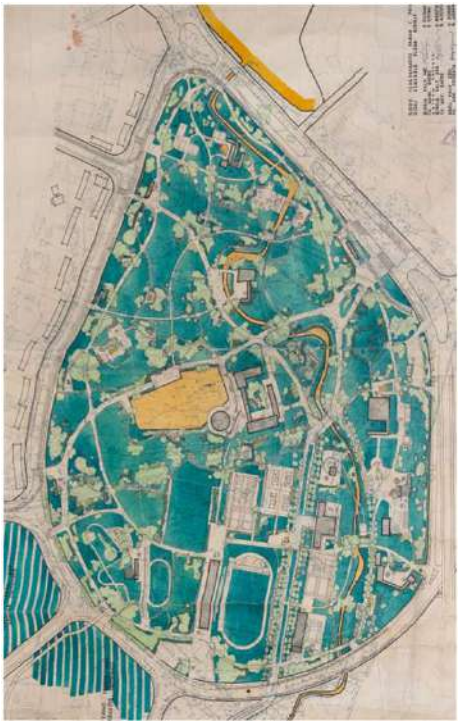
•**1621–1908** – The area formed part of the Kobronskansts fortification zone and later remained largely as meadows, wetlands and undeveloped open land. *(Realised)*

•**1909** – Landscape architect **Georg Kuphaldt** prepared a comprehensive design for **Peter's Park**, establishing the first vision of a large public park on the site. Parts of the park, including tree-lined avenues and recreational facilities, were implemented. *(Partly realised)*

•**1919** – The area became associated with the battles securing Latvia's independence and later gave rise to the name **Victory Park (Uzvaras Parks)**. *(Historical event)*

•**1920s–1930s** – The park was gradually improved with pathways, sports grounds and public open spaces. Several urban design proposals envisioned the area as a major civic and recreational centre for Riga. *(Partly realised)*

•**1936–1939** – An ambitious national project for **Victory Square** was launched, including a monumental ceremonial landscape, national celebration grounds, a stadium, memorial elements and representative public buildings. A design competition was held and winning schemes selected, but the project was never completed due to the outbreak of World War II. *(Planned, largely unbuilt)*



•**1938** – The site hosted the IX Latvian Song and Dance Festival and large national celebrations. *(Realised)*

•**1950s** – Soviet authorities used the area for military parades, demonstrations and mass public events. Several proposals for a cultural and recreation park were prepared but remained unrealised. *(Partly realised)*

•**1963–1974** – A new masterplan proposed the transformation of the area into the **22nd CPSU Congress Park**, including exhibition halls, sports facilities, cultural buildings and a reconfigured Mārupe River landscape. Most of these plans remained on paper. *(Planned, largely unbuilt)*

•**1975–1985** – Construction of the Soviet Victory Monument memorial complex fundamentally reshaped the park's identity. *(Realised)*

•**2022** – The Soviet-era monument complex was dismantled following Latvia's decision to remove symbols glorifying totalitarian regimes. *(Realised)*

•**2023–2025** – A comprehensive landscape-led revitalisation transformed the site into a contemporary urban park, restoring its role as a major public green space while preserving its mature tree structure and historical layers. *(Realised)*

Uzvaras Park Revitalisation (Phase I, 2023)

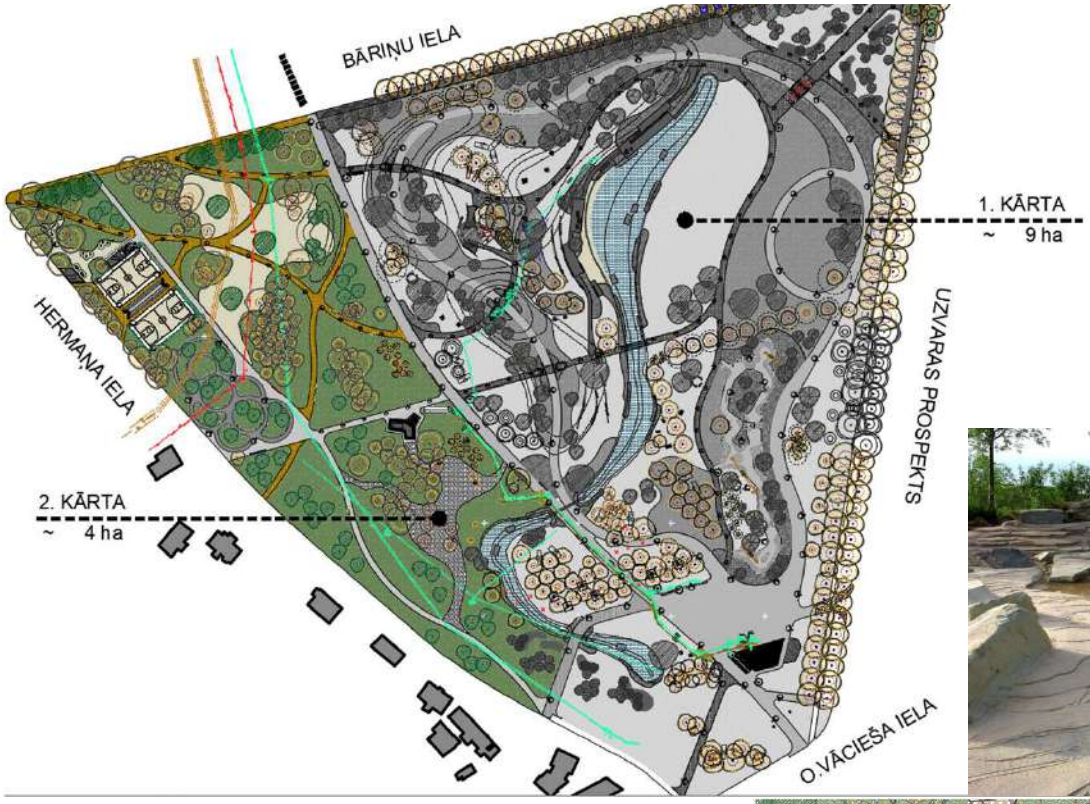
The revitalisation of Uzvaras Park represents one of the largest contemporary urban landscape projects in Riga, transforming a neglected 13.5-hectare historic park into a vibrant public landscape for recreation, sports and everyday social life. Based on the landscape concept developed by **Linda Zaļā (Zala Landscape Architecture)** and commissioned by the **Riga City Council Property Department**, the project was delivered through a Design & Build process. Completed in 2023, the first phase covers approximately 9 hectares and introduces a renewed spatial structure centred around a newly created branch of the Mārupe River, accessible pathways, activity zones and extensive ecological planting. A key achievement of the project is the preservation and integration of all existing mature trees within the redesigned landscape. Natural materials, including gravel, stone, timber and meadow vegetation, were used to create a calm and coherent environment that balances active recreation with opportunities for relaxation. The project has received national recognition, including the Latvian Construction Annual Award and the Latvian Landscape Architecture Award (LAABA), demonstrating the value of landscape-led urban regeneration.

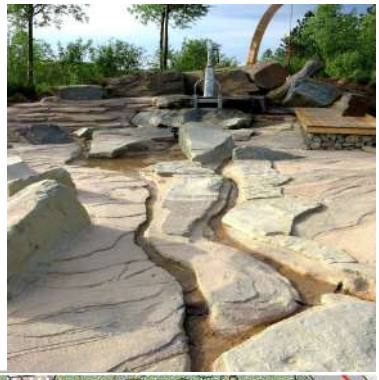
Key project team and implementation partners:

•Landscape concept and masterplan: **Linda Zaļā, Zala Landscape Architecture**
•Client: **Riga City Council Property Department**
•Design & Build contractor: **Aidaco Construction**
•Landscape implementation: **Landscape Construction**
•Planting technical design: **Alps Landscape Workshop**
•River engineering solutions: **Meliorprojekts**
•Landscape skatepark design and construction: **Mind Work Ramps**
•Public space and detailing: **Nemoralis**
•Playgrounds and recreational facilities: **City Playgrounds**

Uzvaras Park Revitalisation (Phase II, 2025)

Completed in 2025, the second phase of the Uzvaras Park revitalisation extends the transformation of the park across an additional 4.5 hectares. Developed under the continued leadership of **Linda Zaļā (Zala Landscape Architecture)**, this phase reinforces the park's role as a contemporary recreational landscape while maintaining its ecological and cultural character. New interventions include inclusive playgrounds, an outdoor fitness garden, a bicycle pump track, public amenities, extensive planting schemes and integrated lighting solutions. Particular attention was given to preserving the existing tree structure, strengthening biodiversity and creating high-quality public spaces for users of all ages. Together with the first phase, the project demonstrates how landscape architecture can successfully combine ecological resilience, social inclusion and cultural heritage within a historic urban park. The completed park has become one of Riga's most visited public open spaces and serves as a benchmark for contemporary park revitalisation in Latvia.





Key project team and implementation partners:

•Landscape architect and detailed design: **Linda Zaļā, Zala Landscape Architecture**
•Client: **Riga City Council Property Department**
•Design & Build contractor: **Aidaco Construction**
•Landscape implementation: **Landscape Construction**
•Bicycle pump track: **Velosolutions / WE Build Parks**
•Playgrounds and recreational facilities: **City Playgrounds**
•Lighting design: **Lumenu Centrs**
•Electrical and smart infrastructure: **IxCom**
•Architectural elements and public amenities: **GSA Projekts**

Riga Panorama Wheel (Riga Rise)

Opened in 2024–2025 on the left bank of the Daugava, the 65-metre-high Riga Panorama Wheel has become a new landmark within Riga's riverfront landscape. The project was designed by **A.I.D.E. Architects** in collaboration with **Zala Landscape Architecture**, transforming part of Victory Park and the adjacent riverfront into a contemporary public space. The landscape concept centres on a civic plaza overlooking the Daugava, featuring custom-designed seating elements, new planting schemes and carefully framed views towards Old Riga and the National Library of Latvia.

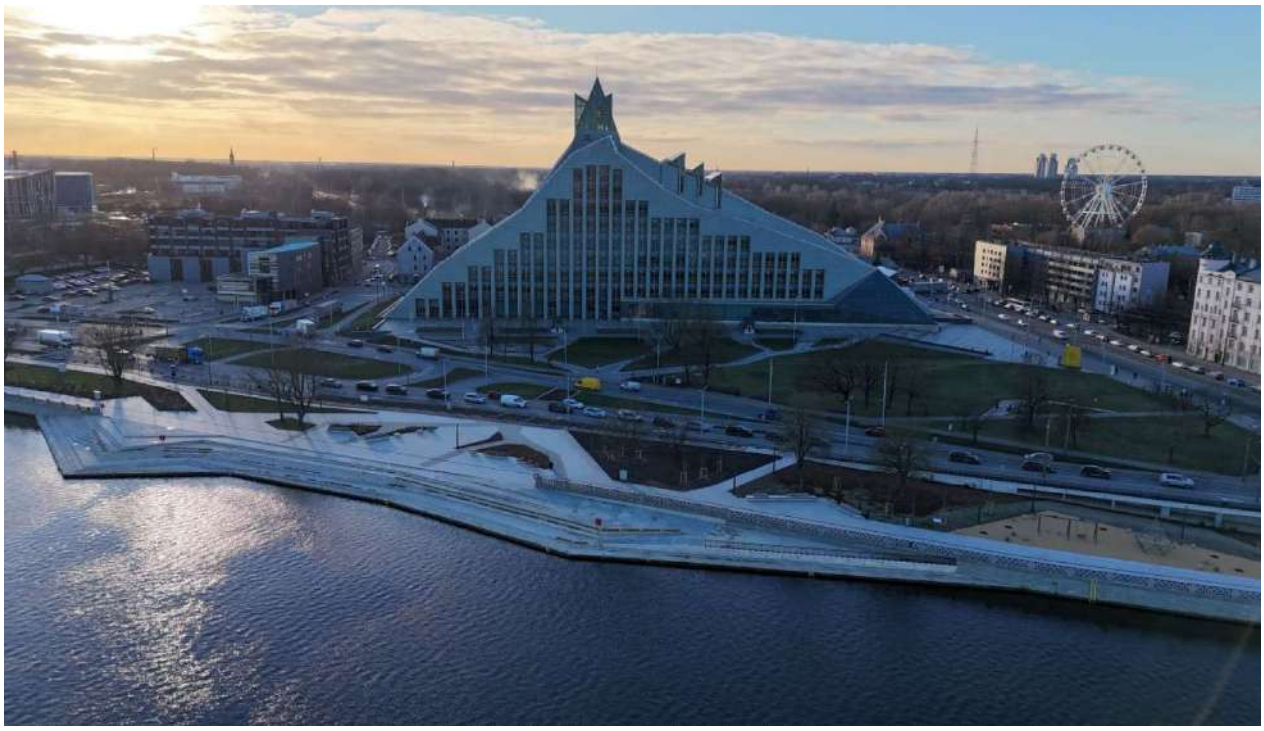
A distinctive feature of the project is the circular pavilion with an approximately **400 m² extensive green roof**, planted with drought-tolerant succulent species. Beyond its visual quality, the green roof contributes to rainwater retention, biodiversity enhancement and microclimate regulation while reducing heat gain and improving the environmental performance of the structure.

The project also included the transplantation of two mature beech trees, demonstrating a commitment to preserving existing landscape values while introducing a new contemporary landmark into Riga's skyline.

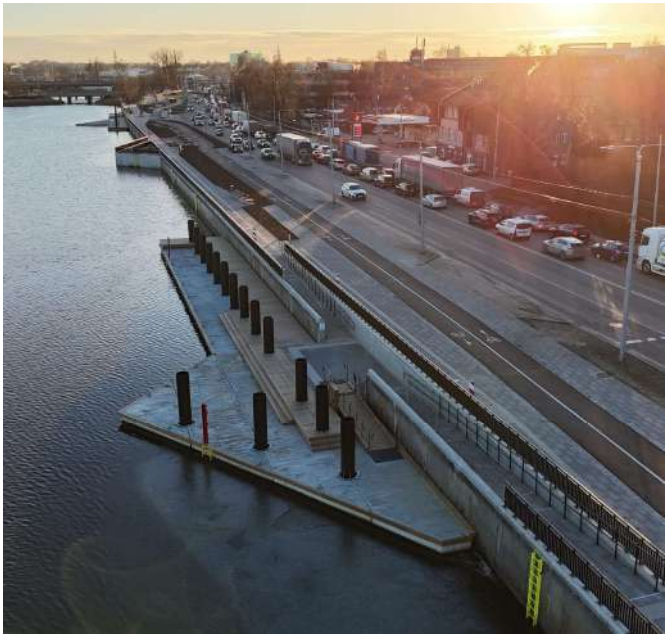
Key implementation partners included **Alejas Projekti** (landscape construction and green roof installation), **Labie Koki** (tree transplantation and arboricultural works) and **Baltic Construction Company (BCC)** as the main contractor.

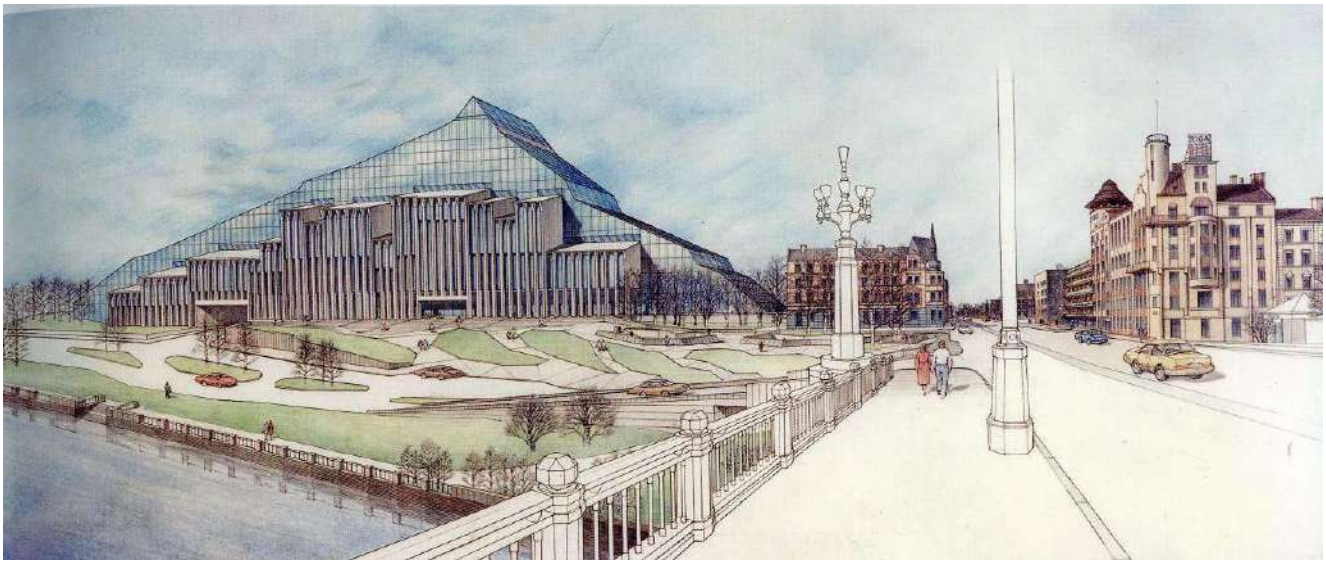
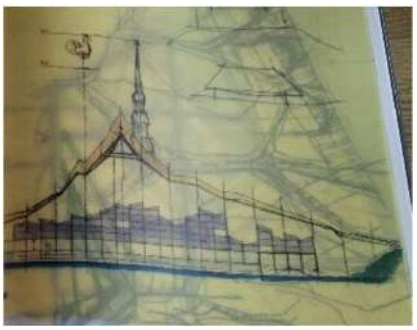
Mūkusala Promenade

Completed in 2025, the 2.3-kilometre-long Mūkusala Promenade is one of Riga's largest recent waterfront regeneration projects, transforming the left bank of the Daugava into a contemporary public space for walking, cycling and recreation. The project combines extensive riverbank engineering with high-quality landscape design, including the reconstruction of the historic embankment structure both above and below water level, modernised utilities and over 14,000 m² of new green spaces. A distinctive feature is the new riverside viewing platform opposite the National Library of Latvia, supported by 132 steel pipe piles driven into the riverbed and designed as a terraced extension of the waterfront. Throughout the promenade, universal accessibility, integrated lighting and water transport infrastructure have been carefully incorporated. The planting concept draws inspiration from natural riverbank vegetation, introducing 68 new trees and nearly 1,000 shrubs to create a resilient and ecologically diverse landscape. The project demonstrates how technical infrastructure, public access and ecological enhancement can be successfully integrated within a UNESCO World Heritage buffer zone.



Interesting technical feature: the viewing platform is the first structure of its kind built directly within the Daugava aquatory in Riga and is founded on **132 piles**, allowing visitors to physically approach the river while maintaining bank stability.



National Library of Latvia (Castle of Light)

The National Library of Latvia, completed in 2014, is one of the most significant contemporary cultural buildings in the Baltic region. Designed by the Latvian-American architect **Gunnar Birkerts**, the building embodies the symbolic concept of the *Castle of Light*, inspired by Latvian folklore and the country's cultural memory. Rising on the left bank of the Daugava River, the library was conceived not only as a repository of knowledge but also as a landmark within Riga's urban landscape. Its sculptural form establishes a visual dialogue with the historic skyline of Old Riga and the river that has shaped the city's development for centuries. The surrounding public realm and waterfront spaces reinforce this relationship, creating generous pedestrian connections, viewing points and gathering spaces that link the building to the riverbank promenade and the wider city. The project demonstrates how architecture, landscape and cultural identity can be integrated into a single spatial composition, making the National Library both a national symbol and an important element of Riga's contemporary public landscape.