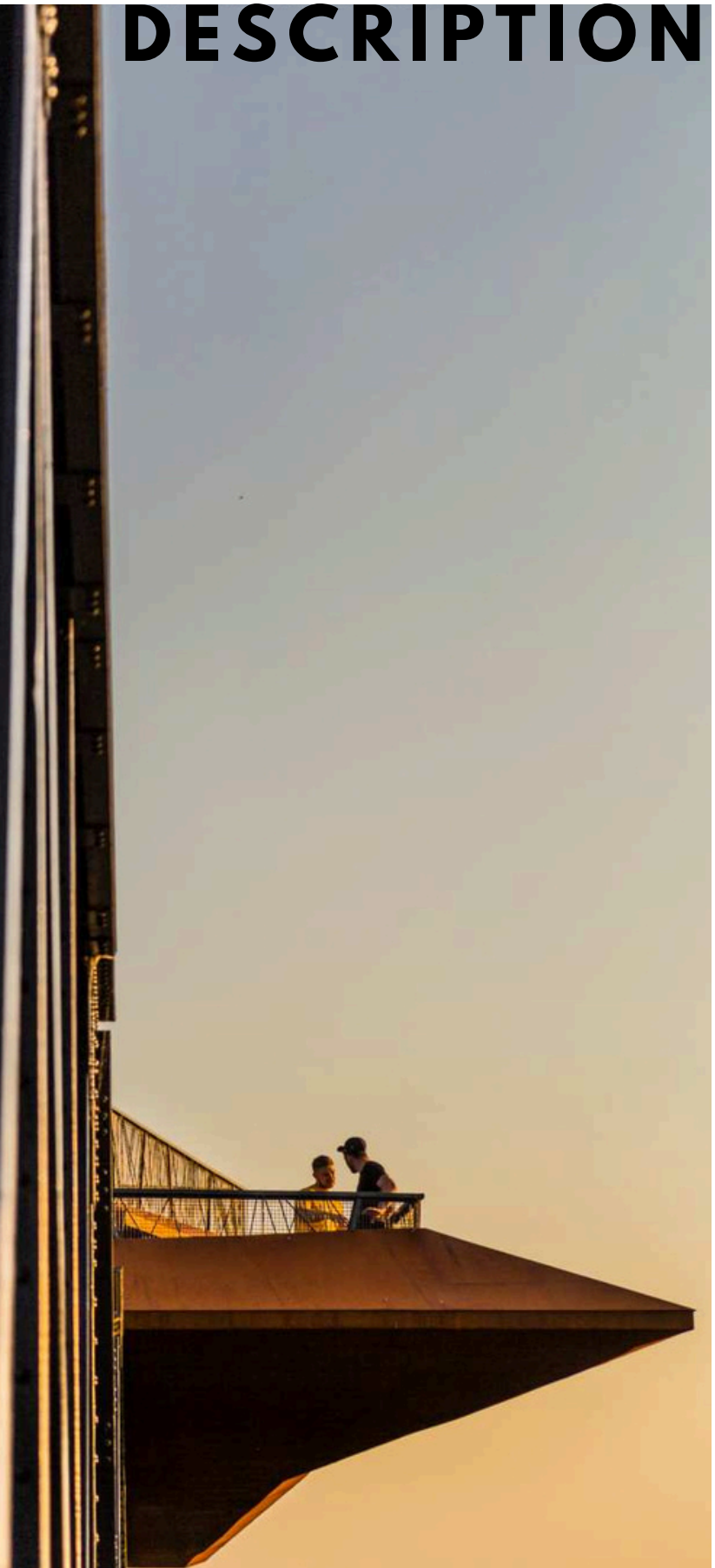
Adaptation of the historical railway bridge
over the Odra River in Siekierki–Neürudnitz
on the pedestrian-bicycle bridge with a viewing platform

EUROPEAN BRIDGE

PROJECT DESCRIPTION



The aim of the investment was to rebuild and thoroughly renovate the historic border railway bridge in Siekierki (built in 1936) and adapt it to the needs of a **pedestrian and bicycle border crossing**.
Entrusting the implementation of this infrastructure investment to **architects** was aimed at **obtaining added value** - social, functional and image-related.

The bridge is an important element of a large program of building a network of bicycle routes in the West Pomeranian Voivodeship - **https://rowery.wzp.pl/en**
The bridge constitutes the Polish, eastern part of the border crossing over the Odra river. The bridge runs over the floodplains of the Odra oxbow lake, which is a habitat for birds, an area of great natural value. The area is located in the **Cedynia Landscape Park**.
Therefore, the project had to meet very **strict environmental protection requirements.**
After conducting analyses, the architects proposed using the load-bearing capacity and height of the bridge structure and placing a viewing platform above the bridge, which will also provide cyclists with shelter from the weather. The bridge and the platform creates a new meeting place for local people from both countries

TARGETING THE NEEDS OF USERS – CYCLISTS AND LOCAL RESIDENTS

Two-story platform structure to provide shelter from rain creating several intimate sub-spaces within it The platform layout and individually designed seats framing views and providing conditions for relaxation and contemplation of nature The location of several independent rest areas along the length of the bridge (integrated into the truss system) to provide the possibility of eating and observing nature On the border, so-called “mineral island” location of a rest area, a symbolic “table of friendship”

MINIMIZING ENVIRONMENTAL IMPACT

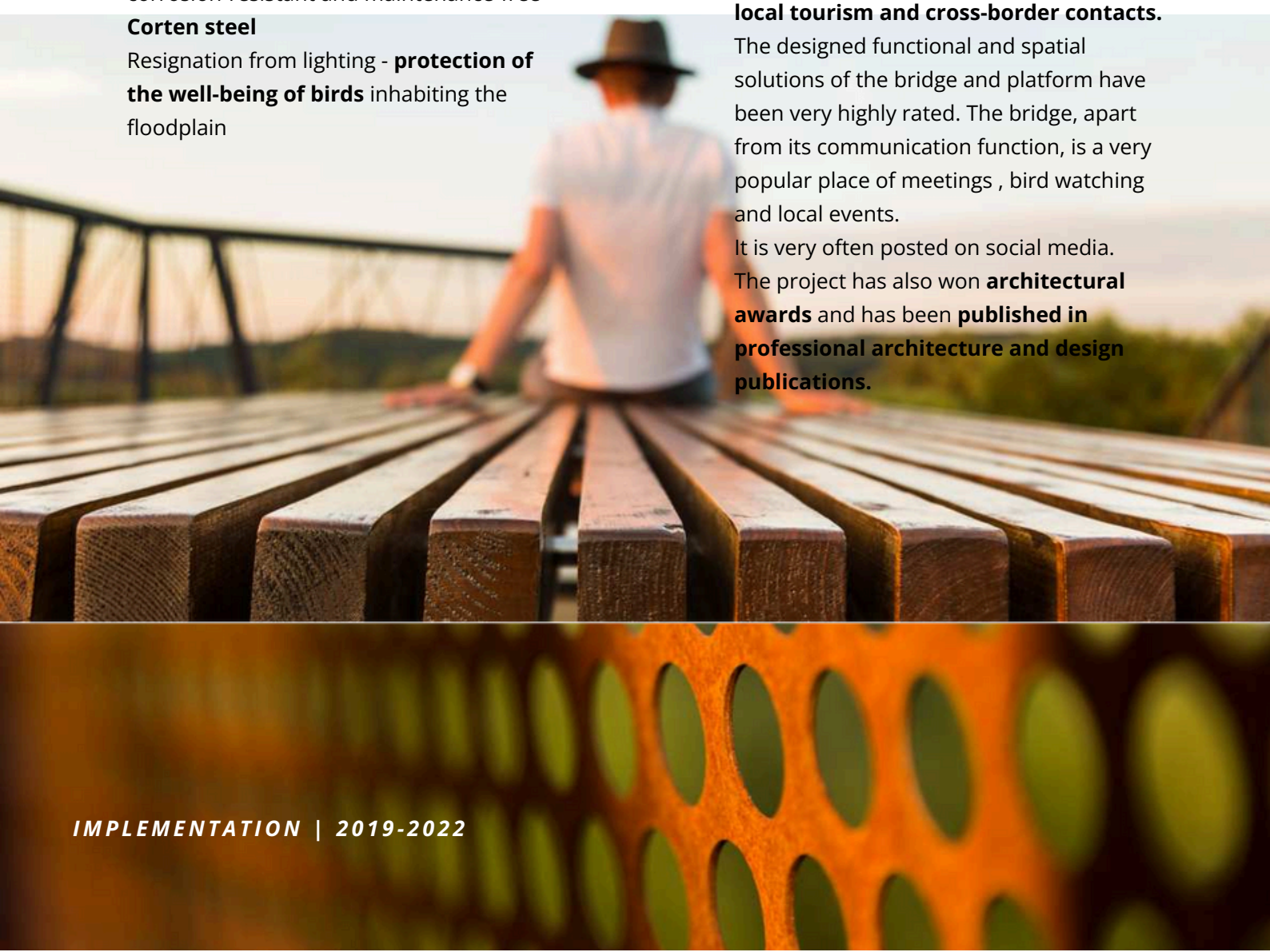
Preservation of all original elements of the bridge structure
Selection of material solutions ensuring long-term durability and minimizing the need for maintenance (in a very humid and corrosive environment), thus **reducing the carbon footprint and minimizing the maintenance costs** of the facility
Design of the **bridge surface** in innovative composite technology **FPR** (Fiber Reinforced Polymers). The material with very high resistance to weather conditions and mechanical damage (50-year manufacturer's warranty) and very low own weight (minimizing environmental transport costs)
Designing a **viewing platform** made of corrosion-resistant and maintenance-free **Corten steel**
Resignation from lighting - **protection of the well-being of birds** inhabiting the floodplain

PRESERVING THE ORIGINAL BRIDGE STRUCTURE

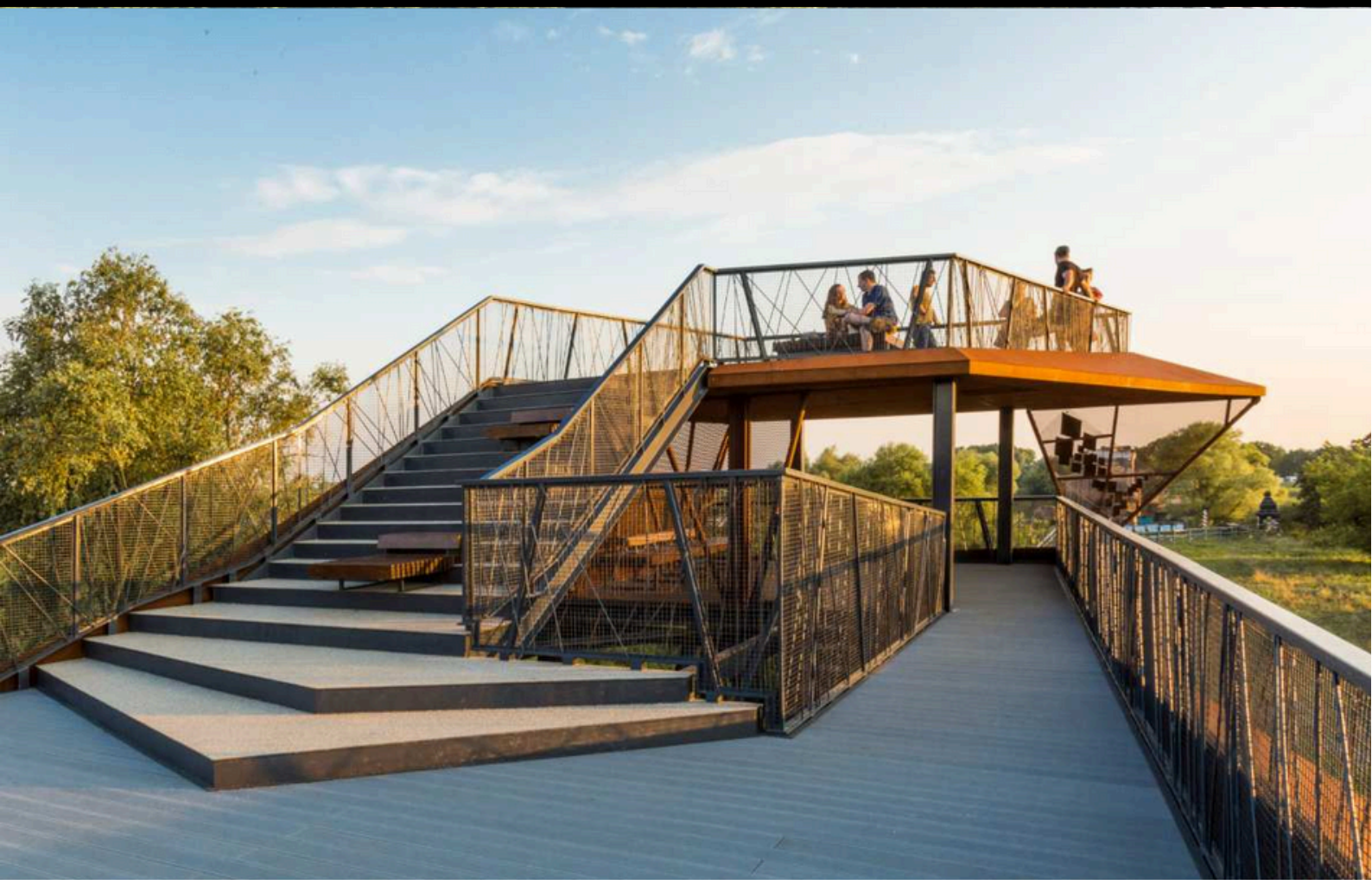
No interference with the shape of the bridge spans - emphasising the linear character - the rhythm of 9 repeatable, truss, span modules.
Emphasizing the distinctiveness of the viewing platform from the bridge with form and material.
Incorporating additional rest areas into the structure of the bridge - seats and a table fitted into the sloping, extreme bands of trusses. Uniform colour scheme, coordinated and unified with the bridge design on the German side

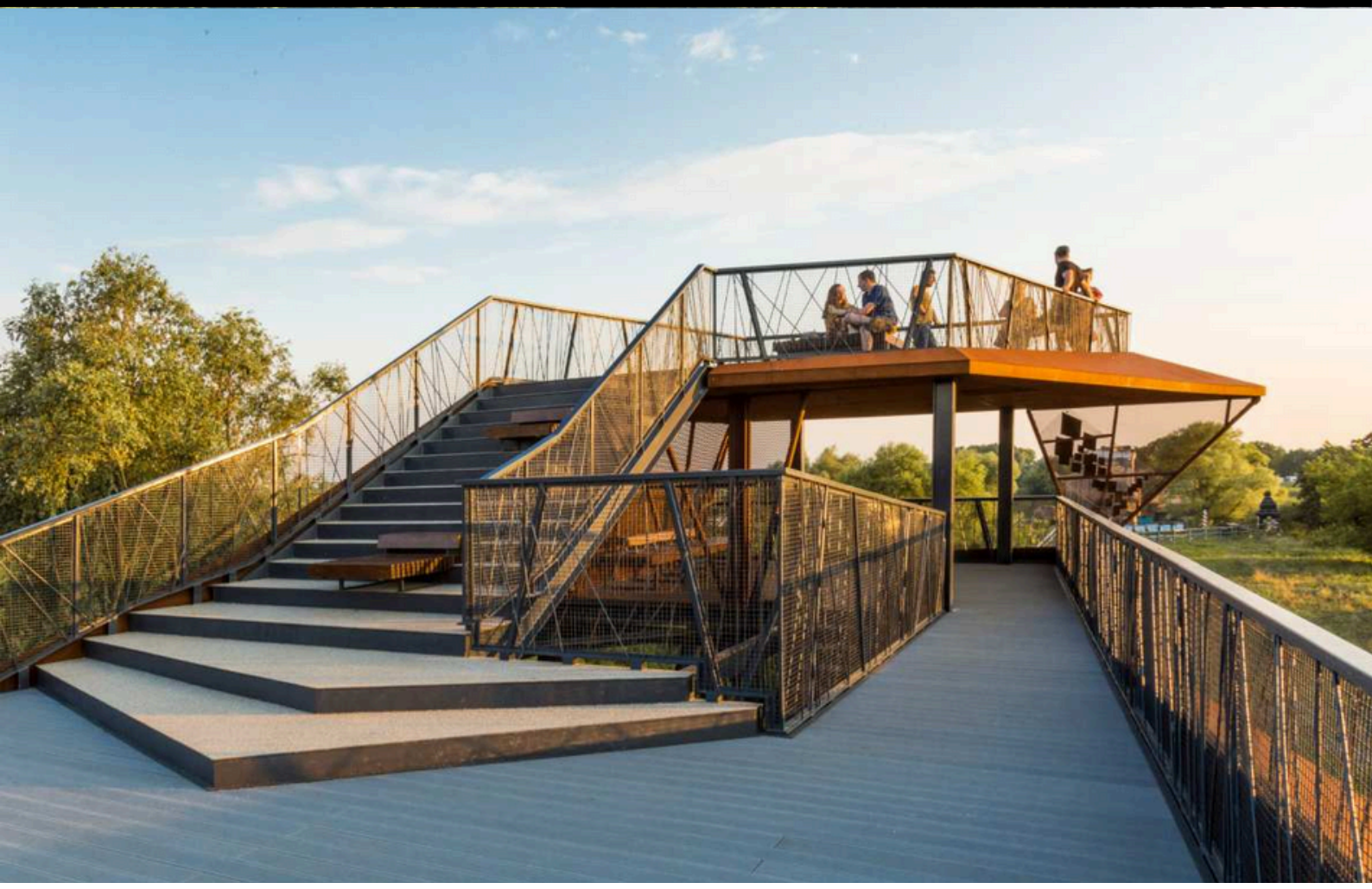
Social significance.

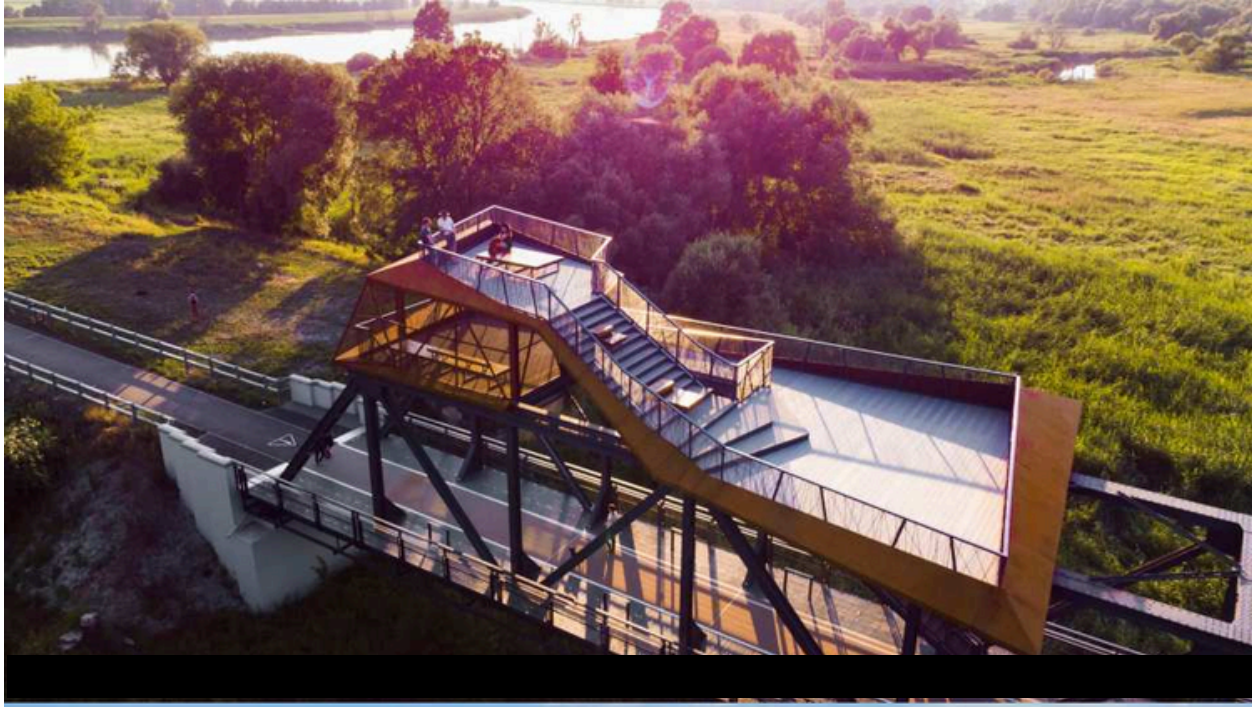
The investment is aimed at **revitalizing the economically weak area.**
The bridge has caused a great **revival of local tourism and cross-border contacts.**
The designed functional and spatial solutions of the bridge and platform have been very highly rated. The bridge, apart from its communication function, is a very popular place of meetings , bird watching and local events.
It is very often posted on social media.
The project has also won **architectural awards** and has been **published in professional architecture and design publications.**

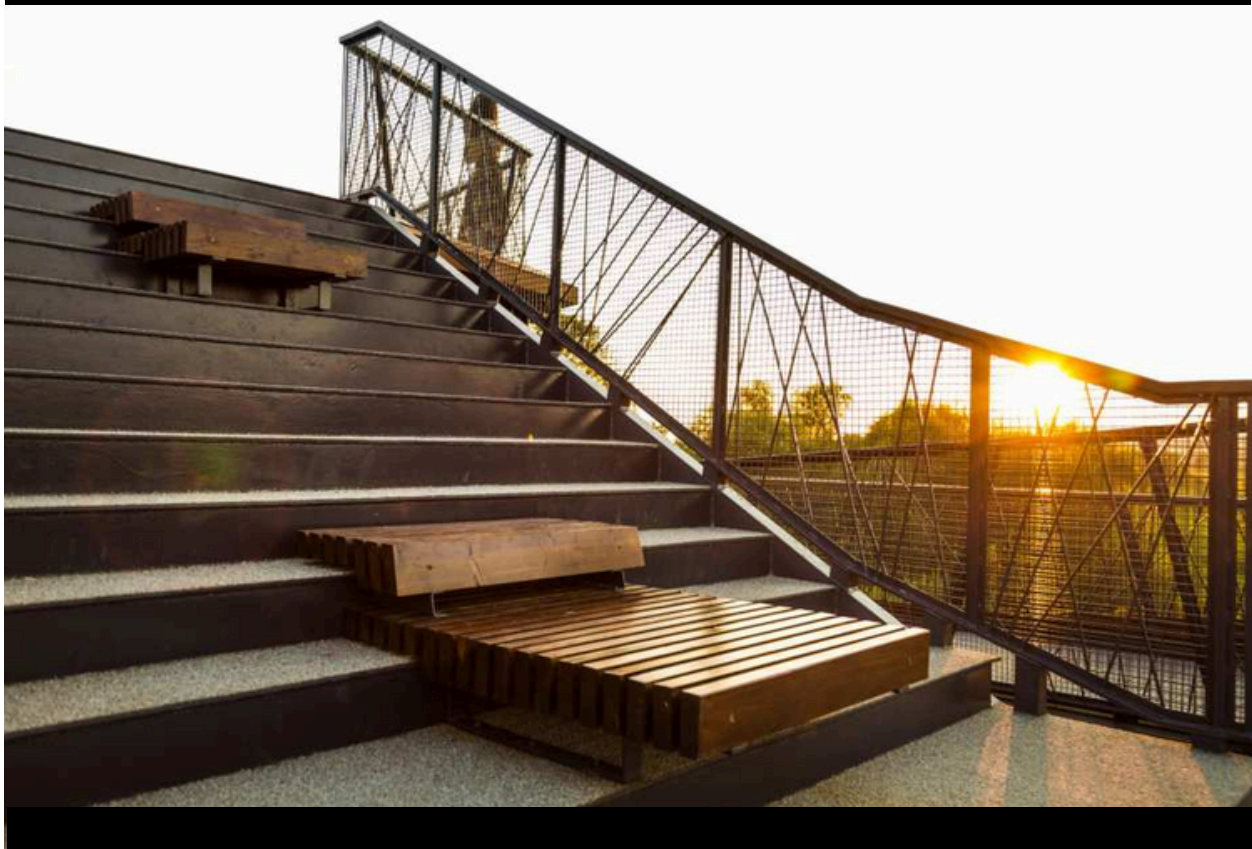


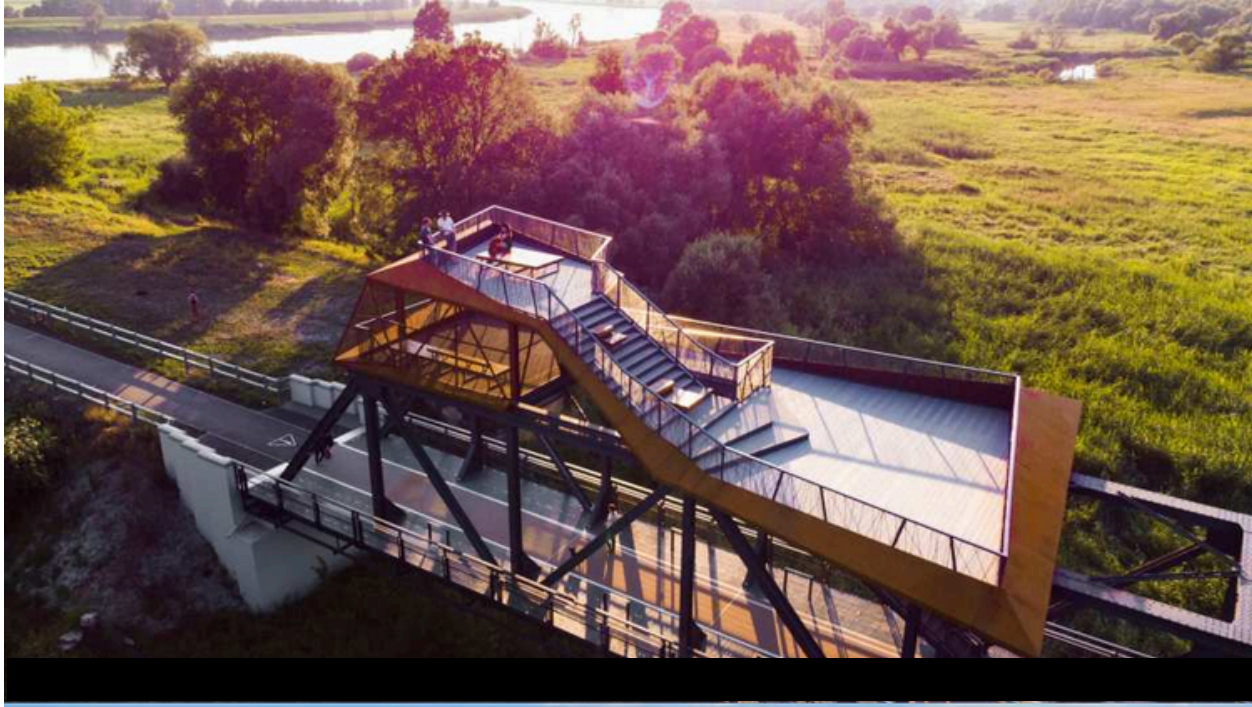
IMPLEMENTATION | 2019-2022

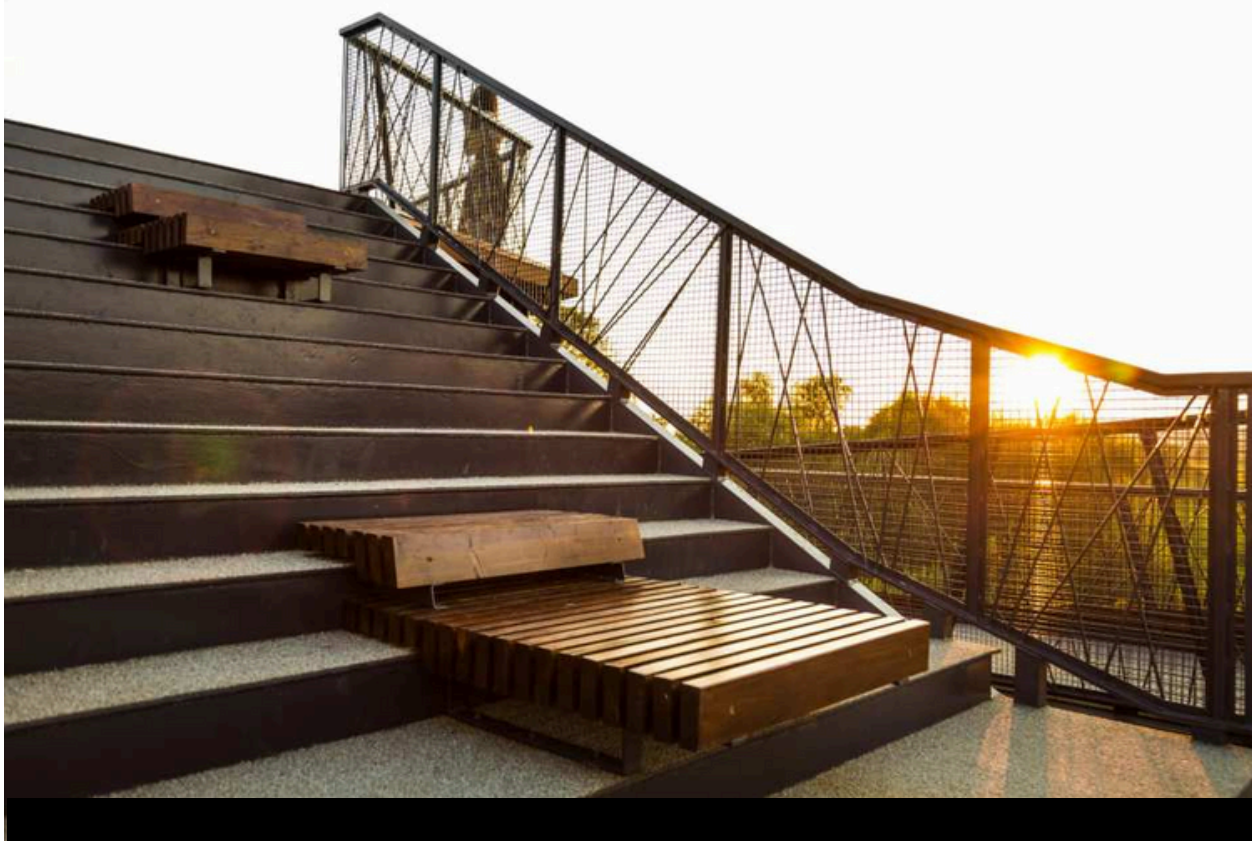


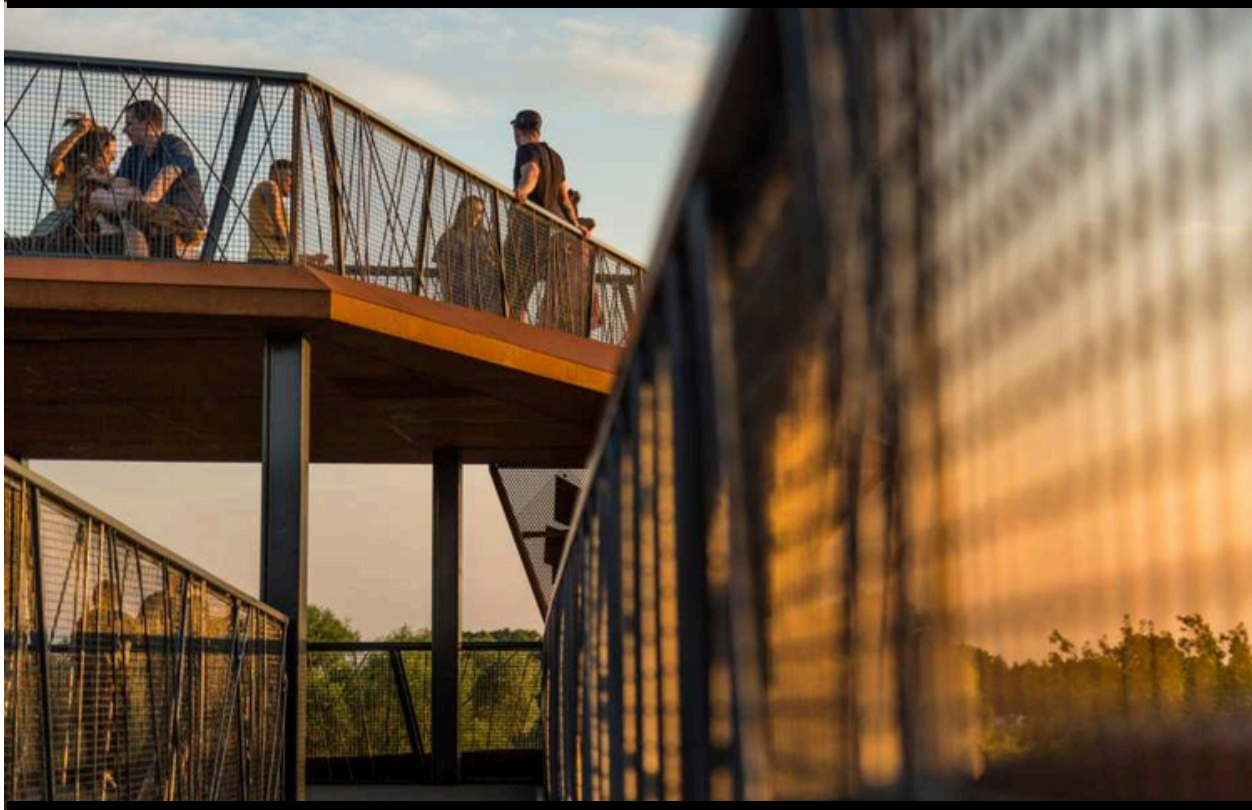


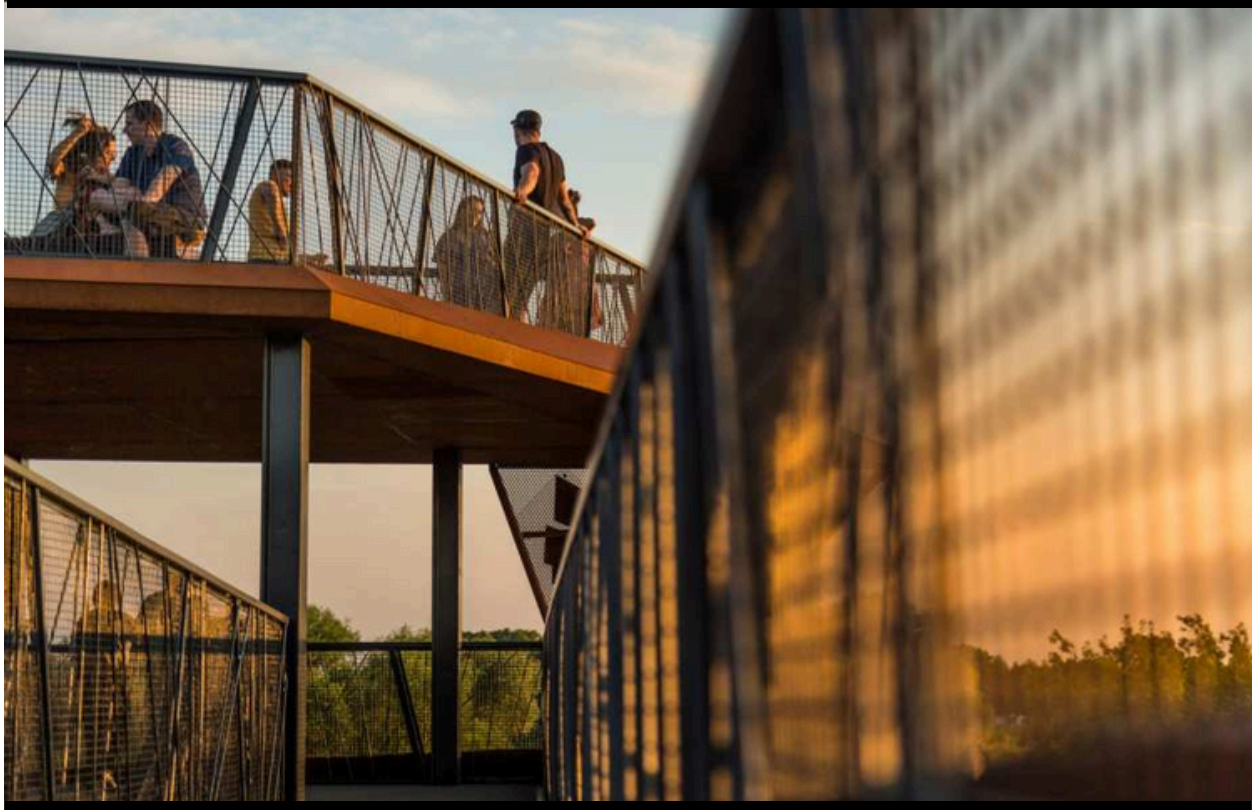




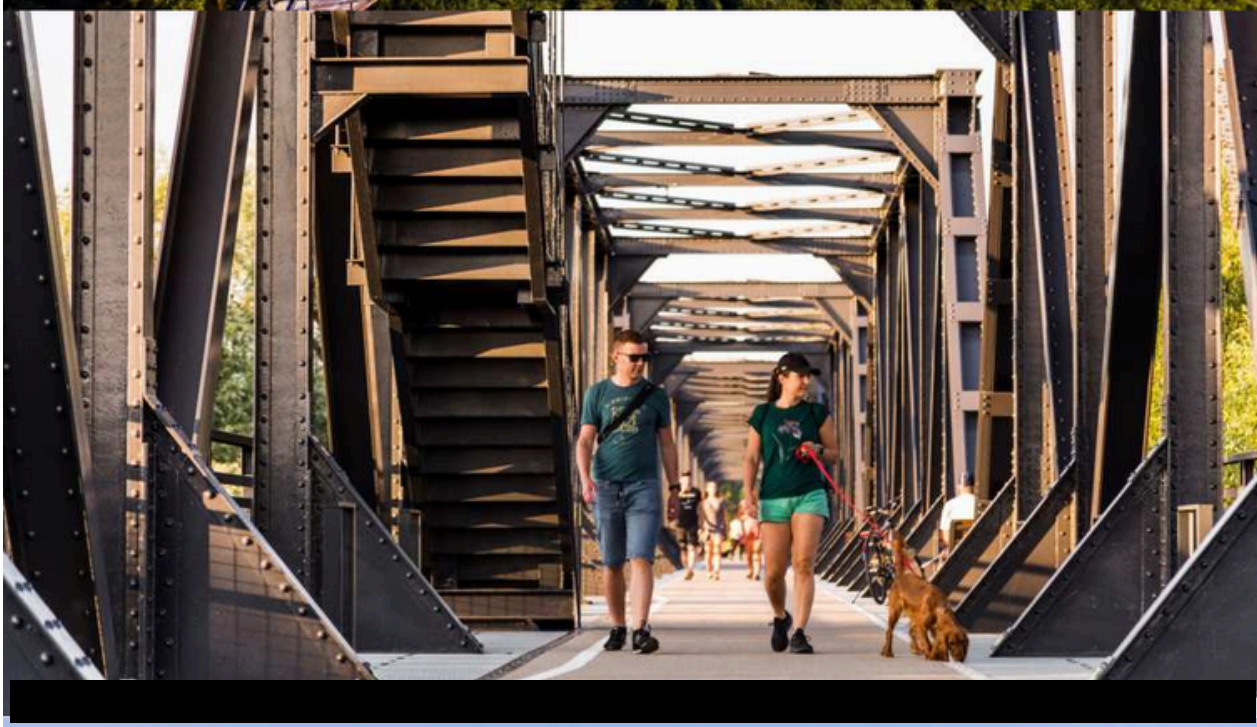


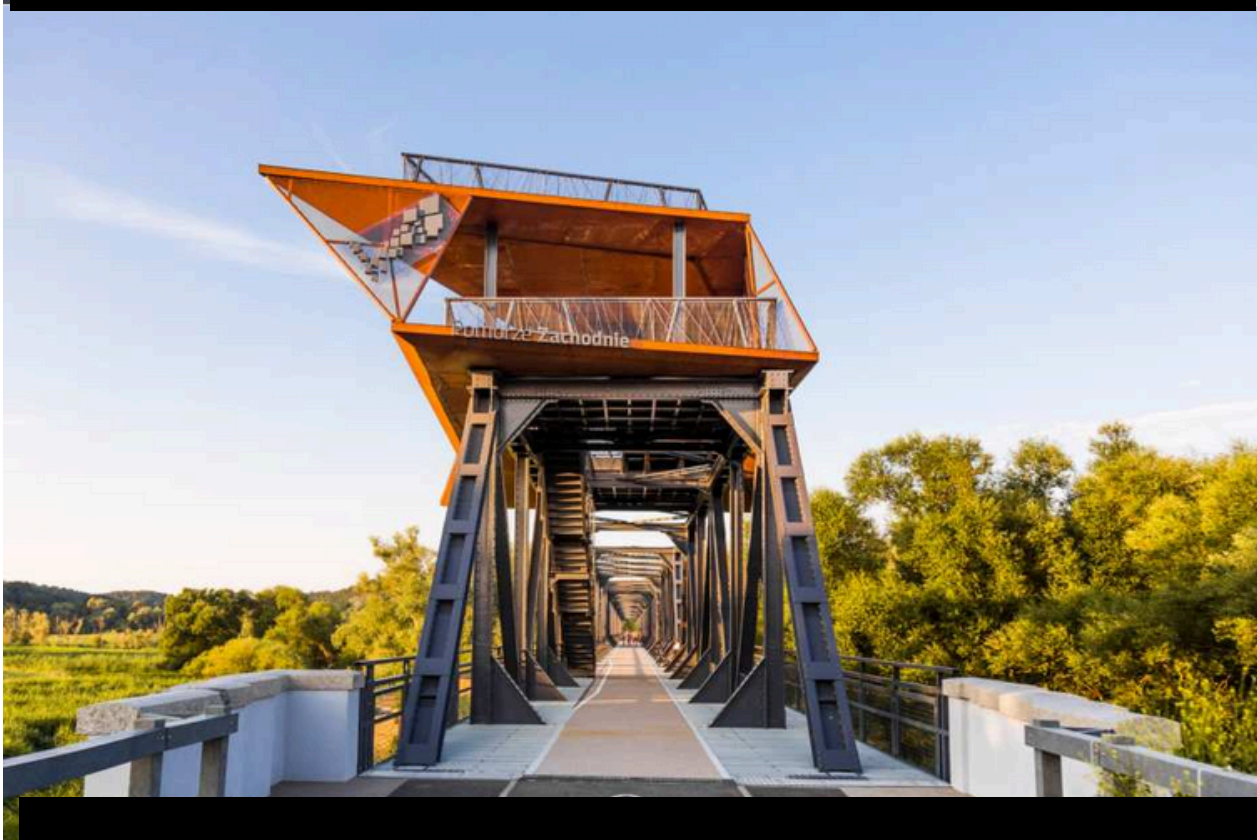




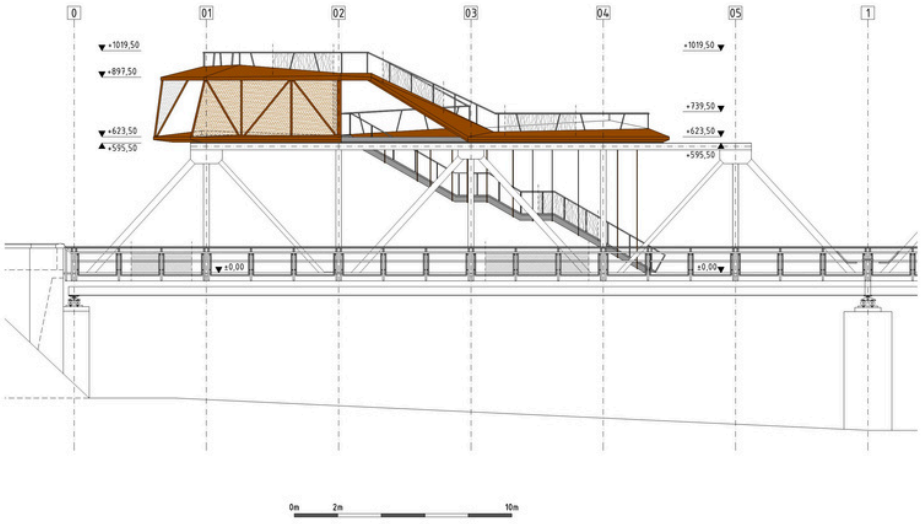



projekt: MXL4 | mxl4.com
fot.: Anna Nowokunska | foto.nowokunska.com

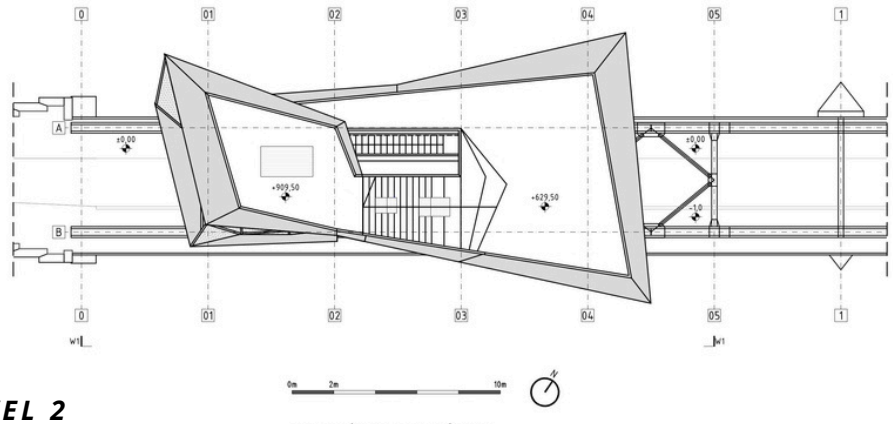



Pomorze Zachodnie

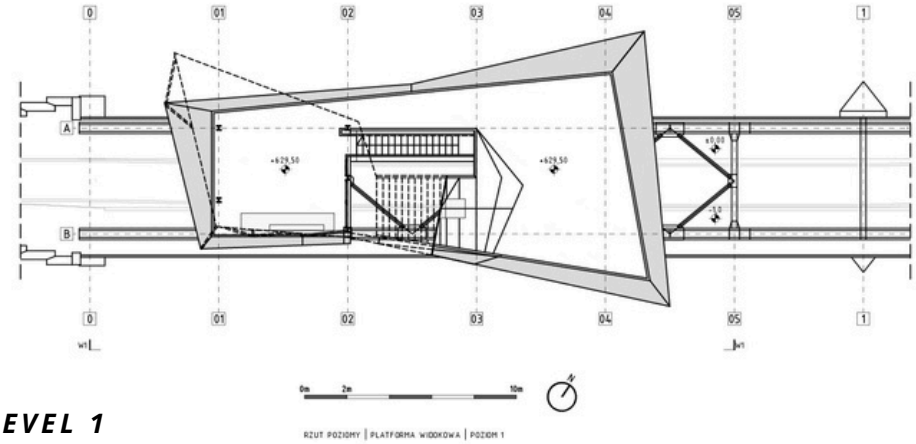
SITE PLAN
9 bridge spans-trusses
total length 330 m
platform location
seats in trusses
DE
PL
0m
10m
50m
N
PLAN SYTUACYJNY



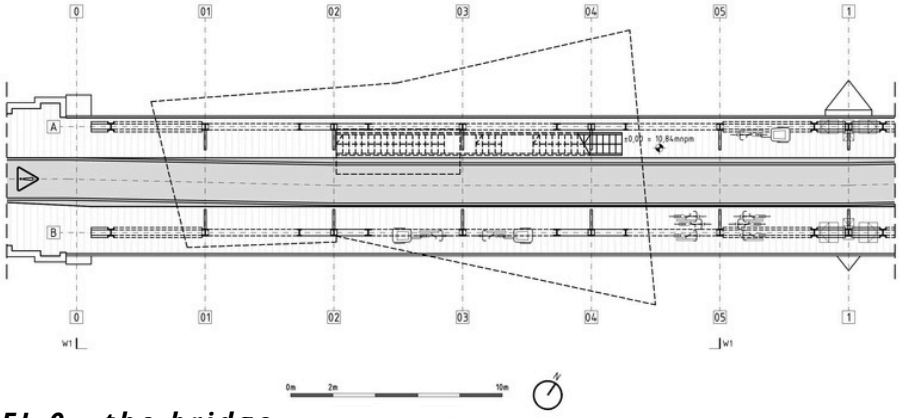
PLATFORM SOUTH ELEVATION E1 | ELEWACJA POŁUDNIOWA | PLATFORMA WIDOKOWA



PLATFORM LEVEL 2 RZUT POZIOMY | PLATFORMA WIDOKOWA | POZIOM 2



PLATFORM LEVEL 1 RZUT POZIOMY | PLATFORMA WIDOKOWA | POZIOM 1



PLATFORM LEVEL 0 - the bridge RZUT POZIOMY | PRZĘSŁO ZACHODNIE | POZIOM 0

PLATFORM DIAGRAMS