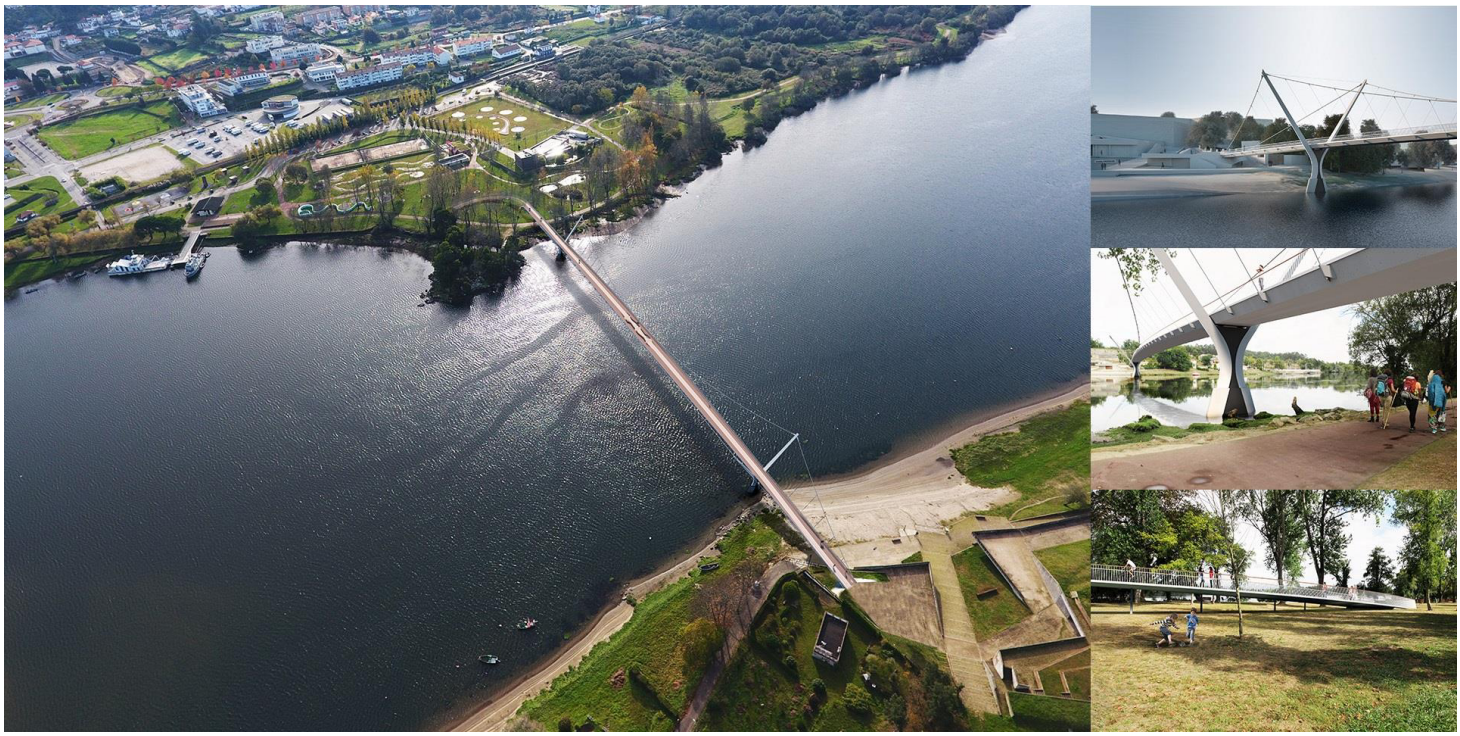
Footbridge over River Miño

Goián, Spain - Vila Nova de Cerveira, Portugal / 2017

Client Deputación Pontevedra / Interreg España - Portugal
Scope tender design



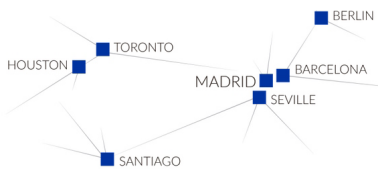
The threads that give sustenance to the proposed platform for the path that has to link the two banks of the River Miño are an expression of the metaphor implicit in the theme chosen for this contest: per consume (to sew). In Latin because it was the lingua franca in Europe for so many centuries, people communication link, spirits and thoughts. Also because, although the word sew is the same in Galician, Portuguese and Spanish, the Latin expression acquires the corresponding height, both to the Euroregion Galicia - north of Portugal, and to all of Europe, whose FEDER funds co-finance the project in the context of Interreg.

The work that complies with the premises is a 170m-span hanging footbridge, with two short compensation spans of 43 m, which makes the clean crossing of the River Miño possible. On the shore of Cerveira the structure is completed with a ramp of 87.40 m which is the extension of the hanging structure, resulting in a total length of 343.4m-long continuous structure, in direct and smooth flight between the two banks of the river, within the same cross-border park.

The walkway has two main piles that flank the river on both banks and two counterweights on which the main cables are anchored, thus constituting the hanging area with a classic layout of the main span and two compensation beams.

The hanging area is straight on the ground. In elevation it describes an arc of circumference of radius 2.400 m, which provides a smooth cant to the structure, a certain effect of éntasis that, on the one hand, configures an airy elevation, of natural flight, and, on the other hand, allows to dispose of a larger area of large gauge. With this geometry, the board presents its maximum level in the center of the main span (11.45 m, leaving a gauge of 9.50 m on the axis, in relation to the level of average waters, value greater than 9.20 m required in the contest rules). At the ends of the suspended side sections, the upper level of the board is 8.05 m, and from there to the banks the board has a 5% longitudinal slope until it reaches ground.

The bridge suspension system is formed by a pair of 140mm-diameter closed cables that are contained, in the main span, in an 36° inclined plane.



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