

# Europe bridge in Orleans

Orléans (FR)

## Execution studies

Owner  
SIVOM of Orléans conurbation

Architect  
Santiago Calatrava

Cost of the works  
€ 30 M excl. vat

Execution  
1998 - 2000

OA



**Urban bridge** upon the river Loire realised to reduce the traffic congestion on the west side of Orleans, with 4 traffic lanes and 2 walkways.

The particularly complex structure is composed of :

- an orthotropic steel deck supported by an inclined steel arch through sheathed locked cables,
- two concrete tripods on their peak, beared on foundation massifs located in the river,
- two concrete deck-abutments extending the main bridge towards the banks.

The steel decking (4 900 tons including arch) is 25 m width and 378 m in all, with a 202 m main span and two 88-meter-long side spans.

The deck has been launched on temporary jacks located in the river.

**Mission** : execution studies including:

- the global calculations for the bridge in use,
- the adjusting and the calculation of the launching operations of the deck, of the construction of the arch and of the placing of the suspension cables,
- the verification of the steel structures, including the specific studies of the patch loading during the launching stages,
- the assistance on site for the geometrical definition of the deck and the arch (assembling and building).

**Distinction** : award CECM 2000 (European center for steel construction).

