INTRODUCTION

The Millau Viaduct is part of the A75 motorway, a 2.46km tolled bridge across the Tarn River valley in southern France. It opened in 2004 and is the world's longest cable-stayed bridge.

BACKGROUND

The main objectives of the project were to provide a link in the national and international road network, and to promote economic development and tourism locally by improving access to the area. It was also intended to relieve local bottlenecks in the town of Millau.

Crossing the valley presented a technical challenge and the state roads directorate, Arrondissement Interdepartemental des Ouvrages d’Art (AIOA), was involved in preparatory research, feasibility studies and evaluation of options over a period of ten years. In 1989, a route providing access to the town of Millau found local public support and was chosen over three alternatives. Technical solutions were developed, with new concepts and detailed designs invited through two design competitions in 1993 and 1994/96). The decision to supplement the state’s expertise with external design inputs was unprecedented at that time.

Planning approval was given (in 1994) through the déclaration d’utilité publique (DUP) mechanism, preceded by a public inquiry. In 1998, a change in government and shortage of public sector funding led to a decision to adopt a private sector ‘build-finance-operate-transfer’ scheme. Although this decision reflected the national and European context, the introduction of a toll payment caused some political concern and so led to a second public inquiry and DUP.

The project was the first motorway scheme to benefit from two government policies, requiring 1% of the project budget to be allocated to regional economic development and encouraging motorway drivers to stop at nearby villages étapes. The viaduct has become a tourist attraction in its own right, and industrial development in the area has benefited from the 1% policy.

CHARACTERISTICS

The cost was estimated at EUR 0.4bn in 1998 (USD 0.66bn in 2010 prices). The final project cost was substantially less: EUR 0.345bn in 2004 (USD 0.51bn in 2010 prices), including EUR 0.025bn in state-funded preliminary design and site works.
The Viaduct is a multiple cable-stayed span bridge, based on the competition-winning design by Norman Foster & Partners and Segelerg-EEG-SERF, which itself derives from an initial concept by French engineer Michel Virlogeux.

Compagnie Eiffage du Viaduc Millau is the concessionaire: the concession period is 78 years (including 36 months construction and three months without penalties), although the structure is guaranteed to last 120 years. Fosters and Segelerg were retained as architect and engineer respectively.

The concession contract required the concessionaire to structure its organisation along the traditional French MOA/ MOE lines, with the ‘client’ or maîtrise d’ouvrage (the body operating the completed infrastructure) separate from the ‘contractor’ or maîtrise d’oeuvre; the role of the state was reduced to that of overall control, with advice provided by an expert committee.

Environmental mitigation measures included landscape design, restitution and reforestation of access roads and restoration of traditional farmhouses.

**TIMELINE ISSUES**

The concessionaire’s decision to use prefabricated steel construction rather than concrete helped to improve the speed, and also the safety, of the construction process by reducing the amount of time spent in high-altitude work on-site. The project was completed three months ahead of schedule.

**FUNDING**

The main funding source was Eiffage’s equity contribution of EUR 270m, with a loan of EUR 50m from the European Investment Bank providing the balance of the EUR 320m construction costs. The state funded preparatory works to the value of EUR 25m and the remaining works on the A75.

There are no data on forecast and actual revenue available in the public domain. However, toll charges (the main source of income for Eiffage) are regulated by the concession agreement and linked to inflation. The concession period can be reduced to a minimum of 44 years if the revenue generated exceeds EUR 375m during that time.

Eiffage refinanced the project once construction was complete.

---

1 Costs have been converted to USD at 2010 prices, using historic inflation rates and current exchange rates, to allow comparison between projects.