



### Country

France

### Client

Chambre de Commerce et d'Industrie de Calais (CCIC)  
SMBC

### Date

2003

### Sogreah's services

- ▶ Local modelling of currents using the TELEMAC-2D two-dimensional modelling system
- ▶ Navigation study using the PORTSIM software

### Context

With a view to building an additional cross-Channel berth (berth no. 9) in the port of Calais, various layouts were considered by the Calais Chamber of Commerce and Industry (CCIC) and the Boulogne-sur-Mer and Calais Maritime Department (SMBC).

The CCIC and SMBC therefore commissioned Sogreah to carry out a shiphandling study with a view to the following:

- First, conducting a comparative analysis of the seven layout solutions on the basis of simulations with the car ferry "Rodin".
- Second, performing a detailed study of the solution chosen at the end of the previous phase, on the basis of simulations with three types of car ferry, including the "Rodin".

### Sogreah's role

The first stage involved mainly the following points:

- Local modelling of currents in the vicinity of the port of Calais and around the planned development works, using the TELEMAC-2D two-dimensional modelling system.
- Navigation study using an interactive shiphandling simulator built with the PORTSIM software, including reproduction of the port and planned development works, introduction of the characteristics of the "Rodin" and simulation of entrance and departure manoeuvres.
- Analysis of the results and proposals for improving the construction arrangements for berth 9.

The second stage involved the following points:

- Navigation study using an interactive shiphandling simulator built with the PORTSIM software, including reproduction of the chosen development solution, introduction of the characteristics of the other two car ferries ("Provence" and "Calais"), and simulation of entrance and departure manoeuvres.
- Analysis of the results and proposals for possibly improving the chosen solution.

The study led to an alternative being put forward for berth 9, enabling vessels to enter and leave the port in winds of up to 40 knots.