

# SEINE-NORD EUROPE CANAL: CENTRAL SEGMENT OF THE SEINE-SCHeldt WATERWAY LINK

by



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## KEY WORDS

Trans-European Transport Networks (TEN-T),  
high-capacity canal, multimodal platform, public-  
private partnership (PPP)

## MOTS-CLEFS

Réseau trans-européen de transport (RTE-T),  
canal à grand gabarit, plate-forme multimodale,  
partenariat public-privé (PPP)

## 1. INTRODUCTION

The Seine-Scheldt waterway link is a comprehensive project that aims to develop a competitive waterway transport system and at the same time promote regional development and sustainable economic expansion.

Its ambition is to improve the structure of the northern European waterway network in order to meet the growing requirements of modern logistics in a



Fig. 1: General map of the Seine-Scheldt network (overall project)

more effective manner. Through the construction of an efficient network of multimodal ports, the first aim of the Seine-Scheldt waterway is to respond to the intensification and greater efficiency of commercial exchanges between Europe and the rest of the world (25 % of international exchanges) and within Europe (28 % of international exchanges). In this way, it will help to promote the growth and redistribution of logistics activity in Europe through the adoption of a multimodal approach that combines all concentrated-volume transport modes (sea, waterway and rail) and road transport for more local services.

The development of waterway infrastructure will lead to long- and medium-distance transport flows being transferred from the roads to the waterways and this in turn will help to avoid saturation on the major road axes in northern Europe. At the same time, this redistribution of transport modes will

stimulate economic and industrial growth in the regions crossed and served. The creation of the Seine-Scheldt link involves work in both France and Belgium:

- **in France:** the construction of the Seine-Nord Europe Canal between Compiègne (on the River Oise, near Paris) and Aubencheul-au-Bac (west of Cambrai) to provide a link between the River Seine and the Dunkirk-Scheldt canal, and the development of extensions running north (development of the Dunkirk-Scheldt and Deûle canals, development of the River Lys, reopening of the Condé-Pommeroeul canal) and south (the Oise from Compiègne to Conflans-Sainte-Honorine);
- **in Belgium,** developments in Flanders (Lys and lower Scheldt) and Wallonia (Scheldt and Walloon backbone).

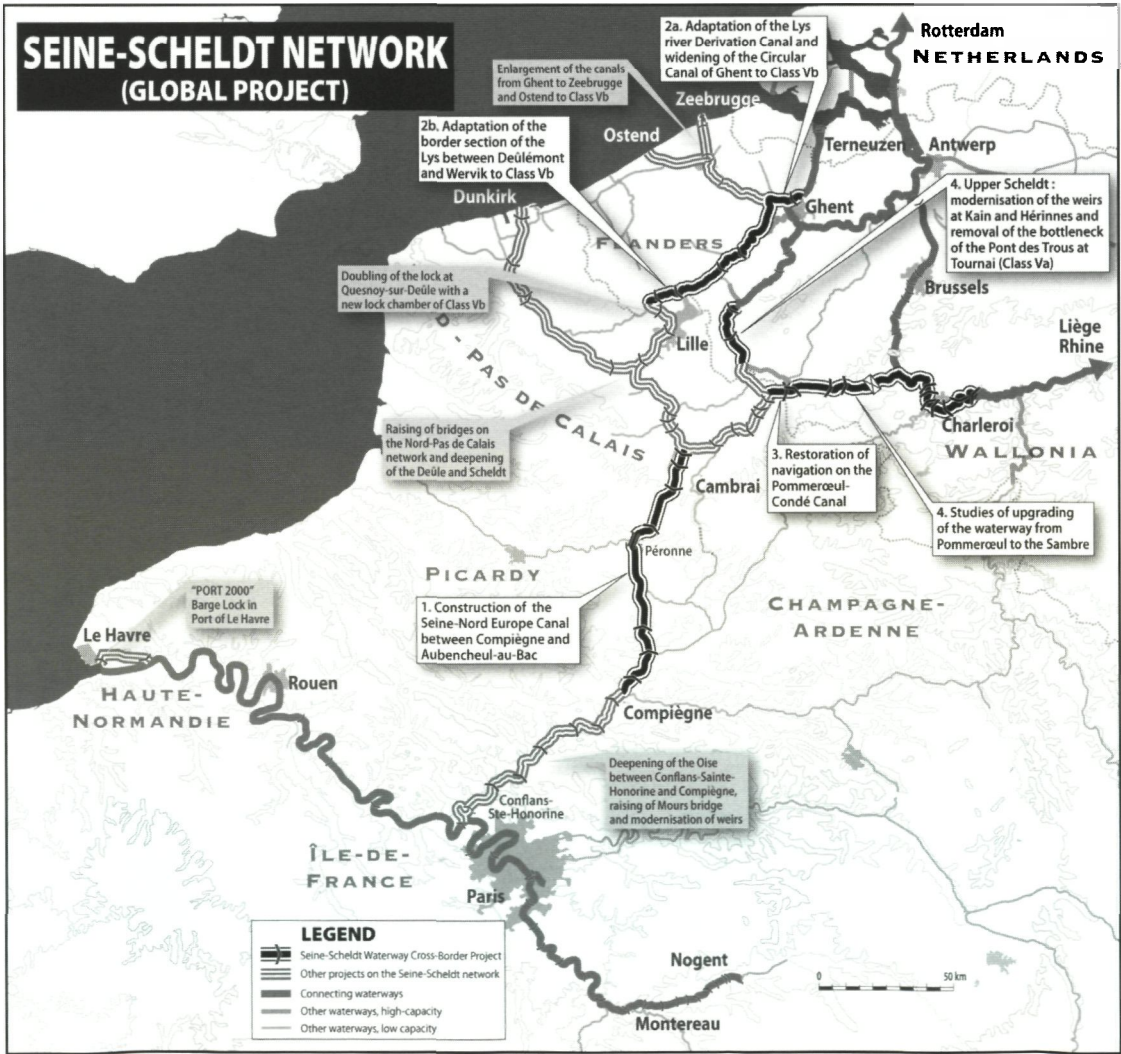


Fig. 2: The Seine-Scheldt network (global project)



## 2. THE SEINE-NORD EUROPE CANAL: A COMPREHENSIVE TRANSPORT SYSTEM

The Seine-Nord Europe Canal is the central segment of the Seine-Scheldt waterway link. It will eventually connect the Oise (at Compiègne) to the Dunkirk-Scheldt canal (at Aubencheul-au-Bac, near Cambrai). Its principal goal is to remove the waterway bottleneck in France, by creating a new high-capacity section connecting the Seine network to that of northern Europe. This canal will stimulate the transport of goods by waterway and enable around 15 million tonnes of freight to be transferred to the waterway right from the early years of operation of the Seine-Nord Europe Canal.

The Seine-Nord Europe Canal is designed not just as an infrastructure but as a comprehensive transport system and a regional development project. With a total land take of 2 450 ha, the 106 km long, 54 m wide and 4.5 m deep canal will run from Compiègne to Aubencheul-au-Bac. It will comprise 7 locks, 59 road and railway bridges, 3 aqueducts and 2 storage reservoirs. It is also

planned to build 7 transshipment quays, 5 boat harbours and 4 multimodal platforms.

The construction of these 4 multimodal platforms, covering a total area of 360 ha, is intended to provide multimodal transport services (regular river shuttles running to and from seaports, rail shuttles) and attractive areas for setting up value-creating industries or logistics activities.

The sites for the platforms were chosen in light of the complementary transport modes offered by existing infrastructure (rail at Nesle, road and motorway at Cambrai-Marquion, Péronne-Haute Picardie and Noyonnais) or infrastructure still to be developed, thus enabling the port platforms to act as hubs serving extensive regions. Eventually these logistics platforms will represent new sources of growth, economic development and job creation.

They are also intended to accommodate logistical distribution centres and will thus help to concentrate waterway transport flows by developing waterway-railway-road intermodality.

### Example of a multimodal platform: Cambrai-Marquion

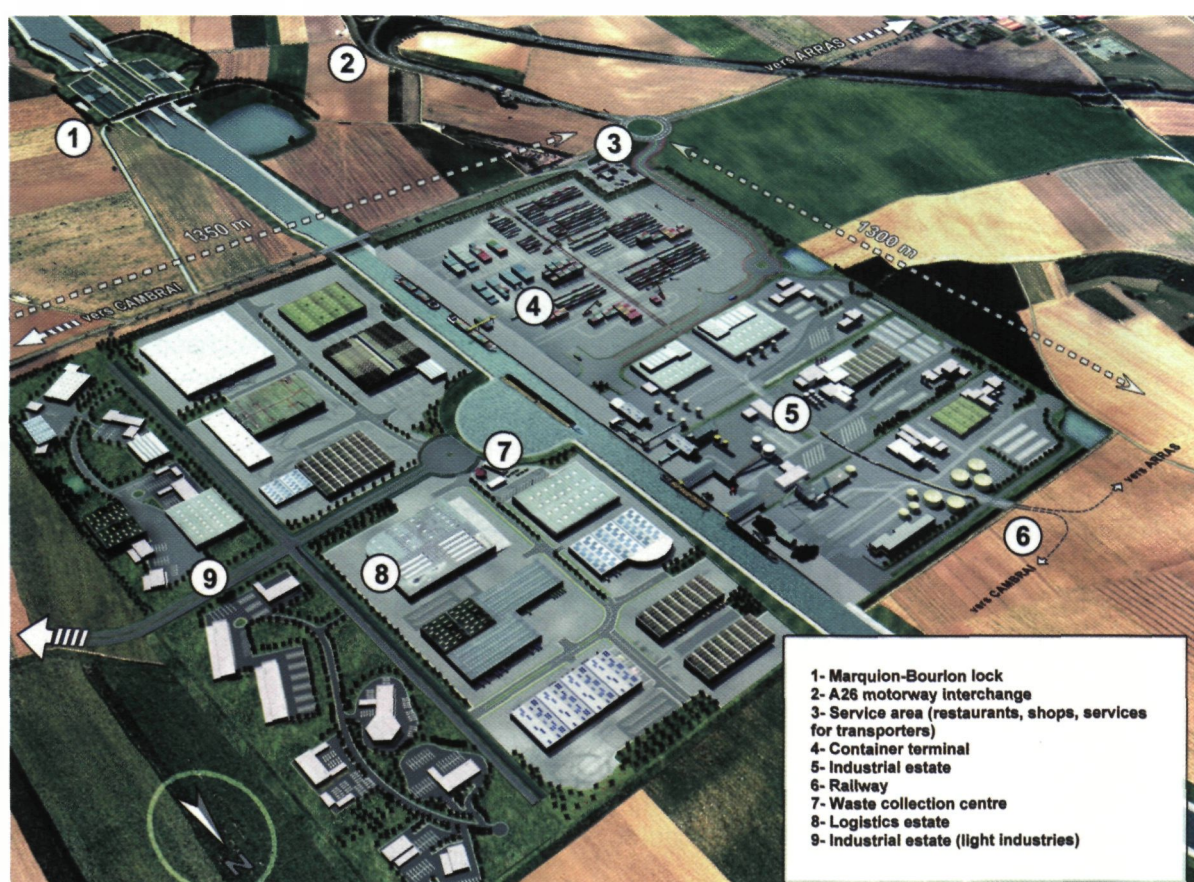


Fig. 3: Development planned at Cambrai-Marquion

### **Waterway transport forecast in 2020**

- Capacity: 1 215 Mt
- Containers: 30 000 TEU

### **Port area: 156 ha**

- Comprising a logistics area (30 ha), business park (18 ha) and industrial and logistics estate (52 ha) linked to the waterway
- A 20 ha container terminal

### **Intermodal services:**

- A 1 000 m quay
- Rail services

**1400 jobs in 2020**

## **3. A CRUCIAL PROJECT FOR LOGISTICS OPERATIONS IN NORTHERN EUROPE**

At present 70% of intercontinental container goods exchanges involving the four French regions concerned by the Seine-Scheldt link (Nord Pas-de-Calais, Picardie, Ile-de-France and Haute-Normandie) transit through the ports of the Benelux countries, to be transformed in logistical distribution centres that are mostly concentrated in the Netherlands (900) and Flanders (400), while there are only about a hundred in France.

The density of logistics activities around the Benelux ports can be explained by and is based on a dense transport infrastructure network - waterways in particular - which structures their hinterland. The major waterway corridors (notably the Rhine and the Albert Canal) are lined with inland multimodal platforms which act as advanced bases for the ports of Antwerp or Rotterdam. Lacking any comparable concentrated-volume axis, the link with France is still dominated by road transport.

Situated on the most heavily used corridor in France in terms of goods transport and on the Lille-Paris-Lyons-Marseilles backbone, the Seine-Nord Europe Canal is a major investment that should profoundly modify the organisation of logistics chains in north-west Europe and reinforce France's strategic position with regard to this type of activity.

One of the major challenges facing the Seine-Nord Europe Canal is - in parallel with the development of infrastructure - to link up the north European transport system via the development along the future canal and along the entire Seine-Scheldt

waterway of platforms that will act as genuine economic hubs, offering land for creating industrial and logistics activities and areas for developing port and multimodal services benefiting large regions.

It is by developing these multimodal economic hubs that it will be possible to attain the necessary concentration of flows for waterway and rail transport to be incorporated in logistics chains.

## **4. SEINE-SCHELDT: A EUROPEAN PROJECT**

The Seine-Scheldt European waterway link is a cross-border project that has been taken forward since November 2005 in the framework of permanent cooperation between the authorities in France, Flanders and Wallonia. In April 2004 it was already ranked 30th in the list of priority trans-European transport network projects and in July 2007 a joint grant application was filed by France, Flanders and Wallonia, with the support of the Netherlands.

In November 2007, the European Commission agreed to the full grant of € 420.32 million for the 2007-2013 period, of which € 350 million was for the section in France (including € 333 million for the construction of the Seine-Nord Europe Canal and its ancillary facilities, for which total investment will amount to € 4 billion), thus placing the project in 5th position in terms of agreed funding.

This proposed budget was unanimously accepted by the 27 Member States. Whereas Europe's contribution to the waterways has been limited to 1.2 % of the total budget for trans-European transport networks over the past 20 years, it has risen to 11.5 % for this period (Seine-Scheldt and Rhine-Main-Danube projects), thus signifying the interest of the public authorities in Europe for this sustainable transport mode.

Following the signing of an interministerial declaration between France, Wallonia, Flanders and the Netherlands on July 20th last year with a view to harmonising tariffs along the entire link (from Conflans Sainte-Honorine in France to Ghent in Belgium), it was decided to set up an intergovernmental commission and a European economic interest group to facilitate the implementation of the Seine-Scheldt European waterway link and manage and administer the "added toll" levied to cover maintenance, regeneration and part of the funding for the infrastructure.



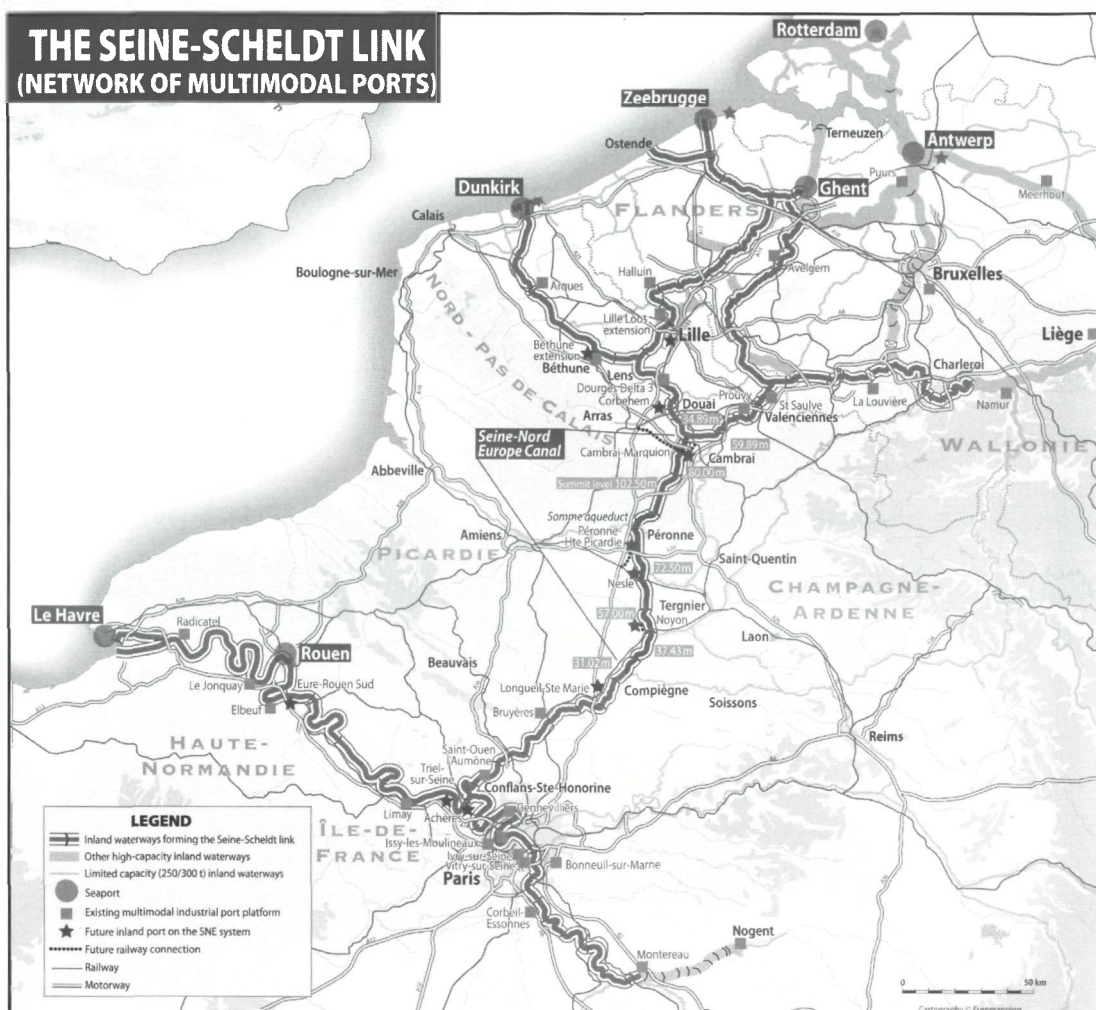


Fig. 4: The Seine-Scheldt link (network of multimodal ports)



Fig 5: Map of European waterway network

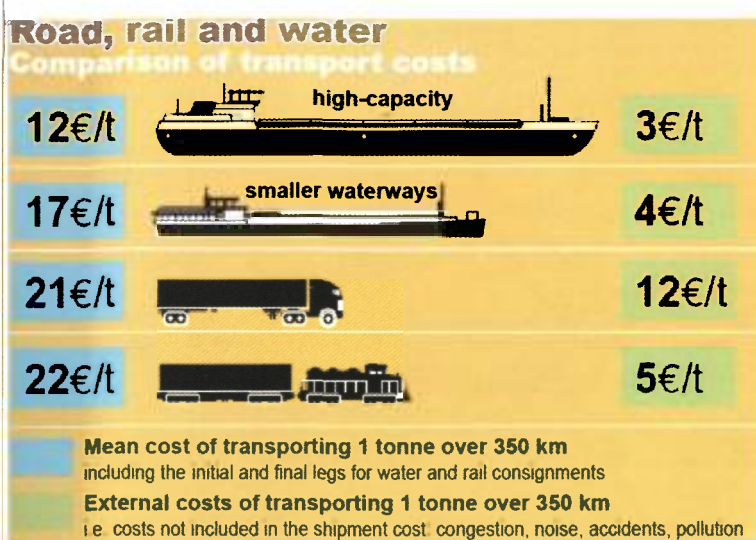


Fig. 6: Road, rail, navigation: comparative costs

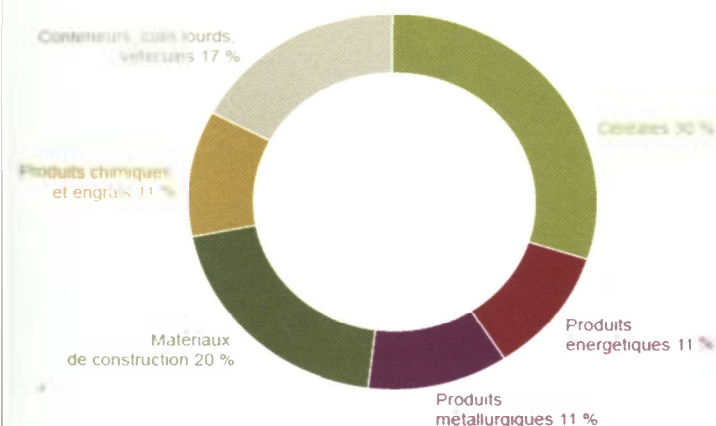


Fig. 7: Types of goods transported on the Seine-Nord Europe Canal: 2020 forecasts(tonne-km)

## 5. A COMPETITIVE LINK

Waterway transport is a way of making the regions and their businesses more competitive by increasing the maximum barge tonnage and consequently reducing transport costs to a significant degree. On leaving a seaport, a load of 2000 TEU containers will require 7 barges, or 30-40 complete trains or 1500 lorries.

The Seine-Nord Europe Canal will therefore offer companies that use the waterway, and especially those that at present send their goods via

other means, new logistical solutions drawing on the inherent advantages of waterway transport, namely reliability and safety, and of course connections with the 20 000 km of high-capacity waterways in the European network along with the major advantage of high-capacity networks, competitive prices. The figure below compares the average direct costs (blue) and external costs (green) of transporting one tonne over a distance of 350 km by the different modes of transport (including the initial and final legs by road in the case of waterway and rail transport, whenever necessary).

## 6. SEINE-NORD EUROPE CANAL: A FLAGSHIP PROJECT FOR EUROPE'S SUSTAINABLE DEVELOPMENT POLICY

The Seine-Nord Europe Canal is one of the flagship projects of the Grenelle Environment Forum, the multi-party debate organised by the French Government with the aim of incorporating sustainable development issues as widely as possible in the country's policies. The construction of the canal was included in the draft law on the environment to be put before parliament by the summer of 2008.

In environmental terms, the Seine-Nord Europe Canal, and more generally the Seine-Scheldt link, will make a decisive contribution to sustainable development objectives. By encouraging the transfer of a certain proportion of road traffic to the waterway, this high-capacity network will help to reduce greenhouse gas emissions.

Pertinent environmental criteria will be taken into account in choosing sites for the multimodal platforms and with regard to overall project integration, and this work will be carried out in constant liaison with the localities concerned.

The Seine-Nord Europe Canal project was designed with a concern for environmental protection: this will be a major priority along the entire canal alignment. The most sensitive sites have been identified and influenced the design of the project.

The canal will also provide solutions to certain hydraulic problems, including both water supply and flood management, by significantly reducing the destructive effects of floods on rivers such as the Oise and Somme.

Lastly, the waterway will help to develop tourism in the regions it crosses and promote their natural and even cultural heritage. In this way, it has a multifunctional character that makes it the infrastructure of sustainable development par excellence.

## **7. THE ADVANTAGES OF A PUBLIC-PRIVATE PARTNERSHIP ARRANGEMENT**

The law drafted after the Grenelle Environment Forum validates France's decision to implement the Seine-Nord Europe Canal in the context of a partnership agreement.

The choice of a public-private partnership (PPP) will help to optimise the project, optimise the cost of the project and shorten completion times. Furthermore, the creation of private partner consortiums will draw together a wide range of highly specialised skills that are specifically suited to the various project functions at European level, covering everything from construction to all the services offered to the market and regions by the time the canal is opened, thanks to the multi-use functions of the waterway.

This arrangement also makes it easier to manage complex projects in a more comprehensive manner by including the infrastructure and ancillary activities in a single contract. It creates a strong impetus by mobilising all the stakeholders concerned and contributes to regional development.

According to the MAPPP (Mission d'Appui à la réalisation de contrats de Partenariats Publics Privés), public funding requirements for the Seine-Nord Europe Canal would be reduced by between 6% and 40% thanks to a PPP, depending on the assumptions made. In addition, through the competitive dialogue procedure, the project could be enriched by the development of ancillary economic activities proposed by the private partner in the framework of the project.

Competitive dialogue indeed offers private operators and the public authorities the possibility of optimising the project progressively in order to choose the most appropriate solution while minimising risks. These discussions and exchanges of ideas often open perspectives for implementing innovative new solutions. If the French Government confirms that the Seine-Nord Europe Canal is to be built in the context of a PPP contract, calls for tender could be issued in the autumn of 2008 and the competitive dialogue started in early 2009.

### **A European partnership**

Although it is situated entirely within the territory of France, the Seine-Nord Europe Canal is a European project requiring a European partnership for the design, construction, operation, regeneration and implementation of the platforms and ancillary activities.

This complex, comprehensive project calls for the wide range of skills and variety of expertise of private partners from the different European countries. This cooperation and exchange between European private partners is crucially important for the success of the project.



## SUMMARY

The Seine-Scheldt waterway is a priority project in the Trans-European Transport Networks and by 2015 will provide a high-capacity link from the Seine basin to those of the Scheldt, Rhine and Danube. This waterway link, which is crucially important for the development of the European high-capacity waterway network, will encourage the development of

inland waterway navigation not only towards northern Europe but also to central and eastern Europe and the Black Sea. The Seine-Nord Europe Canal, situated entirely within France, runs for 106 km between Compiègne and the Cambrai region. It lies at the heart of the Seine-Scheldt waterway project and represents its central segment.

## RÉSUMÉ

Projet prioritaire des réseaux transeuropéens de transport, la liaison Seine-Escaut assurera, à l'horizon 2015, la connexion fluviale à grand gabarit depuis le bassin de la Seine jusqu'aux bassins de l'Escaut, du Rhin et du Danube. Cette liaison, déterminante pour le développement du réseau fluvial européen à grand gabarit, favorisera l'essor de la navigation fluviale non seulement

vers l'Europe du Nord mais aussi vers l'Europe centrale et orientale jusqu'à la mer Noire. Le canal Seine-Nord Europe, situé sur le territoire français, est constitué d'un linéaire de 106 km entre Compiègne et la région de Cambrai. Il s'inscrit au cœur du projet de liaison Seine-Escaut dont il constitue le maillon central.

## ZUSAMMENFASSUNG

Die Seine-Scheldt-Wasserstraße ist ein prioritäres Projekt innerhalb des transeuropäischen Transportnetzes und wird bis zum Jahr 2015 eine Hochleistungsverbindung vom Seine-Becken zu den Wasserstraßen Scheldt, Rhein und Donau herstellen. Diese Wasserstraßenverbindung, die sehr bedeutend für die Entwicklung des europäischen, hoch-leistungsfähigen Wasserstraßennetz-

es ist, wird die Entwicklung der Binnenschifffahrt fördern, nicht nur in Nordeuropa, sondern ebenso in Zentral- und Osteuropa und dem Schwarzen Meer. Der Seine-Nord Europa-Kanal, der ganz in Frankreich liegt, erstreckt sich über 106 km zwischen Compiègne und der Cambrai-Region. Er liegt im Herzen des Seine-Scheldt-Wasserstraßenprojekts und stellt dessen zentralen Abschnitt dar.