LIGHTENING THE LOAD

MARCO POLO LEADS THE WAY

MARCO POLO
NEW WAYS TO A GREEN HORIZON
CONTENTS

> Introduction – Marco Polo makes a difference 2
> The hardest part is to convince clients – Reefer Express 4
> Wind power takes the train – ENERCON Tri-Modal 5
> Big clients are more demanding – Via Danube 6
> Less paperwork = less cost – Short Sea XML 7
> More ferry space for bigger trucks – CGTK 8
> Bottled water by the trainload – Sirius 1 9
> Bringing Tangiers closer – Marocco Seaways 10
> Marco Polo was indispensable – T-REX 11
> Rail cuts time and raises quality – L.O.G.I.S.T.I.C. 12
> A freight-only weekend ferry – Gulf Stream 13
> Fixed link delivers the goods – Scandinavian Shuttle 14
> e-Learning fills skills gap – EWITA 15
> A one-stop shop for north-south freight – ItaloExpress 16
> Baltic shuttle wins back business – BaSS 17
> Innovative containers ease modal shift – FGI System 18
> All aboard for inter-modal learning – GLAD 19
> A mark of quality – The WestMed Bridge 20
> Definitely worth the effort – DZRS 21
> EU support enhances credibility – Ro-Ro Past France 22
> Green customers want modal shift – Euro Reefer Rail Net 23
> Upriver by boat and truck – ETS Elbe 24
Efficient transport is the lifeblood of the European economy. We take fast and cheap delivery from factory to consumer across Europe for granted. Road is often the preferred transport mode, but rising road traffic volumes mean more congestion, more pollution and higher costs.

The Marco Polo programme of the European Union tackles these issues head-on. It helps reduce traffic congestion on Europe’s crowded roads and promotes environment-friendly means of transport. Its strategy is simple: shift as much freight traffic as possible from roads to other modes of transport. While roads are overused, rail, sea and inland waterways often have spare capacity. They also pollute less. A Marco Polo grant can make the difference between launching a modal-shift project or not.

Marco Polo aims at improving the environmental performance of European freight transport, by freeing the roads of an annual volume of 20 billion tonne-kilometres\(^1\) of freight, the equivalent of more than 700 000 trucks a year travelling between Paris and Berlin. This translates into substantial environmental, societal and economic benefits.

**USERS TELL THEIR STORIES**

This brochure contains a representative sample from the wide spectrum of Marco Polo projects. The information comes from the participants themselves. A manager involved in each project tells in his or her own words of the benefits to be derived from Marco Polo. Many highlight the difficulties, expected and unexpected, which they encountered – and generally overcame.

The projects described in the following pages come from all regions of Europe. New rail and inland waterway projects criss-cross the EU from north to south and east to west. Motorways of the sea provide a way round natural land barriers and congested road corridors, offering capacity along Europe’s Atlantic, Mediterranean and Baltic seaboards.

**MAKING THE CASE**

Many projects recognise that even if rail, short-sea shipping and inland waterways offer a greener alternative and can compete with trucks on commercial terms, the case for switching still needs to be made. The business-as-usual mentality among operators is hard to break. Some forwarders accustomed to road transport fear that change might mean unnecessary risk. Dynamic marketing, quality service and close customer care are shown to be vital tools for Marco Polo projects.

Participants also enlist ingenuity and imagination to help their projects succeed. A number use innovative technologies to gain a competitive edge, or enhance service quality. These include common IT management systems, GPS for cargo track-and-trace, and new-design containers to facilitate intermodal handling.

Some utilise big European infrastructure projects, such as the Oeresund tunnel and bridge between Denmark and Sweden, to offer door-to-door international transport services. Others have turned the Sunday ban on heavy trucks in several EU countries to their advantage by providing weekend freight services by rail or sea.

---

1. 'tonne-kilometre' means the transport of a tonne of freight, or its volumetric equivalent, over a distance of one kilometre.
As a number of participants readily admit, they take a commercial risk in launching their projects. Even if the Marco Polo programme offers funding only in the start-up period, they say it helps in two ways. On the one hand, it provides an EU stamp of approval for their project and enhances their green credentials. On the other hand, many of the projects described here would not have got under way, or would have had to be scaled-down, without the benefit of a Marco Polo grant.

**MARCO POLO IS YOUR PROGRAMME**

Marco Polo is user-driven. If your company has a project to transfer freight from road to rail or short-sea shipping routes or inland waterways, you may qualify for a Marco Polo grant. Your project has to involve a cross-border route. The grant is performance-related. In some cases, you only get the full amount if you meet your declared target for the amount of freight shifted from the road to greener transport modes.

You do not have to shift all your traffic off the road. Inter-modal projects, combining road, rail and waterborne transport, are eligible. The concept of transport as a door-to-door service is important. Feeder traffic and final distribution can be handled by road, but road journeys should be kept as short as possible.

In addition to direct modal-shift projects, Marco Polo also funds projects that provide supporting services, including management systems, integrated cargo control or common IT platforms to facilitate inter-operability between partners and between modes. Training projects related to inter-modal transport and logistics also qualify for grants. And when it comes to road traffic, the cleanest journey is the one that did not take place. This is why Marco Polo actively promotes traffic avoidance, awarding grants to road hauliers and manufacturers who devise new practices (like avoiding empty runs or using more efficient packaging) to reduce the need for road transport in the first place.

**START-UP FUNDING**

The grants provide financial support in the crucial start-up phase of a modal-shift project before it pays its way to viability. Grants cover periods of two to five years. Projects should be commercially viable once the period of the Marco Polo funding is over. Successful participation in a Marco Polo project enhances a company’s green credentials. So far more than 400 companies have benefited from funding.

The current programme runs until 2013, with an annual budget for grants of about €60 million. It publishes calls for proposal from potential grant applicants at the beginning of each year on its website (http://ec.europa.eu/marcopolo). Bidders who feel they meet the conditions can apply for a grant.

Responding to its users, Marco Polo has already simplified procedures and lowered thresholds for obtaining a grant. These are part of an ongoing series of market-linked enhancements.
The hardest part is to convince clients

Reefer Express

A big benefit of Europe’s frontier-free single market is the fast delivery of often perishable products across the continent from producer to consumer. Reefer Express sets out to show that sea routes can compete for this transport market. It is a short-sea container service between the ports of Bilbao in northern Spain, Sheerness in England and Rotterdam in the Netherlands. Among its principal clients are fruit and vegetable producers in southern Spain who supply the British and Dutch retail markets. Before the service was established, this traffic all went inland by truck across the Pyrenees and France to the Netherlands and the UK (via the Calais-Dover ferry service in the latter case).

Refrigerated produce from southern Spain is transported to Bilbao where it is trans-shipped into refrigerated containers and loaded onto a vessel bound for Sheerness and Rotterdam. The service, operating on a fixed-day weekly schedule, was launched in July 2007 with one vessel. A second connection was added 12 months later. General cargo, including tyres, tiles, foodstuffs, sanitary products, electronics and domestic appliances, is also carried. The main cargo on southbound journeys consists of paper, beer, foodstuffs, metals and chemicals. The trans-shipment facility in Bilbao has been extended and improved to handle the more refrigerated cargo.

Geoffrey Smith, managing-director of MacAndrews, the lead company, says “Marco Polo funding has allowed MacAndrews to enter a market previously dominated by trucks and to prove the sea-borne product works as a viable alternative to trucking without outside funding”.

“We have worked with haulage and rail suppliers in Spain to improve door-to-door transit times by coordinating delivery schedules and vessel departures. Respecting the integrity of schedules is paramount, especially for just-in-time cargo deliveries.” Although customer support is growing and tonnages are rising, Smith says “Our biggest obstacle was, and remains, to convince traditional users of overland trucks that a sea-borne route can provide a real alternative – commercially, economically, and environmentally”.

Project name: Reefer Express
Size of Marco Polo grant: £1.714.711
Duration of project: July 2007 to July 2010
Lead partner: MacAndrews & Company, London (UK)
Other partner: ABRA Terminales Maritima SA (Spain)
Volume of goods shifted off the road: 857 m tonne-kilometres (three-year estimate)
Estimated environmental benefit: £22 m (over three years)
Contact: lon.gsmith@macandrews.com

Marco Polo funding has allowed MacAndrews to enter a market previously dominated by trucks and to prove the sea-borne product works as a viable alternative to trucking without outside funding”

Geoffrey Smith, Managing-Director of MacAndrews

4 PAGE
WIND POWER TAKES THE TRAIN

ENERCON Tri-Modal

Marco Polo can make things happen. That at least is the experience of German wind turbine manufacturer, ENERCON. “As soon as it was announced that we had received Marco Polo funding, this had a positive effect on our partners,” says Ursula Vogt, Assistant to ENERCON’s Managing Director. “In Portugal, for example, the local government began pushing the construction of a new railway line to our Portuguese production site. Other partners and governments are also more aware of our activities, and there has been positive feedback from all sides to our objective of shifting freight from road to rail and ship.”

The project involves using rail and ship to move components and parts from Germany to Viana do Castelo in Portugal, as well as to installation sites throughout Europe. Smaller parts go in containers. The novelty is that ENERCON is using rail for over-size shipments, i.e. rotor blades, the electrical equipment modules and tower sections of wind turbines. “Some people have had reservations about using rail for this, but participating in Marco Polo means it is taken more seriously. It adds prestige to our plans and helps us convince our partners to cooperate with us.”

As a high-technology company in the field of renewable energy, ENERCON feels it is natural that it should take a lead in promoting sustainable transport, but the project is also being driven by practicalities. “We, like others,” Vogt notes, “are encountering increasing resistance from local, regional and national authorities to moving exceptional loads by road. This translates into extended lead times and increased administrative costs.”

However, ENERCON is confident that its modal shift is justified on its merits. “European energy policy and the current discussion of escape routes from the latest climate change scenarios can only increase the trend toward more modal shift, so we are confident of long-term economic benefits,” Vogt concludes.

“European energy policy and the current discussion of escape routes from the latest climate change scenarios can only increase the trend toward more modal shift, so we are confident of long-term economic benefits”

Ursula Vogt, Assistant to the Managing Director of ENERCON

---

Project name: ENERCON Tri-Modal
Size of Marco Polo grant: €1 268 577
Duration of project grant: July 2009 to June 2012
Lead partner: ENERCON, Aurich (Germany)
Other partner: ENEDP 3 Desenvolvimento de Projecto Industrial (Portugal)
Volume of goods shifted off the road: 665 m tonne-kilometres (three-year estimate)
Estimated environmental benefit: 13.6 m (over three years)
Contact: ursula.vogt@ENERCON.de
**BIG CLIENTS ARE MORE DEMANDING**

*Via Danube*

“We are successfully managing a river-borne freight service that is trusted by our clients and is seen as a quality alternative to road transport throughout Europe.” This is how Dimitar Ivanov, who manages the project at Intershipping Bulgaria, described Via Danube after its first year of operation. The project aims to upgrade the Danube as a freight corridor through the heart of Europe, stretching from Germany to the Black Sea. It seeks to make current road routes from Maubeuge (France) and Waghäusel (Germany) to Bulgaria and Romania into inter-modal ones via the Danube.

Freight travels by road from Maubeuge and Waghäusel to Passau in Bavaria and is transferred to river barges bound for Vidin in Bulgaria where it is offloaded to continue by road to Sofia and Bucharest. For some return journeys the departure port has been changed to Russe which is more convenient for the Romanian car plants which have started using the Via Danube service, explains Ivanov.

The original Intershipping river fleet of four roll-on/roll-off vessels has increased with the addition of four river-going barges powered by two push-boat units. “We are working with bigger clients”, says Ivanov, “and this is more demanding. A big advantage of our service is its regularity. This way, our clients are always sure of an exact departure date and a very good estimate of when the cargo will arrive at its destination.”

“But a regular service means fixed costs, requiring vessels to sail fully-laden. This has been a challenge for us, particularly as a result of the global economic down-turn since 2008 and the associated fall in consumer demand.” Ivanov concludes: “We coped with this and many other problems; we came out on top. And we set guidelines for the successful management of the project for the following two years.”
LESS PAPERWORK = LESS COST

Short Sea XML

Arild Haraldsen, CEO of the NorStella Foundation, explains the benefits of improved data exchange for short-sea shipping.

XML STANDS FOR EXTENSIBLE MARKUP LANGUAGE IN COMPUTER PROGRAMMING. WHAT IS THE LINK WITH SHORT-SEA SHIPPING?

Administrative paperwork accounts for 20-30% of the cost of short-sea shipping, so developing e-solutions is an obvious way to bring down the costs. But it is not just about cost savings. It is a means to an end – moving goods from road to sea by making short-sea shipping more competitive.

WHO LED THE PROJECT?

The Short Sea XML project was spearheaded by NorStella, a non-profit foundation for e-business and trade procedures. NorStella is the official Norwegian contact point for all international standardisation activities in the field of electronic business and trade facilitation. Norway is, of course, not a member of the EU, but we were able to take advantage of being from one of the neighbouring countries which has special relations with the EU. We are one of several countries which can benefit from Marco Polo funding in this way.

WHAT WERE THE RESULTS...

By the time the project was over, some 40 companies were already using XML – for exchanging messages electronically along the short-sea logistics chain in a single, shared format. Kristiansand in Norway was the first European port to implement Short Sea XML.

... AND THE BENEFITS?

The benefits to us were that the project would not have been possible without Marco Polo funding. The benefits were more than financial, however. Through the exposure we obtained, we have become better known and built up ‘Short Sea XML’ as a brand. We have also found synergies we might not otherwise have found with EU-funded research programmes and other Marco Polo projects promoting intermodality.

WOULD YOU RECOMMEND THE MARCO POLO PROGRAMME TO OTHERS?

Definitely; primarily because it takes a practical approach and (in the case of projects like Short Sea XML) has a two-year duration: this means that you have to obtain practical results in a short timeframe. This makes it complementary to the research-oriented projects.

“We have also found synergies we might not otherwise have found with EU-funded research programmes and other Marco Polo projects promoting intermodality”

ARILD HARALDSEN, CEO NORSTELLA FOUNDATION
**MORE FERRY SPACE FOR BIGGER TRUCKS**

**CGTK**

This project provides a full freight service over the shortest sea crossing between Finland and Sweden from Vaasa to Umea. Before the service started in 2004, large trucks travelling between the two countries often took the overland route round the northern end of the Gulf of Bothnia. This involved a distance of 820 kilometres, compared with 90 kilometres and a crossing time of four hours for the Kvarken Straits sea link.

One of the main problems was that the vessels serving the link were too small. “The Marco Polo grant made it possible for us to buy the ship we needed to handle more and bigger trucks,” says RG Line CEO Börje Lassfolk, “Without the grant we would have had to buy a smaller vessel.”

Among the problems encountered during the project, Lassfolk lists a paperwork and reporting requirements involved in projects like his can on occasion be detailed and time-consuming. But he adds: “The policy and objectives behind the Marco Polo programme are very good”.

“The Marco Polo grant made it possible for us to buy the ship we needed to handle more and bigger trucks”

**BÖRJE LASFFOLK,**
**CEO RG LINE**

“The new vessel had more lane metres for carrying trucks and the gate and freight-deck dimensions allowed for more and larger loads. We doubled the cargo volume during the project period as set out in our project proposal”, says Lassfolk. “With the additional capacity, we were able to market the service more intensively than before.”
BOTTLED WATER BY THE TRAINLOAD

Sirius 1

Rail is particularly suited for handing single products that are transported in large quantities like bottled water. With the Sirius 1 project, the French mineral water company, SA des Eaux Minérales d’Evian, is switching to rail for the transport of water from its Volvic spring in central France to its German distribution centre at Hockenheim, near Frankfurt – a distance of 711 kilometres. From there, it is distributed to final customers in Germany by road. Trains return from Hockenheim with empty crates. Previously the whole journey in both directions was by road.

The modal shift means that 70% of the average distance from Volvic to final destinations in Germany is now covered by rail. The company says that in a full year of operation, the switch is the equivalent of taking 10 000 trucks off the road. The energy saved is enough to provide lighting for a city of 320 000 people.

Jean-Marc Dumas, supply chain projects director at Evian, says the project is raising capacity from two trains a week at the end of 2008 to four a week in 2010. Each train carries 1 000 tonnes of water. “Sirius 1 is the first stage of an ambitious supply chain re-engineering project. In the 2010-2014 period, we intend to shift to rail all shipments of Volvic and Evian water to Germany via Hockenheim and a second distribution centre in Duisburg for the north of the country.”

“The switch to rail during Sirius 1 has not affected our ability to maintain a high service level concerning punctuality and content of shipment.”

JEAN-MARC DUMAS, SUPPLY CHAIN PROJECTS DIRECTOR, EVIAN

Project name: Sirius 1
Size of Marco Polo grant: €560 000
Duration of project grant: January 2008 to December 2010
Lead partner: SA des Eaux Minérales d’Evian (France)
Other partner: Danone Waters Deutschland GmbH (Germany)
Volume of goods shifted off the road: 341 m tonne-kilometres (three-year estimate)
Estimated environmental benefit: €6.9m (over three years)
Contact: jean-marc.dumas@danone.com
BRINGING TANGIERS CLOSER

Marocco Seaways

Before Italian shipping line, Grandi Navi Veloci (GNV), launched its Ro/Pax service from Genoa to Tangiers in Morocco via Barcelona, the goods it now carries by sea took a longer overland route. From Italy, they went by road to Algeciras at the southern tip of Spain before crossing the Mediterranean.

“The new route was the result of analysing the commercial traffic between Italy and Morocco, and between Spain and Morocco, and of surveying operators,” says Franco Fabrizio of GNV. “This revealed a clear opening for a cheaper and faster alternative.”

The service carries goods from the hinterland of both European ports — stretching as far as the Milan region in the case of Italy. These are generally consumer goods, but there is also machinery. “And we carry raw materials for factories in Morocco, which then ship the finished goods back by the same route,” adds Fabrizio.

The project got off to a difficult start. GNV had hoped to launch the service in September 2006, but had underestimated the difficulties of getting the necessary permits from the Moroccan authorities. It is unusual for such trips to call at an additional port in Europe before crossing the Mediterranean rather than going straight to Morocco and back. “This was really beyond our control,” Fabrizio points out, “as we had made all the necessary applications and enlisted the support of the Italian and Spanish authorities, but it took much longer than we felt it needed to.”

As with any new product, it also took time to convince customers that there is a cheaper and better alternative to the way they are used to doing things — even though they might be saving as much as 50% of their costs. “So, the availability of Marco Polo funding made a critical difference to the initial economics of the project,” says Fabrizio. “However, by May 2009 we had exceeded expectations and added a second vessel on the route earlier than we had originally planned.”

Project name: Marocco Seaways
Size of Marco Polo grant: €28.8m (over three years)
Duration of project grant: December 2006 to December 2009
Lead partner: Grandi Navi Veloci s.p.a., Genoa (Italy)
Other partners: Agencia Maritima Condeminas (Spain), F.A.I. Service S.C. (Italy)
Volume of goods shifted off the road: 921m tonne-kilometres (three-year estimate)
Estimated environmental benefit: €28.8m (over three years)
Contact: franco.fabrizio@gnv.it

“The availability of Marco Polo funding made a critical difference to the initial economics of the project”
FR ANCO F AB RIZIO,
GNV
When times are hard, a Marco Polo grant can make all the difference. T-REX (Trans-Romanian Express) rail freight services between Belgium and Romania are an example. “Without the Marco Polo programme, we would probably have started the service, but with limited scope – one round trip reserved for one customer at an agreed price, and with a risk of stopping if competitive conditions changed drastically,” says Tony Struyf, International Business Development Manager at IFB in Belgium. “With Marco Polo, we can offer a regular service not just to our main customer on the route, but also to the market as a whole – and maintain it in difficult times.”

The new service is faster than sending goods by road – 42 hours rather than 48 hours, the timings are more reliable and the service is available over the weekend – when Austrian and German roads are closed to trucks. “Goods loaded on the train in Genk, in the hinterland of Antwerp, on Friday evening will be delivered in Bucharest/Sofia on Monday morning. This is ‘mission impossible’ by road,” Struyf points out. IFB estimates that the rail service is taking 11 500 trucks a year off the road – or 225km of trucks head to tail.

Not everything has gone according to plan. IFB had hoped to be operating four round trips a week by September 2008, but stopped at three “when the global economic crisis put a – hopefully temporary – stop to our ambitions for this route and for building a much broader intermodal network linking the Benelux and Romania.”

IFB admits it underestimated the competitive responses from road freight operators, so “we actually only reached 84% of our modal shift volume targets in the first year and 59% in the second,” says Struyf. “We nevertheless believe that achieving 65% of our targets on average over the two years of operation is a very good figure.”

Tony Struyf, International Business Development Manager, IFB Belgium
RAIL CUTS TIME AND RAISES QUALITY

L.O.G.I.S.T.I.C.

Are you small but smart? Then Marco Polo could be for you. “The Marco Polo programme is a way for smaller but smart operators to take part in an ambitious project,” says Furio Bombardi, Sales Manager at FS Logistica in Milan. “Without Marco Polo, I don’t think all the partners in our project would have come together.”

The project had two other major benefits: “It shortened the time to break-even point and was an opportunity to introduce new technology to the logistics industry,” by developing and testing a new GPS tracking and tracing system for maintaining control of shipments of hazardous materials over a wide geographic area.

The project took advantage of rising demand for LPG (liquefied petroleum gas) in central and eastern Europe, and falling consumption in Italy at a time when production was rising as a by-product of increased diesel fuel and petrol output. A rail service existed, but was not competitive because it was based on single, ad hoc loads. LOGISTIC launched a dedicated block train service – 12-14 wagons at a time.

“We not only cut transport time from Italy to hubs in the Czech Republic and Croatia, but offered real-time information on arrival time – and delays or problems. Our customers can optimise their human and economic resources, and their customers can make plans based on ‘just-in-time’ logistics.”

It was not all plain sailing. Market conditions changed in 2007 and 2008 in ways LOGISTIC could not have foreseen, and the project fell short of its targets. “Despite the difficulties, the LPG transport contracts were extended even after the project came to an end, so I am hopeful,” says Bombardi, “not only that the service will continue in the years to come, but that the model can be extended to other dangerous goods in future.”

———

Project name:
Logistic Operational network for Gas Innovative Supply and Transport between Italy and Central Europe – L.O.G.I.S.T.I.C.

Size of Marco Polo grant: £487 374

Duration of project grant: January 2006 to January 2009

Lead partner:
FS Logistica s.p.a. (ex-Cargo Chemical), Milan (Italy)

Other partners:
Montana Gas GmbH (Germany), Primagaz Central Europe GmbH (Austria), Trenitalia s.p.a. (Italy)

Volume of goods shifted off the road: 269m tonne-kilometres (three-year estimate)

Estimated environmental benefit: £5.2m (over three years)

Contact: f.bombardi@fslogistica.it

“The Marco Polo programme is a way for smaller but smart operators to take part in an ambitious project”

FURIO BOMBARDI,
SALES MANAGER,
FS LOGISTICA, MILAN

F.Bombardi@fslogistica.it
A FREIGHT-ONLY WEEKEND FERRY

Gulf Stream

Gulf Stream is a Marco Polo project offering a motorway-of-the-sea alternative for freight traffic between northern Spain and southern England. It has two special features:

> It is a freight-only roll-on/roll-off service. This means that trucks and unaccompanied trailers do not have to compete for space with tourist vehicles during the holiday season.

> The service operates one return sailing every weekend between the Spanish port of Santander and Poole on the English south coast, so as to take advantage of the weekend ban on heavy trucks using the French national road network.

According to Brittany Ferries, which operates the service, the door-to-door cost and duration is less than overland transit via France. The main users of the service are transport firms based in Spain and Portugal at the southern end and UK and Irish hauliers at the English end. The service eases congestion at the Franco-Spanish frontier and at the Channel ports.

Francois Potier, R&D manager at Brittany Ferries, says the results of the first phase of the project are encouraging with a capacity utilisation of 75% which is in line with the project business plan. “Economic conditions force us to remain very attentive to customer needs and to be able to propose innovative solutions which help their profitability and their green image”, he says.

“Ingrained habits are sometimes hard to break. We have to convince clients to test for themselves the advantages of the new service,” says Potier. “We show them our commercial operations on the ground. And we try hard to raise awareness among transporters and logistics firms of the cost differentials and productivity gains a direct sea link can provide.”

“Economic conditions force us to remain very attentive to customer needs and to be able to propose innovative solutions which help their profitability and their green image”

FRANCOIS POTIER, R&D MANAGER, BRITTANY FERRIES

Project name:
Gulf Stream

Size of Marco Polo grant:
€870 077

Duration of project grant:
March 2008 to March 2011

Lead partner:
Brittany Ferries, Roscoff (France)

Other partners:
Puerto de Santander (Spain), Poole Harbour (UK), Brittany Ferries (UK) & Brittany Ferries (Spain)

Volume of goods shifted off the road:
435m tonne-kilometres (three-year estimate)

Estimated environmental benefit:
€12.1m (over three years)

Contact:
francois.potier@brittany-ferries.fr
The Scandinavian Shuttle uses the Oeresund fixed link, one of Europe’s biggest infrastructure projects co-funded by the EU, to help create a viable rail freight corridor between continental Europe and Scandinavia. It targets the central stretch of the corridor – from the Ruhr region of Germany to southern and central Sweden via Denmark.

The Scandinavian Shuttle operates a daily rail service with fixed journey times, providing just-in-time goods deliveries in both directions. It uses the Oeresund tunnel and bridge between Copenhagen and Malmö. Before the Scandinavian Shuttle, the main option for customers was a combination of truck and ferry services between Germany and Sweden.

The project sets out to provide the rail transit service with the levels of quality and reliability associated with road transport. Each container or trailer has a mobile phone module with a GPS card reporting its position in near-real time to a Reliability Control Centre to facilitate cargo track-and-trace. The train locomotive is equipped to cope with the switch between the Danish and Swedish electricity and Automatic Train Control (ATC) systems in the middle of the Oeresund fixed link. The Scandinavian Shuttle is open to any train operator wishing to use it.

UBQ director Sven-Erik Andersson says the different rules and regulations of the national railway authorities in Europe were a major obstacle. “Although traffic volumes are rising and the quality of the service is constantly improving, we have found that rail transport is much harder to handle than more conventional road transport”, he says. Asked about the benefits for UBQ, he says “the project has given us a higher market profile as an environment-friendly company and has raised awareness of environment issues among our staff”.

“The project has given us a higher market profile as an environment-friendly company and has raised awareness of environment issues among our staff”  
Sven-Erik Andersson, UBQ Director
**E-LEARNING FILLS SKILLS GAP**

**EWITA**

Project Manager Sabine Piribauer of lead partner via donau shows how training is vital for changing minds and modes on Europe’s great waterways.

**WHY DID YOU DEVELOP THE EWITA PROJECT AND ITS E-LEARNING PLATFORMS?**

Europe’s inland waterway sector is facing a skills and labour shortage at a critical time. EWITA aims to fill the gap by creating a common European training concept and practical training programmes for intermodal inland waterway transport. It covers both the Danube and Rhine corridors.

Spreading knowledge on this highly environment-friendly and cost-effective mode of transport and making it easily accessible, helps shift traffic from roads to inland waterways in the longer term. EWITA offers the latest training concepts and state-of-the-art e-learning platforms for waterborne logistics in Europe. They are tailored in a flexible way to interface with the training needs of future inland shipping operators and interested transport users.

**IT THIS PART OF A LONGER-TERM PROCESS?**

EWITA stands for European web platforms and training concepts for inter-modal inland waterway transport. It is a direct follow-up to an earlier Marco Polo project eWIT, which ran from December 2003 to February 2006. The budget for the new project has been more than doubled.

The initial programme developed a European concept for training on intermodal inland waterway transport which it then applied to the Danube corridor via an Inland Navigation eLearning System (INeS).

“We very much liked the Marco Polo focus on operational activities related to the economy and the business sector rather than on research projects”

**SABINE PIRIBAUER, PROJECT MANAGER, VIA DONAU**

EWITA refines and expands the concept, updates the INeS Danube, and creates a similar platform, INeS RMS, for the Rhine-Meuse-Scheldt corridor. Both platforms are available in English, German, Dutch and/or Romanian.

**HOW DID MARCO POLO HELP?**

We very much liked the Marco Polo focus on operational activities related to the economy and the business sector rather than on research projects. Practical projects with industrial partners can be handled in a less complicated way.

---

**Project name:** EWITA  
**Size of Marco Polo grant:** €756 445  
**Duration of project grant:** June 2008 to May 2010  
**Lead partner:** via donau (Österreichische Wasserstrassen-Gesellschaft mbH, Vienna (Austria))  
**Other partners:** Stichting Projecten Binnenvaart (Netherlands), European Intermodal Association (Belgium), Forschung- & Entwicklungsgesellschaft mbH, Campus Steyr FH OÖ (Austria), Imagination Computer Services (Austria), Promotie Binnenvaart Vlaanderen (Belgium), Romanian Maritime Training Centre, CERONAV (Romania), Regionaal Opleidingscentrum Zeeland (Netherlands), Schifffahrts-Verlag Hansa C. Schroedter & Co (Germany)  
**Contact:** Sabine.Piribauer@via-donau.org
A ONE-STOP SHOP FOR NORTH-SOUTH FREIGHT

ItaloExpress

When outside evaluators looked at the ItaloExpress project for the European Commission, they commented positively on the punctuality and reliability of this new rail service from northern Germany to northern Italy. These had previously been major issues on this route. By introducing tracked-and-traced intermodal service using its own locomotives and wagons, ItaloExpress has been able to offer change not only in reliability and punctuality, but also in the form of flexibility and transparent pricing.

“We offer a one-stop-shop between freight forwarders. The three-stop-shop, involving operator, rail company and terminal, is a thing of the past,” says Thorsten Lüttig, Divisional Manager at TX Logistik, the lead company and a German private-sector affiliate of the Italian railways. Its partners were the Italian railways and DHL Express Sweden. “The prospect of Marco Polo funding created leverage in getting all the partners on board,” says Lüttig.

There were early difficulties in finding enough wagons, but between end-2004 and mid-2008, the frequency was increased from two to seven trains a week – primarily from Lübeck to Verona in Italy early on, but then regularly from Padborg in Denmark on the Danish-German border once terminal improvements there were ready. “We are particularly proud,” Lüttig adds, “of having turned what was initially a project into a sustainable product.”

The barriers to a successful new service were economic, technical, operational – and psychological. “We had to overcome the reluctance of competing firms to bundle their shipments on the same train, and fears about loss of flexibility compared to the road. Recognising that promoting intermodality means changing mindsets was for us a key part of the project, and it is important to understand that,” Lüttig says.

“"We offer a one-stop-shop between freight forwarders. The three-stop-shop, involving operator, rail company and terminal, is a thing of the past"”

THORSTEN LÜTTIG, DIVISIONAL MANAGER, TX LOGISTIK
BALTIC SHUTTLE WINS BACK BUSINESS

BaSS

Using short-sea routes for shipping cargo is, of course, desirable on environmental grounds, but at the end of the day it has to make economic sense as well. This is why Scandlines turned to the Marco Polo Programme for short-term support to adjust to increased competition from road transport for its Baltic freight services after the EU enlargement of 2004.

The aim of BaSS was to increase the share of sea transport in the overall freight traffic between Germany and the Baltic states, and on to Poland and Russia. An existing service between Rostock (Germany) and Liepaja (Latvia) was moved to Ventspils, another Latvian port, and expanded through the deployment of an additional vessel. This doubled capacity and frequency from two to four departures per port and per week. Since then, a third ferry has been employed on the route.

"By moving to Ventspils, we were able to offer customers better port infrastructure", says Gernot Tesch, Deputy Line Manager Sweden/Balticum/Finland for Scandlines, “and to develop this port as a hub for all Scandlines activities in eastern Europe”. At the Rostock end, one of the attractions for this traffic was the ability to transfer not just to rail and road, but to utilise synergies with the existing route network to/from different destinations in the Baltic Sea area. Tesch says: "progress was fast – in the first nine months, truck and trailer traffic between Rostock and Ventspils doubled and went up by another 35% the following year”

“Without Marco Polo funding to underwrite the start-up costs in the early years, I don’t think we would have increased the frequency,” says Tesch. “And we were successful. Traffic did move back to the sea and we met all our Marco Polo project milestones. In general, the first aim should always be to get rid of the competitive disadvantage of sea traffic compared to land traffic, in order to make support programmes like Marco Polo redundant in the long-term.”

GERNOT TESCH, DEPUTY LINE MANAGER SWEDEN/BALTICUM/FINLAND, SCANDLINES

PROJECT NAME:
Baltic Sea Shuttle (BaSS)

SIZE OF MARCO POLO GRANT:
€1 316 000

DURATION OF PROJECT GRANT:
January 2006 to January 2009

LEAD PARTNER:
Scandlines Deutschland GmbH, Rostock-Warnemünde (Germany)

OTHER PARTNERS:
Hafen-Entwicklungsgesellschaft Rostock mbH (Germany);
Free Port of Ventspils (Latvia)

VOLUME OF GOODS SHIFTED OFF THE ROAD:
658m tonne-kilometres
(three-year estimate)

ESTIMATED ENVIRONMENTAL BENEFIT:
€20.8m (over three years)

CONTACT:
gernot.tesch@scandlines.de
INNOVATIVE CONTAINERS EASE MODAL SHIFT

FGI System

Production of glass is not evenly distributed across Europe. Broadly speaking, the production plants are in northern Europe, in particular Belgium, France and the Netherlands, and the consumers, of course, are everywhere. This creates a need for specialist long-distance transport.

Jumbo sheets of flat glass – 6m x 3.21m – intended mainly for the construction and automotive industries are normally carried by road in specially designed trailers (inloaders) with hydraulic systems and air bags to cushion them from shocks. The FGI System project is for the first time deploying a modified design of the special inloaders and using cranes to transfer them from the road to flatbed railway wagons.

“While all this may sound simple,” Ghiglione adds, “it actually required investment in a new intermodal fleet. We believe the project has good long-term prospects, but the Marco Polo funding was important to us, because it reduces the risk associated with a highly innovative investment and allows us to give a higher technical content to our services.”

“The Marco Polo funding was important to us, because it reduces the risk associated with a highly innovative investment and allows us to give a higher technical content to our services”  
FRANCO GHIGLIONE, LANNUTTI

“While all this may sound simple,” Ghiglione adds, “it actually required investment in a new intermodal fleet. We believe the project has good long-term prospects, but the Marco Polo funding was important to us, because it reduces the risk associated with a highly innovative investment and allows us to give a higher technical content to our services.”

“While all this may sound simple,” Ghiglione adds, “it actually required investment in a new intermodal fleet. We believe the project has good long-term prospects, but the Marco Polo funding was important to us, because it reduces the risk associated with a highly innovative investment and allows us to give a higher technical content to our services.”

Project name: FGI System  
Size of Marco Polo grant: €3 000 000  
Duration of project grant: April 2008 to April 2013  
Lead partner: Lannutti s.p.a., Cuneo (Italy)  
Other partner: Lannutti spri (France)  
Volume of goods shifted off the road: 496m tonne-kilometres (five-year estimate)  
Estimated environmental benefit: £9.9m (over five years)  
Contact: franco.ghiglione@lannutti.it alessandra.lannutti@lannutti.it
Eduard Rodés, Director of the Escola Europea de Short Sea Shipping in Barcelona, describes his experience with Marco Polo.

**WHAT IS THE ESCOLA EUROPEA DE SHORT SEA SHIPPING?**

As the name suggests, we teach short-sea shipping – combining hands-on training and high academic standards. We run courses for students and people working in the industry on board vessels plying the Mediterranean between Barcelona in Spain and Civitavecchia in Italy. We believe this approach makes us unique.

**WHAT HAS BEEN THE ROLE OF THE MARCO POLO PROGRAMME?**

Marco Polo first gave us €1m for an initial two-year project which has been completed. We successfully bid for another two-year grant of €1.3m to cover the second phase known as GLAD. The Marco Polo grants met just over one third of our costs initially and almost half the second time. Those are short time spans in terms of what we would like for forward planning purposes, but Marco Polo has nevertheless been vital for us. We would otherwise not have been able to expand the similar local courses run by the Barcelona Port Authority into a school with a European dimension. We take students from seven different EU countries.

**WHAT DO YOU TEACH?**

GLAD provides two courses: Motorways of the Sea Training (MOST) and SURCO, Simple Use Railway Connections. Each four-day course is stand-alone, but they can be combined over a week. During the first two years, we ran three short-sea shipping courses – an introduction to maritime logistics, basic operations and services, and global logistics operations.

**WHAT IS DIFFERENT NOW FROM WHEN YOU STARTED?**

We are emphasising inter-modality much more. We have an additional partner, FEVE, a Spanish railway company, giving us on-train classrooms in addition to our classrooms at sea. The environmental content of the courses is also greater. We teach students how to measure the true long-term environmental cost of different forms of transport.

**“We teach students how to measure the true long-term environmental cost of different forms of transport”**

EDUARD RODÉS, DIRECTOR OF THE ESCOLA EUROPEA DE SHORT SEA SHIPPING, BARCELONA
Why go by road through northern Italy, across southern France and down the Spanish coast to get from Civitavecchia just north of Rome to Barcelona in Spain, when you can go across the Mediterranean? Even if the ultimate destination is Lisbon, the new route still makes sense. This was the thinking behind the Marco Polo Eurostars project, which ran from 2004-2006 and launched this route for Ro-Ro transport.

That success gave rise to a successor project: The Westmed Bridge — an improved service with bigger vessels increasing loading capacity for rolling freight (accompanied and unaccompanied trailers) by 65%. It is over 40% cheaper and one-third faster by sea than by moving the same freight by road.

“We are faster and cheaper, and this is a more reliable service with departures and arrivals on fixed days of the week and at fixed times,” says Paul Kyprianou, External Relations Manager for the Grimaldi Group. “Over the life of the project, we expect the equivalent of 72,585 trucks or trailers to be shifted from road to sea.”

Launching when fuel prices were soaring and the world economy was entering a major downturn had an impact.

“We transported 4% fewer trailers in the first year than we had expected,” Kyprianou admits. “Nevertheless, we are optimistic about this route, particularly once further upgrades to road and rail links to the hinterland at either end and planned improvements to port infrastructure are complete.”

Despite short-term setbacks, Kyprianou is enthusiastic about the Marco Polo programme: “The investment cost of new ships to upgrade the service is huge, so the programme has brought us significant financial benefit in the start-up phase. Being awarded Marco Polo funding is also a form of quality mark for our business.”

“A MARK OF QUALITY

The WestMed Bridge

Project name: The WestMed Bridge
Size of Marco Polo grant: £4,500,000
Duration of project grant: April 2008 to March 2011
Lead partner: Atlantica S.p.A. di Navigazione, Naples (Italy)
Other partner: Grimaldi Logistica España (Spain)
Volume of goods shifted off the road: 2.25 billion tonne-kilometres (three-year estimate)
Estimated environmental benefit: £66.5m (over three years)
Contact: Kyprianou.paul@grimaldi.napoli.it

“Being awarded Marco Polo funding is also a form of quality mark for our business”

PAUL KYPRIANOU,
EXTERNAL RELATIONS MANAGER,
GRIMALDI GROUP
DEFINITELY WORTH THE EFFORT

DZRS

The procedures associated with Marco Polo funding can sometimes appear too much of a challenge for some companies. Complaints about the Brussels bureaucracy are not uncommon. But Norbert Rekers, Director of Sales for the Duisport Agency in Germany says things have got better: “We would reapply. On the one hand, the hurdles to getting the money have been reduced; on the other hand, the amount of money has been increased. All in all, that makes the benefit very worthwhile for new intermodal projects.” In the case of the DZRS (Duisburg-Zeebrugge Rail Shuttle) project, the benefit covers just under half the losses anticipated in the first three years of operation. The project is taking the equivalent of more than 25 000 standard containers of cargo off the roads each year.

DZRS provides a train link between the world’s largest inland container port – Duisburg (Duisport) – and two of northern Europe’s major seaports, Zeebrugge and Antwerp. Previously the containers had a difficult road journey. “Congestion was actually a threat to the growth of traffic,” Rekers says.

In Zeebrugge, containers arrive at terminals for direct transfer to ships - mainly for the Far East and the UK. In Duisburg, they can transfer directly to a Vienna-Budapest rail shuttle or make use of international combined transport networks operating out of a dedicated terminal.

“We would reapply. The hurdles to getting the money have been reduced; on the other hand, the amount of money has been increased”

NORBERT REKERS,
DIRECTOR OF SALES FOR THE DUISPORT AGENCY,
GERMANY

The traffic shifted from road to rail exceeded forecasts by well over 5% in the first two years. Duisport was able to go from three services each way per week to four within three months – “faster than we had expected,” says Rekers. “The final objective was five times a week, and we achieved this in 2008. We unfortunately had to cut back to four again once EU economies entered recession in 2008-2009, but the project is still meeting its traffic shift targets.”

Project name:
DZRS – Duisburg-Zeebrugge Rail Shuttle

Size of Marco Polo grant:
£503 847

Duration of project grant:
October 2006 to October 2009

Lead partner:
Duisport Agency GmbH,
Duisburg (Germany)

Other partners: Port Connect NV
(Belgium), CMA/CGM (Belgium),
IFB Inter Ferry Boat (Belgium)

Volume of goods shifted off the road:
252m tonne-kilometres
(three-year estimate)

Estimated environmental benefit:
£4.0m (over three years)

Contact:
norbert.rekers@duisport.de
EU SUPPORT ENHANCES CREDIBILITY

Ro-Ro Past France

“European Union support is important for us and sends a powerful signal to the market that our project has a European dimension.” For Karel Van Zijl from the lead company, Spliethoff’s Bevrachtingskantoor of Amsterdam, this is one of the big benefits of the Marco Polo programme.

As its name indicates, this project provides a motorway-of-the-sea alternative to get freight off the congested international road transit corridor across France. Ro-Ro Past France initially offered three sailings a week (rising to five in September 2009) in each direction between Bilbao in northern Spain and the Belgian port of Zeebrugge. Each vessel carries up to 200 unaccompanied road trailers.

At the Spanish end, trucks deliver trailers to Bilbao destined for the Benelux, north Germany, the United Kingdom and Sweden. Trailers for the UK and Sweden are transshipped to another ferry at Zeebrugge. Other trailers continue by road to their final destination. Southbound freight does the same in reverse.

“We encountered a number of problems at the outset”, says Van Zijl. “First, we had to convince customers we were serious. Other operators had promised similar services but never delivered on them. Then many trailers did not have ferry eyes (fixture points) for lashing them on board the vessel. In addition, some operators were not familiar with unaccompanied transport (trailers without the driving unit and driver). We spent time helping hauliers from Spain and Portugal and those from the northern end of the link to sort out how they could provide driving units for each other’s trailers.”

“We expected to break even after year one; but the economic crisis came along. Volumes are rising again and we are confident for the future. We trust the EU subsidy will partly compensate us for what we have invested in this service,” says Van Zijl.

“European Union support is important for us and sends a powerful signal to the market that our project has a European dimension”

KAREL VAN ZIJL,
SPLIETHOFF’S BEVRACHTINGSKANTOOR,
AMSTERDAM

Project name:
Ro-Ro Past France
Size of Marco Polo grant:
€ 6 800 000
Duration of project grant:
September 2007 to December 2011
Lead partner:
Spliethoff’s Bevrachtingskantoor,
Amsterdam (Netherlands)
Other partners:
Transfennica Iberia S.L (Spain),
Transfennica Belgium BVBA (Belgium),
Oy Transfennica AB (Finland)
Volume of goods shifted off the road:
8.4 billion tonne-kilometres
(4.3-year estimate)
Estimated environmental benefit:
€211m (over 4.3 years)
Contact:
karel.vanzijl@transfennica.com
GREEN CUSTOMERS WANT MODAL SHIFT

Euro Reefer Rail Net

A new rail freight network and innovative multimodal refrigerated containers are at the heart of this ambitious project. Its aim is to switch freight from 11 long-distance road routes onto rail. These truck routes cross Europe from Finland in the North to Italy in the south and from Poland in the east to the UK in the west. They are being replaced by a network of nine dedicated rail freight services with fixed routes and schedules.

“These are early days. The service is stable and developing, but the economic recession has meant lower freight volumes and decreasing prices in the freight transport market”, says Schouten. “We have carried out our modal shift carefully and successfully and are making all efforts to achieve the principal targets.”

According to the lead company, Dutch transport group HZ Holding, pressure for this modal shift from road to rail is coming from environmentally aware manufacturers and customers rather than from governments or freight forwarders. “The project helps us to realise our strategy to force a change of mindset in the existing road transport market”, says HZ logistics director Edwin Schouten.

In addition to launching and operating the new rail network, the Euro Reefer Rail Net will also demonstrate and utilise innovative 45-foot reefer containers to transport products that need to be kept cool during transport. Most of the new rail routes are more than 1000 kilometres long, serving freight terminals in seven countries: Belgium, Italy, Germany, Hungary, Poland, Finland and Austria.
UPRIVER BY BOAT AND TRUCK

ETS Elbe

This project sets out its green credentials up front. ETS stands for Ecological Transport Service. The aim is to expand the potential for freight transport on the River Elbe between Germany and the Czech Republic by introducing scheduled services using an integrated transport container system.

The biggest obstacle to expanding freight traffic on the Elbe has been periods of extremely low water, when the size and draught of usable vessels were limited. This also made it hard to introduce scheduled services. The result was that many shippers migrated to road transport for the whole inland journey from the German seaports of Hamburg or Bremerhaven.

The ETS Elbe project overcomes the problem by providing a scheduled inland waterway service connecting the deep-water system of the Mittellandkanal and the shallow-draught River Elbe system. The project uses inland waterways for the whole journey when possible, with local replacement road services when part of the river is not navigable. The use of containers allows a mix of modes.

The hub for the ETS Elbe project is the river port of Magdeburg. It complements downstream rail and waterway services. Stefan Kunze of Sächsische Binnenhäfen Oberelbe says that even during the extreme low water levels of 2008 “cargo tonnages remained unaffected, thanks to the intensive efforts we made to ensure customers’ interests were our top priority”.

“The big extra bonus for us from the project has been the knock-on effect of our marketing for ETS Elbe. New customers have now started to use the service, bringing new business, especially for our port installations”

STEFAN KUNZE, SÄCHSISCHE BINNENHÄFEN OBERELBE

“One unexpected problem we ran into was the different technical specifications of the vessels and barges we use,” says Kunze. “These are from Germany, the Czech Republic and Poland. And despite European norms, they had to be modified to make them compatible with each other and with the equipment and installations in each country.”

“The big extra bonus for us from the project has been the knock-on effect of our marketing for ETS Elbe. New customers have now started to use the service, bringing new business, especially for our port installations,” Kunze says.

---

**Project name:** ETS Elbe  
**Size of Marco Polo grant:** €1 635 330  
**Duration of project grant:** April 2007 to March 2011  
**Lead partner:** Sächsische Binnenhäfen Oberelbe GmbH, Dresden  
**Other partners:** Industriehafen Roßlau GmbH, Magdeburger Hafen GmbH, (Germany), CSPL a.s., Česko-Saske Přístavy s.r.o. (Czech Republic), Odra Rhein Lloyd Gmbh (Germany)  
**Volume of goods shifted off the road:** 440m tonne-kilometres (four-year estimate)  
**Estimated environmental benefit:** €10.5m (over four years)  
**Contact:** stefan_kunze@binnenhafen-sachsen.de
LIGHTENING THE LOAD
MARCO POLO LEADS THE WAY

Freight transport clogs Europe’s roads. Yet its railways, sea routes and inland waterways are under-used. Marco Polo is an EU programme designed to promote these environment-friendly modes of transport and to shift freight from congested roads. In this brochure, a number of companies describe how, with Marco Polo support, they launched rail, short-sea shipping and inland waterway projects as greener alternatives for handling freight. Their message is clear. To succeed, their projects had to make economic as well as ecological sense. Many road transport users hesitate to change modes without clear economic benefit. Contributors all say projects would have been scaled back or not launched at all without Marco Polo funding during the critical start-up phase. This helped make the economic case to customers for a switch to rail, short-sea shipping routes or inland waterways. But this brochure also shows how Marco Polo support added credibility to projects – a valuable marketing tool – and enhanced the green credentials of project participants, another significant benefit.

http://ec.europa.eu/marcopolo