

# GULFSTREAM.MOS

- CASE STUDY -

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# GULFSTREAM.MOS

## 1. INTRODUCTION

The overseas interchange of goods with former colonial territories still accounts for a large share of the United Kingdom's total trade. However, the importance of commercial relations with continental Europe is by no means negligible (Table 1). In the 2005-2014 decade, according to EUROSTAT, UK is ranked third and fifth in terms of share of imports and exports by country when compared with the rest of EU28 members (Appendix 1, based on value). This significant position in terms of intra trade within the group of European countries has made the Strait of Dover (see Figure 1) one of the busiest transport corridors in the world.

TABLE 1. UNITED KINGDOM

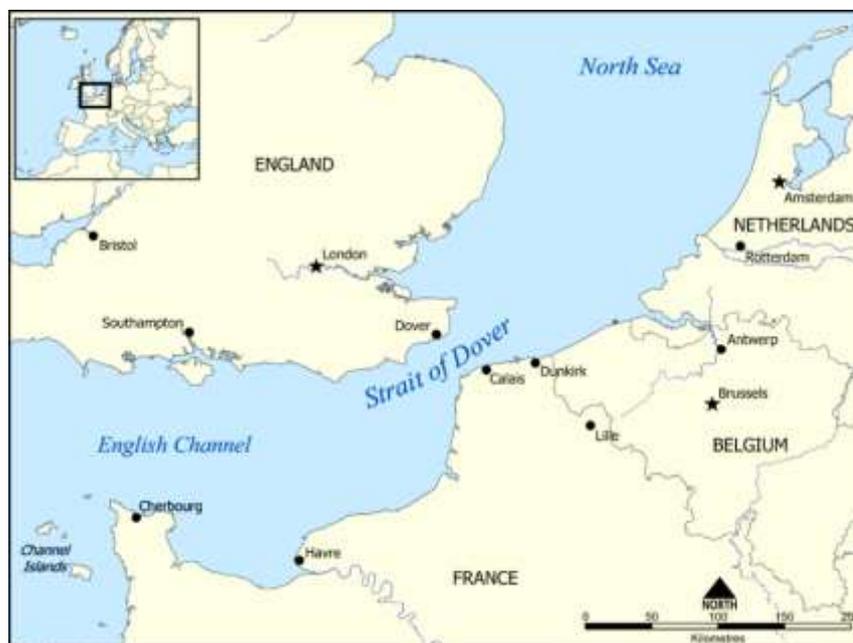
United Kingdom has an important past as one of the most powerful economies of the world, ranking among the 10 most trading nations worldwide. Its historical past as a colonial metropolis and its major role in the Industrial Revolution boosted the trade linkages set by British companies all around the globe. In addition, the spatial configuration of a territory surrounded by sea required a necessary conversion of the United Kingdom into a leading trading nation. Hence, transport connections and the degree of development of the transportation system become fundamental factors for the development of an economy clearly oriented towards international trade relations.

The English Channel has always been a natural barrier to trade between continental Europe and the British Isles. Until 1994, when the Eurotunnel was opened, cargo was moved from or towards the UK territory only by air transport or shipping. The Eurotunnel is a 50.5 km rail tunnel linking Folkestone (UK) with Coquelles (France) beneath the English Channel waters. Cargo shipped between UK and France by this means can be loaded on freight trains and also on the Eurotunnel shuttle train, a ro-ro shuttle service in which lorries are carried on semi-open wagons forming a short rolling highway. The shuttle train offers the fastest alternative to send cargo shipments across the Channel (a 35 minutes journey time) with easy access to motorways and a high frequency service (up to 1 departure every ten minutes).

The more traditional way of crossing the Channel relied on different vessels including ro-ro ships and train ferries. Ferries provide a regular link across the Strait connecting multiple ports, although the number of ferry routes has been reduced since the Eurotunnel opened. The fierce competition between ferry lines and the Eurotunnel services is reflected by the significant drop of the cost of freight crossings over the last 20 years. The market shares of the different modes show a clear dominant position of the Eurotunnel (around 37%), which is the result of competitive fares and high quality service. While crossing the Channel beneath the sea takes about 35 minutes, the ferry alternative lasts 40 minutes longer in the shortest route from Dover to Calais.

The busiest ferry terminals are Dunkirk and Calais in France and Dover in UK (Figure 1). The accesses to these ports are usually subject to heavy congestion, especially during the peak summer holiday season. Dozens of daily crossings in the ferry route cause lorries to share access lanes with a large number of passenger vehicles thus preventing traffic from running smoothly in and out of the ports. Similar congestion problems are faced at both ends of the Eurotunnel, increasing total travel times of carriers and thus lowering its competitive advantage in relation to ferry lines.

FIGURE 1. STRAIT OF DOVER



Source: No machine-readable author provided, in en.wikipedia.org

In order to reduce congestion-related problems and with a view to meet a potential growing market demand, Groupe Eurotunnel, the holder of the Eurotunnel Concession until 2086, has announced<sup>1</sup> a very important investment plan (€70 Million) to increase its truck shuttle capacity by 20%. This plan includes two main actions: the purchase of three new truck shuttles, which will deliver a hundred extra wagons in 2016 and 2017, and will enable the company to carry 2million trucks and around 3million cars on Le Shuttle per year in five years' time, and the expansion of the terminals in Folkestone and Coquelles to cope with the expected growth in truck traffic. Upgrades in the infrastructure include lanes for trucks separated from private cars accesses, dedicated freight check in areas and additional lanes throughout the terminals to further improve traffic flow.

In addition to the frequent congestion in ports operating ferry lines, road traffic restrictions in France also hamper logistic operations between UK and mainland Europe. The general traffic ban is applied to the entire French road network during weekends and relates to vehicles or combinations of vehicles with a gross weight exceeding 7.5 tons. Freight flows with origin or destination in Spain, Portugal and Morocco have to face an additional obstacle: traffic jams crossing the Pyrenees. Heavy road traffic at the border of Spain with France usually creates a bottleneck that poses a certain risk to the efficient movement of freight flows between South-Western Europe and UK.

## 2. GULFSTREAM.MOS PROJECT DESCRIPTION

The Motorway of the Sea GULFSTREAM.MOS project is the upgrade of the modal shift project GULFSTREAM. The main objective of these projects is to improve sustainability of the European Transport system, by reducing road congestion in Pyrenees and decreasing the external cost of freight transport, thereby reinforcing Brittany Ferries policy of developing its freight activity by guaranteeing a more even spread of capacity to its customers in the transport sector.

The project GULFSTREAM.MOS is based on the enhancement of the RoRo services (Table 2) operated by Brittany Ferries on direct Short Sea Shipping Routes connecting the north-west

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<sup>1</sup> Company report, 2014.

<http://www.eurotunnelgroup.com/uploadedFiles/assets-uk/Shareholders-Investors/Publication/Annual-Review/2014-AR-CSR-UK-EurotunnelGroup.pdf>

of Spain (Ports of Santander in Cantabria and Bilbao in the Basque Country) and the south of England (see Figure 2).

TABLE 2. RORO

RoRo transportation is designed to facilitate the port interface between road and sea; it is a very suitable and cost effective alternative method when it helps moving the goods faster and on shorter door-to-door distances than by road.

The specific goal of this project is to increase by a further 9 % the proportion of all heavy goods vehicles (HGVs) traffic using Short Sea Shipping services between the Iberian Peninsula and the UK. The expected market share of RoRo services versus the lorry traffic at the end of the project (2015) is 14%.

The increase of both the frequency of service and the transport capacity is intended to provide hauliers and logistic organisations a very reliable and more productive service than the road solution across France. This level of service has never been reached before between Spain and the UK. This new service gives the logistics players the opportunity to develop intermodal door-to-door solutions including more un-accompanied trailers and combined transport in the medium term.

According to information provided by Brittany Ferries, the direct RoRo service between Santander or Bilbao and Portsmouth reduces the average door-to-door distance by more than 200 km compared to the solution across France. The average driving distance is reduced by nearly 1,200 km. Truck drivers can rest in a ferry cabin for much of the sea crossing. For 10 hours (daily rest) to 24 hours (weekly rest), their truck is being transported at a speed of 50 km/h instead of being stopped in a parking area. The door-to-door journey time (including rest periods) is therefore reduced by more than 15 hours on average compared to the driving option across France. The goods, the vehicle and its driver enjoy optimal security conditions during the crossing. The new direct Motorway of the Sea caters for an extra 16,000 to 20,000 HGVs per annum, all of which are able to avoid transiting from UK or Spain via France as well as a route through the heavily congested area of the Pyrenees border.

Currently the fleet of Brittany Ferries covering the routes between the UK and Spain consists of 4 ships: the Pont-Aven launched in 2004, the Cap Finistère acquired in 2010, the Etretat

operating since 2014 and the recently acquired Baie de Seine. Exhaust gas cleaning systems ("scrubbers") were fitted in 2015 to the 3 first cruise-ferries at a cost of 42.6 million euros.

FIGURE 2. GULFSTREAM.MOS



Source: <http://www.casas.co.uk/>

### 3. DEVELOPMENT OF GULFSTREAM.MOS

Since 2004, Brittany Ferries (in competition with Transfennica and P&O Ferries, see Table 3) has actively developed its Short Sea Shipping network between the south of England and the north of Spain, for which the company has received funding from the European Marco Polo program (See Table 4).

TABLE 3. FERRY TRANSPORT BETWEEN UK AND SPAIN: THE COMPANIES

**Brittany Ferries**, originally known as Armement Bretagne-Angleterre-Irlande (B.A.I.) is a maritime company created in 1972 by Breton farming Cooperatives with the aim of transporting regional agricultural produce overseas. Since 1978 the Company has been developing the Motorways of the Sea concept between the UK, Ireland, France and Spain. It has become the leading short sea shipping operator for freight and passengers on the

Western and Central English Channel and the Atlantic Arc, and the largest employer of French seafarers (2,500 in high season). Nowadays, Brittany Ferries owns 8 ferries, operating from 11 European ports located in France, the United Kingdom, Ireland and Spain.

In 2012, the company activities were:

- Turnover: 366 million euros.
- Overall traffic: 2.4 million passengers, 750,000 tourist vehicles and 171,000 freight vehicles.
- UK-Spain traffic: 280,000 passengers, 115,000 tourist vehicles and 30,000 freight vehicles.
- Market shares: In the British Channel it has 8% in terms of passengers and 4% in freight. It operates the majority of the pax and lorry RoRo traffics between the UK and Spain.

In September 2007 the Company launched the first Motorway of the Sea for Atlantic Europe, with a line connecting the ports of Bruges (Belgium) and Bilbao (Spain). The line was operative until the end of 2014.

**Transfennica** is a European (Finish) shipping company with fast scheduled liner services. They offer fast scheduled services between main European ports, like Antwerp (Belgium), Paldiski (Estonia), Helsinki and Kotka (Finland), Lübeck (Germany), Amsterdam (The Netherlands), Gdynia (Poland), St. Petersburg (Russia) and Tilbury (UK). Transfennica is member of the Spliethoff Group, one of the largest ship management companies in the Netherlands.

In 2012, the company activities were:

- Turnover: 11.5 million euros.

Before that, for fifteen years, **P&O Ferries** had operated a ferry route between Portsmouth and Bilbao, with three departures a week. P&O Ferries announced its withdrawal from this route at the end of September 2010, when the charter of the ship it used for the service, the *Pride of Bilbao*, came to an end. The company said that despite a concerted effort to improve the financial performance of its 18-year-old service, losses continued and proved unsustainable.

Chief executive Helen Deeble said: "We have examined every option very carefully and have been trying for more than three years to find a suitable replacement ship in order to continue the service profitably. The *Pride of Bilbao* has served us well but is now an old

ship nearing the end of its commercial life and needs to be replaced. “However, we have reached the sad conclusion that such a replacement vessel is not currently available and as this loss-making route is unable to fund the cost of a new purpose-built ship we have no alternative other than to close it”.

Since 1992 P&O Ferries had maintained agreements with La Diputación Foral Vizcaya (District Council of Vizcaya, Basque Country), which allowed the latter to acquire passenger tickets for the ferry which united Bilbao and Portsmouth. These agreements were declared illegal by the European Commission in 2000 and by the courts of justice in 2007, which obliged the Company to refund the monies received as well as making the Vizcaya local government refund the value of unsold tickets.

The Brittany Ferries objective with the first Marco Polo project (see Table 4) was to capture a significant share of the lorry traffic transiting via France between the UK or Ireland and Spain, Portugal or Morocco.

The “GULFSTREAM” 'Modal Shift' action (2008-2011) succeeded in transferring 26,000 commercial vehicles from road to sea as well as saving 375 million ton.km schematically along a diagonal connecting the north-east to the southwest of France. This was achieved, among other measures, by offering additional capacity for the haulers over the weekend as they obviously wished to avoid the Saturday and Sunday traffic bans on the French road network. Therefore, the filling rate achieved at the end of the third year of this initiative allowed this weekend service to become profitable after the fourth year.

These results combined with the decision of P&O Ferries to cease operations between the UK and Spain in 2010, led Brittany Ferries to initiate the second phase of its RoRo development in this direction: the enhancement of Motorways of the Sea within the Second Project Gulfstream.MoS, when the shipping company decided to add another RoPax, M/S Cap Finistère (see Figure 3) dedicated to the freight and passenger traffics.

The Brittany Ferries objective with the second Marco Polo project (see Table 4) was to achieve a level of service that met the needs of shippers, logistics companies and road haulers, that is, a regular maritime service which guaranteed 5 to 7 departures per week from the United Kingdom and from Spain. The service started in April 2011, with the M/S Cap Finistère, a 204-meter long, 25-meter beam RoPax. Its service speed is 24 knots and garage capacity is 1,926 lane meters, or 107 articulated vehicles. The ship is certified to transport up to 1,595 passengers but given the length of the crossings between the UK and

Spain, Brittany Ferries limits the vessel capacity to the number of beds in passenger accommodations (790).

FIGURE 3. CAP FINISTERE FERRY



Source: Brittany Ferries

The number of weekly departures of the new Motorways of the Sea service with the M/S Cap Finistère are<sup>2</sup> 5 from Portsmouth (UK), 2 return crossings from Bilbao (Spain) and 3 return crossings from Santander (Spain). Consequently, frequency for all the services offered by Brittany Ferries between the southern UK and northern Spain increased from 3 to 6 departures a week in each direction. It is well known that a high departure frequency is required to enable logistic companies to adapt their organization to ports and ship schedules.

TABLE 4. MARCO POLO PROJECTS AND OTHER EUROPEAN GRANTS

First Marco Polo project: GULFSTREAM (2008-2011)

The 2007 call for proposals funding under the European Union's Marco Polo programme included the Modal Shift Actions, that is, projects focused on shifting as much freight as economically meaningful under current market conditions from road to short sea shipping. The EU supported the development of Motorways of the Sea services between

<sup>2</sup> Source: <http://www.brittany-ferries.co.uk/ferry-routes/ferries-spain/portsmouth-spain> (2015)

the UK and the Iberian Peninsula by Brittany Ferries through the program's first project Gulfstream. Apart from the pre-existing RoPax "Cruise Ferry" service (M/S Pont-Aven), Brittany Ferries incorporated a new RoPax ship (M/S Cotentin) exclusively dedicated to freight. With this, the number of return crossings was three per week: two with the M/S Pont-Aven operating between Plymouth (UK) or Portsmouth (UK) and Santander (Spain), and one with the M/S Cotentin, operating between Poole (UK) and Santander (Spain).

The GULFSTREAM proposal, as a new ro-ro service with one round trip every weekend between Santander and Poole, received funding of 870,877€. Furthermore, a special feature of this proposal is a freight-only service, which means that trucks and unaccompanied trailers do not have to compete for space with tourist vehicles during the holiday season. The duration of the project grant was 36 months, from March 2008 to March 2011.

The project leader, Brittany Ferries (France), was accompanied by the Port of Santander, Port of Poole, B.A.I. (UK) and Brittany Ferries España, S.L. (Spain).

#### Second Marco Polo project: GULFSTREAM.MOS (2011-2015)

The 2010 call for proposals funding under the European Union programme Marco Polo II included actions to improve the environmental performance of the freight transport system. Within this framework, the GULFSTREAM.MOS received a grant of 5.5 million euros.

The partners involved in the second Marco Polo project were: BAI SA, trading as Brittany Ferries established in France and operating passenger and pure freight Roll-on Roll-off vessels; its 100% owned subsidiaries, Brittany Ferries España SL established in Santander (Spain) and BAI Limited (UK); the port authorities of Santander in Spain and the port authorities of Portsmouth in the United Kingdom. However, ports were only non-beneficiaries partners.

The action started in April 2011, with the M/S Cap Finistère connecting the south of England and the north of Spain with a frequency of three return crossings per week. It was set to last 48 months, finishing in March 2015.

Given the frequency of the new service, the traffic and the modal shift expected, the project falls into the Motorway of the Sea category of the 2010 Marco Polo call. The geographical proximity between the ports of the first action (call 2007) and those of the most recent action has led the Executive Agency of the European Commission for Competitiveness and Innovation to contemplate this project as contributing towards a

significant increase in activity as well as an upgrade to the previous project, rather than a project for the creation of new routes. The Executive Agency of the EC has set a threshold of activity ("Base Line") from which the additional traffic generated by the M/S Cap Finistère can be accounted for in terms of the ton.kilometres which are eligible for grants.

Other European grants for the development of Motorway of the Sea

Additionally, Brittany Ferries received European funding for the development of the Motorway of the Sea from the Trans-European Network Programme 2007-2013 (1st project Seagas in 2012 and 2nd project Channel LNG in 2013 to support the energy transition plan) and from the Connecting Europe Facility (Equipment for Exhaust Gas and wash water cleaning Systems on several RoPax in 2014).

#### 4. DIFFICULTIES FOUND AND SOLUTIONS

Some organizational problems encountered since the start of the GULFSTREAM.MOS project were resolved in consultation with the Executive Agency for Competitiveness and Innovation of the European Commission. The most critical one was related with the required service level. From a technical point of view, to perform three round trips per week, the vessel often needs to sail at more than 23 knots and the technical maintenance and refit budgets are higher than in the initial previsions.

Since the beginning of the action, Brittany Ferries has taken steps to reduce the fuel consumption of the ship and very good results were obtained using silicone hull paints. The Marpol Rules on sulphur air emissions have been implemented since the 1<sup>st</sup> of January 2015. For this purpose the M/S Cap Finistère had to be fitted with scrubbers. The retrofit lasted two months and the frequency of departure had to be reduced during winter season 2014-2015. The ship's emissions are now below the limits set by the new rules and it is still possible to burn Heavy Fuel oil which is 70 to 80% less expensive than Marine Gas Oil. The company also obtained the authorization to use the channels to the west of Britain to reduce the sailing distances between the UK and Spain.

## 5. GULFSTREAM.MOS DEMAND

The market share of RoRo Brittany Ferries services versus the overall lorry traffic between the United Kingdom and the Iberian Peninsula has increased from less than 2% in early 2000s to 14% in 2012.

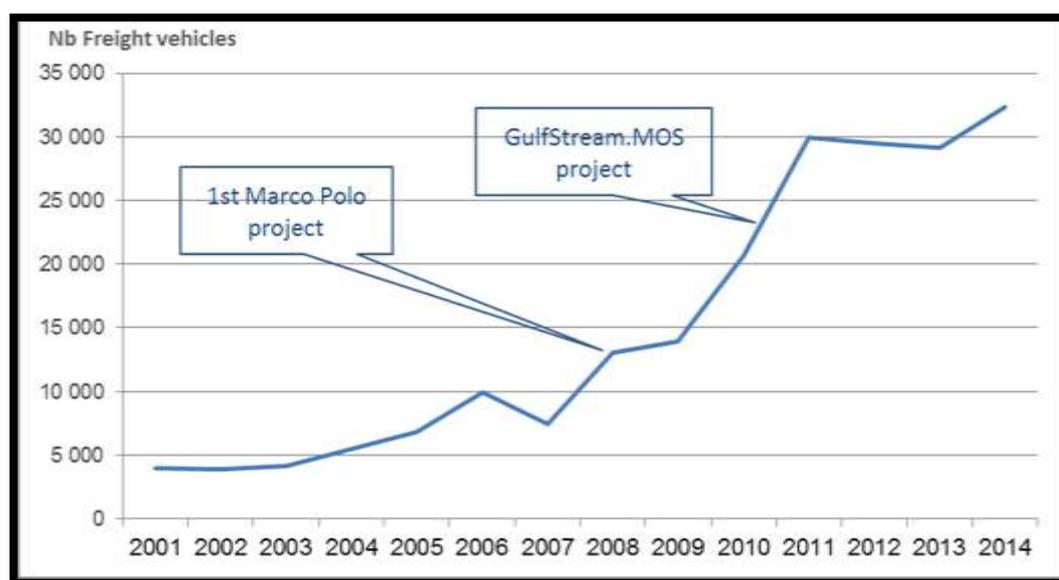
It was expected that the demand for the service from 2011 to 2015 could involve the transport of 62,000 freight vehicles, representing a saving of 1.9 billion road tkm and 52 million euros of external costs.

The number of departures and the linear capacity of the Motorway of the Sea have evolved in the following way:

- 2004: 2 return crossings per week and 6,000 linear metres of cargo
- 2007: 3 return crossings per week and 10,000 linear metres of cargo
- 2010: 5 return crossings per week and 18,000 linear metres of cargo
- 2013-2015: 7 return crossings per week and 27,000 linear metres of cargo

Then, from 2004 to 2015 the linear capacities have been multiplied by 4, while the number of lorries per departure and the traffic have been multiplied by 6 (see Figure 4 and Table 5).

FIGURE 4. RORO TRAFFICS ON DIRECT UK-SPAIN FERRY ROUTES



Source: Brittany Ferries; Note: Gulfstream (mod.shift), Gulfstream.MOS (MoS) + other UK-Spain RoPax services (including competitor's services).

TABLE 5. RO-RO MAIN FREIGHT UNITS BETWEEN UK MAJOR PORTS AND SPANISH PORTS

	Road goods vehicles	Unaccompanied trailers	Shipborne port-to-port trailers	All ro-ro main freight units
2009	13.6	0.7	5.4	19.7
2010	21.1	6.5	3.1	30.6
2011	24.1	7.0	2.7	33.8
2012	24.1	10.1	4.3	38.4
2013	20.0	6.3	2.8	29.1
2014	28.9	7.5	3.9	40.3

Source: UK Department for Transport Statistics; Note: All traffic, thousand units

Regarding 2015, Brittany Ferries reported a 20% increase in freight traffic across all routes, although it should be considered that Transfennica has decided to cease its “Motorways of the Sea” Ro-Ro service (see Figure 5) between Bilbao, Portsmouth and Zeebrugge by the end of December 2014 (see historical data about Transfennica in Table 6).

FIGURE 5. TRANSFENNICA RORO PAST FRANCE PROJECT



Source: <http://www.aferryfreight.co.uk/transfennica-ferries-freight.htm>

The expected volume of goods shifted off the road was estimated at 8.4 billion tonne-kilometres in 2011, which would be equivalent to an environmental benefit of 211million euros.

During the years 2007-2014 the line saw a steady increase in volumes and results. However, as explained by the Dutch shipping company, its decision to cease activities was due to the increase of fuel costs with the entry into force from 1 January 2015 of new limits on sulfur content of marine fuels within SECA legislation. Transfennica expected that up to 50% of the trailer volumes would return to the road as a result of an increase of freight rates which would be needed to offset rising fuel costs. The Board of Directors of Spliethoff Group therefore decided that no profitable future was likely to exist for a Ro-Ro service on this route.

TABLE 6. TRANSFENNICA RORO SERVICE

Transfennica roro service, which started in September 2007, received funding by the European Union's Marco Polo programme amounting to 6.8 million euros, through the "Ro-Ro Past France Project". The project provided a motorway of the sea alternative to move freight away from 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 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 and the other trailers continue by road to their final destination. Southbound freight does the same in reverse.

Spliethoff's Bevrachtingskantoor (Holland) was the leader of the project, and other partners were Transfennica Iberia S.L (Spain), Transfennica Belgium BVBA (Belgium) and Oy Transfennica AB (Finland).

## 6. MANAGEMENT ISSUES

For projects with this dimension and impact, the price of the service determines the long term viability. The price of a crossing between Portsmouth and Bilbao or Santander is determined by:

- The level of service provided to a customer like: electric plugging for refrigerated trailers, stevedoring for unaccompanied trailers, special measures for heavy loads or dangerous goods.
- The surface occupied by the freight vehicle in the garage space.
- It also takes account of possible fuel surcharges, depending on the bunker price.
- It is likely to evolve in response to significant and lasting changes in exchange rates.

Over the first two years of the action, prices proposed to customers of the new route were on average at 900€ per vehicle. This level of pricing must be compared with the average costs of the same door to door journey by road for a freight customer: 1,850€. The new modally shifted route costs were between 500€ to 700€ lower than the old road route<sup>3</sup>.

An increase in the frequency of the Motorway of the Sea is expected to provide hauliers and logistic organisations a more reliable and productive service than the road solution across France. As an example, based on any loading point in Tamworth (196 km northwest of London, UK) with discharge in Toledo (72.3 km southwest of Madrid, Spain), Table 7 shows the estimated lorry transit times for the alternatives to the old road route (traffic across the Channel on the Dover Straits -Eurotunnel included- or the Western Channel Short Sea routes, France and the Pyrenees at the Western border of Biriadou or at the Eastern border at Le Perthus), compared with the new Motorway of the Sea between Portsmouth and Santander. As observed, the door-to-door journey time of this new service including rest periods would be reduced by more than 12 hours compared to the best driving option across France. Turnaround times in ports of Portsmouth and Santander vary between 2:30 and 2:45 hours.

TABLE 7. LORRY TRANSIT TIMES BETWEEN UK AND SPAIN (HOURS)

		Road distance (km)	Sea distance (km)	Road driving time (hours)	Sea crossing time (hours)	Transit time (hours)
The old Road Route	Tamworth-Dover-Calais-Biriadou-Toledo	1 958	45	24	1.5	47.8
	Tamworth-Dover-Calais-Le Perthus-Toledo	2 322	45	28.5	1.5	62.3
	Tamworth-Portsmouth-Caen-Biriadou-Toledo	1 637	181	20.5	6	48.0
	Tamworth-Portsmouth-Caen- Le Perthus-Toledo	2 107	181	26.5	6	54.8
The new M.O.S. Route	Tamworth-Portsmouth-Santander-Toledo	787	1 011	10.5	24	35.3

Source: Brittany Ferries

<sup>3</sup> Source: Brittany Ferries. Additional tariffs information can be found at: [http://www.directferries.co.uk/portsmouth\\_freight\\_ferry.htm](http://www.directferries.co.uk/portsmouth_freight_ferry.htm)

The initial business plan anticipated that the new service would become profitable after the fourth year of operation. However, the financial sustainability largely depends on the pound/euro parity and the cost of fuel. The two parameters only evolved favourably since the end of 2014. Moreover, the investment required for fitting scrubbers on the Cap Finistère has had an impact on the line's profitability.

The losses accumulated over the first four years of operation of the line will not be compensated by the payment of the grant and without the grants the operator would have had to increase its prices. Communication to the freight customers on this issue has proved rather difficult.

From the beginning of the two Gulfstream projects, Brittany Ferries' objective was to secure the development of alternative routes in the long-run. Marketing and communication actions were carried out by the company's commercial teams established in the UK, Ireland, Spain, Portugal and France, and these new routes are currently ongoing. Moreover, the Motorways of the Sea have proven to be quite reliable given that less than two percent of crossings only were cancelled due to adverse weather conditions.

## 7. FINAL NOTES

There are some critical factors and market forces that condition the continuity of the MoS when the project funding comes to an end: cost and quality of the Eurotunnel services (with a lot of delays and cancellations in 2015), carry freight growth rate, service level or environmental regulations and fuel prices (LNG vs. marine diesel), among others.

Today, Brittany Ferries offers three sailings weekly between Bilbao and Portsmouth and is the only operator to offer long crossings from the UK to northern Spain. With the departure of Transfennica a new scenario has presented itself to the current operator of the MoS, with positive elements such as the possibility of increasing flows due to the concentration effect and a horizon underpinned by an incipient economic recovery. According to company news, freight activity to and from the United Kingdom is undergoing a period of strong growth, particularly the unaccompanied market. The services to Santander and Bilbao have been growing faster than crossings to France, particularly for lorries carrying fresh fruit and vegetables. So, a new pure RoRo vessel service to carry freight between Bilbao and Poole

was announced in January 2016 to enter in service in February 2016. This new service will help Brittany meet growing demand from freight customers and free up more garage space on other ships.

Brittany Ferries has an important advantage in the form of the adaptation of its vessels to navigation in the SECA zone (the European SECA covers the English Channel, the North Sea and the Baltic Sea). One of the largest gas-powered ships in the world is set to operate in waters between Portsmouth and Bilbao. It will be the largest, cleanest and most environmentally-friendly ship used on the routes between UK and Spain. Compressed natural gas emits 25% less carbon dioxide (CO<sub>2</sub>) than marine fuel oil and burns with no smoke. Brittany Ferries and STX France (a French shipbuilder) have been co-operating on a study regarding the feasibility of powering a cruise-ferry by liquefied natural gas (LNG). As well as emitting less CO<sub>2</sub>, compressed natural gas is also free of sulphur and is very low in nitrogen oxide emissions. LNG is also cheaper than marine diesel and it does not cost more than heavy fuel oil.

Thus, Gulfstream.MOS contributes to a more sustainable transport between UK and Spain reducing road traffic and also by reducing the ecological footprint of short sea shipping. The high frequency service and port options in UK (Portsmouth, Plymouth and Poole) and Spain (Santander, Bilbao) also contribute to facilitate robust supply chains and integrated transport solutions, attracting more freight traffic across all routes.

## APPENDIX 1 - INTERNATIONAL TRADE, BY REPORTING COUNTRY, EU 28

Imports in millions of ECU/EURO

geotime	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Austria	102 345	109 280	118 962	125 301	102 569	119 944	137 513	138 942	138 000	137 001
Belgium	256 169	280 053	300 298	317 043	254 367	295 072	335 447	341 787	340 039	342 735
Bulgaria	12 497	15 424	21 862	25 094	16 876	19 245	23 407	25 460	25 829	26 182
Croatia	14 950	17 105	18 833	20 817	15 218	15 137	16 281	16 214	16 581	.
Cyprus	5 077	5 518	6 286	7 237	5 617	6 464	6 234	5 678	4 754	5 075
Czech Republic	61 500	74 220	86 224	96 572	75 314	95 536	109 285	110 066	108 621	116 203
Denmark	60 752	68 100	71 526	74 356	59 602	62 648	68 724	71 548	72 725	74 783
Estonia	8 230	10 711	11 439	10 896	7 270	9 268	12 543	13 848	13 889	13 745
EU (28 countries)	1 183 909	1 364 591	1 446 811	1 585 231	1 235 636	1 532 089	1 728 314	1 795 886	1 685 013	1 684 938
Finland	47 236	55 253	59 616	62 402	43 655	51 899	60 535	59 517	58 407	57 769
France	405 212	431 602	460 315	487 350	404 098	460 941	517 262	524 918	513 088	510 068
Germany	624 606	722 112	769 779	805 730	664 143	795 666	901 487	905 378	897 185	915 055
Greece	46 443	52 847	60 130	64 857	52 087	50 474	48 415	49 293	46 808	48 004
Hungary	53 494	62 331	69 730	74 069	55 750	66 514	73 592	74 078	75 379	78 745
Ireland	55 112	58 233	61 162	57 088	44 955	45 467	47 849	48 855	49 584	53 917
Italy	309 292	352 465	373 340	382 050	297 609	367 390	401 428	380 292	361 002	355 115
Latvia	6 991	9 191	11 180	10 975	7 034	8 819	11 703	13 409	13 451	13 303
Lithuania	12 498	15 429	17 813	21 144	13 123	17 653	22 826	24 882	26 208	25 889
Luxembourg	18 172	21 611	20 452	21 864	18 160	18 928	20 733	21 437	20 274	20 107
Malta	2 988	3 430	3 503	3 604	3 210	3 818	4 520	5 135	4 606	5 132
Netherlands	292 438	331 979	359 443	394 980	317 718	389 537	430 341	456 824	444 014	443 676
Poland	81 697	101 138	120 912	141 966	107 155	134 306	151 291	154 934	156 319	165 508
Portugal	51 379	56 295	59 927	64 194	51 379	58 647	59 229	56 166	57 013	58 854
Romania	32 569	40 746	51 305	57 148	38 948	46 850	54 943	54 645	55 280	58 542
Slovakia	27 851	35 828	44 229	50 253	39 898	49 050	57 358	60 241	61 543	61 848
Slovenia	16 346	19 227	23 027	25 180	19 004	22 700	25 522	24 934	25 129	25 551
Spain	232 124	261 784	284 058	286 105	210 222	246 674	270 550	262 561	256 425	270 047
Sweden	89 781	101 583	111 803	114 565	85 945	112 352	127 174	127 649	120 931	122 382
United Kingdom	417 389	487 951	465 715	447 228	372 581	445 874	486 446	537 487	493 807	519 689

Exports in millions of ECU/EURO

geotime	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Austria	100 621	108 913	119 387	123 259	98 214	115 079	127 462	129 679	131 882	134 168
Belgium	268 789	292 087	314 449	320 805	265 986	307 530	341 718	347 089	352 943	355 268
Bulgaria	9 223	11 748	13 512	15 204	11 699	15 561	20 265	20 770	22 271	22 054
Croatia	7 069	8 252	9 004	9 585	7 516	8 905	9 582	9 629	9 531	.
Cyprus	1 177	1 062	1 017	1 110	901	1 058	1 306	1 354	1 520	1 359
Czech Republic	62 785	75 604	89 382	99 809	80 983	100 311	117 054	122 230	122 184	131 797
Denmark	68 420	73 716	75 280	79 496	67 382	72 747	80 362	82 090	82 901	83 461
Estonia	6 202	7 719	8 034	8 470	6 487	8 743	12 003	12 518	12 294	12 090
EU (28 countries)	1 049 477	1 152 357	1 234 321	1 309 147	1 093 961	1 353 195	1 554 252	1 684 193	1 736 574	1 702 973
Finland	52 647	61 489	65 688	65 580	45 063	52 439	56 855	56 878	56 046	55 955
France	372 501	394 925	408 327	418 983	348 035	395 087	428 501	442 643	437 383	438 479
Germany	780 415	882 532	964 038	983 255	803 012	949 629	1 058 897	1 093 630	1 093 123	1 134 767
Greece	14 909	17 273	19 392	21 319	17 674	21 083	24 353	27 593	27 559	27 220
Hungary	50 588	59 936	69 610	73 772	59 513	72 024	80 684	80 612	80 941	83 236
Ireland	88 142	86 593	88 686	85 477	83 114	87 875	90 330	90 888	86 100	88 693
Italy	299 923	332 013	364 744	369 016	291 733	337 407	375 904	390 182	390 215	397 989
Latvia	4 149	4 902	6 062	6 897	5 522	7 191	9 433	10 983	10 893	10 960
Lithuania	9 490	11 263	12 509	16 077	11 797	15 651	20 151	23 048	24 545	24 361
Luxembourg	15 368	18 337	16 734	17 470	15 299	14 897	14 990	14 659	13 891	14 447
Malta	1 928	2 226	2 508	2 367	2 049	2 705	3 151	3 308	2 738	2 205
Netherlands	326 640	369 249	401 901	433 722	356 962	433 168	479 239	510 098	505 606	505 842
Poland	71 889	88 229	102 259	115 895	97 865	120 483	135 558	144 282	154 342	163 067
Portugal	31 137	35 640	38 294	38 847	31 697	37 268	42 828	45 259	47 296	48 172
Romania	22 255	25 850	29 543	33 679	29 085	37 398	45 284	45 020	49 570	52 494
Slovakia	25 632	33 340	42 696	48 370	40 208	48 777	57 349	62 742	64 565	65 153
Slovenia	15 471	18 501	21 964	23 204	18 768	22 026	24 968	25 033	25 614	27 074
Spain	154 846	170 211	184 821	191 388	162 990	191 912	220 223	229 802	238 400	244 145
Sweden	105 266	117 707	123 179	124 645	93 763	119 597	134 313	134 387	126 147	123 700
United Kingdom	314 171	359 117	322 387	321 028	254 704	313 766	363 915	367 990	407 325	380 245