

EURO TUNNEL

Groupe Eurotunnel SA SAFE Project Presentation

Prague - 04/11/2010



**Patrick Joyez
Project Director**

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Agenda

- History, the Channel Tunnel and its facilities, the Group.
- Operational performance and business position.
- Review of the 2 major fires in 1996 and 2008

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History Key dates

- 12 February 1986: signature of the Treaty of Canterbury between France and the United Kingdom
- 14 March 1986: signature of the Concession Agreement
- 15 December 1987: start of tunnelling works
- 1er December 1990: first breakthrough in the service tunnel
- 6 May 1994: official inauguration of the Channel Tunnel by Queen Elizabeth II and President François Mitterrand
- 1994/1995: progressive commercial opening of cross-Channel services (Eurotunnel Shuttles, Eurostar and freight trains)
- November 1996 : Freight Shuttle fire in Interval 3
- September 2008 : Freight Shuttle fire in Interval 6
- December 2009: creation of Europorte subsidiary
- June 2010: acquisition of GBRf

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The Channel Tunnel: a vital link in the European rail network

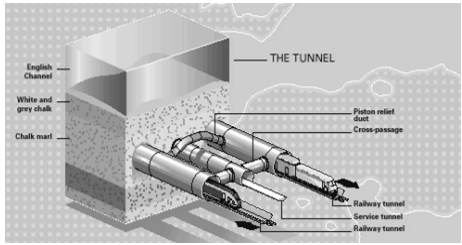


- Eurotunnel, private bi-national company (UK/FR), manages a public service concession:
 - » Concession of the Channel Tunnel, its terminals and related installations, and Shuttle transport system

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The Channel Tunnel Technical Characteristics

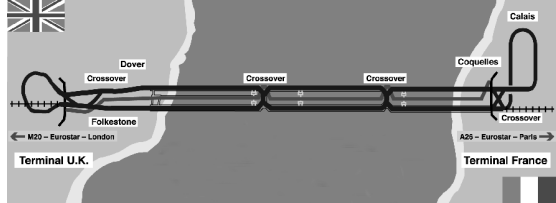


- 2 separate rail tunnels and a service tunnel, each 50km (30 miles) long, bored at an average of 40m below the sea bed

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The Channel Tunnel Safety




- The service tunnel provides access for evacuation, maintenance or emergency operations
- Two crossovers (allowing passage of trains from one rail tunnel to the other) ensure service continuity when access to a section of the Tunnel is restricted for whatever reason.

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Eurotunnel Two terminals

**In France,
at Coquelles:
650ha**



**In England,
at Folkestone:
150ha**

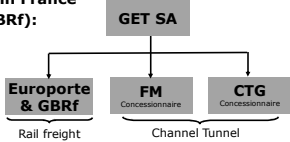


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Groupe Eurotunnel Structure

- A major player in European transport
- GET SA listed on Euronext Paris and on the London Stock Exchange
- 3,239 employees within the group
 - » Eurotunnel: 2,340 employees, 2/3 in FR, 1/3 in the UK
 - » Europorte: 600 employees, in France
 - » Great Britain Railfreight (GBRF): 299 employees, in the UK



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Eurotunnel Business core activities



- Concessionaire of the Cross-Channel Fixed link
 - » Passenger Shuttles (cars, coaches, motorcycles,...) and Truck Shuttles
 - » Grants access to passenger trains (Eurostar) and rail freight trains
- Every day in the Tunnel, more than 250 trains, i.e. on average:
 - » 21,000 passengers
 - » 5,250 cars and 150 coaches
 - » 2,500 trucks
 - » 27,000 tons of freight

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Truck Shuttles

- 770,000 trucks carried in 2009, i.e. equivalent to 10 million tons of freight
- A fleet of 15 Shuttles
- Up to 7 departures per hour in each direction
- World leader in Roll on/Roll off Freight Transport






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Passenger Shuttles Cars and coaches

- 1.9 million cars* and 55,000 coaches transported in 2009, i.e. equivalent to 7 million passengers
- A fleet of 9 Shuttles
- Up to 3 departures per hour in each direction
- 35 mins crossing time
- Leader on the Short Straits market

* Including motorcycles, vehicles with trailers, caravans and camping cars

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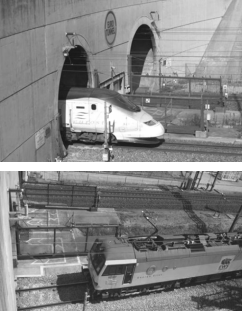
Eurotunnel Shuttles Quality of service and advantages

- Shortest crossing time
 - » 35 mns crossing time in Tunnel, automatic check-in
- Highest frequency
 - » Flexibility to add additional departures, depending on traffic
- Greatest reliability
 - » Operations not subject to weather conditions
- Quality of service
 - » More than 90% of our customers are satisfied with Eurotunnel service and willing to recommend Eurotunnel
- Most environmentally friendly Cross-Channel operator

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EURO TUNNEL **Railways**

- Eurostar passenger trains use the Tunnel to **connect London to Paris and Brussels**
- **9.2 million* passengers in 2009,**
- **Freight trains :**
1.18 million tons of freight carried on **2,403 trains** in 2009 through the Tunnel



* Number of Eurostar passengers travelling through the Channel Tunnel

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EURO TUNNEL **Groupe Eurotunnel 2009 Results**

- Net profit: €1.4M despite a difficult business environment
- Revenue: €571,1M* in 2009
- Turnover: €640M
- Operating costs down by 11% at €315M despite increased insurance premiums
- A debt reduced by more than half at €3.65bn** after the financial restructuring
- Dividend maintained
- Strong cash position: €251M at 31/12/2009

* At average exchange rate for 2009: £1 = €1.119
** Nominal value, based on exchange rate of: £1 = €1.126 at 31 December 2009

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EURO TUNNEL **1st quarter of 2010**

- Revenue excluding Europorte: +10% at €130.1M
- Europorte subsidiaries: €14.3M revenue
- Truck Shuttles: +35% in traffic
 - » Transport of 15 millionth truck, end of January 2010
- Passenger Shuttles traffic
 - » Cars: +17% ; Coaches: +19%
- Eurostar: +4% passengers crossing the Channel
- Rail freight trains through the Tunnel: +8%
- Paralysis of air traffic at beginning of April 2010
 - » Eurotunnel doubled its capacity
 - » More than 200,000 additional passengers through the Tunnel during the period

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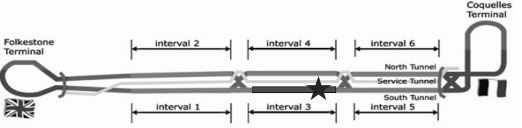
EURO TUNNEL **REVIEW OF THE 1996 and 2008 FIRES**

- 2 major accidents in the Channel Tunnel
 - » **Very high level of Safety (no injuries)**
 - » Operational consequences :
 - Loss of traffic during and after the fires
 - 60% in 1996 during the fire repair
 - 30% during 12 months after full recovery
 - 50% in 2008 during the fire repair
 - 30% during 12 months after full recovery
 - Loss of revenue
 - Loss of positive image

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EURO TUNNEL **November 1996 Fire Renovation Works**

South Tunnel – Interval 3



Resumption of traffic, 7 days (Eurostar & Tourism) 30 days (Freight) after the fire

Handover of interval 3 by legal authorities

Complete re-opening of the Tunnel, back to full capacity

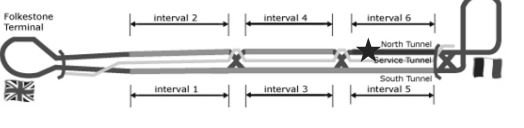
5 months of work

18 Nov. 1996 15 Déc. 1996 15 May 1997

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EURO TUNNEL **September 2008 Fire Renovation works**

North Tunnel – Interval 6



Resumption of traffic, 30 hours after the fire

Handover of interval 6 by legal authorities

Complete re-opening of the Tunnel, back to full capacity

3½ months of work: record time

11 Sept. 2008 18 Oct. 2008 9 February 2009

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EURO TUNNEL **Fires : Conclusions and lessons learned**

- **Cost of the fire estimated at between C200M and C225M**, including cost of works of around €60M
- **Insurance**
Covers all material damage and operating losses, less the excess
- **Investigations** on-going (2008)
- **Mistakes made:**
 - » We failed to take into account the high level of potential occurrence for a truck fire in the tunnel
 - » Study and development of an **on-board fire suppression system** in 1997/1999
 - Was unsuccessful due to complexity of environment in the Tunnel (air distribution and velocity), as well as water supply capacity.
- **Lessons learned**
 - » Information and safety for our customers:
 - Review of operating procedure and conditions of intervention for fire services (2008)
 - **Creation of specially equipped stations in the Tunnel** in order to first **contain** and then extinguish a fire more rapidly
 - Work and general study on the future **SAFE stations** started immediately after the 11/09/2008 Fire in parallel with the repair works.

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EURO TUNNEL **Creation of Fire Fighting Stations in the Tunnel**

■ **Location of these new stations**

The diagram illustrates the layout of the Euro Tunnel between Folkestone Terminal and Coquelles Terminal. It shows the North Tunnel, Service Tunnel, and South Tunnel. Six intervals are marked: Interval 1, Interval 2, Interval 3, Interval 4, Interval 5, and Interval 6. Fire fighting stations are located at specific points: 3U and 3F are in Interval 3; 4U and 4F are in Interval 4. A UK flag is shown near Folkestone Terminal, and a French flag is shown near Coquelles Terminal.

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EURO TUNNEL **Creation of Fire Fighting Stations in the Tunnel**

- Due to technical limitations and the wish to contain the scope of works to an operationally acceptable level.
 - » The SAFE design is based on 3 major criteria:
 - Low consumption of water
 - No major modifications of Infrastructure
 - A fully operational system in less than 24 months

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EURO TUNNEL **General Planning of Safe Stations**

- **Fixed part – (ongoing)**
 - » Full scale fire tests in Spain (Jan. to June 2010)
 - Installation of Prototype Station 3F
 - Civil Works (Jan. to Sept. 2010)
 - Equipment (Dec. 2009 to Oct.2010)
 - Validation Tests (Nov. 2010 to Jan. 2011)
- **Conditional part – Previsional Planning**
Stations 3 and 4F (France) & 3 and 4U (UK)
 - Civil Works (Sept. 2010 to Feb.2011)
 - Equipment (Sept. 2010 to June 2011)
 - Tests and Commissioning (Jul. to Aug. 2011)

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EURO TUNNEL **SAFE Stations Concept**

- » FOGTEC, part of a consortium is the major actor in the development of the SAFE concept.
 - Max Lakkonen

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