

# Round Table Athens Seminar

23<sup>rd</sup> March 2012

*Short Introduction, Presentation of topics [40 mins, 8 min each]*

**Topic A:** *Contract types for underground projects and their impact on project objectives  
(standard forms or case tailored):* **ARNOLD DIX**

**Topic B:** *Contractual reference conditions* **EVERT HOEK**

**Topic C:** *Optimal contractual  
provisions for the benefit of  
the Owner, instead of a short-  
sighted unilateral contract*  
**MARTIN KNIGHTS**

**Topic D:** *Special legal provisions:* **ANTONIS MARKEZINIS**

**Topic E:** *How all the aforementioned aspects may contribute in avoiding chances for  
corruption*

**THE CO-ORDINATOR PROF. THEODOSIS TASSIOS**

*Discussion between the members of the panel [40 mins]*

*Discussion with the public [10 mins]*

So I optimised my options.... &  
chose a new subject!!

Collaborative Underground  
Projects

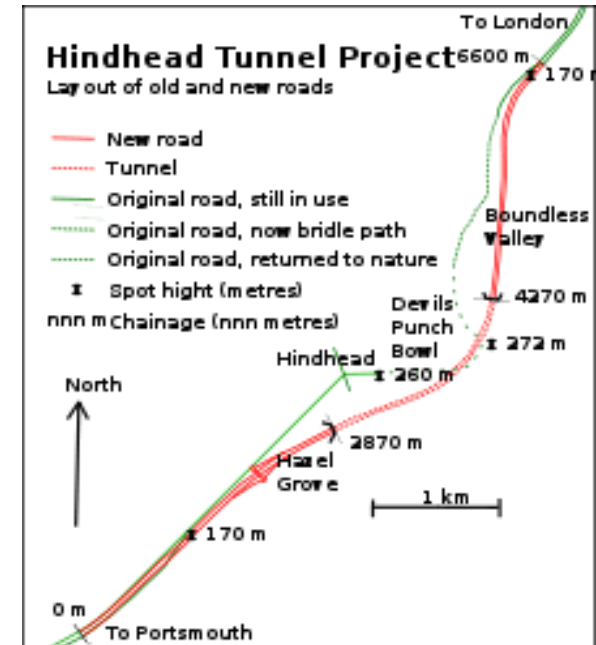
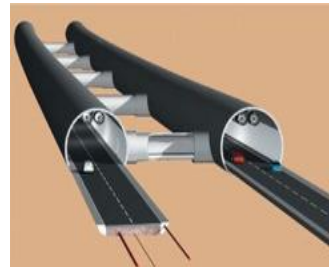
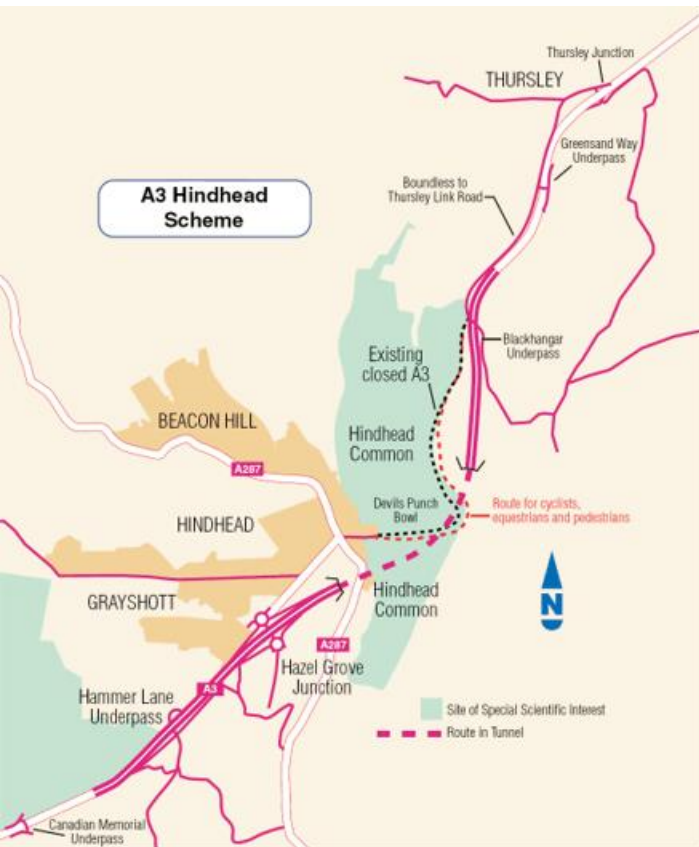
# Round Table

## Collaboration

- Early Contractor Involvement Hindhead Road Tunnel UK
- Optimal Contractor Involvement .Crossrail London
- Alliance Contracts London Electricity Tunnels & Devonport Dockyard UK
- Retrofit collaborative measures Channel Tunnel Rail Link and CERN

# Early Contractor Involvement

## Hindhead Road Tunnel UK





# Introduction

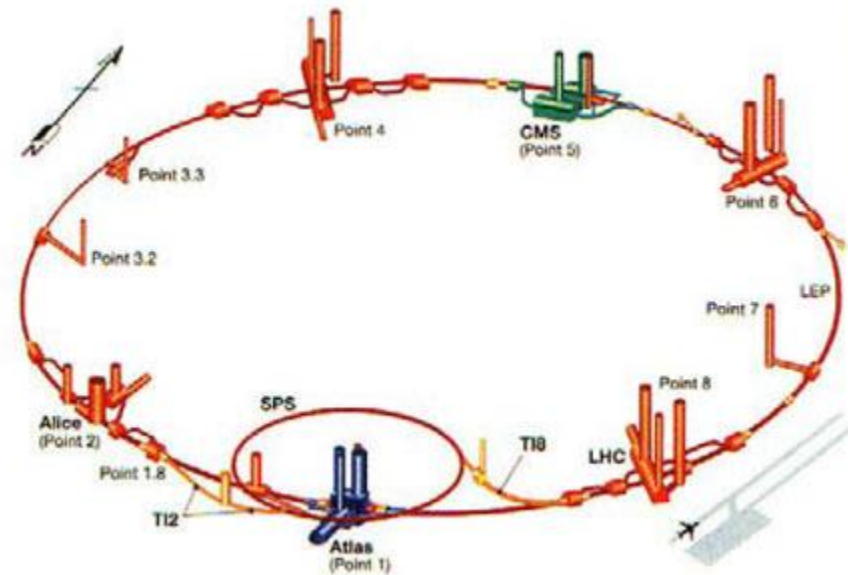
## 21 km of new sub-surface twin-bore railway through London



# CERN Geneva

## Recent LHC Civil Projects

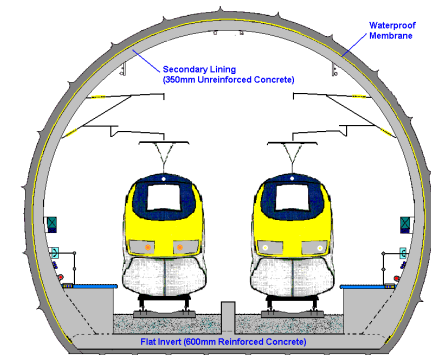
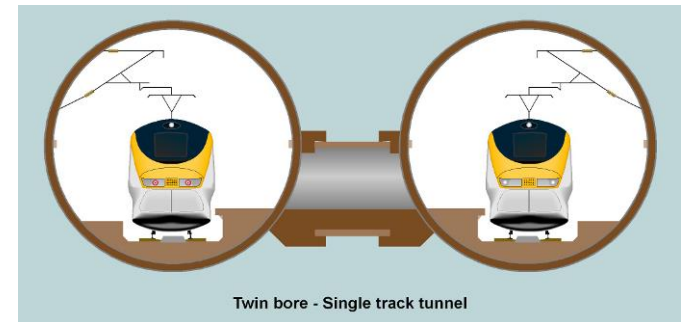
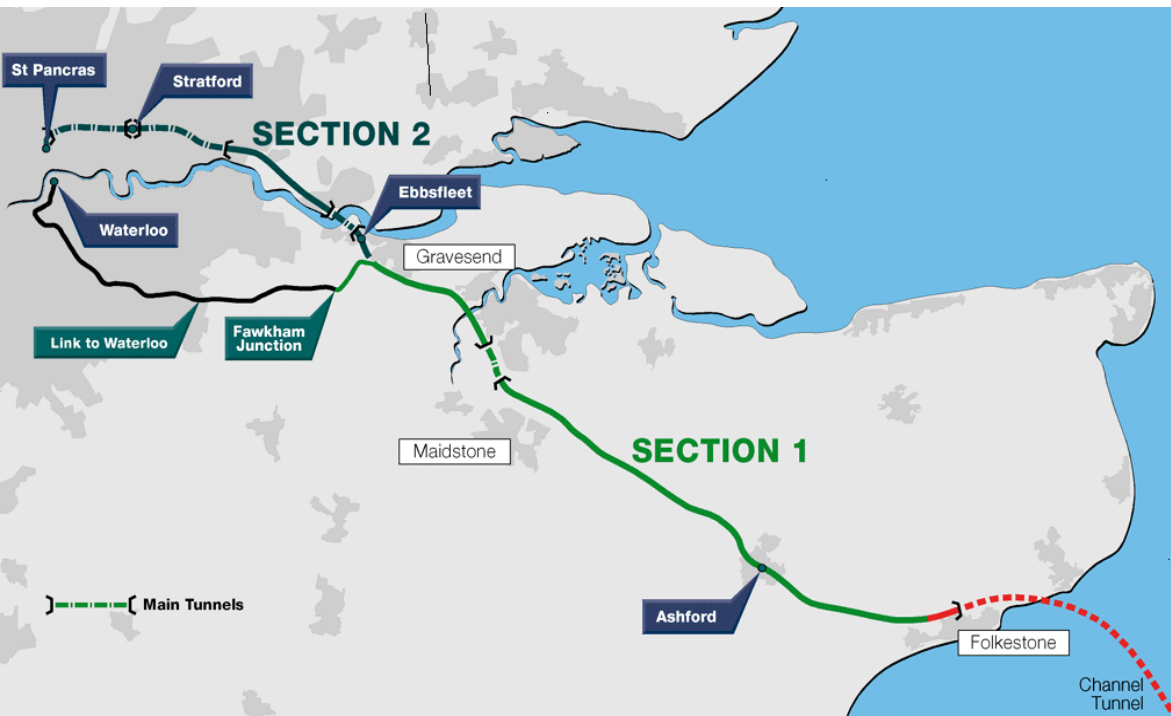
from LEP to LHC in 10years





# • High Speed 1 (UK)

## • *London Tunnels for High Speed 1, (Channel Tunnel Rail Link)*



# High Voltage Cable Tunnels



#Singapore

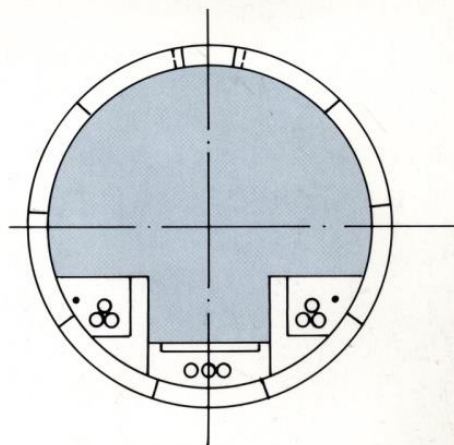
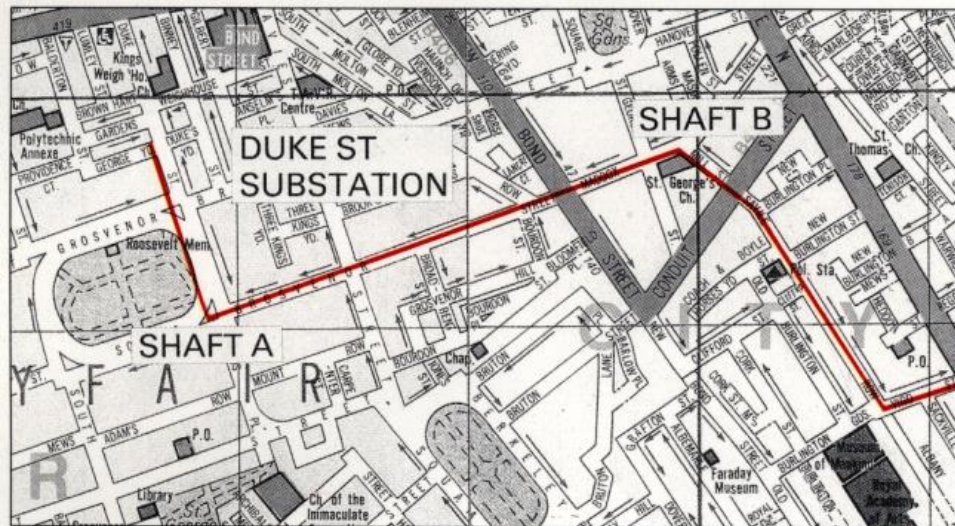
#Australia

#Multi Utilidors in  
Prague  
/Tokyo

#London = **NGEDF**  
1990to 2011>>



# Great accolade for tunnelling!!



Typical tunnel cross-section of 2.05m internal diameter in wedge block concrete segments with capacity for three power lines of three cables each.

THE TIMES TUESDAY NOVEMBER 5 1991

## WE'VE SPENT £30 MILLION AND HAVE NOTHING TO SHOW FOR IT.

For the last three years London Electricity has been pouring money into a hole in the ground. Hidden beneath London's cinema heart-land, Leicester Square, we've constructed

dust on London's inhabitants, visitors and historic buildings. Our own environmental policy made this unthinkable.

For the last three years London Electricity has been pouring money into a hole in the ground. Hidden beneath London's cinema heart-land, Leicester Square, we've constructed

a new £22 million electrical sub-station. Then by investing in the latest tunnelling technology, we've built an invisible underground shaft that links it with our existing sub-station just south of Oxford Street in Duke Street.

The sub-station and tunnel link were urgently required to provide for London's ever growing demand for power. And provide it where it was most needed. But why the subterranean subterfuge? Our principal consideration was for the environmental impact of such a massive undertaking. Imagine the traffic chaos if we'd started digging up London's busiest streets. Then add to that the effects of noise and

noise and inconvenience. When the project is completed in mid 1992, we'll have the capacity to meet the West End's power needs for the foreseeable future. But on the face of it, as far as Londoners are concerned, nothing will have changed. If you'd like more information about London Electricity's Leicester Square development or our Environmental Policy Statement, please telephone or write to our Corporate Relations Department, London Electricity plc, Templar House, 81-87 High Holborn, London WC1V 6NU. Tel: 071-242 9050.

Going underground was the only answer. A below ground sub-station provided the ideal distribution point while remaining neatly out of sight. Tunnelling circumvented the problems of traffic diversions, blocked pavements,

**LONDON ELECTRICITY**

# Devonport Royal Dockyard UK



# Collaboration

- More satisfying way to work
- Not a universal proposition
- Best brains are aligned
- Targets can be broken
- Rewards are shared
- Risk is fairly allocated..and gets everyones attention.
- Works for most major infrastructure
- My best projects experiences of human endeavour are Alliance/ Collaborative projects