# **OVERVIEW LOCATION: ATTIKI, GREECE SCOPE: INTER-URBAN** TRANSPORT MODE: ROAD PRINCIPAL CONSTRUCTION: AT GRADE **NEW LINK: YES PRINCIPAL OBJECTIVES LOCAL TRANSPORT LINK CONGESTION RELIEF** PART OF EU TEN-T NETWORK **ACCESSIBILITY REGIONAL DEVELOPMENT PRINCIPAL STAKEHOLDERS CLIENT: GREEK STATE CONCESSIONAIRE: ATTIKI ODOS** MAIN CONTRACTOR: ATTIKI ODOS JV **FUNDERS: EIB/ERDF/GREEK STATE** PLANNING AND IMPLEMENTATION **PLANNING START DATE: 03/1985 CONSTRUCTION START DATE: 06/1997 OPERATION START DATE: 08/2004 MONTHS IN PLANNING: 147 MONTHS IN CONSTRUCTION: 86** PROJECT COMPLETED: **10 MONTHS BEHIND SCHEDULE** COSTS (IN 2010 USD) PREDICTED COST: 3.08BN **ACTUAL COST: 5.37BN PROJECT COMPLETED:** 74% OVER BUDGET **FUNDING: 39% PUBLIC: 61% PRIVATE ACTUAL AND PREDICTED COSTS** 2010 USD BN ■ lump sum ■ parallel works ■ additional works ■ outside contract **INFRASTRUCTURE QUANTITIES: LENGTH: 65KM NUMBER OF JUNCTIONS: 29 COST PER KM (2010 USD): 0.08BN PATRONAGE** FORECAST AND ACTUAL TRAFFIC A 250000 뛴 200000 150000 100000 2015

■ HIGH TOLL FORECAST



#### INTRODUCTION

Attiki Odos, a closed toll motorway 65km in length, was the first public-private partnership project in Greece. It opened in three sections, in 2001, 2003 and 2004.

The road connects with several stations on the Athens Metro and suburban railways lines: an interchange with D.Plakentias station was included in the project. Athens International Airport was built at the same time: the government signed an agreement with its joint venture partner to provide road access to the airport. The New Attika Urban Highways Project, a 55km extension to Attiki Odos using a distance-based electronic toll system, and five other PPP concession projects in Greece, are due to be completed by 2013.

## **BACKGROUND**

The main objectives of the project were to reduce traffic (and hence air and noise pollution) within Athens by providing a new orbital link, to contribute to regional urban development by increasing accessibility to isolated areas and to airport and port facilities, and to provide a link in the EU TEN-T network.

The main section (52km) was first proposed in a 1963 study, with airport access suggested later in the 1960s and the perpendicular lmmitos section (13km) in the 1970s. The project received official ratification through inclusion in the 1985 Regulatory Plan of Athens.

Preliminary works on the Immitos section began in 1991, but were stopped following appeals to the Supreme Administrative Court. The Court found the Environmental Impact Assessment was inadequate given the environmental sensitivity of the Immitos area. The American College of Greece appealed successfully against expropriation of its property. These events led to a two-year evaluation of alternative routes and extensive redesign of the route.

The restoration and reforestation of several old quarries, to provide areas for leisure and sport, was undertaken as part of the project.

#### ATTIKI ODOS, ATTIKI, GREECE

## **TIMELINE**

CONCEPTION: 1963: ROAD PROPOSED IN STUDY BY WILBUR SMITH & ASSOCIATES

CONCEPTION: 1973: ROAD PROPOSED IN SECOND STUDY BY WILBUR SMITH & ASSOCIATES

INCEPTION: 1985: RATIFICATION BY REGULATORY PLAN OF ATHENS

INCEPTION: 1991: DETAILED DESIGN AND TRAFFIC FORECASTING

CONSTRUCTION: 1991: PRELIMINARY WORKS BEGIN ON IMMITOS SECTION

INCEPTION: 1992: PROJECT TENDERED AS DBFOM SCHEME

INCEPTION: 1993: THREE CONSORTIA PRE-SELECTED

DELAY: 1993: TENDER CANCELLED, PRELIMINARY WORKS AT IMMITOS STOPPED DUE TO INADEQUATE EIA

INCEPTION: 1995: ATTIKI ODOS WINS CONCESSION CONTRACT. FINAL EIA RATIFIED

INCEPTION: 1996: CONCESSION CONTRACT SIGNED AND RATIFIED

CONCEPTION: 1996: PART OF ROUTE INCLUDED IN TEN-T NETWORK

INCEPTION: 1997: ATTIKI ODOS SIGNS LENDING AGREEMENT WITH EIB

CONSTRUCTION: 1997: START OF PREPARATORY WORKS

INCEPTION: 1998: COMMERCIAL BANKS AND STATE SIGN LOAN GUARANTEE AGREEMENT.

INCEPTION: 1999: CONCESSION CONTRACT AMENDED, AGAIN, TO ALLOW FOR MORE STATE FUNDING

DELAY: 1999: ROUTE CHANGED FOLLOWING SUCCESSFUL APPEAL

INCEPTION: 2000: OFFICIAL START OF CONCESSION CONTRACT

DELIVERY: 2001: AIRPORT SECTON DELIVERED ON TIME

DELIVERY: 2003: DELIVERY OF FINAL SECTION FORECAST

**DELIVERY: 2004: FINAL SECTION DELIVERED** 

An estimated 5,000 jobs per year were created during construction, with an additional 1,000 per year during the remaining 18 years of the concession contract and 2,000 through multiplier effects.

## **CHARACTERISTICS**

The cost was estimated at USD 3.08bn (2010 prices<sup>1</sup>) in 1996, of which 8% was for parallel and additional works, and 24% for works outside the contract. These costs, mostly State-funded, escalated in comparison to the main lump sum contract, representing 25% and 36% respectively of the final project cost of USD 5.37bn.

Attiki Odos (a consortium involving most large Greek construction companies) is the concessionaire, with a 23 year concession. The main contractor was a subsidiary company, Attiki Odos JV, working under a design and construct contract. There were 23 principal engineering contracts. The French toll-road operator Transroute International is the only other shareholder in its operations and maintenance subsidiary, with a 20% share.

## **TIMELINE ISSUES**

Several appeals to the Supreme Administrative Court caused delays, and some also resulted in increased costs. The concession agreement was amended in 1998 and 1999 to allow increased state funding for preparatory works so that these could proceed before financial close. However, progress was affected by the need to negotiate various permits with 33 local, municipal and regional authorities representing diverse agendas and often conflicting concerns. The project was delivered in six sections, of which three were ahead of schedule, two behind schedule and one (the link to the Airport) on time.

# **FUNDING**

Attiki Odos' funding is mostly from European Investment Bank (EIB) lending (EUR 0.645bn), with EUR 0.162bn of private equity. However, EIB's policy is not to accept construction risk, so the loan was guaranteed by a consortium of (mainly European) commercial banks during construction. The Bank of Tokyo-Mitsubishi was the inter-creditor agent representing the banks and, with HypoVereinsbank, lead arranger. A grant from the European Regional Development Fund, initially EUR 0.476bn, was later reduced to EUR 0.322bn due to eligibility issues.

<sup>&</sup>lt;sup>1</sup> Costs have been converted to USD at 2010 prices, using historic inflation rates and current exchange rates, to allow comparison between projects.