



METRO DEVELOPMENT IN ATHENS

PRESENTATION AT THE INTERNATIONAL RAIL FORUM 2008

Madrid , November 13th, 2008

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Chairman of ATTIKO METRO S.A.

ATTIKO METRO S.A. (AM)

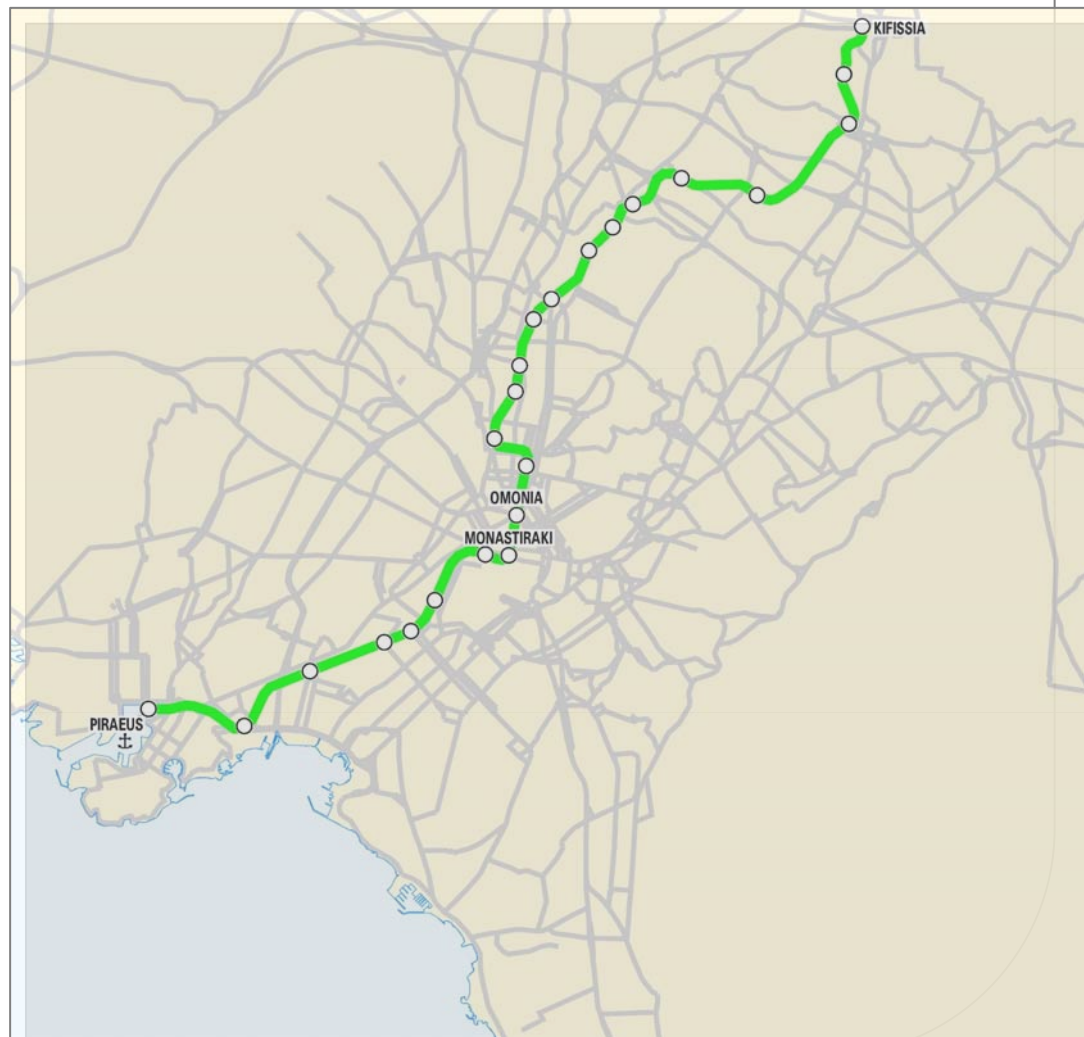
A SUCCESS STORY

- Attiko Metro S.A is owned at 100% by the Greek State and is responsible for the construction of the metro system in Athens and Thessaloniki
- The operation is managed by Attiko Metro Operating Company (AMEL), a subsidiary of Attiko Metro.
- Athens Metro construction:
 - 30,4 km of underground network in operation (construction 1991 – 2007)
 - 36 km under design and construction
- Operation: Service and Rolling stock
- Accessibility: Transfer stations, PSN facilities
- Archaeology
- Culture

ATHENS METRO

LINE 1/ 1926-1957

- ✓ 26 km long
- ✓ 24 stations
- ✓ 3.1 km of underground line
- ✓ In operation since 1869
- ✓ 450,000 passengers/day



ATHENS METRO

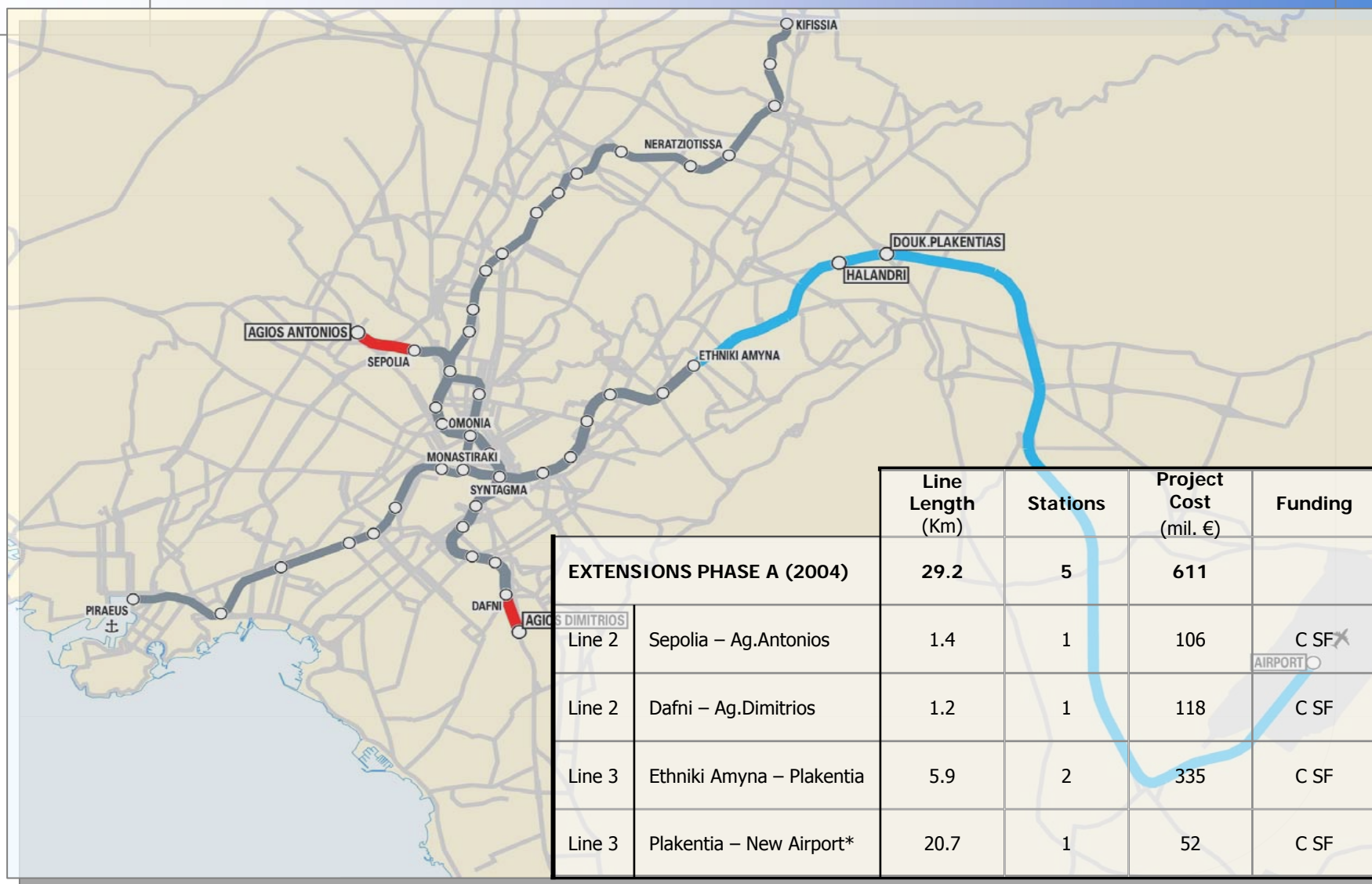
BASE PROJECT/ 2000

BASE PROJECT		LENGTH (km)	STATIONS
Line 2	Sepolia – Dafni	9.2	12
Line 3	Monastirakii – Ethniki Amyna	8.4	8
TOTAL		17.6	20



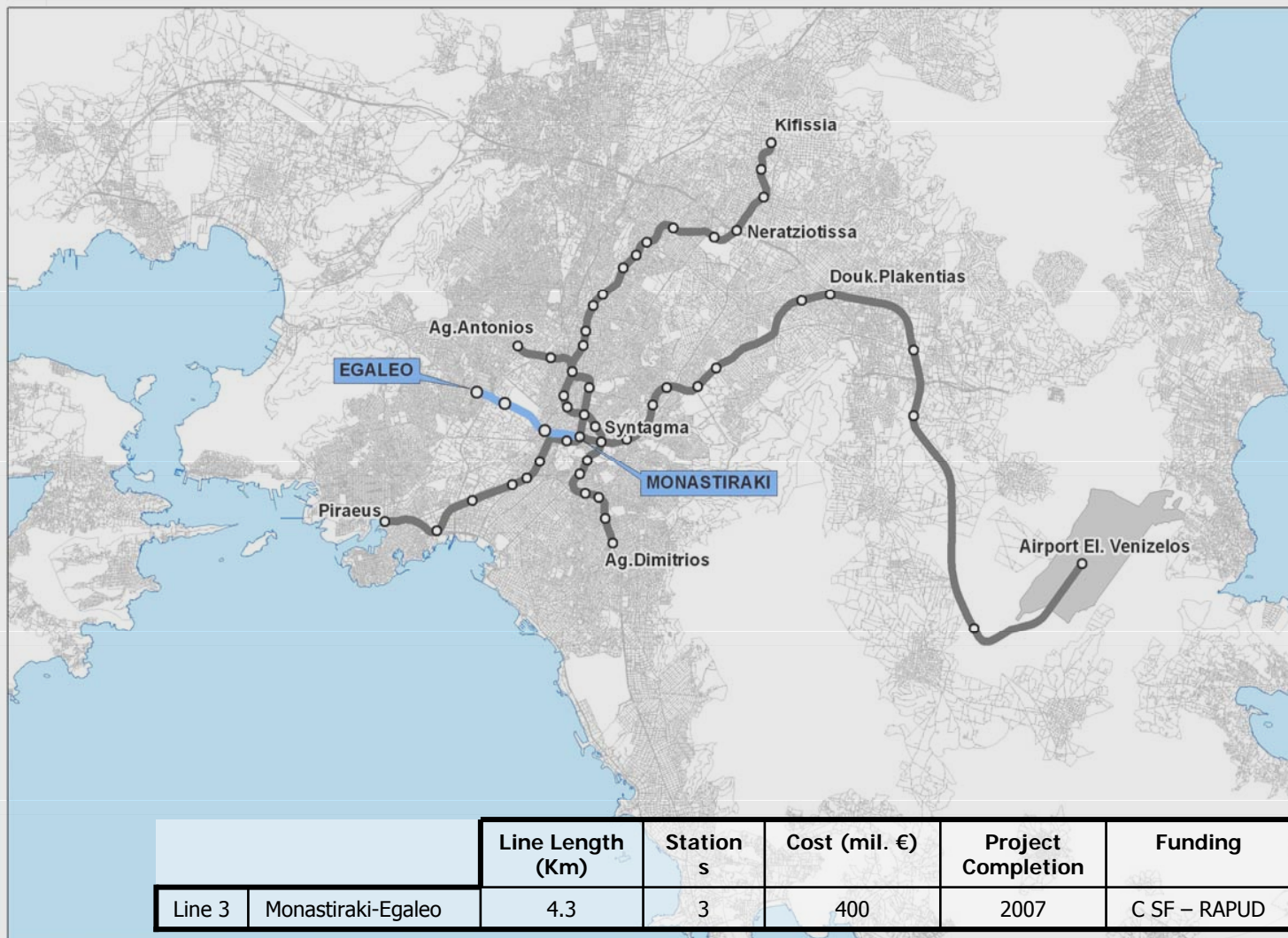
ATHENS METRO

EXTENSIONS PHASE A/ 2004



ATHENS METRO

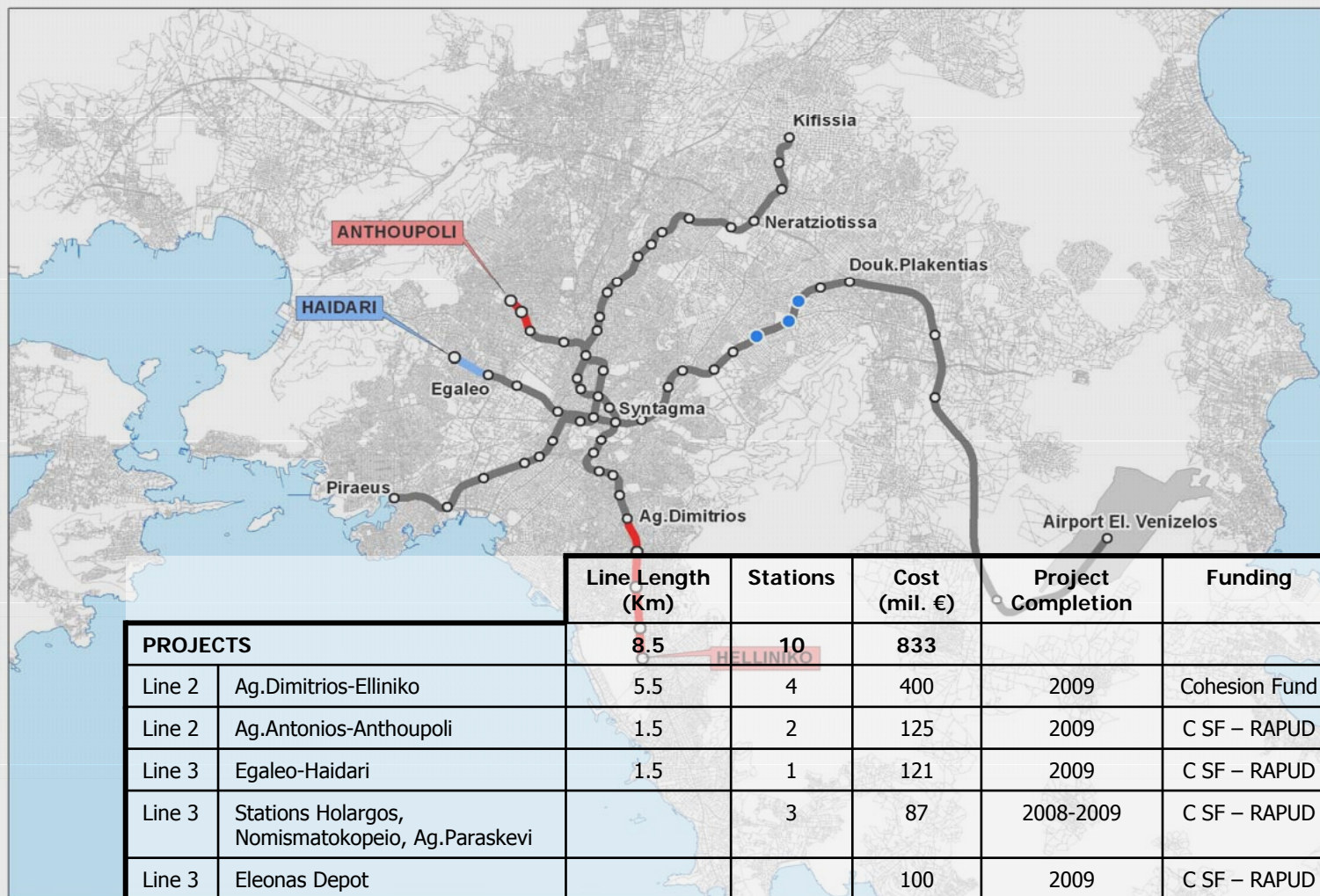
EXTENSIONS PHASE A/ 2007





ATHENS METRO

EXTENSIONS PHASE B/ 2010
under construction



ATHENS METRO

EXTENSIONS UNDER CONSTRUCTION



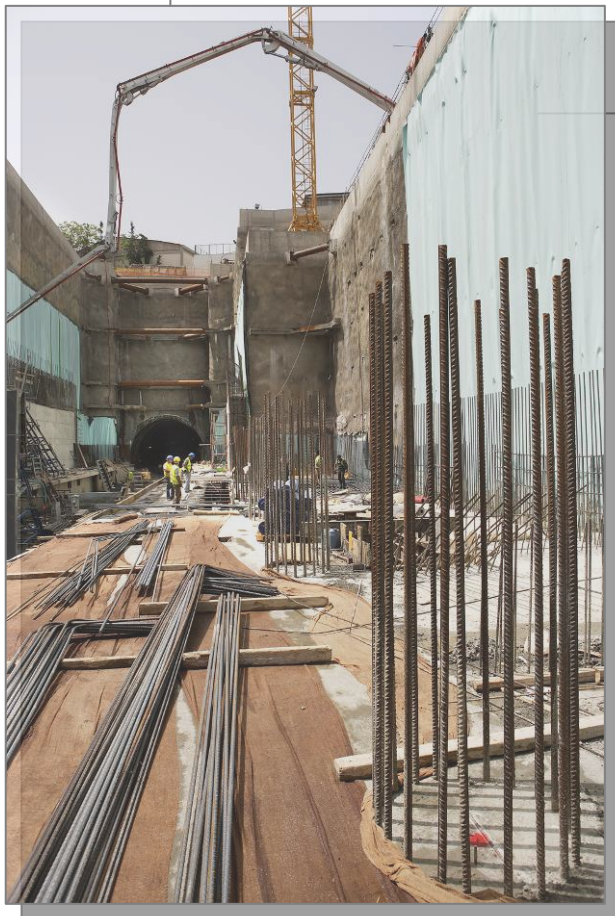
ELLINIKO Station



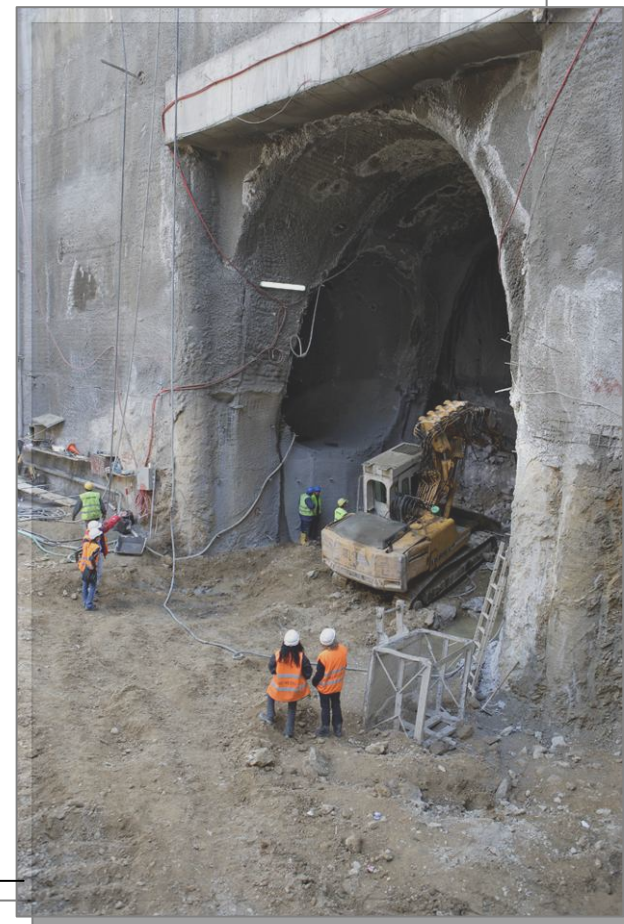
PERISTERI Station

ATHENS METRO

EXTENSIONS UNDER CONSTRUCTION



Haidari Station

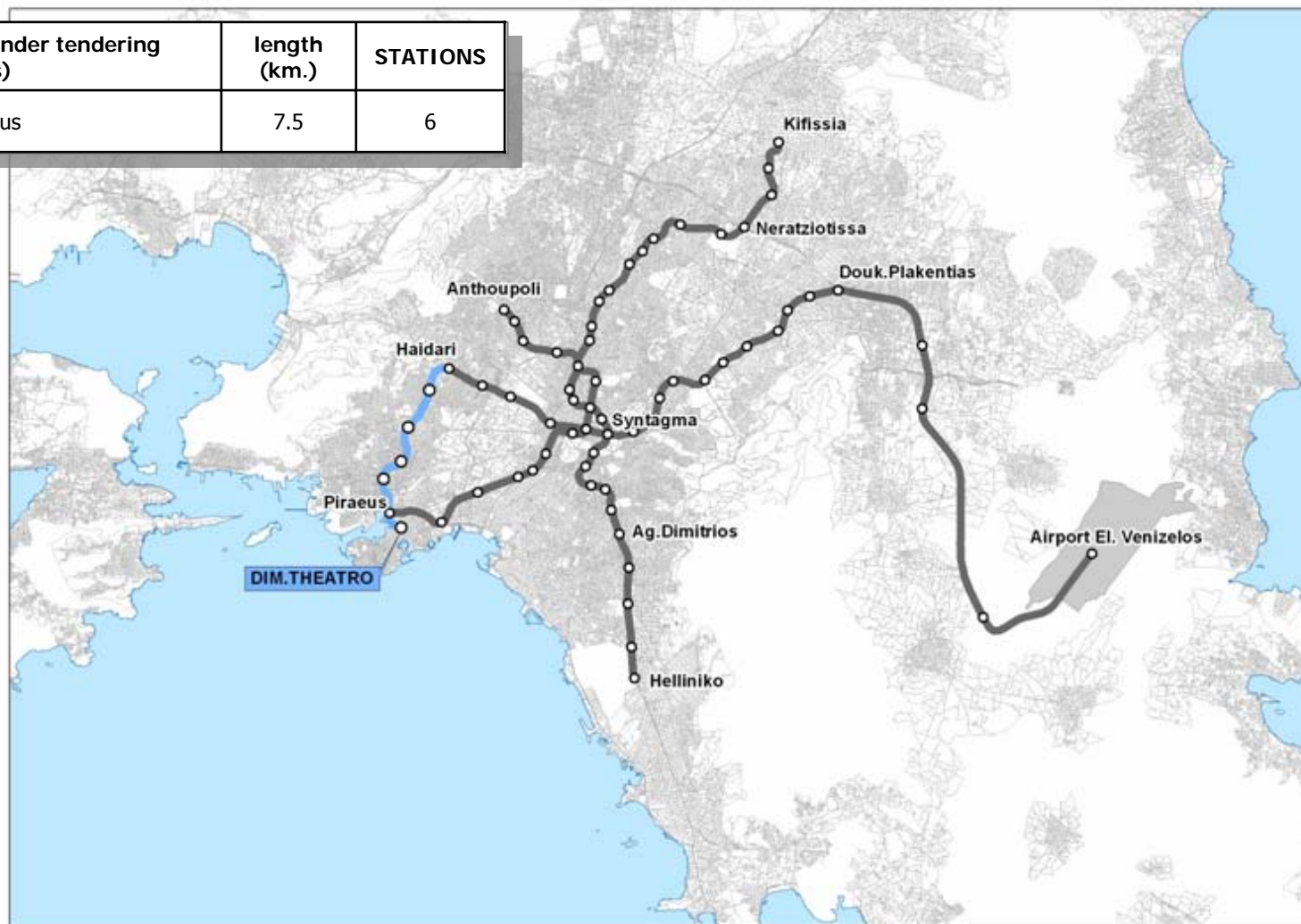


HOLARGOS Station

ATHENS METRO

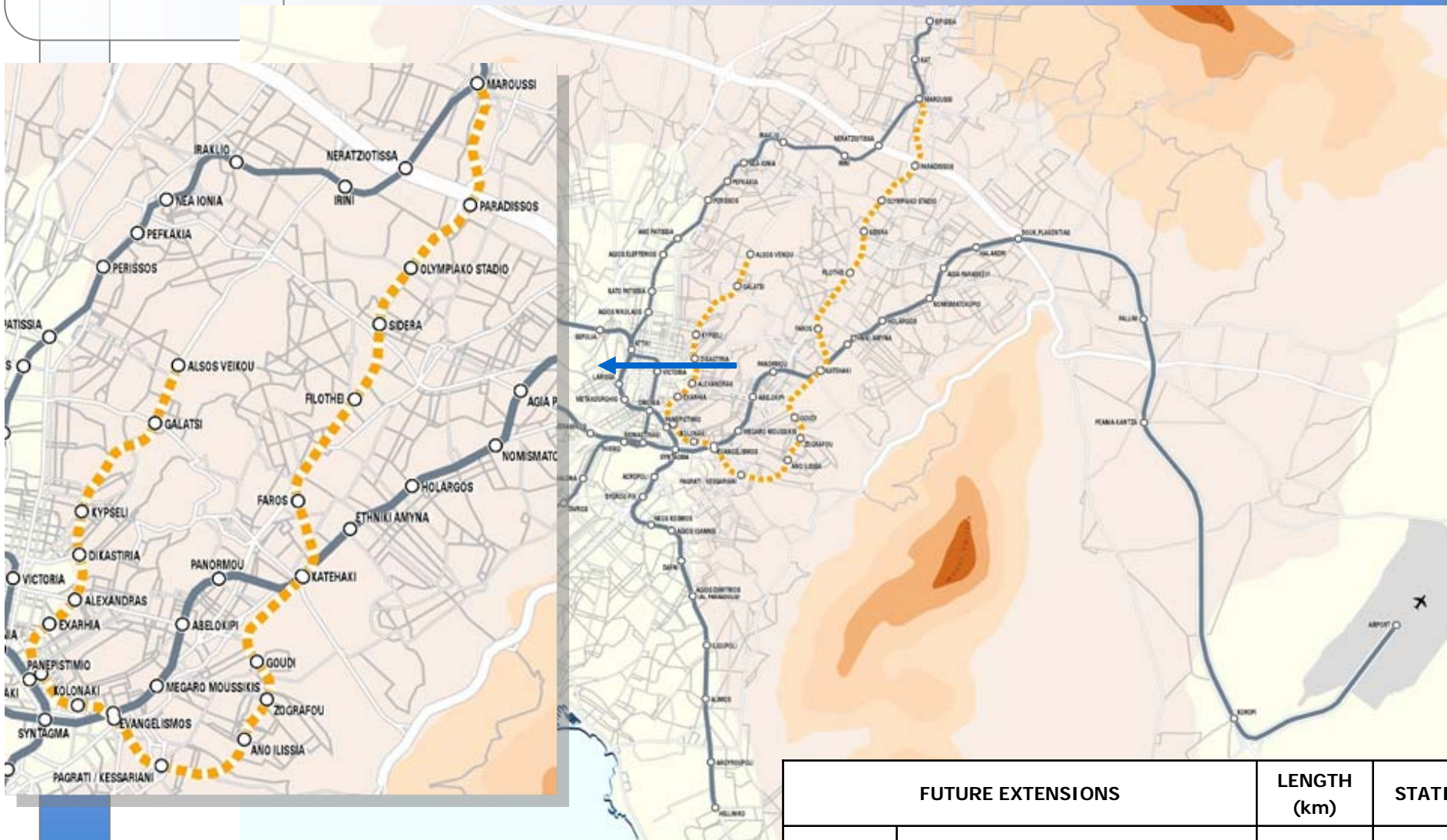
NEW EXTENSIONS (under tendering process)

NEW EXTENSIONS (under tendering process)		length (km.)	STATIONS
Line 3	Haidari – Piraeus	7.5	6



ATHENS METRO

FUTURE EXTENSIONS



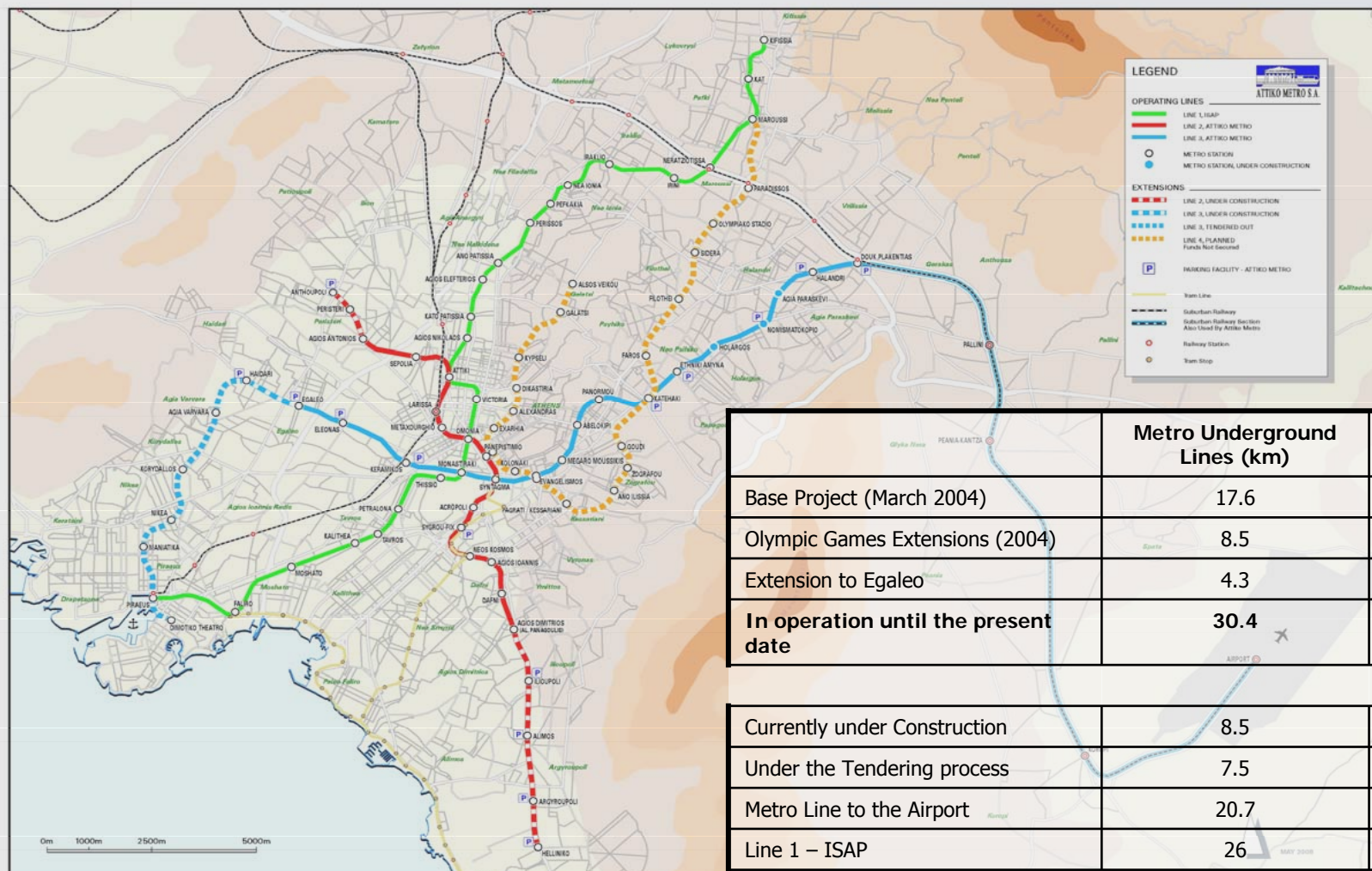
FUTURE EXTENSIONS		LENGTH (km)	STATIONS
Line 4	Alsos Veikou – Panepistimio – Maroussi	20.9	20

ATHENS METRO

LINE 4 - FUNDING

- Line 4: Funding the Project through the securitization of Attiki Odos future toll revenues is under consideration
- Advantages of funding scheme:
 - “Polluter pays principle” – “Dirty car” pays for “green Metro” as revenues raised from Attiki Odos are used to fund capital expenditure of Metro Line 4
 - Readily available funding
 - Value for money for the State
 - No burden on public deficit.

ATHENS METRO LINES



ATHENS METRO DEVELOPMENT PLAN

	Metro Underground Lines (km)	Metro Stations
Base Project (March 2004)	17.6	20
Olympic Games Extensions (2004)	8.5	4
Extension to Egaleo	4.3	3
In operation until the present date	30.4	27
Currently under Construction	8.5	10
Under the Tendering process	7.5	6
Metro Line to the Airport	20.7	4
Line 1 – ISAP	26	24

SERVICE

- Attiko Metro serves 650,000 passengers / day (average number of passengers in the network in 2007)
- High level of service
 - High Standards in the provision of services to the Metro users (service availability, reliability, speed)
 - European Performance Satisfaction Index: 81,8/100
 - One of the highest indexes in Europe in "Trips Reliability and Precision"
 - Athens Metro comes first in Europe in the Citizens Satisfaction Index (CSI)
 - Cleanliness of Stations and Trains at high levels
 - Security and Safety in all areas of the METRO system

ROLLING STOCK

- Today 49 trains
 - 28 of first generation
 - Composition: 6 cars (in two three-car units)
 - Doorways per car: 4 per side
 - Capacity: 1030 passengers/train (224 seats, 806 standees)
 - 21 of second generation (7 DC/AC, 14 DC)
 - Composition: 6 cars (in two three-car units)
 - Doorways per car: 4 per side
 - Capacity:
 - DC/AC: 1030 passengers/train (158 seats, 868 standees)
 - DC : 1062 passengers/train (196 seats, 866 standees)
- Tender for the supply of 17 new 6-car trains (third generation)
 - equipped with state-of-the-art systems, shall be air-conditioned, environment-friendly, and properly equipped to ensure compatibility with all future technological upgrades in Athens Metro Lines 2 & 3.

TRANSFER STATIONS

- Park-and-ride
 - 2.090 parking spaces in operation
 - 8.780 parking spaces under design and construction
- Transfer to/from bus lines
 - 5 Bus Transfer Stations/Terminals: serving 30 terminal bus lines and 28 kiss-and-ride lines
 - Kiss-and-ride in all other Metro stations (> 100 bus lines)
- Metro – Tram interconnection in two strategically located Metro stations
- Pedestrian facilities in all stations entrances

PSN FACILITIES

- Athens Metro Stations and trains are absolutely PSNs-friendly
- **For Semi-Ambulant Users:**
 - Direction Stripes inside and outside the Stations
 - etc.
- **For Wheelchair Users:**
 - PSN Equipped Lifts at All Stations
 - Pre-recorded Announcements at the lift cabins
 - etc.



ARCHAEOLOGIC WORK

- **Joint Effort Attiko Metro, Olympic Metro, Ministry of Culture**
 - Excellent cooperation with Ministry of Culture & Archaeological services
- **The biggest Excavation Project ever in Athens**
 - 70,000 sq.m. of archaeological investigations
 - 30 centuries' antiquities found
- **All periods of the city of Athens history**
 - From Neolithic period up to Modern era

ARCHAEOLOGIC WORK



Archaeological excavations at
SYNTAGMA Station



Archaeological excavations at
MONASTIRAKI Station

METRO & CULTURE

CULTURAL HERITAGE

- 6 mini-museums
 - creation of special areas for the display of the most important archaeological finds
- Findings exposed are those found in the surrounding area



SYNTAGMA Station – Display of archaeological finds



"Amalias" Shaft – Display of archaeological finds

METRO & CULTURE

ART

- 21 art works, in 14 metro stations
- Of world-wide famous as well as younger Greek artists

HALANDRI Station -
"Space Poetry – diptych
2004" (Christos Karras)



METAXOUREGHIO Station
"The Myth of my
Neighborhood" (Alekos
Fassianos)

FUNDING

- Funding of completed and under design & construction projects
 - 50% from the European Union (CFS)
 - 50% Greek Funds
 - 25-35% EIB Loans
 - 15-25% National contribution
 - Cost of network in operation: 3.043 mil. €
 - Base project: 2.032 mil. €
 - Extensions Phase A/2004: 611 mil. €
 - Extensions Phase A/2007: 400 mil. €
 - Cost of network under construction: 833 mil. €
 - Extensions Phase B/ 2010: 833 mil. €
- Future projects
 - Search for new financial instruments
 - Earmarking the revenues raised from urban toll roads

PROJECT MANAGEMENT

- Integrated transportation planning
 - Careful and reliable planning well in advance, in order to identify, evaluate and finally select the most beneficial projects in respect of a well-coordinated Transportation Plan
- Detailed State-of-the-Art Design
 - AM tender projects based on General Final Design, in order to compromise between detailed description-design and the time required for design studies
- Efficient tendering in full adherence to EU and national legislation
 - In order to secure the necessary conditions for high level competition and equal opportunities for all bidders
- Close supervising using appropriate procedures
 - Optimum balance for: fast implementation, workload for Attiko Metro, responsibilities, risks and technical coordination of the projects.
- ✓ **Efficient administration passing successfully numerous external controls**

EXTERNAL CONTROLS

ADHERENCE TO GREEK & EUROPEAN LEGISLATION

Successful and positive outcome in mandatory controls/checking performed by 15 National and European independent bodies:

European Authorities

1. European Commission
DG for Internal Market & Services
2. European Commission
DG REGIO
3. European Court of Auditors
4. EIB

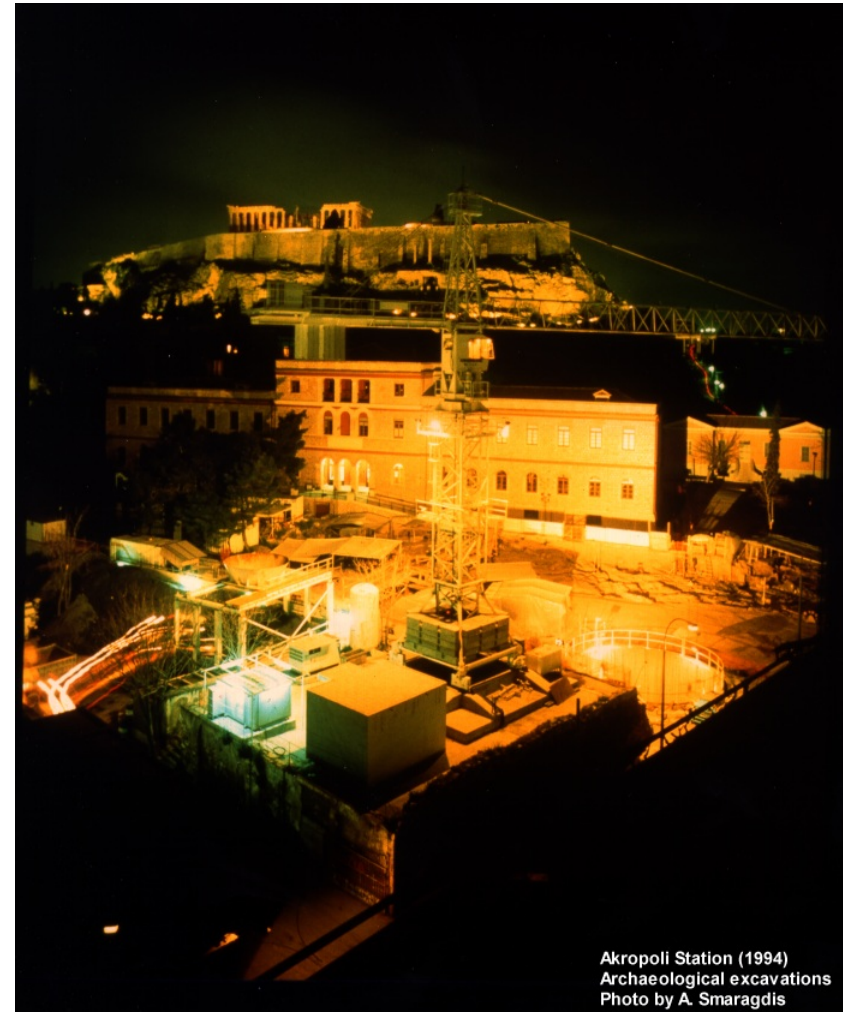
Greek Authorities

5. Greek Parliament
6. Greek Civil Courts
7. Council of State
8. Court of Audit
9. Managing Authorities of Operational Programs
10. Ministry of Economy – General Secretariat of Investments & Development
11. State Committee of Fiscal Control
12. Revenue Office and Social Security Authorities
13. The Greek Ombudsman
14. Chartered Auditors
15. Independent Consultant of Infrastructural Quality Control

ATTIKO METRO S.A.

THE SUCCESS FACTORS

- *The people*
- *The knowledge*
- *The procedures*



Akropoli Station (1994)
Archaeological excavations
Photo by A. Smaragdis