TRENDS IN THE PROPERTY DEVELOPMENT MARKET OF ATHENS: THE CASE AREA OF MESOGIA

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to the memory of my father
List Of Contents ........................................................................................i
Abbreviations List....................................................................................ii
Aknowledgements...................................................................................iii
Abstract....................................................................................................iv

Chapter 1: Introduction

1.1 Research Objective.................................................................1
1.2 Methodology.................................................................3

Chapter 2: Urban Growth Trends

2.1 Athens The Capital Of Greece..............................................................5
2.2 Development Patterns........................................................................6
2.3 The New Infrastructure Investment..................................................8
2.4 Future Urban Growth Trends In Athens.............................................10
2.5 The Significance Of The Greater Mesogia Plain..........................12

Chapter 3: Mesogia Plain: Demand For Development

3.1 Anticipated Impacts Of New Airports .............................................15
3.2 Anticipated Development Impacts Of Peripheral Motorways.........21
3.3 The State Role-Town Planning Authorities.................................23
3.4 Anticipated Impacts On The Development Of Mesogia Plain........25

Chapter 4: Traditional Structure Of The Athenian Development Industry

4.1 Actors and Roles...........................................................................29
4.1.1 Finance for development..........................................................33
Abbreviations list

**AIA:** Athens International Airport-Eleytherios Venizelos

**AO:** Attiki Odos Motorway

**EU:** European Union
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Abstract

New infrastructure investment in an urban area has an impact on the economic and conclusively on the urban development of the area. The magnitude, type and time of the effect depends not only on the importance of the infrastructure but on the characteristics of the local market, its interrelation with other markets and the characteristics of the development industry.

The city of Athens is presently changing due to many major infrastructure projects (Athens International Airport, Attiki Odos Motorway).

In the aim of this thesis is to identify the forming trends in the property development industry in Athens and in the area of Mesogia in particular. On the investigation for development demand the urban growth trends in Athens are analysed and spatial and qualitative estimates are made for the future. On the investigation for the supply of the built environment the structure of the development industry is analysed along with the estimated future changes.

Key phrases: Property development market, speculative developer, New entrants, property prices, urban growth

Wordcount: 10,872
Chapter 1

Introduction

Athens, as capital of Greece, is the major urban centre of the country and one of the major economic centres of the Balkans and East Mediterranean. Economic growth and industrialisation were delayed in Greece due to political instability and half the Greek population moved to Athens in the hope of a better life. The 1950’s and 1960’s were characterised by unplanned urban “sprawl” which resulted in a congested centre with no sufficient infrastructure, and public transport. During these years the Athenian building industry even though highly fragmented, grew enormously in order to accommodate the required building stock and became one of the backbones of the economy.

In the recent years major government infrastructure investment in Athens became possible due to the recovery of the Greek economy and the European support Frameworks. Furthermore, the Athens 2004 Olympic Games have contributed to the acceleration of many major projects which are being constructed or planned for the near future: The Athens metro, New Athens International Airport Eleytherios Venizelos (AIA), the Attiki Odos Motorway (AO), Suburban railway network, and works associated with the 2004 Olympic Games.
These prospects gave rise to an unprecedented excitement in the property development industry and also contributed to major changes in its structure and agents (developers, builders, landowners, and financiers). In the past, the private development market involved medium to small size buildings and small mostly self-financed firms. That was mainly because the unavailability of big undeveloped sites discouraged large construction companies to enter the market. Now however, these barriers are lifted as undeveloped land becomes accessible due to the projects and big construction firms are entering the development market. Furthermore, due to privatisations and deregulation on the one hand, and the continuing decrease in the interest rates on the other, major investors like banks, pension funds, and insurance companies tend to invest in the development market which has a greater yield.

Even though rapidly developing, the property market is not matured yet and, considering the present dynamic conditions, the future trends (short and long term) of supply and demand are hard to distinguish. Professionals declare their conviction that the development market will flourish in the future, while recognising that, due to the uncertain conditions, high risks are involved for the participants in the development process depending on their role and size.

1.1 Research Objective

The objective of this thesis is to investigate the trends of the property development industry in Athens, which is experiencing considerable changes presently, in both sides of demand and supply.

The demand for development in an area is associated with macroeconomic and demographic parameters and social conditions. Nevertheless, it depends mainly on the urban growth trends of Athens and the mosaic of local characteristics of the various areas which affect the
location decisions of the consumers of the built environment. An extensive local analysis for the entire city would not only be superficial but unnecessary as well for the purposes of this report. In the light of this, the investigation is limited to the case area of Message plain (Appendix A) because its distinguishing characteristics establish it as a critical market, the trends of which represent and also affect the overall of the Athenian property development market. The major impacts in the area are caused by the new Athens International Airport (AIA) Eleytherios Venizelos and Attiki Odos Peripheral Motorway.

On the supply side lies the development industry, the supplier of the built environment. Critical questions wait for answers: How does the industry respond to the new characteristics of development demand? Which are the changes in the traditional structure of the industry? Who are the new actors in the development process and how will they affect the industry?

1.2 Methodology

In order to assess the impacts on the development market, the study is structured in two parts. In the first part an effort has been made to determine the coefficients of future demand in the development market in terms of type, size and magnitude of the development. For this purpose, the prefecture of Athens is analysed along with its growth patterns and special social-economical conditions, as well as the anticipated urbanisation trends based on the existing literature on urban growth (Chapter 2). Secondly the key effects and development trends caused by the construction of airports or motorways are investigated in the literature in order to analyse the present trends and estimate the future ones likely to appear in Athens and Mesogia in particular (Chapter 3).
In the second part of this thesis the aim is to determine the coefficients of supply of the built environment. The traditional industry structure is analysed based on the distinction between actors and roles of the development process (Ive & Grunenberg [2000]). An analysis is conducted in chapter 5, in order to identify the response of the industry to the identified (in chapter 3) demand parameters and investigate the competitive environment of the market. Finally the conclusions are presented (Chapter 6).

The extensive literature research formed the theoretical basis for the analysis of Athenian urban growth trends and the anticipated impacts from AIA and AO. The final form however regarding the estimation of the future trends resulted from the tacit knowledge of the local areas and Mesogia in particular, gathered by the market professionals. Furthermore, the insight on changes currently happening in the structure of the development industry could only come from "insiders". Therefore a number of interviews were conducted with professionals throughout the property development market (Appendix C).

Additional sources of information were many articles from the Greek Economic and Real Estate newspapers, which involved a number of interviews of renowned professionals of the industry.
Chapter 2

Athenian Urban Growth-Development Patterns

2.1 Athens the capital of Greece

Greece is Europe’s strategic link to the sizeable emerging markets of the Balkans and the Black Sea, Eastern Europe and the East Mediterranean region. Especially in the last years it has become home to numerous regional headquarters of multinational corporations investing in the region.

Greece has applied successfully for admission in European Monetary Union (EMU) in March 2000 and it is considered to be a country poised for growth. A large scale deregulation is taking place, along with privatisation and streamlining of state bureaucracy. There have been significant improvements in economic indicators in recent years including GDP, public debt, interest rates and inflation. (Appendix B)

Athens is situated in a plateau in the prefecture of Attica. As it can be seen in appendix A, the city is surrounded by the mountains of Egaleo in the south-east, Parnitha in the north-east, Penteli in the north and Imitos on the east. On the other hand on the south border is Port Piraeus, one of the major economic centres of the Mediterranean, and the coastline. Athens is the most important city of Greece with a population
of 4.5m. It is strategically placed in the geographical epicentre of the
country and concentrates all the major economic activities.

2.2 Development Patterns

A short discription of the urban growth of Athens and its major
characteristics is presented in Appendix D. The urban growth in Athens
seems to have followed the radial or axial development theory. According
to that model, the urban growth expands from the city centre along major
transport routes. The theory suggests that the increased accessibility of
the areas in the vicinity of such transport routes attracts development
(Harvey 2000,p242). Such transport routes were in the past the North and
South National motorways, Sygrou Av., Vouliagmenis Av., and in the
last 15 years Kifissias Av. to the north. In Sygrou avenue (to the south)
and Vouliagmenhs (leading to the old airport, along the south-east coast)
the development included luxurious offices, and the majority of Athenian
luxurious hotels. The main reasons were the vicinity to the airport and
Piraeus port (major transport junctions), the vicinity to the coastline, and
the availability of medium size land pieces (Appendix D figures 2 and 3).

According to Menayias the urbanisation process that appeared in
most suburbs in Athens, consisted of three phases. In the first phase a
core of residential developments were built (these were small private
initiatives and not large scale residential developments or new towns
planned from scratch). In the second phase commercial developments
were built along the major roads leading to the area, to accommodate the
needs of the residents, and in the third phase the development process for
both residential and commercial property was accelerated. The resulting
morphology comprises the commercial properties (retail and offices)
concentrated along the main roads (high streets) whereas the residential properties expand in the network of streets immediately parallel to them.

The west part of the city were the two national motorways pass, has mainly industrial properties and the so called low income suburbs. The unfortunate uncontrolled development of the past is responsible for the vicinity of residential and industrial properties in some areas. The city centre comprises offices retail and houses. However office and retail uses gradually dominate the built stock, a trend present in most metropolitan cities. The Von Thunen model of location when applied in urban areas produces a pattern of concentric zones based on the general accessibility to a central market. The foregoing analysis (Figure 2.2) suggests that firms will oust households from that central market (Harvey 2000,p234). In most metropolitan cities this process took the form of redevelopment or refurbishment of entire old buildings. In Athens however due to the fragmented ownership and the unavailability of large scale development capital many mutli-storey residential buildings have been turned into offices, flat by flat rather than by refurbishment or redevelopment of entire buildings.

In the last 10 years Kifisias Av. (which leads to the expensive north suburbs) attracted the most prestigious new office spaces and firm headquarters especially in the area near the junction with Attiki Odos Motorway . The expensive north suburbs are situated on the sides of the avenue. Unfortunately undeveloped land has become scarce in these suburbs as well.

The unavailability of undeveloped land both for commercial and residential purposes in the centre and in the north is responsible for the extremely high land prices .The antiparohi percentage (the percentage of the finished building that is paid to the land owner for the land) varies
from 30% to 60% throughout the city. In the aforementioned areas the percentage can reach even 90%! (Imerisia 19/5/2000).

2.3 The New Infrastructure Investment

The present reality of the development process is quite different than in the past. The state has an organised town planning strategy and very strict Planning controls. Even though total restructuring of the city is not possible, the governments of this era attempted to solve the problems with infrastructure investment. Due to the 2004 Olympic Games many projects were accelerated. With the help of the European Support
Frameworks Athens is undergoing a considerable change. The major infrastructure projects planned or under construction are:

**Attiko Metro (by 2004)**

Athens had only one line of underground. Currently a network of lines is constructed while others became operational on April 2000. The network is extended in the city centre and developed suburbs, that is why Metro is expected to solve the major traffic problems of the city that increase travel time for the commuters in some cases by 300% on rush hour!

**Suburban Railway Network (phase 1 by 2004, Phase 2 delayed)**

This entire network will be built from scratch since Athens doesn’t have even one line of Suburban railway. In Phase 1 the AIA (Athens International Airport) will be connected with the National Railway network by a line on the route of Attiki Odos Peripheral Motorway. On Phase 2 the network will be expanded to east, north and west of the capital. The network will off course have connections with the Metro lines. Due to the increased accessibility of the city centre the suburbanisation trends are expected to maximise.

**Attiki Odos Peripheral Motorway (by 2001-2003)**

AO will run from the west to the east side of the city connecting the two National Motorways (North and South) and the AIA with other major avenues and Metro and Railway connections. The motorway will be the main transport route connecting the AIA with the city and the rest of the country. This project is expected to relieve the city centre from the congestion especially the commercial transit traffic. It is also expected to contribute to the planned balanced expansion of the city according to the
Town Planning Authorities. These plans identify the development of Mesogia plain as the only viable area for the next phase of urban growth.

**Athens International Airport (AIA) -Eleftherios Venizelos**

AIA is situated on Mesogeia plain 25 km to east of Athens centre. In the first phase its capacity will be 16 million passengers per annum with an expansion potential of 50 m passengers per annum. AIA will be connected to the city with Attiki Odos Motorway and in the future by Metro and Suburban railway lines as well. It will also be connected with the ports of Lavrio and Rafina.

**Lavrio and Rafina ports**

These are secondary ports that will be developed in the future. Rafina is mainly a passenger port. Lavrio will be reinstated to its old status as a major commercial port, a “second” Piraeus e its position provides a direct link between air and sea transport. According to Balamontis, the investment potential offered by the abandoned old industrial properties along with the available cheap work force of the political immigrants who were settled in the area have attracted the attention of many shipping companies.

### 2.4 Future Urban Growth Trends in Athens

The trend of urban expansion is present in all metropolitan cities. The low quality of life (congestion, old buildings, pollution) in the city centre is considered to be a driving factor of growth. The rise in real income enables citizens world wide to trade off extra transport costs against more spacious living (Harvey 2000, p.260). The growth of the Greek economy in the last years has enabled a great part of the population to benefit and pursue higher standards of living. In Athens , which is the
epicentre of the economic growth, this was evident by the new urbanisation trend that followed the 1990s recession (Menayias). The effects of the economic development increased the demand for modern office space especially in sites with increased accessibility.

The Metro network has made the city centre more accessible, causing property prices to rise. Such conditions normally lead to extensive redevelopment of central locations. However as discussed in paragraph 2.2 the fragmented ownership of central buildings has prevented redevelopment trends in the past. The complexity of interests and transactors involved and the high prices of central properties, discouraged the average family owned development firms to frequently embark on such projects. A central redevelopment trend could presently be maintained if the structure of the development industry changed, a subject that will be discussed on chapter 5. In any case, redeveloped or not, the central office space and central residencies due to their high prices become prohibited for small companies and low and middle income house holds respectively. Furthermore due to the unavailability of undeveloped land in the suburbs, land prices in entire Athens are constantly rising though not homogeneously (Revithis, president of Greek Urban Real Estate Agents, Express February 2000). Conclusively there is great demand for relatively low priced suburban land.

According to the survey “Athens Retail Property Market” conducted by the British PMA (Property Market Analysis, property research consultancy) Greece has the smallest proportion in the European Union of retail park sq. metres per 1000 citizens 15m²/per 1000, whereas Portugal, which has similar demographic characteristics, has 100m²/per 1000 citizens. PMA expects the high demand for retail space to be covered by City centre redevelopment, along with the development of
retail centres that expand horizontally rather than vertically (the multi-storey centres of 1970-1980s) in the Athenian suburbs, especially in Mesogia and the area near the Olympic Village which have available large sites (Kathimerini 2000 B).

A study conducted by the National Technical University of Athens (NTUA), Department of Surveyor Engineering by Koutsopoulos and Fotis, has reached the conclusion that “a population and building explosion” is to be expected in the prefecture of Attica for the years until 2010. The indices analysed in the study are the mean annual increase rate of buildings (RB) and population (RP) as presented in fig. 4, 5 Append. D. The population growth rate in Athens has slowed down to 1.5% for the decade 1981-1991 (Fig 2.1) due to the over developed congested centre. However what is quite interesting is the increase of population in the peripheral suburbs and towns which has reached 31.6% (Kotsopoulos, Fotis). The highest expected rise both in population and buildings is in East and North Attica, in the area of Mesogia plain and its vicinity. Especially in the boroughs of Spata, Palini, Gerakas, Koropi, Markopoulo, Nea Makri RB is up to 20% and RP 30% (Koutsopoulos, Fotis).

2.5 The Significance of the Greater Mesogia Plain

The Town Planning Parameter: The Town Planning Authorities have identified Mesogia plain as an area which will accommodate in the future a large percent of the urban growth. In co-operation with Pantio University, Institute for Peripheral Growth, Town Planning Authorities have proposed an Economic Development and Land Use Plan for the Mesogia Plain up to 2020. This proposal is being currently elaborated by
the local boroughs and its final form will be announced hopefully within 2001. The study will be analysed in the next chapter.

**Increased Accessibility:** The new infrastructure investment in the area increases its accessibility. AIA and the part of AOM that runs through Mesogia are built, the road network in the area is currently upgraded whereas suburban railway and metro lines are programmed to be constructed until 2010. In the vicinity of the plain is Lavrio Port which will be expanded in order to decongest Pireus. It can be established then that Mesogia plain will become a major junction for air (AIA), sea (Lavrio) and road (AOM) transport. Even though infrastructure investment is planned in other areas in the city as well (paragraph 2.4) in Mesogia it is of great economic importance and of greater extent. AIA and AOM are already built and development really takes off after the completion of the projects rather than in anticipation of their construction.

**Lower Land prices:** Mesogia area until now was an agricultural area which involved several small towns (Spata, Palini, Gerakas, Koropi, Markopoulo). Land is cheaper than in urban areas (or at least used to be before the projects) and undeveloped. The Town Planning Authorities have announced the introduction of 55,000,000 m² of agricultural land in the Town Plans of Mesogia boroughs which are expected to accommodate the needs for the expected 60,000 new residences (Kyriakatiki 30/7/2000).

Athens is situated in a plateau surrounded by three mountains, Penteli in the north, Ymittos in the east and Parnitha in the west. In the south there is the coastline which is already developed near the city centre. Since development in the mountains is restricted for environmental reasons (similar to the “green belts” around London) the spatial expansion of the city is channelled into the available “corridors”.

13
Such corridors as it can be seen in the map lead to the west along the South National Motorway (Elefsina), to the north along the North National Motorway, and to the north-east towards Mesogia. Eleysina has large industrial developments (oil refinery etc) that have polluted and degraded the surrounding areas. The area will develop but rather on industrial development, it is considered to be of low potential for residence and office development (FL). Along the North National Motorway there are industrial, commercial developments, and some of the most expensive residential suburbs. However due to the increasing distance from the city these popular suburbs do not expand further up the Penteli mountain and undeveloped land is difficult to find. This has led to an incredible rise in land prices which make these suburbs prohibited for middle income households.

*There is thus a need for relatively low-priced residences for middle income households in an area away from the city with higher standards of living but with increased accessibility. As already mentioned there is also need for modern relatively low office space in accessible sites for small and medium companies. The only viable scenario that can accommodate these needs is the development Mesogia Plain.*
Chapter 3

Anticipated Impacts In Mesogia Plain

In order to estimate future trends in the type, magnitude, and timing of the property development market in the area induced by the new infrastructure investment, the literature was investigated and the most common impacts are presented.

3.1 Anticipated Impacts Of New Airports

The development impacts to a region by a new airport depend on the economic impacts. The different types of employment that it generates, the structure of the region’s economy, the supporting infrastructure and the social dimension are some critical factors that can contribute to the quantification of such impacts.

There seems to be great consensus as to the types of jobs that airport support. According to the classification of European airports by traffic mix and type of economic impacts of Andrew and Bailey (1996) (p290, Banister 2000) AIA is categorised as *international gateway, likely to attract international company headquarters and distribution centres, large scale retailing centres and long haul tourism.*
Given this characterisation of airport types we can identify four classes of generated employment (p289, Banister 2000):

- **Direct employment**: is created through the expenditure required to maintain the transport function of an airport either on the airport site or outside the airport.

- **Indirect employment** is generated by the subsequent airport related purchases made by organisations in the above category. There may be further «rounds» of expenditure from the first level to the second or third level suppliers.

- **Induced employment** is supported when further non-airport related purchases are made in the wider economy by those employed in the first two categories.

![Fig. 3.1 Employment Impact Model](source: Banister 2000 p.291, Derived from IATA (1991) The Economic Benefits of Air transport)
• Attracted employment is present when activities unrelated to the operation of the airport, nevertheless locate nearby to take advantage of increased accessibility and of agglomeration economies. This includes inward investment to the region around the airport and tourist developments.

The relationships between these categories can be summarised in an employment impact model, that links airport and airline revenues to the diffusion of expenditure through various types of interrelated organisations, which in turn creates direct, indirect and induced employment (Fig. 3.1).

In order to estimate the development effects of airports we can define four categories of location relative to airports (Weisbrod, Reed, Neuwirth 1993). Each category has different characteristics of airport related business and different timing of development.

1. at airport: airport employment depends on the volume of the passengers and the type of the airport.

2. adjacent to the airport:
   • services directly supporting operation of the airport (flight kitchens, aircraft maintenance services)
   • services for airline employees and passengers (hotels, restaurants and additional car rental facilities)
   • airport related freight services (shipping, freight forwarding, customs and sometimes a foreign trade zone)

These types of activities are often located on adjacent land reserved for such uses. They typically start within a year of airport opening, and the
employment level is directly proportional to the corresponding magnitude of the airport function it accommodates.

3. **Vicinity of the airport or along a corridor easily accessible to the airport**

In most cities it is found that the greatest concentration of business activity around an airport is within 6 km of the airport, or along an access corridor within 15 minutes of the airport. Atiki Odos is such a corridor since it is the major road link of AIA with the city as it runs through the area of Mesogia. Development in these areas are either «spin-off industries» or «attracted business».

«**spin-off industries**» include petrol filling stations, lodging and housing for airport workers, and retail serving them. These activities grow directly with airport activity levels, although they often take 5 to 10 years after airport opening to fully develop.

«**attracted business**» are businesses that do not rely directly on the airport for their operation, but which value location near an airport because of its prestige, air services and/or accessibility of location for visiting customers and employees coming by air.

There are some similarities, but also significant differences, in the economic market orientation of business activity attracted to the areas surrounding large commercial airports:

- regional or national corporate headquarters of large national and multinational companies
- trade and merchandise centres marketing retail or industrial products
- service companies that are dependent on air service to reach their markets
- airlines and related activities
Table 3.1

Types of Business Activity, Ranked by Degree of Attraction to the Vicinity of Airports

<table>
<thead>
<tr>
<th>Very High Concentration Near Airport</th>
<th>Moderate Concentration Near Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air transportation services</td>
<td>Automotive rentals</td>
</tr>
<tr>
<td>Aerospace equipment</td>
<td>Printing and publishing</td>
</tr>
<tr>
<td>Manufacturers of optical instruments and lenses</td>
<td>Manufacturers of converted paper products</td>
</tr>
<tr>
<td>Manufacturers of communication equipment</td>
<td>Manufacturers of electronic components and accessories</td>
</tr>
<tr>
<td>Manufacturers of electrical distribution equipment</td>
<td>Construction</td>
</tr>
<tr>
<td>Freight forwarding</td>
<td>Buses and Taxis</td>
</tr>
<tr>
<td></td>
<td>Building services</td>
</tr>
<tr>
<td></td>
<td>Hotels/motels</td>
</tr>
<tr>
<td></td>
<td>Automobile parking</td>
</tr>
<tr>
<td></td>
<td>Manufacturers of medical instruments and supplies</td>
</tr>
<tr>
<td></td>
<td>Automotive services</td>
</tr>
<tr>
<td></td>
<td>Manufacturers of specialty plastics parts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Concentration Near Airport</th>
<th>High Concentration Near Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturers of electric &amp; electronic equipment</td>
<td>Travel agent</td>
</tr>
<tr>
<td>Manufacturers of instruments, measuring and control</td>
<td>Public warehousing</td>
</tr>
<tr>
<td>Air transportation services</td>
<td>Speciality machinery</td>
</tr>
<tr>
<td>Mailing and delivering services</td>
<td>Mailing and related services</td>
</tr>
<tr>
<td>Speciality fabricated metal products</td>
<td>Computer data processing services</td>
</tr>
<tr>
<td>Wholesaling of pharmaceutical products</td>
<td></td>
</tr>
</tbody>
</table>

Source: Weisbrod, Reed, Neuwirth 1993

Expansion of activities in the metropolitan area occur for types of business that are users of the airport services, suppliers to markets generated by the airport or businesses that can take advantage of the local transport and other supporting infrastructure developed primarily to serve the airport. These are typically business with products having a high value-to-weight ratio: a) high-tech electronics and specialised equipment manufacturers b) communication companies, c) warehouse and delivery services and d) a variety of specialised business services. Hotel and convention facilities are another rapidly expanding type of business along with retail business activity.

Additional empirical studies of US airports by Cambridge Systematics have shown that employment growth within 6 km of airports
can be two to five times faster than in the suburban ring of the metropolitan area in which they are located. From that data, business activities have been classified by the extent to which they are disproportionately attracted to, and concentrated in, the vicinity of airports. These findings are summarised in Table 3.1 (Weisbrod, Reed, Neuwirth 1993).

The attraction of business activity and land development to the vicinity of airports may take 5 to 20 years or more to develop. The timing and magnitude depend not only on airport and air service attributes, but also on factors of local access, metropolitan economic characteristics and land development patterns.

4. Elsewhere in the metropolitan area or region
The growth of the airport area can affect in various ways markets in other areas of the city: Creates vacancies in the metropolitan area, some businesses can grow elsewhere in the metropolitan area as an indirect result of the airport growth, or other areas may become more attractive because of induced improvement of quality of life (sometimes airport area development is so rapid that draws all the traffic).

In general what most authors conclude is that although development around new airports or terminals is taken for granted it is not easy to quantify it. There are some general trends that have been observed in many cases, however the magnitude and timing of these effects vary considerably. Especially in the assessment of attracted business activity and subsequently the timing, type and magnitude of development demand.
3.2 Anticipated Development Impacts of Peripheral Motorways

Roads play a fundamental part in the development of cities and regions as they affect the accessibility and the relative attractiveness of all locations. Even though there seems to be a link between transport investment, economic activity and development it is quite difficult to quantify the magnitude, the type, and timing of the direct impacts. Recent investments in metropolitan cities have mainly taken place outside the city centre in specific corridors where development has been encouraged, or in locations between and around cities to establish the inter-urban network. The consequence of investment in these locations would suggest that development pressures have also responded by moving to these corridors and the network outside cities. The so called “Greenfield sites” are also attractive to developers as land prices are lower than that in the city centre; land assembly is easier; the development costs are lower; the sites are car accessible and the quality of the environment is perceived as being high (Headicar 1996, p 239, Banister 2000).

An empirical case study (Zembri-Mary 1996) of the A71 French motorway in central France has reached several conclusions. The first is that land values rise as a result of the road, mainly due to the construction process, but also due to the zoning of business activities at interchanges. This increase in value takes place in anticipation of the new road and continues after the road is opened. Second, the planning agencies play an important role in affecting the economic consequences of road development. The third conclusion is that these relationships are dynamic and they can be identified before, during and after the road was constructed.
In the case of London M25 (Fig.3.3) four types of development competed for motorway accessible locations (p242 Banister 2000):

1. Warehousing activities serving national and regional markets where transport costs were a significant element of total costs.
2. High technology growth industries would locate in towns just beyond the green belt.
3. Offices that did not require central London locations would move out of the city where costs were high and environmental quality was low. Still good accessibility to specialised and local clerical staff is an essential component of office location decisions.
4. Hypermarkets and superstore developments would take place near motorway junctions.

Regarding the retail development several conclusions were reached. M25 has an important role in enlarging the “catchment” areas.
for regional shopping and retail ware housing, but not for those smaller supermarkets used more frequently since consumers making regular convenience purchases are not prepared to travel for more than 10 minutes. As M25 access is limited there are few locations that would benefit from the “10 minute rule” and thus substantial impact is limited to the large scale retail developments. For this level of development to transpire, strong agglomeration economies must be present. An example is the 273 hectares Blue Water Park Development which is the largest retail and leisure centre in Europe (1999). For developments of this type it seems that once the “anchor” key retailers (John Lewis, Marks & Spencer, House of Fraiser) are established, there is considerable leverage to win over other retailers so that agglomeration economies can take place (p247, Banister 2000).

3.3 The State Role-Town Planning Authorities

The Institute for Peripheral Growth of Pantio University have conducted a study—proposal on the Economic Development and Future Town Plan of Mesogia Plain 1995-2020. Until 2020 112,000 new jobs are expected to have been created in the area. Direct employment created by the airport is 22,000 new jobs, indirect and induced employment generated by AIA is estimated in 28,000 and attracted employment 62,000. Of these new jobs 3000 will be in the primary sector, 66,800 in the secondary and 100,200 in the tertiary. Conclusively Mesogia and the surrounding areas will undergo a major qualitative change in their character since up to now there were small settlements and towns occupied with summer or weekend houses, and with small resident population mainly occupied with agriculture (Table 3.2).
### Table 3.2

#### POPULATION GROWTH IN MESOGIA PLAIN

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHOUSA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>577</td>
<td>3050</td>
</tr>
<tr>
<td>ARTEMIS</td>
<td>0</td>
<td>0</td>
<td>5716</td>
<td>6703</td>
<td>8541</td>
</tr>
<tr>
<td>GERAKAS</td>
<td>0</td>
<td>0</td>
<td>1233</td>
<td>3547</td>
<td>5966</td>
</tr>
<tr>
<td>GLYKA NERA</td>
<td>2253</td>
<td>2399</td>
<td>2624</td>
<td>4860</td>
<td>7318</td>
</tr>
<tr>
<td>KORopi</td>
<td>7125</td>
<td>8029</td>
<td>9716</td>
<td>12893</td>
<td>17173</td>
</tr>
<tr>
<td>MARKOPOULO</td>
<td>5112</td>
<td>5431</td>
<td>5954</td>
<td>9388</td>
<td>10420</td>
</tr>
<tr>
<td>PEANia</td>
<td>4824</td>
<td>7431</td>
<td>6111</td>
<td>7278</td>
<td>9701</td>
</tr>
<tr>
<td>PALini</td>
<td>954</td>
<td>1909</td>
<td>3190</td>
<td>5475</td>
<td>10914</td>
</tr>
<tr>
<td>RAINFa</td>
<td>1888</td>
<td>2137</td>
<td>2674</td>
<td>4994</td>
<td>8556</td>
</tr>
<tr>
<td>SPATA</td>
<td>5024</td>
<td>5620</td>
<td>6425</td>
<td>6398</td>
<td>7775</td>
</tr>
<tr>
<td>KOUBARAS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1194</td>
<td>1369</td>
</tr>
<tr>
<td><strong>TOTAL POPULATION</strong></td>
<td>27,180</td>
<td>34,079</td>
<td>43,905</td>
<td>68,065</td>
<td>101,448</td>
</tr>
</tbody>
</table>

**Estimation for 2001:** 140,000  
**Estimation for 2020:** 400,000

*Source: ATTIKO METRO (Study for the expansion of the Metro network), Kyriakatiki [2000]*

The proposal of the study for the future town plan of the area has been elaborated from the town planning authorities and its directives according to Avgi Markopoulou (Town Planner, President of the Organisation of Athens) (*Kiriakatiki [2000]*) are:

- Maintenance and expansion of the present towns rather than creation of new ones.
- Investment in local infrastructure
- Infrastructure development of the needed spaces for the expected activities.
- Safeguard of the environment in general
What is quite clear is that the land development process will be strictly supervised by the state and the local Boroughs in order to avoid the congested unplanned urbanisation of the past.

Town planning authorities will include a total of 55 million sq.m in the Town Plans of the area in order to satisfy the estimated need for 60,000 residences and the analogous infrastructure support.

3.4 Anticipated Impacts on the Development of Mesogia Plain

The development trends depend on the infrastructure projects that are programmed for the area which not be built simultaneously and on the urban growth patterns likely to appear in Athens. It is therefore useful to distinguish between short term and long term development trends.

**Short term trends** 2004 is the year of the Athens Olympic Games and the delivery year for many of the associated infrastructure projects is 2003. Athens International Airport is operational and the last sections of Attiki Odos motorway will be in 2003. Additionally the road network will be expanded in various phases until 2004.

It is estimated that the short-term development demand in Mesogia will progress in two parallel patterns. *The first* is the typical suburban growth pattern, along a major transport route which has been observed in Athens and presented in paragraph 2.3. According to it we can expect a “spill-over” effect through the “corridor” of Stavros –Gerakas along Attiki odos and Marathonos Av. Until the infrastructure investment in Mesogia Boroughs is complete, the aforementioned areas are more appealing to households and firms since the suburban and transport network in them is already developed.

*The second pattern* is that of Expanded Towns (Harvey 2000, p261) where specific towns (Koropi, Spata, Markopoulo, Peania) will
The first new activities in the area will be directly associated with the airport and the “spin-off” industries: shipping, freight forwarding, customs along with services for airline employees and passengers like hotels, restaurants car rental facilities. The so-called “spin-off” industries like petrol filling stations and retail services usually take 5-10 years to fully develop. Based on the aforementioned analysis the expected arriving households will be mainly of low and middle income, like airport workers and service employees. The “attracted business” development will be slower and will depend on the completion of the transport investment in the area.

**Long term trends.** These are rather easier to distinguish since by the end of the infrastructure investment Mesogia Plain will be a very appealing area, highly accessible (Road, metro and suburban railway network), and moderately developed with a lot of potential for literally every kind of development. The towns of Koropi, Spata, Markopoulo, Peania will become developed urban centres. The development pattern expected to appear in all these towns is retail and service offices in the centres and residential in the outskirts. The expected “attracted business” are presented in Table 3.1 and the industrial and office space necessary to host them will be distributed along the major transport routes and the intersections of AO Motorway. The expected quality of life will be much higher than of the congested Athens centre and this will attract the future commuters. These conditions will be ideal for the construction of business, retail, or entertainment parks since in Mesogia there will be both the available plots along with the needed customer “catchment” area (10 minute rule)
Type of the development

- **Housing:** Normal quality. Due to the existence of agricultural land the size of the available plots vary from 500,000 to 1000sq.m (Levantis). This allows the construction of large housing projects either in the form of standardised houses, or in the form of new towns build from scratch where a private company provides the infrastructure and town plan and offers standardised plots. Due to the availability of all sizes of plots it is likely that there will be all sizes of housing projects.

- **Retail developments:** The ones directly associated to the airport services will be developed at the beginning of the operation of AIA. The properties that will host "spin-off" industries will develop rapidly in the adjacent to the airport area. In the town centres the retail developments will be medium to small size hosting analogous retailers. Adjacent to the major transport routes and the motorway junctions the anticipated retail developments will be hypermarkets, and retail parks.

- **Offices - Industrial space:** In the town centres there will be mainly offices of service businesses either attracted or "spin-off". The development of properties that will host the larger companies will be slower and will be mainly along the major transport routes and in the intersections of Attiki Odos in Mesogia. Business or technological parks are also likely to appear along the major routes.

- **Warehousing:** Along the major routes and in the vicinity of the airport

The anticipated trends in the types of development likely to appear in Mesogia are summarised in the graph of Fig. 3.4 in relation to the size of the development, the car accessibility and the time that is likely to intervene from the announcement of the construction of the Athens
International Airport and Attiki Odos Motorway until the appearance of the development type.

**Anticipated Types of Future Development in Mesogia Plain**

- **Large Scale Development**
  - **Size**
    - Airport Hotels, Retail and Offices,
    - Small-medium housing projects
  - **Time**
    - Short Term
    - "Spin-off", Retail and offices in the nearby Towns

- **Small Scale Development**
  - **Time**
    - Short Term
    - "Attracted" Housing, Town centre retail and office development

- **Long Term**
  - Housing Projects, Retail Business and Entertainment Parks, Office and industrial space
  - Office and industrial space, warehouses, logistics hypermarkets, retail centres
  - Housing, Town centre retail and office development

- **Along Attiki Odos junctions and other major roads**
  - (High car accessibility)

- **Local Town Centres**
  - (Low car accessibility)

*Fig. 3.4*
Chapter 4

The Traditional Structure

Of The Athenian Property Development Industry

4.1 Actors and Roles

Two organisational systems can be identified in the production of the built environment the "contracting" system and the "speculative". The "contracting" system involves separation of responsibilities for the roles of developer, designer and builder between three separate actors called respectively the client, the architect and the contractor. In the alternative "speculative" partially integrated system, an actor can combine two or more roles. In the fully integrated system (vertical integration) the roles of developer builder and builder owner are all subsumed within one organisation or actor (Ive & Gruneberg 2000,p 160).

As discussed in Chapter 2 the aftermath of WWII comprised an exceptional housing need, the limited availability of capital, and the predominance of the small landowner. The fragmented industry structure that arose from these conditions more or less has been maintained until the present years. The dominant system of building development in Athens has
been the partially integrated speculative system (Fig 4.1). Large or national scale speculative housebuilders (Tarmac U.K.) are unusual and the predominant development firms are local, of small to medium size and involved in corresponding types and sizes of projects. The UK pattern of fully integrated speculative housebuilders (Wimpey) were a large firm integrated by establishing new departments or by buying out other actors in order to achieve better economies of scale and higher profits, did not appear in Athens. The most common integration combined the roles of the developer, builder and very often of the designer. This integration however instead of resulting from the growth of the development company it rather allowed in many cases its formation because of the minimisation of the transaction costs allowing thus a firm with small operating capital to survive.
In order to analyse the structure of the industry, a division between actors and their roles in the production of buildings is used (Ive& Gruneberg 2000 p153). We can distinguish the roles of the developer, designer, builder, owner, user and finally of the merchant and financier. The actors of the development process are the speculative builder, the professional service firms (civil engineer, architect), the former landowner, the specialist contractors and the households or firms. The way that these actors undertake these roles varies depending on the structure of the industry. The actors and roles of the traditional Athenian development industry were:

**Developer:** In the past the role was almost exclusively occupied by the typical Athenian speculative developer which is a family owned and managed small to medium sized firm. Usually the firm starts as an “one man show” or as a small partnership which builds projects like 3-5 storey blocks of flats, or office buildings (Levantis, Mpenakopoulos, Menayias). Since the size of the majority of the projects was small, due to the fragmented land ownership (chapter 2) it was not unusual for a landowner to develop his property on his own. It is also very common the developer to be a civil engineer or an architect. That way there is an integration of the roles of developer, designer, builder (Fig.4.1).

**Designer:** The developer decides the type and size of the building. The civil engineer and architect make the technical specifications and designs following the developer’s directions.

**Builder:** Is usually the developer who acts as a main contractor and subcontracts to the specialist contractors.

**Owner:** As discussed in chapter 2 the ownership especially in the centre is highly fragmented. The ownership of multi-storey apartment buildings, is distributed by floors or apartments while preserving in common use the service areas of the building (*horizontal ownership*). The same
## Table 4.1
Actors And Roles In A *Typical* Private Building In Athens

<table>
<thead>
<tr>
<th>Roles</th>
<th>Actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Service firms (2)</td>
<td>civil engineer, architect</td>
</tr>
<tr>
<td>Speculative Builder (1)</td>
<td>small volume builder</td>
</tr>
<tr>
<td>Former Landowner (3)</td>
<td>small site landowner</td>
</tr>
<tr>
<td>Specialist contractor (4)</td>
<td>Single trade contractors</td>
</tr>
<tr>
<td>Households or Firms (5)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Developer</th>
<th>It is very common for a civil engineer to vertically integrate to a developer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer</td>
<td>Designs, carries out technical specification</td>
</tr>
<tr>
<td>Builder</td>
<td>Project manages and pays trade contractors, buys materials</td>
</tr>
<tr>
<td>Owner</td>
<td>Part of the building, gets income from rents</td>
</tr>
<tr>
<td>User</td>
<td>Consumes the property by dwelling on it,</td>
</tr>
<tr>
<td></td>
<td>Purchases house on completion, and maintains the property</td>
</tr>
<tr>
<td></td>
<td>Consumes the property by dwelling on it</td>
</tr>
</tbody>
</table>

Adapted from Table 7.3a (Ive & Gruneberg 2000)
applies for central offices, although the ownership fragmentation of new offices is not large. Because of the high inflation rates of the past many households invested their savings on real property especially on apartments whereas pension funds and insurance companies invested mainly on retail properties and offices. Traditional investors of UK real property industry like property bond funds, property unit trusts, and building societies have not be developed in Greece until now.

**User:** The user can be the former landowner, households in the case of apartments or firms in the case of offices.

The actors and roles for a typical building in Athens are summarised in Table 4.1.

Two very important roles in the transactions taking place in the development process are those of the agent and financier. We can identify the actors of the development process as the principals since they are directly adding value to the construction product and are engaged in transactions with other principals. They are the ones that bear the commercial risk whereas the agents sell professional advice or act on behalf of principals, without being themselves transactors (Ive & Gruneberg 2000 p 167). Such agents are the real estate agents and consultants of all kinds (technical, surveying). The real estate practise appears to be fragmented and localised, there are however some national scale agents who co-operate with multinational consultancies.

### 4.1.1 Finance for development

The role of the financier is one of the most important in the property development process since it not only affects the building industry in terms of working capital and thus the supply of the built environment but it influences the demand coefficients by financing the owners as well. Finance
Typical Antiparohi Development Process

![Capital Investment and Risk of the Development Process](image)

Conventional Development Process

![Capital Investment and Risk of the Development Process](image)

is needed to cover the development period ("Short-term" or "bridging" loan
to the developer) as well as to purchase the finished development either for
occupation or to hold it as an investment ("long-term" or "funded" loan to the
final owner). The distinction between short term and long term finance in
property development reflects risk. The greater risk is during the construction
period, the least when the building is completed and occupied. There is thus
a difference in the terms and rate of interest charged to the developer and the
final owner (Harvey 2000).

In Greece the financier is the traditional bank, since special types of
banks like clearing or building societies were not formed. Further more
investment banks or organisations have not been developed until recently.
Thus both the developer and the household or firm borrow from banks.

The unavailability of capital of the post war years shaped the building
industry in Athens. The high inflation and interest rates that characterised the
Greek economy until very recently (Appendix A) made borrowing for the
developers very hard because of the high loan rates as well as risky due to
the rising inflation rate. The longer the duration of the loan the greater the
possibility of an increase in the prices of building materials which would
diminish the developers profit. Furthermore a delay in investment in land for
future development could mean that the developer would purchase the land
at a greater price than planned which would diminish his profits even more.
It was vital therefore for the Athenian developer to diminish the needed loan,
as well as the construction period as much as possible. The solution to these
problems was partly given by the Antiparohi method.

By Antiparohi the developer does not need to pay for the land to the
landowner but has to offer an agreed percentage of the finished building. In
that way the landowner becomes at a part financier of the development and
shares in the profits as well as the risks, whereas the developer diminishes his
risks and subsequently only needs finance for the construction costs.
Furthermore it became a common practise, whenever possible, to sell part of the building (apartments or offices) even before the construction commenced that way the developer shares on his risks even more and can have a positive cash-flow from early construction stages. The purchasing of an apartment at an early stage is convenient for the buyer as well because of the ability to make extended modifications which are possible only at early construction stages. This option is offered by the developers since their small size gives them the needed flexibility, especially if they are designers-builders, to make changes at the original plans. The capital investment and risks for the conventional and Antiparohi process are schematically presented in fig. 4.2.

In this process however the developer trades off part of his profit margins for the minimisation of his capital investment and risks, as well as his total control over the project. The landowner will decide to choose the Antiparohi method and thus finance the development and share in the risks, as long as the value of his percentage of the finished building is estimated higher than the value of the land. A landowner who wants to develop his land but lacks the necessary capital will exercise his power over the developer not for profit maximisation but for control over the design. In either case a developer has to be flexible and adaptable. It must be emphasised that even though antiparohi is widely used, development companies, depending on their portfolio, are not always prepared to make these trade-offs and prefer to make investment on land and profit from the rise in land prices as well.
Chapter 5

Present Trends in the Development Industry

The development potential of the affected by the projects areas, and Mesogia in particular, is not a big secret. Households, property development professionals, and companies of all kinds, recognise the emerging market either as consumers of the built environment or investors. Even though there is high level of interest in the market, it is particularly difficult to distinguish the arising trends with certainty due to a number of reasons. The first is the complexity deriving from the interrelation between the local property markets, which act as communicating vessels, in terms of supply and demand. Secondly the property market in Mesogia is still emerging and is characterised by immaturity and uncertainty. Thirdly the development industry is presently undergoing major changes that directly affect the supply of built environment. Therefore the identification of present and future trends in particular, is based on the available data but primarily on the insight of the professionals interviewed.
5.1 Present Property Market Trends

An appropriate index that can be used to identify and quantify market trends is the price of land or buildings. The general trend in the Athenian real estate markets is a constant rise in prices(Fig 5.1)

\[\text{Rise in Real Estate Prices in Athens}\]

\[\begin{array}{c|c|c|c}
\hline
Year & Residence & Office-Retail & General index \\
\hline
1998 & 105 & 110 & 115 \\
1999 & 110 & 115 & 120 \\
2000-2001 & 115 & 120 & 125 \\
\hline
\end{array}\]

Source: Prop Index To Vima [2000 BJ

Unfortunately it was not possible to obtain data for the Mesogia boroughs over a long period of time since the real estate agents did not take interest in them until the construction of the airport was a hard fact. The data presented was kindly offered by the interviewees from their personal files and their tacit knowledge of the market.
According to Sotiropoulou and Atsaves (*Lambert Smith Hampton* SA) the general trend is a constant increase in land prices in the towns of Spata, Markopoulo, Koropi, Peania, Palini, Kantza, Gerakas. As soon as the construction of AIA and AO were announced officially, mean prices in Spata slowly rose by 800% (Fig 5.2) and in central sites prices have now reached an increase of 1500%! This incredible increase in land prices does not however represent the true market price in all cases. The development prospect of the area makes many land owners to ask for selling prices 200-250% higher than the estimated market value even if their property has planning restrictions! Such phenomena prove that even though there are potentially high profit margins, the property market is not matured and thus risky and not easily predictable (Atsaves).

As the excitement of the first time slowly settled down the land the building prices levelled with those of other areas, and the price increase rate
is now restrained in lower levels similar though higher to the increase rates of other areas in the capital (Fig.5.3).

![Increase in Residence Prices within 2000 in the most expensive areas](image)

Increase in Residence Prices within 2000 in Mesogia plain

![Increase in Residence Prices within 2000 in Mesogia plain](image)

Source: Property EFIE, Ta Nea Real Estate 11/2000

Fig.5.3

This is attributed to a variety of reasons according to Balamontis. Firstly because Mesogia is a rather large area comprising many small settlements and towns and consequently a considerable supply of land resources. Secondly the Town Planning Authorities have not announced the final Local Town Plans and land uses for the area. Thirdly the infrastructure investment has not been finished yet and the accessibility of the area has not reached its future potential.
The increase rates for residence prices in Mesogia towns as well as their comparison to some of the most expensive areas are presented in fig 3.6. Several conclusions can be drawn from these graphs. Menayias suggests that the residence increase rates in the popular suburbs appear to be slowing down and attributes this to the land resources supplied by the Mesogia area and the increase of the popularity of the area.

**Types of development**

**Housing:** The traditional small to medium buildings of the small developers.

**Commercial:** The few large estates of 400,000 to 200,000m² where among the first which changed hands. They where purchased by large construction companies in various types of partnerships. These groups of companies have announced the developments of such sites as business, entertainment and commercial parks, even though these projects have not commenced yet. The most important is Kampa estate 400,000m², owned by the largest group of Greek construction companies “Eliniki Tecnodomiki – Aktor-TEB”. It will be developed into a commercial and entertainment park of 230,000m² (£130m investment) the remaining m² are granted to the Borough of Palini as a park. Medium sized sites were purchased by hypermarkets and large retailers especially sites adjacent to Attiki Odos and Marathonos av. (Carrefour, makro) whereas in towns there were small retail developments.

**Offices- Warehousing.** Many companies have purchased sites in order either to build their headquarters in the area of Mesogia or to develop them in the future (Menayias, Levantis). Furthermore large projects like high tech parks, business parks have been announced.
Conclusively the expected two-patterned development (section 3.4.2) appears to be taking place. The towns closer to the Stavros “corridor” and adjacent to AO and Marathonos Av. (Gerakas Kantza, Peania Palini) appear to have price increase rates similar or higher than the expensive popular suburbs. In the vicinity of the airport (Spata) there is a great increase in prices, whereas towns like Koropi which are away from Stavros and not in the direct vicinity of AIA show a lower increase rate. In terms of development type there is also an agreement with the estimated trends.

5.2  Trends In the Development Industry- The New Entrants

The traditional structure of the industry has been slowly changing. The change has started in the last years and was characterised by a growth of the companies and a more consumer and product orientated development process. These changes were slow and almost undetectable and the main reason was the general economic growth and the corresponding maturation of the business activity in general. These maturation effects however are nothing compared to the drastic changes in the industry caused by the anticipated development boom.

5.2.1  Developers

The prospects of future development in Athens and Mesogia in particular have resulted in an unprecedented excitement in the industry and attracted the attention of many others. The result was a "rain" of new entrants who hoped to benefit from the anticipated development boom. The industry suddenly was considered to be a goldmine and served as an
alternative to the stock market that had started to decline. Firms who decided to develop an asset, announced that they were entering the property market! Such unplanned business ventures can hardly qualify as new entries to the development industry.

The most important new entrants were Greek construction groups that diversified in the development industry either by establishing subsidiaries, or by purchasing development firms. The interest of construction firms to the property market results from the profit potential and their desire to diversify their portfolio. These companies aim to obtain a market share of medium and large commercial or office developments. Furthermore they aim at the relatively new market of mega and giga projects that has emerged in the last years. These development "products" even though have been successfully operating all over the world are considered relatively new in the Greek market. There have been two successful attempts of mega projects in Athens (both of foreign investment): Village Entertainment Park (American-Canadian) and Carrefour Commercial Centre (French) (TA NEA [2000 D, E]). The new entrants hope to successfully repeat these "experiments", by capitalising on their knowledge of the market and by "importing" the necessary know-how on development and fund management (Sonae Imobiliaria (Portugal), Klepierre (France)). The big players have started to show and a partnership of that type is that of the largest Greek construction group "Eliniki Technodomiki-Aktor-TEB"(the leading group in Attiki Odos Motorway BOT project) with the Australian Lend Lease which is one of the best known real estate companies worldwide (Blue Water Centre in London). The firm is called Real Estate Development Services (REDS) and has announced the largest project so far in Athens, the development of
400,000 m$^2$ in Mesogia as a commercial-entertainment park an investment of 130 million pounds.

Other smaller construction groups avoided diversification and preferred to form partnerships with development firms that will concentrate in office and commercial space, not necessarily giga projects. Their role is mainly providing finance whereas the development company acts as the developer, main contractor, project manager etc. Such a partnership was formed between "Levantis Constructions" (development firm) and "Pantehniki" (Attiki Odos BOT). The group that way can enter the market without investing in a subsidiary and share in the risks with a firm experienced in the market. The development firm can expand its activities without the corresponding risks of heavy borrowing and benefit from economies of scale.

There is another type of new entrants of analogous size but of a different origin than the construction industry. These are new development companies established by banking groups or insurance groups that usually provide real estate services as well. The examples are numerous: Lamda Development is a member of the Latsis Group of companies and already operates in the UK, France, Luxembourg, Switzerland. EFG Eurobank, also a member of Latsis Group, has founded EFG Eurobank-Properties a provider of real estate services in which Deutsche Bank is the holder of 20%. The National Bank of Greece in a partnership with the large construction firm "Eliniki Technodomiki" formed "Ethiniki Akiniton", a firm which aims to develop and manage the numerous property assets of the Bank. Most of Greek banks have founded real estate service companies and formed alliances of various kinds with large construction firms (Table 5.1).
## Table 5.1

Property Development Subsidiaries Entering Athens Stock Exchange

In 1999-2000

<table>
<thead>
<tr>
<th>Holder</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 NATIONAL BANK OF GREECE</td>
<td>ETHINIKA AKINITON</td>
</tr>
<tr>
<td>2 ALPHA BANK</td>
<td>ALPHA AST. AKINITA</td>
</tr>
<tr>
<td>3 EFG EUROBANK, LAMDA DEVELOPMENT, DEUTSCHE BANK</td>
<td>EFG PROPERTIES</td>
</tr>
<tr>
<td>4 AGRICULTURAL BANK, THEMELIODOMI(con), ENTECHNOS (con) ANASTILOTIKI (con)</td>
<td>THEA</td>
</tr>
<tr>
<td>5 BARBALIAS(dev), AGRICULTURAL BANK, ERNST&amp;YOUNG FINANCE</td>
<td>BETA</td>
</tr>
<tr>
<td>6 LATIS GROUP</td>
<td>LAMDA DEVELOPMENT</td>
</tr>
<tr>
<td>7 ELINIKI TECNODOMIKI(con), LEND LEASE Int.(dev)</td>
<td>REDS</td>
</tr>
<tr>
<td>8 ELINIKI TECNODOMIKI (con)</td>
<td>TECHNO</td>
</tr>
<tr>
<td>9 EL TECNODOMIKI, AKTOR, TEB, ATTIKAT (con)</td>
<td>MESOGEA HOLDINGS</td>
</tr>
<tr>
<td>10 TECHNIKI OLYMPIAKI (con)</td>
<td>NEWMARK HOMES (amer)</td>
</tr>
<tr>
<td>11 TECHNIKI OLYMPIAKI</td>
<td>PORTO KARAS</td>
</tr>
<tr>
<td>12 GEK-TERNA(con)</td>
<td>HERMES</td>
</tr>
<tr>
<td>13 GEK-TERNA, INTRAPAR (KOKALIS GROUP) (con)</td>
<td>KERKOPAS</td>
</tr>
<tr>
<td>14 ASPIS BANK, GEK, INTRAPAR(con)</td>
<td>ASPIS ESTIA</td>
</tr>
<tr>
<td>15 PIREUS BANK, GEK-TERNA, AEGERK(con)</td>
<td>GEKA</td>
</tr>
<tr>
<td>16 PIREUS BANK, KAROYZOS</td>
<td>PICAR (mts PROJECT)</td>
</tr>
<tr>
<td>17 PRODEFIN HOLDIGS</td>
<td>REDFIN</td>
</tr>
<tr>
<td>18 GNOMON-GEKAT (office furniture)</td>
<td>ESTATER</td>
</tr>
<tr>
<td>19 AVAX-J&amp;P(Hellas)-ETETH(con)</td>
<td>3T</td>
</tr>
<tr>
<td>20 J&amp;PHELLEAS (con)</td>
<td>J&amp;P KTIMATIKI</td>
</tr>
<tr>
<td>21 GROUP IOANOU-LEDGIS(con)</td>
<td>3D DEVELOPMENT</td>
</tr>
<tr>
<td>22 MECHANIKA(con)</td>
<td>MECHANIKA AKINITA</td>
</tr>
<tr>
<td>23 ALTEC(computers), INTERAMERICAN(insurance)</td>
<td>INVESTOUR</td>
</tr>
<tr>
<td>24 PLAISIO COMPUTERS, GERARDOS</td>
<td>PLAISIO AKINITON</td>
</tr>
<tr>
<td>25 ALPHA ALPHA HOLDINGS</td>
<td>ESTRELIA TOYRISTIKI</td>
</tr>
<tr>
<td>26 ALPHA ALPHA HOLDINGS</td>
<td>ANNEX</td>
</tr>
<tr>
<td>27 SARADOPOULOS-BIOTER(con)</td>
<td>KTISIS 2000</td>
</tr>
<tr>
<td>28 BIOTER(con)</td>
<td>KEA</td>
</tr>
<tr>
<td>29 BITROS(Materials, con.)</td>
<td>BITROS KATASKEYASTIKI</td>
</tr>
<tr>
<td>30 DOMIKI CRETE(con)</td>
<td>DOMIKI AKINITON</td>
</tr>
<tr>
<td>31 BIS, PLAZA Int. (dev)</td>
<td>HELIOS PLAZA</td>
</tr>
<tr>
<td>32 DARING(con)</td>
<td>DARING AKINITA</td>
</tr>
</tbody>
</table>

Abbreviations: dev.: development company
con.: construction company
amer.: American

Source: Kathimerini [2000 A]
The involvement of the banks in the property development market is multidimensional since they want to profit in every possible way. The banks recognised the emerging market of mega projects and the corresponding finance demand from the developers (diversified construction groups). Since they have already financed these construction groups for PFI projects (recently introduced in Greece) they already have bonds with them and know their business status. Furthermore the banks themselves own many assets which they hope to develop, and profit. They also know that many of their clients will "catch" the development or real estate investment fever. They plan to accommodate the needs of developers or consumers of development in terms of finance and of services associated with the business. Furthermore these banks offer new types of finance to the developers as well as the consumers like real estate leasing (a type of leasehold).

Taking a step back to view the big picture, we see that parallel to the traditional design & build model we can distinguish new trends forming like the consulting financier bank model. The banking group undertakes the roles of the financier and consultant of both developer and buyer whereas in the past it was merely the financier (Fig 5.4 B). However in some cases (Ethiniki Akiniton) the bank acts as a developer in various forms of partnership with a diversified construction group. The banking group vertically integrates in all the associated with the development process services except the actual construction and design of the product which are the responsibility of the diversified construction group (The developer bank
fig. 5.4 A).

Even though these partnerships are still young and don't have much to show for, they could dominate the market in the form of the developer who offers a package deal “Design Build and Finance” to clients: all needed services (real estate, property management, legal consultancy) as well as finance (Levantis). On the other hand the outcome of such a production process would be rather standardised which is acceptable for offices however unacceptable for houses according to Menayias. The Greeks prefer to have a say on the design of their home and a person not a firm to deal with and that is demonstrated by the common practise of purchasing a house in early construction phases in order to alter the design to their taste. In Menayias’ perspective these types of complex partnerships could not demonstrate the needed flexibility and therefore when it comes to houses the
traditional developers have a competitive advantage that cannot be threatened by economies of scale.

For the time being the small developer is not directly threatened by the new entrants since they are involved in corresponding project sizes rather than emphasizing on the repeated construction of a smaller standardised building product (UK house builders). It is the medium size firms that face the greater problem, since they are active in the market share of medium-large projects. As it can be seen in Fig.5.5 these firms are “stuck” in the middle and sooner or later they must decide either to differentiate their product or enter some form of partnership in order to compete with the new entrants and benefit from economies of scale.
5.2.2 Client-Building Owner

The aforementioned large projects aim either on corresponding sizes of clients (companies, pension funds, insurance companies, property bond funds, and foreign investors) or on medium sized clients who benefit by the high concentration of commercial or business activity. In either case these clients are interested in retail or offices and not in housing projects (Fig.5.5). The legislation that allows the establishment of Property Bond Funds in Greece is on the way. Presently almost all of the aforementioned bank subsidiaries have announced the foundation of property bond funds. The existence of such funds, which will own numerous assets, minimising thus the investor's risk (portfolio risk management) will attract investment in real estate property.

Further investment interest is expected by the imminent reduction on real estate taxation. Presently property in Greece is heavily taxed since there are more than 30 different types of taxes. The ownership transfer tax in particular is one of the highest in Europe (Table 5.2) and it is calculated as a percentage of the property “objective” value. The tax authorities issue periodically a catalogue of property objective values for every area and these prices are considered to be the estimated selling prices.

According to Paradias (president of the Greek property owners organisation) the ownership transfer tax (OTT) should be at least 2,75%-3,25% in order to obtain the mobility of other European real estate markets (To Vima [2000 A]). The anticipated reduction in OTT is expected revitalise interest in the property market.

The foreign investors have not shown great interest in the Athenian property market in the past, partly because of the unavailability of large well
### Table 5.2 Ownership Transfer Tax in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax As A Percentage Of Property Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>11%-13%</td>
</tr>
<tr>
<td>Belgium</td>
<td>6%-12,5%</td>
</tr>
<tr>
<td>Portugal</td>
<td>8%-10%</td>
</tr>
<tr>
<td>Italy</td>
<td>3%-7% plus 3%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>5%-8%</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>1,4%-8%</td>
</tr>
<tr>
<td>Holland</td>
<td>6%</td>
</tr>
<tr>
<td>Spain</td>
<td>6%</td>
</tr>
<tr>
<td>Chech Republic</td>
<td>5%</td>
</tr>
<tr>
<td>France</td>
<td>4,89%</td>
</tr>
<tr>
<td>Finland</td>
<td>1,6%-4%</td>
</tr>
<tr>
<td>Germany</td>
<td>3,5%</td>
</tr>
<tr>
<td>Sweden</td>
<td>1,5%-3%</td>
</tr>
<tr>
<td>Norway</td>
<td>2,5%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>2%</td>
</tr>
<tr>
<td>Denmark</td>
<td>0,6%-1,2%</td>
</tr>
<tr>
<td>UK</td>
<td>1%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0,13%</td>
</tr>
<tr>
<td>Ireland-Poland</td>
<td>none</td>
</tr>
</tbody>
</table>

Source: To Vima [2000 B]

managed properties and partly because of the immaturity of the property market and the subsequent risk involved in investments. The market matures however and soon the risks will be minimised with products like the property bond funds with which they can invest more safely in a market that offers a high return on capital.

Furthermore as the interest rates paid on deposit have fallen (currently 3,2%) investment in real property is advantageous. The return on capital has been for the period 1997-2000, 13-16% for housing and 15-17% for commercial and business space (EFG, Eurobank Properties, TA NEA [2000...
Smaller clients like households benefited from the fall in interest rates. Housing loans have increased enormously the last years, by 27% for 1999, and 30.3% for 2000 (Bank of Greece, TA NEA [2000 C]).
Chapter 6

Conclusions – Discussion

The development industry in Athens is undergoing a multidimensional change. The driving factors for that change are i) the new infrastructure investment ii) Economic factors associated with the economic development of Greece iii) Demographic and sociocultural factors associated with quality of life.

In terms of demand for properties there are two identified development trends in Athens. The first is central site redevelopment and construction of commercial properties (retail, offices), which is caused by the increased accessibility of the city centre due to the construction of Athens metro. However due to the fragmented ownership of central buildings, such ventures can prove problematic for the typical small Greek developer. The second is urbanisation of peripheral towns and those located in Mesogia plain in particular because of the construction of Attiki Odos Motorway and Athens International Airport. These areas are relatively underdeveloped and the land prices are cheaper than those in the congested suburbs, therefore they are ideal residence locations for middle-income households. Furthermore the few remaining properties available for large-scale development (commercial parks, a new “building product” in Athens) are located in Mesogia.
The analysis of development effects in an area and the identification of the anticipated trends (in terms of size, and type) is a complex multidimensional problem (chapters 2 and 3). In the case of Mesogia plain the interrelated dimensions that best describe future trends are car accessibility, size, and time of development (Fig.6.1).

The present trends of the property market (chapter 5) coincide with the predicted short-term tendencies whereas the announced future projects with the long term.

Notwithstanding this development euphoria, the industry professionals are concerned due to the large number of inexperienced new entrants. The constant rise in land prices and the magnitude of the development activity announced are not justified by the present demand. The development effects are expected to take place gradually over a minimum period of 20 years.
However the market is characterised by the illusion of a quick and easy profit prospect. Furthermore many projects appear hasty and unplanned. For example, the construction of numerous shopping centres and parks have been announced since 1999 even though in this study they are considered as long term effects (in fig.6.1) due to the “10 minute rule” (consumers making regular convenience purchases are not prepared to travel more than 10 minutes therefore they should live in the local area (3.2). The population increase in the plain is estimated to take place gradually until 2020, therefore the targeted consumers of the announced commercial parks in Mesogia have not moved there yet! Most of these project proposals however have either been withdrawn or postponed therefore it seems that the developers have recognised the sloppiness of their ventures. These signs of immaturity in the market have lead many experts to expect a development boom while the excitement for the 2004 Olympic Games lasts, and a recession immediately afterwards.

Partly due to the new conditions in terms of demand the roles and actors of the development industry change. The role of the developer is not undertaken exclusively by the traditional small family company. Large construction groups and banks have identified the profit potential and are entering the real estate market independently or in partnerships of all kinds. In parallel to the traditional design and build system (Ch.4) new forms are emerging like the developer financier bank and the consulting financier bank (Fig.6.2). Even though all these initiatives are in an early stage and the forming trends are not clearly defined several conclusions can be reached.
The market leadership of the traditional small developer is coming to an end. Even though he is "safe" for the time being, the new entrants threaten him in the long run. Although large firms are not concerned with small buildings presently, they will possess great power over prices and they could drive small firms out of the market. The construction of a large housing project in an area could drive down prices for all houses in the area thus minimising small developer's profit. In the case of a recession many smaller firms won't be able to survive. Furthermore large developers gained a competitive advantage over small firms because of their increased liquidity that allowed them to invest on land and profit from the rise in land prices.

On the other hand one should take under consideration the market experience of the traditional companies and their ability to react on competition in comparison to the lack of experience of the new entrants. It is very likely that family firms will be obliged to operate locally and on the
Market Share of Developers

![Diagram showing market share of developers]

Market share of small buildings for small clients (Fig. 6.2) with minimum profit if they want to survive.

The medium size firms are directly threatened since the new entrants are aiming in their market share. As it can be seen in Fig. 6.3 these firms sooner or later must decide either to differentiate their product or enter some form of partnership in order to survive and benefit from economies of scale. The typical fragmented nature of the Athenian development industry will change significantly in the future since the number of development companies will decrease in the future due to the fall in the number of small firms.
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23. TO VIMA –Economy [2000 A] *The ownership transfer tax restrains development boom* May 14

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**Websites**

http://minenv.gr (Ministry of Environment)

http://aia.gr (Athens International Airport)

http://statistics.gr (National Statistics)

http://ametro.gr (Athens Metro)

Appendix A

Maps
Map B Mesogia Plain
Appendix B

Overview of the Greek Economy
The recovery in the economic activity initiated in 1994 continues at a strong pace; in 1999 real GDP growth in Greece exceeded the EU average for the fourth consecutive year. The consolidation of the growth phase is expected to affect the labour market positively; the unemployment rate started to fall in 1999 and is expected to follow a downward path in coming years. Greece made further progress in 1999 in improving its budgetary situation, as the general government deficit fell to 1.6% of GDP, below the target set in the convergence programme and the government debt fell to 104.4% of GDP. (European Commission [2000] European Economy, Directorate-General for Economic and Financial Affairs 2000 Number 70)

Graph 2.1 Greece - annual inflation rate (HICP) (percentage change of monthly index on a year earlier, M/(M-12))

Source: Eurostat.
Graph 2.6  Long-term interest rates
Greece and EUR-11 ( monthly averages )

Source : Commission services.

Table 2.5

Greece : updated convergence programme projections for GDP growth, government surplus/deficit and debt

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP-growth, annual % change</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL</td>
<td>3.5</td>
<td>3.8</td>
<td>4.1</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>General government net lending (+)/borrowing (-), as % of GDP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL</td>
<td>-1.5</td>
<td>-1.2</td>
<td>-0.2</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>General government debt, as % of GDP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EL</td>
<td>104.2</td>
<td>103.3</td>
<td>99.5</td>
<td>98.0</td>
</tr>
</tbody>
</table>

Source: Updated convergence programme of Greece; see also Annex table C.3.

Appendix C

Interviewees
1) **Lambert Smith Hampton SA- Real Estate Consultant**

George Atsaves  (Real Estate Consultant)
Maria Sotiropoulou  (Real Estate Consultant)

2) **Levantis Constructions – Property Developer**

Frangiskos Levantis, Pantelis Levantis - Partners

3) **Menagias Ilias -Property Developer-Civil Engineer**

Menagias Ilias -Chief Executive

4) **Kekropas- Property Developer**

Nikos Balamontis – Executive

5) **Benakopoulos Developments- Property Developer**

Konstantinos Benakopoulos -Chief Executive
Erika Benakopoulou-Chief Civil Engineer
Appendix D

Urban Growth In Athens
The structure of urban development in Athens has its roots in the period after 1922 when 1.3 million refugees from Asia Minor arrived in Greece and population in greater Athens was doubled (Leontidou 1989). It was during this period that the main legislation constituting the formal basis of state policy for spatial development in modern Greece was enacted. The legislation was conceived under the exceptional conditions experienced in the country, housing needs were enormous and economy was devastated by the wars. The Town Planning Acts of the period followed a logic based on limited availability of capital and the predominance of the small landowner (Leontidoy 1989). After the end of WW II and the Greek civil war (1944-49) the country was facing enormous starvation problems and housing demand incomparable to any other European country. These acute problems along with the intensive socio-political conflicts which continued until 1974, resulted in an exceptional legislation framework which was comprising responses to specific crises rather than a consistent urban development strategy.

In the post war years the economy of the country was recovering slowly. However because of the unstable political conditions Greece didn’t attract major foreign investment and because of the unavailability of Greek capital, growth and economic development were slow. Due to the extreme problems, state policy attempted to liberate properties from development obstacles (by weakening the planning control especially in Athens), as well as mobilise small income savings. The major elements that led to the present morphology of the agglomeration of Athens were:

- **The enormous population increase** (Figure 1)
- **Horizontal ownership**: The distribution of ownership of multi-storey apartment buildings by floors or apartments while preserving in common use the service areas of the building. *Horizontal ownership* has affected enormously the development pattern of modern Athens, and contributed to the status of fragmented ownership that presently characterises the vast majority of multi-storey buildings of all type (retail- offices- houses). It has also contributed to the spatial expansion of the city. Due to the large number of owners and the resulting complexity in interests involved, along with the unavailability of large scale capital, redevelopment of central old properties became almost impossible.
<table>
<thead>
<tr>
<th>Year</th>
<th>Population in absolute nos</th>
<th>% of total Greek population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>453042</td>
<td>8.19</td>
</tr>
<tr>
<td>1928</td>
<td>802000</td>
<td>12.93</td>
</tr>
<tr>
<td>1940</td>
<td>1124109</td>
<td>15.30</td>
</tr>
<tr>
<td>1951</td>
<td>1378586</td>
<td>18.05</td>
</tr>
<tr>
<td>1955</td>
<td>1621000</td>
<td>20.42</td>
</tr>
<tr>
<td>1961</td>
<td>1852709</td>
<td>22.18</td>
</tr>
<tr>
<td>1965</td>
<td>2133000</td>
<td>24.89</td>
</tr>
<tr>
<td>1971</td>
<td>2540241</td>
<td>29.00</td>
</tr>
<tr>
<td>1975</td>
<td>2860000</td>
<td>31.79</td>
</tr>
<tr>
<td>1981</td>
<td>3027284</td>
<td>31.08</td>
</tr>
<tr>
<td>1991</td>
<td>3096775</td>
<td>30.19</td>
</tr>
</tbody>
</table>

*Source: Leontidoy (1991)*

**Fig. 1**

- **Antiparohi method (Exchange deal):** The landowner exchanges his land for an agreed percentage of the finished building. This method enabled developers to diminish their initial capital and operating capital and landowners to acquire new modern flats or offices which would produce an income, without investing a penny! Building industry grew enormously and although highly fragmented became one of the major industries of the Greek economy. It also contributed to the aesthetic destruction of the city since almost all the old neo-classical buildings of the city centre were demolished and low quality multi-storey buildings replaced them.

- **Long term rent control on existing buildings (enikiostasio)** Which led to a drastic reduction of available building assets and contributed to the expansion of the city.

- **Lack of state development plans combined with concessions to the building industry.** The state demonstrated tacit acceptance and tolerance of the illegal construction phenomena which occurred in undeveloped areas in the peripheral of Athens. The legalisation of vast unauthorised built-up areas, which occurred
periodically, led to the mosaic of uses that is present in many areas of Athens. The state did not plan the land uses prior to the development of the areas, it rather accepted what was arbitrary built by legalisation.

- **Limited government infrastructure investment.** Investment in transport infrastructure usually came to heal acute problems. However because of the uncontrolled urban sprawl the interventions were limited due to the lack of undeveloped land in the city centre.

These elements contributed to the present form of the city the major characteristics of which are:

- **Heavy traffic** due to the insufficient transport network
- **Low quality of life** due to air pollution, the scarcity of public parks and congestion.
- **Mixed activities** especially in the centre.
Increase rate(%) 
(-15)→(-5) 
(-5)→(5) 
5→20 
20→70 
70→140 
140→300 

Town Plan Limits 
Prefecture of Attica 
Other Prefectures

Source: Ministry of Environment [http://minenv.gr]
PARNITHA MT
PENTELI MT
IMITOS MT

Source: Ministry of Environment  [http://minenv.gr](http://minenv.gr)

Fig. 3
Fig. 4

Fig. 5