



National Technical University of Athens - Urban Environment Laboratory
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**Basic planning & design principles for the creation of
the Metropolitan Green Park
at the former Hellinikon International Airport of Athens**

Summary of research findings and key proposal points

Research project commissioned by
the Local Union of Municipalities and Communities of Attica
&
the Cities of Alimos, Argyroupoli, Glyfada and Hellinikon

Athens, January 2011

Executive summary

Basic planning and design principles for the creation of the Metropolitan Green Park at the former Hellinikon International Airport of Athens is a research project conducted in 2010 by the National Technical University of Athens Urban Environment Lab. It was commissioned by the Local Union of Municipalities & Communities of Attica, an association of 122 members serving 4.5 million citizens, as well as the four Cities that include the former airport area in their administrative boundaries.

The former International Airport of Athens, a 626-Ha area, is an area with several unique assets of critical importance to the Greater Athens Area residents. It is:

- **The largest, publicly-owned, urban, coastal area in Attica**, considered one of very few such prime areas left along the coastline of Europe.
- **The only remaining large-scale open space of the Greater Athens Area** that can address the dramatic shortage of green, open and public spaces in Athens, albeit partially, being just 1/10 of the green area that the Greater Athens Area actually needs. The creation of a green park across the whole area adds just 1.98 m² of green space/resident to the extremely low 2-2.5 m²/resident that Athens demonstrated 15 years ago, in 1994. This has been one of the lowest rates in Europe. It has been so well before the use of 1.23 m² of open space/resident for the Olympics infrastructure and subsequent private developments, the expansion of urban sprawl across former forest and agricultural lands, and the 2007 destructive wildfires of Attica.
- **The only remaining coastal zone of Athens that can provide public access to 3.5 km of the Athens waterfront**, where more than 20 km are inaccessible or accessible only by paying user fees.
- An area with **a particularly extensive and historically important building stock of 480 existing buildings**. It can provide more than 360.000 m² of floor areas, or 75 percent of the existing stock, to accommodate needs of the Greater Athens Area residents, while sustaining nearly 600 Ha of open space.
- An area about **15 min far from the Syntagma square, 30 min far from Egaleo, Peristeri and Piraeus**, and less than 1 hr far from almost the whole metropolis, by using the existing fixed rail, metro and light rail systems.
- An area, **56% percent of which (250 Ha) can open to the public immediately**, and the other 44% in phases after the necessary institutional arrangements.
- An area, the assets of which can provide the basis for creating a **high-quality park at reasonable and affordable construction and operational costs**, based on European standards and costs (as in Tempelhof, in Berlin, Maurice Rose in Frankfurt Am Main, and the Royal Parks in London). Rather than the €400-700 million budget presented so far, €50 million is enough to begin major green works and restorations in the area readily available, and €100 million is enough for the whole project. Accordingly, the annual operating costs amount to €5 million annually upon the completion of the first phase, and to €10-12 million for the completed park, including maintenance and safety costs.
- An area, **the revenues of which just from the use of the Olympic venues within it since 2005 (€75.8 million), could have already financed more than half of the park** and in the long run could contribute to the completion and operation the whole system of urban parks across Athens. Moreover these funds could potentially reach €1 billion if used as national financing (25%-75%) in the National Strategic Reference Framework.

Thus, the area is not just another empty lot for the development of mega-projects or upscale housing and other uses that the city and the regional economy do not actually need (Figures 1 & 2). Further, the international research and experience on such megaprojects over the past 20 years indicates that similar investments have often adversely affected various cities, regional economies and state finances, an important fact to be taken into account when planning for Athens, especially in a time of crisis.

The findings of this research:

- **Demonstrate the reasons why the Hellinikon Metropolitan Park is indispensable for the residents of the Greater Athens Area, feasible and inexpensive.**
- **Suggest a basic strategy forward, with concerted actions, 6 of which can start taking place immediately.**
- **Outline a set of short- and long-term phases for the creation of the Hellinikon Metropolitan Park, as a high-quality and inexpensive Green, Culture & Recreation Park, based on European standards and European-level costs.**

In what follows, we briefly present recent developments and our methodology. We proceed with our findings addressing seven core questions, along with critical and immediately executable actions, a medium- and long-term strategy.



Figure 1. The site of the former International Airport of Athens, Hellinikon, before the closure of the airport. Source: Hellenic Military Geographical Service (n.d.).



Figure 2. The site of Hellinikon after the Olympic Games of 2004 (2009). Source: Google - wikimapia (2009-2010).

Introduction: Recent developments, data and methods

Privatization of state assets: The government has prepared a draft privatization plan for the divestment of state assets and enterprises. The plan, which will be adopted by end-year [2010], identifies a number of state assets targeted for partial and full privatization, including real estate, with a view to raise at least €7 billion over the next three years with at least €1 billion in 2011. A full inventory of state property will be completed by mid-2011 to assess the potential for higher medium-term targets. The Special Secretariat for Privatization within the Ministry of Finance will be instructed to proceed using different methods, as justified by the type of asset involved, including direct sales, auctions and concession agreements.

Government of the Hellenic Republic. *Greece: Letter of intent, memorandum of economic and financial policies, and technical memorandum of understanding*, 2010, December 8, p. 15.

By February 2011, the target of the privatization plan for state assets and enterprises has been raised to €50 billion in the period 2011-2015, with Hellinikon being its top priority (Interministerial Committee for Asset Restructuring and Privatizations, 2010, December 16; International Monetary Fund, 2010, December, pp. 15-16 & 52; see also Kitsantonis, 2011, February 11; Yannopoulos, 2011, February 20). In the past six months the area has been promoted as the top Greek state-owned real estate asset up for sale, privatization, and/or long-term concessions. Actually, since 2004 it has been promoted as “the largest planned real estate development in Greece” (Hellenic Center for Investment, Invest in Greece Agency, 2004, April). Over the past few months, in the framework of the Memorandum of Economic and Financial Policies co-signed by the International Monetary Fund (IMF), the European Commission, the ECB and the Greek state (Government of the Hellenic Republic, 2010, December 8), and the Memorandum of Understanding co-signed by the Greek state and the Government of the State of Qatar (Government of the Hellenic Republic & Government of the State of Qatar, 2010, 23 September), investors, such as the sovereign-wealth fund of the Qatar Investment

Authority, have expressed interest in acquiring and developing the area, with uses such as luxury resorts and marinas for luxury yachts, as well as a golf course, a convention center, a small private airport and a casino.

In December 2010, the Interministerial Committee for Asset Restructuring and Privatizations (ICARP) established a Special Purpose Vehicle, Hellinikon SA, to develop the area, despite legislation designating the area as primarily green space upon the closure of the airport and pledges by the current and the previous governments for a metropolitan park from 590 Ha to 626 Ha—with limited or entirely without new private building construction (ICARP, 2010, December 16). While there is no analysis of the impacts of such kinds of development on the residents of the region and the regional economy, there is no democratic decision-making process, no consideration of the impacts of similar privatization processes and the effects of mega-projects internationally, no masterplan and no business plan, the area has been prioritized as the first state asset included in fast-track privatization and licensing procedures, along with extended rights, investment benefits and privileges, tax breaks, and long-term binding decisions that secure investments from risks (e.g., Government of the Hellenic Republic & Government of the State of Qatar, 2010, 23 September, article 2, para. 1-2).

While proposals for privatizing the area are not new, in the past decade, the predominant debates focused specifically on the creation of the Hellinikon Metropolitan Park. Thus, various proposals and government pledges aimed at: maintaining the public ownership of the area – or of the largest part of it; and, establishing – entirely – or primarily – public access and public uses by making a metropolitan park. Over the years debates have generally revolved around practical issues, variegated theoretical and political assumptions about the city and the public interest, and, rather often, scientifically unsubstantiated myths. Among the key issues have been: the size of the park and its necessity to the Greater Athens Area, its relation to the Athens agglomeration and its residents, the opportunity cost of making a metropolitan park at Hellinikon, and its construction and operational costs.

This research project analyzes a variety of primary and secondary cross-disciplinary data from multiple sources at multiple scales, from the local, to the urban, the regional, the European and the international scale. It employs a variety of quantitative and qualitative methods to analyze these data and triangulate its findings. It develops along five axes. First, it documents the historic and contemporary planning, institutional and technical characteristics and conditions of the former international airport area and the coastal zone. Second, it examines its relation to the region and evaluates the various proposals about its future. Third, it examines recently published economic data from the operation of uses and activities within the former airport and the coastal zone during the past six years, as well as the technical and economic aspects of recent scenarios regarding the creation of the park. Fourth, it analyzes international precedents and synthesizes insights regarding former airports redevelopment, as well as the creation and day-to-day operation of large-scale urban green spaces in Europe and the USA, along with comparisons of their costs. Fifth, based on two earlier, rigorous architectural-planning studies, it expands into the current state of affairs, in order to shed light into current developments, as well as into the rationale and characteristics of new or recurring proposals. It concludes with a proposal on basic planning directions and guidelines, land uses, qualitative characteristics of the park, construction and operational costs, and connections of the Hellinikon Metropolitan Park to the Greater Athens Area.

1. Is the Hellinikon Metropolitan Park necessary?

It is unfortunate indeed if we claim that we can afford to say “no” to any park that we can still create in the Greater Athens Area, which provides just 2-2.5 m² of green space per resident and has wasted 1.23 m² of publicly-owned open space per resident for the 2004 Olympics infrastructure and subsequent private developments.

According to comparisons of indicators among 15 cities by the Hellenic Ministry for the Environment, Physical Planning and Public Works (MEPPPW) (1994) more than 15 years ago, Athens displayed the second lowest rate of green space per resident (2.55 m²/resident). Paris (8.5 m²/resident), London and Rome (9 m²/resident), Zurich (10 m²/resident), Berlin (13 m²/resident), Warsaw (18 m²/resident), Wien (20 m²/resident), Amsterdam and The Hague (27 m²/resident), Rotterdam (28 m²/resident), Bonn (35 m²/resident) and Washington DC (50 m²/resident) demonstrated from 3 to nearly 20 times higher rates (MEPPPW, 1994). **The findings of this study indicate that the allocation of the whole area of the former international airport and the coastal zone to the creation of a green park would just add 1.98 m² of green space per resident to the Greater Athens Area, resulting at best to nearly 4.5 m² of green space/resident (Figure 3).**

We thus need to realize that it is not just the 530 Ha of the former airport area and the 98 Ha of the adjacent coastal zone that the city needs. Rather, it is the required 5.000 Ha, or ten-times more space that the city needs so that it acquires what has been termed an “acceptable level of green space” – a level also specified by Greek planning standards, the Athens strategic plan and laws in effect for the past 30 years, since the 1980s. This standard was established well before the successive expansions of the city with the production of urban sprawl across former forest and agricultural lands in Mesogeia, in Thrasio and on the slopes of the surrounding mountains; well before the accelerated loss of urban open spaces, either designated by law or potential green spaces, especially since 2004 for the Olympics infrastructure and the subsequent post-Olympics private developments; and, well before the 2007 extensive and destructive wildfires of Attica. Even that “acceptable” level of green space would remain significantly lower than the European mean.

At the same time, we need to take into account that the creation of the park also provides public access to 3.5 km of the Athenian coast – while about 20 km are inaccessible, or accessible only by paying entrance and user fees.

Further, instead of the proposals to demolish the existing building stock (480 buildings) within the area to make way for new upscale development projects, the restoration and reuse of more than 360.000 m² can accommodate uses addressing critical social needs of the residents of the Greater Athens Area.

Thus, despite the extensive documentation of several critical challenges facing the city resulting from the lack of public, open, green spaces and public and social uses, such spaces of various scales and sizes, both across the Greater Athens Area and along its coast, were drastically reduced rather than increased over the past decade. The present crisis and the political choices addressing it accentuate the need to move towards significantly different directions, for the Greater Athens Area residents, the region and the regional economy.

2. Why should the metropolitan park be created at Hellinikon, and not elsewhere, for example in the underserved western areas of Athens?

For five basic reasons: lack of metropolitan-scale spaces elsewhere and privatization trends of smaller-scale open spaces where they are most needed; need to protect the remaining three potential metropolitan-scale spaces in Hellinikon, Goudi and Ilion; accessibility from the Greater Athens Area by fixed rail; contribution to the creation of the sole potential extensive green zone adjacent to the urban fabric; and, significant environmental effects on the city.

First of all, due to the lack of equally distributed large-scale available spaces across the Greater Athens Area. Both policy makers and urban planners acknowledge that the role of a metropolitan park – and this is why it is called “metropolitan” – is different from the role of a local or neighborhood park. Local parks, which can still be created on the very few available plots of underserved neighborhoods, are necessary in combination with metropolitan parks, not in their place.

Further, scenarios in the framework of privatization, proposing the demolition of housing blocks across the underserved areas of the city to create small parks with revenues from sales of parts of Hellinikon are highly questionable on practical, historic and theoretical grounds. It should be noted that it took ten years of debate on whether one building in front of the New Acropolis Museum should be demolished, with the demolition not eventually taking place. Special attention should be given to the fact that the negative effects of urban renewal and displacement of the past century in cities of the USA and Europe have been extensively documented and widely criticized internationally, because of their adverse effects on residents in underserved areas and major issues of democratic legitimation. Thus, before embarking on exploring the aforementioned scenarios, the state system can protect and green all the remaining available spaces at multiple scales across the Greater Athens Area. Upon successful completion of this task, we could perhaps discuss such scenarios, as long that the residents of significant numbers of city blocks express the willingness to relocate by choice, rather than become displaced by force. In the scenario that relocation by choice was the case of residents of whole city blocks, their fair and timely compensation by the state should also be safeguarded – especially given precedents of eminent domain compensation by the state pending for decades in Greece. And of course, ensuring that the resulting open areas would eventually turn into public pocket or neighborhood parks would also be a challenge given the opposite trend of the past decade across the Greater Athens Area.

Second, and as a corollary, these conditions further stress the need to protect the last three metropolitan-scale areas within the Greater Athens Area that remain available – one existing and two potential green areas. Athens already has one metropolitan park, the **Park of Environmental Education & Awareness “Antonis Tritsis”**, a 100-Ha park in northwestern Athens. It still has the possibility of acquiring another two metropolitan

parks, in **Hellinikon** and **Goudi**, somewhat addressing the green space deficit and altering the trend towards irreversible losses of public, open and green space. In Goudi, however, a loss comparable to that planned in Hellinikon has already taken place. By now, only 90 Ha of exclusively green space remain out of the original 350 Ha. Thus, it is critical to protect Hellinikon, Goudi, and Antonis Tritsis. At the same time it is necessary to start **medium-scale green projects** in **Daphni, Galatsi, Haidari, Elaiona, Drapetsona** and the **Faleron Bay**.

Neither does the Hellinikon Metropolitan Park substitute these projects, nor do these projects substitute Hellinikon. The original strategic plan vision of the 1980s for an Athenian urban space that caters to social needs in the saturated high-density capital should not be abandoned. Especially today, that the capital has nearly doubled, the mountains have been deforested by wildfires and illegal construction, and that the Olympics legacy, instead of leading to green regeneration and upgrading of the urban fabric, led to a significant reduction of the public open spaces of the city (Figure 3).

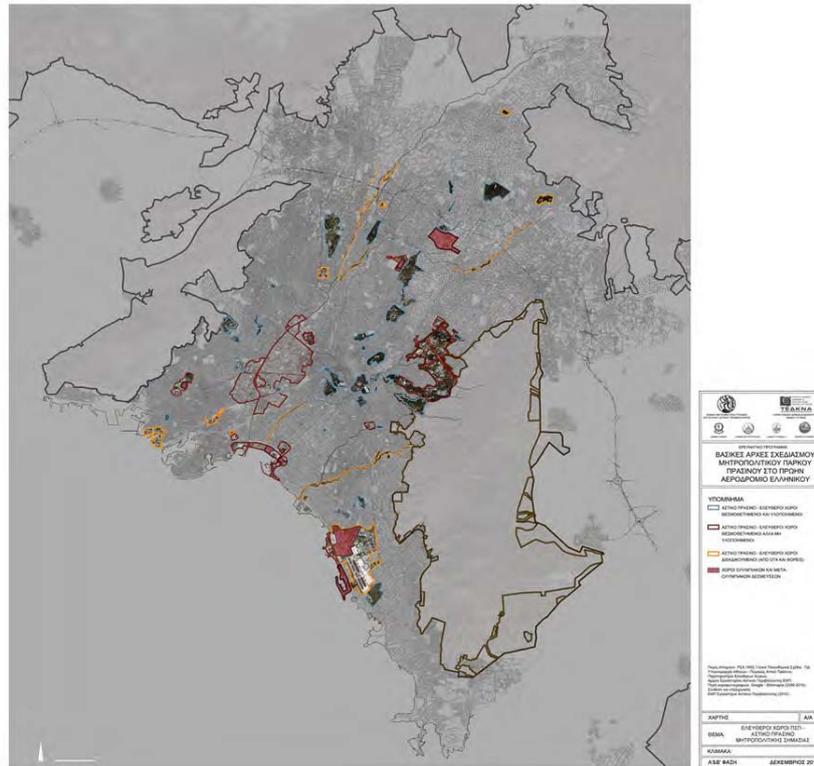


Figure 3. Metropolitan urban green and/or open spaces of the Greater Athens Area: Designated and Implemented spaces (blue), designated, but non implemented or occupied spaces by other uses (red), and potential spaces, claimed by local and regional citizens' movements (orange).

Source: NTUA (2010).

Therefore, on the one hand the dispersed and scattered local parks, entirely necessary in all respects, cannot substitute, but they can rather complement the future green repository of Hellinikon, with its critical mass. On the other hand, given the existing conditions in Goudi, Hellinikon is the last open space of metropolitan size that the capital still possesses.

Third, because Hellinikon is readily accessible from almost the entire metropolis. Many voice concerns that the location of the Hellinikon Metropolitan Park is not accessible to the residents of the Greater Athens Area. **However, the Athens fixed guideway transit systems, metro and light rail, resolve these concerns in practice. By using the existing metro and tram networks – the Hellinikon metro station in the park is scheduled to open in 2011 – the park is 15 minutes away from the central Syntagma square, and 30 minutes away from Egaleo, Peristeri and Piraeus.** Further development and expansion of the urban and regional fixed rail transit system across Attica will make the park even more easily accessible, even from the distant areas of urban expansion-sprawl of the region. It will therefore be a park, whose radius of influence will extend progressively across the whole Attica region.

Fourth, addressing the skepticism about the proximity of the park to the sea and the nearby mountain Ymittos, we note that by bridging the wildlife of Ymittos with the coastline of the Saronic Gulf, the park can partially restore the sole extensive zone of the Attican ecosystem, in direct contact with the high-density urban complex and its residents and restoring in part the connection of Athens to its waterfront.

Last, it should be noted that a metropolitan park or a green zone constitutes a large zone of biodiversity and green, relatively unaffected by the precarious environmental conditions of the city, given its ecological scale. Rather, the former is significant enough to affect the overall environmental conditions of the latter.

3. Will it take many years to create the park?

Certainly so. The National Garden (former Royal Garden of Athens) took 100 years to complete, while Pedion tou Areos about 50 years. The same holds true for the groves of Kaisariani, Lycabettus Hill and Philopappou Hill, as well as for Western European and Northern American large-scale urban parks. **While more than half of the area of the Hellinikon Metropolitan Park can open to the public and start getting greener immediately, as happened with the former Berlin Tempelhof airport in May 2010, it is unrealistic to expect that the full project will be completed in five years.**

In the case of Athens today, the short- and long-term benefits suggest the same strategic direction of creating the park, given that the present and future basic needs of the city are aligned. Thus, it is required to organize and carry out a plan with a 10- to 20-year horizon and deliver its outcomes to the next generation. Two among the airports that we studied and consider as exceptional examples of metropolitan park creation, the ones of **Tempelhof, Berlin**, and **Maurice Rose, Frankfurt Am Main**, have a construction period of two decades, an impressively low cost broken down into phases and extremely mild interventions. They almost let nature alone do the job, with high-quality, internationally recognized and award-winning results.

4. How much does it cost after all?

The findings of our study indicate that the construction cost of the park was budgeted up to 16 times higher than respective projects of former airport redevelopment or metropolitan park creation in Europe.

So far, the Hellinikon Metropolitan Park project has been presented as an excessively expensive project, with a projected cost amounting to a range from €400 to €700 million, with respectively high operational and maintenance costs. During the period 2003-2007, the Greek state launched an international ideas competition and planned an extensive urban redevelopment project titled “Hellenikon Metropolitan Park and Urban Development” (Hellenic Ministry for the Environment, Planning and Public Works, Organization for Planning and Environmental Protection of Athens, & International Union of Architects, 2003). This project entailed the creation within the park of a small luxurious city with floor areas ranging in the final 2007-2008 proposals between 1.300.000 m² and 1.450.000 m². This was an excessively expensive project both in terms of its building construction component and in terms of the infrastructure and design of open and green spaces. It should also be noted that **since the closure of the airport there has been neither a business plan nor a feasibility study for the redevelopment project.** Rather, a brief assessment study of the 2007 project was commissioned by the Hellenic Public Real Estate Corporation (HPREC) of the Ministry of Economy and Finance and was conducted by Spiro N. Pollalis and Associates after the 2008 studies were completed, estimating equally high or higher costs. A previous preliminary evaluation of various scenarios was conducted by the National Technical University of Athens. It was commissioned 12 years earlier by the Ministry of the Environment, which did not assign the last phase of the study on implementation.

Thus, the excessive estimated cost of the Hellinikon Metropolitan Park, as it is being presented during the past 3-4 years, constitutes a choice rather than a documented necessity. We contend that this choice and position is highly likely to have been constructed and promoted systematically and not accidentally, as a combination of three major elements:

- 1. The choice (and not a need of the city and the regional economy) to construct a luxurious small city with respectively high infrastructure costs.**
- 2. Traditional Greek public works overpricing, up to 16 times higher than the respective costs of public works abroad, e.g., in Germany.**
- 3. The choice to systematically display exorbitant costs as unavoidable, in order to justify plans for privatization and concessions of the whole area or parts of it, the construction project or its subsequent management and commercial operation.**

Thus, while the French architects of 2007, with their already very expensive design based on given guidelines, had estimated a cost of €250-300 million, the estimated cost by the Ministry of the Environment (without a business plan) finally raised the cost up to the amount of €700 million.

In contrast to the aforementioned estimates, our documentation of the area, along with our analysis and comparisons of construction costs in Greece and in Europe, indicate that the construction cost of the park with mild interventions and high-quality construction, as with the new parks of Berlin and Frankfurt, amounts to:

- a cost of just €50 million for the area readily available today in order to begin major green works and building and technical monuments restoration and reuse – distributed in phases over a 10-year horizon; or,
- a total cost of just €100 million for the whole project – distributed in phases over a 20-year horizon.

Accordingly, the annual operating costs for high-quality operations, maintenance and security, as with the award-winning Royal Parks of London, amount to €5 million annually upon the completion of the first phase, and to €10-12 million for the completed park.

5. Where will the funds for the construction & operation of the park come from?

According to economic data submitted to the Hellenic Parliament in November 2010, which are presented in this study in detail: the total realized revenues between 2004 and 2010 from short- and long-term leasing and concession contracts exclusively from the Olympic facilities at Hellinikon and Agios Kosmas amount to **€35.7 million**. Total revenues including receivables (i.e., revenues not collected by the state since 2008), amount to **€75.8 million**. Total expenses amount to **€18.1 million**. The **€40-million gap** is due to the fact that the private companies, which have signed mostly long-term concession contracts with the state-owned companies, stopped their agreed upon rent payments to the Greek state from 2008 onwards. Thus, two of the state-owned companies operating in the area (Hellenic Olympic Properties and Hellenic Tourism Development Corporation) did not receive the rents to which they are entitled, under the concession contracts that they have signed.

Therefore, significant revenues of the area were dramatically misplaced. The actual realized revenues from the concessions exclusively of **the Olympic works** in the area over the past five years, however problematic they might be, **could have already financed more than half of the metropolitan park construction. Total revenues could have already financed about ¾ of the park.**

Based on a series of indicative projections of contractual obligations and statements of income and expenditures from 2004 onwards, and especially 2009 for which the latest complete data are available and without significant variations of the average margins: if there was effective management that collected the agreed upon payments on the part of just the state-owned company Hellenic Olympic Properties for the Olympic infrastructure in Hellinikon, and consistency of payments on the part of the businesses based on their concession contracts, **in 5 years the park's revenues could amount to about €1.8 million, in 10 years to €183.6 million and in 15 years to €275.5 million**. It is estimated that **€275 million are enough to construct 2 to 3 parks of the size of Hellinikon**, or complete and operate in the long-run all three Metropolitan Parks of the Greater Athens Area.

As noted in a 2007 answer to a written question addressed to the European Commission, the Metropolitan Park of Hellinikon could be financed in the National Strategic Reference Framework (NSRF). However, the lists of major projects of the Greek operational programmes 2007-2013 submitted by the Greek state did “not include a project related to a metropolitan park in Athens” (Hübner, 2007, September 4; Papadimoulis, 2007, July 15). In the event that the Greek state allocated the aforementioned resources to national financing in the NSRF for the environment (25%-15%), with co-financing by the European Union (75%-85% respectively), **funding for urban regeneration projects in Athens, including parks, could reach or exceed the amount of €1 billion in the next 15 years**. In short, just these revenues from the Olympic venues in the park, even from the existing highly problematic contracts, **can enable the construction and operation of the Hellinikon Metropolitan Park and the whole system of green parks and open spaces across the Greater Athens Area**.

Even from these limited available data on few of the uses of the area, it is evident that arguments claiming that the Hellinikon Metropolitan Park project is not feasible and economically viable, stressing the inability to find, raise and secure funds, lack documentation and evidence. The actual economic data submitted to the Hellenic Parliament, although limited to the operations of these two state-owned companies in the Hellinikon area, lead to the opposite conclusion.

6. What is the current state of affairs in the former airport and the coastal zone?

Unfortunately, it is disappointing since it appears that the administration decided, by the end of the 2004 Olympics, to abandon the area to its fate and leave uncontrolled various ambiguous processes and outcomes regarding state profits and losses. There is no systematic maintenance and the majority of revenues from

concession and leasing contracts are no longer collected by the state. In addition, the overall deterioration of facilities does not justify the particularly large expenses.

During the past five years, the site of the former airport and the coastal zone was partitioned into dozens of pieces (Figures 4 & 5). This partitioning, with concession and leasing contracts co-signed between various state-owned and private companies, is evident by the arbitrary construction of kilometers of fences, resulting in a complex structure of parallel, intersecting, and overlapping fences with a total length of 56 km. In addition, during this period, illegal construction, expansions, and poor-quality structures occupied spaces and expanded in the areas of the former East Terminal and the coastal zone. **It is estimated that about 40 km out of the 56 km of fences were put in place during the past 3 - 4 years, mostly arbitrarily.**

The coastal zone of Agios Kosmas has become in large part an illegal construction zone of nightclubs and other mass entertainment businesses in violation of the laws regarding the protection of the coasts. About half of the area is inaccessible, as it has been occupied by the Olympic Marina of Agios Kosmas, to which public access is prohibited. In the post-Olympic period, it was decided to construct another mall there. The remaining area of Agios Kosmas was transformed from a public, open, popular sports and recreation center, into a professional sports and championship facility, with the illegal nightclubs along its coastline. The current state of affairs has nothing to do with the free public character of the coast, as specified by laws, presidential decrees and the Constitution of Greece. Thus, first of all, the existing laws have to be applied along the coast. No further studies are necessary, but rather, basic state functions. This open, publicly accessible coast will easily form a part of the Hellinikon Metropolitan Park with the appropriate connections and the expansion of the light rail line within the former airport area.

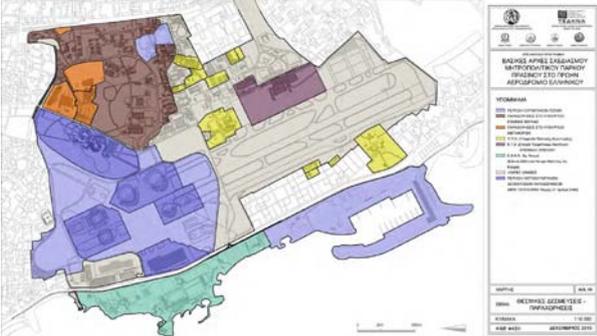


Figure 4. The fragmentation of the Hellinikon area by public agency and multiple institutional arrangements, along with long-term concession and leasing contracts (2010). Source: NTUA (2010).

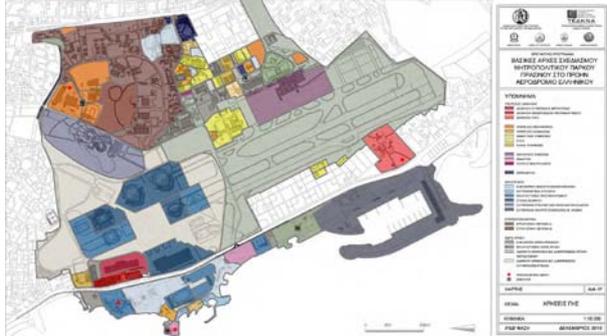


Figure 5. Existing land uses in the Hellinikon area (2010). Source: NTUA (2010).

As illustrated by the case of two of the state-owned companies operating in the area, million-euro concession contracts grant exclusive rights to lease, manage, maintain and commercially operate large parts and facilities of the former airport area and the coastal zone, with problematic uses, while payments to the public sector are either not collected or, when collected, lost to “black holes”. These public revenues under effective and transparent management would have contributed to the creation of the park since 2005.

However, this does not seem to be a matter of concern, since the predominant idea is now the one of privatizing the area or making long-term concession contracts with the private sector, even if this does not bring revenues to the state. This process of privatization is based on large public investments for private benefit, large tax breaks, and the gradual establishment of a state of exception for investment from existing laws and overall social regulation. Characteristic examples are the Olympic works and other major public projects in Greece, and various mega-projects abroad since the 1980s, which were financed and subsidized repetitively by the respective states (e.g., Flyvbjerg, Bruzelius, & Rothengatter, 2003; Swyngedouw, Moulaert, & Rodriguez, 2002, 2003; see also, Brenner, 2004; Harvey, 1989).

In the case of Hellinikon, it should also be stressed that the state has no recent topographic mapping, general plan or documentation of the area. Thus, it is not clear what it does or it does not possess in the area, as well as which state institutions and state companies have earned and how much they have earned by the commercial operation of the area since the closure of the international airport. The most recent map of the area dates back to 1996 from a previous study of NTUA, five years before the closure of the airport.

Given these conditions, the present study carried out a comprehensive documentation of the 626-Ha area, the first documentation after 1996 (land uses, institutional arrangements, partitions, building, territory, including the

coastal zone). It also analyzed and evaluated the various proposals (on regeneration, new construction, road construction projects) that have been presented since the closure of the airport. It studied the redevelopment of former airports as well as basic characteristics of metropolitan parks in European and North American cities. The results of this study, contrary to the predominant claims and advocacy of the past years, usually without scientific, planning, social, environmental or economic documentation, explain why the Hellinikon Metropolitan Park is indispensable, feasible and inexpensive. On this basis, it sought to examine how the documented and evaluated characteristics and assets of the area can be best utilized to address substantive needs of the Greater Athens Area residents.

7. So how can the Hellinikon Metropolitan Park, a Green, Culture & Recreation Park be created for the benefit of the residents of Attica?

Starting from the basics, with six immediate actions (Figures 6 & 7):

a. Critical prerequisites for the creation of a Metropolitan Park are: **the cancellation of plans to use Hellinikon, one of the last available, publicly-owned, large-scale and prime urban coastal sites of Europe, for “the largest planned real estate development project in Greece”** (Hellenic Center for Investment, Invest in Greece Agency, 2004, April). **That is:**

- **the cancellation of sales, privatization, and concession plans for the entire area or parts of it;**
- **the abandonment of the questionable in many respects and excessively expensive plans to develop exclusive planning unit developments; and,**
- **the cancellation of the environmentally detrimental, anti-urban and excessively expensive highway infrastructure construction projects along Poseidon and Alimos avenues.**

b. Another critical prerequisite that has to take effect immediately **is the removal of internal fences as well as the removal of the prefabricated exhibition pavilions in the surrounding area of the former East Terminal.** This will help prevent further fragmentation of the area, which would render future interventions even more difficult. It will also help reverse the image of abandonment and decay of the area.

c. In the coastal zone, **it is necessary to implement the Presidential Decree on the coasts in effect since 2004, and control the permits and operations of businesses of sanitary interest,** in addition to canceling administrative selective exceptions from the laws granted by the former Ministry of the Environment (e.g., Greek Church-owned cape along the coast with a concession contract for a nightclub).

d. It is possible to **immediately allocate 56 percent of the area to public uses and safeguard free public access:** immediate opening of 170 Ha of the southern part of the area, and of 180 Ha of the northern Olympic Pole area of Hellinikon with the removal of fences, to public access and use. 44 percent of the area can open to the public gradually in phases, by making the necessary institutional arrangements with the various public stakeholders (e.g., Ministry of National Defense, Aviation, etc.).

e. **A relocation of the transportation facilities that occupy 19 Ha of the area is considered unrealistic and unjustified in planning and economic terms.** This part occupied by Tram, ETHEL, KTEO and Attiko Metro can be exempt from the public use of the park, as long as further construction or expansions are prohibited.

f. **The gradual restoration and reuse of the existing building stock can provide a socially, environmentally and economically sound, as well as effective solution to integral and complementary uses of the park that address the needs of the Greater Athens Area residents.** Based on our documentation and evaluation of the building stock, out of the 480 existing buildings with a total floor area of over 490.000 m², 241 buildings with a total area of 366.160 m², or 75 percent of the existing stock, can be reused for low-intensity uses, mainly social in nature and scope, and with the exclusive use of revenues for the creation, operation and maintenance of the park.

The implementation of the strategy outlined above requires a business plan and a feasibility study based on the new data and the current and specific sociospatial conditions. This business plan should specify the socioeconomic costs and benefits for the residents of the Greater Athens Area, in the short- and long-run, and should be based on scientific evidence and various indicators at multiple scales. For example, it should be taken into account that according to Eurostat estimates and comparisons, the Gini Coefficient for Greece, a basic indicator of the overall income distribution and inequality, was 35.1 in 2003 well before the current crisis, representing the highest value along with the UK among the EU25. The same has been the case with the S80/S20 quintile share ratio (about 6 for Greece), the ratio of the total income received by the top 20% to that

received by the bottom 20%, i.e., a measure seeking to quantify the gaps between the richest and the poorest. Greece demonstrated values that remained above the EU averages until 2009 for which data are available, and has been among the EU countries with the highest Gini coefficients and S80/S20 ratios, generally following Latvia, Romania, Bulgaria, Portugal, Lithuania, and Spain (Guio, 2005, August, pp.3-4; see also Atkinson & Marlier, 2010, December; Eurostat, 2009).

Regarding new uses in the existing buildings across the park, we propose the adoption of a strategy “from the ground up” based on the existing assets of the area, rather than the treatment of the space as an “empty lot for development.” Toward these ends, the aim must be the democratic and active involvement of society, its citizens, its organizations and local institutions in planning and implementation of what is socially beneficial, rather than the search for an investor who will implement a private development project. Along these directions, a high road to the development of the area entails uses that aim at creating good jobs within the park, along with supporting jobs in existing clusters of small enterprises across the regional economy – rather than resulting in losses of existing jobs across the region and substituting some of them with poor wages and precarious employment conditions – as in e.g., jobs in malls, casinos and luxury resorts. The latter job creation and employment conditions are typical of respective development projects across the world, likely to adversely affect local production systems, agglomeration economies and labor markets, although being carried out with major public subsidies and tax breaks on most occasions. In contrast, the former are explicitly focused on substantively supporting and enhancing the regional economy during the crisis and well into the future. In other words, a key prerequisite for a high road to development is to strategize towards distributing the benefits from Hellinikon equally across the region, while avoiding what can be severe costs and adverse effects for the current and future employees of the region, the regional labor market, the regional economy and the state finances. The effects of mall development on local retail markets across the region over just a decade of mall development in Greece is a case in point, as are the past premises of employment deriving from the Olympic and post-Olympic infrastructure development. Neither did much in terms of enhancing regional employment and the regional production system.

Along these lines, we propose a **5-axis strategy** by area:

1. The creation of an **Open Metropolitan Sports & Recreation pole**. This pole can be created by relocating the facilities of Agios Kosmas within the existing Olympic pole in the former airport. This relocation relieves the coastal zone from some of the recent construction. Also, we propose the creation of an **Open Sailing Center** in the Olympic Marina, which will also cover the needs of local recreational, sports and sailing clubs.



Figure 6. Metropolitan Green Park of Hellinikon: Proposed characteristics of green areas. Source: NTUA (2010).



Figure 7. Metropolitan Green Park of Hellinikon: Proposed masterplan.

2. **The full removal of the illegal mass entertainment uses from the coastal zone, the restoration of free unobstructed public access and the comprehensive redesign of the waterfront in compliance with the Presidential Decree on the coasts.** The existing structures of the coastal zone have to be reduced significantly so that practically free public access and its natural features are restored immediately and for the long run. This objective requires demolishing the illegal entertainment structures, moving some of the sports facilities of the coastal zone as well as the complex of the Hellenic Center for Marine Research (HCMR) eastwards inside the former airport, and banning further construction in the Olympic Marina. In the open zones that will result from these actions, we propose the restoration and regeneration of the natural coastline, along with the protection and focus on the archaeological site (as well as the streams, the sandy beaches and the Agios Kosmas cape). Enhancing green spaces and creating an extensive pedestrian way and bike path network will improve the area and its public access, and will connect it to the rest of the Saronic Gulf coastline, north and south.

3. The creation of a **Center for Culture, Education & Research** in the area of the former West Terminal. We propose: the development and integration in the park of the Hellenic Center for Marine Research along with the creation of a **Scientific & Educational Aquarium**, managed and operated by HCMR and based on the precedent of Cretaquarium; and, the restoration and protection of the coastal and marine antiquities, along with the restoration of the natural coastline. We also propose the expansion of the **existing archaeological storage spaces, the enhancement of the conservation and restoration laboratories, and the creation of an Archeological Museum exhibiting the large collections of the Saronic Gulf and Mesogeia, along with developing museological, educational and cultural programs.** The historic civil and military aviation material that is preserved within the former airport could constitute the core of an **Aviation Museum**, housed in the historic hangars. It should be noted that the aforementioned proposals are already supported and promoted by the institutions and organizations involved.

4. The creation of a **Local Center with Social Uses**, with the reuse of many of the existing buildings on the premises of the former USA base (**social welfare**, i.e., day care centers, primary care clinics, care centers for senior citizens, people with disabilities etc., **education**, i.e., primary and secondary schools, **culture, recreation**, i.e., small courts using existing facilities etc.) **and small-scale retail and entertainment uses.** It is possible to also incorporate **local administrative uses** as well (e.g., city hall, local tax office, local social security organization, citizen service center, local bank branch etc.).

5. The restoration and reuse of **the large designated building of the former East Terminal as a Metropolitan Node with compatible metropolitan uses (such as exhibitions, conferences, scientific and artistic events) under specific terms of operation.** This large designated building, designed by architect Eero Saarinen, displays a metropolitan identity and through its size and symbolism can acquire a metropolitan role, if its uses and their scale are compatible with the preservation of the building and the operation of the park. Its proximity to the new metro station of Hellinikon can further enhance this possibility. We consider as compatible uses, uses with specific terms of operation along with a ban on further construction, expansions or use of extensive areas for supporting activities (such as outdoor parking). The prerequisite that the revenues from any operation within the park are allocated to the construction and operation of the park, namely the social, environmental and cultural uses and activities within it, applies to these uses and activities. By meeting these conditions, the aforementioned metropolitan uses can enhance the social character of the park. Examples of incompatible uses are mass commercial and entertainment uses (malls and multiplex cinemas), because of their intensiveness and their incompatibility with the architectural complex and the overall role of the park. Large-scale administrative or educational uses (e.g., ministries or universities respectively) are also incompatible with the East Terminal building because of their architectural and functional requirements.

An afterword

Based on the documentation, findings and proposed strategy of this study, we contend that the reasons why the Hellinikon Metropolitan Park is indispensable for the residents of the Greater Athens Area, feasible, and inexpensive, are both clear and scientifically substantiated (Figure 8).

Along these lines, we describe the necessary actions that can take place immediately, in the medium-term, and in the long-term, in order for the Hellinikon Metropolitan Park:

- **to safeguard the utilization of public property for the public interest, by utilizing the precious existing assets of the area to address pressing needs of the Greater Athens Area now and in the future;**
- **to be realized with high-quality green works and restorations and reasonable costs according to European-standards (as for the new parks of Tempelhof in Berlin and Maurice Rose in Frankfurt Am Main); rather than with overpriced construction costs for an excessively expensive and publicly subsidized luxurious small city and/or megaproject development;**
- **to operate with socially beneficial uses that address urgent social needs of the residents of the Greater Athens Area especially today, and a variety of activities for its visitors; and,**
- **to be maintained and operated with a realistic cost in the long run (as for the Royal Parks of London).**

On our part, as researchers based on the methods, criteria and values of our scientific fields, we made every possible effort to analyze the actual dimensions of the critical needs of Greater Athens Area that Hellinikon can address. We also made every effort to formulate high-quality, realistic, feasible and inexpensive scenarios regarding the social, environmental and economic issues involved in the creation of the Metropolitan Park. We propose to reconsider the assumptions and recast the directions of the public discourse, but also and most critically, of the current decision-making processes. At this point it relies on society at large, on its local and regional governments, on its active citizens, to decide which route to take for the future of the Greater Athens Area, and how to take critical possibilities forward.



Figure 8. Residents of the City of Hellinikon and the Greater Athens Area gathered together to demolish illegal barriers and fences, plant trees and reappropriate a part of the public but illegally occupied coast: "We demand the city for the citizens". Source: City of Hellinikon (2010).

Last, we wish to point out, that in Greece parks and major projects for the public interest were realized during the four major financial crises and bankruptcies of the country, and after three wars, when the country was in a dire economic situation. We believe that the state has to proceed with public works for the public interest, socially, environmentally and economically, especially in this time of crisis. A particularly critical public works project is the one of the Hellinikon Metropolitan Park.

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This summary of findings (in English & Greek) and the full 300-page report (in Greek) including maps, plans, graphs, documentation and the full list of references are publicly available at: www.arch.ntua.gr/envlab

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