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Piraeus

and its Green Infrastructure

Follower City

A Dense City in Need for Intervention

Piraeus is situated in the Metropolitan Area of Attica where almost 45% of Greece's population is concentrated. It is the most important port of the region, Greece and the whole East Mediterranean coast.
Piraeus is a densely populated city with high port related business and tourist activity, the latter of which is expected to be further increased considering the interest of the port of Piraeus in investing on infrastructure developments that will facilitate the growth of the cruise market. Commercial units which are clustered in city centre faced an increased demand of being supplied with products efficiently, at a low cost and in a timely manner.

The Municipality of Piraeus constitutes the 3rd largest municipality in Greece with a population of around 180 000 inhabitants and it is home to Greece's main port, which is the 8th European container port handling 3.1 million TEUs in 2013, the 3rd cruise port in the Mediterranean with more than 2 million cruise visitors and the main Eastern European car port with around half a million cars handled in 2013. Piraeus is a significant industrial centre and the largest commercial centre within the Greek Economy. The city is characterised by a diverse range of integrated activities which include administration, education, culture, business, manufacturing, trade and tourism (OECD - Regional Development Policy Division, "Urban Trends and Governance", 2014, Case Study of Athens – Attica, Greece).

However, the City suffers from the consequences of chronic urban problems including population shrinkage, though it remains one of Europe's most densely populated municipalities (15 000 inhabitants/km^2).
The main land use in Piraeus is urban built development. Road networks and industry occupy a large percentage of the total area whilst green areas, sports and recreation areas are very small (2.12% of the municipality). In addition, given the construction situation in Piraeus, green areas are scattered and inadequate and there are no plots available for the creation of new green spaces within the city. This intensifies the urban heat island phenomenon with negative consequences for public health and the environment.

Green Infrastructure

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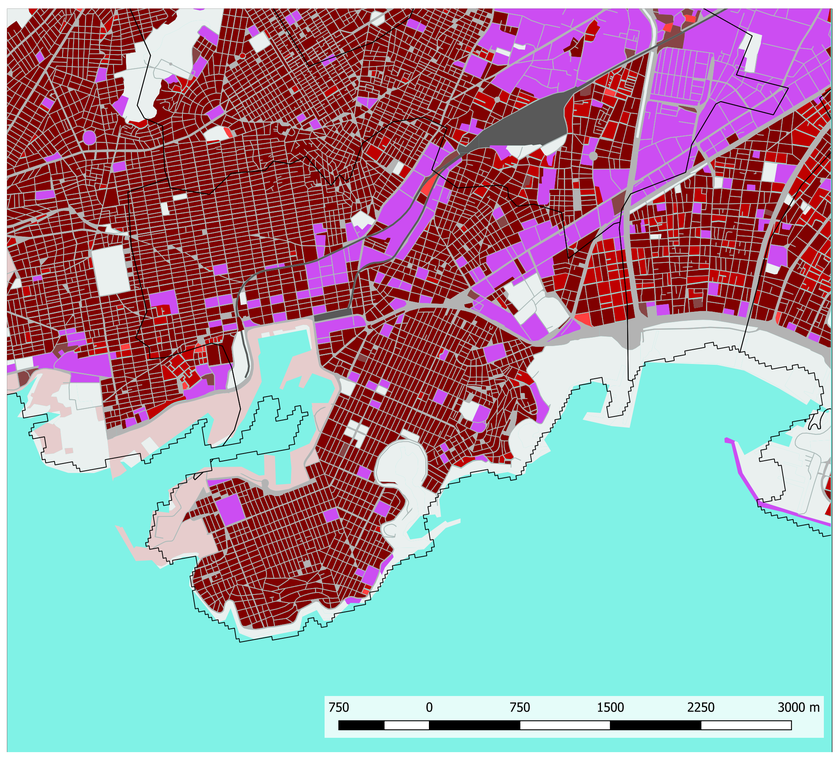

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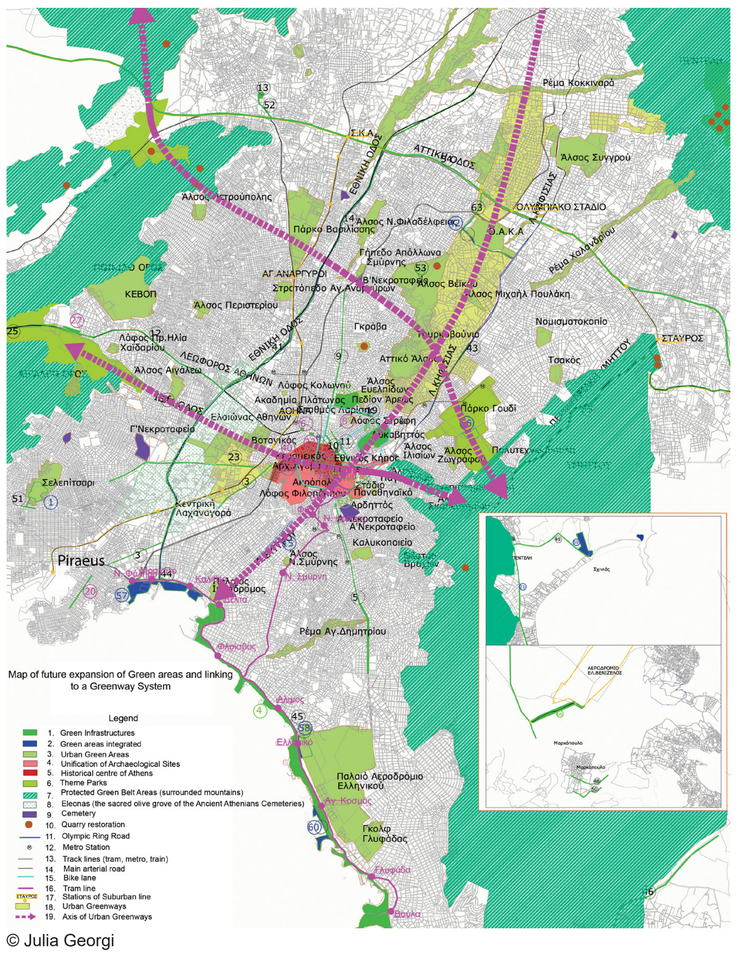

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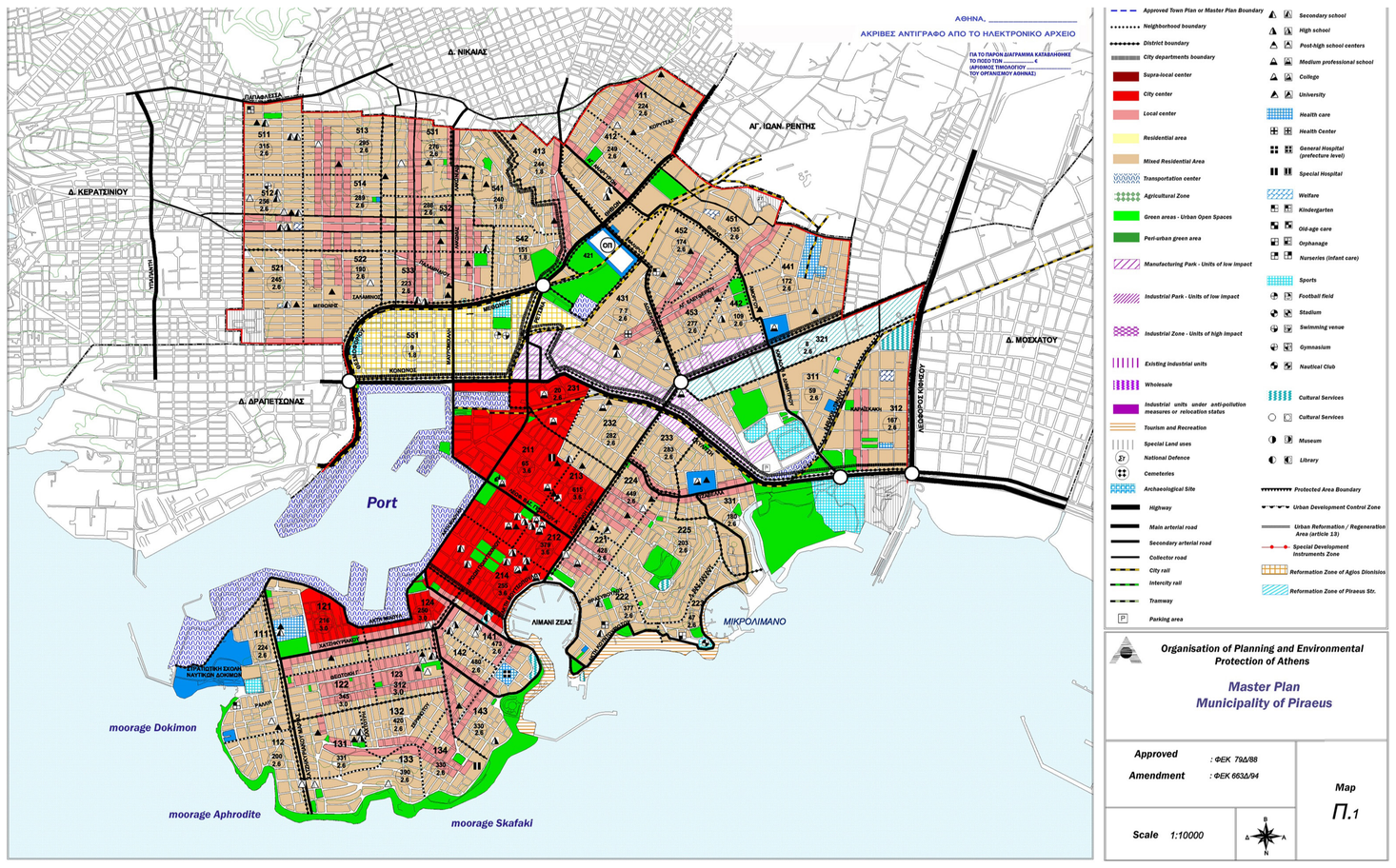
The Green Infrastructure System planned by the Ministry of Environment in Athens Web: one can see the willingness to link the green routes to improve the city's air quality, its microclimate and biodiversity.



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The Master Plan of the municipality of Piraeus: one can see the several uses as well as the Urban and the Periurban Green Spaces.

Thanks for contribution to: Julia Georgi

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Piraeus
and its Potential NBS

Follower City

Regeneration Challenges

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Piraeus is a major industrial city. It was one of the main industrial development cites in the region, but during the last decades its industrial function has declined. The picture above is one example of those post-industrial areas that should be regenerated.

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The city has grown considerably since World War II, with many new factories on its outskirts (mainly for engineering and chemical industries). The picture shows an abandoned building in one of those post-industrial areas.

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The Kifisos river has been running along ancient sites since the 5th century BC. For instance, one can assume that Cimon (ancient statesman of Athens) dug channels for watering to Plato's Academy from the Kifisos river and thus "converted the Academy from a waterless and arid spot into a well-watered grove". Today, the Kifissos as well as the Ilissos Rivers have been transformed into avenues, and their tributaries into sewers of Athens.

Potential NBS

NBS no.3
community-based urban gardening and farming on post-industrial sites

The plan is to re-integrate derelict pre-industrial land for urban regeneration to degraded urban environments. These sites are significant opportunities to create new Green Infrastructures in the city of Piraeus.

expected benefits:

The new upgraded area can help reducing inequalities in environmental justice and offers benefits for mental and physical health, improving microenvironment and wellbeing.

NBS no.5
capillary GI on walls and roofs

There are several old and modern buildings as well as 'blind' walls where green roofs and vertical gardens can be designed to support existing vegetation in order to improve a building's performance.
Additionally, green roofs can be particularly effective in the dense, urban areas of Piraeus, where they can compensate the loss of productive landscape at ground level.

expected benefits:

Through the implementation of green roofs and walls, Piraeus is expected (1) to attract new types of substrate, thus improving the local value chain in a circular economy, (2) to improve its green spaces in the city, strengthening biodiversity inside the city.

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NBS no.6
making post-industrial sites and renatured river corridors accessible for local residents

As rivers were an important locational factor for early industrialisation, old industrial areas are often part of river corridors, such as the Kifisos river. Nowadays, the river can be renatured to achieve a better water quality and to serve as a wildlife corridors full of biodiversity. There is also the possibility to upgrade the quality of life for urban residents. However, the question of how to connect these rivers and post-industrial sites, which have been in the backyard of cities for decades, has yet remained unresolved , which is why this can be a great challenge for the municipality of Piraeus.

expected benefits:

The new connections will help citizens to access greenspace and offer options for physical activities.
Furthermore this NBS will interlink marginalised areas with other parts of the city to reduce isolation.

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Dilaveri Garden

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Kifisos River

Thanks for contribution to: Julia Georgi