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Challenges and Solutions in marine litter



MUNICIPALITY OF PLATANIAS - CRETE



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*Scientific Contributor of EU Projects HORIZON
Platanias Municipality*



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- Area: 491 km²
- 2011, unification of 4 pre-existing municipalities
- Population: 20,972 inhabitants
- Residencies: 11,916 houses
- 51 rural communities and 131 smaller settlements
- Agriculture (olive, orange), livestock, tourism





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One of Crete's most busy touristic areas
With long, sandy coastline, and remoted attractions
•~2.5 million visitors annually
•1/3 of hotel beds in Chania prefecture

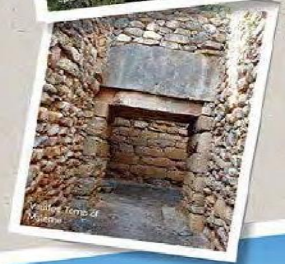


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Welcome to
Platanias
The Essence of Crete

www.platanias.gr



As a result of this seasonal increase in the population is the accumulation of a large waste mass mainly on the coastline of the Municipality.



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Geomorphological alternation:

Great territorial diversity, mountains (White mountains), plateau (Omalos), Samaria Gorge National Park, (a World's Biosphere Reserve), gorges, big rivers (Tavronitis, Keritis-Iardanos, Nterianos, Spilianos) and tributaries e.t.c.





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Gorge of Samaria, one of Europe's most stunning gorges, a length of 18 km, is a National Park and a World's Biosphere Reserve.





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WINTER IN PLATANIAS!!





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extreme weather conditions



thousands km of load-bearing
materials, are transported from
the inland to the coastline of the
Municipality





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Conclusion:

As a result of the above parameters is the fact that the Municipality faces a large issue of waste accumulation, (load-bearing materials, plastics, trees, aggregates, etc.) in the coastline all the time of the year





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IMPORTANT NOTICE

Platanias Municipality along with other neighboring areas of high natural value, they have joined the European **Ecological Network NATURA 2000** in the area (GR4340003) ***"Rodopou Peninsula - Maleme Beach"***.

This network includes spawning beaches of the sea turtle *Caretta* where the ***Sea Turtle Protection Society of Greece "ARCHELON"*** is active





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Careful about the environment....



any interventions are made outside the zone of sand dunes on which **grows the lily of the beach**



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Our unique visitor.....Caretta Caretta

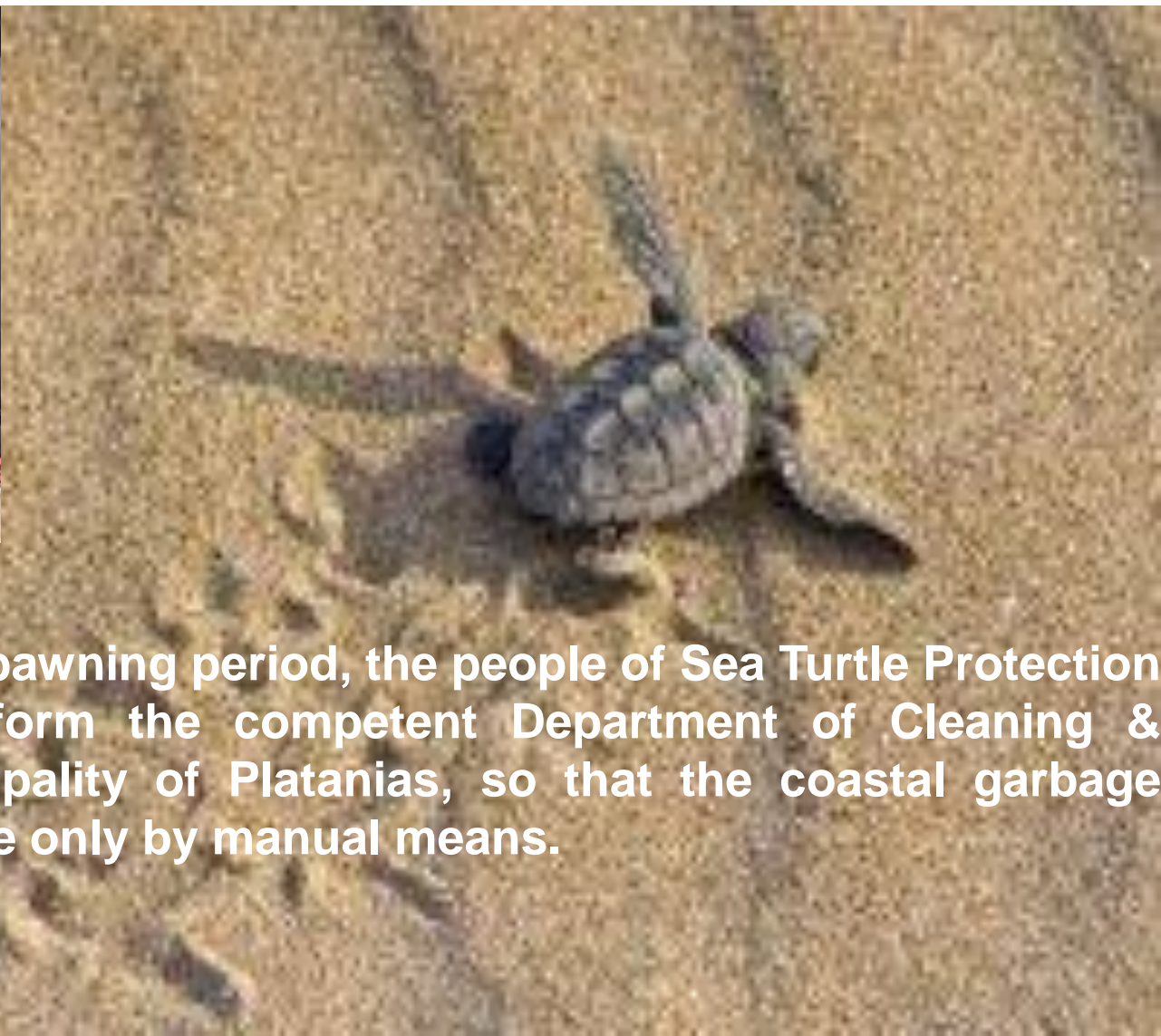
During the spawning season of the *Caretta caretta* turtle (from 1 May to 31 October every year), **none municipal vehicle is active on the beaches**, while if any waste accumulation is required this is performed manually.

It has been observed that the compaction of the sand by wheeled vehicles, the removal of algae and garbage from the beaches with heavy machinery, the destruction of sand dunes by sand extraction, tree planting and road openings result in the change of the physicochemical composition of the beach sand and number **and reduce the success of turtles nests.**





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Therefore, before each spawning period, the people of Sea Turtle Protection Society ARCHELON, inform the competent Department of Cleaning & Recycling of the Municipality of Platanias, so that the coastal garbage collection should be done only by manual means.



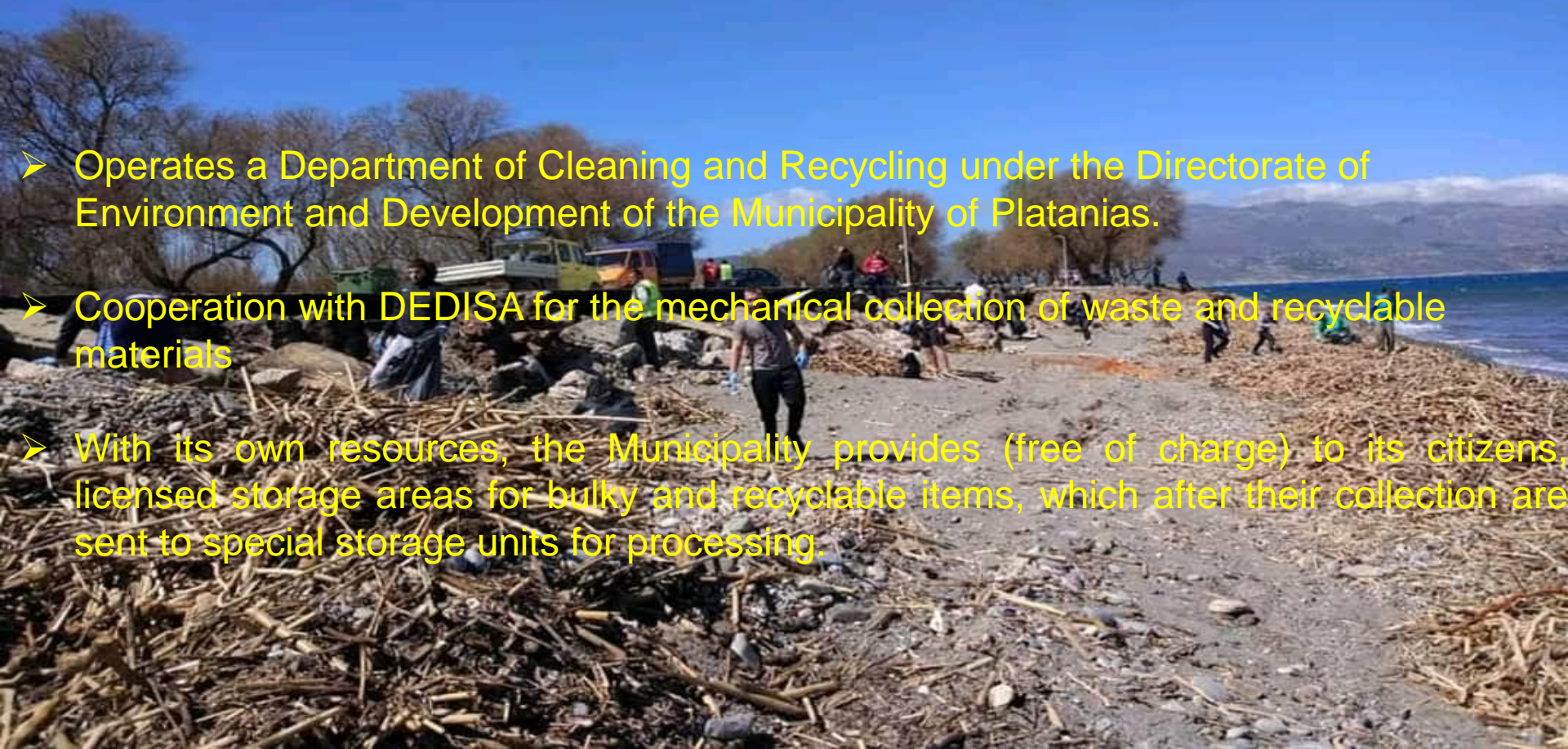
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Good practices in waste management by the Municipality of Platanias

- Operates a Department of Cleaning and Recycling under the Directorate of Environment and Development of the Municipality of Platanias.
- Cooperation with DEDISA for the mechanical collection of waste and recyclable materials
- With its own resources, the Municipality provides (free of charge) to its citizens, licensed storage areas for bulky and recyclable items, which after their collection are sent to special storage units for processing

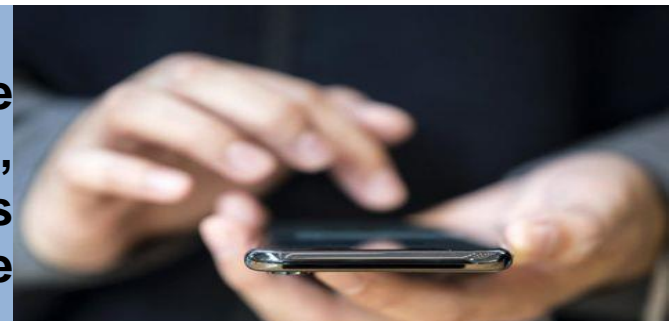




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- The Municipality of Platanias provides due to the competent Department of Cleaning and Recycling, 3 communication phone numbers for the citizens where they can arrange an appointment for the bulk collection.
- With its own forces, the Municipality is sweeping the coastal shoreline at regular intervals, and in the summer on a daily basis.
- In fact, on a coastline of about 30km, the sweeping is done manually following the instructions of the Sea Turtle Protection Society ARCHELON for the safety of the sea turtle *Caretta Caretta*. Employees of the Cleaning and Recycling Department manually collect garbage along the shoreline.





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- The waste collection on the beaches of the Municipality is done by vehicles, only after planning and before the spawning period of sea turtles.





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➤ The Municipality tries to modernize the motor means that it has at its disposal for the waste collection and always on its own resources. For example: the Municipality of Platanias acquired the Branch Crusher which is portable and can work where required. This machine, with the appropriate safety valves for the protection of its operators, has the ability to crush large quantities of pruning products and turn it into organic.





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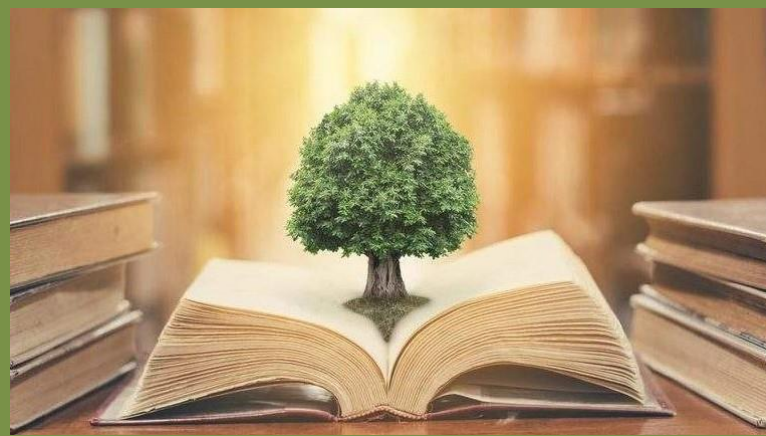
The Municipality of Platanias assists with both, machinery and human, resources of the Department of Cleaning and Recycling in any voluntary environmental effort of NGOs or every simple volunteer groups for the waste and plastic coastline collection. For example, the Municipality has been an active member for the past 5 years of the largest Voluntary Action of the country "Let's do it Greece" for the protection of the environment which includes coastal cleaning activities.



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- ❖ For the Municipality of Platanias, cleanliness in general and in the special context of the beaches, is one of the main pillars of its interest. **Due to geomorphological alternation and seasonal population increasement**, the municipality is constantly looking to find solutions, means, resources and methods for the optimal waste management.
- ❖ In this framework **submits studies, actions plans and projects.**





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IN PROGRESS...

➤ **A proposal for bio-waste management.** The Municipality of Platania seeks to extend the recycling program of the four packaging materials, (paper, plastic, aluminium and glass) and to install coffee bins for a separate collection **composters**.





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- **A study for Green Waste Collection Point.** This is about a landscaped area, with appropriate building infrastructure and equipment where they will be deposited recyclable materials, collected separately, such as paper, glass, metals, plastics, textiles, edible oils or used items and equipment (clothing, furniture, electrical and electronic equipment) for recycling or reuse. This point aims to receive and forward green waste/trimmings to be composted, as well as recycling and/or reusing other domestic material and objects, such as electrical appliances, furniture, toys, etc.





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- **A study for Recycling Corners** (under preparation): It is about small areas located in different places of the region of Municipality, where the citizens could deposit separately collected recyclable waste, that will be collected by the Department of Cleaning & Recycling of the Municipality of Platanias





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Generally, the Municipality of Platanias has managed many EU co-financed projects, gaining experience in the management of national and international projects *in education and awareness*, with particular emphasis on the environment and ecosystems. In this framework, it seeks to separate organic waste and to find methods in order to reduce environmental pollution. It has implemented various **relevant Projects and it constantly submits **relevant proposals for approval**.**



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Finally the Municipality pays attention to the need of citizens information **and raising awareness** about the importance of recycling in daily life and in shaping culture and mentality in waste management.

Therefore, ***a large awareness campaign on cleanliness and recycling*** is in progress





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Municipality of Platanias is actively working towards sustainable development in all sectors.



The Mayor Mr John Malandrakis was further committed to this vision by signing the COVENANT OF MAYORS in 2013 and he is actually continuing his politics, based on this commitment!

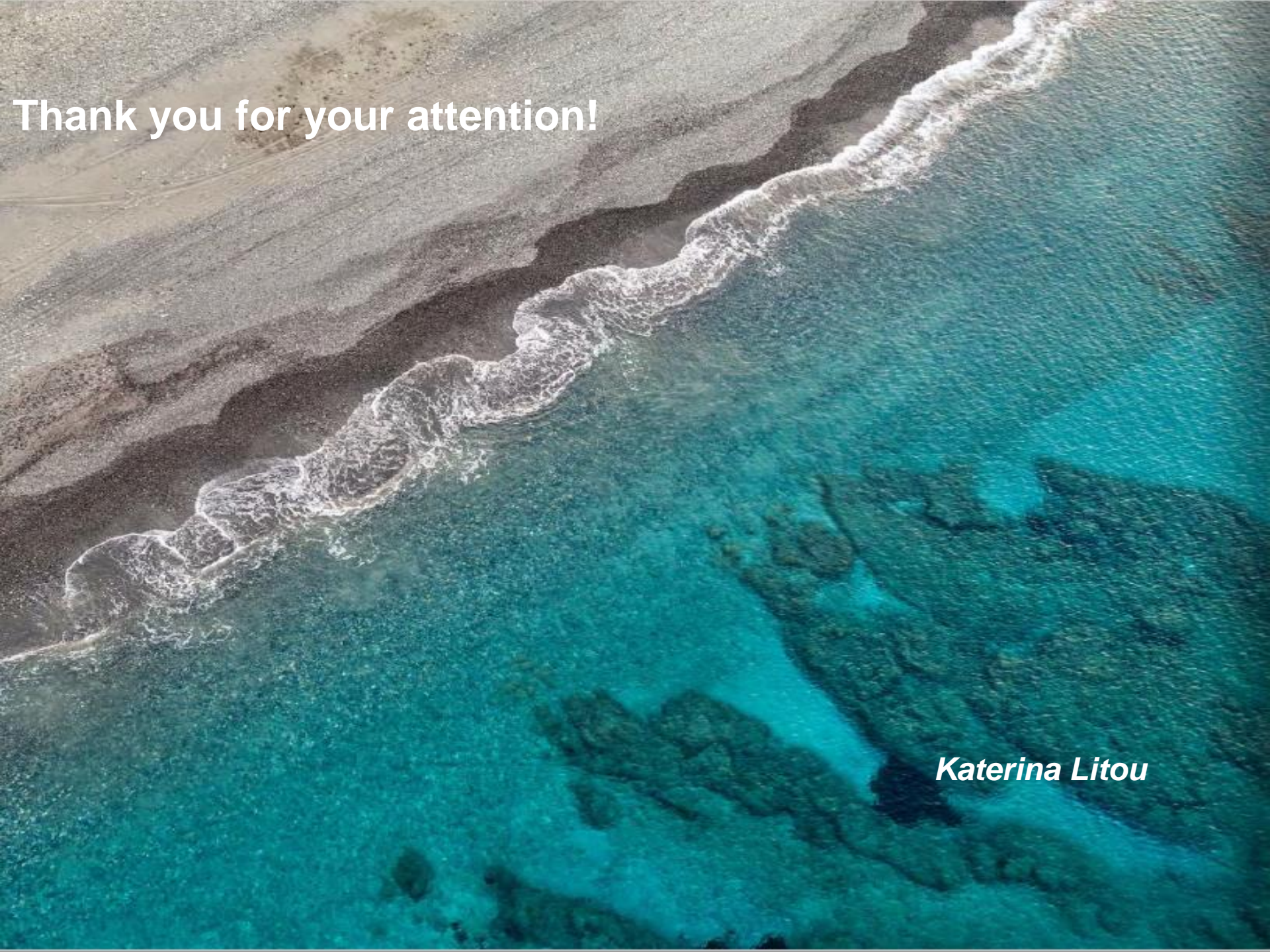


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The **citizens awareness** along with the **infrastructures and studies**, contribute to the vision of the Municipality of Platanias for **a Green Destination, an attractive, accessible, safer and healthier environment to live, work and enjoy!**



An aerial photograph of a coastline. The top left shows a sandy beach with some tracks. The water is a vibrant turquoise color, with white foam from waves breaking along the shore. The coastline is irregular and jagged. The text "Thank you for your attention!" is overlaid in the top left corner.

Thank you for your attention!

Katerina Litou