

Waste management in ports

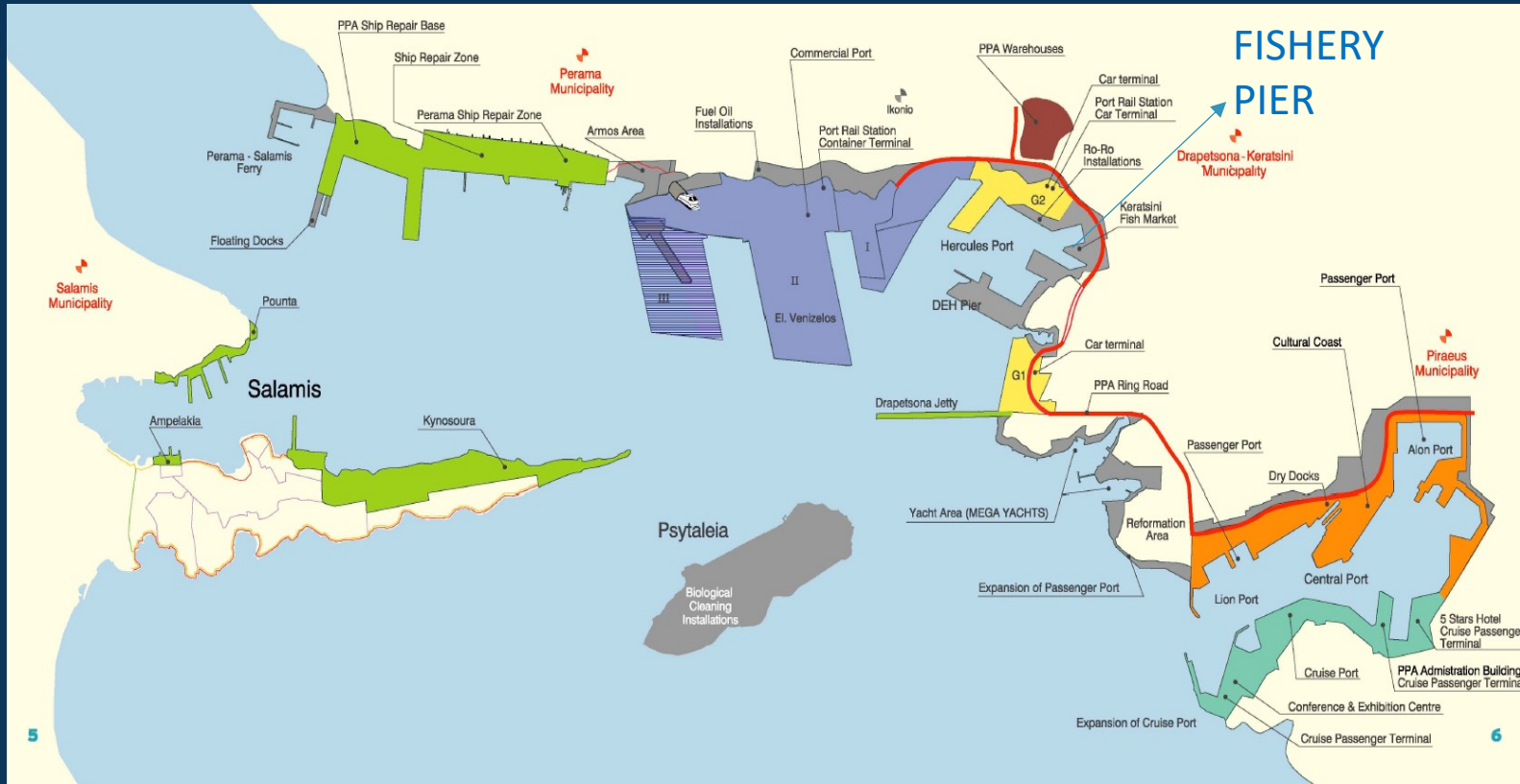
PPA's case study

Kontogiorgi Chryssanthi

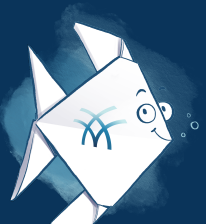
Head of Environmental Sector, PPA SA



PPA in a glance

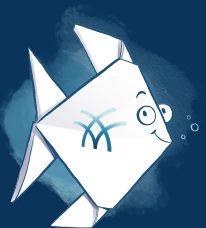


- PPA serves nearly 18 million passengers per annum
- More than 2.0 million cruise passengers,
- Approximately 0.5 million cars with more than 70% transshipment for other Mediterranean countries,
- In the top 10 largest container ports in Europe (in terms of throughput ~ 5 million containers (TEU) per annum)



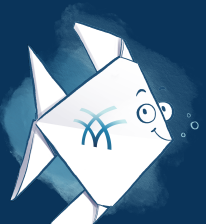
WASTE MANAGEMENT PLANNING

- WASTE MANAGEMENT PLAN FOR LAND BASED PORT ACTIVITIES AND INSTALLATIONS
- SHIP GENERATED WASTE MANAGEMENT PLAN
- Spill Contingency Plan for responding to dangerous substances spillages in land area
- Port contingency plan for responding to oil and/or other noxious substances spill incident at the sea area



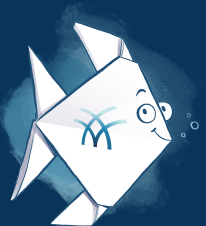
WASTE MANAGEMENT PLAN FOR LAND BASED PORT ACTIVITIES AND INSTALLATIONS

- Integrated system of waste management generated onshore, which includes:
 - Handbook on Waste Alternative Management
 - Separate management of all waste streams
 - Alternative management of operational waste generated in PPA's workshops
 - Recycling of packages (aluminum, plastic, tetrapak) using concentrated network of collection points at passenger stations, offices buildings and other areas
 - Allocation of waste, in order to create environmental indicators per activity.

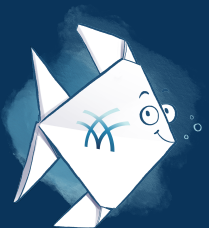
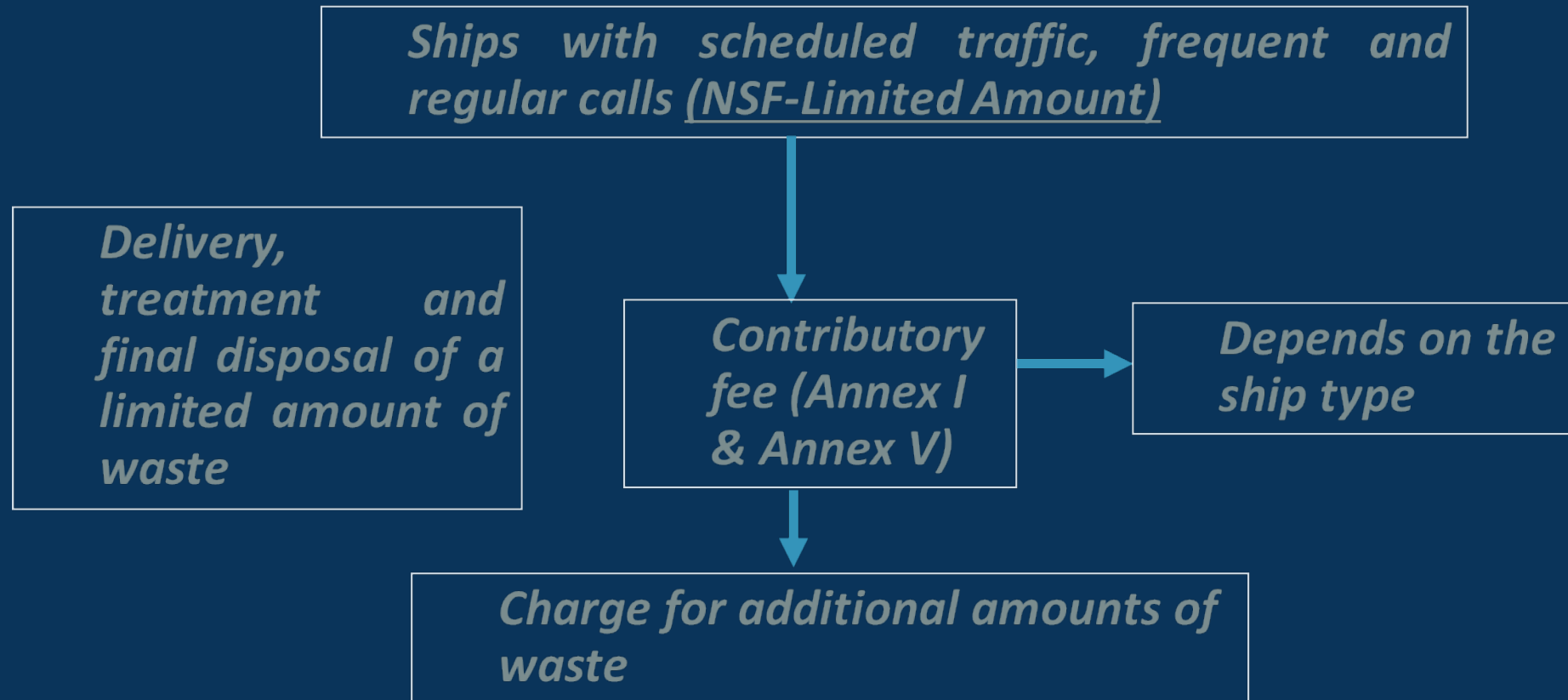


SHIP GENERATED MANAGEMENT PLAN

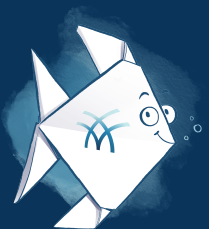
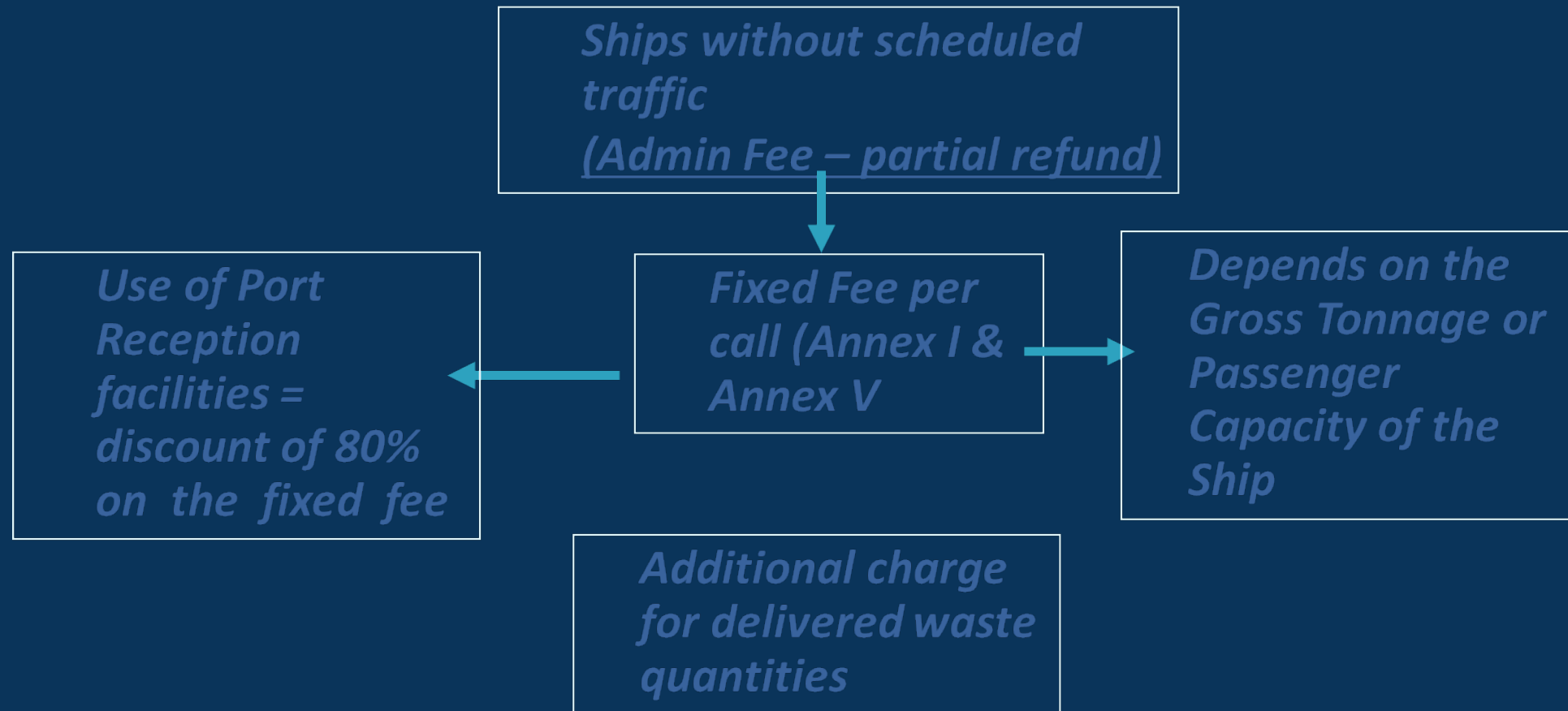
- Provided Services :
 - Annexes I, II, IV, V, VI of MARPOL 73/78 Convention
 - Collection & transport
 - Treatment (oily waste)
 - Final disposal
 - Designated Waste Collectors/Contractors of PPA



PRF COST RECOVERY SYSTEM

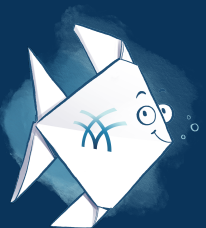


PRF COST RECOVERY SYSTEM



PROS OF PERFORMING

- All the ships activating or using the port area, including the anchorage have been motivated to deliver the waste to the port reception facilities
- All the waste associated with ship's operations and activities (ie waste produced by sea spillages, fisheries waste etc) are included in the ship generated waste management plan and treated in a proper way

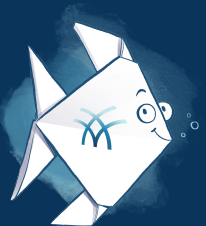


SPILL CONTINGENCY PLANS FOR LAND AND SEA SPILLAGES PREPAREDNESS

- Spill Contingency Plan for responding to dangerous substances spillages in land area
- Port contingency plan for responding to oil and/or other noxious substances spill incident at the sea area

In the above framework:

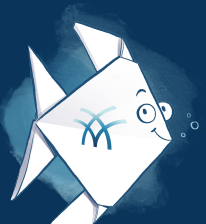
- inspections by boat are performed in everyday base and collected all the floating waste
- The waste generated from the spillages treatment are collected and treated in proper manner





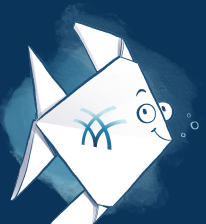
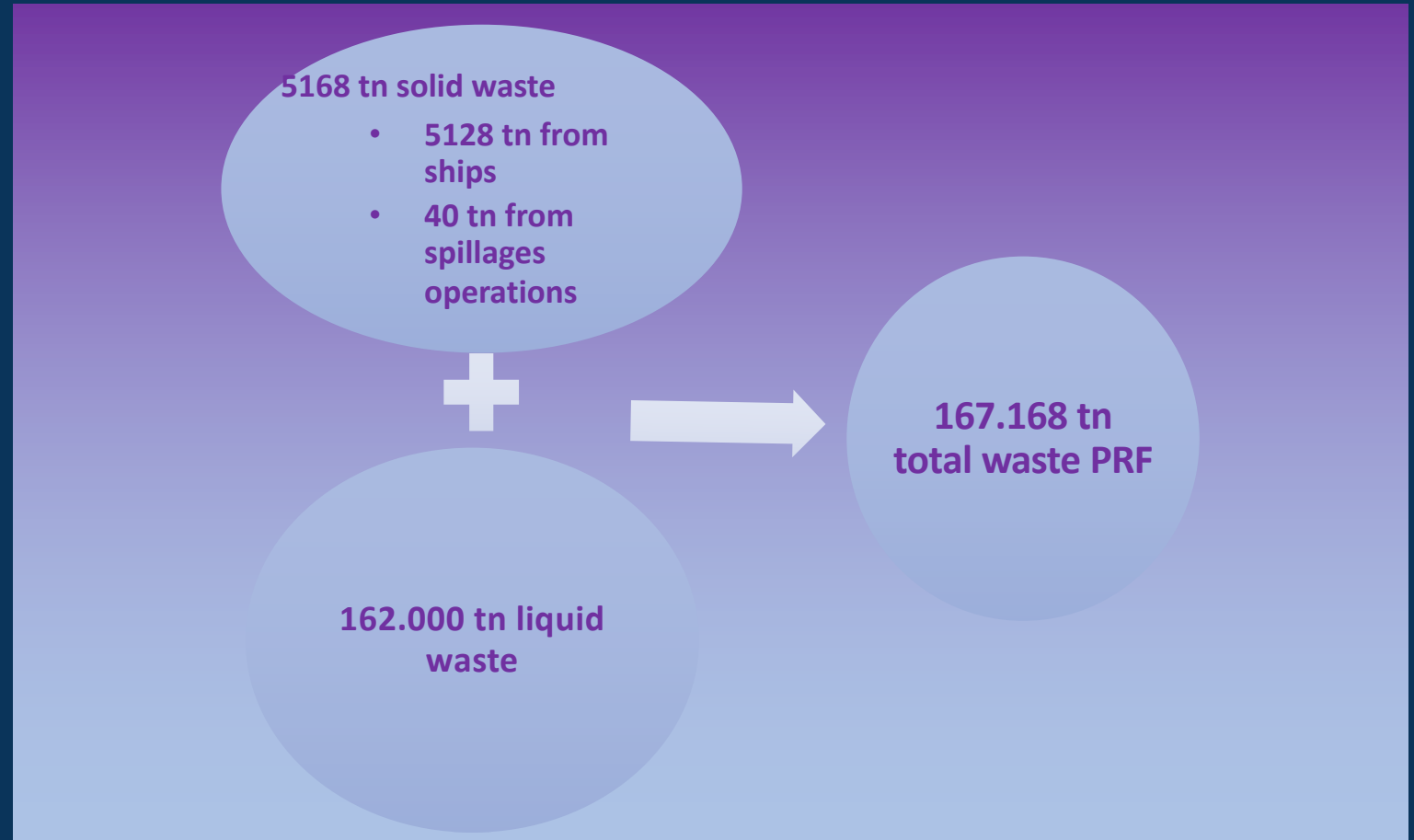
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How we protect the marine from waste?



Some figures:

- Ship generated waste:



Land based waste:



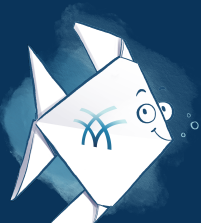
TOTAL WASTE FROM PPA FACILITIES (tn)		
	2020	2019
Household waste	553	940
Recyclable waste (paper, plastic, glass, metal, wood)	692	118
Hazardous waste	601	551
Operational waste from PPA facilities for reuse/recovery	295	313

Table 25: Facilities' waste for the period 2019-2020



WASTE LED TO ALTERNATIVE MANAGEMENT SYSTEMS (tn)		
	2020	2019
Used Tyres	47.37	2.42
Waste from Electrical & Electronic Equipment	4.81	4.12
Waste Accumulators	3.16	3.50
Waste Batteries	0.19	0.03
Waste Lubricating Oil	8.03	13.88
Excavation, Construction and Demolition Waste (ECDW)	16.16	37.42

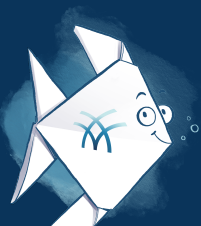
Table 26: Waste management in 2019-2020






ENVIRONMENTAL PERFORMANCE ON WASTE_PPA's Goals



PPA'S CRS REPORT 2020



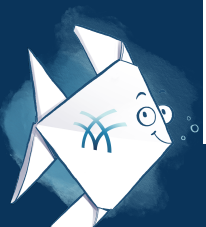
Sustainable Development Goal	Material Aspects Related to Sustainable Development Goals	Relevant GRI Standards Indicators	Our Response - Reference in the Report
	Waste management	GRI 306	As part of the efforts to protect the environment and safeguard it from any negative effects, PPA S.A. assumes full responsibility for the handling of all its waste.
	Energy Consumption	GRI 302	Based on the Energy Management System developed for all PPA S.A. activities, a systematic approach is followed for monitoring consumption and energy performance, identifying points for improvement, examining opportunities to improve energy performance in designing new facilities and activities and in renewing and upgrading equipment. ISO 9001:2015 ISO 14001:2015 ISO 50001:2018 Certification.
	Pollutant Emissions	GRI 305	We carry out an integrated program for monitoring air pollution through a special monitoring station, to determine our Company's emissions of gaseous pollutants. ISO 14001:2015 ISO 50001:2018 Certification.
	Impact on seawater quality	NON GRI	An approved Marine Pollution Emergency Plan is implemented for seawater quality, along with a Seawater Quality Monitoring Programme, and a Marine Sediment Quality Monitoring Programme. ISO 9001:2015 ISO 14001:2015 Certification.

Material aspects for PPA

- Occupational health and safety
- Supplier assessment for labour practices
- Waste management
- Indirect economic impacts
- Environmental legislation
- Employee social benefits
- Investments in the local economy
- Combating corruption
- Environmental protection projects
- Employee training
- Impact on seawater quality
- Security practices
- Diversity and equal opportunities
- Competition law
- Pollutant emissions
- Profitability
- Environmental impact management
- Tackling the impact of COVID-19 on society and employees
- Energy consumption
- Non-discrimination
- Supporting local communities
- Procurement practices
- Freedom of association

Waste management consists a high priority for PPA for the last three years

PPA'S CRS REPORT 2020





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in the Mediterranean Area
