

# **ECOWAVES**

## **T.2.3.1 - Feasibility study for the optimization of the port waste capacities in the port of Ancona**

**PP2 – CENTRAL ADRIATIC PORTS AUTHORITY**

January 2023

## Document control sheet

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## Summary

INTRODUCTION .....	4
CURRENT REGULATIONS ON THE SUBJECT .....	5
OVERVIEW OF THE CENTRAL ADRIATIC PORT AUTHORITY .....	9
CURRENT SITUATION .....	13
ISSUES TO BE TACKLED .....	22
PROPOSAL FOR ELECTRONIC MANAGEMENT AND REPORTING .....	24
INVESTMENT ESTIMATE .....	31

## INTRODUCTION

Central Adriatic Ports Authority as PP2 of ECOWAVES project is in charge of the realization of the "Del T.2.3.1. - Feasibility study for optimization of port waste capacities" aimed at the definition of the ports requirements to ensure adequate waste reception facility, to detect the potential obstacles for the establishment of such facilities and to determine the effective ways to overcome these hindrances.

The present feasibility study shows possible solutions for the full observation by Central Adriatic Ports Authority of the requirements of the new Directive 2019/883/EU on port reception facilities for the delivery of waste from ships, that was transposed into national law with Legislative Decree 8 November 2021, no. 197, with particular attention to the increased efforts in charge to the port authorities in the management and monitoring of waste from ships.

Moreover, the document provides an overview on the features also in terms of traffic flows of the Central Adriatic Ports Authority and on the organization and structure of the waste collection and management activity. To ensure the coherence with the ECOWAVES outputs and deliverables, the information contained in this document derive from to the Del "T1.2.1 Desk analysis on vessel traffic flow and waste generation" and Del. T1.2.2 Joint report on availability and use of port waste reception facilities and the data on traffic flows and waste collection refer to the years 2016, 2017, 2018, 2019 and 2020.

The scope of this document is to propose a sustainable and innovative solution to face the new roles and responsibilities assigned by the new Directive 2019/883/EU to the Port Authorities with regards to the recording and monitoring of the waste flow through an informative system in order to optimize the coordination, efficiency and the safety in case of hazardous situations in the field of waste management. This feasibility study explores the features of an innovative digital system that would provide support, in line with the Directive 2019/883/EU, for the monitoring in terms of quantity, typology and classification of port waste from the ships in real time and in a fully digitalized way, consenting to have a clear vision of the port waste framework and ensure the adequateness of the port reception facility.

## CURRENT REGULATIONS ON THE SUBJECT

The legislative reference for the management and collection of the waste from ships is the new Directive 2019/883/EU that repealed the Directive 2000/59/EC of 27 November 2000.

The Directive 2000/59/EC of 27 November 2000 repealed by the new Directive 2019/883/EU, provides the regulatory tools to reduce marine pollution, due to which all ports must prepare adequate plants for collection and/or appropriate services to manage all types of cargo waste and residue from ships mooring there.

The transposition provision in Italy (Legislative Decree no. 182 of 24 June 2003, repealed by Legislative Decree 197/2021) involved a series of technical steps to implement the Directive, including the so-called plan for the collection and management of cargo waste and residue produced by ships. This regulation sets administrative, technical, and organizational adaptations for all subjects involved: port and maritime authorities, ship owners, and waste collection and disposal companies.

The new Directive 2019/883/EU on port reception facilities for the delivery of waste from ships (amending Directive 2010/65/EU and repealing Directive 2000/59/EC), published in the Official Journal of the EU on 7 June 2019, introduced important changes. In particular, Art. 2 of the Directive also includes 'passively fished waste' among ship waste subject to the orders in the Directive. This is defined as 'waste collected in nets during fishing operations' (Art. 2, Point 4). Recall that, pursuant to Art. 3 of the Directive, the scope of its application regards:

- all ships, irrespective of their flag, calling at, or operating within, a port of a Member State;
- all ports of the Member States normally visited by ships falling within the scope defined in the previous point.

This Directive was transposed into national law with Legislative Decree 8 November 2021, no. 197, which repealed the previous Legislative Decree no. 182 of 24 June 2003.

With regard to the instructions in the Directive, recall that the following are excluded from application: ships engaged in port services, military warships, auxiliary ships, and other ships owned or operated by a State and currently used only for government, non-commercial services.

The new instruction confirms the general structure of the previous instruction based on waste collection and management plans, the obligation for advanced notice, the imposition of a tariff regime, and a sanctions system which practically remains unchanged.

Changes are not lacking, however. These include:

- ship waste is expressly equated with special waste, except for waste produced by passengers and crew, and passively fished waste, which is instead considered urban waste;
- ships dedicated to port services are excluded from application of the directive. Under particular conditions, ships that stop in the so-called anchorage zone are also except from the obligation to deliver waste;
- the receipt form for the delivery of waste is introduced. This must be filled in by the collection plant manager and delivered to the ship captain;
- the fulfilment of obligations regarding the registration of waste flows is also updated. In fact, collection service and port plant managers must fulfil obligations relating to the waste registry, the loading and unloading registry, and traceability;
- in this respect, an information collection system must also be implemented. Finally, the insertion of a series of data pertaining to waste management is expected, within the European SafeSeaNet online portal.

With reference to the last point, the new Directive assigns new administrative, reporting and monitoring responsibilities to the “competent authorities”, namely the



port authorities or, failing them, the coast guard, and the related obligation to report the information through an information, monitoring and enforcement system.

According to art. 6 of the Legislative Decree n.167/2021, port authorities bear the responsibility to report electronically the information contained in the "advance waste notification" completed by the operator, agent or master of the ships at least 24 hours prior to arrival.

The art. 7 "delivery of waste from ships" determines that either the port reception facility operator or the authority where the waste was delivered should provide the waste delivery receipt, whose information should be reported electronically without undue delay.

Additionally, at art.8, the Decree assigns to the port authorities the responsibility to determine the fees to cover the costs of operating port reception facilities for the reception and treatment of waste from ships. The fee should cover administrative indirect costs and at least the 30% of the total effective direct costs for waste delivery of the previous year.

Further role assigned to the port authorities at the art. 9 relates to the issuing of the exemption certificate, confirming that the ship meets the necessary conditions and requirements for the application of the exemption and stating the duration of the exemption.

The exchange and reporting activities should be ensured electronically and within reasonable time through the SafeSeaNet platform.

The adoption of an effective, constructive plan guarantees greater environmental protection while also constituting an element to strengthen the port structure and possibly containing management costs. Clause 1 of Art. 5 of Legislative Decree 197/2021 establishes that 'Within 12 months of the effective date of the present decree, the competent authorities will provide, approve, and implement the waste collection and management plan with respect to the instructions in the present decree and the criteria indicated in Annex 1'.



According to Clause 7 of the same article, 'Consistent with regional planning in matters of waste, at least every five years and nevertheless in the presence of important operational changes in port management, the waste collection and management plan is subject to new approval. These changes may entail structural modifications regarding traffic headed towards the port, the development of new infrastructure, modifications regarding the demand and supply of port collection plants, and new on-board treatment techniques. If no significant changes have been made in the five-year period, the new approval may consist in validation of the existing plans following consultation by the same subjects, who must gather to prepare the draft.'

Any aspect not expressly governed by Legislative Decree 197/2021 is prescribed by Legislative Decree 152/06, the general regulation of reference if the special regulation is silent on the matter.

Therefore, all waste produced on land in areas under the responsibility of the port authorities is subject to European and national regulations for the urban and special waste.



## OVERVIEW OF THE CENTRAL ADRIATIC PORT AUTHORITY

The Central Adriatic Port Authority (AdSP MAC) manages a total of n. 7 ports (from the North: Pesaro, Falconara, Ancona, San Benedetto del Tronto, Pescara, Ortona and Vasto) located in 2 different Italian Regions (Marche and Abruzzo) that generate freight and passenger traffic which, in 2019, recorded about 12 million tons of goods handled and more than one million passengers in transit in the aforementioned ports.



*Figure 1: Location of the ports managed by the Central Adriatic Port Authority*

The analysis is focused on the port of Ancona, the main port of the Central Adriatic Network and core port of the SCAN-MED and Baltic-Adriatic Corridors, crucial north-south axis for the European economy within the TEN-T network.

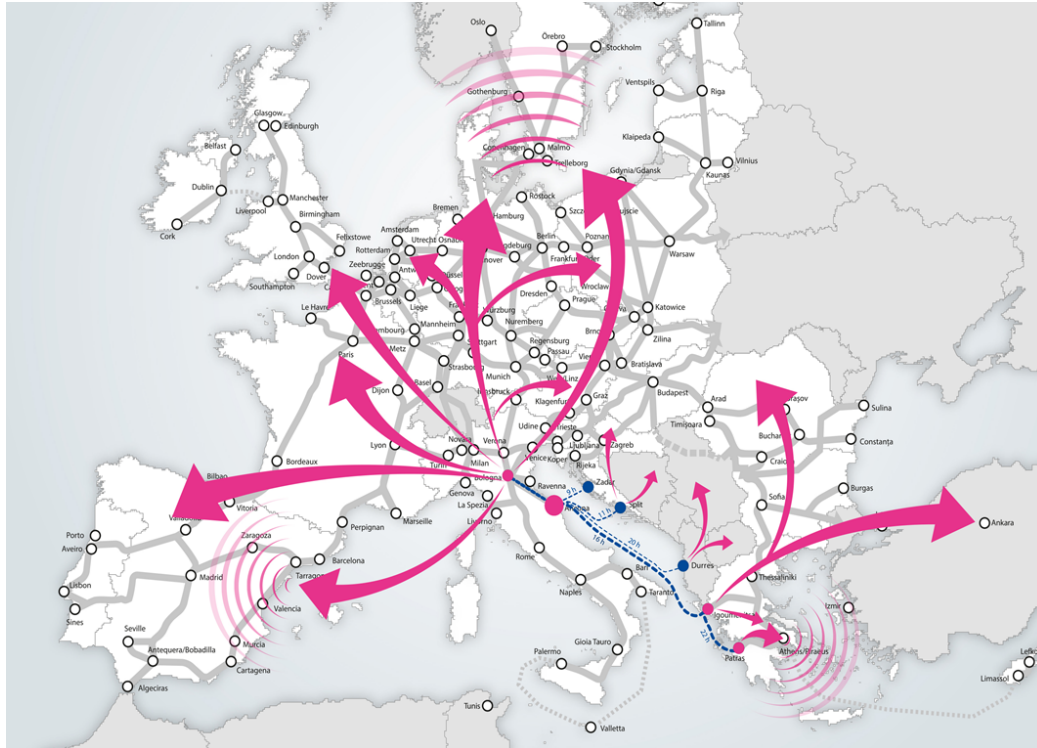
Based on prudential estimates made for 2018, the port of Ancona generated approximately 2.7% of the regional GDP (Gross Domestic Product), with an average number of annual landings of 2,200 arrivals in the port, about 11 million tons of goods handled and more than one million passengers in transit in 2019.

The Port of Ancona is also one of the modal nodes aimed at favoring the intermodality of transit of goods and passengers both towards the Eastern Mediterranean and in

reference to the transversal traffic in the Mediterranean recently generated. The AdSP MAC, in fact, estimates that 16% of heavy vehicles in transit on the Ancona-Igoumenitsa route come from the regions of Spain and are directed to the entire South-Eastern Mediterranean.



*Figure 2: Main routes to the eastern Mediterranean*



*Figure 3: Trans-Mediterranean integration of the ports of central Italy with the Motorways of the Sea*

As you can see from the image below, many activities are carried out in the Port of Ancona, including those related to:

- The ship-building industry for the construction and repair of ships and for the construction of luxury leisure boating;
- Terminal for Ro-Pax traffic (passengers, cars, trucks and trailers);
- Intermodal logistic terminal (container and general cargo);
- Fishing (recent assignment for the renovation of the state building of the fish market in the Port of Ancona);
- The stationing of pleasure boating and tourism.



*Figure 4: Allocation of activities in the Port of Ancona*



## CURRENT SITUATION

The Port of Ancona offers various port services and operations which can be listed as follows:

- Generic port services:
  - Waste collection
  - Refueling;
  - Cleaning of water mirrors;
  - Lighting;
  - Railway service;
  - Water supply;
- Technical - nautical services:
  - Boat;
  - Piloting;
  - Mooring;
  - Trailer;
- Shipping agencies.

The exercise of the aforementioned activities is governed by the order of the President of the Ancona Port Authority no. 1/2016 "**Regulations for the exercise of port operations and services in the port of Ancona**". The Regulation establishes the type and maximum number of authorizations that can be issued for the performance of port operations and services.

In particular, the types of authorizations for carrying out port operations issued in the Port of Ancona are listed below:

- Type "A" authorization: complete cycle of loading, unloading, transhipment and handling in general of goods of any type, or by means of the state-owned fixed cranes installed on the docks used under state concession, or by means of fixed cranes or self-propelled vehicles owned or supplied through a legal title lasting at least one year;
- Type "B" authorization: loading/unloading activities on own account or on behalf of third parties, of grains, seeds, flours, derivatives, similar and fertilizers on the quays of the south harbor, also through plants connected to concession structures, based on valid concession documents;
- Type "C" authorization: performance of partial phases of the complete cycle of operations through the provision of services to concessionaires or authorized companies of type A or B (...omissis...);
- Type "D" authorization: specialized activities of loading/unloading on/from RO/RO vessels of trailers/rolling stock by motor vehicle, in the context of



combined transport; these operations include, by way of example, loading/unloading and stowage of: containers (transported on board with mafi/rolltrailers and stowed on board also with forklifts), unitized goods (pallets, craddles, bundles, reels, etc.).

The total of authorizations that can be issued, regardless of the specific type, cannot exceed 16 overall, also taking into account the cumulative nature of the aforementioned authorizations for the same company. The authorization for carrying out port operations is effective annually, unless a longer period is required in relation to the operational program.

Authorizations to carry out **port services** in favor of legitimate port companies pursuant to art. 16 and 18 of Law 84/94 and subsequent amendments and additions, are, by ordinance, established as follows:

- n. 2 type S1 authorizations: GOODS WEIGHING - Measurement or verification of the actual weight of goods entering and leaving the Port. Service carried out with the aid of suitable scales - also under state concession - by personnel in possession of the special certification issued by the Chamber of Commerce, Industry, Agriculture and Crafts;
- n. 3 type S2 authorizations: REPAIR, MAINTENANCE AND CLEANING OF CONTAINERS - Repair, maintenance and cleaning of containers, through punctual interventions of limited duration, such as not to require the continuous and / or exclusive use of port areas.

The authorization for the performance of the services can be issued for a minimum period of one year and a maximum of four.

As regards the traffic relating to the Port of Ancona in the concerned period, the data collected made it possible to return the following table:

	2017	2018	2019	2020
Vessel number	4.089	3.977	3.819	3.011
Passengers	1.038.553	1.084.235	1.089.332	375.625
Cruise passengers	52.086	67.031	100.109	1.364
Number of passengers in transit	1.090.639	1.151.266	1.189.441	376.989
Average docking time [days]	Ferries: max 1 day Cargo ships: max 2-3 days (depending on tonnage and cargo)			
Total goods handled [ton]	11.037.891	10.819.019	10.767.182	8.851.520
Total goods handled [TEU]	168.372	159.061	176.193	158.677

*Table 1: Data on traffic in the Port of Ancona (period 2017 - 2020).*



The next section shows the results of the analysis of the data relating to the production and collection of waste in the Port of Ancona.

In particular, the diagrams below show, in logarithmic scale, the annual quantities of waste collected from ships, those delivered to the port reception facilities of the former Morini port and delivered to the Port of Ancona for the years 2016, 2017, 2018, 2019 and 2020.





Figure 5: Waste collected from ships. Chart of quantity by year.



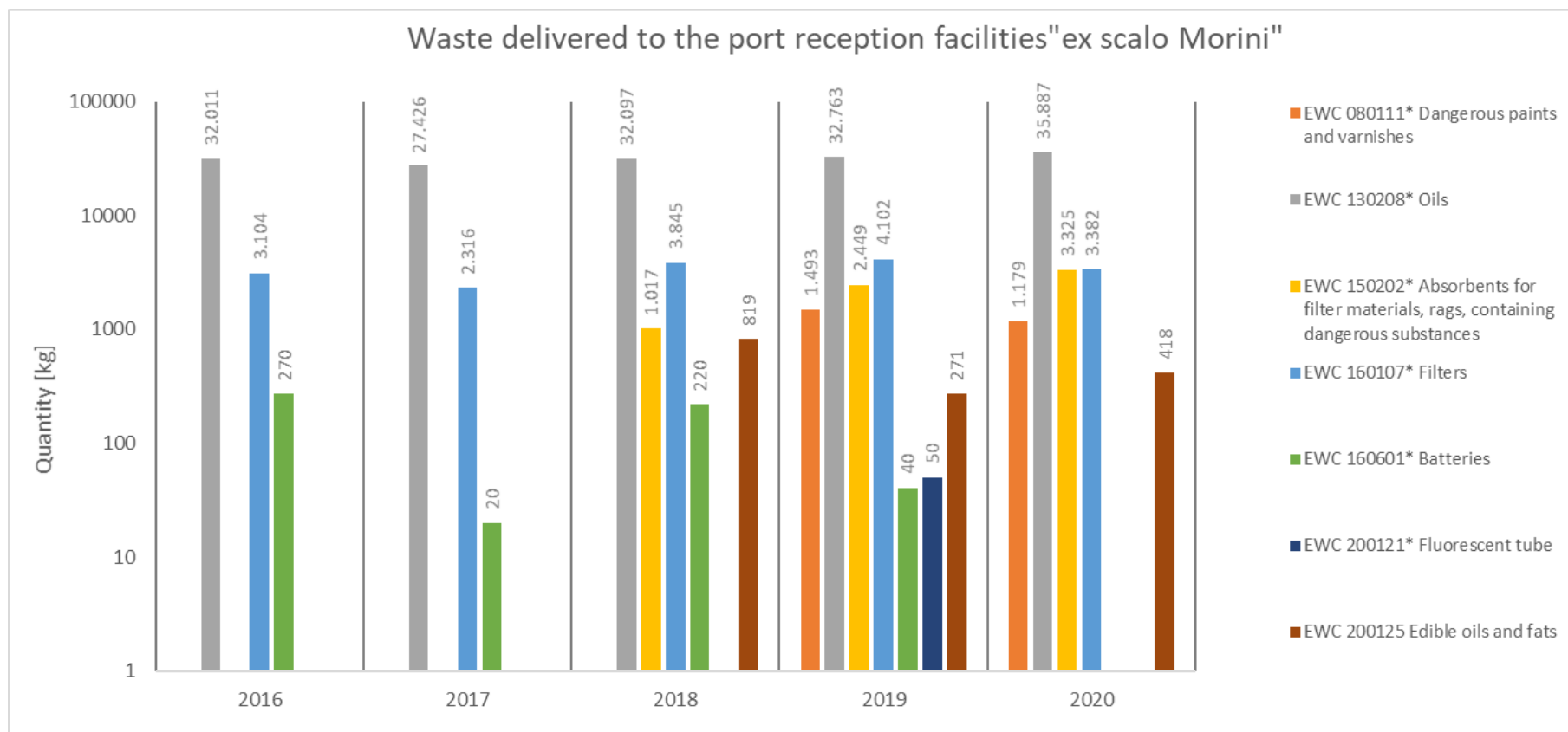


Figure 6: Waste delivered to the port reception facilities "ex scalo Morini". Chart of quantity by year.

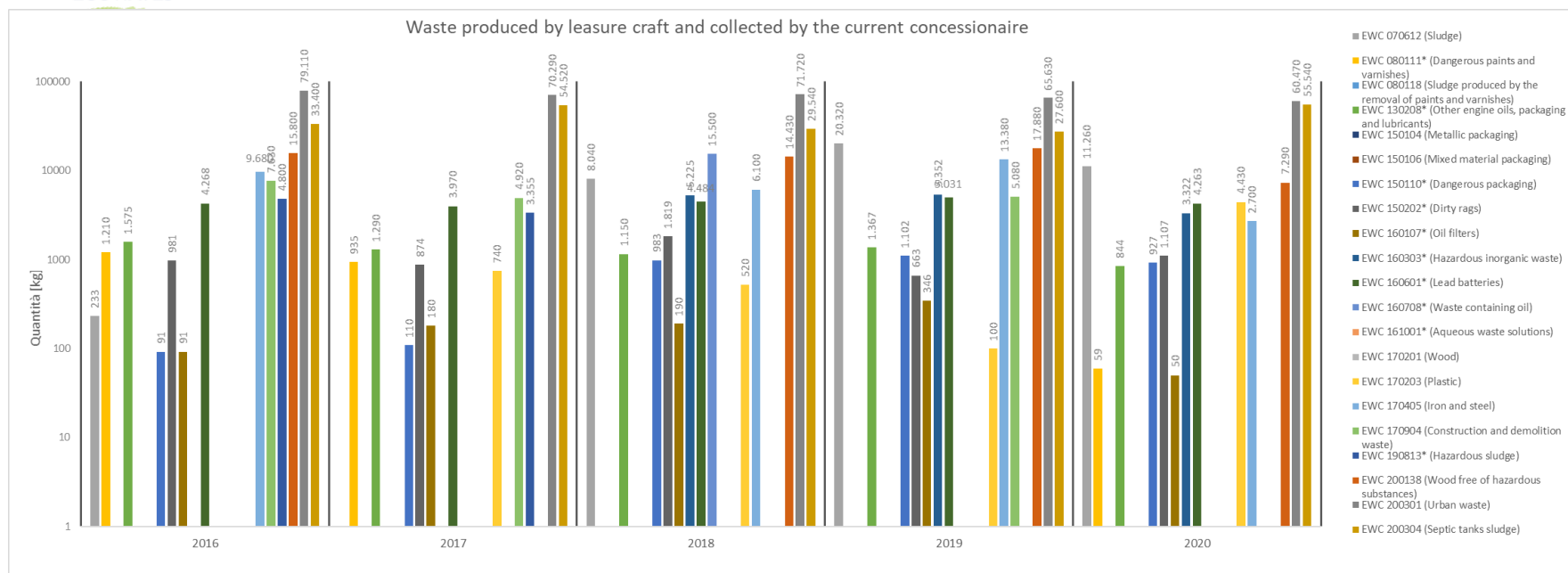
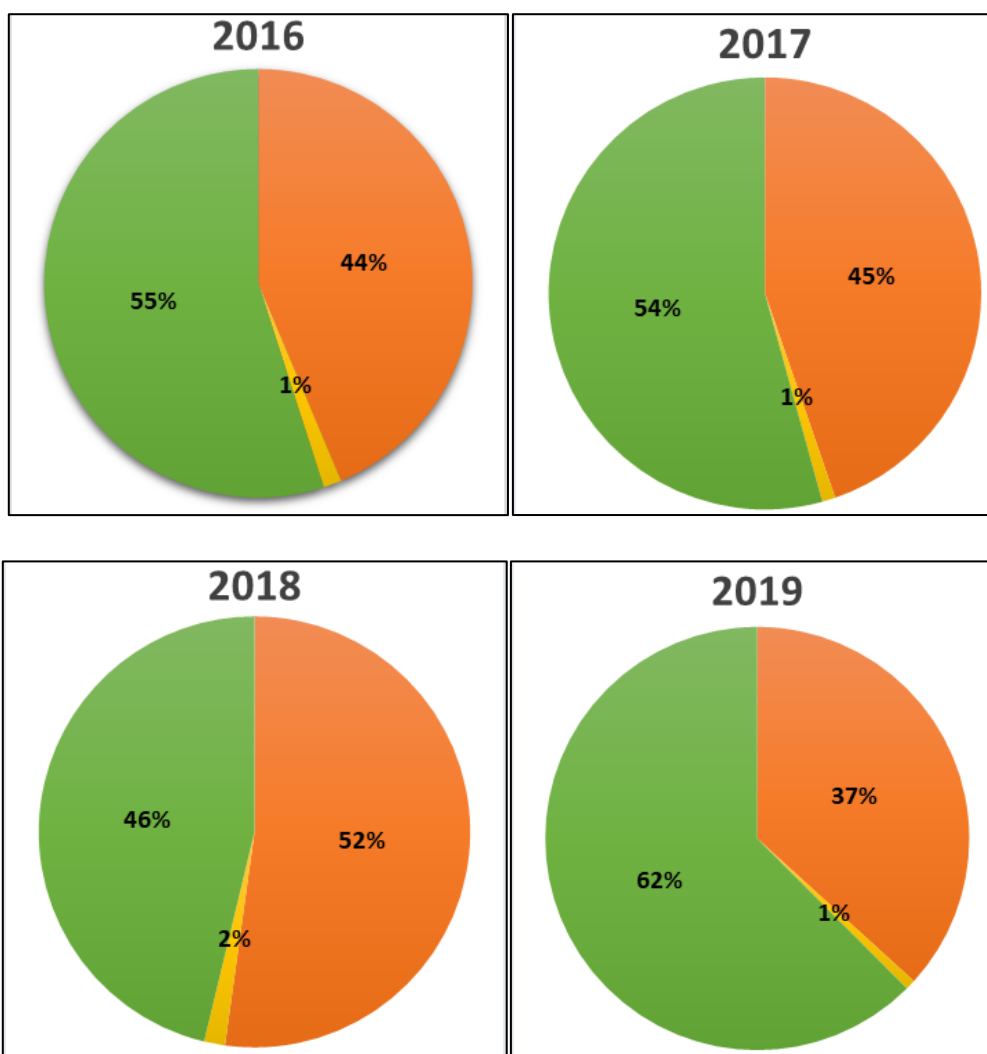


Figure 7: Waste produced by leasure craft and collected by the current concessionaire. Chart of quantity by year.

Below are the percentages of organic and non-organic waste collected from the ships by the concessionaire in the reference period (2016 - 2020).



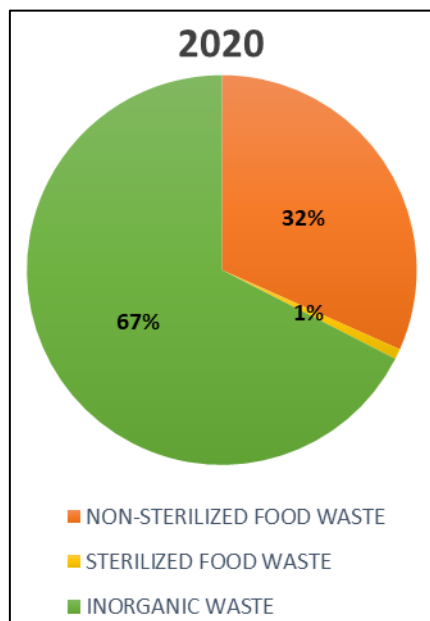
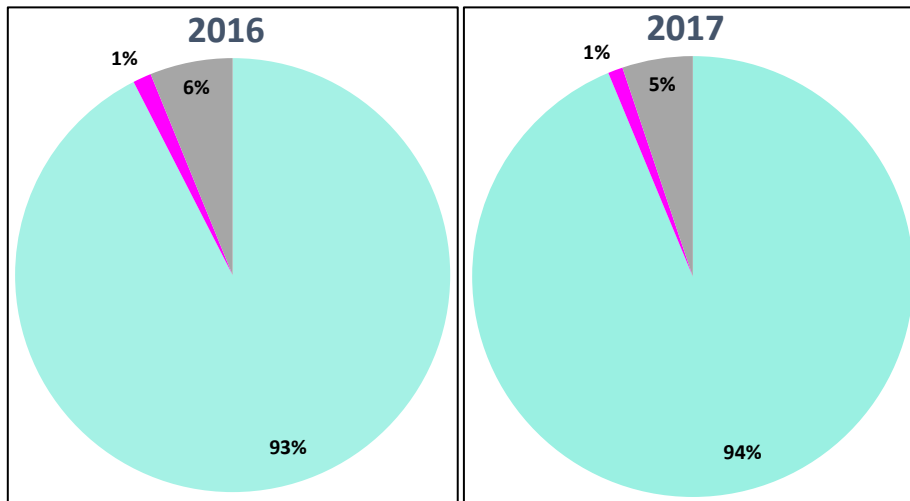
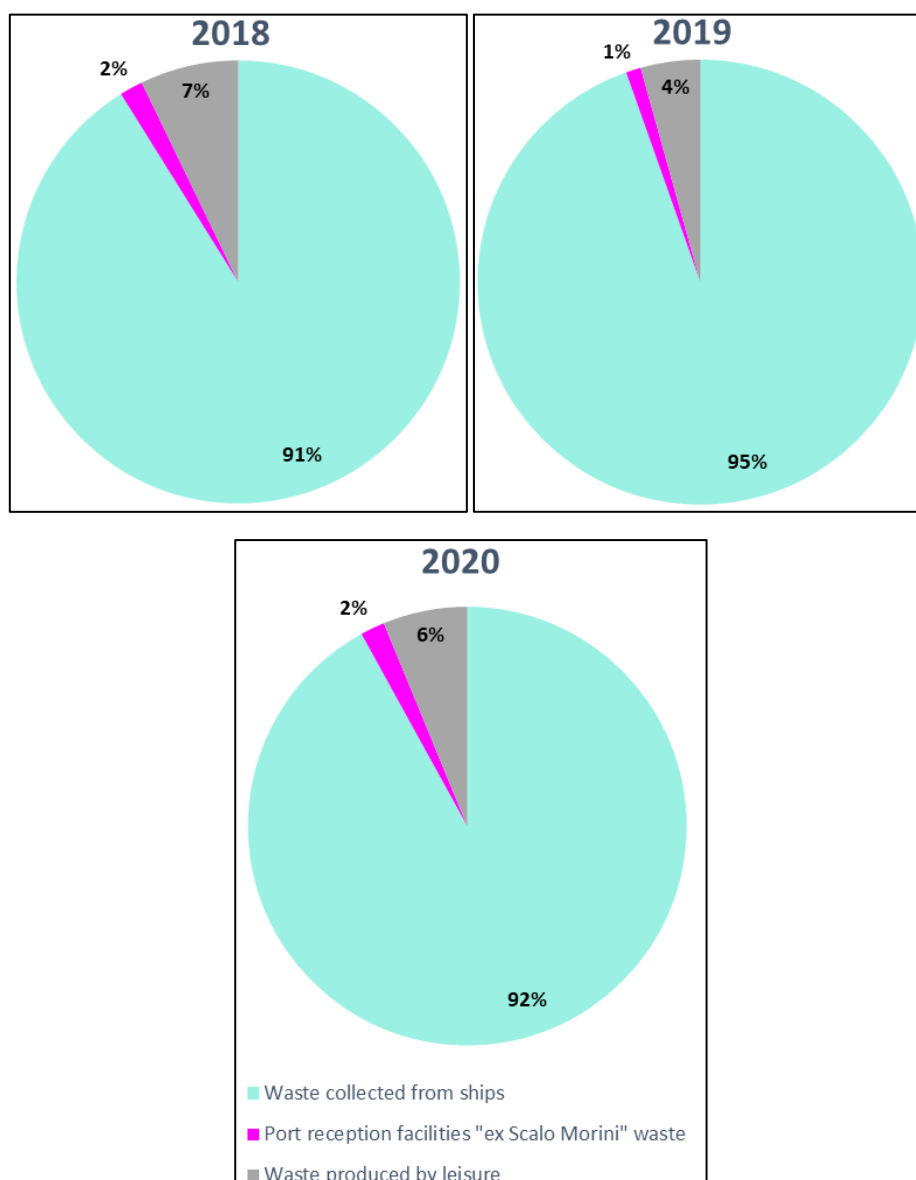


Figure 8: Percent of organic/inorganic waste collected from ships. Charts by year.

The following graphs show the breakdown of port waste sources by year during the reference period of this report (2016 - 2020).





*Figure 9: Source of waste per year.*

## ISSUES TO BE TACKLED

At the light of the new obligations in charge to port authorities, as illustrated in the chapter “Current regulations on the subject”, deriving from the Legislative Decree 8 November 2021, no. 197, the main issue to be tackled by Central Adriatic Port Authorities concerns the optimization of the administrative and reporting procedures so as to ensure the efficient and sustainable management of the waste from ships at the port of Ancona.

The timely and correct notification to the competent bodies of the type, quantity and typology of waste collected and of the approved exemptions, as well as the fair and transparent determination of the fees to cover the costs for the port waste collection facility, require the adoption of methods for data collection and processing tailored on the specific needs of waste collection and management.

The electronic method of reporting required by the Directive 2019/883/EU and by its transposition into national law with Legislative Decree 8 November 2021, no. 197, ensures the efficient collection, management and reporting of data on the waste disposal logistic process of the waste from ships; moreover, it supports the implementation of the “only-once” principle that foresees the reduction of administrative burden by the operators in the exchange of information with the public authorities.

To answer to the new reporting obligations, Central Adriatic Ports Authority proposes to adopt an informative and digitalized software the allows the real-time collection and management of data on waste from ships in the port of Ancona, with the possibility to further extend it to the other 6 ports managed by ADSPMAC.

According to the specific requirements of Directive 2019/883/EU and Legislative Decree 8 November 2021, no. 197, the software would allow to have a real-time clear picture of the quantity and typology of waste delivered in the port facilities. The same data will be used for the determination of fees in charge to the ship’s owner for the waste reception facility services.

This answers also to the difficulties highlighted in the report D. T1.2.1 “Desk analysis on vessel traffic flow and waste generation” concerning the correct attribution of the

tariff to be applied to particular types of ships such as for example working vessels or large pleasure boats, that can be solved through the draw up of a specific tariff system for these types of ships, and to the establishment of ad hoc pricing for the barges used for the supply or refueling of fuel on board ships (bunkering).

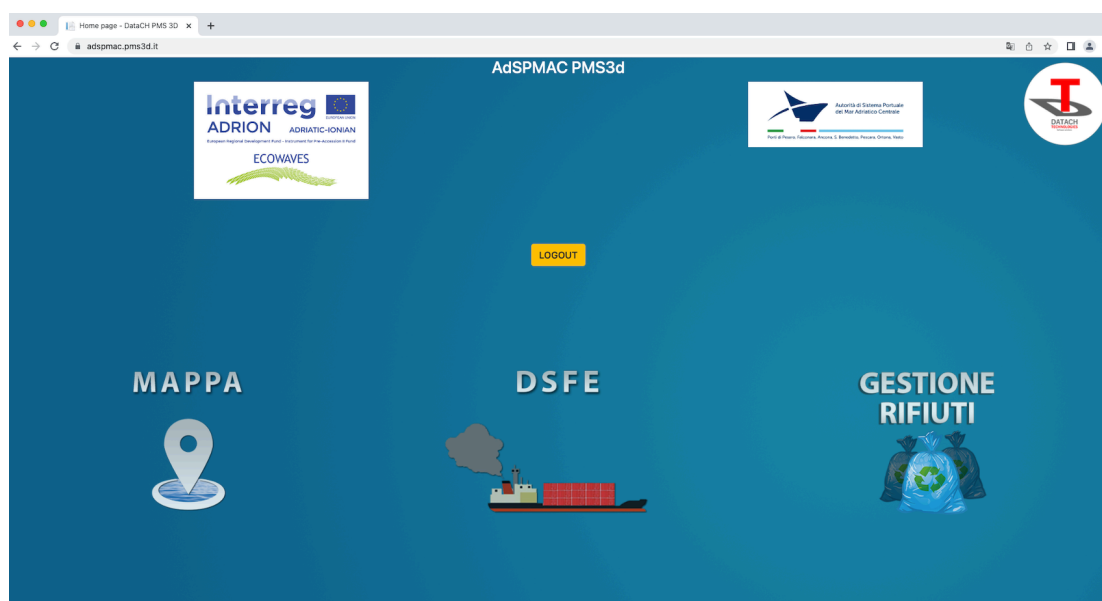
## PROPOSAL FOR ELECTRONIC MANAGEMENT AND REPORTING

The solution proposed to ensure the efficient and sustainable collection and management of data related to waste from ships, to align to the dispositions of the Italian Legislative Decree 8 November 2021, no. 197 is the adoption of a software dedicated, among other aspects, to the management of waste from ships of the 7 ports under the competences of Central Adriatic Ports Authority.

The software integrates data from the PMIS, the digital system of the Coast Guard, and from the AIS thus it provides real-time information on all the ships arriving and departing from the selected ports,.

As shown in the images below, the sections that can be find the homepage are:

- Map;
- DSFE: data on Co2 emissions produced by the ships
- Gestione Rifiuti: waste management
- Anagrafica navi: anagraphic of the ships
- Maritime Information system:
- Dangerous Goods:





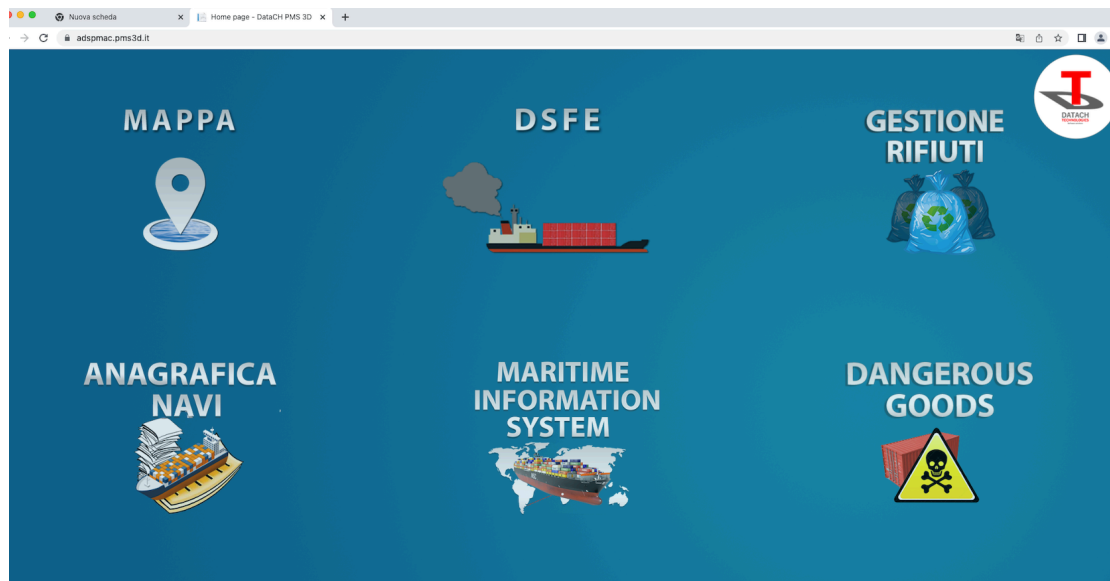


Image 1and 2: homepage

The section "Waste Management" includes the following subsections:

- Daily plan
- Collection of waste from ships
- Statistics
- Tariffs



Imagine 2: Menu of the section "Waste Management"

In the section "Collection of waste from Ships", the following options are available:

- Ships planned to arrive

- Moored ships
- Ships at anchor;
- Departed ships

The sections can be explored for all the ports under the competences of ADSPMAC:  
 Ancona and Falconara, Pesaro, San Benedetto del Tronto, Ortona, Pescara, Vasto



Imagine 3: the data are available for all the ports of the ADSPMAC

The image 4 below show the section "Ships at the port" where all the ships moored at the selected port and the related data are listed: date of arrival, name of the ship, first disposal, gross tonnage, type of ship, nationality of the ship.

## Gestione Rifiuti - Navi in porto



SELEZIONA IL PORTO: ANCONA



Navi in previsto arrivo



Navi in porto



Navi in rada



Navi partite

### FILTRI DI RICERCA

Nome nave:

Con almeno un conferimento: ☐ Con almeno una fattura: ☐ Con indisponibilità: ☐

IMO:

Viaggio	Data di arrivo	Nave	Primo conferimento	Stazza lorda (ton)	Tipo Nave	Bandiera		
6907	02/05/2023 10:56:04	AF CLAUDIA		24418,00	Passenger/Ro-Ro Cargo	Italy	Visualizza Notifica XML	Visualizza Notifica DATI
6902	01/05/2023 20:15:24	VENEZIA		26302,00	Passenger/Ro-Ro Cargo	Italy	Visualizza Notifica XML	Visualizza Notifica DATI
6901	01/05/2023 18:52:24	KING DAVID		296,00	Offshore Supply	Italy		
6898	01/05/2023 18:05:48	WOLF		ND	OTHER	ND		
6897	01/05/2023 17:55:46	BLUE BOY		285,00	Offshore Supply	Italy		

Image 4: the data available in the section "Ship at the port"

Moreover, from this page it is possible to access the data related to the waste of the selected ship, as in the image n.5 below.

In particular, for each ship, the following data are available: type of waste, waste to deliver, maximum capacity of waste, waste to retain, waste to deliver in the next port, next port of delivery, quantity of waste delivered at the previous port.

### Gestione Rifiuti - Navi in porto

#### Dettagli della notifica rifiuti PMIS per la nave AF CLAUDIA in arrivo il 02/05/2023 11:00:00

ID\_DOC: 54081152

ID\_FASCICOLO: 421

AGENZIA: FRITTELLI MARITIME Group S.p.A.

CODICE VIAGGIO AGENZIA:

NOME AGENTE NAVE: Alberto (Fmg) ROSSI

EMAIL FIRMATARIO: a.serrani@fmg.eu

PORT RECEPTION FACILITY: ZB

TIPO RIFIUTO	RIFIUTI DA CONSEGNARE	MASSIMA CAPACITA' RIFIUTI	RIFIUTI DA TRATTENERE	RIFIUTI DA CONSEGNARE AL PROSSIMO PORTO	PROSSIMO PORTO DI CONSEGNA	RIFIUTI CONSEGNA TI AL PORTO PRECEDENTE
A. Plastics	0.5	1.1	0	0.5	Durrës (ALDRZ)	0.5
B. Food waste not EU	0.5	2.2	0	0.5	Durrës (ALDRZ)	0.5
C. Domestic wastes	0.5	2.2	0	0.5	Durrës (ALDRZ)	0.5
Oilly Bilge water	0	177.3	1	1	Durrës (ALDRZ)	1
Oilly Residues (Sludge)	0	82.4	0.4	1.5	Durrës (ALDRZ)	1.5

Chiudi

Image 5: detail of the data provided for each ship

The same information is available for the departed ships. See images n.6 and 7 below

### Gestione Rifiuti - Navi partite

SELEZIONA IL PORTO: ANCONA

Navi in previsto arrivo

Navi in porto

Navi in rada

Navi partite

#### FILTRI DI RICERCA

Nome nave:


Arrivate dal: 12/04/2023 al: 02/05/2023

Con almeno un conferimento: ☐ Con almeno una fattura: ☐ Con indisponibilità: ☐

IMO:

Viaggio	Data di arrivo	Data di partenza	Nave	Banchina	Primo conferimento	Stazza lorda (ton)	Tipo Nave	Bandiera	Visualizza Notifica XML	Visualizza Notifica DATI
6893	01/05/2023 15:44:48	01/05/2023 18:49:59	SUPERFAST XI	BANCHINA 16 MOLO L. RIZZO		31090,00	Passenger/Ro-Ro Cargo	Greece	Visualizza Notifica XML	Visualizza Notifica DATI
6885	01/05/2023 07:01:39	01/05/2023 19:50:21	MOBY ZAZA	BANCHINA 8		22161,00	Passenger/Ro-Ro Cargo	Italy	Visualizza Notifica XML	Visualizza Notifica DATI
6884	01/05/2023 06:37:00	01/05/2023 19:58:04	MARKO POLO	BANCHINA 9		10325,00	Passenger/Ro-Ro Cargo	Croatia	Visualizza Notifica XML	Visualizza Notifica DATI
6890	30/04/2023	01/05/2023	BLUE BOY	BANCHINA 1		285,00	Offshore Supply	Italy		

Gestione Rifiuti - Navi partite



**FILTRI DI RICERCA**

Nome nave:

IMO:

Viaggio:

**Dettagli della notifica rifiuti PMIS per la nave Superfast XI in arrivo il 01/05/2023 15:40:00**

ID_DOC:	54079962
ID_FASCICOLO:	398
AGENZIA:	F.lli MORANDI & C. S.r.l.
CODICE VIAGGIO AGENZIA:	
NOME AGENTE NAVE:	Riccardo (Morandi) BARBON
EMAIL FIRMATARIO:	r.barbon@morandiagency.it
PORT RECEPTION FACILITY:	2A

TIPO RIFIUTO	RIFIUTI DA CONSEGNARE	MASSIMA CAPACITA' RIFIUTI	RIFIUTI DA TRATTENERE	RIFIUTI DA CONSEGNARE AL PROSSIMO PORTO	PROSSIMO PORTO DI CONSEGNA	RIFIUTI CONSEGNA TI AL PORTO PRECEDENTE
Oily Bilge water	0	109.8	16	0.5	Patras (GRGPA)	0.5
Oily Residues (Sludge)	0	86	7	1	Patras (GRGPA)	1
B. Food waste EU	2	8	0	0.7	Patras (GRGPA)	0.7
A. Plastics	0	4	0.3	0.5	Patras (GRGPA)	0.5
C. Domestic wastes	0	4	0.3	0.5	Patras (GRGPA)	0.5
F. Operational wastes	0	4	0.3	0.4	Patras (GRGPA)	0.4

Chiudi

Image 6-7: detailed information available for the departed ships

29

The software allows also to estimate tariffs on the basis of the waste collected and typology of freight transported for solid and liquid waste

GESTIONE RIFIUTI

page

Seleziona il porto e l'anno di interesse per il calcolo della stima degli addebiti mensili

Porto:

Anno:

**Stima addebito medio mensile per conferimenti SOLIDI**

MESE	Stima MercI (euro)	Numero conferimenti MercI	Stima RO-PAX (euro)	Numero conferimenti RO-PAX	Stima Crociera (euro)	Numero conferimenti Crociera
GENNAIO	0	0	0	0	0	0
FEBBRAIO	0	0	0	0	0	0
MARZO	0	0	0	0	0	0
APRILE	0	0	0	0	0	0
MAGGIO	0	0	0	0	0	0
GIUGNO	0	0	0	0	0	0
LUGLIO	0	0	0	0	0	0
AGOSTO	0	0	0	0	0	0
SETTEMBRE	0	0	0	0	0	0
OTTOBRE	0	0	0	0	0	0
NOVEMBRE	0	0	0	0	0	0
DICEMBRE	0	0	0	0	0	0

**Stima addebito medio mensile per conferimenti LIQUIDI**

MESE	Stima MercI (euro)	Numero conferimenti MercI	Stima RO-PAX (euro)	Numero conferimenti RO-PAX	Stima Crociera (euro)	Numero conferimenti Crociera
GENNAIO	0	0	0	0	0	0
FEBBRAIO	0	0	0	0	0	0
MARZO	0	0	0	0	0	0
APRILE	0	0	0	0	0	0
MAGGIO	0	0	0	0	0	0
GIUGNO	0	0	0	0	0	0
LUGLIO	0	0	0	0	0	0

Esporta in Excel

Esporta in Excel

Image 8: information on average tariff for different waste typology

## INVESTMENT ESTIMATE

An estimate of the investment needed to implement the sorted waste collection proposal is provided below:

Equipment	No.	Unit cost (€ each)	Investment (€)
Licence of the software	1	€ 34.957,50	€ 34.957,50
<b>Total investment</b>			€ 34.957,50
<b>VAT (22%)</b>			€ 7.690,65
<b>Total VAT included</b>			<b>€ 42.648,15</b>