



MEDGuard Project.



Deliverable

D2.1 Catalogue with the training itineraries for the professional re-orientation of fishermen and ship owners.

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Abstract

This document is the Deliverable: "D2.1 Catalogue with the training itineraries for the professional re-orientation of fishermen and ship owners." of the MEDGuard project co-funded by the DGMare of the European Commission within the call "Guardians of the Sea, MARE/2014/24". This call co-funds preparatory actions to promote the reassignment of fishing vessels and the professional re-orientation of fishermen for activities and services outside fishing. In the MEDGuard project the reassigned fishing vessel "Ciudad de Cartagena" is operated in the coast of Cartagena with the aim to identify the requirements needed to guarantee the sustainability of the reorientation of the medium size fishing fleet." This confidential document reports the work progress of the project to identify the training necessities for the necessary re-orientation of the fishermen to carry out on board the new substitutive activities other than fishing identified in Deliverable "D1.1 Study of the technical feasibility".

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Bibliography

- Call MARE2014/24. Guardian of the Sea. Ref. Ares(2014)3588218 - 29/10/2014
- Grant Application Form “Guardians of the Sea”, MEDGuard project.

List of abbreviations.

CTN	Centro Tecnológico Naval y del Mar
HESPÉRIDES	CIFP Hespérides
IVEAEMPA	Identities, values and strategies alternatives para los empresarios marítimos y pesqueros

1 Introduction.

The MEDGUARD Project is funded by DGMare of the European Commission within the call “Guardians of the Sea, MARE/2014/24”. This call funds preparatory actions to promote the reassignment of fishing vessels and the professional re-orientation of fishermen for activities and services outside fishing which should contribute to the sustainable management and use of marine and maritime resources.

In the MEDGuard project the reassigned fishing vessel “Ciudad de Cartagena” is operated in Cartagena coast to examine and demonstrate the feasibility and economic viability of substitute activities to fishing with the main aim of identifying the requirements needed to guarantee the sustainability of the reorientation of the medium size fishing fleet. The Project has the following specific objectives:

- ✓ To perform a series of tests in Western Mediterranean Coast using the reassigned fishing vessel “Ciudad de Cartagena”.
- ✓ To analyse the technical viability of using the acoustic systems and devices of fishing vessels for collecting lost fishing gears.
- ✓ To analyse the economic conditions and operational costs of vessels to perform maritime activities outside fishing and identify ways for future funding.
- ✓ To identify the relevant training needs of fishermen and vessel owners to perform the substitute activities.
- ✓ To provide useful data and information about costs and ways of funding to the promoters of the diversification activities, fishermen and the authorities with competences in the management of programmes related to the CFP Reform.

To achieve these objectives, the project has 5 work packages whose relationship is shown in Figure 1. Work plan Structure.

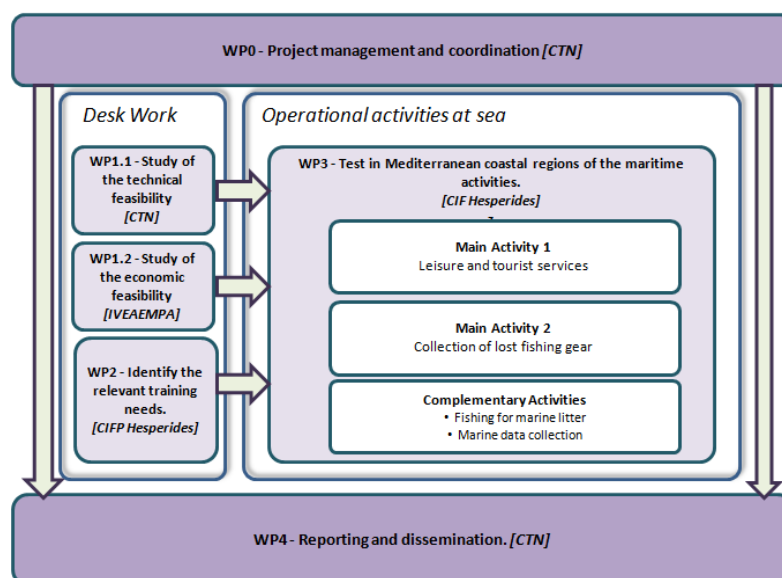


Figure 1. Work plan Structure.

This document shows the training itineraries necessary to cover the training necessities in order to guarantee the re-orientation of fishermen to carry out on board activities other than fishing. Three fishermen professional profiles need reorientation (A) Ship owner, (B) Captain & Sailor and (C) Ship engineer. For each of the 3 professional profiles, it has been defined a mandatory General Competence to carry out each of the 4 alternative activities, ending in 12 General Competences (see section 4). Each of these General Competences has been broken down into different Specific Competences (see Summary section 4). The result of this work is described in Deliverable "D2.2 Definition proposal with the new professional competences required to carry out the new activities". In order to determine the training itinerary needed for the professional reorientation of the crew, the identified training needs have been divided into three groups according to the priority of each training need: (i) Mandatory (before starting the activity), (ii) Mandatory (in the 1st year) and (iii) Complementary. The result of this work has been a total of 12 training itineraries, one for each profile and activity detailed in sections 5 and 6 of this Deliverable ("D2.1 Catalogue with the training itineraries for the professional re-orientation of fishermen and ship-owners").

The schedule of the training actions will be detailed in the Deliverable "D2.3 Planning and programming training actions directed to fishermen" foreseen for month 12 of the project. The project is developed by a consortium made up of 3 entities coordinated by CTN and it has a duration of 12 months starting in August 2015.

2 Objectives of this document.

The fishing industry and aquaculture are suffering a deep transformation in the last decades. The maritime extraction fishing is giving up facing the feeding production system and fostering offered by the aquaculture. On the other hand, we have the concern aroused with the fact that many fishing grounds are subdued to excessive fishing of their fishing resources have been exhausted, causing changes in the ecosystems that endanger the wellness of future and present generations. Both factors determine the necessity of the sustainable development of the fishing activity that has led to promote the reduction of capacity of the EU fleet.

According to the "Annual Report of the Spanish fishing fleet activity": "Along 2014, a total of 290 fishing ships have been retired (64% with no funds and the rest with funds from FEP) mainly in trawl fleet and small scale fishing". This fall is connected with the direct or indirect unemployment in this sector. Trying to minimize this problem, it is taken into account the economic and technical feasibility of other kind of activities that can be carried out on board the ship. This retraining implies the reconversion of the professional profile of the fishermen, being the purpose of this document the definition of these new profiles, defining the new specific and general competences needed for the reconversion of the fishermen to carry out on board.

3 Methodology.

The accomplishment of these substitutive activities will require the reorientation of these 3 professional profiles: A) Ship Owner, B) Captain and Sailor, and C) Ship Engineer, together with other professional profiles that are not due to reorientation and that realize different activities such as: touristic guides, marine biology specialist, or oceanographic researchers.

For each of the 3 job positions described formerly, a necessary general competence to perform each of the 4 alternative activities has been defined, ending in the definition of the twelve general competences. Each of the General Competences has been split in a number of specific competences following the Spanish National Catalogue of professional Qualifications (CNCP). The result of this work can be seen in Deliverable "D2.2 Definition proposal with the new professional competences required to carry out the new activities."

In order to design the training itinerary to acquire each of the Competences different sources has been consulted.

- a) Surveys to 30 workers (Ship Owners, captains, Sailors and Motormen,) of the fisherman associations of Cartagena and Mazarrón. From a total of 40 workers selected.
- b) The results of this survey have no statistic validity; its goal is to explore the detection of the training and occupational necessities in a short term.
- c) Interviews with the responsible of companies and public and privates bodies representing the different activities to carry out (touristic sector, hospitality environment).
- d) Interviews with the tutors of the FCT (Training in work places) of the maritime / fishing areas of the CIFP Hespérides. In this professional module, the students are during 400 hours in a company. This leads to a permanent contact between the tutor and the captains / crew members, so they have a wide knowledge about the characteristics and training needs.
- e) Interviews with teachers of the CIFP Hespérides who have been carrying out tests on board of fishing vessels with different characteristics (trawling, seine fishing and small scale fishing fleet).
- f) The current training options offered in the area, by the education system and by training for employment programs.
 - Current law 5/2002, from 19th June, for qualifications and Vocational Training, included in article 3.1, among the goals of the Spanish National Catalogue of professional Qualifications. "To qualify for the execution of professional activities, in a way that the individual necessities and the productive and employment systems can be satisfied".
 - Current Law 2/2006, from third of May, from Education, appoints in article 42.1 that: "Corresponds to the Education Administrations, in the area of its competences and cooperation with the local corporations and social and economic agents, to program the offer for Vocational Training programs, according with the recognized rights in the current Law".
- g) Involved Administrations
 - Dirección General de la Marina Mercante (*Directorate General of the Merchant Marine*), through the Port Authority of Cartagena.

- Dirección General de Agricultura, Ganadería, Pesca y Acuicultura, (*Directorate General of Agriculture, Fishing and Aquiculture*) through the Service of Fishing and Aquiculture.

h) Spanish National Catalogue of professional qualifications (CNCP). See Annex 3. Training and Profession survey.

In order to determine the training itinerary needed for the professional reorientation of the crew, the identified training needs have been divided into three groups according to the priority of each training need: (i) Mandatory (before starting the activity), (ii) Mandatory (in the 1st year) and (iii) Complementary.

As a result of this work has been a total of 12 training itineraries, one for each profile and activity. These itineraries are detailed in the Deliverable “D2.1 Catalogue with the training itineraries for the professional re-orientation of fishermen and ship-owners”.

The schedule of the training actions will be detailed in the Deliverable “D2.3 Planning and programming training actions directed to fishermen” foreseen for month 12 of the project. Planning and programming training actions selected to take into account within the temporal framework of the project are detailed.

The following scheme shows the methodology followed for the development of Work Package 2 and its deliverables.

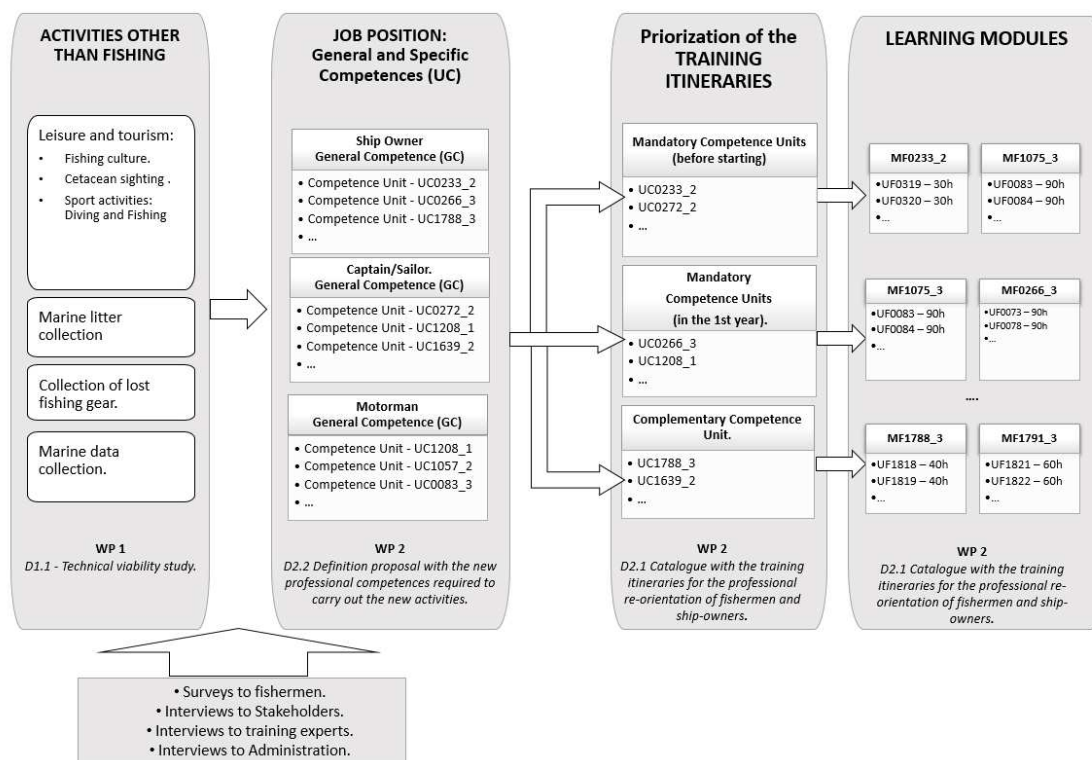


Figure 2. Methodology to identify the general and specific competences for professional reorientation of fishermen in activities other than fishing.

The specific and general competences of each of the professional profiles to be reoriented has been defined in order to accomplish the production and demand needs of the new activities:

- Leisure and tourism – Dissemination of the fishing culture; cetaceans sightseeing and sport activities.
- Litter collection.
- Lost fishing gear collection.
- Environmental parameters monitoring.

The professional positions that require a professional reorientation are: (A) Ship Owner, (B) Captain & Sailors and (C) Ship's Engineer. Taking into account that due the vessel crew is not big and with the objective to gain polyvalence, the following competences have been established for the reorientation of each of the professional positions:

- Ship Owner: will assume the responsibilities of the manager of the new activity.
- Captain/sailor: it has been considered that the additional training that captains and sailors should have to carry out the new activities is the same.
- Ship's Engineer.

In the Deliverable “D2.2 Definition Proposal for the new professional Competences required to carry out the new activities”.

3.1 New professional competences for leisure and tourism services.

ECONOMIC ACTIVITY		1. - Leisure and tourism services.
JOB POSITION		1.- Ship owner
GENERAL COMPETENCE		
To direct the small entrepreneurs or small companies, together with the implementation and planning of business area strategies , programming the activities, organizing and controlling material resources, the economic operations and fostering the marketing and sales of the products and touristic services by using telematics or computer media, managing with quality and environmental quality, ensuring risk prevention and using consultancy services when the difficulty of the activity requires, with the purpose of assure the business goals and the fulfilment of the current regulation.		
SPECIFIC COMPETENCES		
1.- Mandatory (Before starting): Compulsory manage them before starting the activity		
UC0233_2	To Handle computer applications to manage information and documentation (partial)	
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity		
UC1057_2:	To be able to communicate in English, independent user level, in touristic activities.	
UC1792_2	Manage risk prevention in the small businesses.	
UC0266_3	To sell travels and touristic services.	
UC1075_3:	To create, push and manage services and local touristic products.	
UC2005_2:	Offer the travellers own means of transportation services	
3.- Complementary: those not compulsory for the development of the activity		
UC1788_3	To plan efforts and activities in small businesses or micro-enterprises.	
UC1789_3	To manage the daily business activity and resources in small businesses or micro-enterprises.	
UC1790_3	To market with the products and services in small companies or micro-enterprises.	

UC1791_3	To do administrative and financial dealings of the small companies or micro-enterprises.
UC1070_3:	To interpret natural spaces and other sites of cultural interest within the scope of tourists and visitors.

Table 1. New professional competences for leisure and touristic services – Ship owner.

ECONOMIC ACTIVITY	1.- Leisure and tourism services
JOB POSITION	2.- Captain
GENERAL COMPETENCE	
To develop activities of reception and attention to passengers in means of transportation according to the specifications of the company or borrowing company and to inform and interpret the heritage, cultural and natural assets and all the rest of touristic resources, and in an attractive way, interact with them fostering their interest, together with the providing of escort service, using ,when necessary, the English language or other foreign language, in a way that they fell comfortable and well attended all the time, being their expectations for information and enjoyment fulfilled . This way the objectives of the organizing entity can be done.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC1637_2 (Partial)	To be able to make hyperbaric actions using the autonomous or semiautonomous scuba system, breathing air or nitrox up to a pressure of 5 atmospheres.
UC0272_2	To assist in an accident or emergency situation (diving) as first person
UC0255_1 (Partial)	To execute basic operations on providing supplies, pre-elaboration and food preservation.
UC0806_3 (Partial)	To develop training programs on environmental education and Foster educational processes.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC1637_2 (complete)	To be able to make hyperbaric actions using the autonomous or semiautonomous scuba system, breathing air or nitrox up to a pressure of 5 atmospheres.
UC1057_2	To be able to communicate in English, independent user level, in touristic activities.
UC2005_2 (Partial)	Offer the travellers own means of transportation services.
UC0256_1 (Partial)	Help in cooking processing and do and show simple food preparations.
UC0257_1 (Partial)	Basic service of snack bar.
UC0258_1 (Partial)	To execute basic operations on providing supplies, prepare and show basic drinks and fast food.
UC1209_1	To be able to operate with information technologies and communication.
UC1208_1	To be able to do minor maintenance operations in micro computing systems.
UC0806_3 (Partial)	To develop training programs on environmental education and foster educational processes.

3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC1639_2	To lead a sport diving team during a hyperbaric intervention up to 5 atmospheres of pressure.
UC1638_2	To take part in the organization, take care for the security and fix underwater routes in sport diving operations.
UC1070_3:	To interpret natural spaces and other sites of cultural interest within the scope of tourists and visitors.
UC0255_1 (complete)	To execute basic operations on providing supplies, pre-elaboration and food preservation.
UC0806_3 (Complete)	To develop training programs on environmental education and foster educational processes.
UC0256_1 (complete)	To attend in food elaboration and prepare and show basic recipes.
UC0257_1 (complete)	Basic snack bar service.
UC0258_1 (complete)	To execute basic operations on providing supplies and prepare and show basic drinks and fast food.

Table 2. New professional competences for Leisure and tourism services – Captain.

ECONOMIC ACTIVITY	1. - Leisure and tourism services.
JOB POSITION	3.- Ship's engineer
GENERAL COMPETENCE	
To develop passengers attendance activities on the means of transport according to the specifications of the Company or borrowing Company of that service and to inform and to interpret the local heritage, sites of cultural and natural interest and rest of touristic resources from a specific scope of action for tourists and visitors, in an attractive way, interacting with them and waking up their interest, as well as offering escorting and assistance services, using, when necessary, the English language or other foreign language, so that they can feel attended all the time, fulfilling their information and leisure expectations, and also fulfilling the goals of the organizing entity of the service.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0272_2:	To assist in an accident or emergency situation (diving) as first person.
UC1208_1	To be able to do auxiliary maintenance actions on micro computing systems.
UC0806_3 (Partial)	To develop training programs on environmental education and foster educational processes.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC1057_2:	To be able to communicate in the English language, with an independent user level, in touristic activities.
UC0806_3 (Partial)	To develop training programs on environmental education and foster educational processes.
UC1209_1	To be able to operate with information technologies and communication.

UC0083_3 (Partial)	To control and monitor the natural spaces and its public use.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (Complete)	To develop training programs on environmental education and foster educational processes.
UC0083_3 (Complete)	To control and monitor the natural spaces and its public use.

Table 3. New professional competences for leisure and touristic services – Ship Engineer.

3.2 New professional competences for lost gear collection.

ECONOMIC ACTIVITY	2.- Lost Gear Collection	
JOB POSITION	1.- Ship owner	
GENERAL COMPETENCE		
To manage business initiatives of small businesses or micro-enterprises, as well as the implementation and planning of business area strategies, programming the activities, managing the persons, organizing and controlling material resources, the financial and economic operations and developing the marketing and selling of the products and services, by using the telematics and computing media, managing with quality and environmental protection criteria, everything assuring the risk prevention and using consultancy services when the complexity of the activity requires it, in order to achieve the company goals and the fulfilment of the current regulations.		
SPECIFIC COMPETENCES		
1.- Mandatory (Before starting): Compulsory manage them before starting the activity		
UC0233_2 (partial)	To handle computer applications in the managing of information and documentation.	
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity		
UC1792_2	To manage the risk Prevention in small businesses and micro-enterprises.	
UC0233_2 (complete)	To handle computer applications in the managing of information and documentation.	
3.- Complimentary: Those not compulsory for the development of the activity but useful to know		
UC1788_3	To plan efforts and activities in small businesses or micro-enterprises.	
UC1789_3	To manage the daily business activity and resources in small businesses or - micro enterprises	
UC1790_3	To market with the products and services in small companies or micro-enterprises.	
UC1791_3	To do administrative and financial dealings of the small companies or micro-enterprises	

Table 4. New professional competences for lost gear collection – Ship owner.

ECONOMIC ACTIVITY	2.-Lost gear Collection
JOB POSITION	2.- Captain
GENERAL COMPETENCE	
To control and monitor the environment, respecting the current regulations, making control tests and monitoring of the natural media, surveilling the waste management.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0083_3	To control and monitor the natural spaces and its public use.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3	To develop training programs on environmental education and foster educational processes.
3.- .- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 5. New professional competences for lost gear collection – Captain.

ECONOMIC ACTIVITY	2.- Lost gear Collection
JOB POSITION	3.- Ship's Engineer
GENERAL COMPETENCE	
To control and monitor the environment, respecting the current regulations, by means of control tests and monitoring of the natural media, surveilling the waste management.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0083_3	To control and monitor the natural spaces and its public use.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3 (partial)	To develop training programs on environmental education and foster educational processes.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 6. New Professional competences for lost gear collection – Ship's Engineer.

3.3 New professional competences for marine litter collection.

ECONOMIC ACTIVITY	3.- Marine Litter Collection	
JOB POSITION	1.- Ship owner	
GENERAL COMPETENCE		
To manage business initiatives of small businesses or micro-enterprises, as well as the implementation and planning of business area strategies, programming the activities, managing the persons, organizing and controlling material resources, the financial and economic operations and developing the marketing and selling of the products and services, by using the telematics and computing media, managing with quality and environmental protection criteria, everything assuring the risk prevention and using consultancy services when the complexity of the activity requires it, in order to achieve the company goals and the fulfilment of the current regulations		
SPECIFIC COMPETENCES		
1.- Mandatory (Before starting): Compulsory manage them before starting the activity		
UC0233_2 (partial)	To handle computer applications in the managing of information and documentation.	
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity		
UC1792_2	To manage the risk Prevention in small businesses.	
UC0233_2 (complete)	To handle computer applications in the managing of information and documentation.	
3.- Complimentary: Those not compulsory for the development of the activity but useful to know		
UC1788_3	To plan efforts and activities in small businesses or micro-enterprises.	
UC1789_3	To manage the daily business activity and resources in small businesses or -micro enterprises.	
UC1790_3	To market with the products and services in small companies or micro-enterprises	
UC1791_3	To do administrative and financial dealings of the small companies or micro-enterprises	

Table 7. New Professional Competences for marine litter collection – Ship Owner.

ECONOMIC ACTIVITY	3.- Marine Litter Collection	
JOB POSITION	2.- Captain	
GENERAL COMPETENCE		
To control and monitor the environment, respecting the current regulations, making control tests and monitoring of the natural media, surveilling the waste management.		
SPECIFIC COMPETENCES		
1.- Mandatory (Before starting): Compulsory manage them before starting the activity		
UC0083_3	To control and monitor the natural spaces and its public use.	

2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3 (partial)	To develop training programs on environmental education and foster educational processes.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 8. New Professional Competences for marine litter collection – Captain.

ECONOMIC ACTIVITY	3.- Marine Litter Collection
JOB POSITION	3.- Ship's engineer
GENERAL COMPETENCE	
To control and monitor the environment, respecting the current regulations, making control tests and monitoring of the natural media, surveilling the waste management.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0083_3	To control and monitor the natural spaces and its public use.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3 (partial)	To develop training programs on environmental education and foster educational processes.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 9. New Professional Competences for marine litter collection –Ship's Engineer.

3.4 New professional competences for marine data collection and marine ecosystems monitoring.

ECONOMIC ACTIVITY	4.- Environmental parameters monitoring
JOB POSITION	1.- Ship owner
GENERAL COMPETENCE	
To manage business initiatives of small businesses or micro-enterprises, as well as the implementation and planning of business area strategies, programming the activities, managing the persons, organizing and controlling material resources, the financial and economic operations and developing the marketing and selling of the products and services, by using the telematics and computing media, managing with quality and environmental	

protection criteria, everything assuring the risk prevention and using consultancy services when the complexity of the activity requires it, in order to achieve the company goals and the fulfilment of the current regulations.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0233_2 (partial)	To handle computer applications in the managing of information and documentation.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC1792_2	To manage the risk Prevention in small businesses.
UC0233_2 (complete)	To handle computer applications in the managing of information and documentation.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC1788_3	To foster efforts and activities in small businesses or micro-enterprises.
UC1789_3	To manage the daily business activity and resources in small businesses or -micro enterprises.
UC1790_3	To market with the products and services in small companies or micro-enterprises.
UC1791_3	To do administrative and financial dealings of the small companies or micro-enterprises.

Table 10. New professional competences for environmental parameters monitoring – Ship owner.

ECONOMIV ACTIVITY	4.-Environmental Parameters Monitoring
JOB POSITION	2 - Captain
GENERAL COMPETENCE	
To control and monitor the environment, respecting the current regulations, making control tests and monitoring of the natural media, surveilling the waste management.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0083_3	To control and monitor the natural spaces and its public use.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3 (partial)	To develop training programs on environmental education and foster educational processes.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 11. New professional competences for environmental parameters monitoring – Captain.

ECONOMIC ACTIVITY	4.- Environmental Parameters Monitoring
JOB POSITION	3 – Ship’s Engineer
GENERAL COMPETENCE	
To control and monitor the environment, respecting the current regulations, making control tests and monitoring of the natural media, surveilling the waste management.	
SPECIFIC COMPETENCES	
1.- Mandatory (Before starting): Compulsory manage them before starting the activity	
UC0083_3	To control and monitor the natural spaces and its public use.
2.- Mandatory (In the first year): Compulsory to manage them during the first year of the development of the activity	
UC0806_3 (partial)	To develop training programs on environmental education and foster educational processes.
3.- Complimentary: Those not compulsory for the development of the activity but useful to know	
UC0806_3 (complete)	To develop training programs on environmental education and foster educational processes.

Table 12. New professional competences for environmental –Ship’s Engineer.

3.5 Summary of Competences.

Activity other than fishing	Priority	Specific competence for workers		
		Ship owner	Captain	Ship's Engineer
Tourism: leisure and tourism services. Recreational fishing and scuba diving.	Mandatory (before starting)	UC0233_2	UC1637_2 - (Partial) UC0272_2 UC0255_1 - (Partial)	UC0272_2 UC1208_1 UC0806_3 - (Partial)
	Mandatory (in the 1st year)	UC1057_2 UC1792_2 UC0266_3 UC1075_3 UC2005_2	UC1637_2 - (Full) UC1057_2 UC2005_2 - (Partial) UC0256_1 - (Partial) UC0257_1 - (Partial) UC0258_1 - (Partial) UC1209_1 UC1208_1 UC0806_3 - (Partial)	UC1057_2 UC0806_3 - (Partial) UC1209_1 UC0083_3 - (Partial)
	Complementary.	UC1788_3 UC1789_3 UC1790_3 UC1791_3 UC1070_3	UC1639_2 UC1638_2 UC1070_3 UC0255_1 - (Full) UC0806_3 - (Full) UC0256_1 - (Full) UC0257_1 - (Full) UC0258_1 - (Full)	UC0806_3 - (Full) UC0083_3 - (Full)
Marine litter collection	Mandatory (before starting)	UC0233_2 - (Partial)	UC0083_3	UC0083_3
	Mandatory (in the 1st year)	UC1792_2 UC0233_2 - (Full)	UC0806_3 - (Partial)	UC0806_3 - (Partial)
	Complementary.	UC1788_3 UC1789_3 UC1790_3 UC1791_3	UC0806_3 - (Full)	UC0806_3 - (Full)
Lost gear collection	Mandatory (before starting)	UC0233_2 - (Partial)	UC0083_3	UC0083_3
	Mandatory (in the 1st year)	UC1792_2 UC0233_2 - (Full)	UC0806_3 - (Partial)	UC0806_3 - (Partial)
	Complementary.	UC1788_3 UC1789_3 UC1790_3 UC1791_3	UC0806_3 - (Full)	UC0806_3 - (Full)
Environmental parameters monitoring	Mandatory (before starting)	UC0233_2 - (Partial)	UC0083_3	UC0083_3
	Mandatory (in the 1st year)	UC1792_2 UC0233_2 - (Full)	UC0806_3 - (Partial)	UC0806_3 - (Partial)
	Complementary.	UC1788_3 UC1789_3 UC1790_3 UC1791_3	UC0806_3 - (Full)	UC0806_3 - (Full)

Table 13. Summary of competences

4 Training necessities for the Professional re-orientation of fishermen.

4.1 Justification for the training necessities proposal.

The analysis of the training necessities has been realized taking as reference the job position they do currently (Ship owner, Captain, Ship Engineer and Sailor) and the necessities required for each one of the activities. Key concepts have been considered (Knowledge, abilities and competences).

PROPOSED TRAINING ACTION	REASONS THAT JUSTIFY THE NECESSITY	DATA SOURCE	TYPE OF TRAINING
1 Star Diver FEDAS-CMAS + practices	Basic acknowledgement of the activity supporting the specialist. Formal training system access	<ul style="list-style-type: none"> Company interviews Area analysis. FASRM 	Non formal training system
Basic Life support.	Basic acknowledgement of the activity supporting the specialist Security Formal training system access	<ul style="list-style-type: none"> Company interviews Area analysis. FASRM 	Non formal training system
2 STAR DIVER FEDAS-CMAS + practices.	Basic acknowledgement of the activity supporting the specialist Formal training system access	<ul style="list-style-type: none"> Company interviews Area analysis. FASRM 	Non formal training system
Oxygen administration	Basic acknowledgement of the activity supporting the specialist. Safety. Formal training system access	<ul style="list-style-type: none"> Company interviews Area analysis. FASRM 	Non formal training system
3 Star Diver FEDAS-CMAS	Basic acknowledgement of the activity supporting the specialist. Formal training system access	<ul style="list-style-type: none"> Company interviews Area analysis. FASRM 	Non formal training system
MED-C102- First Aid.	Technical qualification title. Improvement of guest's service.	<ul style="list-style-type: none"> Company interviews Area analysis. Tutorial interviews. FCT. 	Official education CGMFP
MED-ASBD102- Sport Diving environment.	Technical qualification title. Improvement of guests service Autonomy of the activity	<ul style="list-style-type: none"> Company interviews Area analysis. Tutorial interviews FCT. 	Official education CGMFP
MED-ASBD103- Organization of Discovery activities and Sport Diving driving.	Technical qualification title. Improvement of guests service Autonomy of the activity	<ul style="list-style-type: none"> Company interviews Area analysis. Tutorial interviews FCT. 	Official education CGMFP

PROPOSED TRAINING ACTION	REASONS THAT JUSTIFY THE NECESSITY	DATA SOURCE	TYPE OF TRAINING
MED-C101- Sport behaviour basis.	Technical qualification title. Improvement of guests service Autonomy of the activity.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Tutorial interviews FCT. 	Official education CGMFP
MED-C103- Adapted physical activity.	Technical qualification title. Improvement of guests service Autonomy of the activity.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Tutorial interviews FCT. 	Official education CGMFP
MED-ASBD104- Underwater driving.	Technical qualification title. Improvement of guests service Autonomy of the activity.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Tutorial interviews FCT. 	Official education CGMFP
MED-C104- Sport organization.	Technical qualification title. Improvement of guests service Autonomy of the activity.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Tutorial interviews FCT. 	Official education CGMFP
MED-ASBD105- Practical training.	Technical qualification title. Improvement of guests service Autonomy of the activity.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Tutorial interviews FCT. 	Official education CGMFP
MF1788_3: Planning and business initiative in small companies or micro-companies.	Technical qualification title. To improve the management of the Company.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Opinion polls. 	Training for employment.
MF1789_3 Managing of the business activity in small companies or micro-companies.	Technical qualification title. To improve the management of the Company.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Opinion polls. 	Training for employment.
MF1790_3 Marketing of products and services in small companies or micro-companies.	Technical qualification title. To improve the management of the Company.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Opinion polls. 	Training for employment.
MF1791_3 Administrative and economic management in small businesses.	Technical qualification title. To improve the management of the Company.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Opinion polls. 	Training for employment.
MF1070_3: Natural-touristic resources.	To know the local touristic potential.	<ul style="list-style-type: none"> • Company interviews • Area analysis. • Opinion polls. 	Training for employment.

PROPOSED TRAINING ACTION	REASONS THAT JUSTIFY THE NECESSITY	DATA SOURCE	TYPE OF TRAINING
MF1792_2 Risk Prevention management in small companies.	To assure the fulfilment of current laws and guarantee the safety and health of the staff.	<ul style="list-style-type: none"> • L31/1995 • D39/1997 that adopts the law in risk services. 	Training for employment.
MF1075_3: Local products and touristic services.	To create touristic products according to the surrounding potential.	<ul style="list-style-type: none"> • Opinion polls. • Company interviews 	Training for employment.
MF0266_3: Promotion and sell touristic services.	Marketing and promotion of touristic packages according to the necessities of the guests.	<ul style="list-style-type: none"> • Opinion polls. • Company interviews 	Training for employment.
MF2005_2: Guest attention in means of transport.	Improvement of guest's service.	<ul style="list-style-type: none"> • Opinion polls. • Company interviews • 	Training for employment.
MF0255_1: Provisioning, pre-processing and cooking preservation.	Basic knowledge of the activity in order to assist the specialist. Access to certificate of professionalism.	<ul style="list-style-type: none"> • Company interviews • Area analysis. 	Certificate of professionalism / Basic vocational training.
MF0256_1: Basic cooking processing.	Basic knowledge of the activity for future guests attention. Access to certificate of professionalism.	<ul style="list-style-type: none"> • Company interviews • Area analysis. 	Certificate of professionalism / Basic vocational training.
MF0257_1: Basic snack-bar/restaurant service,	Basic knowledge of the activity for future guests attention. Access to certificate of professionalism.	<ul style="list-style-type: none"> • Area analysis. 	Certificate of professionalism / Basic vocational training.
MF0258_1: Supplying, fast food and drinks.	Basic knowledge of the activity for future guests attention. Access to certificate of professionalism.	<ul style="list-style-type: none"> • Area analysis. 	Certificate of professionalism / Basic vocational training.
MF1208_1: Auxiliary maintenance operations in micro-computing systems.	Basic knowledge of the "hardware" technologies used in the computer equipment on board the vessel.	<ul style="list-style-type: none"> • Company interviews • Area analysis. Updating in computer technology.	Certificate of professionalism / Basic vocational training.
MF1209_1: Auxiliary operations with the information and communication technologies.	Basic knowledge of the "software" technologies used in the equipment on board the vessel. Access to certificate of professionalism.	<ul style="list-style-type: none"> • Company interviews • Area analysis. Updating in computer technology.	Certificate of professionalism / Basic vocational training.

PROPOSED TRAINING ACTION	REASONS THAT JUSTIFY THE NECESSITY	DATA SOURCE	TYPE OF TRAINING
MF0233_2: Office automation	Basic knowledge of the “software” technologies used in the managing offices equipment.	<ul style="list-style-type: none"> Company interviews Area analysis. Updating computer technology. 	in Certificate of professionalism / Basic vocational training.

Table 13. Justification for the training necessities proposal.

In a second level, with the results obtained after the execution the activities on board the CIUDAD DE CARTAGENA, a diagnostic analysis will be done, in order to check the malfunctions observed.

4.2 Training necessities for leisure and tourism activities.

TRAINING MODULES FOR EACH OF THE JOBS		
ACTIVITY	Leisure and Tourism	
PRIORITY	Mandatory (to be done before the activity)	
SHIO OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF0233_2 Office Automation(partial) - UF0319: Operating system, looking for information: Internet/Intranet and e-mail - 30 h MF0233_2 Office Automation (partial) - UF0320: Computer applications in Word processing - 30 h MF0233_2 Office Automation (partial) - UF0321: Computer applications in spreadsheets - 50 h	MF1637_2 Diving with air or nitrox using a self-contained / semi contained underwater breathing apparatus up to five atmospheres maximum of pressure. (Partial) – 1 Star Diver FEDAS-CMAS + practices - 60 h MF1637_2 Diving with air or nitrox using a self-contained / semi contained underwater breathing apparatus up to five atmospheres maximum of pressure. (Partial) – - Basic Life support - 3 h MED-C102 First Aid. (Diving) - -30 h MF0255_1 Provisioning, pre-processing and cooking preservation. (partial) - UF0053: Implementation of sanitary conditions in hostelry. - 30 h IMOCM1.28 - Crowd control, passenger security and safety training for the staff that provides a direct service to the passengers in the specified areas. - 32 h	MED-C102 First Aid. (Diving) - - 30 h MF1208_1 Auxiliary operations in maintenance of the micro computing systems - - 70 h MF0806_3 Environmental education programs. (Partial) - UF0740: Execution of activities and programs in environmental education - 40 h

	RD1544/07 - Action Protocol and training of the crew of the ships and operating shipping companies for the attention and care of disabled people. - 13 h MF0806_3 Environmental training programs (Partial) - UF0740: Execution of environmental programs and training activities - 40 h	
PRIORITY	Mandatory (to be done during the first year)	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1057_2 Professional English for Tourism - - 90 h MF1792_2 Risk Prevention Management in small companies - - 60 h MF2005_2 Guest attention to the passenger in the means of transport- - 60 h MF1075_3: Local products and touristic services - UF0083: Local products and services design - 90 h MF1075_3 Local touristic services and products- UF0084: Marketing and promotion of local products or touristic services.- 90 h MF0266_3 Marketing and selling of touristic services - UF0073: Products, services and touristic destinations - 90 h MF0266_3 Marketing and selling of touristic services - UF0078: Consulting, marketing and selling of touristic services and products - 90 h MF0266_3 Marketing and selling of touristic services - UF0079: Managing of global distribution systems (GDS) - 40 h MF0266_3 Marketing and selling of touristic services - UF0042: Communication and guest attention in hostelry and tourism- 30 h MF0233_2 Office Automation (completes the MF) - UF0322:	MF1637_2 Diving with air or nitrox using a self-contained / semi contained underwater breathing apparatus up to five atmospheres maximum of pressure. (Completes the part taught in the first level) -2 Star Diver FEDAS-CMAS + access practices. - 55 h MF1637_2 Diving with air or nitrox using a self-contained / semi contained underwater breathing apparatus up to five atmospheres maximum of pressure. (Completes the part taught in the first level) – Oxygen administration - 4 h MF1637_2 Diving with air or nitrox using a self-contained / semi contained underwater breathing apparatus up to five atmospheres maximum of pressure. (Completes the part taught in the first level) – 3 Star Diver FEDAS-CMAS + access practices - 118 h MF1057_2 Professional English for Tourism - - 90 h MF2005_2 Guest attention in the means of transport - - 60 h MF0256_1 Basic cooking processing (partial) - UF0056: Execution of basic cooking recipes and assistance in the cookery development- 90 h	F1057_2 Professional English for tourism - - 90 h MF1209_1 Auxiliary operations with information and communication technologies. - - 90 h MF0806_3 Environmental education programs (Partial) - UF0738: Environmental education and application areas. - 40 h MF0083_3 Activities for public use and environmental protection. - UF1263: Control and surveillance of wastes or polluting discharges. - 50 h MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours.

<p>Software applications in relational Databases- 50 h</p> <p>MF0233_2 Office automation (completes the MF) - UF0323: Software applications for Presentations: Information graphics - 30 h</p>	<p>MF0257_1 Basic Snack –Bar service. (partial) - UF0059: Basic service of food and beverage in restaurant service and post services in the restaurant. - 60 h</p> <p>MF0258_1 Provisioning, fast food and drinks. (Partial) - UF0061: Development and service of fast food and drinks.- 60 h</p> <p>MF1209_1 Auxiliary operations with information and communication technologies - - 90 h</p> <p>MF1208_1 Auxiliary operations in micro computing systems maintenance - - 70 h</p> <p>MF0806_3 Environmental education training programs (Partial) - UF0738: Environmental education and application areas - 40 h</p> <p>MF0255_1 Supply and provisioning, pre-processing and food preservation. (completes the MF) - UF0054: Raw material provisioning in the kitchen. - 30 h</p> <p>MF0255_1 Provisioning, pre-processing and food preservation. (completes the MF) - UF0055:Pre-processing and cook preservation- 60 h</p> <p>MF0257_1 Basic Snack Bar service. (Completes the MF) - UF0058: Use of the basic provision of the restaurant and pre-service assistance. - 30 h</p> <p>MF0258_1 Provisioning, fast food and drinks. (Completes the MF) - UF0060: Supply and storage of food and drinks in the bar. - 30 h</p> <p>MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours</p>	
<p>PRIORITY</p>	<p>Complimentary</p>	
<p>SHIP OWNER</p>	<p>CAPTAIN/SAILOR</p>	<p>SHIP ENGINEER</p>

<p>MF1789_3 Managing of the business activity in small businesses or micro-companies- - 90 h</p> <p>MF1790_3 Marketing of products and services in small businesses or micro-companies- - 90 h</p> <p>MF1070_3 Natural-touristic resources - - 150 h</p> <p>MF1788_3 Planning and entrepreneurial initiative in small businesses or micro-companies - UF1818: Enterprising attitude and business opportunities - 40 h</p> <p>MF1788_3 Planning and entrepreneurial initiative in small businesses or micro-companiesUF1819: Business Feasibility of the Project - 40 h</p> <p>MF1788_3 Planning and entrepreneurial initiative in small businesses or micro-companies - UF1820: Marketing and business plan of the micro-company - 40 h</p> <p>MF1791_3 Administrative and economic management in the small businesses and micro-companies - UF1821 : Starting up and funding of the small businesses and micro-companies - 60 h</p> <p>MF1791_3 Administrative and economic management in the small businesses and micro-companies - UF1822 : Account, labour and tax management in small businesses and micro-companies - 60 h</p>	<p>MED-ASBD102 Natural environment of sport diving. - - 10 h</p> <p>MED-ASBD103 Organization of Discovery activities and sport diving driving. - - 30 h</p> <p>MED-C101 Sporting behaviour basis. - - 20 h</p> <p>MED-C103 Physical activity adapted and disability. - - 5 h</p> <p>MED-ASBD104 04- Underwater driving. - - 35 h</p> <p>MED-C104 Sporting organization. - - 5 h</p> <p>MED-ASBD105 05- Practical training. - - 150 h</p> <p>MF1070_3 Natural-Touristic resources - - 150 h</p> <p>MF0256_1 Basic cooking processing (completes the MF) - UF0057: Combo plates processing and starters - 60 h</p> <p>MF0806_3 Environmental education programs (Completes the MF) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h</p>	<p>MF0806_3 Environmental education programs- UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h</p> <p>MF0083_3 Public use activities the preservation of the environment. (Completes the MF) - UF1261: Public use control in rural and natural areas. - 60 h</p> <p>MF0083_3 Public use activities and protection of the environment. (Completes the MF) - UF1262: Procedures in the control managing and protection of the natural areas. - 70 h</p>
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Table 14. Summary of the training for leisure and tourism activities.

4.3 Training necessities for marine wastes collection.

Training modules for each of the job positions		
ACTIVITY	Marine Litter collection	
PRIORITY	Mandatory (to be done before starting the activity)	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF0233_2 Office automation (partial) - UF0319: Operating system, Looking for information: Internet/Intranet and e-mail- 30 h MF0233_2 Office automation (partial) - UF0320: Software application in word processing - 30 h MF0233_2 Office automation (partial) - UF0321: Software applications in spreadsheet- 50 h	MF0083_3 Public use activities and protection of natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h MF0083_3 Public use activities and environmental protection. - UF1262: Procedures of managing and control of the natural areas. - 70 h MF0083_3 Public use activities and environmental preservation. - UF1263: Control and surveillance of wastes and. - 50 h	MF0083_3 Public use activities and protection of the natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h MF0083_3 Public use activities and environmental preservation. - UF1262: Procedures of management in the control and preservation of the natural media. - 70 h MF0083_3 Public use activities and environmental preservation. - UF1263: Control and surveillance of wastes and polluting discharges - 50 h
PRIORITY	Mandatory (to be done during the first year).	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1792_2 Risk Prevention managing in small businesses - - 60 hours MF0233_2 Office automation (completes the MF) - UF0322: Software applications in relational data bases - 50 hours MF0233_2 Office automation (completes the MF) - UF0323: Software applications for Presentations: Information graphics - 30 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas. - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock - - 70 hours
PRIORITY	Complimentary	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1788_3 Planning and enterprising initiatives in small businesses or micro-companies - UF1818: Enterprising attitude and opportunities- 40 h MF1788_3 Planning and enterprising initiatives in small businesses or micro-companies -	MF0806_3 Environmental education programs (Completes the MF) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h MF0806_3 Environmental education programs (Completes	MF0806_3 Environmental education programs (Completes the MF) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h

<p>UF1819: Business or micro-company feasibility project - 40 h</p> <p>MF1788_3 Planning and enterprising initiatives in small businesses or micro-companies -</p> <p>UF1820: Marketing and business plan of the micro-company- 40 h</p> <p>MF1789_3 Managing of the business activity in small businesses or micro-companies- - 90 h</p> <p>MF1790_3 Marketing of products and services in small businesses or micro-companies- - 90 h</p> <p>MF1791_3 Administrative and economic managing in small businesses or micro-companies -</p> <p>UF1821 : Starting up and funding of small businesses ad micro-companies- 60 h</p> <p>MF1791_3 Administrative and economic managing in small businesses and micro-companies-</p> <p>UF1822 : Accounts, tax and labour managing in small businesses or micro-companies- 60 h</p>	<p>the MF) - UF0740: Execution of programs and activities in environmental education- 40 h</p>	
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Table 15. Summary for the training for marine litter collection activities.

4.4 Training necessities for the lost fishing gear collection activity

Training modules for each of the job positions		
ACTIVITY	Lost fishing gear collection	
PRIORITY	Mandatory (to be done before starting the activity)	
SHIP OWNER	CAPTAIN/SAIOR	SHIP ENGINEER
<p>MF0233_2 Office automation (partial) - UF0319: Operating system, Looking for information: Internet/Intranet and e-mail - 30 h</p> <p>MF0233_2 Office automation (partial) - UF0320: Software applications in Word processing - 30 h</p> <p>MF0233_2 Office automation (partial) - UF0321: Software applications in spreadsheets - 50 h</p>	<p>MF0083_3 Public use activities and protection of natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h</p> <p>MF0083_3 Public use activities and environmental protection. - UF1262: Procedures of managing and control of the preservation of the natural areas. - 70 h</p> <p>MF0083_3 Public use activities and environmental</p>	<p>MF0083_3 Public use activities and protection of natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h</p> <p>MF0083_3 Public use activities and environmental protection. - UF1262: Procedures of managing, control and preservation control of the natural areas. - 70 h</p> <p>MF0083_3 Public use activities and environmental preservation. - UF1263: Control and surveillance of wastes and. - 50 h</p>

	preservation. - UF1263: Control and surveillance of wastes and. - 50 h	
PRIORITY	Mandatory (to be done before starting the activity)	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1792_2 Risk Prevention managing in small businesses - - 60 hours MF0233_2 Office automation (completes the MF) - UF0322: Software applications in relational data bases - 50 hours MF0233_2 Office automation (completes the MF) - UF0323: Software applications for presentations: Information graphics - 30 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas. - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas. - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours
PRIORITY	Complimentary.	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1788_3 Planning and enterprising initiatives in small businesses or micro-companies - UF1818: Enterprising attitude and opportunities- 40 h MF1788_3 Planning and enterprising attitude in small businesses and micro-companies - UF1819: Business feasibility project of the company - 40 h MF1788_3 Planning and enterprising attitude in small businesses or micro-companies - UF1820: Marketing and business plan of the micro-company - 40 h MF1789_3 Managing of the business activity in small businesses or micro-companies - - 90 h MF1790_3 Marketing of the products and services in small businesses or micro-companies - - 90 h MF1791_3 Administrative and economic managing in small businesses or micro-companies - UF1821 : Starting up and funding of small businesses or micro-companies - 60 h	MF0806_3 Environmental education programs. Completes the Training Program) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h MF0806_3 Environmental education programs. Completes the MF) - UF0740: Execution of programs and activities in environmental education - 40 h MF0085_3. Control and surveillance of the good use of the hunting and fish stock - - 70 hours	MF0806_3 Environmental education programs. Completes the TP) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h MF0806_3 Environmental education programs. Completes the MF) - UF0740: Execution of programs and activities in environmental education - 40 h MF0085_3. Control and surveillance of the good use of the hunting and fish stock - - 70 hours

MF1791_3 Administrative and economic managing in small businesses or micro-companies - UF1822 : Accounts, tax and labour managing in small businesses or micro-companies - 60 h		
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Table 16. Summary of the training of the lost fishing gear collection activity

4.5 Training necessities for the environmental activities: observation of the sea and the ecosystem, monitoring of the protected marine areas

Training modules for each of the job positions		
ACTIVITY	Monitoring of the environmental parameters	
PRIORITY	Mandatory (to be done before starting the activity)	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF0233_2 Office automation (partial) - UF0319: Operating system, Looking for information: Internet/Intranet and e-mail- 30 h MF0233_2 Office automation (partial) - UF0320: Software application in word processing - 30 h MF0233_2 Office automation (partial) - UF0321: Software applications in spreadsheet- 50 h	MF0083_3 Public use activities and protection of natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h MF0083_3 Public use activities and environmental protection. - UF1262: Procedures of managing and control of the preservation of the natural areas. - 70 h MF0083_3 Public use activities and environmental preservation. - UF1263: Control and surveillance of wastes and. - 50 h	MF0083_3 Public use activities and protection of natural areas. - UF1261: Public use control in the rural and natural spaces. - 60 h MF0083_3 Public use activities and environmental protection. - UF1262: Procedures of managing and control of the preservation of the natural areas. - 70 h MF0083_3 Public use activities and environmental preservation. - UF1263: Control and surveillance of wastes and. - 50 h
PRIORITY	Mandatory (to be done during the first year)	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER
MF1792_2 Risk Prevention managing in small businesses - - 60 hours MF0233_2 Office automation (completes the TP)- UF0322: Software applications in relational data bases - 50 hours MF0233_2 Office automation (completes the TP) - UF0323: Software applications for presentations: Information graphics - 30 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas. - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours	MF0806_3 Environmental education programs. (Partial) - UF0738: Environmental education and application areas. - 40 hours MF0085_3. Control and surveillance of the good use of the hunting and fish stock. - - 70 hours
PRIORITY	Complimentary.	
SHIP OWNER	CAPTAIN/SAILOR	SHIP ENGINEER

<p>MF1788_3 Planning and business initiative attitude in small businesses or micro-companies - UF1818: initiative attitude and business opportunities - 40 h</p> <p>MF1788_3 Planning and enterprising initiative in small businesses or micro-companies - UF1819: Business feasibility project in the small businesses or micro-company - 40 h</p> <p>MF1788_3 Planning and enterprising initiative in small businesses or micro-companies - UF1820: Marketing and business plan of the company - 40 h</p> <p>MF1789_3 Managing of the business activity in small businesses or micro-companies - - 90 h</p> <p>MF1790_3 Marketing of products and services in small businesses or micro-companies - - 90 h</p>	<p>MF0806_3 Environmental education programs. Completes the TP) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h</p> <p>MF0806_3 Environmental education programs. Completes the TP) - UF0740: Execution of programs and activities in environmental education - 40 h</p> <p>MF0085_3. Control and surveillance of the good use of the hunting and fish stock - - 70 hours</p>	<p>MF0806_3 Environmental education programs. Completes the MF) - UF0739: Interpretation of the heritage as a communication and managing strategy. - 40 h</p> <p>MF0806_3 Environmental education programs. Completes the TP) - UF0740: Execution of programs and activities in environmental education - 40 hrs.</p>
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Table 17. Summary of training for Sea and Ecosystem observation, monitoring of protected marine areas.

5 Training routes for the professional reorientation of the fishermen and ship owners.

5.1 Training route for leisure and Tourism Activities.

Economic Activity		1. - Leisure and Tourism – Broadcasting of the fishing culture; Whale watching and Sport activities (diving and sport fishing).	
Job position		1.- Ship owner	
1. - Mandatory (to be done before starting the activity): Mandatory to cover them before.			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0233_2: Office automation (partial)	110	UF0319: Operating system, Looking for information: Internet/Intranet and e-mail	30
		UF0320: Software applications for Word processing	30
		UF0321: Software applications for spreadsheets	50
TOTAL HOURS:	110		
2.- Mandatory (to be done in the first year): mandatory to cover in the first year of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1057_2 Professional English for tourism	90		90
MF1792_2 Risk Prevention managing in small businesses	60		60
MF2005_2: Costumer service in means of transport	60		60
MF1075_3: Local touristic services and products	180	UF0083: Local products and services design	90
		UF0084: Marketing and promotion of local touristic services and products	90
MF0266_3: Marketing and selling of touristic products	250	UF0073: Products, services and Touristic destinations	90
		UF0078: Advice, selling and marketing of the touristic services and products	90
		UF0079: Global distributing systems managing(GDS)	40
		UF0042: Communication and costumer service in hostelry and tourism	30
MF0233_2: Office automation (completes the MF)	80	UF0322: Software applications of relational data bases.	50
		UF0323: Software applications for Presentations: Information graphics	30
TOTAL HOURS:	720		
3.- Complimentary: those considered as no mandatory in the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1789_3 Managing of the business activity in small businesses or micro-companies	90		90
MF1790_3 Marketing of products and services in small	90		90

businesses or micro-companies			
MF1070_3: Touristic-natural resources	150		150
MF1788_3 Planning and enterprising initiative in small businesses or micro-companies	120	UF1818: Enterprising attitude and business opportunities	40
		UF1819: Business Project and feasibility of the small business or micro-company.	40
		UF1820: Marketing and business plan of the micro-company	40
MF1791_3 Administrative and economic managing of the small businesses or micro-companies	120	UF1821: Starting up and funding of the small businesses or micro-companies.	60
		UF1822: Account, tax and labour management in small businesses or micro-companies.	60
TOTAL HOURS	570		

Table 18. Training route for the ship owner – Leisure and Tourism Services.

ECONOMIC ACTIVITY		1. - Leisure and Tourism – Broadcasting of the fishing culture; Whale watching and Sport activities (diving and sport fishing).	
JOB POSITION		2.- Captain- Sailor	
1.- Mandatory :Mandatory before the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1637_2 Diving with air or nitrox (self-contained underwater breathing apparatus up to 5 atmospheres of pressure. (Partial)	63	1 Star Diver FEDAS-CMAS + practices	60
		Basic Life Support	3
MED-C102- First aid. (Diving)	30		30
MF0255_1: Supply, pre-processing and cooking preservation. (partial)	30	UF0053: Implementation of rules of sanitary conditions in catering.	30
IMO CM1.28	32	Crowd control, security of passengers and safety training for the staff that provides a direct service to the passengers in the places assigned to them.	32
RD1544/07	13	Action protocol and training of the passenger vessel crew and training of the staff of the shipping companies which serve in port terminals for the attention of disabled people.	13
MF0806_3: Environmental education programs (Partial)	40	UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	208		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1637_2 Diving with air or	177	2 Star Diver FEDAS-CMAS + practices	55

nitrox (self-contained underwater breathing apparatus up to 5 atmospheres of pressure. (Completes the part taught in part 1)		Oxygen administration	4
		3 Star Diver FEDAS-CMAS + Access practices	118
MF1057_2 professional English for tourism	90		90
MF2005_2: Passenger service in the means of transport	60		60
MF0256_1: Basic cooking processing (partial)	90	UF0056: Realization of elementary and basic cooking processing's and assistance in the cooking processing.	90
MF0257_1: Basic Snack –Bar service. (partial)	60	UF0059: Basic Food and beverage service and after service tasks in the restaurant.	60
MF0258_1: Supply, drinks and fast food. (Partial)	60	UF0061: Processing fast food and drinks service in the bar.	60
MF1209_1: Auxiliary operations with information technologies and communication.	90		90
MF1208_1: Auxiliary operations in micro computing systems maintenance.	70		70
MF0806_3: Environmental education programs (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HOURS:	737		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MED-ASBD102- Natural environment of Sport diving.	10		10
MED-ASBD103- Organization of the Discovery and driving activities in sport diving.	30		30
MED-C101- Basis of sporting behaviour.	20		20
MED-C103- Adapted physical activity and disability.	5		5
MED-ASBD104- Underwater driving.	35		35
MED-C104- Sporting organization.	5		5
MED-ASBD105- Practical training	150		150
MF1070_3: Natural-Touristic	150		150

resources.			
MF0255_1: Supply, pre-processing and cooking preservation (completes the TP)	90	UF0054: Raw material provisioning in the kitchen.	30
	60	UF0055: Pre-processing and cooking preservation.	60
MF0257_1: Snack bar basic service. (Completes the TP)	30	UF0058: Use of the basic set of supplies of the restaurant and assistance in the pre-service.	30
MF0258_1: Provisioning, fast food and drinks. (Completes the TP)	30	UF0060: Provision and storage of food and drinks in the bar.	30
MF0256_1: Basic cooking processing (completes the TP)	60	UF0057: Processing of snacks and combo-plates	60
MF0806_3: Environmental education programs(Completes the TP)	40	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
TOTAL HOURS:	715		

Table 19. Training route for the Captain – Leisure and Tourism Services.

ECONOMIC ACTIVITY		1. - Leisure and Tourism – Broadcasting of the fishing culture; Whale watching and Sport activities (diving and sport fishing).	
JOB POSITION		3 – Ship Engineer	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MED-C102- First Aid. (Diving,)	30		30
MF1208_1: Auxiliary operations in micro computing systems maintenance.	70		70
MF0806_3: Environmental education programs (Partial)	40	UF0740: Execution of environmental education programs and activities.	40
TOTAL HOURS	140		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1057_2 Professional English for Tourism.	90		90
MF1209_1: Auxiliary operations with information technologies and communication.	90		
MF0806_3: Environmental education programs (Partial)	40	UF0738: Environmental education and application areas.	40
MF0083_3: Public use activities and environmental preservation.	50	UF1263: Control and surveillance of waste materials or polluting discharges.	50
MF0085_3. Control and	70		70

surveillance of the good use of the hunting resources and fish fauna.			
TOTAL HOURS:	270		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs	40	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
MF0083_3: Public use activities and environmental preservation. (Completes the TP)	130	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
TOTAL HOURS	170		

Table 20. Training route for the Ship's Engineer– Leisure and Tourism Services.

5.2 Training route for marine wastes collection.

ECONOMIC ACTIVITY	2 – Marine Litter collection.		
JOB POSITION	1 – Ship owner		
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0233_2: Office automation (partial)	110	UF0319: Operating system, Looking for information: Internet/Intranet and e-mail	30
		UF0320: Software applications in Word processing.	30
		UF0321: Software applications in spreadsheets.	50
TOTAL HOURS:	110		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1792_2 Managing of risk prevention in small businesses.	60		60
MF0233_2: Office automation (completes the Training Program)	80	UF0322: Software applications of relational data bases.	50
		UF0323: Software applications for Presentations: Information graphics.	30
TOTAL HOURS:	140		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1788_3 Planning and enterprising initiative in small businesses or micro-companies -	120	UF1818: Enterprising attitude and business opportunities	40
		UF1819: Project and business feasibility of the business or micro-company.	40

		UF1820: Marketing and business plan of the micro-company.	40
MF1789_3 Managing of the business activity in small businesses or micro-companies.	90		90
MF1790_3 Marketing of the products and services in small businesses or micro-companies.	90		90
MF1791_3 Administrative and economic management of the small businesses or micro-companies.	120	UF1821: Starting up and funding of small businesses or micro-companies.	60
		UF1822: Account, tax and labour management in small businesses or micro-companies.	60
TOTAL HOURS:	420		

Table 21 Training route for the ship owner – Marine Litter collection.

ECONOMIC ACTIVITY		2 – Marine Litter Collection	
JOB POSITION		2.- Captain	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation.	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HORAS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HOURS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs(Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	80		

Table 22. Training route for Captain – Marine Litter Collection

ECONOMIC ACTIVITY		2.- Marine Litter Collection	
JOB POSITION		3.- Ship's Engineer	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation.	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HOURS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HOURS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs (Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	80		

Table 23. Training route for the Ship's Engineer- Marine Litter Collection.

5.3 Training route for lost fishing gear collection

ECONOMIC ACTIVITY		3. - Lost Gear Collection.	
JOB POSITION		1.- Ship Owner	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0233_2: Office automation (partial)	110	UF0319: Operating system, Looking for information: Internet/Intranet and e-mail	30
		UF0320: Software applications in Word processing.	30
		UF0321: Software applications in spreadsheets.	50
TOTAL HOURS:	110		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1792_2 Managing of Risk prevention in small businesses.	60		60
MF0233_2: Office automation (completes the Training program)	80	UF0322: Software applications of relational data bases.	50
		UF0323: Software applications for Presentations: Information graphics.	30
TOTAL HORAS:	140		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1788_3 Planning and enterprising initiative in small businesses or micro-companies -	120	UF1818: Enterprising attitude and business opportunities	40
		UF1819: Project and business feasibility of the business or micro-company.	40
		UF1820: Marketing and business plan of the micro-company.	40
MF1789_3 Managing of the business activity in small businesses or micro-companies.	90		90
MF1790_3 Marketing of the products and services in small businesses or micro-companies.	90		90
MF1791_3 Administrative and economic management of the small businesses or micro-companies.	120	UF1821: Starting up and funding of small businesses or micro-companies.	60
		UF1822: Account, tax and labour management in small businesses or micro-companies.	60
TOTAL HOURS:	420		

Table 24. Training route for the ship owner – Lost Gear Collection

ECONOMIC ACTIVITY		3.- Lost Gear Collection	
JOB POSITION		2.- Captain	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation. (Partial)	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HOURS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING UNIT	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HORAS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs (Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	80		

Table 25. Training route for Captain – Lost Gear Collection.

ECONOMIC ACTIVITY		3.- Lost Gear Collection	
JOB POSITION		3.- Ship's Engineer	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation. (Partial)	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HOURS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS

MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HORAS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs (Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	80		

Table 26. Training route for Ship's Engineer –Lost Gear Collection.

5.4 Training route for Environmental parameters monitoring:

ECONOMIC ACTIVITY	4. – Environmental Parameters Monitoring.		
JOB POSITION	1.- Ship owner		
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0233_2: Office automation (partial)	110	UF0319: Operating system, Looking for information: Internet/Intranet and e-mail	30
		UF0320: Software applications in Word processing.	30
		UF0321: Software applications in spreadsheets.	50
TOTAL HOURS:	110		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1792_2 Managing of Risk prevention in small businesses.	60		60
MF0233_2: Office automation (completes the Training program)	80	UF0322: Software applications of relational data bases.	50
		UF0323: Software applications for Presentations: Information graphics.	30
TOTAL HOURS:	140		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF1788_3 Planning and enterprising initiative in small	120	UF1818: Enterprising attitude and business opportunities	40

businesses or micro-companies -		UF1819: Project and business feasibility of the business or micro-company.	40
		UF1820: Marketing and business plan of the micro-company.	40
MF1789_3 Managing of the business activity in small businesses or micro-companies.	90		90
MF1790_3 Marketing of the products and services in small businesses or micro-companies.	90		90
MF1791_3 Administrative and economic management of the small businesses or micro-companies.	120	UF1821: Starting up and funding of small businesses or micro-companies.	60
		UF1822: Account, tax and labour management in small businesses or micro-companies.	60
TOTAL HOURS	420		

Table 27. Training route for the ship owner – Environmental Parameters Monitoring

ECONOMIC ACTIVITY		4. – Environmental Parameters Monitoring	
JOB POSITION		2.- Captain	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation. (Partial)	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HOURS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HOURS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs (Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40

TOTAL HOURS:	80	
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Table 28. Training route for Captain – Environmental Parameters Monitoring

ECONOMIC ACTIVITY		4. – Environmental Parameters Monitoring.	
JOB POSITION		3.- Ship's Engineer	
1.- Mandatory (to be done before starting): to know before starting the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0083_3: Public use activities and environmental preservation.	180	UF1261: Control of the public use in rural and natural areas.	60
		UF1262: Managing procedures in the control and preservation of the environment.	70
		UF1263: Control and surveillance of waste materials or polluting discharges.	50
TOTAL HOURS:	180		
2.- Mandatory (to be done during the first year of the activity): mandatory to be covered during the first year of the development of the activity			
TRAINING ACTION	HOURS	TRAINING UNIT	HOURS
MF0806_3: Environmental education programs. (Partial)	40	UF0738: Environmental education and application areas.	40
MF0085_3. Control and surveillance of the good use of the hunting resources and fish fauna.	70		70
TOTAL HOURS:	40		
3.- Complimentary: those not compulsory for the development of the activity			
ACCIÓN FORMATIVA	HORAS	UNIDAD FORMATIVA	HORAS
MF0806_3: Environmental education programs (Completes the TP)	80	UF0739: Interpretation of the heritage as a communication and managing strategy.	40
		UF0740: Execution of programs and activities in environmental education.	40
TOTAL HOURS:	80		

Table 29. Training route for the Ship's Engineer – Environmental Parameters Monitoring.

6 Conclusions

The reduction of the EU fishing fleet in order to diminish the fishing activity, leads to the need of professional re-orientation of fishermen to carry out in board of the reassigned vessels activities other than fishing. In the framework of the MEDGuard project the fishing vessel “Ciudad de Cartagena”, a former 24 m. length, built in 1996 and retired in 2014 will perform to examine and demonstrate the feasibility and economic viability of substitutive activities than fishing (Leisure and Tourism, Lost fishing Gear Collection, Marine Litter Collection and Environmental parameters monitoring).

In this case, the professional profiles that need re-orientation are: (A) Ship owner, (B) Captain and sailors and (C) Ship’s Engineer. Twelve General Competences have been defined to carry out the four activities other than fishing to be made by the three professional profiles (see section 4). Each of these twelve general competences has been split into specific competences (see summary section 4). In order to acquire each of these twelve competences, it has been fixed a training itinerary for each profile and substitutive activity. These priorities are: Mandatory (to be done before starting the activity), Mandatory (to be done during the first year of the activity) and Complimentary. The work load for each of the twelve training routes has been divided into three priorities to minimize the training effort and make it suitable, as it would be possible, with the development of the activity. This way, the working load of each of the training routes goes from 300 hours (for captains, Sailors and ship engineers doing activities such as marine wastes collection, lost fishing gear collection or environmental parameters monitoring), and the maximum of 1660 hours (for ship owners and sailors for Leisure and Tourism activities).

The Deliverable “D2.2 Definition proposal with the new professional competences required to carry out the new activities.” contains more detailed information about the competences listed in section 4. Together, in the “D2.3 Planning and programming of the training activities for the fishermen.” Planned for the 12th month of the project, it will be found a scheme of the training actions to be done by the crew of the “Ciudad de Cartagena” in the Sea campaigns that will allow to determine the feasibility of the professional re-orientation of the fishermen to carry out activities different than fishing.

7 Documents attached

Annex	Description	Filename
Annex 1	Survey about training and profession	ANNEX 1 – Survey about training and profession .pdf
Annex 2	Training actions. Information from the data base from INCUAL.	ANNEX 2– Training actions. Information from the INCUAL.rar database.

Table 30. List of attachments.