



WELCOME TO THE LIGHTHOUSE

0.0

To enjoy the exhibition in your language, please follow the number above!  
Each text marked with a number is translated in this booklet.

## 1.1 IN THE BEGINNING

1820

The captains petitioned that the Constance tower did not provide sufficient light for the entrance to the port of Aigues-Mortes. This was the impetus for a new lighthouse at Grau du Roi. The project was entrusted to Victor Grangent, Director of *Ponts et Chaussées* (civil engineering) in Nîmes. He asked engineer Pierre Courant to draw up the plans.

1825

The Nîmes contractor Astier undertakes the work. The work was slow, difficult and more expensive than expected. Transporting and handling the stone blocks required a large number of workers, and wages had to be increased to attract labor due to high levels of illness illnesses.



1828

The beacon is installed on November 29, 1828.

1829

The Grau du Roi lighthouse went into operation on March 1, 1829.

1853

The keeper's quarters are enlarged.

1869

Natural changes to the coastline render the Grau du Roi lighthouse ineffective. It was extinguished at midnight on December 31, 1869, and replaced by the Espiguette lighthouse. Still in operation, the Espiguette lighthouse is open to the public.

## THE RENAISSANCE



The lighthouse has deteriorated over time. That's why the commune of Grau du Roi began its restoration in 2016. Foundations, floors, facades, floorboards, roof, stairs, beacon, ladders... everything was inspected, then repaired or replaced!

2019

The restoration work was carried out by the heritage architect Gabrielle Welisch, funded by the local council (commune), the French state, the Occitanie region and the Gard department.

1.2

### Did you know?

The former Grau du Roi lighthouse is actually called the Aigues-Mortes lighthouse. Indeed, Grau du Roi was for a long time a district of Aigues-Mortes before becoming an independent commune in 1879.

1.3

The lighthouse was listed as a historic monument in 2012. It has been restored to its original state. For this reason, the keeper's house and outbuildings, later built as staff quarters or storage facilities, have been demolished.

1.4

The staircase steps were badly damaged by water, wind and sand infiltration.

1.5

Work began in October 2018 and took a year to complete.

## 1.6 CHANGING TIMES

In the past, the job of lighthouse keeper was indispensable. Today, it is tending to disappear with the automation of lanterns.

## 1.7 THE BEACON

The beacon in the Grau du Roi lighthouse used a new technology developed by engineer Augustin Fresnel (1788-1827). It involved reversing the function of a Fresnel lens to diffuse the rays emitted by the lighthouse's oil lamp. Built in Paris, the beacon was delivered in November 1828. It was lit on March 1, 1829.

## 1.8 FINDING YOUR WAY AT SEA

Lighthouses have long been indispensable for locating a port or dangerous area. Along with the stars, they have long been the only tools used by sailors to find their way at night. Today, lighthouses are gradually being supplemented by various electronic navigation instruments, such as GPS, probes and radars.

### The game: set course for the lighthouse!

What route does the boat have to take to reach its mooring?



## 2.1 FISHING IN DAYS GONE BY

### It all began in the étangs (lagoons).

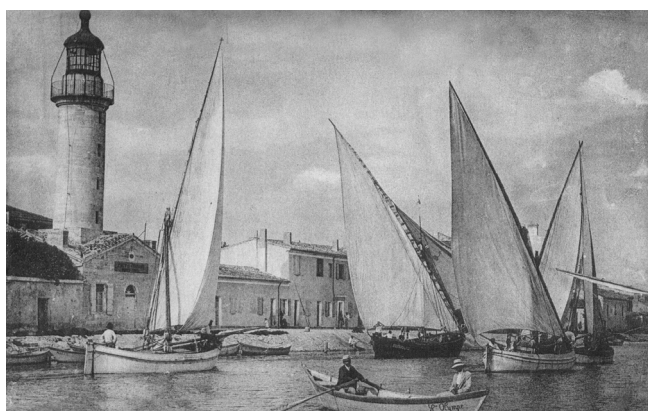
Fishing in the Languedoc region developed around the large ponds, which were rich in fish and calmer than the sea on bad weather days. For a long time, eels were caught in traps called capéchades or trabaques.

### An opening to the sea

Fishermen then went out to sea. Close to shore, catching fish with nets such as bouillet or trasse. But also offshore, with night fishing using a lamparo, a lamp that shone from the deck to attract sardines and anchovies to a net on the surface.

## 2.2 BY SAIL!

In the past, fishing was carried out aboard a sailing boat such as the long, fast Catalan barque, or the sturdy, mobile *mourre de pour*.



## 2.3 SEINCHE

This is a traditional method of tuna fishing. For several boats, fishermen would set fixed nets around a shoal of tuna to concentrate them before killing them. There have been 6 assemblies of seinche in Grau du Roi, including «La Vieille», «Les Matelots Réunis» and «La Malgré vous». The last «coup de seinche» took place in 1964.

## 2.4 GLOBE FISHING

This type of fishing was practised all year round, day and night, from the banks of the canal. The «globe» was a pocket-shaped net suspended at the four corners by ropes attached to winches. 40 posts were set up every 200 metres between Aigues-Mortes and Le Grau du Roi. Places were allocated each year by drawing lots. This form of fishing ended in 1981.

## 2.5 TRABAQUE

The trabaque is a trap specifically used for fishing eels in ponds. It is still used today.



## 2.6 BEFORE CASTING OFF

### Choosing the species

It depends on the seasons, the life cycles of the species or migrations... For example, red mullet and wolfish, which reproduce near the coast, are numerous at the beginning of September. Tuna, a migratory species, are present in large numbers in June and September. Some species are not fished during the breeding season. There are bans on others as mandated by the European Commission to protect threatened populations.

### Choosing the location

This depends on the species targeted. Fishermen go where they think the species will be abundant. Certain areas may be closed to fishing for a time to preserve a habitat.

### Weather conditions

It's essential to know the weather conditions before setting off. Clear or murky seas, temperature, wind strength and direction are all factors that influence the day's fishing. For example, a sea breeze is more favourable to fishing than a northerly wind, which cools and clears the water.

## 2.7 FISHING TRAWLER

Trawlers have been present in Grau du Roi since 1930. At the peak, there were 35 of them. In 2022, there were just 17. 16 are bottom trawlers and only one is a pelagic trawler. They can be identified by the gantry at the stern of the boat, which is used to lift the net, and two or three reels to stow it.



## 2.8 SMALL CRAFT

In 2022, there were 56 small craft in Grau du Roi, measuring between 6 and 12 metres in length. Less powerful than trawlers, they generally stay within 5 nautical miles of the coast.



## 2.9 FISHING



### Handling fishing gear

Casting bait, handling nets, guiding trawls out of the water... many tasks are still carried out by hand. This is also the case for longlines and trammel nets, where the fish have to be unhooked one by one by hand. A fishing trip may also involve setting or lifting traps, which are left underwater for a few days.



### Sorting and packing

The catch is sorted on board the boat according to species and size. Those that are too small or have no commercial value are thrown back into the sea. The others are placed in crates and covered with ice to keep them fresh.



### No breakages

A fishing trip goes well when there are no incidents. A net can tear, an engine can break down, a person can get hurt...

## 2.10 BACK TO PORT



### Selling the catch

The fishermen of Le Grau du Roi offer fresh produce, working as much as possible in a short supply chain. As soon as they arrive in port, they deliver to the cooperative, or sell their fish in front of their boat, at the fishermen's stall in Port-Camargue, or online for home delivery!



### Maintenance of fishing gear

After fishing, the fisherman's day is not over! The boat has to be washed and prepared for the next day's outing, the nets have to be cleaned, broken octopus pots have to be repaired...



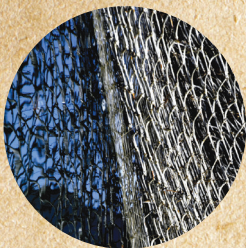
### Running a business

When they're not at sea, skippers take care of the many administrative tasks. They also take part in training courses with their deckhands to ensure compliance with health and safety regulations.

## 2.11 CHANGING FISHING GEAR

### IN THE PAST

#### Nets



- Cotton or silk thread
- Heavy and bulky
- Opaque and dirty
- Waterlogged

#### Boats



- Wooden hulls

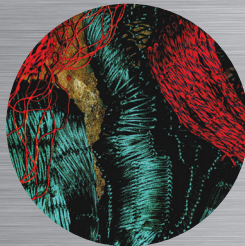
#### Tools



- Nautical charts
- Hand-held instruments
- Manual fishing gear

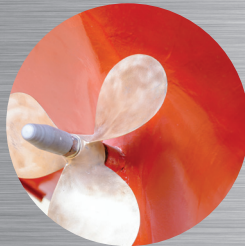
### TODAY

#### Nets



- Nylon nets
- Flexible and light
- Easy to handle and low fuel consumption.
- Transparent
- Less visible and therefore more effective.
- Net structure: To achieve more selective fishing, work has been carried out on the size and opening of the meshes, as well as on the type of twine and the structure of the net.
- Beacons: Many nets can now be fitted with beacons so that they can be tracked or found if they are lost.

#### Boats



- Plastic, aluminium and composite hulls: Lighter.

#### Tools



- Plotting tables : Practical and moisture-resistant.
- Motorised fishing gear: Hydraulic systems for lifting trawls or pots.
- Fishfinders and radars: Among other things, they can detect the presence of fish (number, size, species, etc.).
- Numerous developments have been made to reduce fuel consumption, such as lighter materials.

## 2.12 SMALL-SCALE FISHING



### Small-scale fishing

Small-scale fishing is carried out along beaches, at sea and in étangs (lagoons). They fish no more than 20 nautical miles from the coast (37 km) and are never out for more than 24 hours.

The quantities fished at Le Grau du Roi, all boats combined, reach 2,500 tonnes per year, with an average of 800 kilos per day for a trawler (for comparison, this is 10 times less than a port like Boulogne-sur-Mer).



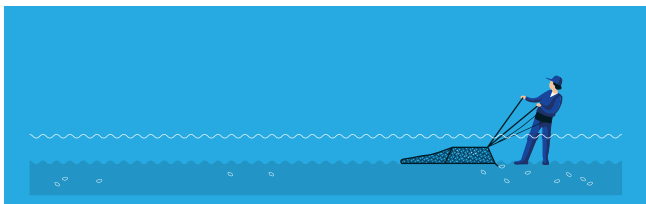
### Small-scale, selective fishing

Small-scale fishing covers a wide range of techniques, each characterised by a different type of gear. By using several of these techniques, fishermen are able to adapt to the resources available throughout the year. In addition, by modifying the size of the hook, the type of trap, the depth of the net, etc., they ensure more selective fishing and avoid catching fish that are too small.

## THE DIFFERENT FISHING GEAR USED IN GRAU DU ROI

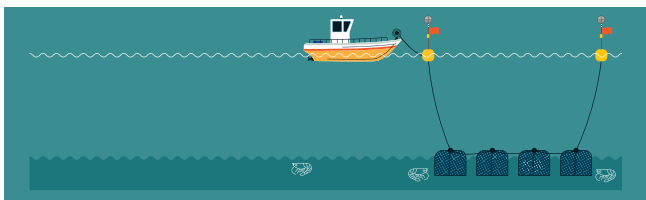
### 2.13 THE TELLINIER

This is used to gather tellines (wedge clams). It is a kind of rake that digs into the sand to unearth the shellfish and bring them to a net. Pulled by a harness, it requires a great deal of physical effort.



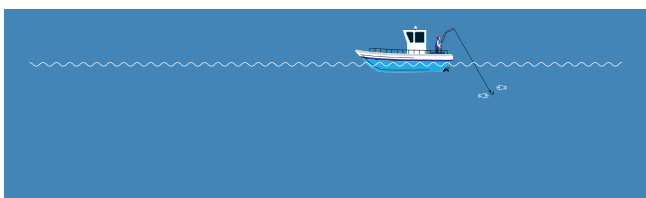
### 2.14 TRAPS

Traps are used to catch sea snails, lobsters, prawns, etc. They consist of a rigid structure covered in netting, and their opening is designed so that these species, attracted by bait, can easily enter the trap but have difficulty getting out. Traps are placed on the seabed in groups of dozens.



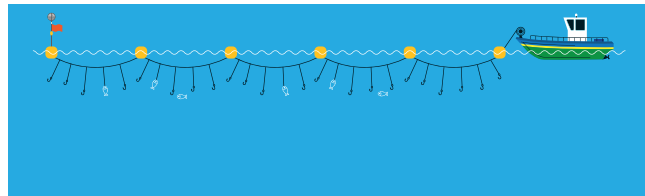
### 2.15 THE LINE

The line can be handled by hand using a rod, or towed from the back of a boat. Depending on the type of bait used, one or more hooks are attached to the end of the line to catch pelagic fish such as tuna, bream, sea bass, etc.



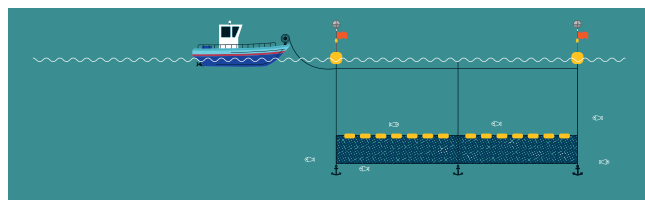
### 2.16 LONG LINES

The longline is made up of a main line that can be several kilometres long, and hundreds of secondary lines each fitted with a hook. The set longline is held to the bottom by anchors and is used to catch bass, gurnard, pollack and skate. Drifting longlines are left to drift with the currents using simple floats to catch bluefin tuna and swordfish.



### 2.17 THE NET

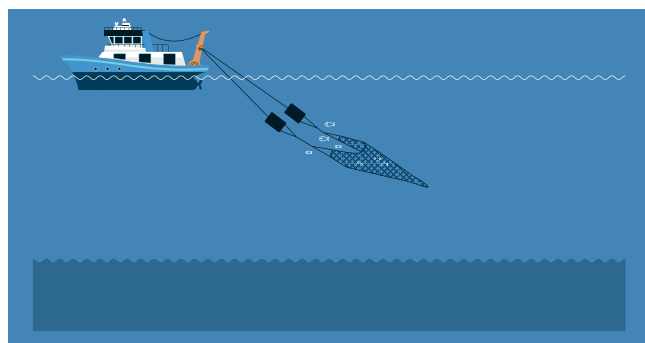
A trammel net is generally 1 km long and 1.80 m high. It is held in a vertical position by weights at the bottom of the net and floats at the surface. It is made up of three superimposed rectangular sheets, which effectively trap a wide variety of fish.



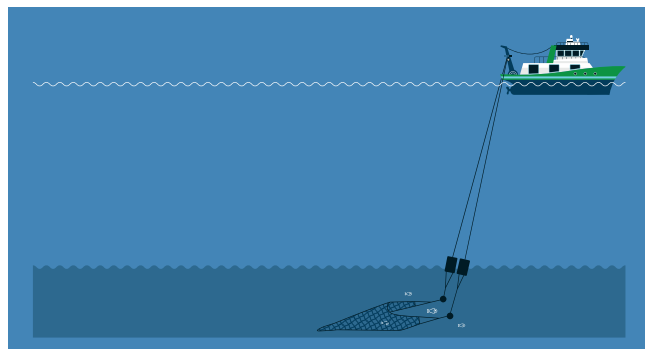
### 2.18 THE CHALUT

The trawl is the net towed by the trawler. It is funnel-shaped and is held open by «diverging panels». The mesh size, which varies between the edges and the bottom of the net, is regulated to better protect juvenile fish.

The pelagic trawl is drawn to catch sardines, anchovies, etc.



The bottom trawl scrapes the sediment to catch the animals that live there, such as hake, monkfish, turbot, sole, dab, octopus, cuttlefish, snails, etc.



## 2.19 WHAT KIND OF SEAGULL?

### Don't feed the gulls!

Feeding gulls encourages them to take up residence in towns and cities. Gulls are noisy birds that litter streets and houses with their droppings. Above all, they can be very aggressive towards children and pets, especially when feeding their chicks!

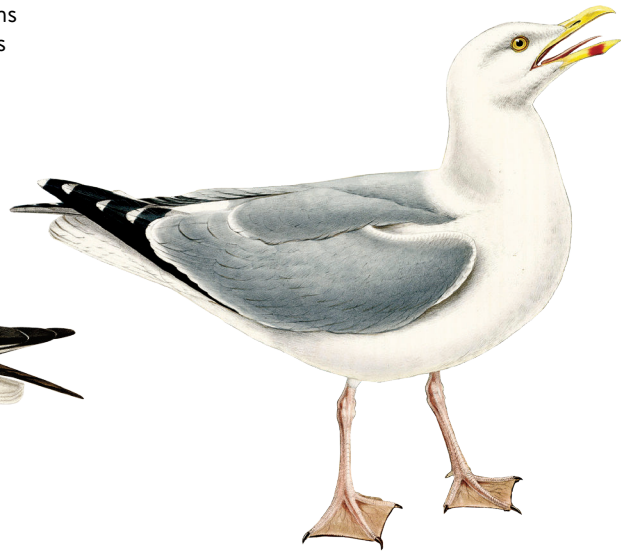


### BLACK-HEADED GULL

*Chroicocephalus ridibundus*

Size: 37 to 43 cm / Wingspan: 85 to 110 cm

- The gull changes its plumage between seasons!
- In summer, its head is completely dark brown.
  - Orange-red beak
  - Red legs



### YELLOW-LEGGED GULL

*Larus michahellis*

Size: 55 to 67 cm / Wingspan: 130 to 160 cm

- Yellow beak with red spot
- Yellow legs

## 2.20 A SAILOR'S GLOSSARY

- 1 Stern: Rear part of a boat
- 2 Bow: Forward part of a boat
- 3 Port: Refers to the left side of the boat looking forward, indicated by a red light.
- 4 Starboard: Refers to the right-hand side of the boat looking forward, indicated by a green light.
- 5 Bitter: A fixed, unambiguously identifiable landmark used for maritime navigation.  
The alignments between the old sanatorium at Grau du Roi and Grande Motte, or between the church and the arenas at Saintes-Maries-de-la-Mer are landmarks still used by local fishermen to locate lines of underwater rocks.
- 6 Wake: Represents the mass of water agitated by the movement of the boat and the trace it leaves behind on the surface of the water.
- 7 Draught: Depth of water required for the boat to float normally.
- 8 Waterline: Line separating the immersed part of a ship's hull from the emerged part.



## 3.1 FISHERMEN IN GRAU DU ROI

In 2022, Le Grau du Roi had 51 trawler fishermen and 71 small-scale fishermen, 56 of whom were skippers and 15 were deckhands. They are between 20 and 60 years old, live in Le Grau du Roi or the surrounding communes, and all have a real passion for the sea, fishing... and the fish they know better than anyone!



### 3.2

“I started in 41. We had sails, then 20 HP petrol engines. I was 12 years old. I started out as a deckhand with my father, and when my father died in ‘49 I was in charge of my father’s boat, and then my brother took over and I took over my father-in-law’s boat. At the time, there were about sixty pig’s snout, the majority of which were 32-panel (8-metre) pig’s snout. All the pig’s snout were made of oak. They were tough boats! I retired in 81. Since then, I’ve only been to the sea a little for the Festival of the Sea when we throw a wreath. In ‘82, my brother disappeared at sea and was never found, so that really stopped me wanting to go to the sea. When I retired and my navigation was drawn, they found 43 years at sea.”

**Robert Gozioso - March 1988**

“My father was a fisherman, the whole family has been fishing, for as long as I can remember. I started out with a pig’s snout called the Julia. We used to line fish for mackerel in the spring. In winter, with my father and brother, we trawled with another pig’s snout, two of us pulling the net, she was called the Ganguy. In winter, the small boats couldn’t go out every day, so we went bass fishing with the small boats, wooden dinghy. I rowed, I was the young one and my father fished with two lines, for grey shrimp, when it was very cold until November and December. There were plenty of bass, weighing 2 or 3 kilos. I started mackerel fishing with my father, line fishing in the spring, then we went trawling and then we did Seinche in the spring and summer.”

**Henry Hubidos - August 1988**



### 3.3

“Every day is a new experience. Depending on the weather, the moon and the currents, we choose the fishing we’re going to do and the day before we’ll set the specific nets according to what we want to catch, and the next day we’ll haul them in.”

“You have to be wary of the strong southerly and the gusts from the northerly wind. They come suddenly. In the Mediterranean everything is violent, even the calm!”

“When a Mistral gust is forecast for dawn, I know that I’ll be able to work in relative peace until an hour and a half before the moon sets. After that you know the wind is going to pick up.”

### 3.4

“Fear is our guardian angel. I’m not talking about panic, but the right kind of fear, the kind that makes you anticipate, that makes everyone know their role, the kind that forces you to be rigorous and disciplined and makes you stop before the domino effect of mistakes sets in.”

“It wasn’t easy, I was seasick, I was exhausted. I didn’t know what was going to become of me. Then, I think I learnt to love the sea.”

### 3.5

“It’s a balance. I’m confident about the future because we’re better informed these days and aware of the issues. We can adapt, imagine, collaborate and innovate - it’s a new era. We need to find sustainable economic models that hold up.”

### 3.6

“«When a fisherman talks about fishing, his eyes shining, his smile on his lips, the emotion palpable... you think I’m in the wrong job... And yet there are the constraints of preserving the resource, the breakages and breakdowns, the long days, day and night, in the wind, the sun, the cold... And yet, there are the nights when you have to get up for nothing, the uncertain selling prices, the danger, the dramas in the middle of this unpredictable expanse... Their catch, there is the pleasure of a job well done. It’s the love of hard work and a wish to maintain high standards that keep them at the helm. This beautiful, lively, alluring fish, you will love it too.”

### 3.7 ALL FISH IS GOOD FISH!

Fried, marinated, baked, in soup or tartar, served hot or cold... all seafood products are delicious, you just have to find the recipe that suits you! Find some tasty ideas in the book *Les Graulinades*, available from the Grau du Roi tourist office, or from the restaurants and artisans who sell seafood products and introduce you to local species such as skate and mullet.

### 3.8 SALES ON THE QUAYSIDE

Buying seafood directly from Le Grau du Roi means you can be sure of getting local, seasonal fish! It's also an opportunity to talk directly with the fishermen.



### 3.10 «RESEACLONS» MARINE WASTE!

The fishermen of Le Grau du Roi systematically bring back any rubbish they find in their fishing gear. On land, they donate it to the ReSeaclons association. Their project involves organising collections of marine waste, sorting it and then recycling any that can be recycled into «100% recycled marine plastic» objects using an innovative process developed by the company TRIVEO.

A real example of the circular economy!

### 3.9 THE COOPERATIVES

The Socomap and La Graulenne cooperatives auction off fish products that come directly from the boats in Grau du Roi. This is where many of the town's fishmongers and restaurants get their supplies.





# ROOM 3 – FISHERMEN’S STORIES

## 3.11 AROUND THE FISHING PROFESSION

Fishmongers, fishmongers, processors, boatbuilders, mechanics, maritime affairs officers, shipyard employees, lifeguards... Many professions are closely linked to that of «fishermen».

**Match the colours on the scroll opposite to find out more!**

### THE FISHMONGER’S JOB...

...involves sourcing and buying fish and other seafood products wholesale, which are then sold to wholesalers, fishmongers or restaurants.

...requires a very good knowledge of seafood products (in order to check their traceability and certify their quality and conformity before marketing them), as well as processing techniques, distribution channels and markets.



### THE JOB OF A FISHMONGER...

...involves selling fish, shellfish and sea food in fishmongers' shops or on market stalls.

...means getting up early in the morning to collect the products that will be displayed on the stalls. With your hands constantly immersed in the preserving ice, this job requires good resistance to the cold!



### THE JOB OF A PROCESSOR...

...involves processing seafood products to make them easier to transport, eat or preserve. This involves cleaning, cutting, freezing, smoking and salting them, as well as making fish soups or seafood rilletes, for example.

...requires mastery of all the processing techniques and an in-depth knowledge of the rules and standards relating to food safety. You can work as a craftsman or in a processing plant.



### THE SHIPWRIGHT’S TRADE...

...consists of building the skeleton, or framework, of a wooden ship by choosing the type of wood, drawing the templates, shaping and assembling the various components that make it up.

...is usually carried out as an employee of a shipbuilder or maintenance shipyard, and involves working in a workshop, but also sometimes outdoors, on the quayside or in a port area.



## ROOM 3 – FISHERMEN'S STORIES

### THE JOB OF A MARINE MECHANIC...

...involves maintaining and repairing engines and hydraulic, pneumatic and refrigeration systems, as well as ensuring compliance with safety standards.

...requires a sense of initiative, team work and solid analytical skills. You mustn't get seasick to do this job, as a marine engineer is often required on board!



### THE JOB OF MARITIME AFFAIRS OFFICER...

...involves carrying out management and administrative tasks on behalf of the State, ensuring the application of maritime regulations relating to the registration of ships and safety on board, as well as fisheries surveillance.

...requires a thorough knowledge of government directives, an extensive understanding of regulations and safety rules, and a close relationship with fishermen.



### THE JOB OF A RESEARCHER...

...involves studying marine species and environments, monitoring fish stocks, assessing the impact of fishing activities, and advising the authorities on the introduction of fishing quotas or protected areas.

...involves taking measurements and samples during scientific campaigns at sea, which are then analysed in the laboratory using computers and mathematical models. These analyses are used to simulate the current environment and predict future phenomena and trends.



### THE JOB OF THE NET MAKER...

...consists of making the nets used by fishermen, repairing them when they tear or modifying them as required.

...involves working with needles and patience. In the absence of training, all the know-how is passed down from generation to generation.



### THE JOB OF A LIFEGUARD AT SEA...

...consists of conducting searches at sea, assisting ships in difficulty, assessing the condition of people who need to be rescued and then providing first aid before returning shipwrecked people to dry land.

...requires courage and reactivity to be able to mobilise in 20 minutes maximum in the event of an alert. The lifeguard crews are volunteers and receive no remuneration for the life-saving activities they carry out within the SNSM (National Society for Rescue at Sea).



