

## CAREER GUIDE

# Blue Economy jobs for young people

COASTAL TOURISM  
aquaculture  
ocean energy  
**marine biotechnology**  
**shipbuilding**  
MARITIME TRANSPORT  
fisheries

[#Blue\\_Generation\\_project](#)

The Blue Generation project is funded by Iceland, Liechtenstein and Norway through the EEA and Norway Grants for Youth Employment

- 🌐 [bluegeneration.org](https://bluegeneration.org)
- 📘 BlueGeneration Project
- 🐦 BlueGeneration\_
- 📷 blue\_generation\_project
- 🌐 Blue Generation Project

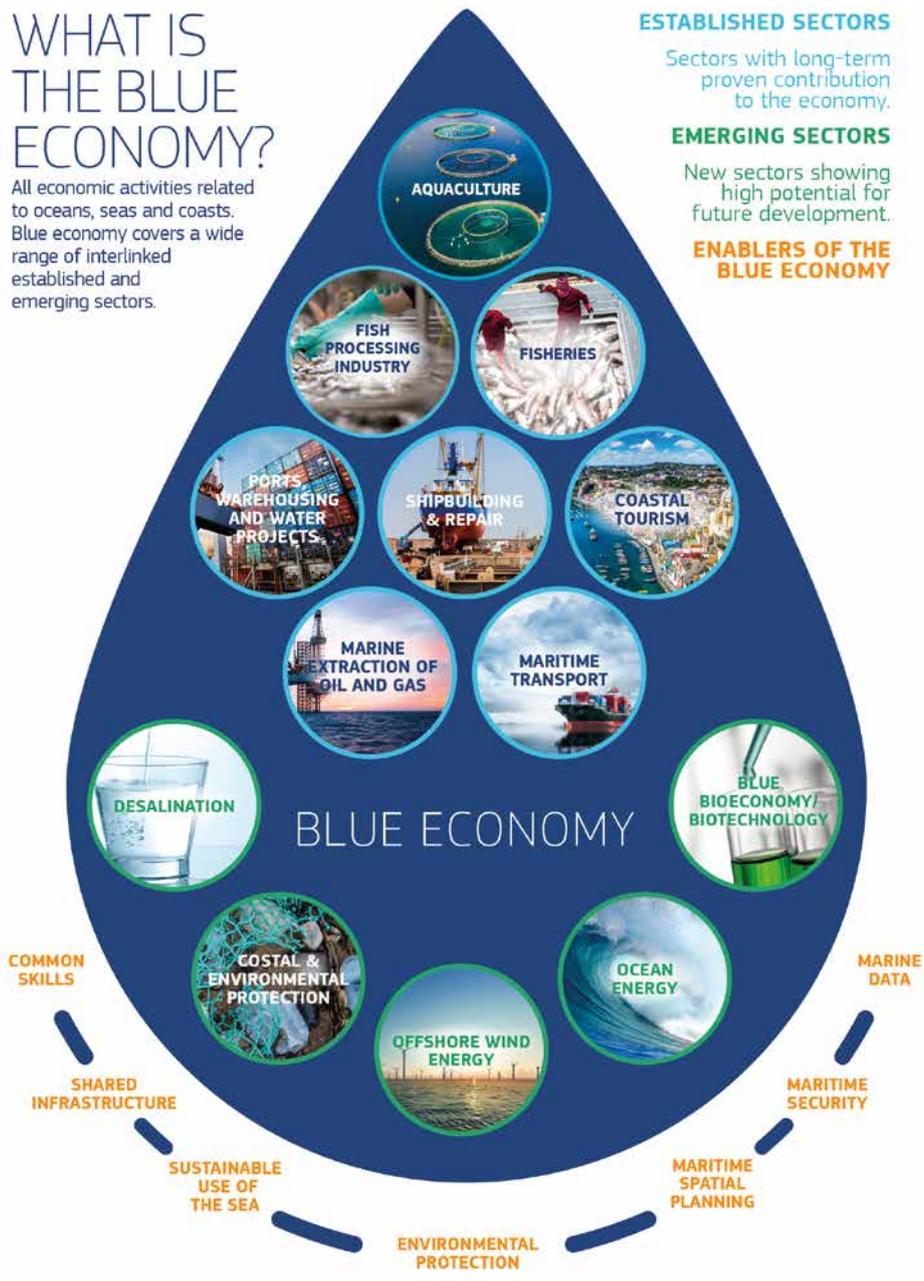
# CONTENTS

INTRODUCTION	5
ABOUT BLUE ECONOMY (JOBS, EMPLOYMENT)	
ABOUT YOUTH (YOUTH EMPLOYMENT)	
ABOUT THE BLUE GENERATION PROJECT: AN OCEAN OF OPPORTUNITIES	
HAVE YOU CONSIDERED WORKING IN ONE OF THESE BLUE ECONOMY GROWTH SECTORS?	
1. COASTAL TOURISM	8
1.1 WHAT'S IT ALL ABOUT?	
1.2 WHAT AREAS ARE OFFERING JOBS?	
1.3 WHAT JOBS CAN I EXPECT?	
1.4 HOW MUCH CAN I EARN?	
1.5 INTERVIEW	
2. AQUACULTURE	11
2.1 WHAT'S IT ALL ABOUT?	
2.2 WHAT AREAS ARE OFFERING JOBS?	
2.3 WHAT JOBS CAN I EXPECT	
2.4 HOW MUCH CAN I EARN?	
2.5 INTERVIEW	
3. OCEAN ENERGY	14
3.1 WHAT'S IT ALL ABOUT?	
3.2 WHAT AREAS ARE OFFERING JOBS?	
3.3 WHAT JOBS CAN I EXPECT?	
3.4 GENERAL LEVEL OF EMPLOYMENT EU	
3.5 INTERVIEW	
4. MARINE BIOTECHNOLOGY	17
4.1. WHAT'S IT ALL ABOUT?	
4.2 WHAT AREAS ARE OFFERING JOBS?	
4.3 WHAT JOBS CAN I EXPECT?	
4.4 GENERAL LEVEL OF EMPLOYMENT EU	
4.5 INTERVIEW	

<b>5. SHIP BUILDING AND MAINTENANCE</b>	<b>20</b>
5.1. WHAT'S IT ALL ABOUT?	
5.2 WHAT AREAS ARE OFFERING JOBS?	
5.3 WHAT JOBS CAN I EXPECT?	
5.4 HOW MUCH CAN I EARN?	
5.5 INTERVIEW	
<b>6. FISHERIES</b>	<b>23</b>
6.1. WHAT'S IT ALL ABOUT?	
6.2. WHERE CAN YOU WORK?	
6.3 WHAT AREAS ARE OFFERING JOBS?	
6.4 WHAT JOBS CAN I EXPECT	
6.5 HOW MUCH CAN I EARN?	
6.6 INTERVIEW	
<b>7. MARITIME TRANSPORT</b>	<b>27</b>
7.1. WHAT'S IT ALL ABOUT?	
7.2 WHAT AREAS ARE OFFERING JOBS?	
7.3 WHAT JOBS CAN I EXPECT?	
7.4 HOW MUCH CAN I EARN?	
7.5 INTERVIEW	
<b>NON SECTOR-SPECIFIC JOBS IN THE BLUE ECONOMY</b>	

# WHAT IS THE BLUE ECONOMY?

All economic activities related to oceans, seas and coasts. Blue economy covers a wide range of interlinked established and emerging sectors.



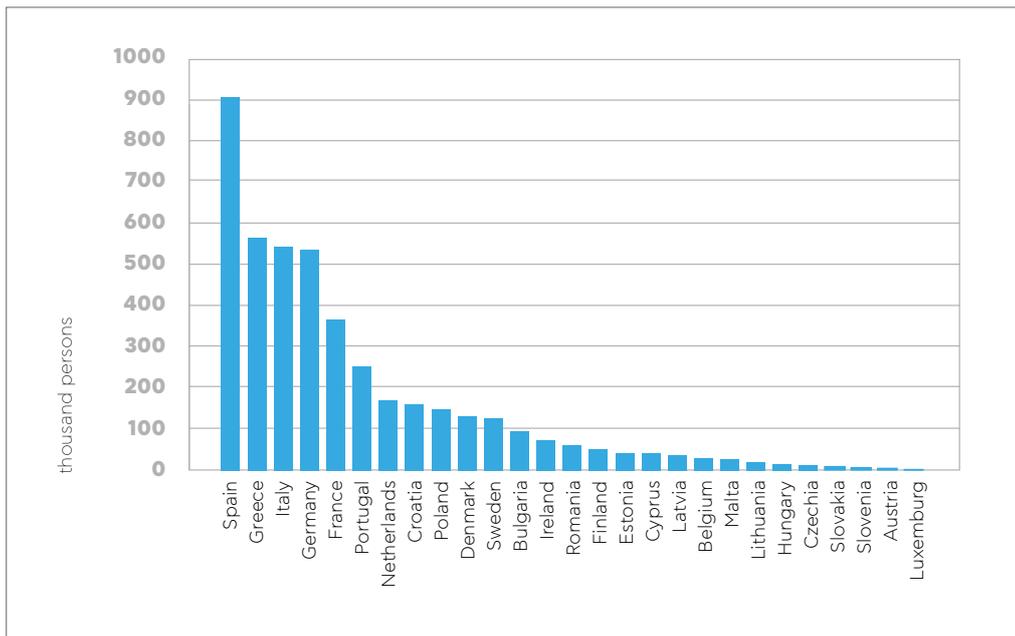
**SOURCE:**  
Publication Office of European Union, "The 2018 Annual Economic Report on Blue Economy"

## INTRODUCTION

### ABOUT BLUE ECONOMY (JOBS, EMPLOYMENT)

The "Blue" in "Blue Economy" stands for the seas and oceans. As a vital component of Europe's coastal economies, oceans can also contribute to our continent's overall prosperity. They can produce investment, jobs and economic growth. The Blue Economy includes economic activities that are:

- Marine based such as capture fisheries and aquaculture, offshore oil and gas, offshore wind energy, ocean energy, desalination, shipping, maritime transport and coastal tourism
- Marine related such as seafood processing, marine biotechnology, shipbuilding and repair, port activities, communication, equipment, maritime insurance and maritime surveillance
- It also includes those parts of the public sector with coastal and ocean responsibilities such as national defence, coast guard, environmental protection as well as marine education and research



BLUE ECONOMY  
JOBS  
(THOUSANDS)

**SOURCE:**  
DG Mare – Blue  
Economy Indicators

## ABOUT YOUTH (YOUTH EMPLOYMENT)

The European Blue Economy, currently representing around 5.4 million jobs, is set to double its employment by 2030. Its problem is that young people are not being attracted to maritime careers and businesses cannot find the required workforce, skills and profiles. At the same time, the EU has up to 14 million young people who are Not in Education, Employment or Training (NEET) between 15 and 29 years and millions more who are at risk of becoming NEETs through early school dropout, difficulties in entering the labour market or personal problems.

## ABOUT THE BLUE GENERATION PROJECT: AN OCEAN OF OPPORTUNITIES

The objective of the Blue Generation Project is to **inspire and engage youth between 15 and 29 years to pursue a sustainable career in one of the Blue Economy growth areas**: coastal tourism, aquaculture, ocean energy, marine biotechnology, ship building & maintenance, fisheries and maritime transport.

The Blue Generation Project brings together experts from the Blue Economy and youth organizations to share knowledge about skills needs, career paths, open job positions and existing training.

It develops the **Blue Generation Program** that trains youth workers to become knowledgeable promoters and mentors and promote Blue Career opportunities among youth through promotional activities in high schools, adult education centres, NGOs, unemployment services and local associations. It also guides interested youth through skills validation, personal mentoring and short exchanges to suitable employment and training in the Blue Economy. Moreover, it produces a MOOC, a Blue Career Guide and a Blue Career Job Platform. Finally it develops live and recorded webinars and short training courses that provide introductory knowledge and offer an advantage to employment in entry-level jobs for young people. All the above digital tools will be uploaded under the Integrated Blue Economy Platform.

The Blue Generation Project runs from June 2018 to January 2024 and will repeat the Blue Generation Program in 4 cycles to constantly improve and firmly establish it in all partner countries.

To facilitate the transferability of the program to other organizations, countries or contexts, the project will develop a **Blueprint Guide** and organize two **International Conferences** to inform all interested stakeholders.

Towards the end of the project the partners will set up a **Federation** that will take over ownership of all project outputs and ensure the continuation, expansion and lasting effect of the projects' achievements.

The Blue Generation Project is funded by the EEA and Norway Grants Fund for Youth Employment. The project is coordinated by Militos Consulting S.A. in Greece and Sea Teach in Spain and is implemented by an international consortium in Bulgaria, Greece, Poland, Portugal, Spain and Romania with support from Experts from Belgium, Germany and Norway.

It is envisaged to reach up to 39,000 young people with the promotional activities and convert at least 3,000 to employment or training in the Blue Economy.

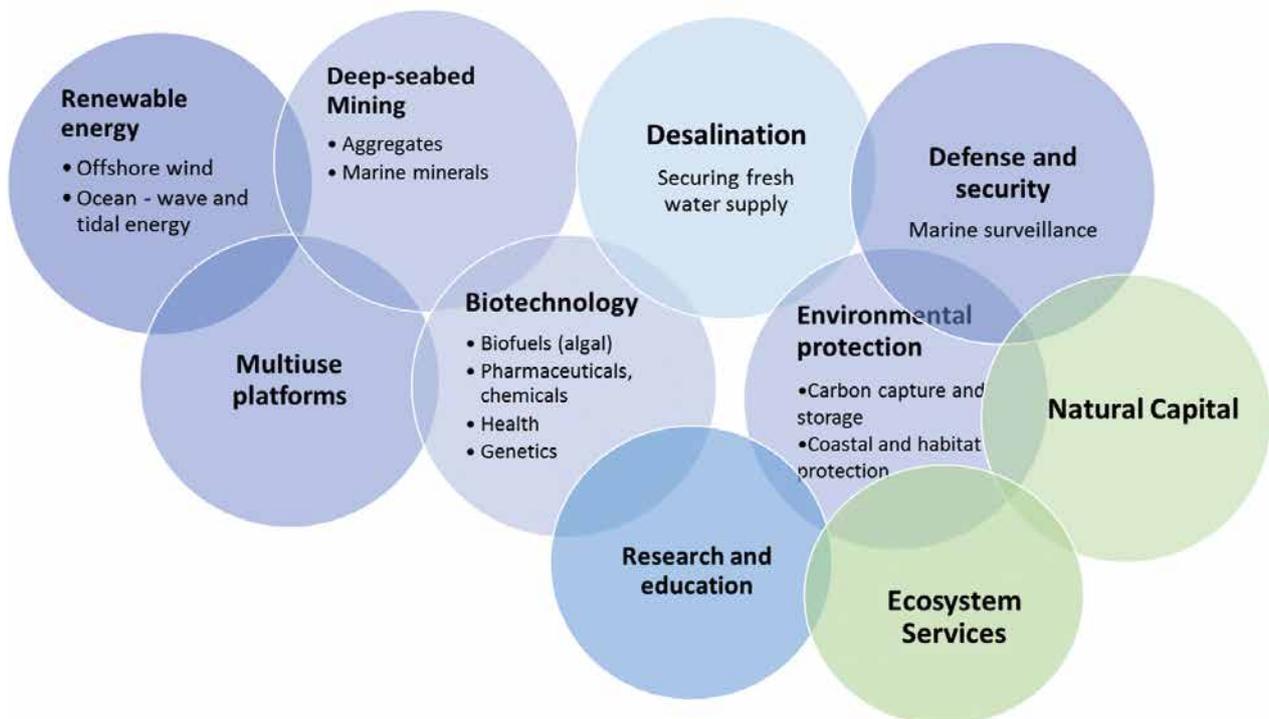
## HAVE YOU CONSIDERED WORKING IN ONE OF THESE BLUE ECONOMY GROWTH SECTORS?

- Coastal tourism,
- Aquaculture,
- Ocean energy,
- Marine biotechnology

And other, more traditional, sectors

- Ship Building and Maintenance,
- Fisheries, and
- Maritime transport (transport of goods, of people, maritime infrastructure).

## EMERGING AND ADDITIONAL BLUE ECONOMY SECTORS AND INDUSTRIES



**SOURCE:** Publication Office of European Union, "The 2018 Annual Economic Report on Blue Economy"

# 1. COASTAL TOURISM

## 1.1 WHAT'S IT ALL ABOUT?

The sub-sector represents one of the most important areas of the Blue Economy.

Tourism is a great resource for Europe and more than half of the total tourism accommodation in the EU is located on coastal areas. Coastal tourism accounted for 45% of the gross value added (GVA), 64% of the jobs and 41% of the profits of the total EU Blue Economy in 2018.

More than 2.8 million people were directly employed in the sector in 2018 (up by 45% compared to 2015) and the average wage was about 18,360 € in 2018 (10% increase from 2009). This growth must be harnessed in a way that is sustainable and delivers robust economic development. There are a multitude of sectors and services that are on offer.

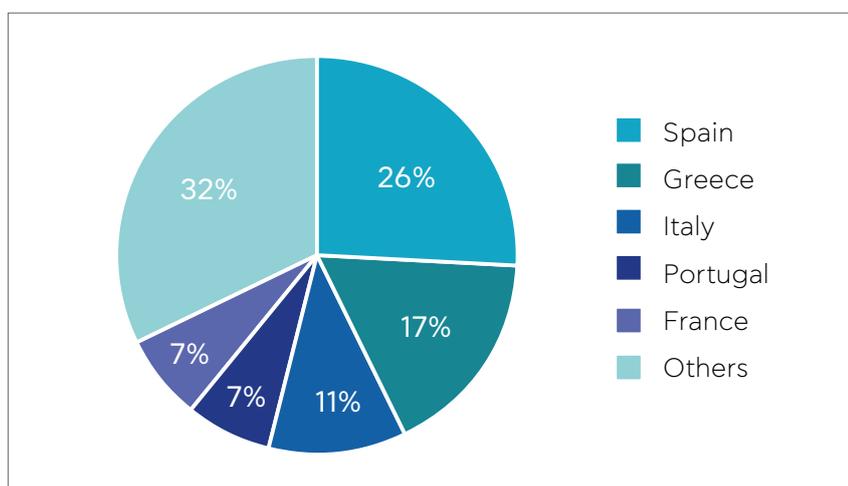
For example, Nautical tourism includes recreational boating, cruises, marinas, water sports as well as maritime history tourism, marine wildlife tourism and many other land-based related activities such as nautical museums and resorts.

Increasingly, tourists are attracted less by traditional "sun & beach" style vacations and are instead opting for innovative activities such as coastal and marine archaeology, subaquatic tourism and culinary traditions. The operators of the industry are adapting and offering ever new solutions and ideas, like for example exploiting the potential of the digital platforms of the "collaborative economy", providing an ever increasing scalable and tailored experience to the consumer, creating employment and helping the social, economical and cultural development of their environments.

## 1.2 WHAT AREAS ARE OFFERING JOBS?

- Hotels and Accommodation
- Gastronomic and Spa Tourism
- Boat Maintenance Services
- Water sports, Beach sports
- Walking, Bicycle and Activity Hobbies
- Golf and Sports clubs and Activities
- Service providers to the sector (ITC, Web based services, equipment supplies, printing services)
- Infrastructure builders, operators and logistics
- Agro and Rural Tourism
- Congress and Events Tourism

COASTAL TOURISM - JOBS



**SOURCE:** The EU blue economy report 2021, Publications Office



**1.3 WHAT JOBS CAN I EXPECT?** There are 1,000's of opportunities in this sector, here are a few examples:

- Boat - Maintenance, repair, cleaning services
- Beach Life guard
- Coast Guard Services
- Environmental Officer
- ITC services i.e. Website designer
- Chef or Restaurant Staff
- Water Sports Instructor
- Walking Holiday Guide
- Cycling Team Tour Guide Leader or Operator
- Tourist Information Advisor
- Apartment and Villa rental agent
- Property Management
- Charter Vessel Operations
- Excursion Operations
- Power boat skipper or instructor

**1.4 HOW MUCH CAN I EARN?**

National level:



**BULGARIA**  
78,000 jobs  
5,300€ / year



**GREECE**  
492,000 jobs  
8,030€ / year



**POLAND**  
50,000 jobs  
9,800€ / year



**PORTUGAL**  
212,000 jobs  
14,600€ / year



**SPAIN**  
730,000 jobs  
23,200€ / year



**ROMANIA**  
22,900 jobs  
7,000€ / year

These salaries are the average for the whole sector. The entry positions start with the minimum wages based on the legislation of each country. For senior positions the wages can be higher.

**SOURCE:** The EU blue economy report 2021, Publications Office

## 1.5 INTERVIEW

With thanks to: Carl H.

**How would you describe your Job?**

I started my own business 10 years ago in Cala Dor, Mallorca, Maintaining and Cleaning boats. The business has now grown and I now have a small team working with me. It is very enjoyable work.

**What tasks do you have to do in your work?**

Day to day we provide a range of services to our client boat owners inc.

- Interior and exterior cleaning, laundry, dry cleaning, steam cleaning
- Repairs to gel, teak, fittings,
- Maintenance to electric systems, generators and engines

**Do you need any special Skills or Qualifications to do your job?**

A large amount of common sense, a willingness to learn, some basic practical abilities and a positive outlook will get you far. As many of our clients are English as well as Spanish, languages are very important.

**What are the working hours?**

Normally, we work 8am through to 5pm for 5 days a week.

**What do you think the future brings in this sector?**

This sector is growing and there are more and more new, bigger boats coming to the western Med every year. The owners demand many services and we and other people working in this sector are well placed to enjoy the results.

**What do you enjoy most about your job?**

The work is very fulfilling. It not only allows me to continuously interact with my customers but also I see my staff develop their knowledge and skills through the work experience.

But other than the job itself, there are not many careers in the world where you can work hard for 9 months of the year and then at a much slower pace for 3. The boats I work on are valued between 50,000€ and 4 million € which means the work environment is pretty impressive.

Finally, I am also a qualified professional skipper which means I get to drive these amazing machines as part of my job.



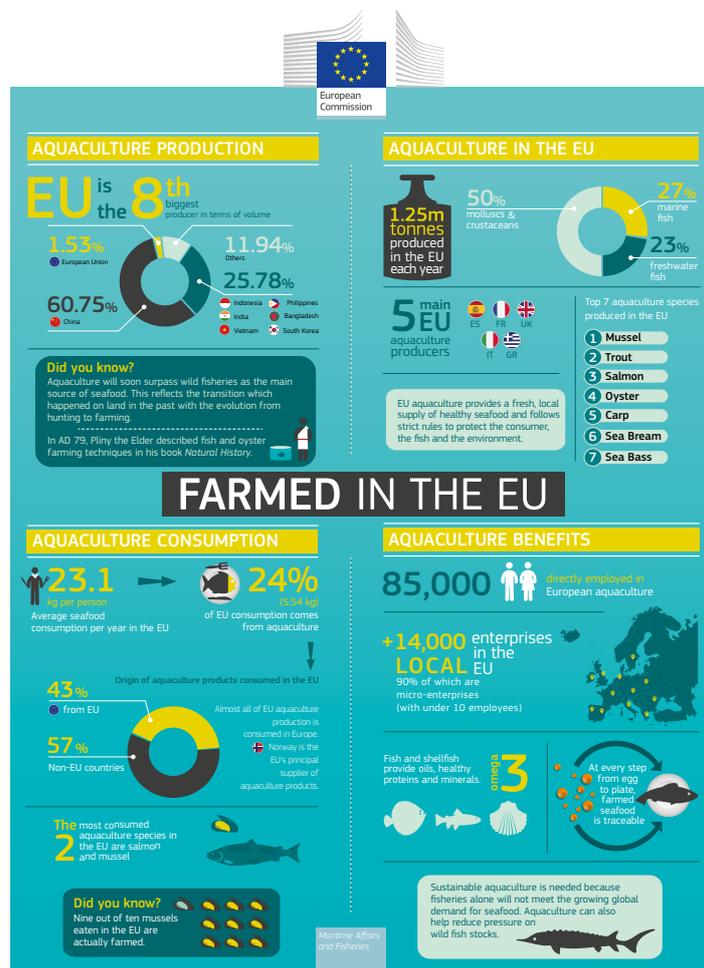
### **Do you have any tips for someone considering a similar career to yours?**

Essentially, if you have a passion for the work and then you can develop a small enterprise into a prosperous affair. I love what I do and I recommend this as a job to any young person with lots of common sense. But in the end, it entirely depends on which sea-going career path you would like to follow.

## 2. AQUACULTURE

### 2.1 WHAT'S IT ALL ABOUT?

Aquaculture, also known as aquafarming, is the farming of fish, crustaceans, molluscs, aquatic plants, algae, and other organisms. Aquaculture involves cultivating freshwater and saltwater populations under controlled conditions, and can be contrasted with commercial fishing, which is the harvesting of wild fish. This activity can take place in both coastal and inland areas involving interventions in the rearing process to enhance production. It is probably the fastest growing food-producing sector and now accounts for 50% of the world's fish that is used for food. Hence the need is big to develop sustainable options and ways of growth to meet increasing demand for its products. This is clearly reflected in the aquaculture policies of many governments across Europe. In Europe, aquaculture accounts for about 20% of fish production and employs some 101,477 people. EU aquaculture production is mainly concentrated in 4 countries: Spain, France, Italy and Greece with 69% by value in the EU total.



**SOURCE:** European Commission, "Farmed in the EU"

### 2.2 WHAT AREAS ARE OFFERING JOBS?

- Fish Farming
- Breeding Research Centres
- Operations Mechanics
- People Management.
- Communications
- Problem solving.
- Health and safety.
- Maintaining machinery.
- Managing resources.



### 2.3 WHAT JOBS CAN I EXPECT?

- Fish farm technician
- Farm manager
- Saltwater production manager
- Hatchery technician
- Hatchery manager
- Environmental and regulatory affairs manager
- Fish health technician
- Aquaculture engineer

### 1.4 HOW MUCH CAN I EARN?

National level:



**BULGARIA**  
1,082 jobs  
3,600€ / year



**GREECE**  
4,024 jobs  
17,966€ / year



**POLAND**  
6,171 jobs  
15,550€ / year



**PORTUGAL**  
4,082 jobs  
15,833€ / year



**SPAIN**  
2,518 jobs  
16,833€ / year



**ROMANIA**  
2,362 jobs  
4,900€ / year

These salaries are the average for the whole sector. The entry positions start with the minimum wages based on the legislation of each country. For senior positions the wages can be higher.

**SOURCES:** The EU Aquaculture Sector – Economic Report 2020, STECF and The EU blue economy report 2021, Publications Office

## 2.5 INTERVIEW

With thanks to: Aaron Sigmundsen

**How did you become interested in the marine environment?**

In our little town we are only 250 people. Traditional jobs have always been fisherman, for example shrimp fishing or cod fishing. Now this company is farming salmon, right by our coast. It's better for the environment, so now we work with salmon farming.

**What was your entry route?**

The company established in our town about 2 years ago and has been growing a lot for the last couple of years. Now they produce 90% of the Icelandic salmon. Now almost all of the town works with them, while some traditional jobs remain.

**What are your tasks?**

Every morning I take the boat to the fish cages. We carry the food for the salmon, ensure that all are fed and then we take a close look at all the cages, check that everything is ok, and all the fish are well. Sometimes we have to clean the cages. We put the salmon into the cages when they are very young and harvest them after 18 months, when they weight between 4-6 kilos.

**What do you enjoy most about your job?**

What I really like when I go out, is this spectacular nature. It's pretty intense, just amazing. You never get tired of this beautiful nature. We see many different things every day. We see whales, birdlife, seals... Then there's the trees and snow in the mountains, the rivers. That makes me happy for the rest of the day.

**Do you have any tips for someone considering a similar career to yours?**

If you are hardworking, enjoy being outside, put your heart and soul into the future of the sea, and think about your community and your region, it's a job for you.



## 3. OCEAN ENERGY

### 3.1 WHAT'S IT ALL ABOUT?

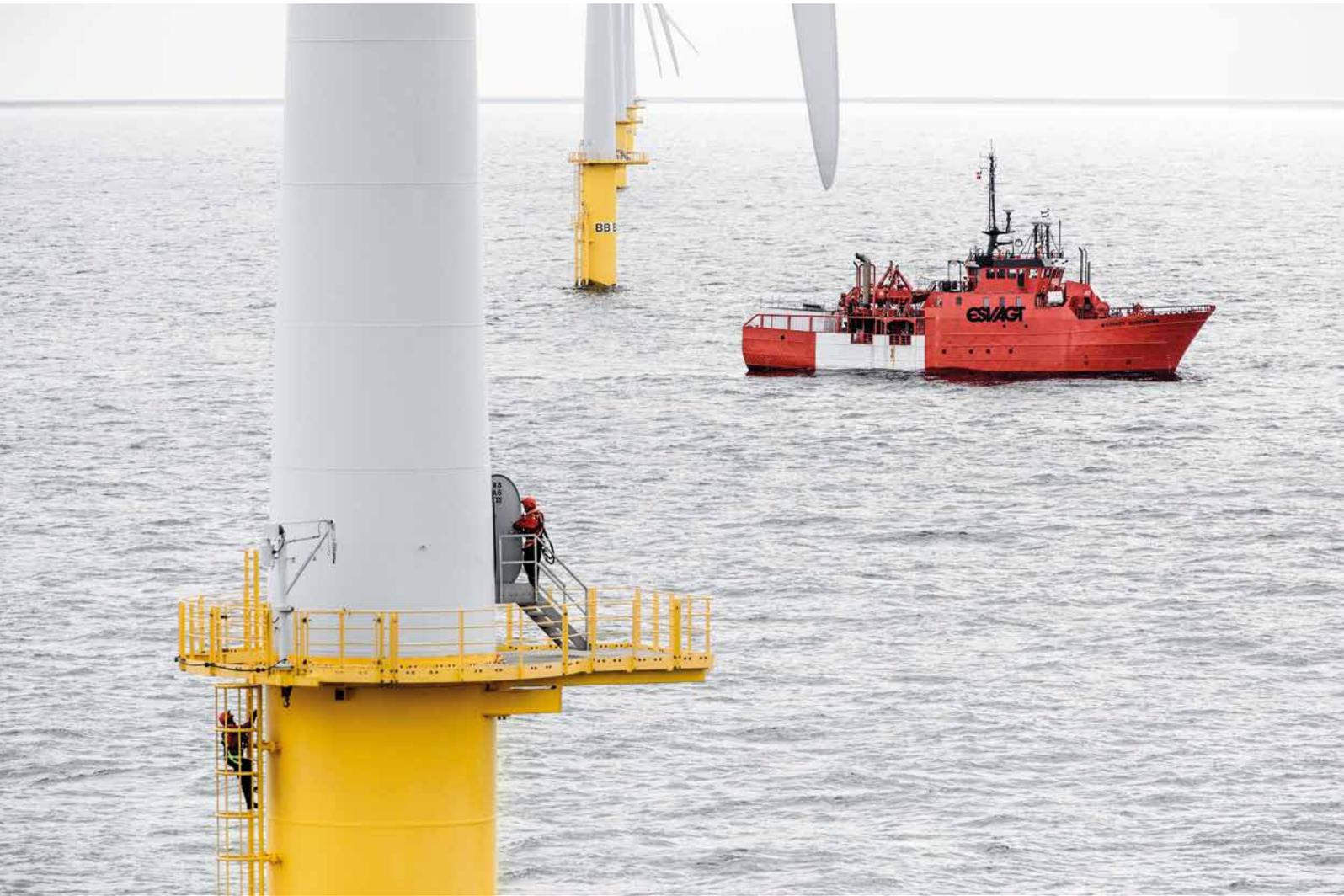
Our seas and oceans offer a vast renewable energy resource. Offshore wind energy is the most established sector and is the fastest growing activity in the Blue Economy. The EU is responsible for 80% of the global offshore wind capacity. Offshore wind directly employs 210,000 persons and it is estimated that by 2030 it will employ 350,000 persons in the EU. It already exceeds the employment of fisheries. Most of the current capacity is installed in the North Sea.

Ocean energy is also an enormous source of potential energy and is less variable than other energy sources such as wind and sun. It includes various types of energy production such as tidal, wave, current, osmosis, and ocean thermal energy conversion (OTEC). It employs about 2,500 people across Europe. Because of its potential, there is a lot of research ongoing in the EU with around 320 companies and organisations operating in this sector from various Member States. Between 2007 and 2015, 2,6 billion € and during 2020 45 million € were invested in this sector in the EU.

### 3.2 WHAT AREAS ARE OFFERING JOBS?

- Entry level mechanical work
- Marine engineering
- Supply industry
- Project development, operations and maintenance
- Boating and transport
- Research and science
- Construction





### 3.3 WHAT JOBS CAN I EXPECT?

There are 1,000's of opportunities in this sector, here are a few examples:

- Wind Farm Service Boat Skippers and crew
- Mechanics and Maintenance workers
- Construction workers
- Electricians and technicians
- ITC services i.e. Website services and designers
- Health and Safety Staff
- Renewable Energy Project Managers and Staff
- Project Designers
- Researcher and project developer
- Energy Information Advisor

### 3.4 GENERAL LEVEL OF EMPLOYMENT EU

**Offshore wind 210,000 Jobs now.  
Expected to rise to 350,000 Jobs for 2030.**

**Sources:** Offshore Wind Energy in Europe, European Parliament and offshorewind.biz

**Ocean energy (tidal, waves, etc.) 2,500 Jobs now.  
400,000 jobs could be created by 2050.**

**Sources:** An EU Strategy to harness the potential of offshore renewable energy for a climate neutral future, European Commission and Ocean Energy Europe, 2030 Ocean Energy Vision

## 3.5 INTERVIEW

With thanks to: Alexia Togelou

**How did you become interested in the marine environment?**

I became interested in offshore wind as this is currently one of the most exciting, complicated and vital parts of the renewable energy sector future. It involves the simplicity and ever evolving aspect of the wind turbine design with the additional complexity of the marine installation.

**What was your entry route?**

I studied Electrical Engineering and followed up with an MSc in Sustainable Energy Systems. Following this, I entered a graduate scheme for one of the biggest wind turbine suppliers globally where I developed into a technical project manager.

**What are your tasks?**

Manage the development of the technical concept of wind farm projects (preliminary foundation & electrical design, marine operation and O&M concept) and manage the identification/screening of different countries for potential new offshore wind farm developments.

**What do you enjoy most about your job?**

In my job, you can get involved with various different aspects of the technical design of a wind farm with the possibility to dive down into more detail in any of the different aspects if of interest. At the same time, you have exposure and partly drive the commercial aspect of the wind farm development. Finally, offshore wind is still an evolving industry with fairly young workforce full of excitement and will to learn and develop.

P.S. Travelling around the world is also nice!



### **Do you have any tips for someone considering a similar career to yours?**

Be flexible in your plans and don't be disappointed if you don't get your targeted role immediately. There are multiple ways to develop into such a role so have alternatives. Once you get into the wind industry (directly or via oil & gas or another industry) you have the chance to move around and make changes in your career as you go along.

## 4. MARINE BIOTECHNOLOGY

### 4.1 WHAT'S IT ALL ABOUT?

This sub-sector represents one of the most important areas for the future of the Blue Economy. Along the EU algal biomass sector already employs over 14,000 people. Marine Biotechnology uses resources from living marine organisms to develop new commercially viable products or applications. These organisms can be e.g. bacteria, fungi, micro- or macroalgae, fish, invertebrates or molluscs and they can be used as a biomass or utilized as producers of different end-products or substances. This Sub Sector is very young and is currently being driven and developed through National and EU projects that support and encourage this vital area.

The main applications of biotechnology in the EU economy fall into four broad groups.

- In healthcare and pharmaceutical applications, biotechnology has led to the discovery and development of advanced medicines, therapies, diagnostics, and vaccines.
- In agriculture, livestock, veterinary products, and aquaculture, biotechnology has improved animal feed, produced vaccines for livestock, and improved diagnostics for detecting diseases such as BSE, foot and mouth disease, and salmonella.
- In industrial processes and manufacturing, biotechnology has led to the use of enzymes in the production of detergents, pulp and paper, textiles, and biomass.
- In energy production, as through the use of micro-algae technology or algal biomass for biofuel.

### 4.2 WHAT AREAS ARE OFFERING JOBS?

- Research
- Marine environment
- Biomass production and processing,
- Product innovation and differentiation,
- Enabling technology and infrastructure,
- Policy support and stimulation





### 4.3 WHAT JOBS CAN I EXPECT?

The subsector marine biotechnology offers jobs and careers in research institutions. The most common sectors the blue biotechnology experts work in are health, nutrition and aquaculture domains.

Here are a few examples of opportunities in this sector:

- Genetic Counsellors
- Zoologists and Wildlife Biologists
- Microbiologists
- Biomedical Engineers
- Chemical Technicians
- Medical Scientists
- Operation manager of a marine farm
- Marine harvester
- Laboratory staff
- Laboratory assistants
- Marine farm worker
- Machine operators in industry
- Factory worker at a processing line

### 4.4 GENERAL LEVEL OF EMPLOYMENT EU

Current Jobs:

**Estimated 2,000 jobs for research  
and 14,000 jobs for algal production**

Expected growth:

**1,000 jobs per year (+5%)**

## 4.5 INTERVIEW

With thanks to: Valmar K.

**How did you become interested in the marine environment?**

As I grew up in a city next to the sea (Tallinn city) as Estonia has a long coast line and many islands, I've always had connection with the marine environment. But the option to work in this sector came to me only recently.



**What was your entry route?**

As a career the blue sector chose me. My good friend and long-time course mate from the University proposed the idea to me. The opportunity came to him from his neighbour on an island he lives. There was a lot of seaweed available by the coast and no knowledge what to do with it. Although we had never worked with algae before, we had the confidence to take on this challenge.

**What are your tasks?**

As a founder of a start-up, I feel the essence of my work is to take an idea and form it into reality. This means questioning about what we know, what are the unanswered questions, how can we get the answers and executing on it to step by step build a new system that generates value.

**What do you enjoy most about your job?**

I love the journey, the unexpected paths which turns it into an adventure that's fun to look back. This journey makes me grow and evolve every day in so many aspects I don't know if I'm able to recognise myself in the future.

**Do you have any tips for someone considering a similar career to yours?**

Yes! Take small steps, less worrying, more doing and feeling - start attending events that cover the topics that feels interesting, socializing with people you vibe with and opportunities will start emerging without you having to force it.

## 5. SHIP BUILDING AND MAINTENANCE

### 5.1 WHAT'S IT ALL ABOUT?

In Europe there are over 300 shipyards, 8,000 equipment manufacturers and more than 22,000 suppliers which employ over 900,000 people.

Building boats is a technologically advanced business and it requires people with the necessary skills and expertise to research, design, construct, maintain, service and repair them.

Europe builds the most high-tech and complex ships and markets them to a global market: Cruise ships, ferries, offshore vessels and platforms, fishing vessels, dredgers, research vessels, mega-yachts, naval ships, submarines, aircraft carriers, etc.

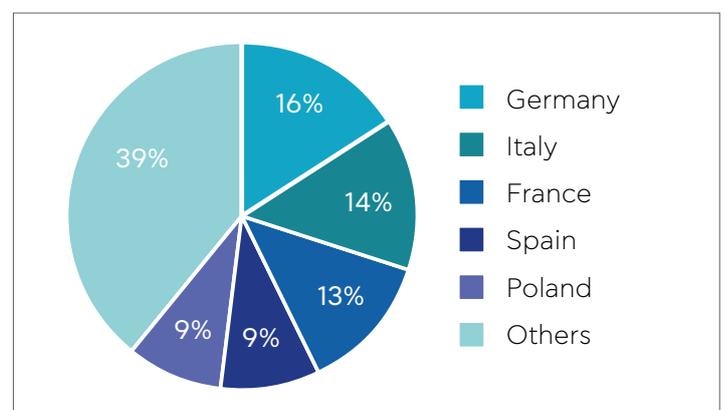
European maritime equipment and system suppliers develop the technologies required for the operation of each vessel: propulsion, navigation, cargo handling, drilling, surveillance equipment etc. These companies also provide solutions for a broader range of maritime activities such as offshore energy generation (marine energies, offshore wind, electric substations, etc.).



### 5.2 WHAT AREAS ARE OFFERING JOBS?

- Ship Design
- Mechanics
- Structural Fabrications
- Electrical Systems
- Plumbing
- Painting/Spray and Gel Coats specialists
- Marine Surveying
- Welding
- Interior Design

### SHIP BUILDING AND REPAIR - JOBS



**SOURCE:** The EU blue economy report 2021, Publications Office



### 5.3 WHAT JOBS CAN I EXPECT?

There are 1,000's of opportunities in this sector, here are a few examples:

- Ships Architect - Designer - Assistant or Apprentice
- Interior Designer
- Ship Building- Materials Sourcing - Logistics
- Electrical Engineer - Assistant - Apprentice
- Plumbing Engineer - Assistant - Apprentice
- Electronics Engineer - Assistant - Apprentice
- Painter - Gel Coats - Sprays etc.
- Welder - Metal Construction - Framing
- Surveying - Insurance Assessor
- Fabric and Materials Modeller

### 5.4 HOW MUCH CAN I EARN?

National level:



These salaries are the average for the whole sector. The entry positions start with the minimum wages based on the legislation of each country. For senior positions the wages can be higher.

**SOURCE:** The EU blue economy report 2021, Publications Office

## 5.5 INTERVIEW

With a welding technician

**How did you become interested in the marine environment?**

As many other in the maritime industry, I grew up next to the sea so I could easily discover the industry during leisure or trades. I am now working for a company that builds submarines which is an extraordinary product for me.

**What was your entry route?**

I carried out a 2-year VET programme on Design and Realisation of Industrial Boilers followed by two certificates which I did in parallel for one year: a training on Metalworking and Welding and, the most important one, a certificate in International Welding Technologist (IWT).

**What are your tasks?**

Simplify the welding procedures, research about technologies and welding techniques used in other companies, oversee the purchase and the replacement of welding machines, ensure the smooth running of the machines in the workshop, provide technical support to workers, carry out long term or short-term studies to improve the welding quality.

**What do you enjoy most about your job?**

The variety of tasks, the combination of technical and concrete aspects, the constant contact with the field and the production, the product itself and its history. On the other hand, the mobility and travelling opportunities to work in projects that the company has abroad.

### **Do you have any tips for someone considering a similar career to yours?**

You must try to do as many apprenticeships and trainings as possible during your studies as it will allow you to see if the job meets your expectations. You must also really invest yourself in your training and try to leave good image of your passage in the company. Do not hesitate to go to others, to go spend time in other services to discover and be sure to move into the best branch for you.



## 6. FISHERIES

### 6.1 WHAT'S IT ALL ABOUT?

When using the term 'fishery', we usually mean the entire industry of catching, processing, and selling fish. In this guide, by using the term 'fisheries' or 'fishing industry' we exclude aquaculture and include activities such as catching, processing, preserving, storing, transporting, marketing and selling fish and fish products. To understand the fishing industry chain, we can divide the industry in three sectors:

- The commercial sector which involves mostly large-scale commercial fishing, fish processing towards the production of fish products, and lastly, marketing of fish products.
- The traditional sector referring to the traditional fishing industry consisting of small-scale commercial fishing practices, clearly differentiated from modern and almost exclusively large-scale fishing practices and methods.
- The recreational sector which addresses the needs of the recreational fishing industry, involving manufacturing and retailing of a variety of products and services for this industry (e.g. fishing boats, fishing services and products, apparel, chartering in experiential fishing tourism sector, fishing 'adventures' etc.)

The fishery products industry is a highly globalised and interconnected industry, directly related to social and economic life in terms of employment, consumption, ecological and environmental health, as well as sustainability of both fishing communities and fish stock (including the issues of illegal fishing and overfishing). The European union is the world's biggest seafood market, while its fishing industry is among the world's 4 largest, supplying approximately 4.05 million tonnes of fish each year (80% of production comes from fisheries). Fishing and fish processing on the other hand provide jobs for over 210,000 people. Spain, France and Denmark are the largest producers in terms of volume in the EU.

### 6.2 WHERE CAN YOU WORK?

Fishing plays a crucial role for employment and economic activity in several EU regions – in some European coastal communities the fishing sector accounts for as many as half the local jobs. Employment in the fishing sector tends to be concentrated in a handful of countries. Spain, Denmark, France, Netherlands are the four largest producers in the EU for fisheries. These countries also have the largest consumption of fish products. Spain alone accounts for 25% of the total employment, and the four countries with the highest levels of employment – Spain, Greece, Italy and Portugal – make up around 58% (2021). Also, they have the largest fish markets for the main commercial species within the EU.

### 6.3 WHAT AREAS ARE OFFERING JOBS?

- Commercial fishing
- Fish processing
- Production of fish products
- Marketing of fish products.
- Recreational fishing industry
- Fisheries Science
- Fisheries law
- Fisheries management

#### FISHERIES

Jobs: Spain 23%, Italy 19%, Greece 15%, Portugal 10%, France 9% (=76% out of total)  
GVA: Spain 24%, France 18%, Italy 15%, Greece 7% (=64% out of total)

#### AQUACULTURE

Jobs: Spain 26%, Portugal 23%, France 22%, Italy 6%, Greece 5% (=82% out of total)  
GVA: France 29%, Spain 14%, Italy 13%, Greece 4% (=60% out of total)

#### PROCESSING AND PRESERVING OF FISH, CRUSTACEANS AND MOLLUSCS

Jobs: Spain 20%, France 13%, Portugal 8%, Italy 6% (=47% out of total)  
GVA: Spain 23%, France 16%, Germany 10%, Poland 10% (=59% out of total)

#### RETAIL SALE OF FISH, CRUSTACEANS AND MOLLUSCS

Jobs: Spain 29%, Italy 20%, Portugal 7%, France 6%, Greece 6% (=68% out of total)  
GVA: Spain 28%, France 19%, Italy 17%, Germany 12%, Greece 10% (=86% out of total)

#### WHOLESALE OF OTHER FOOD, INCLUDING FISH, CRUSTACEANS AND MOLLUSCS

Jobs: Spain 15%, Italy 14%, Netherlands 7%, France 7%, Portugal 5% (=48% out of total)  
GVA: Germany 29%, Italy 14%, Spain 14%, France 8% (=65% out of total)

**SOURCE:** The EU blue economy report 2021, Publications Office



## 6.4 WHAT JOBS CAN I EXPECT?

There are 1,000's of opportunities in this sector, here are a few examples:

- Fisherman
- Fishing boat captain or fishing charter operator
- Fisheries officers
- Fish and seafood brokers
- Fish processor
- Marine scientist, a marine environment economist, a fish biologist, a fish observer, a research chemist
- Manager of a fish processing plant

## 6.5 HOW MUCH CAN I EARN?

National level:



### **BULGARIA**

2,917 jobs  
2,600€ / year



### **GREECE**

21,951 jobs  
8,050€ / year



### **POLAND**

6,171 jobs  
15,550€ / year



### **PORTUGAL**

20,193 jobs  
11,200€ / year



### **SPAIN**

47,070 jobs  
21,233€ / year



### **ROMANIA**

1,324 jobs  
2,750€ / year

These salaries are the average for the whole sector. The entry positions start with the minimum wages based on the legislation of each country. For senior positions the wages can be higher.

**SOURCE:** The EU blue economy report 2021, Publications Office

## 6.6 INTERVIEW

With thanks to: Eleftherios Arapakis

Can you tell us a little about your job?

I work for a social enterprise that aims to improve each fisherman's fishing skills. It is an award-winning youth initiative aimed at attracting people to the fisheries sector, educating them and at the same time creating conditions for sustainable fishing.

Can you explain us more about the career opportunities in the sector?

The fisheries sector is distinguished in coastal fishing, that means the distance from the coast and secondly, the trawler fishing. Indicatively, in coastal fishing, one can either work as a crew member or have a fishing vessel and work on it. With the change of legislation in 2016, fishing tourism was legitimized, which is a new venture for the fishing industry. In the trawler fishing, the boatswain, the engineer and the captain are referred to.





**Description:**

Mr. Nikos Syrigos and Mr. Spiros Finis have the first tourist agency that deals exclusively with fishing since 2015. Through his platform he collaborates with tourists and organizers of fishing trips.

**What would you suggest to someone who thinks about working professionally in the field?**

Tourist fishing is a type of tourism that can be offered throughout the year and in many areas of Greece and the expected profits are multiplied by the average fisherman. Typically, a four-hour fishing trip ranges from twenty to thirty euros per person, and the final amount is determined by the length of the hours and the type of the boat. My advice is for organizers to ideally speak English, have fluency and study the local market that they are targeting as prices vary from region to region.

With thanks to: Nikos Syrigos

**What is a fishing trip and what process is being followed?**

The fishing trip is the ability of the tourist to hire a boat and go for fishing with a trainer or a knowledgeable person on the coast, river, lake or fishing in these places. The excursionist who pays the boat, the equipment, the baits (all of them are in the package of the fishing trip) books an appointment online via the platform, that is the excursion that interests him. Wherever there are many organizers in Greece, either at sea or in fresh waters, there is the possibility to organize this trip with your company. So far, this activity has taken place mainly abroad but there are reservations every day in Greece, Chania, Ionian and Chalkidiki. The tourist finds on the page where to go, sees the available organizers and selects the type of fishing trip because each organizer can have different excursions such as a 4-6 hour guided tour or a one-day or multi-day excursion.

**What are the reasons why you were interested in working with the fishing trips?**

Fishing excursions are a thematic tourism promoted by the Ministry of Tourism for tourism all year around in Greece, not only in coastal areas but also in mountainous areas where lakes and rivers are combined with the legislation that allows us. Changing the legislation has led to the creation of this new business venture. The first change concerns the abolition of the license for amateur fishing, so the tourist or the Greek can go fishing without having to produce special law papers and the second change in 2015 allows professional fishermen to board tourists on their boats and therefore they receive the permission for fishing tourism. Until recently, anyone who was on board had to be a professional fisherman or employee.

**What are your competencies?**

Our responsibility is to promote the fishing trips of all the organizers from professional fishing boats, rental companies, recreational boats, small boats on the beaches to interested foreign tourists or within our country. We provide training for fishermen on legislative issues, possible modifications to the vessel, and updates on their local market. The potential organizer completes the organizer's application form through our platform, we evaluate him / her if he / she is able to organize the fishing trip and then sign an extensive contract to ensure himself / herself, the tourist and us.

## 7. MARITIME TRANSPORT

### 7.1 WHAT'S IT ALL ABOUT?

By maritime transport we mean the transport of goods, of persons and the infrastructures needed for it. Maritime transport is the world's primary method for the movement of goods. In fact, 80% of all goods transported use this method, which equates to 5.1 billion tons of merchandise per year. In passenger transport, each year more than 400 million passengers embark and disembark at European ports. Marine transport also offers the lowest amount of greenhouse gasses per transported unit.

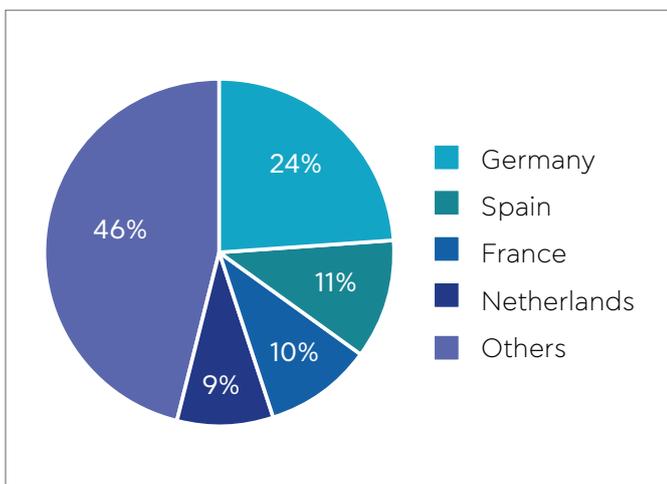
In Europe 384,000 persons work in ports, warehousing and other relevant job positions, while in the sector of goods and passenger transport, there are 235,000 people working. The maritime sector offers many opportunities to travel and the chance to work with people from different countries and cultures. Diversity is the most attractive element and one of the most important strength of maritime transport.

The different careers require individuals with good problem-solving and lateral-thinking abilities. You might be working as a fork lift driver, a ship's captain, a stevedore (a.k.a. chief docker), a salesman or an engineer.

### 7.2 WHAT AREAS ARE OFFERING JOBS?

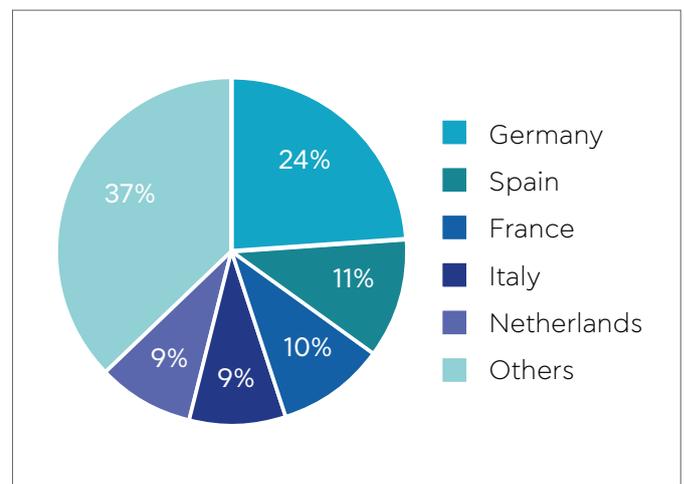
- Passenger Ship Tourism Onboard or Ashore
- Passenger Safety and Security
- Cargo Movements
- Port and Marina Operations
- Port management
- Service providers to the above (ITC, Web based services, equipment supplies)
- Boat Sales and Brokerage
- Charter Operators
- Catering / Hospitality on cruises or yachts
- Superyacht jobs

MARITIME TRANSPORT - JOBS



**SOURCE:** The EU blue economy report 2021, Publications Office

PORT ACTIVITIES - JOBS



**SOURCE:** The EU blue economy report 2021, Publications Office



### 7.3 WHAT JOBS CAN I EXPECT?

There are 1,000's of opportunities in this sector, here are a few examples:

- Yacht Captain or Crew
- Boat mechanic or maintenance
- Marina operator-Mariner
- Tour operator Passengers
- Cargo or Passenger Transport management
- Port or Marina management
- Moorings agent or broker
- Ship or Boat broker
- Online services provider
- Charter operator
- Fork lift driver
- Insurance representative
- Fleet management
- Sales and marketing
- Crane operator
- Economic analyst
- Staff services (e.g. Cook/ Chef, Cleaner, Barista/ Barman, Waiter)

### 7.4 HOW MUCH CAN I EARN?

National level:



#### **BULGARIA**

5,200 jobs  
Port Activities  
10,500€ / year  
Transport  
9,020€ / year



#### **GREECE**

38,100 jobs  
Port Activities  
27,500€ / year  
Transport  
23,250€ / year



#### **POLAND**

32,300 jobs  
Port Activities  
15,600€ / year  
Transport  
11,850€ / year



#### **PORTUGAL**

29,200 jobs  
Port Activities  
32,900€ / year  
Transport  
18,920€ / year



#### **SPAIN**

56,200 jobs  
Port Activities  
43,500€ / year  
Transport  
27,500€ / year



#### **ROMANIA**

13,600 jobs  
Port Activities  
12,000€ / year  
Transport  
10,500€ / year

These salaries are the average for the whole sector. The entry positions start with the minimum wages based on the legislation of each country. For senior positions the wages can be higher.

**SOURCE:** The EU blue economy report 2021, Publications Office

## 7.5 INTERVIEW

Thanks to Laura H.K.

Can you tell us a little about yourself?

I'm 25, from the city of Southampton and am currently working as a 2nd Officer on a cruise ship. I studied at college for my Officer of the Watch (OOW) Ticket and Foundation Degree in Nautical Science and soon I plan to obtain my Master's Ticket, after which I would like to distance-study for a Master's Degree in Maritime Law.

During my two cadet sea phases I worked on 4 different ships, Zuiderdam, Noordam, Volendam & Veendam and as an Officer, I have worked on the Zaandam and Nieuw Amsterdam.

What do you have to do in the job?

A 2nd Officer's every-day tasks include:

8 Hours of Watch-keeping & side duties, split between:

- Voyage planning
- Training the ship's crew in Emergency Functions
- Ensuring the Stability Condition & assisting the 1st Officer in maintaining the ship's Safety & Lifesaving appliances.

Also, mooring operations, Pilot transfers & mentoring junior ranks.

Aside from that, Emergency tasks, for Passenger Vessels, are divided between Navigating, Emergency Communications, Stability Condition, Fire Fighting and Preparing & Lowering Survival Craft. The latter being perhaps the most interesting, with 1 Deck Officer on either side, in charge of lowering, on the Nieuw Amsterdam, 13 Life Rafts & 9 Lifeboats – each.

Can you tell us what skills are needed to do your job?

- Adaptability:

You must be able to change work rotations, to the polar-opposite, in a 24-hour period, sometimes work more than what's required and understand that everyone's personal circumstances will be different to yours.

- Positive attitude:

There will be days where you're tired and missing home, but the trick is to leave your troubles in your cabin and come to work with a smile – hopefully then brightening someone else's day.

- Able to work well with different personalities and cultures

- Able to remain calm in sudden, difficult situations.



- Patience, for other people and watch-keeping.
- Open to criticism and understanding that 'every day is a school day' at sea.

### Can you tell us about the working hours?

For Deck & Technical Officers, you will either work 4 months on the ship and 2 months at home, or 3 months on and 3 months off.

2nd Officers work 8 Hours watch-keeping and 2 hours overtime.

The new watch-keeping shifts have changed to a 5-3 system, altered from the classical 4/8. Here you now work a 5-hour shift during the night and a 3 hour shift during the day. This allows for all Deck Officers to have a large, continuous & uninterrupted rest block of at least 10 hours.

### How do you see the future if someone would choose your career?

In 2017 it was recorded that there are more than 50,000 ships sailing around the world. Then factoring in that the cruise industry is said to be at its most popular, due to it becoming more and more accessible. To support this, a recent Tradewinds Article states: "The cruise industry is going to need an estimated 9,000 deck officers and engineers to operate the 120 new-builds that are scheduled to take to the water over the next seven years, added that when ratings and hotel crew are factored into the equation, these new ships will require a total of 120,000 seafarers."

### What do you enjoy most about your job?

For the last two contracts I have been assigned the side duty of Training Officer, which I feel is very fulfilling. It not only allows you to continuously interact with the crew, but witness their knowledge develop as you ensure they are fully prepared for any emergencies which may occur on board. Also, I'm currently having extra fun playing director for some Safety Videos we're creating which aim to make the Drills more engaging.

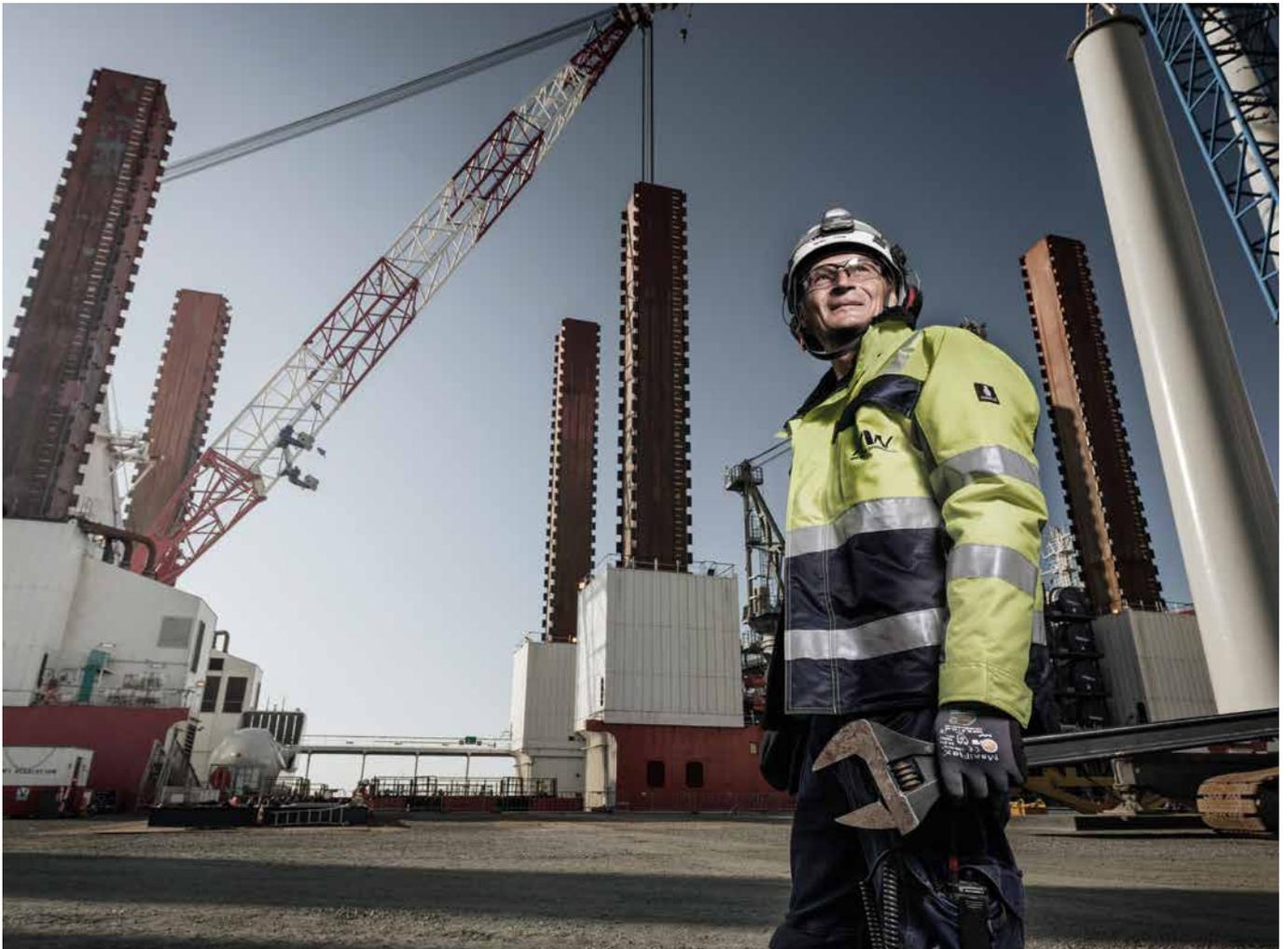
But other than the job itself, there are not many careers in the world where you can work only 6 months of the year, divided into 3 month long "weekends". "Weekends" entirely disconnected from work. Plus, the travel! Navigating the ship, or at least waking up, to a different port nearly every day is also pretty amazing.



### Do you have any tips for someone considering a similar career to yours?

Essentially, if you have a passion for travel, are unconcerned about being away from family and want to daily develop your life skill-sets, then this is a job which you should undeniably consider. But it entirely depends on which sea-going career path you would like to follow.

My best advice? Do your research. Thoroughly! For instance, if you're someone who is concerned about constantly being surrounded by lots of people, such as on Cruise Ships, then through research you can find the types of ships where the compliments remain small. Just please don't let yourself be blindly lead in to a life at sea – view it as a career, not a diversion.



The Blue Generation project is funded by Iceland, Liechtenstein and Norway through the EEA and Norway Grants for Youth Employment

## There are many jobs and careers that can be followed across different sectors!

### NON SECTOR-SPECIFIC JOBS IN THE BLUE ECONOMY

#### Economics and law / office related

- Business Consultant
- Policy / economic analysts
- Accountant
- Broker
- Sales Manager
- Purchase Manager
- Trade Manager
- Marketing
- Insurance representative /lawyers
- Social research
- Training /teaching /recruitment

#### Technical professions

- Painter
- Interior design
- Carpenter

- Construction / welding
- Engineering
- Skipper
- Interior design
- Ship inspector
- Electricians
- Mechanics
- Helicopter pilot
- Security Guard

#### Science and Environment

- Marine biology
- Coastal environment
- Maritime environment
- Geography and geology
- Mathematics
- Physics





## RELATED JOBS

### Offshore Jobs

- Drilling / Rig Jobs
- ROV/Diving Jobs
- Production Jobs
- Procurement & Construction Jobs
- Engineering & Science Jobs
- Geosciences Jobs
- Maintenance & Inspection Jobs
- Health, Safety & Environment Jobs
- Refining & Petrochem Jobs
- Business, IT, HR & Admin Jobs
- Trades & Technicians Jobs
- Other Offshore Jobs

### Shore-based Maritime & Shipping Jobs

- Technical Shipping Jobs
- Sales & Marketing
- Port Agency Jobs

- Naval Architecture & Design Jobs
- Shipbuilding & Yards
- Supply Chain & Procurement Jobs
- Analyst Jobs
- Broking & Trading Jobs
- Chartering Jobs
- Logistics & Freight Forwarding Jobs

### Catering /service related

- Cook/chef / Baker
- Steward
- Barman
- Waiters
- Food supply
- Hairdresser / Beautician /Masseur
- Cleaning
- Housekeeping
- Medic

**Good Luck in finding a new job  
in the Blue Economy!**

ANY QUESTIONS?

Contact:

[info@bluegenerationproject.org](mailto:info@bluegenerationproject.org)

## NOTES

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