

BeMed Business Club  
TOWARDS A  
**PLASTIC-FREE**  
MEDITERRANEAN



BEYOND  
PLASTIC  
MED

# A commitment for a plastic-free Mediterranean



## BeMed objectives

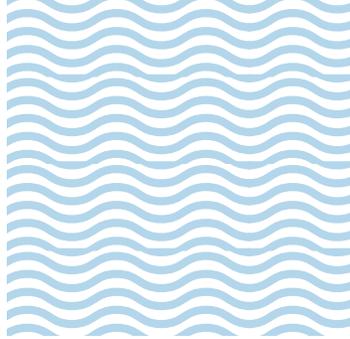
- To support and connect stakeholders within the Mediterranean region
- To implement effective, sustainable solutions
- To mobilise stakeholders and facilitate the sharing of experience

**BEMED BUSINESS CLUB**

TOWARDS A

**PLASTIC-FREE**

MEDITERRANEAN

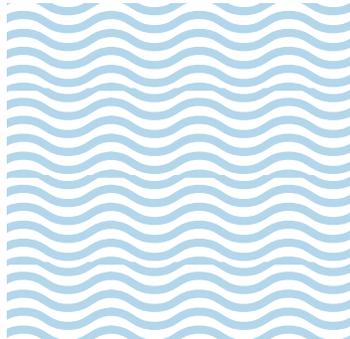


© FPA2



## Bernard Fautrier

- President of Beyond Plastic Med
- Minister Plenipotentiary
- Special Advisor of H.S.H. the Sovereign Prince on Environmental Issues
- Prince Albert II of Monaco Foundation Board Member



## A message from the President

**T**he health crisis has resulted in a major comeback for single-use plastic. It has been presented as a critical ally in efforts to combat the spread of the virus, but we must also remember that plastic pollution continues to be a significant blight that endangers the health of our oceans... and consequently our own health, too. It is therefore important that we remain vigilant when it comes to overconsumption and excessive use of this material if we are to avoid exacerbating an already serious problem.

Once the health crisis is behind us, we will need to be innovative in placing environmental challenges at the heart of the solutions that we come up with. Eliminating non-essential plastics and making better use of those which are necessary will be two key aspects of establishing a greener, more eco-friendly economy. BeMed was launched at the initiative of the Prince Albert II of Monaco Foundation in 2015 to combat plastic pollution in the Mediterranean. The goal was to support specific projects on the ground to promote change in habits and behaviours. In the space of five years, BeMed has succeeded in creating a strong network of committed Mediterranean stakeholders on which it can rely. Today, in a bid to embed this change, the organisation is quite naturally seeking to engage businesses.

Through its Business Club, BeMed is therefore bringing together companies from across the entire plastic value chain (from production to end of life), scientists and civil society stakeholders to introduce relevant and sustainable solutions. **While plastic pollutes our seas, the solutions are to be found on land, and it is by working together that we can bring them to the fore.**



© Lucile Courtial

Given the scale of human activity in the region, the Mediterranean Sea is particularly affected by plastic pollution. Every year, more than 230,000 tonnes of plastic waste is dumped into the Mediterranean – corresponding to the equivalent of 500 containers a day.<sup>1</sup> Once in the environment, the durability of plastic becomes its greatest flaw, since it can take hundreds or even thousands of years for it to completely break down. Constrained by the partly enclosed nature of the Mediterranean Basin, the plastic builds up and is scattered throughout the sea, with concentrations rising rapidly year on year.

<sup>1</sup> Source: IUCN, 2020, *More Plasticum*



THE  
MEDITERRANEAN SEA  
IS PARTICULARLY  
**AFFECTED**  
BY PLASTIC  
POLLUTION



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## A word from Jean-François Ghiglione

- French National Centre for Scientific Research (CNRS) Director of Research, Banyuls Laboratory of Microbial Oceanography
- Scientific Director of the Tara Ocean Foundation Microplastics Mission 2019
- Member of the BeMed Business Club Scientific Committee



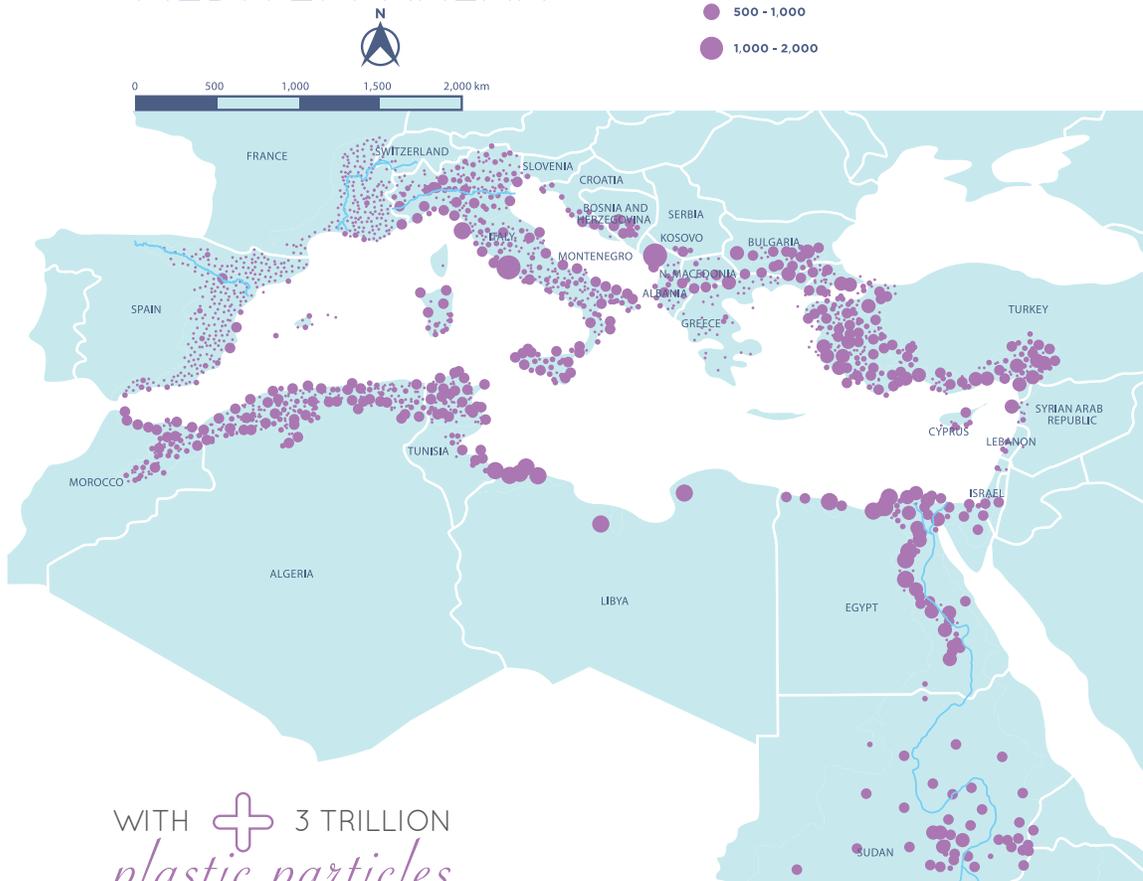
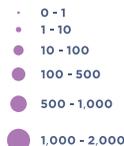
### The Mediterranean – a unique sea in every respect

*The Mediterranean represents a very small volume of water on a planetary scale, accounting for just 0.3% of the volume of the Earth's oceans. And yet it is home to 8% of known marine species, including those native to the region, which are found nowhere else and which must be protected. There is enormous biodiversity here and we must safeguard it! The Mediterranean faces a number of stresses: it plays host to 30% of global maritime traffic and a third of global tourism, and the region is experiencing explosive population growth. Eighty percent of fish stocks are overfished, while pollutants and herbicides are building up. To this list, we can add plastic pollution. By working together, the countries that border the Mediterranean could demonstrate that we have the ability to solve the problem of plastic pollution within the Mediterranean. This could produce a snowball effect across other regions of the world!"*

# MACROPLASTIC LEAKAGE IN THE MEDITERRANEAN

## Legend

Amount of macroplastics discharged into the sea by location (tonnes per year)



WITH  3 TRILLION  
*plastic particles*

the Mediterranean is one of the most polluted seas in the world.

Source : IUCN Report. "The Mediterranean: Mare plasticum", published in 2020

# SOURCES OF POLLUTION



**80%** of plastic waste in the sea comes from the land. Carried by runoff, rivers, wastewater systems<sup>2</sup> or the wind, they end up in the ocean.

In the Mediterranean, a third of such waste comes from coastal areas. This figure can be explained in part by the spikes in population caused by the arrival of tourists during the summer season. The coastal population increases significantly in summer, and this leads to a substantial rise in the quantity of waste which needs to be managed. The infrastructure becomes overwhelmed and losses to the environment go up. Reducing the production of waste associated with tourism is therefore one of the keys to preventing plastic pollution in the Mediterranean. Initiatives to collect and categorise waste found on beaches in the Mediterranean region show that single-use plastic packaging (plastic bottles, bags, etc.) is among the most commonly found waste<sup>3</sup>. Overconsumption of this type of plastic in our society and the fact that it weighs very little are factors that increase the risk of loss to the environment. This type of waste is therefore a priority target for reducing plastic pollution in the Mediterranean.

<sup>2</sup> Source: IUCN, Mare plasticum, 2020

<sup>3</sup> Source: Ocean Initiatives Environmental Report 2019, Surfrider Foundation Europe

Top 10 types of waste found<sup>3</sup>



1. Cigarette butts



2. Plastic fragments, 2.5-50 cm



3. Plastic bags and fragments



4. Polystyrene fragments, 2.5-50 cm



5. Bottle tops



6. All types of plastic bottle



7. Food packaging



8. Bits of glass



9. Tangled nets/cords



10. Crisp packets/sweet wrappers

# MICROPLASTICS IN THE SEA



The plastic found in the sea also includes particles smaller than 5 millimetres in size. These are known as microplastics. They vary in size, shape, colour, chemical composition and density, and can sometimes survive for up to 1,000 years in the marine environment<sup>4</sup>. There are two types of microplastics:

**70%** are **secondary microplastics** which result from the breakdown of plastic waste (mostly single-use plastics and packaging) due to the effect of waves, the sun and salt.

**30%** are **primary microplastics** which come from several industrial sectors and are released directly into the environment in the form of small particles. They may derive from cosmetic products, where they are used as exfoliants, or be produced when clothes are washed or as a result of tyre abrasion<sup>5</sup>.



Tyres



Plastic pellets



Synthetic textiles



Marine coatings



Road markings



City dust



Personal care products

The main sources of primary microplastics listed by the IUCN in its special report "Primary Microplastics in the Oceans: A Global Evaluation of Sources".

<sup>4</sup> Source: Tara's Blue Book: Tracing the Origins of Plastic Pollution

<sup>5</sup> Source: IUCN. Primary Microplastics in the Oceans: A Global Evaluation of Sources, 2017

# IMPACT OF PLASTIC POLLUTION



Plastic pollution has a huge impact on marine flora and fauna. Drifting waste, including discarded fishing equipment, can entangle, injure or suffocate marine animals. Plastic in microscopic form poses a number of problems.

*"We believe that plastic accounts for between a quarter and half of what fish ingest. And we know that this produces harmful effects throughout the food chain."*

Jean-François Ghiglione

The toxic additives in plastic can build up in the tissue of organisms at the bottom of the food chain. These are in turn ingested by larger predators, which end up on our plates, thus raising the issue of the impact on the

health of both marine animals and humans. Furthermore, drifting microplastics are oases for viruses and bacteria, which multiply on these supports. They thus promote the development and spread of pathogens and invasive species at sea.

Going beyond the environmental impact, plastic pollution also has a substantial economic impact. Losses in the Mediterranean region amount to €641 million per year<sup>6</sup>.

The main sectors affected are tourism, maritime transport and fishing. Significant financial resources are directed towards cleaning up visible plastic pollution and maintaining attractive locations for tourists. Plastic at sea also jams boat engines, leading to additional repair costs for the maritime transport and fishing sectors.

<sup>6</sup> Source: WWF, Stop the Flood of Plastic, 2019



© Ingrid Taylor



© Jonathan Lancelot  
Tara Ocean Foundation

A small crab  
seeks refuge on a  
microplastic



Drifting waste,  
including  
discarded  
fishing equipment,  
can injure or  
suffocate marine  
animals.

© nataliya vaitkevich/pexels



# THE BEMED ASSOCIATION



Faced with the scale of plastic pollution in the Mediterranean, in 2015 the Prince Albert II of Monaco Foundation approached the Tara Ocean Foundation, Surfrider Foundation Europe, the MAVA Foundation and the International Union for Conservation of Nature (IUCN) to join forces to **launch the Beyond Plastic Med (BeMed) initiative**. BeMed became a non-profit association under Monegasque law in January 2019 and has already raised more than **€1,3 million to prevent plastic pollution in the Mediterranean**.



© Lucile Courtial

Thanks to its founding members, BeMed is able to draw on complementary expertise to carry out its work.

The association brings together donors (**the Prince Albert II of Monaco Foundation and the MAVA Foundation**), allowing it to collect the necessary funding while taking advantage of vast experience in supporting and monitoring initiatives. It also includes stakeholders in the field with the capacity to engage at the local level and with international UN bodies (**IUCN, Surfrider Foundation Europe and the Tara Ocean Foundation**) and a scientific NGO (the Tara Ocean Foundation) with the network required to ensure that the actions carried out are environmentally relevant. Moreover, thanks to the legitimacy of its founding members on the international stage, as well as support from a committed head of state, H.S.H. Prince Albert II of Monaco, BeMed and its actions benefit from high visibility, broad recognition and credibility.



# WORKING TOWARDS A PLASTIC-FREE MEDITERRANEAN



BeMed has set itself the target of rallying, supporting and connecting committed stakeholders, facilitating the implementation of effective, sustainable solutions, and encouraging the sharing of experience and best practices.

**To offer the best response to local issues**, every year BeMed supports projects that aim to reduce the use of plastic, identify alternatives, improve collection systems, raise awareness, gather data and help to introduce new regulations. Through coordination of this network of local stakeholders, BeMed is creating a regional dynamic by connecting organisations with each other, facilitating the sharing of experience and best practices, and encouraging the replication of effective actions.

**To strengthen its regional impact**, in January 2020 BeMed established a Business Club which brings together and supports companies based in the Mediterranean region to introduce real solutions. The Club reflects a desire to include, as far as possible, all those involved in the plastic value chain, from product production to end of life, and to engage businesses in a joint effort to transition away from plastic waste and reduce pollution across the Mediterranean region.



*BeMed's strength lies in its ability to establish an alliance between civil society, the private sector and a high-level scientific committee. It is also hosted and supported by a major environmental foundation whose president is a head of state.*

Philippe Mondielli,  
Scientific Director,  
Prince Albert II of  
Monaco Foundation

Reuse and find alternatives to plastics



© ADF

Assemble allies and mobilize



© Cédou

© Cédou

Spread the word



© Cédou

BeMed  
has already  
supported  
57 projects in 14  
Mediterranean  
countries



© Ecounion

Improve waste management



© Philippe Mondieilli

By taking action at each step of the product/ packaging lifecycle (extraction of raw materials, production, distribution, use, end of life) and in each sector that is involved in the loss of plastic to the sea (tourism, food, cosmetics, waste management, etc.), businesses have a major role to play in combatting plastic pollution.

The solutions may be varied: reducing the use of single-use plastic, introducing a policy on reducing waste and responsible procurement, using alternative materials, improving product/ packaging recyclability or developing waste sorting and recycling systems for the material are just some examples.

# BeMed BUSINESS CLUB, A PRIVATE-SECTOR COMMITMENT



P. 18 A collaboration between businesses  
along the value chain

P. 20 “They’re committed”

# BeMed BUSINESS CLUB

## A COLLABORATION BETWEEN BUSINESSES ALONG THE VALUE CHAIN



**To identify effective solutions, it is critical that businesses along the plastic value chain (acting at various stages in the lifecycle of a product or packaging) work together.**



It is critical  
that businesses  
work together.

Their areas of expertise are complementary, and the proper implementation of solutions by one link in the value chain is dependent on collaboration with the other links. For example, businesses that want to make their packaging easier to recycle must engage with the packaging manufacturers (converters) to identify a packaging format and material that meets their needs from a technical perspective, and that will be sustainable and recyclable. Businesses must then make sure that there is an appropriate procedure for this type of packaging and that a market for the recycled material exists. This means that dialogue with waste management companies is essential.

## The product lifecycle



© PressReleaseFinder on Visual hunt

Plastic pellets used to manufacture plastic products/packaging.

In addition to the technical aspect of solutions, collaboration between different sectors of the economy (tourism, food, cosmetics, waste management, etc.) is essential to cover all sources of plastic pollution in the Mediterranean.

Every business can contribute part of the solution, but only a comprehensive approach will ensure that a solution can be effective. It was with this in mind that the Business Club was created, directly addressing the need for collaboration within the private sector. The Club brings together businesses from throughout the plastic lifecycle and from various sectors to work together on implementing solutions.

The individual commitments made by businesses that have already joined the Club



## Reuse: a solution to replace single use

Over the long term, eliminating single use by introducing reuse (thereby extending the service life of plastic products and packaging) is still one of the best ways of reducing the amount of plastic waste generated. Changes in our attitudes and behaviours with regard to plastic consumption are thus essential if we are to effectively cut our waste production. While citizens can take individual action to reduce their use of plastic, the private sector holds the key to fostering change on a large scale.



© Carrefour

# “THEY’RE COMMITTED”

The Carrefour Group is committed to introducing new distribution methods that promote reuse.

## Solutions introduced by Carrefour: Reducing the use of plastic in large stores by diversifying the way in which products are sold.

Taking a circular economy approach, the Carrefour Group has rolled out **the sale of loose products across its organic ranges**. This distribution method helps to drastically reduce or even eliminate plastic packaging by encouraging consumers to bring their own containers. Carrefour has also introduced the “Bring your own container” initiative to all of its stores, inviting customers to bring their own boxes when they are buying produce from the fish, meat and deli counters. Since 2019, Carrefour and its suppliers have been working **to gradually eliminate plastic packaging used for fresh fruit and vegetables**. Today, this represents savings equivalent to 450 tonnes every year in the fruit and vegetable section. The removal of plastic wrap from the cardboard boxes used for autumn apples has produced savings of 34 tonnes of plastic per year. At the same time, in 2019 Carrefour joined forces with Loop in a bid to develop a service using returnable packaging<sup>7</sup>. Around 20 partner brands developed some 50 products which are now available in the Ile-de-France region via the home delivery platform Carrefour Livré Chez Vous (Carrefour Delivered to Your Door) and in one store in Paris.

<sup>7</sup> A deposit is payable on the packaging to encourage reuse. After use, the packaging is collected, cleaned and used again.



**MONTE-CARLO**  
SOCIÉTÉ DES BAINS DE MER

## Reduction and responsible procurement policy

The tourism industry has a significant role to play in reducing the amount of plastic waste which is generated. The wide range of products involved and the requirements to ensure customer safety are challenges that need to be taken into account. A comprehensive strategy needs to be introduced to ensure that the right choices are made for the environment.



© Monte-Carlo Société des Bains de Mer

# “THEY’RE COMMITTED”

**The Monte-Carlo Société des Bains de Mer Group** is introducing a plastic reduction and responsible procurement policy in its many facilities for tourists (hotels, restaurants, casinos, etc.).

**Solutions introduced by the Monte-Carlo Société des Bains de Mer Group: Implementing a responsible procurement policy and influencing suppliers in turn; Reducing plastic use within the tourism industry.**

In Monaco, the Monte-Carlo Société des Bains de Mer (SBM) Group, which has been committed to cutting waste and reducing its carbon footprint for more than 17 years, has signed up to the Energy Transition Plan, which among other things targets a dramatic and rapid reduction of plastic consumption within the country. The SBM Group has introduced changes, **eliminating disposable plastic and reducing the use of petroleum-based products.**

Given the quality expectations of its clientele, and with plastic not really considered to be a fine material, glass has often been preferred instead. But outside and around swimming pools, where glass is not allowed, reusable plastic was envisaged. The same applies behind the scenes, notably in the kitchens. In addition, the SBM Group is increasingly making use of liquid soap and shower gel dispensers, especially in the changing areas of gyms and spas. For in-room products, SBM prefers non-plastic, reusable containers which are filled or refilled upstream by its suppliers, preferably using organic or natural products.



# CHANEL

## Alternative materials

If a given item or packaging cannot be avoided, the use of alternative materials is a solution that can be explored to reduce the use of plastic. When selecting a material, it is important to think about how the product or packaging will be used, as well as the main problems posed by plastic (toxicity, end-of-life impact, use of petroleum).



# “THEY’RE COMMITTED”

**CHANEL** is actively researching alternatives to plastic for its packaging.

**Solutions introduced by CHANEL Fragrance & Beauty: Identifying sustainable materials that can replace petroleum-based plastic in the packaging for cosmetic products; Solutions to reduce plastic use where it cannot be replaced.**

As part of its eco-design strategy for cosmetic packaging, CHANEL Fragrance & Beauty is working on its **portfolio of materials**. With this in mind, teams are focusing on the use of alternative materials as a replacement for plastic in packaging. These include glass, metal, paper or cardboard, increasing the recyclability of the products when they reach the end of their life. One of the challenges is finding the **optimum balance between the choice of material and its environmental impact**. CHANEL Fragrance & Beauty also favours the use of recycled plastic and is working to develop recyclable plastic packaging that meets the brand’s aesthetic and functional criteria. Another solution is to make packaging refillable to increase its service life through reuse.



# HARIBO®

## Recycling: a solution that requires planning

Recycling is one solution that can help to reduce the amount of plastic pollution in the sea. Improving the recyclability of products can initiate a circular economy effect<sup>8</sup>, which means that products do not end up in the environment. The challenge here is to focus on incorporating plastics for which there are operational recycling procedures and an existing market for the recycled material.



© Haribo

<sup>8</sup> The circular economy is defined as an economic system of exchange and production which seeks to increase the efficiency of resource use and reduce our impact on the environment through a "5Rs" strategy (Refuse, Reduce, Recycle, Reuse, Return to the Earth) applied at every stage of the lifecycle (adapted from the definition provided by ADEME, the French Agency for the Environment and Energy Management).

# “THEY’RE COMMITTED”

**Haribo** is integrating eco-design principles<sup>9</sup> in the development of its packaging.

Solutions introduced by Haribo: Identifying alternatives to the flexible bags that are not currently recycled in France.

Haribo, a leader in the sugar confectionery market, offers a **“responsible” products range** which means it also focuses on packaging. The 5Rs approach (Refuse, Reduce, Recycle, Reuse, Return to the Earth) is already embedded in the eco-design of containers, bags and boxes used to package sweets. In terms of efforts to reduce plastic use, the height, width and thickness of bags have been cut to the minimum required to ensure good machinability on production lines. It is estimated that, since 2018, 30 tonnes of plastic have been removed from the market each year, saving an equivalent amount in terms of waste. Research continues to enable **Haribo’s flexible packaging to be recycled**. In 2020, there was still no option available for recycling these flexible bags. Haribo therefore responded to Citeo’s offer to find a material that would meet the necessary criteria – ability to protect sweets, light in weight, machinability, printability, cost and transparency – and that could be recycled using existing treatment processes. Promising solutions are being studied.

<sup>9</sup> Eco-design means considering the environment from the initial stages in the design of a product or service, using a lifecycle, multi-impact approach to avoid pollution being transferred from one stage of the lifecycle to another.



## Strengthening processes and encouraging use of recycled materials

Improving the extent at which different types of plastic are collected is a major challenge in waste management. However, innovations in the design of products and packaging that would make them more recyclable and/or incorporate recycled material can happen faster than the development of recycling processes and the establishment of a market for recycled material.



© Travis Nicholson/VisualHunt

## “THEY’RE COMMITTED”

**Veolia** is working with companies at the top of the value chain to influence the selection of materials, and remains at the cutting edge of innovation when it comes to infrastructure.

Solutions introduced by Veolia: Working with brands to design packaging that is easier to recycle.

To create a virtuous, eco-friendly circle, Veolia is keen to recycle as much material as possible in order to give it a second life. The company supports eco-design and the functional economy<sup>10</sup> which focuses on **the use rather than the sale of a product**. One of Veolia’s goals is to increase its capacity to supply **manufacturers with recycled materials**. To achieve this, the company is working with private organisations such as Nestlé, Unilever, Danone and Tetra Pak. Their shared objective is to develop recycling chains, particularly for so-called complex plastics, and to use eco-design principles to incorporate more recycled materials in packaging. This partnership also helps to ensure that products and packaging are designed to be compatible with recycling infrastructure, avoiding, for example, multi-polymer and multi-layer plastic packaging, or packaging that is of a size which cannot be handled by existing recycling systems. Finally, Veolia aims to develop **more effective collection and sorting systems** in both developed and developing countries.

<sup>10</sup> The functional economy establishes a new relationship between supply and demand that is no longer based solely on simply selling goods and services. Contracts are entered into on the basis of useful effects (benefits) and supply adapts to the real needs of people, companies and communities, as well as to the challenges of sustainable development.



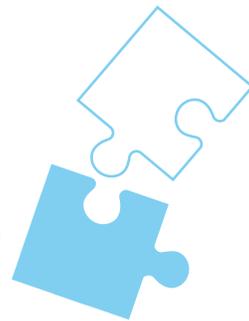
© Lucile Courtial

Although the private sector has a major role to play in combatting plastic pollution, companies cannot act alone. They need to join forces with the scientific community and the voluntary sector. By engaging in dialogue with experts, companies can track scientific progress, which is advancing quickly for some topics. The scientific community can benefit from feedback from companies on their needs in terms of eco-design. Through working together, the private sector and the scientific community can therefore round out their research and respond to their respective needs. Dialogue between these two groups and NGOs is also important. The latter are in a position to get their message out on a wider scale to consumers and decision-making bodies. In addition, NGOs have a different approach to the issue of plastic pollution, which can complement the perspectives of businesses and scientists.

# BeMed BUSINESS CLUB

A MULTI-STAKEHOLDER

# COLLABORATION



P. 32 The scientific committee

P. 34 The founding members

# THE SCIENTIFIC COMMITTEE



To enable this multi-stakeholder dialogue and ensure that the solutions discussed and introduced under the BeMed Business Club banner are relevant, a scientific committee made up of researchers who are renowned in their respective fields has been set up.



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## CAROLE CHARBILLET

Lecturer and researcher at the École Nationale Supérieure des Arts et Métiers (ENSAM)

 **Expertise**  
Eco-design and recycling



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## JEAN-FRANÇOIS GHIGLIONE

French National Centre for Scientific Research (CNRS) Director of Research, Banyuls Laboratory of Microbial Oceanography

 **Expertise**  
Degradability



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## NATHALIE GONTARD

Research Director and Professor at the French National Research Institute for Agriculture, Food and Environment (INRAE)

 **Expertise**  
Packaging and substitutes



A word  
from  
Stéphane  
Bruzaud



*The scientists bring expertise that complements that of NGOs and businesses. The BeMed Business Club is rather well balanced and should be able to reasoning and responses that are environmentally sustainable and economically viable.*

Each of the five scientists on the committee is part of a broader network on which they can lean. For example, some participate in the French Polymers and Oceans research group (GDR Polymères et Océans), which is devoted to the issue of plastics in the ocean and was established two years ago. Stéphane Bruzaud explains:

*The aim of this research group is to bring together scientists from very different backgrounds to work together with the goal of improving the cross-disciplinary nature of research into plastic and plastic pollution. I believe that this complements the BeMed Business Club very well. The French National Centre for Scientific Research (CNRS), which supervises the research group, would like to include more industrial partners in the group. We might therefore envisage a day devoted to discussion between the BeMed Business Club and scientists from the research group on a particular subject, for example. ”*



**JEAN-MARC MEURVILLE**  
ENSAM Professor at the  
Arts et Métiers Institute of  
Chambery

 **Expertise**  
Industrial creativity and  
eco-innovation



**STÉPHANE BRUZAUD**  
Professor at the  
Dupuy de Lôme  
Research Institute

 **Expertise**  
Biopolymers

# THE FOUNDING MEMBERS



The founding and active members of the BeMed association are: the Prince Albert II of Monaco Foundation, the Tara Ocean Foundation, the Surfrider Foundation Europe, the MAVA Foundation and the IUCN.

The awareness efforts led by NGOs such as the Tara Ocean Foundation and Surfrider Foundation Europe aim to share scientific understanding as widely as possible to **inform citizens about the challenges raised by plastic pollution** and encourage them to take the right steps to consume less plastic on an everyday basis. The experience that the NGOs involved with BeMed have in communicating with the general public and the reach of their networks will amplify the actions undertaken by businesses.

In addition, the IUCN, Surfrider Foundation Europe and Tara Ocean Foundation **work to influence governments** to change the regulations surrounding plastics by drawing up guides to best practices and taking part in the meetings of regional bodies. Drawing on the scientific studies they carry out and the data they collect, NGOs engage in advocacy efforts that inform public debate and influence local, national and international public policy.

Finally, the Club benefits from the support of the Prince Albert II of Monaco Foundation and the MAVA Foundation, donors who each finance a broad network of stakeholders on the ground and have extensive experience of supporting and monitoring projects in the field.

**Surfrider Foundation Europe** is an NGO that is recognised for its active work to combat plastic pollution in 12 different countries.



© Surfrider Foundation Europe

It is also renowned for its advocacy and lobbying efforts with governments, and for the way it involves citizens in its actions. Surfrider relies on a network of volunteers spread over some 40 branches in various European countries.

Thanks to these volunteers, the NGO organises actions such as the **Ocean Initiatives**, a programme to collect and categorise waste found in the environment which was established

25 years ago. In 2020, Ocean Initiatives attracted more than 50,000 participants in over 1,000 litter collections. The involvement of volunteers helps to collect information about aquatic waste and to take stock of plastic pollution.

The data collected not only adds to the weight of Surfrider's message to institutions and scientists, but also feeds into the thinking of the BeMed Business Club. Due to its credibility with consumers, Surfrider is also able to nudge them towards the solutions introduced by manufacturers, such as reuse. Awareness campaigns can therefore complement the innovations coming from the private sector.

The work of the **Prince Albert II of Monaco Foundation** and the **MAVA Foundation** focuses on protecting and conserving the environment by supporting a number of projects.



© Jean-Charles Vinaj

Long committed to safeguarding the oceans, the two foundations have made the Mediterranean Basin a priority. The Prince Albert II of Monaco Foundation and the MAVA Foundation are establishing **partnerships with actors on the ground** to carry out specific actions that are in line with local cultures. The close involvement of communities helps to ensure the success of their projects in the field. By funding such projects, the two foundations have created a network of key players covering

the entire Mediterranean region. The projects supported by the two foundations and this network complement the actions taken by the BeMed Business Club. In addition, the experience that the two foundations have of funding and setting up projects in the field is an asset for the Club. Their financial support of BeMed illustrates **the importance of philanthropy** in combatting plastic pollution at source, in a way that is specific and local.



**The International Union for Conservation of Nature (IUCN)** is a union of members comprising governmental and civil society organisations.



© IUCN

It harnesses the experience, resources and reach of more than 1,300 member organisations and the contributions of more than 10,000 experts. The IUCN brings together over 200 members based in the Mediterranean region. Thanks to this network, the IUCN **is an international authority on biodiversity.**

It regularly publishes in-depth studies such as *The Mediterranean: Mare Plasticum* (2020), which focuses on plastic flows and hotspots in the Mediterranean Sea. Thanks to the

IUCN's membership in BeMed, it was possible to use the preliminary results of this study as a basis for consideration when selecting areas in which to implement pilot projects. Following the World Conservation Congress in 2000, the IUCN set up the **Centre for Mediterranean Cooperation** which gives the IUCN a privileged position from which it can engage with Mediterranean coordination bodies. The organisation is thus able to serve as a link between the BeMed Business Club and key Mediterranean actors to ensure the success of pilot projects implemented by the Club.



**The Tara Ocean Foundation** is France's first recognised public interest foundation devoted to the oceans.



© Elodie Bernollin - Fondation Tara Océan

An advocate of high-level science, the foundation has, since 2003, led 12 expeditions dedicated to biological analysis of the marine environment using the schooner Tara, a floating science laboratory. During a decade of work, it has, together with CNRS researchers, shown that microplastics are omnipresent on the surface of the oceans. In 2014, the foundation carried out one of the first expeditions dedicated to studying this pollution, and this enabled it to build the largest collection of microplastics gathered in the Mediterranean to date. With its Microplastics Mission in 2019, the Tara voyaged along the four European coastlines and collected samples from nine of Europe's major rivers with the aim of gaining a better understanding of the origin and impact of microplastics found in seas and rivers. **The Tara Ocean Foundation's scientific expertise is a major asset for the BeMed Business Club.** Thanks to this expertise, the Club's actions are based on exhaustive and robust data about the Mediterranean, which is essential in the search for solutions to this pollution.

# TRACING MICROPLASTICS FROM LAND TO THE OCEAN

Departure Lorient	27 May 2019
St-Malo	5-8 June
Londres	11-13 June
Hambourg	16-19 June
Oslo	23-26 June
Visby	30 June-3 July
Flensburg	6-8 July
Boulogne-sur-mer	12-16 July
Brest	24-28 July
Hoëdic	29-30 July
Toulon	24-30 August
Porto Cervo	4-7 September
Rome	12-15 September
Antibes	21-22 September
Monaco	24-26 September
Marseille	27 September - 2 October
Barcelona	4-9 October
Port Vendres	10-17 October
Tunis	21-23 October
Bordeaux	5-8 November
La Rochelle	9-14 November
Arrival Lorient	23 November 2019



2019 mission  
microplastiques



*There are 1.2 million plastic fragments per square kilometre of the Mediterranean. That's around 7% of the microplastics in the world's oceans!*

Jean-François Ghiglione



© Conservatoire du littoral

The Mediterranean Basin presents a wide variety of socio-economic, political and cultural contexts. The Mediterranean Sea is bordered by 22 countries and each of these has its own plastic waste production profile, waste management system, policy on combatting plastic pollution, and solutions that it has implemented.

To engage in effective action, it is essential to have a good understanding of the local context and to rely on the stakeholders that are critical to implementation. By striving to bring together companies from across the entire Mediterranean Basin, the Business Club is seeking to encourage the various countries to share their experiences in order to have an impact at the regional level. The Club relies on BeMed's network of Mediterranean stakeholders. This network, comprising nearly 50 civil society organisations in 14 countries is a major asset in identifying the obstacles to and drivers of action that are unique to each country, and in supporting the implementation of actions.

# BeMed BUSINESS CLUB

A

# REAL IMPACT

## ACROSS THE MEDITERRANEAN



P. 42 The BeMed network

P. 44 Some examples of initiatives  
that have received support

# THE BEMED NETWORK



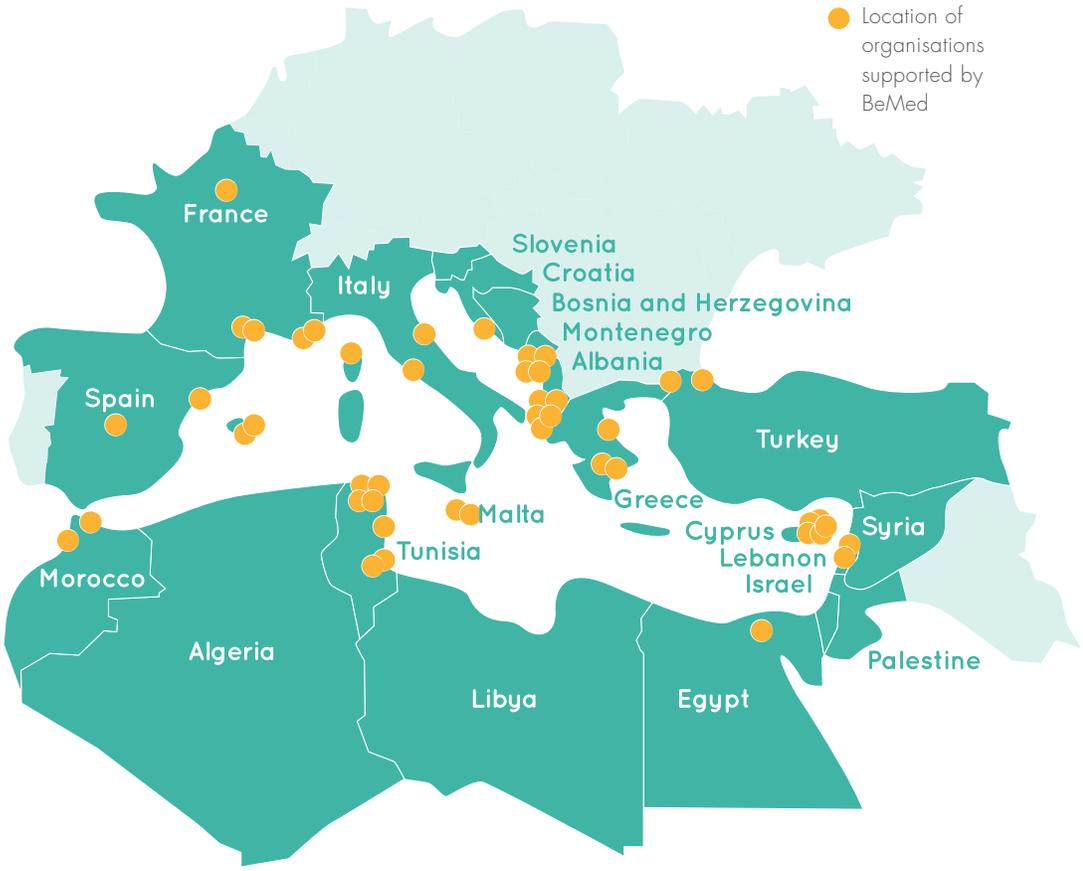
The BeMed network has been established and is expanding every year through various calls for projects.

Fifty-seven projects in 14 different countries have already received support. These initiatives to combat plastic pollution can involve NGOs, local communities, scientific institutions and businesses in various countries within the Mediterranean region. To create a regional dynamic and encourage replication of effective actions, BeMed works to coordinate and lead this network of stakeholders that it brings together each year during the Monaco Ocean Week.



© Cédric

Meeting with BeMed laureates during the Monaco Ocean Week, 2019



The projects supported tackle different sources of plastic pollution. They fall into one or more of the following categories: mobilising stakeholders, collecting data, reusing plastics and identifying alternatives, advising on and assisting with the introduction of new regulations, raising awareness and improving waste collection.

The BeMed Business Club can thus take advantage of:

- the experience of stakeholders on the ground who are part of the BeMed network
- the various partnerships that are already in place
- a local communication channel to facilitate the implementation of actions.

# SOME EXAMPLES OF INITIATIVES THAT HAVE RECEIVED SUPPORT



© CSTI



## 2018-2019 Prevent Plastic in the Mediterranean Sea - Cyprus Sustainable Tourism Initiative

This initiative has supported more than a hundred hotels in Cyprus to introduce waste sorting. The association has trained hotel employees in the practice and has supplied the communications resources needed to raise awareness among hotel guests.

## 2019-2020

### A plastic-free sea in Tunisia: from awareness to action – Tunisie Recyclage.

This initiative aims to raise awareness among the people of Tunis in a bid to encourage them to sort waste. The association has introduced a system for sorting and collecting recyclable plastic from more than 1,300 inhabitants and 30 businesses in Tunis.

© Tunisie Recyclage



2020-2022

**Zero plastic pilot project on the Îles d'Or archipelago and replication in the Mediterranean Sea – Small Islands Organisation (SMILO).**

This project aims to set up a micro-processing line in the Îles d'Or (France) to produce alternatives to single-use plastics using the waste from sugar cane production in Provence. These alternatives will be designed, used, sorted and composted locally. The project plans to replicate the approach on the Kerkennah Islands (Tunisia) using waste from date palms, and on Tavolara Island (Italy) using cork.



© Wise Greece

2020-2021

**Get Drastic for Zero Plastic – Wise Greece.**

This project aims to create the first online Plastic Fighters platform, bringing together all of the actions to prevent plastic pollution in the food industry undertaken by companies, non-profit organisations and individuals in Greece. The platform will be a showcase highlighting best practices and alternatives to plastic.



© PNIPC



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Since January 2020, the BeMed Business Club has offered a collaborative opportunity to businesses who want to work towards a plastic-free Mediterranean. The Club, which has been joined by Monte-Carlo Société des Bains de Mer, Haribo, CHANEL, Veolia and Carrefour, aims to:

- Promote collaboration between businesses in different sectors and links in the plastic value chain
- Increase dialogue between scientists and companies
- Roll out actions on the ground that take into account local circumstances.

The Club's activities are based around two working groups. The first group facilitates dialogue between scientists and companies to enable member companies to discuss key issues. The second group seeks to support member companies to help them work together to implement pilot actions on the ground. By participating in all of the Club's activities, the scientific committee contributes scientific backing to all of the work that is carried out.

# THE ACTIVITIES OF BeMed BUSINESS CLUB



P. 48 Science-Industry Dialogue  
Working group

P. 51 Pilot Projects  
Working group

## 01 Working group: Science-Industry Dialogue



**Aim: to bring together companies working in various sectors and experts on plastics to combat plastic pollution.**

This dialogue between science and industry allows companies to fill some of the gaps in their scientific knowledge. In exchange, scientists benefit from specific feedback provided by companies. Through the meetings and webinars that are organised, companies which are members of the Club can draw on the latest scientific progress. It is also important for scientists to hear from companies so that they can identify the obstacles and barriers from a commercial and industrial production perspective – things that are not always taken into account in their work.

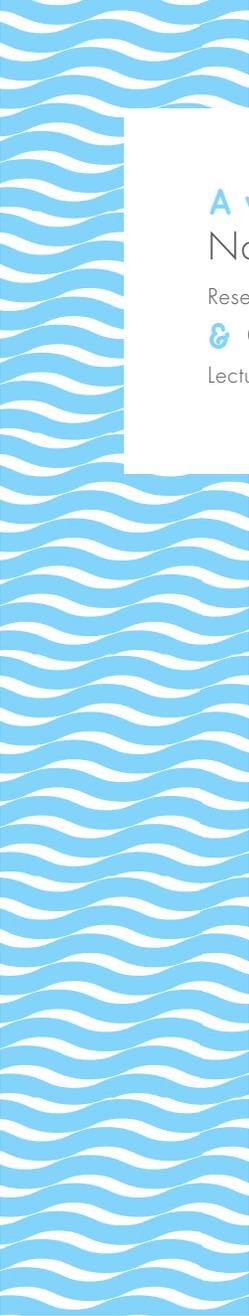
**Since January 2020, the group has addressed the following issues:**

- Sources of pollution in the Mediterranean
- Bio-based plastics and other alternatives
- Recycling
- Environmental impact transfer<sup>11</sup> when introducing alternatives.

*The strength of this working group lies above all in the reciprocal nature of the discussions, or the ‘intercommunication’. The dialogue allows the two groups to gain the perspective they need for their work.”*

Carole Charbuillet

<sup>11</sup> Impact transfers occur when environmental improvements at one stage of an item’s lifecycle results in negative effects at a different stage, either upstream or downstream.



## A word from Nathalie Gontard

Research Director and Professor at INRAE

& Carole Charbuillet

Lecturer and researcher at ENSAM

*Through our involvement in the working groups, we have recognised the limits of our respective activities and the ways in which we might be able to add value to each other's work. We (scientists) have solutions which are not always fully developed, and companies have the will but do not always have real solutions that are ready to go."* Nathalie Gontard



*A more collaborative project on measuring the environmental impacts of plastics at end of life is currently being explored. The primary aim would be to develop an indicator for these environmental impacts. The prospects for the expansion of this working group over time are promising. We could add more sectors, even those which are very different, because they all have a lot to learn from each other. The research methods and philosophy might be the same, but there are always differences which complement one another. The various stakeholders do not necessarily hold the same position or have the same expectations, which makes the collaborative aspect of the dialogue between science and industry particularly interesting, especially with respect to long-term thinking."* Carole Charbuillet

### **BIOPLASTICS\***

Bioplastics are plastics that are bio-based and/or biodegradable.

### **BIO-BASED PLASTIC\***

Bio-based plastics are thermoforming polymers produced from biomass sources (such as sugar cane or hydrolysed corn, rice or potato starch), regardless of what happens to them at end of life.

### **BIODÉGRADABLE\***

Biodegradable materials are converted by microorganisms in the soil within a reasonable timeframe (less than a year), possibly in conjunction with other factors found under natural conditions, into biomass, water, carbon dioxide and methane.

## **Definitions clarified during a meeting of the Science-Industry working group**

### **COMPOSTABLE\*\***

Describes the process of the aerobic transformation of fermentable materials under controlled conditions. This produces a stabilised fertiliser which is rich in humic substances – compost. The process also releases heat and carbon dioxide.

*\* Definition proposed by Nathalie Gontard as a result of the internship completed by Marie Berteloot on 'Terminology of bio-based materials and packaging', Univ. of Lille, INRAE Montpellier*

*\*\* ADEME definition*

## 02 Working group: Pilot Projects



**Aim: to support member companies to help them work together to implement pilot actions on the ground.**

In addition to the dialogue between science and industry, the Club works to implement concrete, quantifiable and replicable actions that have the flexibility required to adapt to the various contexts found within the Mediterranean region, to trigger an effort to reduce plastic pollution. This work relies on scientific understanding, tried-and-tested best practice, and finally on the ability of members and partners to innovate.

To identify specific courses of action to take, a background study was carried out in various geographical areas (Tunisia, Morocco, Lebanon and Marseille), drawing on documentary analysis and interviews with local stakeholders<sup>12</sup>. Taking into account the current sanitary situation, the study's conclusions led to **Marseille being identified as the best location for a pilot project in the short term** (roll out in 2021).

Applying criteria relating to the project's impact and relevance to the Mediterranean context, the potential replicability of the project, the essential involvement of the private sector and the ease of implementing, a project focusing on the use of plastic in Marseille's hotels was selected by the group.

<sup>12</sup> ConsultantSeas, 2020



## A word from Jean-Marc Meurville

ENSAM Professor at the Arts et Métiers Institute of Chambéry

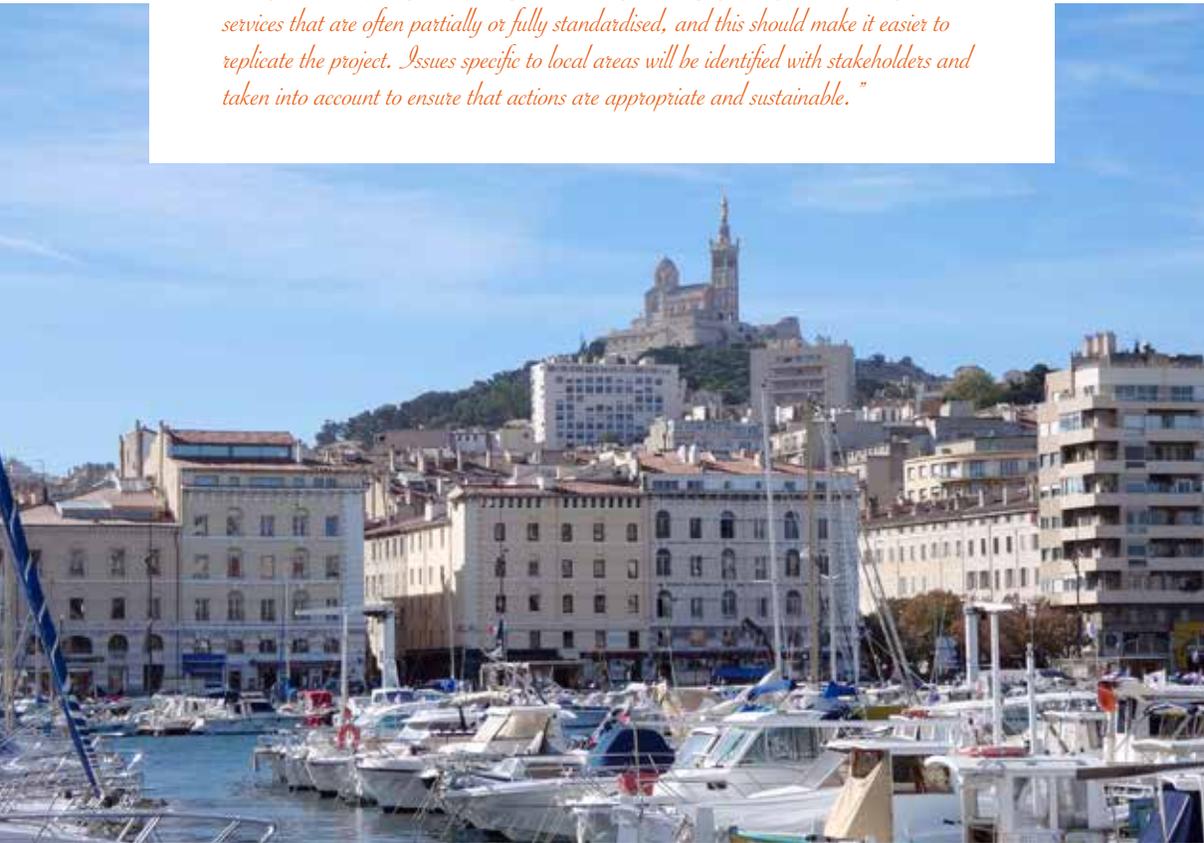


*The pilot project in Marseille initially involves trialling various solutions to reduce the environmental impact of the hotel industry, particularly with regard to the use of plastic. Subsequently (probably in 2022), the project will be discussed and adapted for rollout in Tunisia. Implementation of this second trial will enhance the first. The differences in practices and cultures on the two coasts of the Mediterranean (north and south) will provide sources of inspiration and innovation. The pilot project in Marseille will therefore be an initial experiment on the ground for the Business Club. Beyond the project itself, it will be an opportunity to establish a methodology for multi-stakeholder, multi-partner action which can be replicated for other projects. The regional and community approach adopted for these projects will help to produce a tangible effect throughout the Mediterranean region. For many countries in the Mediterranean, the tourism sector represents a large part of the economy. The influx of tourists during high season places a significant burden on some countries' waste collection and processing facilities. Eliminating and/or decreasing waste at source are necessary if these impacts are to be reduced.*



© Pixabay

*In addition, through the actions implemented in the project's partner hotels, it will also be possible to raise tourists' awareness of plastic pollution – and especially single-use plastics – in the Mediterranean. Finally, hotels are entry points for numerous activities (excursions, attractions, vehicle hire, transfers, etc.), which could be included in the approach. The prospects for rolling out this type of project in the Mediterranean basin in the future are quite good: the region has a high density of hotel facilities with guest services that are often partially or fully standardised, and this should make it easier to replicate the project. Issues specific to local areas will be identified with stakeholders and taken into account to ensure that actions are appropriate and sustainable. ”*





© Lucile Courtial

The BeMed Business Club is at the beginning of its story. It aims to involve a wider range of companies from throughout the plastic value chain and from various countries to create more synergy. All aspects of the Club are looking to expand: more member companies, more sectors of the economy covered, more countries represented, more issues addressed as part of the dialogue between science and industry, and more projects implemented on the ground.

This future growth of the Business Club will help to create a shared regional dynamic focused on the transition to sustainable models for reducing plastic pollution over the long term. By bringing together motivated stakeholders and established expertise, the BeMed Business Club is well suited to become the leading player in the private sector's efforts to achieve a plastic-free Mediterranean.

CONCLUSIONS  
AND



# FUTURE PROSPECTS



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# THE BUSINESS CLUB

## IN BRIEF



The Business Club brings together businesses who are committed to introducing practical solutions to prevent plastic pollution in the Mediterranean.

### Working groups



#### Science-Industry Dialogue

The Club facilitates dialogue between science and industry to help make progress towards relevant, effective solutions.



#### Pilot Projects

The Club coordinates businesses working together to implement projects on the ground that have been approved by the scientific committee.

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### What makes us unique



#### Mediterranean roots

Through its network, the Club has an impact and an influence on the entire region.



#### A determination to have a practical impact

In addition to searching for solutions, the purpose of the Club is to implement them on the ground.

# COMPANIES WHICH HAVE ALREADY JOINED US

## MEMBER COMPANIES



“Working in a partly enclosed sea, the Mediterranean, offers the advantage of being able to measure and then optimise the impacts of solutions that are rolled out collectively through BeMed.”

**Phan Bai,**  
Business Developer in the  
Development, Innovation &  
Markets Division  
**Veolia**

“The Business Club is a forum for constructive discussion which works to protect the planet, with a focus on the Mediterranean. The scientific committee contributes its expertise on issues as complex as the end of life of materials to support businesses in choosing pragmatic, practical solutions

that will reduce plastic pollution at source.”

**Odile Verneaud,**  
Sustainable Development  
Director, **Haribo**

“For us, the BeMed Business Club plays an important role as a catalyst thanks to its multidisciplinary nature, bringing together companies, scientists and researchers – something which is quite rare.”

**Dimitri de Andolenko,**  
Purchasing Executive and  
Head of Environment and  
Sustainable Development,  
**Monte-Carlo Société des  
Bains de Mer Group**

“Through its involvement in the BeMed Business Club, CHANEL is proud to support scientific research

and to contribute to the implementation of pilot projects that will produce tangible solutions to the challenges of our century, such as the effort to combat plastic pollution in the oceans.”

**Olivier Pomès,**  
Sustainability Audit  
Manager, **CHANEL**

“The BeMed Club is a collective body that is advancing and highlighting practical solutions to combat plastic pollution.

Carrefour is proud to be involved in the Club’s activities.”

**Bertrand Swiderski,**  
CSR Director,  
**Carrefour Group**



**CHANEL**



**MONTE-CARLO**  
SOCIÉTÉ DES BAINS DE MER



## THE FOUNDERS



"We see this Club as an opportunity to speed up the transition to a more sustainable, less polluting economy, through collaboration between businesses, NGOs and scientists."

Julien Semelin,  
Mediterranean Region  
Programme Manager,  
MAVA Foundation

"BeMed is a platform of stakeholders who are well established in the Mediterranean, with foundations, research institutes, NGOs and small non-profit organisations all working together on practical actions. We felt that it made sense to propose a Business Club working in synergy with these stakeholders, because

we want to move towards solutions. This requires the active involvement of the private sector."

Romain Troublé,  
Executive Director,  
Tara Ocean Foundation

"This commitment from the private sector will enable businesses acting locally and regionally to set targets for reducing plastic, developing and implementing action plans, and monitoring progress."

Mercedes Muñoz Cañas,  
Nature Conservation and  
Food Production, IUCN  
Centre for Mediterranean  
Cooperation

"Companies can drive reductions in the manufacture and marketing of plastic consumer products. Working with them to build strategies to prevent plastic use and identify reusable alternatives is essential."

Antidia Citores,  
Spokesperson,  
Surfrider Europe Foundation

The BeMed Business Club is an opportunity to strengthen efforts to combat plastic pollution in the Mediterranean initiated by civil society organisations and to work together on specific projects."

Philippe Mondielli,  
Scientific Director,  
Prince Albert II of Monaco  
Foundation



## SCIENTIFIC COMMITTEE



“I see the BeMed Business Club as an action that will help us to make progress together in our bid to combat plastic pollution, which has become an international plague and affects everyone.”  
[Nathalie Gontard](#)

“The main focus of the BeMed Business Club is to share the concerns and views of every stakeholder that is concerned about plastic pollution. It is also important to hear from NGOs, who are in a position to convey messages to bodies which scientists and those working in industry do not necessarily have access to.”  
[Stéphane Bruzaud](#)

“The value of the Club lies in its initiation of dialogue between representatives from the economy, civil society (NGOs and foundations) and scientists, leading to a mutual enrichment of knowledge and practices so that we can take practical action on plastic pollution in the Mediterranean over the medium term.”  
[Jean-Marc Meurville](#)

“What industry can offer would be impossible without external collaboration since businesses have a way of thinking that is limited by the economy. Industry needs to work with researchers.”  
[Jean-François Ghiglione](#)

“I have no doubt that if you want to change the approach to plastic, all those involved in the plastic value chain need to come together around the same table. This is the strength of the BeMed Business Club.”  
[Carole Charbuillet](#)



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**Given its partly enclosed geography and the sheer scale of human activity focused there, the Mediterranean Sea, the cradle of our history, is particularly affected by plastic pollution.**

In the face of this sad reality and the urgency of the situation, BeMed is proposing a collaborative response and inviting companies that want to commit to taking action to join its Business Club. By bringing together companies of all sizes and from all sectors, NGOs renowned for their commitment to protecting the marine environment and scientists specialising in the issue of plastics, this Club has everything required to contribute practical, effective solutions on the ground. A forum for constructive dialogue between these various stakeholders, the BeMed Business Club promotes convergence towards solutions that meet the needs of industry and are environmentally friendly. We hope that you will enjoy reading this white paper, which will give you a better understanding of the scale of the problem we face and allow you to discover the responses that we are proposing.



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