BIOMARINE
BUSINESS CONVENTION

30-31
OCTOBER
2014
CASCAIS, PORTUGAL

Marine
Bio-Resources...
For a New
Blue Economy

FINAL REPORT

BIOTECH • FOOD & NUTRITION • HEALTH & PHARMACEUTICALS • COSMETICS • ENVT & CLEANTECH

5 GOOD REASONS TO FALL FOR PORTUGAL

Pierre Erwes, BioMarine Chairman, Hong Kong

Welcome to **Cascais**, the best place to live for one day or for a lifetime. For our 5th edition of **BioMarine Business Convention**, I'd like to share five good reasons to fall for Portugal.

1 The first reason is definitely the country. The country has been through turbulences during the last years, but the Portuguese people will still open their hearts and welcome you in a unique way made of simplicity and authenticity.

2 The second reason is more pragmatic. This country is soon to become one of the biggest countries in Europe. And the main color on the map will definitely be blue. Ever since the government decided to implement its **blue strategy for Ocean**, Portugal has become the hottest place in Europe for marine bio-resources development. I have been meeting with many SMEs, research centres, investors, and government officials and each time I have been impressed by the quality of their work. There is a perfect alchemy ready to transform blue into gold.

3 The development of their marine bio-resources network beings me to my third point. By nesting biomarine industries, Portugal will directly benefit from the **existing raw materials** and the tremendous potential of their economic zone. The government has developed a unique legal framework to foster investment and R&D partnerships. Ten days ago, the first assembly of the Portuguese network brought together 90 key stakeholders, SMEs, banks and investors to work on the structuration of their new industry. We just need the spark to ignite the rocket's booster!

4 The fourth point I wish to bring out concerns **fiscal attractiveness**. Wherever you may come from, there is always a good reason to set up your business here in Portugal. Wages are very competitive, the quality of service is excellent, research facilities are top and industry can often play the role of the private equity.

5 Last but not least, HISTORY! Portugal is a maritime nation. They were the first to go around the world, opening trading places in the most strategic cities. When Portugal joined the European Community, the country turned its back on the ocean and tried to compete on land with more advanced countries. It took all the energy of one generation of politicians to convince the Portuguese to go back to the ocean where they belong. Their future is out there.

During these next two days we will show you how Portugal could become **the next leading European country when it comes to marine bio-resources**. For now let's jump into the convention!

I'd like to thank the Ministry of Agriculture and the Sea for its commitment, the Cascais Municipality for its support and all our partners and sponsors who will make this 2014 edition a truly memorable event.

Pierre Erwes

JOINING THE DOTS...

Tiago Pitta e Cunha, Co-chair BioMarine 2014, Counselor for Environment, Science and Maritime Affairs to the President of Portugal

Welcome to the **2014 Cascais edition of BioMarine**. After France, the UK and Canada, Biomarine now expands its business network to a new location in Southwestern Europe, in Cascais, Portugal.

With an overwhelming maritime geography, Portugal sits at the crossroad between the South and the North Atlantic basins, in the vicinity of the Mediterranean Sea and benefits from one of the largest maritime expanses in Europe and worldwide. This geography - which includes a long coastline, with several river basins, two Atlantic archipelagos, many sea mounts, deep sea corals and hydrothermal vents – hosts two Large Marine Ecosystems (the Iberian marine ecosystem and Macaronesia in the open Atlantic Ocean).

Not surprisingly, Portugal is a hotspot for marine biodiversity and as a result possesses large quantities of bio-resources allowing it to become an important player in the emerging blue biotech sector. Portugal also counts over fifty centers of marine research and knowledge which produce high quality research in different marine sciences including deep sea research, given the abyssal depths of the seabed under its jurisdiction.

Conscious of its unique environment, Portugal is developing a value chain for marine bio-resources industries and developing a long term vision for the sector. Two key documents constitute the backbone of Portugal's maritime strategy. The first is the new National Maritime Strategy 2013-2020 which highlights blue biotechnology as a key development priority. The new Maritime Spatial Planning Act is the second and illustrates the Portuguese Parliament's political support for the sector. The overall aim is to develop a scalable blue bio-resources industry and to become an inspiring, leading country for this new economy.

Such a vision cannot be fulfilled without extensive cooperation with other countries' companies, R&D centers and investors. Indeed, the challenges arising as a result of the innovative nature of the industry, the global market of its demand and the need for international investors and funding require, more than just cooperation, joint ventures, coalitions and like-minded partnerships with foreign players.

This is the part of the story where Biomarine comes in. Its network and dynamic approach to bringing people and business together, along with its vision to link the blue growth agenda to the green economy concept through the development of the blue biotech sector, constitutes for all a window of opportunity which cannot be missed.

Furthermore, given the growing demand for food, bio-medicine, health nutrients and food supplements, and the relentless search for new sources of bio-fuels, biomaterials and clean technology solutions, the use of blue biotechnology will emerge as a key solution.

Our vision is similar to that of solving a puzzle. We seek to join this growing global demand for bio-resources with a dynamic value chain, a good network of players but also to embrace co-development as the motto of the sector.

Come to Cascais and help us join these dots!

Tiago Pitta e Cunha

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CASCAIS

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> Reports of all sessions are compiled in the "PwC BioMarine 2014 Final Report"

> All plenaries and livestreamed sessions, CEO interviews by Kincannon Reed Global Executive Search and Pitching sessions by pwc available on BiomarineTV Portal

CEO Interviews : *A4F - Aquagen - BPI - CS Associados - Fermentalg - IDMer - Nofima - Research Council of Norway - Sapphire Energy - Soja de Portugal - Soper - Xanthella*
Pitching sessions : *A4F - Allma - Alga+ - Ciimar - Sintef - Soja de Portugal - Sparos - Shoalhaven Blue Biotech - Blue genomics - Mare – Cfood- NCBiotech Center*

http://www.biomarine.org/tv-portal/

BioMarine Photo Gallery

> Photo albums of the event are available here

> All photos are free of rights but we request that you mention BioMarine Business Convention 2014 and Credit : Judith Erwes

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WEDNESDAY 29TH OCTOBER 2014

A welcome reception was offered by the President of the Republic of Portugal at the Cascais Cidadel in Presence of HSH Prince Albert II of Monaco

Presidência da República

Statement by H.E. the President of Portugal

Your Serene Highness,
Dear Ministers,
Distinguished Participants at Biomarine,
Ladies and gentlemen,

Let me start by welcoming you all to Portugal.
I am sure the Municipality of Cascais and its maritime history will be a source of inspiration for your proceedings.
But let me welcome in particular His Serene Highness, Prince Albert, a dear friend, and a strong leader in the international agenda of ocean affairs.
The Biomarine Business Convention is about our future because it is about creating a global market for marine biotechnology. And we know the potential of biotechnology to raise growth in modern bio economies.
Marine biotech is one of the five priorities of the "Blue Growth Agenda" of the European Union. In Portugal blue biotech is also a priority within our recently adopted National Ocean Strategy, as the Minister for Agriculture and Sea, who is present here, will have the chance to explain to you during the Convention.
In Portugal we understand the need to explore our marine natural resources in a more sustainable way. Ocean sustainability requires innovation and high tech solutions which is exactly what your industry is about.
We are well aware that marine biotech is not something one may develop on its own. Its products are complex and require scientific knowledge and technology. This is why we need to cooperate across countries and across companies.
Portugal is a hotspot for marine biodiversity. We have an array of bio resources and we have highly qualified marine scientists. We are quite open to work together to promote and support the development of a strong blue biotechnology sector.
Let me also acknowledge the presence here of an important Norwegian delegation. I believe Portugal and Norway can be like minded nations on ocean affairs and can, in particular, be complementary in relation to marine biotechnology.

I wish you all the very best for your proceedings these coming days and hope you will find it worthwhile doing business in Portugal.
Thank you.

From left to right : ***Assunção Cristas*** *(Minister of Agriculture and the Sea, Portugal),* ***HSH Prince Albert II of Monaco****,* ***HE Cavaco Silva*** *(President of Portugal),* ***HE Eng. Jaber M. Al Shehri*** *(Deputy Minister for Fisheries, Kingdom of Saudi Arabia),* ***Dilek Ayha****n (State Secretary, Norwegian Ministry of Trade Industry and Fisheries).*

THURSDAY 30TH OCTOBER 2014

Opening Remarks : CARLOS CARREIRAS, President Cascais Municipality
A pledge to the oceanic people of the world

Excellencies,
Dear Guests,
Ladies and Gentlemen,

On behalf of the people of Cascais please allow me to extend a warm welcome to our fair city.
We are both proud and happy to be hosting the world's most important conference on the Sea, as the Atlantic people which we truly are.
The Biomarine Chairman and our dear friend Pierre Erwes, is well aware of how eager we were to host the 5th Biomarine Conference in our Town. We have chased it around the world and crossed the Atlantic for this opportunity.
As proof of our commitment, we went to Halifax in Canada just to be sure that we would bring back the Biomarine flag in our luggage on our return to Cascais.
Tomorrow evening we will hand over the flag to our friends from Wilmington, North Carolina, to whom we extend our dearest wishes for the great success of the next Biomarine Conference.
But that is only next year. Until then, it is our turn, the turn of Cascais to elevate the expectations of our illustrious guests and organize the best conference ever!
Mr. Chairman, I can guarantee you that we will work tirelessly to regain the privilege of your visit.
Ladies and gentlemen, whatever the perspective, the 5th Biomarine Conference in Cascais is already a success.
It is here and now that an extraordinary percentage of the blue economy of the planet is meeting – and I want to take this opportunity to warmly greet all the entrepreneurs and innovators who have made their way to Cascais from all four corners of the world.
It is here and now that front line political decision makers are meeting, such as Your Excellency the President of the Portuguese Republic and Your Royal Highness Prince Albert of Monaco who, faithful to the family tradition, has a profound connection of friendship with Cascais.
It is here and now that the Sea is both past, present and future!
There are three good reasons for Biomarine and Cascais to become a long-lasting and successful partnership.
The first reason is because of who we are.
That is a very long story. It is precisely 650 years old. Cascais is a secular town and its whole life has been defined by its relationship with the Sea.
It is from this Sea that we sourced our food.
It is from this Sea that the Portuguese Sailors gave new worlds to the world.
It is in this Sea that we solved ancient disputes with Francis Drake and Napolean Bonaparte.
It is this Sea that brought to us all the peoples of Europe who searched for peace and freedom in a continent ravaged by war.
It is in this Sea that we are meeting the future which is being made and prepared in one of the most innovative Maritme Centres of Europe.
It is here the place where we are working locally to impact globally on the creation of a new blue economy
A Blue economy based on our experience and emotional connection, which is part of the very identity of the Portuguese with the Sea.
An economy which will be recognizable to the world by its innovation, its commitment to sustainability and its capacity to create a wide ranging prosperity and democracy for all citizens.

The second reason is precisely because of where we are: Portugal.
Portugal is very often perceived as a small, peripheral and poor country. But attention please: old maps may be deceiving.
Portugal, should the extension of the Continental Platform be recognized by the United Nations, will enter directly to the list of the largest countries in the World in area.
You will agree that there is nothing small or poor in that. Much less peripheral.
After years of looking to the East, Europe has once again rediscovered its Atlantic Ocean. Two initiatives promise to radically change the role of Portugal in Europe.
The first is the creation of the single European energy market.
Europe which was built around coal and steel, can now re-invent itself thought the Sea, the Wind and the Sun. And Portugal is close to the very energetic heart of the New Europe.
The second initiative is the Transatlantic Trade Partnership, which will create the largest free trade zone in the world between the United States and Europe.
Portugal is the gateway from this side of this extraordinary commercial Atlantic highway.
Excellencies, you are all successful entrepreneurs. If there is one thing you all do well, it is to identify opportunities when they emerge.
In the light of these facts, you will understand better than anyone, that this country is certainly not small or peripheral.
This leads me to the third and last reason: that which I believe together we will be able to achieve from right here in Cascais.
I believe that we can place the Oceans at the top of the International Agenda.
We will achieve it in the second decade of the XXI Century.
We are able to travel for leisure into space.
We place men and women to live in a space station.
The powerful nations spend billions of euros on space programmes.
We want to turn space inside out. But we still don't know our oceans.
We know the names of almost all the astronauts who stepped on the moon.
But we don't know the names of the heroes who touched the bottom of the Ocean in 1960, an achievement never again repeated in the history of humanity.
The children at school want to be astronauts but never imagine becoming aquanauts.
The Oceans are the great unknown neighbours which humanity has never tried to get to know better.
We can no longer live in this ignorant darkness.
To know the Oceans is not only an essential condition for economic, scientific and social progress. To know the Oceans is a prerogative for international peace.
That is your and our daily task.
To end, I would like to say that I believe that we can recover the spirit of a common humanity with the oceans as a starting point.
Some years ago I visited the Cidade Velha – Old City, on the Island of Santiago in Cape Verde. In a conversation in passing I commented with a local elderly man how happy I was to once again step on African soil. A sudden cold silence fell over us and was only broken by the wise words of experience: "This is not African soil, this is Atlantic soil", the elderly man corrected me.
I kept those words with me to this day.
We can be Portuguese or French, Canadian or Cape-Verdian, Japanese or Brazilian. But inside this apparently irreconcilable diversity, there is an extraordinary unity which we are given by sharing the same maritime predisposition, life experience of the same oceanic spirit.
It is the Sea that unites that which all the rest separates.
It is in the Sea that we can once again meet as global community.
It is in the Sea that we once again find our common humanity.
May we do just that right here from Cascais that is the challenge I lay down before you.
You will always be welcome to Cascais our home, your home.
Thank you

> Key Note address Manuel Pinto De Abreu, Secretary of State of the Sea, PortugaL

Your Serene Highness, Prince Albert II
Your Excellency, Mr. Jaber Al Shehri, Deputy Minister for Fisheries of the Kingdom of Saudi Arabia
Your Excellency, Mr. Dilek Ayhan, Norwegian State Secretary of the Ministry of Trade, Industry and Fisheries
Mr. Fausto Brito e Abreu, Regional Secretary for the Sea, Science and Technology
Mr. Alain Rousset, President of the Aquitaine Region
Mr. Carlos Carreiras, President of the Municipality of Cascais,
Members of the diplomatic corp and other authorities present,
Distinguished participants,
Ladies and Gentlemen.

It is my great honor and pleasure to deliver this address to such a distinguished audience in this important and unique event.
I would like to start by expressing my sincere thanks to Pierre and Veronique for all their efforts and hard work and for all their enthusiasm in making BioMarine2014 in Cascais possible. Thank you!
As I am sure we are all aware, BioMarine2014 is one of the key business-events of the year in Portugal and, dare I say, also at a global level, bringing together an impressive group of business leaders and participants from all parts of the world, that jointly represent a growing and extremely competitive and valuable industry.
BioMarine is the global showcase for the latest knowledge and skills covering all sectors within the marine bio resources industry, including marine ingredients, marine biotech, aquaculture and aquafeed, nutraceuticals and cleantech. It provides an international platform for a constructive dialogue between decision-makers, international organizations, regional and national associations and the private sector.
It is therefore an occasion to learn from best practices of key national and international stakeholders and to put forward projects and partnerships, build international research programs and create a joint vision for the marine bio resources industry.
Most importantly, BioMarine 2014 is the gateway for outstanding business opportunities in Portugal and to create qualified jobs, bringing together more than 300 business leaders that represent the mainstream of global marine bio resources industry.

Your excellencies, ladies and gentlemen,
Portugal is determined to develop its sea-economy. It is currently a principal European country in bio marine capabilities and aims at becoming Europe's foremost leader in the bio marine sector, particularly by creating and attracting investment opportunities and supporting research and development.

In order to achieve this, Portugal has taken important steps to improve the legal and regulatory framework, namely, with the approval of the National Strategy for the Sea 2013-2020 and the preparation of ground breaking legislation on marine spatial planning that simplifies and accelerates approval procedures. Financing is also available through public funds but also private funds that have long understood the potential for investing in Portugal's sea-economy.
Portugal's determination to develop its sea-economy is supported in the sustainable use of the oceans and its resources. This is a common value also shared by the business community. Actually, in certain instances, we are seeing that private initiatives are leading the development of best practices and setting standards for policy makers.
In this respect, Portugal's National Ocean Strategy and relevant legislation has achieved the delicate balance between economic development and sustainable use of the oceans and its resources. Portugal is also determined to catalyze partnerships and to build on best practices and know-how.

Your excellencies, ladies and gentlemen,
Portugal is unwavering in creating value from the ocean for the benefit of present and future generations.
To achieve this goal, we must first and foremost develop our knowledge of the ocean.
Over the years Portugal has invested significantly in increasing and improving national capabilities and know-how. This is the case, for example, of the works undertaken in preparation of our submission for the extension of the continental shelf, which will become one of the world's largest maritime areas under national jurisdiction.
Through partnerships with academics, scientists and research centers, and other relevant stakeholders, we have uncovered fascinating marine life and resources and are leading the way in the adoption of ground-breaking measures for the protection and preservation of the marine environment, such as concerning the creation of marine protected areas and use and conservation of fisheries
We strongly believe that only through these important partnerships and the increase of our knowledge, innovation and efficiency can we also benefit the sustainable development of our sea-economy in its three dimensions: economic, social and environmental.
Only through an economic, social and environmental sustainable development can we develop a sea-economy that is in fact sustainable, thus creating a valuable legacy for future generations.

Your excellencies, ladies and gentlemen,
Portugal is a solid and reliable partner for the marine bio resources industry.
In Portugal, you will find:
- *Environmentally and socially sustainable policies,*
- *Highly-qualified human resources,*
- *State of the art research and development centers,*
- *Support from policy makers and administration, and*
- *Investor-friendly regulatory regime.*

Another relevant aspect that Portugal has to offer is the unique weather conditions that are indispensable for certain sectors of the marine bio resources industry, such as microalgae.

In conclusion, I would like to reiterate my sincere thanks to all those that organized and took part and supported this event, and express my sincere wishes that you may have meaningful discussions and brainstorming sessions, but most importantly that you will appreciate and recognize the unique opportunities that Portugal offers the marine bio resources industry.

Thank you!

> Key Note address by HSH Prince Albert II of Monaco

Excellencies,
Mr Mayor,
Ladies and Gentlemen,
Dear Friends,

I would like to say how pleased I am to be among you today.
Let me express my warmest thanks for your welcome and for inviting me to take part in your discussions. It is always a pleasure to travel to Portugal, particularly to this beautiful city of Cascais which I always enjoy visiting.
I have not forgotten that, very close to Cascais, great explorers once set off around the globe, positioning Portugal a great maritime nation. I am thrilled to see that this country is once again preparing its future by looking towards the ocean.
I would also like to thank Pierre and Véronique Erwes, as they are faithful partners of my Foundation. Our roads frequently cross over the same issues and the same hopes.
I have been following with interest BioMarine's initiatives and achievements for many years. The success of this International Business Convention confirms the high quality of the work conducted by its directors and the high potential in the topics uniting us, a potential I would like to discuss with you today.
It is not a question of flaunting the merits of technological and industrial prospects for which you have a better knowledge than myself. It is a question of making people understand that the BioMarine project, if part of a pertinent commercial and entrepreneurial logic, can above all meet a political need.
Leveraging on marine bio-resources does not only mean an additional source of supply for a world with an increasing appetite. For me, it is far more about being able to respond to the challenges of the present through solutions for the future, to having the determination to find answers to the various problems we face.
I would like to characterize this challenge in three words: lucidity, responsibility and inventiveness. These three words embody for me - and I think for all of us - profound needs. They find here, in the topics that bring us together today, an unique opportunity to take concrete and positive shape.
First of all: Lucidity.
The key strength of marine bio-resources is not merely the many promises they hold. What makes their development and growth inevitable is first and foremost the lucid observation of the world as it is.
We are in a world of scarcity, even shortage, as evidenced by the situation of the key resources on which we depend.
I am thinking of energy of course. Although it is the primary pre-requisite for improving people's lives and empowering individuals, we witness on a daily basis the limits of the current energy system that relies on resources that are too rare to fully satisfy humankind, which can be toxic to the environment and subject to depletion.
I am also thinking of food, which we all know is one of the main challenges today facing the balance of our world and which will be even more of a challenge in the upcoming years and decades.
With nine billion humans soon on our planet, with food requirements and standards that fortunately are increasing, with practices that are becoming standardised, the food issue has become one of the greatest challenges of this century.
The current system leads to the destruction of 0.5% of our arable land per year, representing 30 million hectares – that is almost the size of Italy! At this rate, 50% of the Earth's land will have been exhausted in 100 years' time.
Irrigation which leaches the soil, pollution which damages it, urbanisation : these are all causes of a potential disaster.
Marine resources are not in a better position, since their exploitation is still too highly dominated by overfishing and irresponsible aquaculture.
In 2011, 400 international experts from more than 35 countries approached by the United Kingdom came to this alarming conclusion which sadly went unnoticed: Without changing our ways, we have twenty years to produce 40% more food and 50% more energy.
These figures, Ladies and Gentlemen, should lead us to take stock of our situation: the impossible equation between supply bound to diminish and ever-expanding demand.
It would be unrealistic and futile to respond to the current crises by supporting negative growth which few people wish for and, more importantly, which proves is impossible. To ensure the survival of the billions of humans living

on this Planet and more importantly those who will live after us, we have no choice but to change our conduct and find new resources.
Among them, marine bio-resources are obviously to play an extremely important role, due not only to their various potential but also to the magnitude of the volumes we can hope to benefit from in the long term.
However it does not mean that they should be exploited by perpetuating a contradictory system. After plundering the land and many maritime resources, especially fish resources, it would be absolutely suicidal to now start depleting this new wealth, as yet barely explored.
This is the second principle I wanted to focus on: Responsibility.
It pushes us to develop, starting right now, a certain number of guarantees and long-term mechanisms that only would ensure the reasonable and sustainable use of these new resources.
These guarantees must come primarily from international legal instruments. Legal instruments which currently are insufficient, both in the face of the challenges of which we are already aware - climate change, damage to biodiversity - and in the face of new challenges which are of concern to us today.
Treaties need to be implemented and their provisions enforced. The main one is of course the United Nations Convention on the Law of the Sea. This treaty was and is a visionary legal instrument but it needs adaptation.
We would like to improve it, so that it can take better account of key issues, not only for Marine Genetic Resources but to all threatened species in the Area Beyond National Juridictions (i.e. high seas) that are not covered by other legal instruments.
The political push should be on one hand to make sure oceans and seas will have a dedicated Sustainable Development Goal in the post 2015 Development Agenda, and on the other hand that we start negotiations for an implementing agreement not restricted to Marine Genetic Resources. It will be a missed-opportunity to restrict the negociations to Marine Genetic Resources and not to address the urgent protection of all undangered species in the high seas.
I would also like to point out that the governance of the ocean and its resources increases the complexity of the situation. The FAO is responsible for fisheries management, UNEP for the environment, the IMO for navigation, UNESCO for scientific matters.
As for the International Seabed Authority itself, it is only vested with power in regard to mineral resources, which means that no Commission is competent as far as the exploitation of bio-resources in international waters are concerned. International Saebed Authority was established for a specific purpose and its mandate could be reviewed to invest it with other responsibilities but it will have a cost...
Significant efforts need to be made here which unfortunately will not come about quickly. We see at every international summit how great the challenges are. Confronted with the divergent interests of various Nations, faced with what is considered more urgent crisis, the international community struggles to reach an agreement with regard to sustainable development.
That is why measures can and must also be taken at a local, and even national, scale.
I am thinking of the conservation of certain rare resources or the particular attention we should pay to certain extremely fragile regions. In order to do this we have the marine protected areas system, the principle of which needs to be expanded and apply to all sea-related activities. In the absence of certainty, the exploitation of bio-resources itself, must, like all economic activities, respect certain sensitive areas whose future is vital to all humanity.
That is why I champion, with my Government and my Foundation and within multilateral fora, these marine protected areas which have experienced significant growth recently.
However, with only 2.3% of the global ocean surface currently under the status of a protected area, there is still a long way to go. The targets established at the Nagoya Conference in 2010, may I remind you, provided for increasing this figure to 10% of the ocean surface by 2020. But this goal is extremely low figure for successfully maintain sustainable biodiversity. It is therefore crucial to sustain all efforts in this respect.
More refined, inventive and unprecedented measures need to be developed, based on improved scientific knowledge of the mechanisms at work and on the implementation of safer technical solutions.
This is the third principle I want to mention today - Innovation.
Such innovation is also the responsibility of political leaders who need to define new ways of protecting the seas.
It is to this end that, together with the French and Monegasque governments, my Foundation launched last year a Mediterranean Trust, the purpose of which is to fund the development of marine protected areas in the Mediterranean and to promote their operation as a network.
This is one example among many, an example of the inventiveness that we all need to demonstrate in order to create blue growth.
This inventiveness also involves a great amount of research whose promotion is the responsibility of political

leaders. By hosting various international scientific events and laboratories, by contributing to various research programmes across the globe, in particular on maritime issues, my country is involved in this effort.
However choosing innovation means above all placing trust in companies, because the principle of innovation is at the heart of their approach. It guarantees their success and guides them on a day-to-day basis. I believe that companies need to be fully involved in our objective of new growth, this blue growth in which they should play the leading role and be the first beneficiaries.
At a time when the current crises fuel doubts on the social value and responsibility of the corporate sector, at a time when they are so often disparaged, an opportunity is being given to them to prove their value.
It is in fact up to companies to explore and develop the vast field of marine bio-resources in a responsible and sustainable manner, for the benefit of all. They alone have the ability to match the needs of the Planet with the daily expectations of the consumer. They alone are able to spur men and women daily, those who have a thirst for progress but do not want to destroy the heritage of future generations.
That is why I support BioMarine and the project it is implementing. The project in which you are key players. For these reasons, and with my Foundation, I have chosen to take part in the creation of the Biomarine International Clusters Association.
The growth I am calling for is made of networks, cooperation, shared access to information for everyone in the interests of everyone.
BioMarine is an amazing catalyst for these new energies, a catalyst that we need to nurture and encourage, by being responsible players ourselves in the development of our oceans.
It is a necessity for us, for our children and for the oceans themselves!
Ladies and Gentlemen,
Dear Friends,
Aware of the situation of our Planet,
Responsible, faced with the prospects of new resources,
Inventive, confronted with the challenges posed by these resources,
we will, I am sure, be able to address the challenges of this century.
The road ahead will of course be difficult. But it is a road within our reach as long as we give ourselves the means to follow it.
So that our world of rare resources is able to continue to live in peace, to offer progress and hope to as many people as possible, we have to move forward.
We have no other choice!
As Winston Churchill said, «We must take change by the hand or, rest assuredly, change will take us by the throat. Marine bio-resources must help us take this change by the hand, and BioMarine can help us achieve it! That is the reason of our presence here today.
Thank you.

PROGRAM

> TRANSFORMING THE POLITICAL VISION INTO A BLUE ECONOMIC ASSET

The best strategy to move from vision to action is to make the action an explicit part of the dialogue. We will ask our distinguished panelist how to identify and support the activities with a raised potential for long-term growth, eliminating administrative obstacles that make the blue growth difficult, promoting investment in research, as well as the development of skills through education and professional training?

LIVE STREAM

Campos Ferreira
Sá Carneiro
& Associados

MODERATOR

António Rocha Mendes
Partner Campos Ferreira, Sá Carneiro & Associados (Portugal)

PANELISTS

Dilek Ayhan
State Secretary, Norwegian Ministry of Trade, Industry and Fisheries

Fausto Brito e Abreu
Regional Secretary for the Sea, Science and Technology, Government of Azores (Portugal)

HE Eng. Jaber M. Al Shehri
Deputy Minister for Fisheries (Kingdom of Saudi Arabia)

Alain Rousset
President of the Aquitaine Region (France)

> FISH BY CATCHES AND BY PRODUCTS AS A SUPPLIER FOR THE BIOMARINE INDUSTRY

The utilization and processing of fish production has diversified and improved significantly in the last two decades, particularly into high-value fresh and processed products, fueled by changing consumer tastes and advances in technology, packaging, logistics and transport. Moreover, improved processing technologies have enabled higher yields and result in more lucrative products from the available raw material.
Nowadays, value addition is the most talked about word in the industry, particularly with respect to the fish processing industry, mainly because of the increased opportunity to derive value from processing side streams once considered waste, and by increased exploitation of underutilized species. Value addition is one of the possible approaches to raise the overall profitability of the fish processing industry, which now lays greater emphasis on quality assurance. A large number of value added and diversified fish products both for export and internal markets based on shrimp, lobster, squid, cuttlefish, bivalves, farmed fish and minced meat from low priced fish have been identified and will be discussed in the review

LIVE STREAM

Nofima

MODERATOR

Steve Dillingham
Global Director, AlaskOmega® Ingredients,Organic Technologies (USA)

PANELISTS

Øyvind Fylling-Jensen
CEO NOFIMA (Norway)

Jean-Pierre Rivery
President ID Mer (France)

Isabel Guerra
Docapesca (Portugal)

Karl Andreas Almas
CEO, SINTEF (Norway)

> BIOTECHNOLOGY AND GENETICS IN AQUACULTURE

Only in the last few decades has aquaculture grown into a global practice resulting in tremendous worldwide production. Aquaculture production has enlarged dramatically since the early 1980s, and will become increasingly important as demand for fish products increases, world harvest by capture fisheries reaches a plateau or declines and human population numbers expand. A variety of genetic techniques are being implemented commercially, including domestication, selection, intraspecific crossbreeding, interspecific hybridization, sex reversal and breeding and polyploidy, to improve aquacultured fish and shellfish. Genetically improved fish and shellfish from several different phylogenetic families are utilized. Genetic principles and biotechnology are also being utilized by fisheries managers and by researchers to enhance natural fisheries, to protect native populations and to genetically conserve natural resources.Genetically modified aquatic organisms are already having an impact on global food security in both developed and developing countries. However, in general, much more progress can and needs to be made. The combination of a variety of genetic improvement programmes – traditional, biotechnological and genetic engineering – is likely to result in the best genotypes for aquaculture and fisheries management

LIVE STREAM AquaGen

MODERATOR

Oystein Lie
CEO Marelife (Norway)

PANELISTS

Odd Magne Rødseth
EW Group (Germany)

Veronica McGuire
Executive Director, Program, Regulatory and Trade Policy Directorate, Canadian Food Inspection Agency

Jorge Dias
CEO, Sparos (Portugal)

Claudia Baule
Coordinator, Biotechnology and Biosciences Hub, Maluana Science and Technology Park (Mozambique)

> MICRO ALGAE: THE KEY TO IMPROVING NUTRITION WORLDWIDE

Currently 868 million people are undernourished and 195 million children under five years of age are stunted. At the same time, over 1 billion people are overweight and obese in both the developed and developing world. Diseases previously associated with affluence, such as cancer, diabetes and cardio-vascular disease, are on the rise. In a global scenario where increasing attention is being directed towards issues of sustainability and limited food supplies, microalgal sources offer immense scope for the rapidly expanding worldwide demand. The session will explore the 3 dimensions of the equation: strains, productions and finance

LIVE STREAM

allma natural benefits

MODERATOR

Pierre Erwes
CEO, BioMarine Organization Limited (Hong Kong)

EXPERTS

Joao Navalho
Director Allma (Portugal)

Douglas McKenzie
Director, Xanthella (UK)

Katerina Kousoulaki
Nutrition and Feed Technology expert, Nofima (Norway)

> ROUND TABLE : MARINE COMPOUNDS FOR THE NUTRACEUTICAL AND COSMETIC INDUSTRY

The marine environment represents a relatively untapped source of functional ingredients that can be applied to various aspects of food processing, nutraceuticals and cosmetics. Bioactive peptides isolated from fish protein hydrolysates as well as algal fucans, galactans and alginates have been shown to possess anticoagulant, anticancer and hypocholesterolemic activities. On the basis of their bioactive properties, this session will explore the potential use of marine-derived compounds as functional food ingredients for health maintenance, the prevention of chronic diseases and cosmetics. We will fully discuss the raw ingredients statuts (situation in Canada, versus Europe), the Patent and IP issues, market access and regulations…

MODERATOR

Margarida Couto
Partner, VDA & Associados (Portugal)

> HOW CAN NORWAY AS THE LEADING MARINE COUNTRY, HELP DEVELOPING AND BOOST MARINE RESEARCH AND INNOVATIONS IN OTHER PARTS OF THE WORLD?

Aim: to deepen understanding of how stakeholders in the marine sector cooperate along value chains and across sectors. Emphasize the importance of research and innovation for industrial development, the link between research, industry and legal framework. How to support or stimulate industrial development and also stimulate international collaboration. RCN collaborate closely with Innovation Norway which is an important instrument for innovation and development of Norwegian enterprises and industry. There are relevant industrial networks in Norway that may contribute to further development of the marine sector globally which will elaborate on this session.

LIVE STREAM

The Research Council of Norway

MODERATOR

Michael Whitney
Managing Partner, Kincannon & Reed (UK)

EXPERTS

Karl Andreas Almas
CEO SINTEF (Norway)

Øyvind Fylling-Jensen
CEO NOFIMA (Norway)

Christina Abildgaard
Director, Department for Environmental Research and Marine Resources, Research Council of Norway

> ROUND TABLE : DEVELOPING USE OF MARINE BY-PRODUCTS AND DISCARDS FROM AGRICULTURE TO NUTRACEUTICAL USES

Marine by-products and discards from agriculture constitute a very important part after industrial processing and much focus has been on converting these into commercial products. The aim of this session is therefore to evaluate important challenges and to consider the most realistic options in the use of by-products. Certain by-products may be used directly as food while by-products in general can be transformed into more elaborated products for the nutraceutical and pharmaceutical industry.

MODERATOR

Steve Dillingham
Global Director, AlaskOmega® Ingredients,Organic Technologies (USA)

> ROUND TABLE : UNTAPPED POTENTIAL OF BIOMOLECULES EXTRACTED FROM MARINE ORGANISMS

Deliberately breaking with the classical biology-centered description of marine organisms and their products, this session focuses on microbial technology over basic biology. As such, it will explore and cover the technology behind high-value compounds for use as pharmaceuticals, nutraceuticals or cosmetics, from prospecting to production issues. Even if the session will discuss technological considerations, and the future potential of these organisms or compound classes the session will definitely try to focus on market development and commercial applications.

MARE

MODERATOR

Jean-Christophe Sergère
CEO Setubio (France)

> IS VEGETAL DIET THE NEXT GENERATION OF AQUAFEED?

In the past decade, studies conducted with different species have determined the maximum dietary replacement of fish meal and oil without compromising growth or product quality. European aquaculture, being primarily focused on carnivorous fish, relies heavily on raw materials rich in protein. Considering the global protein shortage, it is imperative to find suitable alternatives and how these alternatives can be used to optimize feed formulations in accordance with maximization of production efficiency whilst enhancing health and disease resistance.
The present session aims to discuss the current and future perspectives in fish feed formulation, focusing on unusual or untapped protein and oil sources.

LIVE STREAM

SOJA DE PORTUGAL

MODERATOR

Pierre Erwes
CEO, BioMarine Organization Limited (Hong Kong)

EXPERTS

Tiago Aires
Technical Manager, Soja de Portugal (Portugal)

Stefan Kraan
Ocean Harvest Technologic- Founder, Scientific &Managing Director (Ireland)

John Sweetman
Director EcoMarine Ltd (UK)

Becky Timmons
Director Applications Research and Quality Assurance, Alltech (USA)

> ROUND TABLE : MARINE BIOTECH - NOVEL STRATEGIES FOR MARINE MICROBE CULTIVATION

The objective of the MaCuMBA project is to uncover the untold diversity of marine microbes using cultivation-dependent strategies. Furthermore, MaCuMBA aims to improve the isolation rate and growth efficiency of marine microorganisms from conventional and extreme habitats by applying innovative methods and using automated high-throughput procedures. The session will present the industrial potential development of the project and will discuss practical development with participants.

MaCuMBA

MODERATOR

Marieke Reuver
Project Manager, AquaTT (Ireland)

> ROUND TABLE : MARINE BIOTECHNOLOGY - START-UP'S STRATEGY TO ATTRACT THE RIGHT INVESTORS

Early-stage start-up companies look for more than just financial support from their investors. IP, regulation, institutional communication, Human resources are often key blocking factors that could lead to disaster. The major outcome of this session is to provide a guidance note for marine biotechnology SMEs about new models of interaction with investors.

spi
Sociedade Portuguesa de Inovação

MODERATOR

Helena Vieira
Expert in Innovation and Tech Transfer in Marine Sciences (University of Lisbon)

BIOMARINE GALA RECEPTION

Hosted by Cascais Municipality at Palacio Hotel, Estoril

CASCAIS

FRIDAY 31ST OCTOBER 2014

> MARINE NUTRACEUTICALS PROSPECTS AND PERSPECTIVES

There is a great deal of consumer interest in natural bioactive substances due to their health benefits. Offering the potential to provide valuable nutraceuticals and functional food ingredients, marine-derived compounds are an abundant source of nutritionally and pharmacologically active agents, with both chemical diversity and complexity. Functional ingredients derived from marine organisms can help fill the need for novel bioactives to treat chronic conditions such as cancer, microbial infections, and inflammatory processes. The session will explore the industry development in this field.

LIVE STREAM

HIE
Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

MODERATOR

Brian Monks
CEO, Monks Innovation (France)

EXPERTS

Joanne Pitt
SAMS/SRSL Knowledge Exchange Manager (Scotland, UK)

Charlie Bavington
CEO, Glycomar (UK)

Fabrice Bohin
CEO, Eviagenics (France)

> ROUND TABLE : GENOMICS CONTRIBUTION TO SUSTAINABLE AQUACULTURE

In recent years, significant advances have been made in understanding the genome and functional genetic structure of a wide variety of animals, including many of importance to aquaculture. While the scientific relevance of this new information is widely understood, its uptake and application within the aquaculture industry is still in its infancy. If aquaculture is to attain its full potential how can we transfer this scientific knowledge and expertise to industry as soon as possible?

BLUE GENOMICS CHILE

MODERATOR

Rory Francis
Executive Director, Prince Edward Island BioAlliance (Canada)

> ROUND TABLE : SEAWEED PRODUCTION - HOW TO MATCH THE GLOBAL DEMAND WITH A UNIFORM QUALITY REQUIREMENT

Seaweeds are marine macro-algae found growing throughout the world oceans and seas. Though there are about 9200 species of seaweeds, only 221 species are economically important. Over 90,000 tons of brown, red and green seaweeds are exploited annually for the production of various commercially important phyco-colloids such as of agar, algin and carrageenan. Thus, natural seaweed stocks have become inadequate to meet the industrial requirements and hence cultivation of these important resources has become necessary. The session will discuss the next step forward to organize this global challenge.

MODERATOR

Pia Winberg
CEO Venus Shell Systems Pty (Australia)

> MICRO ALGAE: SCALING UP INDUSTRIAL PRODUCTION

To make the production economically feasible, it is essential to develop cultivation systems in which algae convert the light with a high photosynthetic efficiency. Successful development of an algae-based biofuels and co-products industry requires the optimum combination of technical innovations in systems and processes, coupled with economic feasibility in the practical implementation and integrated scale-up for commercial production and marketing. The session will explore the bottle necks and opportunities.

LIVE STREAM

MODERATOR

Jean Michel Pommet
Brit'Inov (France)

EXPERTS

Joao Navalho
Chief Technology Officer and co-Founder, A4F (Portugal)

Craig Behnke
Senior Director Cultivation, Sapphire Energy (USA)

Stephen O'Leary
Director of R&D, National Research Council of Canada

> ROUND TABLE : EMERGENCE OF THE PORTUGUESE BIOMARINE INDUSTRY

Portugal is a principal European country in bio marine capabilities and aims at becoming Europe's foremost leader in the bio marine sector, particularly by creating and attracting investment opportunities and supporting the development of R&D. Important steps have also been taken to improve the legal and regulatory framework. The session will debate and explore the real potential of this new industry and how it could be structure?

DNA CASCAIS

MODERATOR

Paulo Andrez
Board Member DNA Cascais Incubator Center

> ROUND TABLE : MARINE ORGANISMS ASSOCIATED BACTERIA - A KEY TOOL FOR THE IDENTIFICATION AND SCALE-UP PRODUCTION OF MARINE NATURAL PRODUCTS

Seaweeds undertake close collaborations with external and internal bacteria. Seaweeds are an unlimited source of oxygen and sugars which bacteria are happy to take advantage of. In exchange for these nutrients, bacteria produce growth promoting minerals and vitamins and they protect their host against environmental threats. As a result, many seaweed-bacterial associations are essential for both symbiotic partners. The session aims to understand how this relationship could become the key of mass production.

IPL

MODERATOR

Pia Winberg
CEO Venus Shell Systems Pty (Australia)

> FINANCIAL MECHANISMS FOR MARINE BIO RESOURCES SMES

Small and medium size enterprises are key players in the development of the bio-marine industry and in providing services that support both industry and consumers. These enterprises have a very broad-base profile including raw material production of seaweeds, micro algae, aquaculture aquafeed, production of hydrolysats, biomolecules for nutraceuticals, cosmetic and pharmaceutical industry. Government- supported enterprise development and business program currently exist in most countries, however, a few address the critical financing gaps experienced by SMEs. Financial mechanisms support are needed for those SMEs experiencing capital constraints and difficulties in achieving sufficient profit margins from the concept and early business planning through to operations. Finance mechanism that provide grant support or debt or equity at the seed, start up and growth stages are crucial to the development of the bio marine SMEs. The session will discuss these mechanisms.

LIVE STREAM

BPI

MODERATOR

Tiago Pitta e Cunha
Senior Advisor for Marine Policy to the President of the Republic of Portugal

EXPERTS

Joao Folque Patricio
BPI Bank (Portugal)

Luis Conceiçao
Founder co -owner, CFO Sparos (Portugal)

Sebastien Groyer
Partner, Seventure (France)

Helena Vaz Pinto
Partner M&A, Corporate Finance, VDA & Associados, (Portugal)

> ROUND TABLE : CONTRIBUTION OF MARINE MICROORGANISMS IN THE PHARMACEUTICAL INDUSTRY

The marine environment harbors a number of macro and microorganisms that have developed unique metabolic abilities to ensure their survival in diverse and hostile habitats, resulting in the biosynthesis of an array of secondary metabolites with specific activities. Several of these metabolites are high-value commercial products for the pharmaceutical industry. The aim of this session is to outline the paths of marine natural products discovery and development, with a special focus on the compounds that successfully reached the market and particularly looking at the approaches tackled by the pharmaceutical companies that succeeded in marketing those products.

ciimar

MODERATOR

Helena Vieira
Expert in Innovation & Tech Transfer in Marine Sciences, FCUL (Portugal)

> ROUND TABLE : POTENTIALS AND PERSPECTIVES OF MICRO ALGAE OMEGA3 AND ALGAE BIOMASS IN AQUACULTURE

Microalgae have gained a lot of attention as a source of biomolecules and biomass for feed purposes. Algae farming can be established using land as well as sea and strategies can be designed in order to gain the products of specific interest in the optimal way. The session will discuss the contributions of Algae to meet the requirements of nutrients in animal/aquaculture feed. In addition to its applications in animal/aquaculture feed, algae can produce a number of biomolecules and pharmaceutical and nutraceutical compounds which have been reviewed with respect to their commercial importance and current status. What is the adequate utilization of value added products in the feeds for livestock, poultry and aquaculture including shrimp farming?

Fermentalg

MODERATOR

Bruno Berheide
Director Spanish Bank of Algae, Spain

> ROUND TABLE : CULTIVATE SEAWEED AS BIO RESOURCE FOR NEW INNOVATIVE PRODUCTS

New developments in biology and biotechnology and the diversification of the use of marine biological resources in increasingly sophisticated products are accelerating the domestication of marine biodiversity and the emerging patent market of marine biotechnology. Cultivated seaweed is a large un-exploited resource, but the interest is increasing in many countries - not least given the perspective of developing 3rd generation biofuels. Seaweeds are considered to have less environmental side-effects than land-based biomass. The session will review the industrial potential developments that seaweed cultivation could generate.

SINTEF

MODERATOR

Franck Hennequart
Technical Dir. OGT (Ireland)

> ROUND TABLE : SUSTAINABLE AQUACULTURE: MARKET DEVELOPMENT STRATEGIES FOR NEW SPECIES?

The technological innovations and introduction of new species into aquaculture are critical to the evolution of the global aquaculture industry; an industry which is rapidly becoming one of the fastest growing in the world, having experienced huge advances across its many and diverse facets. The session will discuss in a very interactive way the strategies to get the new product in the market.

seas

MODERATOR

Joaquim Macedo de Sousa
CEO C-Food (Portugal)

> AQUACULTURE PUBLIC ACCEPTANCE

Small and medium size enterprises are key players in the development of the bio-marine industry and in providing services that support both industry and consumers. These enterprises have a very broad-base profile including raw material production of seaweeds, micro algae, aquaculture aquafeed, production of hydrolysats, biomolecules for nutraceuticals, cosmetic and pharmaceutical industry. Government- supported enterprise development and business program currently exist in most countries, however, a few address the critical financing gaps experienced by SMEs. Financial mechanisms support are needed for those SMEs experiencing capital constraints and difficulties in achieving sufficient profit margins from the concept and early business planning through to operations. Finance mechanism that provide grant support or debt or equity at the seed, start up and growth stages are crucial to the development of the bio marine SMEs. The session will discuss these mechanisms.

LIVE STREAM

SOJA DE PORTUGAL

MODERATOR

Luis Silvestre
Editor Revista Sábado (Portugal)

EXPERTS

Joao Pedro Azevedo
CEO Soja de Portugal Group

Pedro Encarnacao
Business Development Director Biomin (Singapore)

Rita Westvik
Futurama (Norway)

Pedro Leandro
Chief Commecial Officer, Pingo Doce, Jerónimo Martins Group (Portugal)

> BIOMARINE'S ECONOMICS

Introduction words: Tiago Pitta e Cunha, Senior Advisor for Marine Policy to the President of the Republic of Portugal

The economics of marine bio resources industries can be seen at very different lights, depending if one is talking of the future and of the world trends that will give scale and critical mass to this sector or if one is talking of the figures written in the reports of the last 5/10 years. In the latter case we are talking of a small, embryonic industry: «the blue biotech industry» deemed to be worth around 5 billion euros at the global level.

It is true that the blue biotech industry is only a small part of the whole biotech cluster, namely of the important US biotech market. Nevertheless, it should also be pointed out that by "blue biotech" one tends to refer to only a part of a bigger market for marine bio resources. If one counts with aqua feeding industries and even with innovative aquaculture (algae for instance) the market grows and it will be bigger than current figures and statistics reveal.

Hence, the very first challenge one faces is to know how to define the market for biomarine. Which industries are in it and which are left out?

But the way to look into the economics of BioMarine is really to look at the future. To understand the global growing demand for food, including proteins of marine origin; the demand for healthy new products; for bio medicine; for food supplements and nutrients; or the demand for new sources of sustainable energy, including biofuels.

The economics of BioMarine rest upon these trends and the global growing demand they imply.

There are also environmental reasons to develop blue biotech. We cannot go on exploiting the planet' natural resources on a business as usual mode, given their scarcity and our unsustainable actions. Exploiting the ocean bio resources for biotech products does not require "bottom-trawling" and as such it is a much more sustainable maritime activity than other more traditional ones.

Why is BioMarine going to work?

Because we have the need (the global demand for biotech products), because 80% of the life forms of the planet are in the ocean (we have the raw materials), and there is the opportunity (we have the knowledge and the technology to develop blue biotech).

The challenge for the sector is, thus, to move away from its comfort zone and to use new marine bio resources, while resort to new applications for the bio resources which are already in use. For instance, using shells for producing bio plastics, or shrimp peels for artificial skin.

Even more important, it is time for the biomarine sector to look more into the market side instead of focusing on the technology side and this way to transform a "supply-focused economy" into a more vibrant "market-pull" one.

LIVE STREAM

MODERATOR

Anabela Reis
Journalist Bloomberg News (Portugal)

EXPERTS

Kelvin Okamoto
President Gen3Bio, Inc. USA

Nuno Coelho
CEO A4F (Portugal)

Miguel Marques
Economy of the Sea Executive Partner, PricewaterhouseCoopers (Portugal)

James J. Levine
CEO Sapphire Energy Inc., USA

FROM PORTUGAL 2014 TO NORTH CAROLINA 2015

LIVE STREAM

Statement by John W. Hardin
Executive Director, Office of Science & Technology (OST), North Carolina Department of Commerce

(...) As many world-class companies have already discovered, North Carolina has attracted significant Foreign Direct Investment into the state for many years—ranking 10 in the U.S. in FDI-supported employment overall and 7 in manufacturing. European companies alone have invested almost $14 Billion in the state, including many firms you'd recognize.

North Carolina has a long commitment to innovation. In the late 1700s, it was one of the first U.S. states and it established the first state university the U.S.; at the start of the 20 century, its outer banks coastline was the location of the first human flight; in the early 1930s, it founded the first state symphony; and in the late 1950s, it established the Research Triangle Park (or RTP), one of the largest research parks in the world. Bounded by the state's three largest research universities, it uses university talent as a magnet and a driver of business innovation. Today, RTP is known around the world, and more than 170 companies call the Park home, including IBM, GlaxoSmithKline, Cisco, and Verizon.

In the early 1980s, North Carolina was the first to create a state-focused biotechnology center. The North Carolina Biotechnology Center (or the N.C. Biotech Center) is a private, non-profit corporation supported by the North Carolina General Assembly. Its mission is to provide long-term economic and societal benefits to North Carolina by supporting biotechnology research, business, education and strategic policy statewide. The Biotech Center supports diverse industry sectors across the state, including a strong focus on marine biotech. The Center's early focus and continued investment clearly have paid off.

North Carolina is among the top three biotechnology states in the United States, and it is a world leader in biotech. Since 1999, the N.C. Biotech Center has invested more than $1.2 billion dollars to advance biotech. As a result, the state now has 600+ biotech companies, biotech is $59 billion annual industry, it has more than 237,000 jobs in biotech and biotech-related fields, and the biotech sector experienced 23.5% net job growth from 2001-2010. This rate of job growth greatly outpaced the rate for the U.S. bioscience sector overall.

And most important to this BioMarine Convention, North Carolina is a leader in marine biotechnology.

Entrepreneurs, scientists, and educators statewide are developing marine biotech opportunities in aquaculture, diagnostics, pharmaceuticals, natural products, fuel/ energy, seafood preservation, fish feed, water-quality testing, waste remediation, and bioproducts derived from algae.

Leading the way is the Marine Biotechnology Center of Innovation (or MBCOI). Based in Wilmington, the MBCOI serves marine biotechnology stakeholders throughout North Carolina and beyond, and is one of the first members of BioMarine International Clusters Association (BICA), to forge international business relationships, and advocate for research, development, and commercialization of technologies from the sea.

MBCOI's mission is to translate marine science into products and services, and it focuses on the overlapping opportunities among three broad areas—Food, Health, and Energy/Environment. It does so by providing a diverse set of services, including technology translation, project management, business plan development, marketing, opportunity scouting, and a host of other activities.

Most importantly, the MBCOI, in partnership with the N.C. Biotech Center, will co-host the 2015 BioMarine Business Convention in Wilmington, North Carolina, which—just two weeks ago—was voted the Best American Riverfront City by USA Today media. So, in addition to being the #1 American riverfront city, Wilmington is the first U.S. city to host the BioMarine Business Convention.

I look forward to seeing you next year in Wilmington!

John W. Hardin

Executive Director, Office of Science & Technology (OST), North Carolina Department of Commerce

Save The Date

BIOMARINE BUSINESS CONVENTION

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