João Rito – President, Bluebio Alliance, Portugal



It's crucial for all stakeholders, from promoters to investors, to comprehend the unique challenges and opportunities presented by the blue economy. The sector's success lies not only in financial gains but in contributing to the perpetual quality of life on Earth

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João Rito introduces Bluebio Alliance, a Portuguese association focusing on bio-based marine resources and their sustainable utilisation. Rito's work involves extensive collaboration across sectors, including pharmaceuticals, to promote the blue bioeconomy, and he emphasises the importance of sustainable practices in harnessing marine bioresources, such as fish, seaweed, and coral, for various industries. He discusses Portugal's strong potential to become a global hub in this niche and outlines the scope of the Blue Bio Value Acceleration Programme; bridging the gap between scientific research and industrial application, nurturing startups, and advocating for the sector's growth.

Could you provide insights into your current role and professional background?

I currently hold the position of president of Bluebio Alliance for a two-year term. My professional background revolves around aquaculture, specifically working with bio-based marine resources. In this capacity, I collaborate extensively with various stakeholders in the industry. Moreover, my role within the Alliance puts me in close contact with diverse sectors and industries utilizing blue marine resources, with pharmaceuticals being a particularly significant one. This allows me to have a comprehensive overview of developments not only in Portugal but also on a global scale.

What constitutes marine bioresources, and could you delve deeper into the blue bioeconomy, highlighting its emphasis on sustainability and the types of organisms involved?

Marine bioresources encompass a broad spectrum of biological materials derived from the ocean, including genetic samples, tissues, and various living organisms. These resources are critical components of the blue bioeconomy, a specialized sector within the larger blue economy framework.

The blue economy comprises all economic activities related to the maritime environment and marine resources. Within this scope, the blue bioeconomy zooms in on marine bioresources, placing a strong emphasis on sustainability. This means that the utilization and extraction of these biological materials must align with environmentally responsible practices, ensuring the health and resilience of marine ecosystems.

In the realm of the blue bioeconomy, a wide array of organisms contributes to the diverse pool of marine bioresources. This includes animals, such as various species of fish and other marine life, as well as plants like seaweed, coral, which is often mistaken as a plant, is, in fact, a group of animals forming coral reefs. These resources are harnessed for various purposes, including pharmaceuticals, aquaculture, and other industries, with a commitment to preserving the delicate balance of marine ecosystems. Sustainable practices not only safeguard the health of these ecosystems but also ensure the long-term viability of the blue bioeconomy.

Why was the Bluebio Alliance established in Portugal, and what are its objectives in promoting the blue bioeconomy?

The Bluebio Alliance was founded in 2015 in response to Portugal’s National Marine Strategy and European Commission directives. Portugal, with its vast maritime platform constituting 97 percent of its territory, possesses significant untapped potential in the blue bioeconomy. The need for the alliance arises from the desire to leverage this potential, ensuring sustainable exploitation of marine resources.

The alliance’s vision aligns with Portugal’s strategic goal of making a substantial portion of its GDP come from the blue economy. As a small country, Portugal aspires to position itself as a global hub for the blue economy, surpassing regional boundaries. The ambition is to catalyze developments in aquaculture, bioprospecting, and other sectors within the blue bioeconomy.

The strategic initiatives undertaken by Portugal have garnered attention globally, making the country a prominent topic of discussion in international conferences, including those in the United States. Portugal seeks to be at the forefront of advancements in the blue economy, embracing bioresources for pharmaceutical, aquaculture, and other industries. The Bluebio Alliance aims to facilitate access to and the sustainable exploitation of diverse marine organisms and compounds, positioning Portugal as a central player in this burgeoning sector.

What percentage of current GDP is attributed to the blue economy, and what is the goal for the future? How is the Bluebio Alliance funded?

As of now, the exact percentage of the GDP attributed to the blue economy is not specified, but it is mentioned that the growth rate of the blue economy aligns with the general economic growth, standing at around 12 percent to 13 percent. The current contribution of the blue economy to the GDP is noted to be less than 1 percent, which is considered insufficient.

The Bluebio Alliance is a private and nonprofit association funded through various means. While it collects fees from its associates, consisting of both individuals and organizations (mainly private entities), these fees are relatively low, ranging from 50 to 100 euros per year. The primary source of income comes from providing services to external parties. This includes offerings such as acceleration programs for startups and services requested by governors. Importantly, the alliance also secures funding through participation in funded projects, predominantly from the European Commission, with a significant emphasis on Horizon funding. BlueBio Alliance is not directly funded by the Portuguese Government being an independent private entity.

Can you provide insights into the progress and opportunities within the blue economy startup ecosystem? How has the startup landscape evolved in Portugal?

The Blue Bio Value Acceleration Programme has played a pivotal role in shaping the blue economy startup ecosystem in Portugal. Since its inception in 2018, we’ve witnessed a remarkable evolution. In the early years, there was a notable influx of candidates, and today, the program has truly gone global. Applications are pouring in from diverse corners of the world, signaling international recognition of Portugal as a hub for blue economy innovation.

One significant aspect of our impact is the creation of a thriving network. We act as a bridge, connecting startups, SMEs, universities, and research institutions. This collaborative approach has

fostered a supportive ecosystem that goes beyond regional boundaries.

One of the notable achievements is the global BlueBio Alliance network. Startups not only benefit during the program but continue to be part of this network, recognizing the enduring advantages it offers. This global perspective is crucial, especially as we observe an increasing trend of startups looking beyond their immediate surroundings for growth opportunities.

Our proactive approach extends beyond the program itself. We actively communicate various funding programs and goals, serving as a conduit for startups to access financial support. Moreover, we provide soft landing support, assisting startups in planning and establishing themselves in Portugal. This is not just about acceleration but about creating a sustainable environment for these companies to thrive.

A critical area of focus is addressing the gap between scientific research and industrial application. In sectors such as biotech and pharmaceuticals, Portugal has historically faced challenges in translating good science into market applications. The Blue Bio Value Acceleration Programme aims to fill this gap by facilitating knowledge transfer and aiding in technology commercialization.

We also actively engage in advocacy and lobbying efforts, working to garner support from decision-makers to secure funding for the blue economy sector. It’s not just about individual startup success but about shaping a conducive ecosystem for the entire sector’s growth.

In essence, the Blue Bio Value Acceleration Programme has not only stimulated the growth of individual startups but has contributed significantly to positioning Portugal as a promising and influential player in the global blue economy landscape.

Given the inherent long-term nature of the blue economy and the associated risks and failures, what timelines are you hopeful for in terms of taking startup ideas from inception to full-fledged industry and market applications?

The blue economy is a long-term venture, laden with risks and uncertainties, particularly given the stringent regulatory processes and the inherent complexity of bringing products into human use. Recognizing this challenge, we’ve adopted a multi-faceted approach. Beyond the Blue Bio Value Acceleration Programme, we’ve introduced an ideation programme over the last three years. This initiative targets bioscience professionals and challenges them to translate their research findings into tangible products and companies.

Crucially, we pair these scientists with individuals studying business to create teams with complementary knowledge. This synergy is pivotal because scientists may excel in the lab but lack the necessary business acumen. The goal is to enhance their chances of survival through the challenging phases until maturity.

It’s important to acknowledge the protracted timelines in the blue economy, notably in sectors like pharmaceuticals. Unlike tech startups that often see payback in three to five years, industries within the blue economy, such as pharmaceuticals, may require 15 years or more to bring a product to market. This extended timeline is a fundamental characteristic of the sector.

To address the low success rate of startups reaching maturity, our focus extends beyond immediate success. We aim to nurture a robust ecosystem by increasing the number of companies reaching at least the acceleration phase. Through our programs, we’re observing a growing number of companies not only surviving but also choosing to establish themselves in Portugal.

The sector’s three pillars—financial, social, and environmental sustainability—underscore the importance of long-term commitment. Investors and stakeholders in the blue economy often prioritize environmental sustainability, understanding that significant returns may take time.

While the financial gains may not be as rapid as in some other sectors, a recent report by EY and McKinsey has provided a tangible evaluation of the blue economy’s potential. The multiplier effect of investing in the sector is substantial, offering a promising outlook for those committed to the long-term goals of sustainability.

It’s crucial for all stakeholders, from promoters to investors, to comprehend the unique challenges and opportunities presented by the blue economy. The sector’s success lies not only in financial gains but in contributing to the perpetual quality of life on Earth. As global discussions increasingly recognize the critical role of the ocean in sustaining life, our endeavors in the blue economy become more vital than ever.

The fight against powerful fossil fuel lobbies is daunting, but by placing substantial value in sustainability within the blue economy, we have a means to combat these challenges. The financial backing and recognition of the value in sustainable practices are essential in creating a counterbalance against influential fossil fuel industries and fostering a more sustainable future.

On a personal level, you’ve taken on the role of heading the association, representing the blue economy sector, in addition to running your own startup. What motivated you

to take on this additional responsibility, and why do you believe in the importance of this mission?

It wasn’t solely my decision; I was invited by my colleagues to become the president of the association. Initially, I was hesitant, as I didn’t want the responsibility to be forced upon me. However, I accepted the role and embraced the challenge. Despite my already busy schedule managing my company and being involved in other endeavors, I find a deep sense of fulfillment. The satisfaction comes from seeing the positive impact of my decisions on the industry and society. I’m passionate about helping other companies thrive and promoting the growth of the sector. The role allows me to contribute to the survival and success of businesses, making a tangible difference in the industry.

While I recognize that this role won’t last forever, and I’ve committed to it for two years, I find the experience incredibly rewarding. Making decisions that directly lead to positive outcomes for individuals and businesses is a powerful motivator. It’s not just altruistic; there’s a sense of personal satisfaction in knowing that my actions have facilitated positive change.

In the end, it’s about seeing that I’ve been able to help someone, and that, to me, is immensely fulfilling. It’s a somewhat selfish satisfaction, but it adds a meaningful layer to my daily activities.

Plus, ensuring the trend towards better management and protection of our oceans continues is a crucial objective of my professional life. And through this position I can definitely have a bigger influence on it.

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