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High technology incubator BIOASIS Gran Canaria. INCYDE

BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Programa Operativo Plurirregional de España

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GOOD PRACTICES OF CO-FINANCED ACTION PRESENTED BY THE INCYDE FOUNDATION

HIGH TECHNOLOGY INCUBATOR BIOASIS GRAN CANARIA (CANARY ISLANDS)

The INCYDE Foundation takes part in the ERDF Operational Program of Spain 2014-2020 as a financially oriented organization, implementing the High Technology Incubators project to promote innovation and technology transfer to small, medium, and micro-enterprises, as well as entrepreneurs. The High Technology Incubators project involves establishing infrastructure facilities across the country. The selection of sectors for the High Technology Incubators aligns with the regional Smart Specialization Strategies (RIS3) of each respective region. These incubators are designed as a focused initiative aimed at facilitating the transfer of technology from national and international R&D+i institutions to the market. To achieve this, a network of partners is essential to provide necessary services, enabling incubated business ventures (whether newly established or existing) to leverage R&D and apply it to their business models.

As a proposal for best practices, the INCYDE Foundation introduces the **High-Tech Incubator for Blue Biotechnology and Aquaculture (IAT-BIOASIS)**. This incubator is tailored for companies involved in the fields of blue biotechnology and aquaculture, which are witnessing significant growth on a global scale. It represents a pioneering initiative in Spain, offering both national and international perspectives.

The primary goal of IAT-BIOASIS is to foster the development of projects by establishing a dedicated incubation space for start-ups, SMEs, and micro-enterprises in the field of blue biotechnology and aquaculture. This initiative is led by the Sociedad de Promoción Económica de Gran Canaria (SPEGC), an entity under the jurisdiction of the Cabildo de Gran Canaria, with a total investment of $1,308,621.63 \in (85\% \text{ of which is provided as ERDF aid, amounting to }1,112,328.39 \in$).

The IAT-BIOASIS is located within the premises of the Technological Institute of the Canary Islands (ITC), boasting a spacious area of over 7,000 m2. Specifically designed for activities in the field of Blue Biotechnology and Aquaculture, the incubator offers a range of exceptional facilities and capacities. Those include a dedicated area for conducting aquaculture farming tests, an industrial warehouse equipped for biomass processing and maintenance, fully equipped laboratories, microalgae culture chambers, and coworking spaces. It stands as a distinct infrastructure in Europe, with only a few comparable facilities worldwide. The incubator is equipped with advanced technological resources, including access to seawater collection and discharge of effluents, along with specialized services provided by local and regional research organizations.

1. HIGH LEVEL OF DISSEMINATION AMONG THE BENEFICIARIES AND THE GENERAL PUBLIC

The **dissemination elements associated with the investments** made by IAT-BIOASIS, including work signs and permanent plaques, have been meticulously designed to adhere to the visual identity standards by the advertising requirements associated with ERDF funding.





Furthermore, comprehensive promotion efforts have been undertaken, both offline and online, including **participation in trade fairs and events** focused on biotechnology, aquaculture, and the blue economy. Noteworthy events attended by IAT-BIOASIS include AQUAFUTURE SPAIN 2023, WORLD OCEAN SUMMIT 2023, Global Food Systems Summit 2023, Food4Future, among others. These initiatives aim to enhance international visibility and engagement with relevant stakeholders in the industry.

Local networking events have been organized to effectively communicate information about the support services, capabilities, and incubated projects of IAT-BIOASIS to potential beneficiaries and the wider community. These events serve as platforms for engaging with local stakeholders, providing them with valuable insights into the resources and opportunities available through the incubator.



Other dissemination actions carried out:

- Web-site (ES): https://bioasisgrancanaria.com/incubadora/
- Web-site (EN): https://bioasisgrancanaria.com/en/high-tech-incubator/
- Official brochure (available on the web-site)
- Publication of <u>"Commissioning of the IAT-BIOASIS"</u>

2. THE ACTION INCORPORATES INNOVATIVE ELEMENTS

IAT-BIOASIS offers incubation services tailored to the specific requirements of companies and entrepreneurs in the blue biotechnology and aquaculture sector. These services are designed to accommodate different phases of development, including ideation, acceleration, and growth, as well as various project types such as experimental, commercial production-oriented, post-processing, and more. This approach ensures that the incubator can provide customized support based on the unique needs and goals of each project.

The incubator benefits from the **scientific and technical support of local research entities** that possess extensive expertise in the sector. Notable organizations include the Spanish Bank of Algae (BEA), the University Institute of Sustainable Aquaculture and Marine Ecosystems (ECOAQUA), and the Technological Institute of the Canary Islands (ITC) itself. These research organizations actively promote collaboration between the public and private sectors, facilitating knowledge transfer and providing high-tech services. Their involvement strengthens the incubator's capacity to foster innovation and support the growth of businesses in the blue biotechnology and aquaculture domains.

Another innovative feature of IAT-BIOASIS is the inclusion of collaborating corporates, which serves as a model **to promote open innovation** between sector-specific companies and startups that provide services and solutions addressing specific challenges within the industry. This approach is a direct response to the demand for SMEs in the sector to establish connections with various stakeholders within the local ecosystem, facilitating collaboration on joint projects. By fostering these partnerships, IAT-BIOASIS aims to create a dynamic environment conducive to knowledge sharing, resource pooling, and collective problem-solving within the blue biotechnology and aquaculture sector.



3. ADAPTATION OF THE RESULTS OBTAINED TO THE ESTABLISHED OBJECTIVES

The IAT-BIOASIS project successfully fulfils its intended objectives concerning the support provided to incubated companies as well as companies impacted by communication initiatives. It is important to note that the target audience of the incubator consists of highly specialized entities, which require advanced technological capabilities and substantial economic investments to achieve the economies of scale essential for activity development. Despite those challenges, the project effectively delivers the necessary support and resources to enable the growth and success of the incubated companies.

Indicators achieved:

- 16 companies have received incubation services, of which 6 companies are in one of the phases of physical incubation.
- 58 companies in the sector impacted by communication actions
- More than 28,000 visits to the BIOASIS Gran Canaria website
- More than 400 companies and/or entrepreneurs have participated in actions to promote innovation, networking, access to financing and mentoring.

4. CONTRIBUTION TO THE RESOLUTION OF A PROBLEM OR WEAKNESS DETECTED IN THE TERRITORIAL SCOPE OF IMPLEMENTATION

Access to critical inputs, such as marine water, discharges, processing equipment, laboratories, and culture chambers, is a significant contribution of IAT-BIOASIS in addressing a weakness within the blue biotechnology and aquaculture sector. Overcoming this entry barrier is crucial for the development of projects by SMEs and entrepreneurs. In many cases, these inputs are essential for initiating aquaculture activities, but their acquisition typically entails substantial investments and complex administrative procedures that can take several years to complete. By providing ready access to these inputs, IAT-BIOASIS significantly alleviates the burden and accelerates the starting phase for businesses in the sector, thereby facilitating their development and growth.

The ito access essential inputs fosters the **transfer of knowledge generated by local and regional research organizations**. It represents an infrastructure that synergizes with investments made in establishing the insular research network. The incubator effectively bridges this gap by providing a conducive environment where such projects can thrive, facilitating the practical application of research findings and promoting collaboration between academia and industry. This integration of resources and expertise enables the successful development of innovative initiatives within the blue biotechnology and aquaculture sectors.

Another significant contribution of the incubator is the provision of **specialized consultancy services**. Through these services, experts assist companies by offering guidance on obtaining various sector-specific authorizations and providing an appropriate roadmap for executing aquaculture projects. This service plays a crucial role in project implementation, considering the extensive regulatory framework that governs the activity and the involvement of various entities responsible for granting licenses and sector permits. The incubator's specialized consultancy services help companies navigate these complexities, ensuring compliance with regulatory requirements and facilitating the smooth progression of aquaculture initiatives.

Lastly, the distinctive conditions offered by the incubator act as an **international talent HUB**, attracting companies and entrepreneurs who seek access to its facilities and capabilities to

expedite their productive and experimental projects. The incubator's unique resources, infrastructure, and support services create an environment that appeals to global talent in the blue biotechnology and aquaculture sectors. By providing an ecosystem conducive to innovation and collaboration, the incubator becomes an appealing destination for international stakeholders looking to leverage its resources and expertise to accelerate the development and success of their projects.



5. HIGH DEGREE OF COVERAGE OF THE POPULATION BEING ADDRESSED

The Canary Islands' location offers significant advantages for the development of aquaculture projects, leveraging the archipelago's **environmental competitiveness factors**. The region's stable temperatures, abundant sunshine hours, and high-quality marine waters are among the characteristics that make the Canary Islands an ideal location for the growth of aquaculture initiatives. Those favourable conditions enable the continuous expansion of marine cultures and result in shorter production cycles, allowing for the attainment of marketable sizes for temperate water species 3 to 6 months earlier compared to Mediterranean regions. This competitive edge enhances the economic viability and efficiency of aquaculture operations in the Canary Islands, making it an attractive and advantageous location for entrepreneurs and companies in the sector.

The positive climatic conditions of the Canary Islands, combined with the availability of tax incentives for aquaculture activities, create a favorable environment for the sector's growth. The region presents numerous **opportunities for expansion and development within the aquaculture industry**. Recognizing this potential, the Canarian Blue Economy Strategy (ECEA) has identified aquaculture as a priority sector for the economic diversification of the Canary Islands. This strategic focus on aquaculture highlights the commitment to harnessing the region's natural advantages and leveraging them to drive sustainable economic growth, job creation, and the overall development of the blue economy in the Canary Islands.

The incubator serves as a significant **platform to access local talent** that is specifically trained in the fields of marine-maritime and biotechnology. This is made possible by the extensive and diverse educational opportunities available in the region. The Canary Islands boast a range of university programs, which contribute to the generation of skilled individuals in these domains. Additionally, talent is cultivated through research projects undertaken by various research organizations. Furthermore, the Cabildo de Gran Canaria promotes training

programs that are directly linked to the blue economy, fostering the development of specialized expertise in the region. The incubator leverages these educational resources to attract and engage with local talent, nurturing a skilled workforce that can contribute to the growth and success of projects within the blue biotechnology and aquaculture sectors.

General information on the aquaculture sector in the Canary Islands (2020 data):

- In monetary terms, aquaculture in the Canary Islands represents an income of 75.5 million euros (around 0.2% of regional GDP)
- Aquaculture in the Canary Islands employs around 1,000 direct jobs
- Gran Canaria is the island with the highest authorized aquaculture production capacity, with 5,905 tons
- 85% of the aquaculture production in the Canary Islands is destined for export.





6. CONSIDERATION OF THE HORIZONTAL CRITERIA OF EQUAL OPPORTUNITIES AND NON-DISCRIMINATION, AS WELL AS SOCIAL RESPONSIBILITY AND ENVIRONMENTAL SUSTAINABILITY

Given the incubator's focus on blue biotechnology and aquaculture, one of its key objectives is **to support projects that have positive environmental impacts**. This includes initiatives that address important ecological challenges and contribute to sustainability. Examples of such projects include those focused on CO2 sequestration, which aim to capture and store carbon dioxide to mitigate climate change effects. Additionally, projects involving the bioremediation of wastewater can help treat and purify polluted water sources, ensuring their safe reuse or discharge. The utilization of biomass as fertilizer for the agricultural sector represents another environmentally beneficial project, as it promotes organic and sustainable farming practices. Lastly, projects that focus on the generation of sustainable food, such as innovative aquaculture techniques or the development of alternative protein sources, contribute to reducing the environmental footprint of the food industry. By supporting and nurturing these environmentally conscious projects, the incubator plays a vital role in fostering sustainability and promoting positive environmental outcomes within the blue biotechnology and aquaculture sectors.

Aquaculture and blue biotechnology are priority activities within the European Union, **aligned** with the objectives of the European Commission for the development of a sustainable Blue Economy and the new Strategic Guidelines for a more sustainable and competitive EU aquaculture sector from 2021 to 2030. These guidelines encompass interrelated objectives: (1) develop resilience and competitiveness, (2) participate in the ecological transition, (3) guarantee social acceptance and consumer information, and (4) increase knowledge and innovation.

Lastly, it should be noted that access to the incubator's services is totally equal and meets the criteria of equality, opportunity and non-discrimination. It should be noted that more than 65% of business projects, which are currently in one of the phases of physical incubation, are led by women.



7. SYNERGIES WITH OTHER PUBLIC INTERVENTION POLICIES OR INSTRUMENTS

The IAT-BIOASIS project is in complete alignment with the policies and strategies of local and regional entities associated with the sector. One notable example is the collaboration with the **BIOASIS Gran Canaria Platform**, an exclusive support platform for the aquaculture and biotechnology sector on the island. This platform combines expertise and cooperation with major local and regional research institutions, aiming to provide developers and investors with essential tools and up-to-date regulatory information. These resources enable them to capitalize on local competitive factors and maximize their potential in the industry.

In addition, the Canary Islands have a **regional regulatory framework for aquaculture activity**, which includes the Regional Plan for the Management of Aquaculture in the Canary Islands (PROAC), in force since August 2018. This regulation constitutes the reference tool for granting authorizations on land or concessions at sea. It determines the Zones of Aquaculture Interest (ZIA) at sea for each of the Islands and the list of species of interest for aquaculture in the Canary Islands.

Another demonstration of the dedication of public entities to sectoral development is evident in various investment projects undertaken. In the specific case of the physical incubation facilities at IAT-BIOASIS, the execution of diverse projects entails a **collective investment exceeding 15 million euros**. These initiatives focus on the essential adaptation and provision of equipment within the designated area for on-land aquaculture project incubation.

Other investment projects developed in the area:

- Experimental and comprehensive program of R+D+i activities linked to the exploitation of insular marine resources. Agreement between the Ministry of Science and Innovation and the Cabildo de Gran Canaria.
- R+D+i services for the supercritical extraction of marine biocomposites in the Technological-Industrial Development Area of blue biotechnology in Pozo Izquierdo (BIOSOST). Funded by the Canarian Agency for Research, Innovation and the Information Society (ACIISI) of the Government of the Canary Islands.
- Network of excellence in blue biotechnology of the Macaronesian region. Consolidation, certification and transfer (REBECA CCT). Interreg MAC cross-border territorial cooperation program.







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