





# WELCOME TO BLUE SYNERGY

Nowadays, it is inconceivable not to take sustainability into account in any project or enterprise, public or private. Today, more than ever, our developments and progress as a humankind must consider the three dimensions of sustainability, namely: environmental, economic and social. If we want to grow in a better world for us and the next generations, we need to take matters into our own hands. At Blue Synergy, we offer holistic solutions to support you in the way of achieving sustainable products and services. We are looking forward to hearing from you soon!

**Germán Cavero López** 

Managing Director



# ABOUT BLUE SYNERGY



Blue Synergy is an engineering & consultancy company based on Madrid, Spain. Our company offers services that allow our clients to meet their sustainability goals. Working under the three pillars of sustainability -environmental, economic, and social-, we will guide your organization through the transition to sustainable business models.





# **OUR VISION**

Assisting our clients in adopting sustainable practices, based on circular economy principles, to enhance profitability in a sustainable manner.

# AREAS OF EXPERTISE



Circular economy ()



Biobased economy



Social Responsibility (\*\*)



Fishery & Sea Biomass <



**Electronics &** Nanoelectronics



Forestry & Construction



Food industry



**Smart devices** 





Water waste



Industry 4.0 🟯



Biorefinery 🕍







# **OUR EXPERIENCE**

The Blue Synergy SL team has vast experience supporting organisations in the development and implementation of the best strategies to transition towards sustainable operations.

Our talented group of scientist and experts have contributed to address the sustainability & circularity in the following fields:

- ✓ Valorization of by-products/residues and implementation of circular economy strategies in the biorefining, agricultural, marine, aquaculture, food, feed, urban, cosmetics, electric and electronic equipment, wood and building sectors.
- Development of High-performance materials & nanomaterials for the construction, machine and equipment, optics, electronics, cosmetics, personal care, food, and chemical sectors.
- Efficient use of renewable energy sources for Industrial Processes and provision of energy management services to SMEs

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- Development of green electronics and electric insulation components
- Implementation of sustainable pretreatment processes for heterogeneous bio-waste.
- Development of advanced solutions for termochemical energy storage.
- Development of environmental bioremediation technologies.
- Recovery of critical raw materials from primary and secondary sources.
- Recycling of polymer materials



# Climate Change & Sustainability



#### **ENVIRONMENTAL IMPACT ASSESSMENTS**

Aimed at identifying and understanding the environmental impacts of innovation, to implement strategies that mitigate the negative impacts and maximize the positive ones, and to evaluate the results of this implementation.



## **ENVIRONMENTAL RISK ASSESSMENT**

Design and implementation of environmental and human risk assessment, based on the outcomes from environmental fate processes modeling (including chemicals persistence in air, water and soil; reactivity and degradation; migration in groundwater; etc.)



# INCREASE RESOURCE EFFICIENCY AND WASTE VALORISATION

Guide to increased resources efficiency, including raw materials, energy, water, trough the analysis of the value chain, detection of hotspots where there is room for improvement and innovation, design of a Zero-Waste roadmap and full support during the implementation stage.



# Climate Change & Sustainability



#### **ECO-DESIGN**

Implementation of ecodesign principles through the analysis of the product value chain; identification of hotspots where improvement is possible from a sustainability perspective; design of the product to align it with the organizational objectives; and the efficient promotion of your green products.



### **CIRCULARITY ASSESSMENTS**

Assess the circular performance of a production line through a methodology based on Material Circularity Indicators to measure the extent to which linear flow has been minimized, restorative flow maximized and how long and intensively it is used compared to a similar product.



## **CARBON AND WATER MANAGEMENT**

Calculate the carbon and water footprint of your organization, define the emission and water consumption reduction objectives and implementation strategy to achieve them.



# Climate Change & Sustainability



## PRODUCT LIFE CYCLE MANAGEMENT

A methodology that manages not only the product design, but also the materials and the quality while effectively collaborating with other stakeholders and ensuring that product plans remain confidential



## **TECHNO-ECONOMIC ASSESSMENTS**

A techno-economic assessment (TEA) evaluates the technical performance and economic viability of a technology, combining engineering and economic analyses to inform cost-effective decision-making.



## LIFE CYCLE COSTING AND PROFITABILITY ANALYSIS

Assessment the total costs and financial performance of a product over its entire lifecycle. LCC examines costs from production to disposal, while profitability analysis evaluates revenue, expenses, and profit margins to ensure long-term financial viability.



# **OUR SERVICES**Social Sciences and Communication



## **SOCIAL INNOVATION**

We ensure the process of developing and deploying effective solutions to challenging and often systemic social and environmental issues in support of social progress.



## **SOCIAL ACCEPTANCE & PERCEPTION ANALYSIS**

Assess whether or not a project enjoys the approval or support of its community and other applicable stakeholders, and to measure their perception on the matter.



## STAKEHOLDER ENGAGEMENT

Our team support private and public organizations to design effective stakeholder engagement strategies. We are able to map stakeholders and issues to engage them, define engagement objectives and plans, monitor engagement activities, and integrate and evaluate results.



## Social Sciences and Communication



## **SOCIO-ECONOMIC IMPACT ANALYSIS**

A systematic analysis used to identify and evaluate the potential socio-economic and cultural impacts of a proposed development on the lives and circumstances of people, specific groups of interest and their communities.



## **AWARENESS RAISING**

A strategy aimed at audiences using a range of different techniques and approaches. It includes newsletters, social media and events, meetings with stakeholders and target groups to encourage a general awareness on the target topic.



## **SUSTAINABILITY COMMUNICATION**

Is a tool for companies that have integrated sustainability into their strategic plan. Our experts can help your company by developing a tailored sustainable communication plan to announce your sustainable achievements to all your clients, creating value for your company. It helps companies and projects to build their reputation, create a competitive advantage, and engage stakeholders.



## Social Sciences and Communication



## SOCIAL LIFE CYCLE & SOCIAL IMPACT ASSESSMENTS

S-LCA makes use of generic and site-specific data (quantitative, semi-quantitative or qualitative) to measure categories such as health and safety; jobs creation; working conditions; well-being; human rights; governance or socio-economic repercusion.



## **CAPACITY BUILDING & TRAINING**

We can accelerate the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations, projects and communities need to adapt and thrive in a fast-changing world where sustainability is key.



### **NETWORKING AND CLUSTERING**

We plan and foster clustering and networking strategies with the objective of strengthening collaboration, promoting learning in innovation for all parties involved, and add value it delivers to its members.



# **Innovation Management**



## **NATURAL CAPITAL MANAGEMENT**

We evaluate ecosystem services quantitatively. Our services include natural capital management assessment & mapping, economic valuation of changes in natural features and identification of business opportunities associated with the natural capital approach.



## **BUSINESS CASE DEVELOPMENT**

Our team provides advice & support from the design of a sustainable business case and inputs provision, project advice through its whole life cycle, business case review, risks assessments of inaction on sustainability, technology transfer, funding and investment evaluation.



## **CORPORATE & LEGAL COMPLIANCE**

Comprises the design and implementation of environmental strategy, industrial sustainability, and environmental management systems throughout the process, including the ISO14001 certification and EPDs.



## SUSTAINABLE SUPPLY CHAIN MANAGEMENT

We evaluate supply chains efficiency, identify hot spots, implement methodologies such as risks assessment and management of products' supply chain, best practices benchmarking and roadmap.

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# **Innovation Management**



## **SUSTAINABLE INVESTMENTS**

We design and implement appropriate strategies aimed to increase both, the profitability and the positive environmental & social impacts of our clients' operations.



# i+d+I PROJECTS FOR SUSTAINABLE DEVELOPMENT

Our team design, evaluate and provide support at writing proposal stage and during the implementation of projects for sustainable development.

# OUR PROJECTS &

# **W** New **Wave**

Building sustainable & circular economy through innovative, biobased manufacturing lines.



Bioremediation systems exploiting synergies for improved removal of mixed pollutants.



Heterogeneous material and technological platform for a new domain of power nanoelectronics.



An inclusive, aesthetically beautiful, and sustainable transformation of contextually heterogeneous city landscapes in Europe.



Nanomaterials Enabling Smart Energy Harvesting for Next-Generation Internet-of-Things.



Biobased compounds engineered from marine and extremophilic microorganisms.



A computationally-assisted methodology for the design and implementation of a biorefinery to valorise waste and by-products from the fishing industry.



# **CONTACT US**

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