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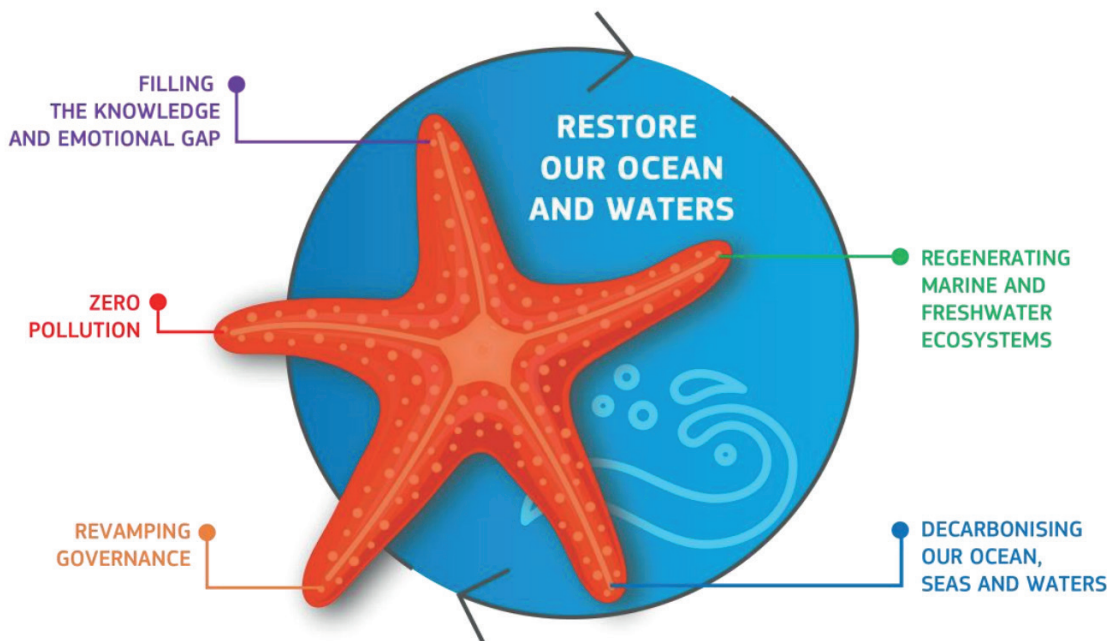
National Institute  
of Oceanography  
and Applied  
Geophysics

**Supplement N. 3**  
**September 2021**  
Vol. 62

# Bulletin of Geophysics and Oceanography

An International Journal of Earth Sciences

Formerly Bollettino di Geofisica Teorica ed Applicata



# Bulletin of Geophysics and Oceanography

An International Journal of Earth Sciences

## Scope of the journal

The "Bulletin of Geophysics and Oceanography" is an international journal dedicated to the publication of original papers dealing with Deep Earth Geophysics, Near Surface Geophysics, Exploration Geophysics, Borehole Geophysics, Geodynamics and Seismotectonics, Seismology, Engineering Seismology, Geophysical Modelling, Geodesy, Remote Sensing, Seismic and Geodetic Networks, Oceanography, and their application in the fields of Energy, Natural Resources, Environment and Climate, Policies and Regulations, Risk and Security, Technological Development.

Issues of about 80 pages are published quarterly. Papers dealing with Solid Earth and Oceanography are grouped into two parts, A and B, respectively. The journal is published by OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale), Trieste, Italy.

The "Bulletin of Geophysics and Oceanography" is indexed in: Science Citation Index Expanded (also known as SciSearch®), SCOPUS, Current Contents® /Physical Chemical and Earth Sciences, Journal Citation Reports/Science Edition, Cabell's International.

The "Bulletin of Geophysics and Oceanography" is included in the product of EBSCO Publishing Inc.

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	Italy	Other countries
Annual subscription rate	€ 65	€ 130
Back volumes	€ 75	€ 150
Separate issue	€ 22	€ 45
Back issue	€ 25	€ 50

All prices include post and packaging. For private persons (excluding institutes, laboratories, libraries, etc.) subscribing directly, the subscription rates are reduced by 20%.

Claims for missing numbers will be honoured only if received within 100 days of normal delivery date.

Subscription orders, changes in address and other business correspondence should be sent to the following address:

### Bulletin of Geophysics and Oceanography

c/o Istituto Nazionale di Oceanografia  
e di Geofisica Sperimentale  
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34010 Sgonico, Trieste, Italy  
e-mail: [bgta@ogs.trieste.it](mailto:bgta@ogs.trieste.it)  
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Credit for front cover image:

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Publication B.A.M. exempt

Article 4 - 1° comma n. 6 - D.P.R. n. 627 of 6/10/87

**Vol. 62 – SUPPLEMENT N.3**

**September 2021**

# **Bulletin of Geophysics and Oceanography**

## **The Starfish Mission: an Italian perspective**

Editors: Maria Cristina Pedicchio, Angelo Camerlenghi, Cosimo Solidoro

*Responsibility for all statements made in BGO lies with the authors.*

Typesetting and printing: Mosetti, Trieste

Authorised by the Tribunale di Trieste, n. 242, September 17, 1960;  
electronic 1867/2021 V.G.

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## The PRIMA Initiative: together for more sustainable agrifood systems

Angelo Riccaboni and Giovanni Stanghellini



Angelo Riccaboni is Chairman of PRIMA Foundation, created by 29 Countries and the EC to fund agrifood innovation, located in Barcelona. He chairs the Santa Chiara Lab, an innovation center at the University of Siena. Former Rector of the University of Siena from (2010-2016), he is a member of the Leadership Council of the United Nations' Sustainable Development Solutions Network, Chair of the Regional Centre of the SDSN for the Mediterranean, Co-Chair of the SDSN Europe. Full Professor in Business Administration at the University of Siena, his main research interests relate to businesses' governance and management systems for sustainability and to innovation in agrifood systems. He was Chair of the Association of Italian Rectors Foundation. He is also a Member of the EC sub-group on Mission Area Soil Health and Food of the 'shadow' strategic configuration of the Horizon Europe Programme Committee.



Giovanni Stanghellini (Phd EU Law; LLM in International Human Rights Law) – Project Manager at the Italian PRIMA Secretariat, responsible for Institutional Relations, regularly interacts with relevant units of the European Commission, major institutions (e.g. FAO, UNEP) and EU initiatives (e.g. PRIMA Foundation, EIT Food) related to the food sector. He also acts as focal point for public entities (e.g. Italian Ministries), as well as for local stakeholders on sustainable development. He is currently focusing on the PRIMA Initiative, Horizon Europe and the EU Regulatory Framework, after the adoption of the Green Deal.

### 1. The need for Synergies and Complementarities in the Euro-Mediterranean Context

The challenges that the Mediterranean is facing are multiple and all very crucial: loss of biodiversity, soil degradation, climate change adaptation and mitigation, water scarcity, food loss and food waste, food safety and quality, unsustainable farming practices. These challenges are coupled with social challenges related to higher youth unemployment, limited integration within the region, increasing disparities and unequal distribution of resources and opportunities, imbalances in the demographic trends and overexposure to intense migration flows.

In addition, the current pandemic situation has exacerbated the situation, especially in the initial phase. In fact, the agrifood ecosystem was among the most affected sectors due to the closure of international borders, national lockdowns and the enforced

restrictions on mobility and flow. Farmers were not able to reach their own farms and their ordinary willingness to purchase products and services was seriously affected. The farming industry in general had to deal with a huge set of problems from uncertainty in supply and demand to labour shortages to family needs and personal health.

The relevance of these issues and the need for effective solutions is at the centre of the European Green Deal and its new sustainable strategy. In particular, the Farm to Fork and the Biodiversity Strategies, together with the Action Plan on Circular Economy constitute the key framework documents that will help the implementation of the green transition in sectors related to the use of natural resources, the food industry, agriculture and blue economy. In these areas, the role and impact of the Common Agriculture Policy will also be essential to ensure that territories, communities and SMEs can offer their positive contribution in terms of sustainability, while maintaining livelihood and productivity.

With the overarching objective of carbon neutrality by 2050, the EU has shown its ambition in aligning its growth strategy with the environmental targets and priorities. The new framework programme Horizon Europe will also support and boost further such new priority. It is now evident that economic growth, social inclusiveness and environmental protection can no longer be pursued separately. Interestingly, the European Union also has the ambition to play a more prominent role at the global level and it has reiterated such ambition by framing the European Green Deal also as an external policy, able to orient the relations with the other international partners. In that perspective, the EU Green Deal and the related Strategies are of key relevance also for the Mediterranean area and beyond.

With this in mind, it is not surprising that in the Joint Communication recently issued by the European Commission for a New Mediterranean Agenda the issues of sustainable food systems and water management are prioritized. Similarly, in the EU-Africa Research and Innovation Agenda, it is underscored how knowledge and innovation should tackle the challenges related to the sustainable use of natural resources and climate change related issues. This is even more critical for the Mediterranean, which is recognisably a hot-spot for climate change.

Furthermore, the EU has also adopted a mission-oriented approach, which has the merit of fostering impactful research, valorizing co-creation through the experience of living labs, promoting stakeholder and community engagement, fostering lighthouses as demonstration places where research and innovation can be tested and become tangible.

## **2. Main features and achievements**

To tackle the above-mentioned challenges in agrifood systems, research and innovation are crucial. Given the size of the problems, Euro-Mediterranean Countries need to pool their resources, laboratories, ideas and experiences.

PRIMA (*Partnership for Research and Innovation in the Mediterranean Area*) was created to promote such a joint answer. It is a Euro-Mediterranean Initiative, jointly funded by the European Commission and 19 Euro-Mediterranean States (Algeria, Morocco, Tunisia, Egypt, Jordan, Israel, Lebanon, Turkey, Croatia, Cyprus, Greece, Malta, Italy, Spain, France, Germany, Portugal, Luxembourg and Slovenia). It operates in the Euro-Mediterranean area by funding research and innovation projects over a period of 7 years, focussing on the efficient management of water resources, sustainable farming systems and agro-food value chain, with a total budget of 500 million euro.



Established under art. 185 of the Treaty on the Functioning of the European Union after five years of negotiations, PRIMA has been described as the most important research and innovation Initiative for Science Diplomacy in the Mediterranean region and it constitutes the first experience of public-to-public partnership. The institutionalized level of the cooperation is based upon the principle of equal footing and it has required a high degree of co-management, co-organization and co-decisions among the 19 Countries involved.

Irrespective of the different financial commitment expressed by each Country, these important principles have characterized the establishment of the PRIMA Foundation, the *ad-hoc* legal entity created in Barcelona for the management of the calls and the monitoring of the funded projects, and any activities of the Programme. The launch of the Programme was also possible thanks to the signing of several International Agreements between the European Commission and several Third Countries.

Now entering its fourth year of activity, since the start PRIMA has funded 129 projects involving more than 1100 research units, for a total of approximately 165 million euro. More specifically, PRIMA has funded projects on issues such as aquaponics, precision agriculture, conservation of local plants' and animals' genetic resources, animal welfare, value creation along the food chain on a variety of products and species, adaptive and resilient agriculture. Moreover, projects have tested solutions to address food loss and waste, the competitiveness of traditional Mediterranean products, traceability of Mediterranean productions, land degradation, integrated solutions for sustainable irrigation and water management. The funded projects are proposing and testing solutions that need to be *brought to the market* and implemented to ensure that they can have a concrete impact on the lives of consumers, smallholders, communities, the Countries and the environment.

Each proposal was presented by a partnership composed of at least one research unit from both the Northern and Southern Med Countries, thus confirming PRIMA's role in terms of Scientific Diplomacy. Within the Partnership, Italy has since the start played a key role in promoting, supporting and valorizing PRIMA and its potentials. Italy has also performed very well in terms of research and innovation funded projects, with 97 projects and more than 38 million euro allocated to Italian researchers, who are coordinating around 33% of the entire projects.

Among the five Missions identified at EU level, both the Mission on Soil Health and Food and the Mission on Ocean and Water have direct complementarities and synergies with PRIMA priorities and projects.

In order to explore these synergies, PRIMA is oriented to further promote joint calls with Mission Soil Health and Food, in order to transfer the Mission model as much as possible into the Mediterranean area. In this area, in fact, soil degradation is of utmost importance, the potential beneficiaries are multiple, from local farmers to cities, and the experience of co-creation still very limited.

### 3. Final Remarks

In line with the regional Agenda under discussion in the context of the Union for the Mediterranean as well as at EU level, PRIMA is willing to serve as a platform and infrastructure for the effective application of the innovative solutions needed to meet the global challenge of an effective implementation of Agenda 2030 and de-carbonization. It

is contributing to the consultation just launched by UfM for the definition of its Research and Innovation Agenda, and it will carefully listen to the outcomes of such consultation. The partnership with UfM is considered by PRIMA as a strategic one, given the relevant political and institutional role of that organization in the Mediterranean area.

The global Food System Summit promoted by the UN Secretary General this year and several key Conferences of the Parties on Climate Changes reveal that, besides and beyond the dramatic pandemic of COVID-19, other pressing needs require our joint efforts. In a context where the President of the European Council C. Michel is calling upon the international community for a global treaty regulating the response to other possible pandemics, it is clear that, as well represented by SDG 17, the challenges we are facing require a partnering approach. Public and private, local and international stakeholders, as well as institutions and civil society shall come together for this common goal. In that sense, the role and experience of PRIMA, which has been able to establish fruitful synergies with a variety of stakeholders (SDSN, Anna Lindh Foundation, Parliamentary Assembly for Mediterranean) national and International Institutions (FAO, WFO, European Commission, Union for the Mediterranean, UNEP, UNIDO) and Initiatives (EIT Food, JPI Water, CBC Med), turns out to be of great relevance.

In the Euro-Mediterranean region, there is an incredible need of a major transformation of food and water management systems. However, a successful transformation needs to be underpinned by innovation systems. It is critical that research efforts are targeted towards end user needs and are underpinned by robust partnerships to ensure adoption and societal outcomes at scale. Even more crucial is to foster an ecosystem where the adoption of innovation is possible and accessible to SMEs, companies, farmers, communities and end-users. By exploiting the results of research and innovation projects funded, in order for them to have a tangible impact, PRIMA is a good experience to look at. By doing that, PRIMA and similar experiences could truly contribute to the resilience and recovery of the Mediterranean region.

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ISSN XXXX