



Deliverable D2.4 - *Replicable business and finance models for MPA management and network design*

WP2 – *Science-based tools for socio-economic and governance solutions*

Version 0.0.2 | April 2026

(Grant Agreement 101094014)

HORIZON-MISS-2021-OCEAN-02-01- Blueprint demonstration for co-created effective, efficient and resilient networks of MPAs



Document History

Deliverable Title	Replicable business and finance models for MPA management and network design
Brief Description	
WP number	WP2
Lead Beneficiary	SUB
Deliverable Due Date	31/12/2025
Actual Delivery Date	15/12/2025
Nature of the Deliverable	R – Report
Dissemination Level	PU - Public
Approved by	
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Deliverable number	D2.4
KeyWords	Financial models, financial mechanisms, financial tools, business plans, funding, Marine Protected Areas, Other Effective Area-Based Conservation Measures

Please cite this deliverable as:

Drews-von Ruckteschell, F., Mata-Lara, M., Lai, T.-Y., Storsjö, I., Trabulo, R., Van Gerven, A., Congiu, M., Frau, F., Ala-Harja, V., Dodd, L. Approved by Carballo Cardenas, E. (2025). *Replicable business and finance models for MPA management and network design*. Deliverable – D2.4 under the WP2 of the Blue4all project (GA n° 101094014).

Date	Ver.	Contributors	Comment
18.11.2025	0.0.1	Drews-von Ruckteschell, F., Mata-Lara, M., Lai, T.-Y., Storsjö, I., Trabulo, R., Van Gerven, A., Congiu, M., Frau, F., Ala-Harja, V., Dodd, L.	First full draft – submitted to Blue4all contact points, project coordinators and internal reviewers.
12.12.2025	0.0.2	Drews-von Ruckteschell, F., Mata-Lara, M., Lai, T.-Y., Storsjö, I., Trabulo, R., Van Gerven, A., Congiu, M., Frau, F., Ala-Harja, V., Dodd, L.	Final draft – submitted to coordinator for upload to the portal.
23.04.2026	0.03	Drews-von Ruckteschell, F., Mata-Lara, M., Lai, T.-Y., Storsjö, I., Trabulo, R., Van Gerven, A., Congiu, M., Frau, F., Ala-Harja, V., Dodd, L.	Revised version submitted to the coordinator for portal upload, with added hyperlinks to financing mechanisms, improved discussion of tool usability (mainly Chapter 10.5), and additional results from Isola delle Femmine



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1. Executive Summary

This deliverable presents the results of a two-year process to strengthen the financial sustainability of Marine Protected Areas (MPAs) through the co-development and testing of financial planning support tools. The work responds to a well-recognised challenge: although MPAs are expanding in number and ambition, many continue to operate with limited and uncertain funding, and often without the mandate or capacity to plan strategically for long-term financial needs.

The Blue4all project adopted a Living Lab approach to address this gap, working directly with MPA managers and practitioners in five sites across three countries. Through iterative engagement, the project designed a set of complementary financial planning tools, built on existing initiatives and tools.

Testing showed that the tools were effective in helping MPAs identify financial needs, clarify funding gaps and assess potential financing options. In two Italian Living Labs, the tools were fully tested and validated, demonstrating their practical value in supporting structured financial planning. Other cases, including those where full testing was not possible, provided important insights into how governance arrangements, institutional mandates and administrative structures shape what MPAs can realistically do in terms of financial strategy and implementation.

Across all sites, the process underscored the importance of flexibility, language accessibility, capacity support and staged engagement. It also showed that the mere exercise of exploring financial planning tools can play a valuable role even when immediate implementation is not possible, by building awareness, readiness and strategic clarity among the MPA stakeholders involved.

The results demonstrate that improving financial sustainability is not only a technical question of identifying mechanisms, but a governance challenge involving mandates, authority, and administrative design. The work concludes with key insights drawn for policymakers and recommendations tailored to MPA managers and researchers, emphasising realistic pathways for strengthening financial planning capacity, adapting tools to governance contexts, and enabling incremental progress toward more resilient and adequately funded MPAs in Europe.

2. Glossary

Business Model is the foundational framework that explains how an organisation creates, delivers, and captures value. It reflects the organisation's core identity, purpose, and strategic approach to generating and sustaining economic returns. In the context of MPA financing, a business model describes how a Marine Protected Area creates, delivers, and sustains ecological, social, and economic value in line with its conservation mandate. It defines the MPA's purpose, its conservation goals, and the mechanisms or strategies through which it secures and allocates resources to achieve long-term management effectiveness. In this work, the intention is not to treat conservation as a commercial activity, but to adapt relevant strategic principles from the business and finance domain in order to help MPAs identify, combine, and manage funding sources more effectively.

Financial Sustainability refers to the capacity of a protected area to secure sufficient, predictable and long-term funding, and to allocate those financial resources in an efficient and timely manner. This enables the protected area to cover the full range of costs required for its effective management and the achievement of its conservation objectives over time.

Financing Mechanisms - Structured methods through which financial resources are generated, mobilised, and delivered to support the management and operation of Marine Protected Areas. These include mechanisms such as grants from non-governmental organisations (NGOs) or governments, philanthropic donations, user fees, and other revenue-generating approaches.

Financing and Business Tools - Practical resources such as guidebooks, templates, software (e.g. Excel-based models), and methodologies that assist MPA managers and stakeholders in developing financial strategies, assessing funding needs, implementing financing mechanisms, and improving long-term financial sustainability and planning.

Information Sites are sites that offer a representative view to the Blue4all project on the challenges faced and tools implemented in the diverse landscape of MPAs and networks of MPAs in Europe and beyond. They were mainly engaged in the Baseline Assessment process.

Living Labs are MPAs and MPA networks that the Blue4all project has involved in a co-creation process with the end goal of producing solutions for effective, efficient and resilient MPAs.

Marine Protected Areas (MPAs) are clearly defined areas, designated and managed, through legal or other effective means, to achieve the long-term conservation of nature in marine environments. The essential criterion for MPAs, or protected areas in general, is that nature conservation is the primary objective.

MPA Representatives/Contact Points, within the Blue4all, are MPA managers or main contacts from the MPA participating in project activities.



MPA Networks are collections of single MPAs working in synergy to fulfil conservation aims more efficiently.

Tool Testing and Validation - Within the Blue4all project, tool testing and validation are understood as two closely linked steps of a single iterative process. Tool testing aims to assess whether a tool meets its intended objectives, with particular attention to usability, clarity, and relevance to the practical contexts in which it is expected to be applied. Tool validation focuses on assessing whether the results produced through the use of the tool are meaningful, coherent, and suitable to support decision-making in line with those objectives. In Task 2.4, **tool testing** consisted of exploratory use of the tools in collaboration with Living Labs, focusing on their structure, logic, data requirements, and contextual fit. This phase emphasised usability, flexibility, and context specificity, and provided the basis for refining the Guidelines and for the co-development of the Blue4all MPA Finance Planner. **Tool validation** in Task 2.4 involved the application of the refined tools using real-life data from participating MPAs, by completing the tools in relation to actual budgets, costs, funding sources, and financial gaps. Validation therefore assessed whether the tools could be applied in practice and whether the outputs generated were fit for purpose within the institutional and administrative constraints of each Living Lab.

3. Introduction: Financial Challenges Facing Marine Protected Areas in Europe

Ocean conservation in Europe, as in the rest of the world, faces significant challenges, particularly in terms of staffing capacity and securing adequate funding for the management and enforcement of Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) (Gill et al., 2017).

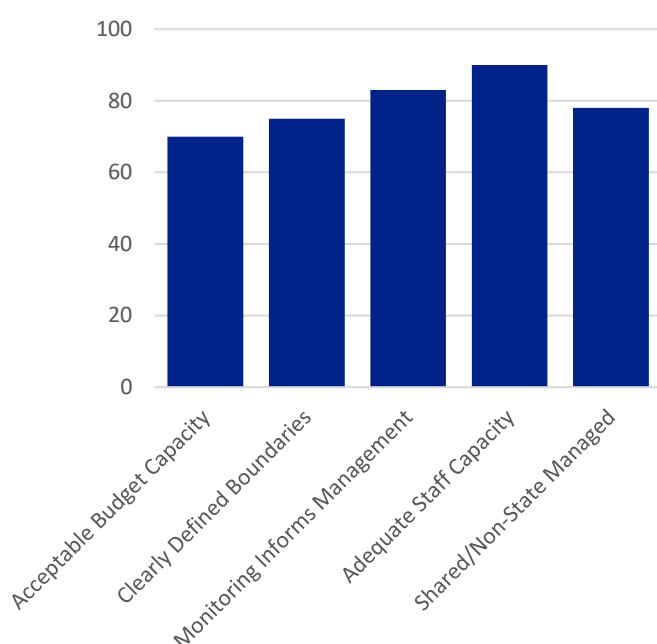


Figure 1. Proportion of MPAs that fall below threshold values for indicators of effective and equitable management processes. Only the five indicators with the highest percentage of MPAs falling to meet the threshold are shown. Adapted from Gil et.al. (2017).

Despite the recognized importance of MPAs in preserving marine biodiversity and ensuring the sustainability of ocean resources, financial support remains insufficient and inconsistent across the continent (Figure 1) (Gill et.al., 2017). Effective conservation requires substantial investment in activities such as habitat restoration, biodiversity monitoring, and enforcement against illegal activities. Addressing these financial needs is crucial to achieving the conservation targets set by European nations and international agreements (Di Cintio et al., 2023).

The management and enforcement of MPAs require continuous and reliable funding to ensure that conservation objectives are met. This includes costs related to staffing, infrastructure, monitoring programs, and

enforcement measures to prevent illegal activities such as overfishing and pollution. Without adequate funding, MPAs are not properly equipped to succeed in their marine conservation efforts, and their contribution to a healthy ocean (Bohorquez et al., 2023). Therefore, innovative and sustainable financial mechanisms are essential to support the long-term success of these protected areas.

In addition to financial sufficiency, the social justice dimension of MPA management, and therefore also MPA financing, has become increasingly recognised as a determinant of long-term effectiveness. Equity in who participates, who pays, and who benefits shapes legitimacy, compliance, and long-term viability of financing solutions (Gustavsson et al., 2014). Evidence from marine conservation research shows that recognising rights and knowledge (recognitional equity), ensuring fair, inclusive and transparent decision-making (procedural equity), sharing costs and benefits equitably (distributive equity), recognising the historical, legal, and socioeconomic conditions that determine who is structurally positioned to gain or lose from a given policy or

financing mechanism (contextual equity) as well as inclusion of local communities in management activities (management equity), and ensuring that conservation actions benefit people and nature (environmental equity) increase community support and durability of conservation measures (Bennett et al., 2021). Reviews further indicate that when financing mechanisms (e.g., tourism fees, blue-economy revenues, network-level instruments) include clear benefit-sharing arrangements and safeguards, for example, for small-scale fishers and coastal communities, ecological and social outcomes improve and conflict declines (Kegamba et al., 2022). In short, financing that is sufficient and reliable must also be fair by design.

This deliverable D2.4 *Replicable business and finance models for MPA management and network design* documents two complementary financial planning tools for MPAs and OECMs, developed under Task 2.4 (T2.4) of the Blue4all project: (1) the [Guidelines for applying a business approach to the financial management of Marine Protected Areas](#) and (2) the [Blue4all MPA Finance Planner](#), an Excel-based financial gap analysis and financial plan development tool. The deliverable synthesises the research, design considerations, and methodological choices that informed the creation of these tools, drawing on a review of existing MPA financing practices in Europe and internationally, as well as an assessment of institutional, governance and capacity realities observed in the Blue4all Living Labs.

The objective of the work reported in this deliverable is not to treat conservation as a commercial activity, but to translate useful strategic principles from the business and finance domain into conservation planning so that MPAs can identify, combine and manage funding sources more effectively. The two tools are intended to be replicable across different governance systems and various maturity levels of MPAs.

This deliverable further documents the testing and refinement of the tools with selected Living Labs (LLs), with the aim of identifying enabling conditions, barriers to uptake, and practical lessons for future application. These insights are complemented by a broader reflection on structural challenges in European MPA financing systems, highlighting the importance of embedding financial planning within governance arrangements and social justice considerations. In this way, D2.4 contributes both a technical solution (the tools) and a strategic framing of what is required for financial sustainability in MPAs and OECMs.

4. Incorporating Business Principles into Conservation Planning

MPAs depend on stable and predictable financial resources to maintain effective management over time, yet many operate within highly fragmented or uncertain funding structures (Bohorquez et al., 2023). Traditional conservation finance approaches have tended to rely on short-term, project-based funding or public allocations that do not necessarily align with long-term management needs. As pressures on marine ecosystems intensify, the capacity of MPAs to plan strategically for financial sustainability becomes as important as ecologically-sound planning.

In this context, selectively incorporating business principles into conservation practice provides a structured way to identify funding needs, design funding strategies, and align financial decisions



with management priorities. The purpose is not to commercialise protected areas or treat nature as a commodity, but to adopt a more systematic and forward-looking approach to financial planning, similar to what enables resilience and continuity in other sectors. Business approaches offer tools for clarifying the value that an MPA creates, identifying who benefits from this value, and determining how financing mechanisms can be combined to support long-term stewardship.

This section builds on two key foundations developed by Blue4all:

- (1) The [“Guidelines for applying a business approach to the financial management of Marine Protected Areas”](#), which provides a step-by-step method to integrate the business thinking into MPA management, having detailed templates to help the MPA manager apply this framework easily, as well as a compendium of financial mechanisms and a detailed explanation of Blue4all’s financial tool.
- (2) Deliverable **1.4 – Integrated Solutions Framework** which provides a structured lens through which to approach MPA development by identifying key phases (Planning, Implementation, Management, Reviewing), thematic dimensions (Environmental, Social, Economic, Governance), and twelve core components of MPA effectiveness (e.g. Policy and legal framework, Sustainable financing, Economic valuation, assessment, monitoring, etc). This framework serves as the conceptual foundation for the upcoming **MPA Solutions Hub**, a user-friendly database designed to help MPA managers and stakeholders identify relevant tools and approaches based on specific challenges and contexts. While not focused exclusively on financial mechanisms, the Integrated Solutions Framework enables clearer integration of business-oriented tools by linking them to appropriate stages and dimensions of MPA planning and management.

The following subsection explores the general difference between a business model and a business plan and how both can be applied effectively in the context of MPA management. For a more detailed description please refer to the [“Guidelines for applying a business approach to the financial management of Marine Protected Areas”](#), which is a step-by-step guide designed for self-guided reflection and a structured approach to support strategic financial thinking by MPA managers and planners. For those MPAs not having in place a management plan, the “business model template” will help understand most elements needed for the MPA to function. Once this is understood, the compendium of financial mechanisms and the financial tools provided will help fill in the “business plan template” that will act as an action plan to secure funding for the MPA.

4.1 Reframing business thinking for MPAs – Models and Plans explained

To adapt business thinking to the context of ocean conservation, it is first necessary to clarify the difference between a business model and a business plan, and to outline the key components of each. The following section introduces these concepts and explains how they are translated and applied within the management of MPAs (Table 1).

Table 1 - Business Models and Business Plans in the Business and MPA Context

Business Model	Business Plan
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In the business world (Schlopsna, 2023):

It's the foundation upon which a company is built, a reflection of its core identity. It provides an overview of how a company creates, delivers, and captures value.

It's the roadmap, detailing the steps a business needs to take to achieve its goals. It delves into the detailed strategies, operations, and financial projections for ensuring its success.

Adapted for the MPA Context (Binet et al., 2015; Landreau et al., 2012):

It is the foundational framework that outlines how the MPA creates, delivers, and sustains ecological, social, and economic value. It defines the purpose of the MPA, its conservation goals, and the strategies for achieving them.

The strategic roadmap that outlines specific actions, strategies, and financial projections* needed to realize the goals set out in the business model. It delves into the operational aspects of managing the MPA, including resource management plans, enforcement strategies, stakeholder engagement frameworks, and monitoring protocols.

* Financial projections include budgetary requirements, funding sources (such as government allocations, grants, or private donations), and financial sustainability measures (like entrance fees or partnerships with local businesses).

4.1.1 Business Model Components

A business model is a structure that a company uses to generate profits and build value. It outlines how business leaders operate a company and deliver products and services to customers. The firm's model is its positioning within the value chain of its industry and the organisational structure of its relationships with partners, clients and suppliers (Indeed Editorial Team, 2025). When adapting the business model components to MPAs, the goal shifts from profit generation to sustaining ecological and social value, as well as ensuring the long-term viability of the protected area. Table 2 shows a summarised version of how each component might look for MPAs vs the business world.

Table 2 - Components of a Business Model in the Business and MPA Context

Business World (Schlopsna, 2023)	MPA world (cf. Sala et al. 2013, Becker and Chores, 2006)
Basic Concept	
A brief summary of the company's basic purpose/mission (<i>average consumer, the product or service, the benefit the product or service, the method of delivery</i>).	The core mission of the area —e.g. <i>conservation</i> (primary goal—e.g. <i>protect biodiversity</i> ; beneficiaries—e.g. <i>research and tourism</i> ; main services—e.g. <i>eco-tourism, fisheries management, etc.</i>).
Value Chain Position	
The company's role in the supply chain or the process that gets products and services to the consumer.	The MPA's role in conservation and resource management. It includes partnerships, regulation of activities, and promotion of sustainable practices.
Benefits provided	

An estimate of the tangible benefits that the product or service can offer customers.	The ecological and social benefits both tangible (e.g. preserved fish stocks, sustainable livelihoods, etc) and intangible (ecosystem resilience, recreational value, etc).
Cost drivers and revenue sources	
The identification of the activities that cost money vs. those who generate revenue.	Cost drivers: Enforcement of regulations, maintenance of infrastructure, staff salaries, etc. Revenue sources: Government funding, international grants, entrance or user fees, etc.
Competitive advantage	
How the company distinguishes itself from competitors.	The uniqueness of the MPA in terms of biodiversity (key ecological features that make it a crucial area for conservation), stakeholder engagement (e.g. co-design) and tourism appeal (e.g. diving experiences).

4.1.2 Business Plan Components

A business plan is a document that outlines a company's reasoning for being in business, strategy for earning revenue and predictions of financial performance for the foreseeable future. Business plans are often used as a way to give investors, lenders, shareholders and other interested parties an overview of a company (Indeed Editorial Team, 2025). Adapting business plan components to MPAs involves focusing on conservation goals, sustainable use, and stakeholder involvement rather than profit-driven motives. Table 3 shows how the components of a business plan would look for the business world vs MPAs.

Table 3 - Components of a Business Plan in the Business and MPA Context

Business World (Schlopsna, 2023)	MPA world (CFA, n.d.; Landreau et al., 2012; Becker and Choresch, 2006)
Executive summary	
The brief description of the specialty of a company and the plan for achieving its success.	A brief overview of the MPA's purpose, ecological importance, and the plan for achieving long-term conservation success and sustainable resource management. Key points could include the MPA's mission, challenges, funding needs, and strategies for stakeholder engagement and community benefit.
Mission statement	
One or two sentences that detail a company's overarching philosophy.	A concise statement detailing the overarching philosophy and conservation goals of the MPA. For example: " <i>To conserve and protect marine biodiversity while promoting sustainable livelihoods for local communities.</i> "
Basic information	



The outlining of the company's name, industry, location and starting date.	Details of the MPA (e.g. name, location, date of establishment, legal framework)
Owner's credentials	
Because business plans are often for securing funding from lenders or investors, they often include the work experience, credentials and even resumes of the owners.	Management credentials (MPA manager's experience, governing body, partnerships).
Products and services	
Descriptions of the services and products that the company offers.	Conservation and Ecosystem Services (MPA's conservation priorities, the specific habitats or species it protects, and the ecosystem services it provides)
Marketing plan	
The strategy for effectively marketing the company	The strategy for effectively engaging different target groups (e.g. community outreach programs, eco-tourism promotion, educational campaigns, etc).
Financial information	
If company leaders are seeking funding, they have to include relevant financial information in their business plans, such as bank statements, the amount of funding they seek, the reasoning for needing funding and the repayment plan.	The financial sustainability and funding needs (e.g. current funding sources, justification of funding needs, planned use of funds, financial sustainability plan).

Figure 1 shows the different components and uses of the business plan and business model applied to MPAs.

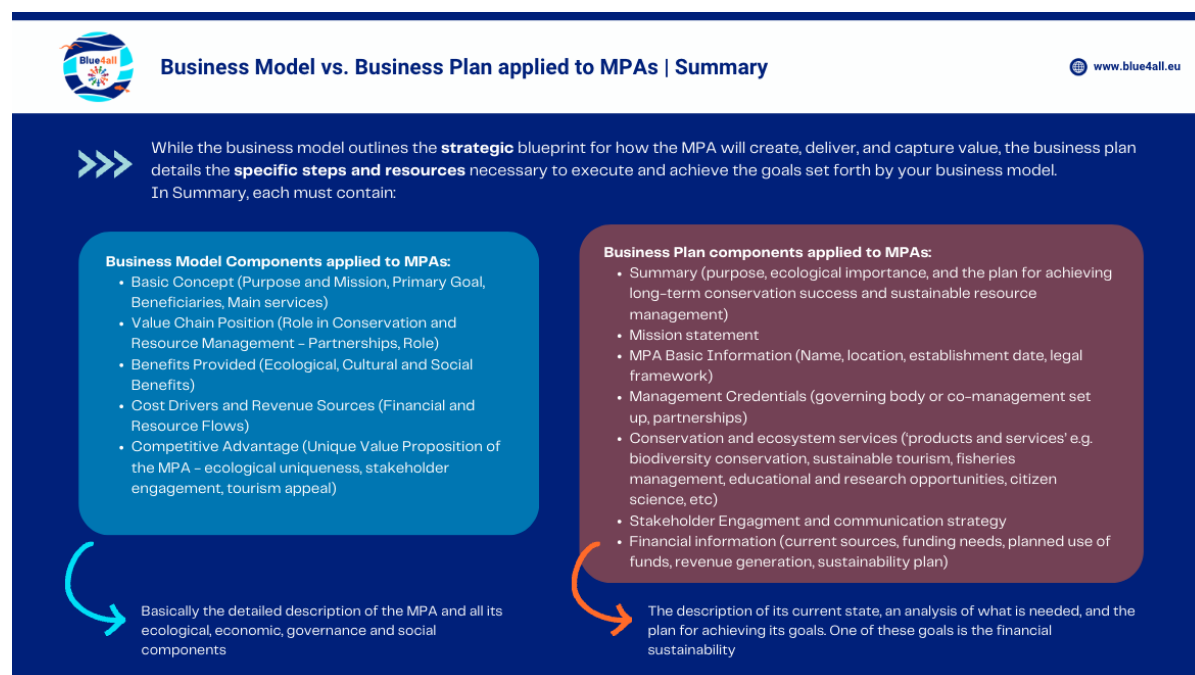


Figure 1 - Concept of Business Model and Business Plan applied to the MPA Context - A Summary

5. Financial Mechanisms for Sustainable MPA Management

Financial mechanisms describe both the origin of funds as well as the ways in which these funds are mobilised and transferred to support conservation. As defined by Bohorquez et al. (2022), a financial mechanism combines the origin of financing with the instruments and processes that make it accessible and functional for MPAs. The application of such mechanisms is essential to reduce financial vulnerability, diversify revenue streams, and ensure that MPAs can maintain effective management over time.

Eleven overarching categories of financial mechanisms were identified by the T2.4 team, each encompassing a variety of instruments that are emerging or have been applied globally and, increasingly, within Europe. The categorization is based on a combination of existing categorizations found in the literature (i.e. Bohorquez et al. 2021) as well as expert discussions from the Blue4all team. The categories include **donations and philanthropy** (such as philanthropic grants or crowdfunding campaigns), **public and government support** (e.g., annual budget allocations, environmental levies), and **market-based mechanisms** (such as payments for ecosystem services, blue carbon credits, and blue bonds). Other categories include **corporate partnerships and sponsorships**, **tourism- and recreation-linked revenue**, **conservation trust funds**, **risk financing and insurance schemes**, **licensing and sustainable use arrangements**, **community- and social-based contributions**, and more recent approaches linked to **research, education, and innovation**.

Most of these mechanisms have already been successfully applied in MPA or conservation financing (see Guidelines for applying a business approach to the financial management of Marine Protected Areas). For instance, philanthropic foundations such as the Prince Albert II of Monaco Foundation have supported the management of Mediterranean MPAs through setting up a Conservation Trust Fund. The fund both generates new funds through donations and investment strategies as well as functions as a funding source itself, providing grants to MPAs. Crowdfunding campaigns, like the Marine Conservation Society's "Blue Recovery" initiative in the United Kingdom, have mobilised contributions from the public for cleaner seas and healthier habitats. Some funding mechanisms, however, have so far only been applied to terrestrial protected areas or are still at a pilot stage. At a market-based level, the interest for **blue carbon credits** is rising to potentially enable MPAs to link habitat protection directly to climate mitigation, ensuring that MPAs can leverage their natural attributes and tapping into the broader concept of carbon financing (Friess et al. 2022). Many financing mechanisms, including market-based approaches, also entail limitations and potential risks. These are further elaborated in Table 4 for each financing mechanism and should be carefully considered when selecting appropriate financing options for a given MPA.

In addition to traditional revenue streams, there is growing international attention to **blue finance**, a broader umbrella term for *investment-based* financial flows dedicated to sustainable ocean protection or restoration (D2.1, Blue4all – Varjopuro et al. 2023). Unlike traditional conservation funding models such as grants, public allocations, or tourism-based revenues, blue finance instruments (e.g., *blue bonds*, *blue loans*, *blended finance vehicles*, and *sustainability-linked debt*

instruments) are typically structured as investments and therefore aim to generate measurable environmental outcomes alongside financial returns. These mechanisms can provide a significant opportunity for MPAs and MPA networks to access larger and more stable capital flows, particularly when conservation actions can be linked to quantifiable ecosystem services with economic value.

Under T2.4, a literature review was conducted to identify the full range of financing mechanisms relevant for MPA financing. The results are presented in the table below (Table 4), which summarises the different categories, their instruments, descriptions, examples of their real-world application as well as main pros and cons per financial mechanism. Readers interested in more detailed descriptions, case studies, and guidance on implementation are referred to the [Guidelines for Applying a Business Approach to the Financial Management of Marine Protected Areas](#) (Blue4all project).

Table 4 - Summary of the conducted literature review on financial mechanisms

Financial Mechanism	Description	Example	Pros	Cons
Donations, and Philanthropy				
Philanthropic Grants	Financial contributions from foundations or individuals to support specific conservation projects.	Prince Albert II of Monaco Foundation , John Nurminen Foundation	Flexibility, Capacity Building, Long-Term Commitment	Dependency, Donor Priorities, Competition
Private Voluntary Donations	Financial contributions from individuals or organisations for conservation.	WWF's "Adopt an Acre" Program , Adopt a shark (shark trust)	Flexible Funding, Long-Term Support, Community Support	Inconsistent and unpredictable; high competition for donor attention.
Crowdfunding	Raising small amounts from many people via online platforms for conservation projects.	Footprints4ourFuture , BIOFIN	Broad Engagement, Quick Funding, Public Involvement	Promotion Effort, Uncertain Success, Platform Fees
Public and Government Support				
Annual Government Budget Allocation /Tax Revenue	Funds collected by governments from taxes and used for marine conservation.	Balearic Islands sustainable tourism tax , Norwegian environmental taxes	Sustainable Funding, Public Contribution, Government Oversight	Public Resistance, Bureaucracy, Linkage
Environmental Levies	Taxes or fees from industries impacting marine ecosystems, with funds allocated to MPAs.	Charges applied to certain activities or industries that have a recognised environmental	Provides sustainable revenue while discouraging harmful actions.	May disproportionately burden certain stakeholders (e.g., tourism operators).

		impact (e.g., shipping, energy, tourism).		
Subsidies and Tax Breaks	Incentives (subsidies or exemption from tax) provided for blue carbon projects or eco-friendly activities.	Swedish Environmental Subsidies	Encourages voluntary participation in reducing emissions.	May not address root causes of harmful activities.
Environmental Penalties	Revenue generated through enforcement actions against illegal activities in MPAs.	Fines for illegal fishing in Scottish MPAs.	Ensures accountability while generating conservation funding.	Dependent on the occurrence of violations; unpredictable revenue.
EU-Funded Projects	Participation in EU-funded consortia focused on MPA-related conservation and research activities.	LIFE Programme funding for habitat restoration in Natura 2000 sites.	Leverages international collaboration for conservation efforts.	Requires alignment with EU priorities and competition for limited funds.
Market-based mechanisms				
Payments for Ecosystem Services (PES)	Payments made to those who maintain or restore ecosystem services (e.g., biodiversity, water quality) from those who are benefited from the ecosystem services.	Mikoko Pamoja in Kenya, a community-led mangrove conservation and restoration project	Promotes sustainable behaviour; generates stable funding; enhances ecosystem services.	Can be difficult to measure and verify ecosystem service delivery.
Blue Carbon Credits/ Carbon Finance	Monetises carbon sequestration in marine ecosystems like mangroves, seagrasses, and salt marshes.	SeaGrass Grow Project from the Ocean Foundation; Terrapass carbon credits	Links conservation to climate goals; generates revenue for restoration projects.	Requires robust verification; may face market volatility; limited to carbon sequestration benefits.
Blue Bonds	Debt instruments to raise capital to finance marine and ocean-based projects	Seychelles Blue Bond	Provides large-scale funding; links financial returns to ecological benefits; fosters innovation.	Relies on debt repayment; requires effective governance and project success for financial viability.
Habitat Banking	Credits are sold to offset environmental impacts elsewhere, linked to conservation actions or projects are	Great Barrier Reef Offset Framework (Australia)	Aligns development with conservation; creates a market	Risk of "paper parks" or ineffective offsets; challenging to verify equivalence

	compensated through conservation activities that yield a gain at least equivalent to the impact.		for biodiversity protection.	between impact and offset actions.
Loans	Financial instruments where funds are borrowed and repaid with interest to fund conservation projects.	World Bank PROBLUE initiative , European Investment Bank loans	Enables large-scale projects; attracts private investment; adaptable to diverse conservation needs.	Risk of debt dependency; requires reliable revenue streams for repayment; interest adds financial burden.
Debt-for-nature swaps	Converting foreign debt into conservation funding for environmental projects.	Polish EcoFund , Seychelles	Debt Relief, Dual Benefits, International Cooperation	Complex Negotiations, Limited Scope, Dependency
Corporate Partnerships and Sponsorships				
Corporate Sponsorships	Businesses fund conservation projects in exchange for branding and marketing opportunities.	Patagonia funds ocean and coastal conservation projects globally	Resource Access, Public Awareness, Innovation	Corporate Influence, Short-Term Focus, Greenwashing
Public-Private Partnerships (PPPs)	Collaboration between government entities and private sector companies for public projects.	Blue Alliance	Resource Mobilization, Efficiency, Shared Risk	Resource Mobilization, Efficiency, Shared Risk
Eco-Certification Programs	Certification programs that charge fees for certifying businesses as sustainable.	Marine Stewardship Council (MSC) certification for sustainable fisheries , Blue Parks Initiative for MPAs	Encourages sustainable industry practices; Provides steady income for MPAs; Increases consumer trust in certified products.	High cost of certification for small businesses; Requires robust monitoring and compliance mechanisms.
Tourism and Recreation-Linked Revenue				

User Fees	Fees charged for entry or specific recreational activities.	Raja Ampat MPA entry fee of 18eur per person	Provides steady funding; easy to implement	Seasonal variability
Concession Agreements and Revenue Sharing	Partnerships with private operators for tourism services within MPAs, with revenue-sharing arrangements	Blue Alliance financing scheme includes concession and revenue-sharing agreements with businesses within the MPA	Increases service quality; shares risks with private operators.	Complex to negotiate; risk of prioritising profit over conservation; monitoring required for compliance.
Eco-Tourism Packages	Premium, conservation-focused tourism experiences, often including education and unique activities.	Wadden Sea National Park, Denmark: Guided bird-watching tours, oyster tours & seal safaris	Raises awareness and funding; attracts eco-conscious travellers.	Limited to affluent visitors; requires specialised staff and infrastructure.
Virtual Access Fees	Revenue generated from virtual tours, educational videos, or live-streaming experiences of the MPA.	Virtual whale watching and deep-sea exploration experiences.	Broadens audience; no physical strain on ecosystems; accessible globally.	Requires technological investment; difficult to generate significant revenue initially.
Conservation specific funds				
Conservation Trust Funds (CTF)	Private, legally independent institutions—usually non-profits or foundations—designed to mobilize and sustain long-term financing for conservation efforts.	MEDFUND , consisting of an endowment, a sinking and a revolving fund; Mexican Fund for the Conservation of Nature (FMCN)	Provides sustainable, long-term funding; pools resources from various donors for financial stability; professionally managed for efficiency and transparency.	High initial setup costs; financial returns depend on market performance; requires strong governance to prevent misuse of funds.
Endowment Fund	Funds designed to preserve the principal capital and generate income from investments to fund conservation activities. Can operate independently or within a CTF.	Pure Ocean (international endowment fund for marine biodiversity) .	Provides perpetual funding; financial stability not reliant on annual fundraising; attracts diverse donors; professionally managed for steady returns;	High initial capital requirement; dependent on market performance; complex to manage; administrative costs; potential donor restrictions on fund use.

			supports long-term conservation goals.	
Sinking Fund	Time-bound funds designed to be fully spent over a set period, supporting specific conservation projects.	Madagascar Biodiversity Fund (FAPBM) , which manages both sinking and endowment funds.	Focused funding for specific goals; predictable budgeting; ideal for short-term projects like habitat restoration or infrastructure development.	Finite resources with no replenishment; risk of premature depletion; unsuitable for long-term, ongoing conservation needs.
Revolving Fund	Self-sustaining funds that continuously replenish capital through income from conservation-related activities.	MEDFUND , consisting of an endowment, a sinking and a revolving fund	Provides sustainable, continuous funding; engages stakeholders directly; adaptable to various conservation needs.	Dependent on consistent revenue streams; complex to establish and manage effectively; income can fluctuate due to external factors.
Risk Financing and Insurance				
Catastrophe Bonds	Bonds that provide payouts for recovery efforts after specific catastrophic events, such as hurricanes or coral bleaching.	"Reef Resilience Bond" for coral reef recovery (Caribbean)	Provides immediate financial relief; incentivizes proactive disaster planning.	Requires precise risk assessment; limited to catastrophic events.
Risk Pools	Shared financial resources among a group of MPAs to cover unexpected expenses and disasters collectively.	Caribbean Biodiversity Fund's "MPA Risk Insurance Pool"	Promotes collaboration; reduces individual risk.	Requires coordination and trust among participants; funds may not cover all needs in large-scale events.
Parametric Insurance	Insurance policies that pay out based on predefined triggers, such as storm severity or sea temperature rise, instead of assessed damages.	AXA Climate	Fast payout; avoids lengthy damage assessments; useful for extreme weather events.	Requires careful calibration of triggers; premiums may strain smaller MPA budgets.
Climate Risk Insurance	Insurance policies designed to protect MPAs from the financial impacts of	Global Climate Risk Insurance Fund (InsuResilience)	Addresses climate-specific risks; often supported by international	Limited availability in certain regions; premiums may strain

	climate change-related events, such as rising sea levels or extreme weather.		organizations or donors.	budgets for smaller MPAs.
Licensing and Sustainable Use				
Extractive Licenses and Permits	Legal permits that grant access to extract natural resources (e.g., fishing, bioprospecting) within MPAs, generating revenue through fees.	Conservation Finance Area (CFA) model, where regulated fishing zones generate revenue for MPA management.	Generates revenue for conservation; promotes sustainable resource use through regulated conditions; fosters stakeholder engagement and compliance.	High costs for monitoring and enforcement; risk of ecological harm from extraction; potential conflicts with conservation objectives.
Non-Extractive Licenses and Permits	Permits for non-extractive activities in MPAs, like research, tourism, filming, and shipping.	Great Barrier Reef tourism permit; Table Mountain National Park (South Africa) uses permits for filming and events to fund conservation.	Lower environmental impact; diverse, flexible revenue streams; potential for recurring income.	Inconsistent income from single-use permits; high admin costs for long-term agreements; marketing needed to attract users.
Sustainable Seafood Branding	Uses eco-certification to promote sustainable seafood, generating revenue for MPA conservation.	Lyme Bay Reserve Seafood Initiative (UK).	Promotes sustainability; engages businesses; builds consumer trust.	Unstable funding; risk of greenwashing if standards are weak.
Community and Social Mechanisms				
Volunteering	In-kind support from community members contributing time and skills.	Marine conservation volunteer programs in the UK and Spain	Reduces labor costs, Strengthens community engagement, Enhances public awareness	Requires ongoing management and training, Can be inconsistent or seasonal
Community Membership Fees	Small contributions paid by local individuals or groups in exchange for benefits.	Niue Marine Protected Area	Provides stable local funding, Encourages long-term involvement	Requires promotion, Limited revenue compared to large funding sources
Local Events and Festivals	Fundraising through community-led activities such as seafood festivals or clean-up events.	Festival del Mar in Spain	Engages public, Generates direct revenue, Supports sustainable tourism	Requires planning, Dependent on attendance, Affected by external factors

Cultural and Heritage-Based Contributions	Fees for cultural performances, storytelling, or guided heritage tours within the MPA.	Sami Cultural Experiences in Norway	Supports cultural preservation, Creates alternative income, Attracts responsible tourism	Difficult to scale, Requires careful management, Risk of cultural misrepresentation
Research, Education, and Innovation				
Training and Certification Programs	Revenue from marine conservation, MPA management, and ecotourism-related certification courses.	MedPAN (Mediterranean MPA Network) training programs.	Builds long-term conservation capacity, enhances workforce skills.	Requires expert trainers, needs ongoing funding for updates.
Blockchain-Based Conservation Tokens	Digital tokens representing funding contributions to specific conservation projects.	Oxygen Tokens, Beautiful ocean Coin	Transparent, scalable, connects global investors to conservation.	Regulatory uncertainty, dependence on digital literacy.
Educational Partnerships and Virtual Programs	MPAs partner with universities, research institutes, and environmental training programs to receive in-kind support (e.g., unpaid interns, student research, workforce assistance).	Channel Islands National Marine Sanctuary partnerships	Reduces staffing costs, builds conservation workforce, strengthens institutional reputation.	Requires coordination and supervision, potential misalignment of goals, administrative effort.
Innovation and Technology Funds	Grants and investment funding for developing new technologies and methods for MPA management.	Schmidt Marine Technology Partners	Encourages cutting-edge solutions, reduces conservation costs, enhances MPA management efficiency.	Risk of funding unproven technologies, requires technical expertise for implementation, potential dependency on tech infrastructure.
Seed Funding	Early-stage funding for innovative projects or businesses linked to marine conservation.	Reef restoration startups, marine monitoring technologies	Encourages innovation; attracts private sector involvement; supports scalable solutions.	High-risk due to uncertainty in project success; limited to projects with clear revenue potential.

6. Exploring the Blue4all Living Labs: Financial Context and Needs

To understand which LLs were interested in financial tools and identify whether their situations were suitable to test and validate the tools under this task, the results from Baseline Assessment (BA) and Needs Assessment (NA), coordinated by Work Package (WP) 4 were reviewed. Details on the questions, methodology, procedures, results, and lessons learned of BA and NA are provided in Milestone 5, Milestone 9 and Deliverable 4.4. In this section, only the information that is relevant to T2.4 is summarised.

6.1 Overview of Baseline Assessment Outcomes

Regarding the BA, in total, 14 responses were submitted for the section on Business models and financial schemes: eight from the 14 LLs and six from the 11 Information Sites (ISs). Among those who responded, 71% stated that financial mechanisms and financial analysis were considered during MPA planning or development of the management plan, but only 43% answered that there was a financial strategy or business model in place for the MPA.

Seven LLs and ISs stated that their process of preparation of the financial strategy, business model or business plan involved stakeholders to varying degrees, using, e.g., meetings, workshops, or participatory approaches. Only two LLs and three ISs mentioned that some tools were used for the preparation of the financial strategy or business model in place for the MPA, including excel-based tools, financial software (e.g., SODECRI software from their Ministry mentioned by Capo Carbonara (Italy) LL) or templates for expenditure estimation, allocation or planning, but not for financing.

From the BA results, it can be concluded that tools to support financial strategy outlines or development of business models are in general lacking in the LLs and ISs, even though quite some of them have considered financial mechanisms and financial analysis in their management plans.

Regarding funding sources, 10 LLs and ISs answered that their funding sources are mixed, in which public and grant/funding program are the two main ones for MPAs. Nine of these respondents further answered how such funding sources covered the management costs/costs of the implementation of their management plan (such as personnel, maintenance, operative, monitoring, outreach etc. costs). Six of the LLs and ISs replied that funding sources cover 90-100% of the costs. This shows that there is potential to introduce other financial mechanisms to the LLs and to consider relevant business models that could support them.

When interpreting the results of the BA and their embedment in the work of T2.4, it is important to keep the following in mind.

Due to the fact that the Italian Ministry of the Environment and Energy Security (MASE) requires all MPAs to adopt the ISEA (Interventi Stantardizzati di gestione Efficace in Aree marine protette) methodology to identify their management strategy, Capo Carbonara explained that the ISEA framework was followed for selecting the funding sources and cost coverage. Although this obligation does not derive from a formal Ministerial Decree, it is an official procedure communicated directly by the Ministry to all Italian MPAs through an official notice. The use of ISEA

is therefore mandatory for accessing annual ministerial funding, as financial allocations are based on the submission and evaluation of the completed ISEA framework. This requirement helps to explain why Capo Carbonara marked the question “whether financial mechanisms and financial analysis are considered during MPA planning or in place” as “Inapplicable”, since financial planning is already embedded within the ISEA methodology rather than within a separate formal management plan. This may similarly reflect the responses other Italian LLs also marked “No” or “Inapplicable” for the same question.

6.2 Overview of Needs Assessment Outcomes

The NA was answered by 11 out of the 14 LLs. LLs that mentioned financial or business-related issues were prioritised in T2.4. 82% of LLs that answered the NA mentioned finance-related issues and 55% mentioned business-related issues in their MPA management process. These financial issues were mentioned directly (e.g., lack of funding), or indirectly (e.g., financial shortage is one of the main factors that prevent LLs from tackling the identified urgent ecological or social challenges, or lack of human resources, which is also partly due to lack of funding). Because most of the financial issues were indirectly described, only a few of the LLs explicitly expressed their need for financial tools. We prioritized those LLs that explicitly expressed needs for financial tools and has the issues of lack of (financial) resources as the candidate for the tools testing (see table 5). In terms of business-related issues, three LLs explicitly expressed the need to develop sustainable businesses/activities that align with the MPA’s conservation goals. Other LLs mentioned the conflict between some human activities and the conservation goals, which was considered to refer to business-related issues indirectly. The stated business issues are not suit to the direction of T2.4 tool development at the end, so these were not used to select the testing LL.

Four LLs considered that their MPAs were financially sustainable. However, they noted that such financial sustainability only referred to the fixed part of their financial sources (e.g., from government or ministerial allocation), which were stable but only offer limited flexibility in conservation and management efforts in the following years with the foreseen plans. There were some uncertainties for non-public financial sources. Due to these statements, whether the LL is financially sustainability were not used to exclude the selection of candidate. Table 5 below shows the procedure followed for our prioritization and final decision of LLs for tool testing and validation under T2.4.

Table 5 - Key information from BA and NA for prioritisation and final decision of LLs for tool testing and validation under T2.4.

Living Lab (LL)	Reasons as a candidate for tool testing and validation	Final decision and reasons
Capo Carbonara (IT)	Lack of financial resources was identified as an obstacle to addressing urgent needs (e.g., surveillance, digital maps/apps, monitoring). Although financial tools were not explicitly requested, tax support	Joined tool testing and validation. During preliminary discussions the T2.4 team introduced the selected tools (see Chapter 8), the LL considered them relevant and agreed to participate.

	was mentioned as a solution for financial insufficiency.	
Otranto Leuca (IT)	Financial tools for future planning were considered useful for the LL. The LL also expressed interest in business models applicable after MPA establishment.	Did not join the tool testing and validation. The LL is still at planning and implementation phase and lacks cost/revenue data for testing. At the General Assembly (GA) in Tallinn(January 2025), the LL chose to opt out of financial tools testing, prioritizing stakeholder involvement and zoning over financial tools.
Torre Guaceto (IT)	The LL was not considered as candidate for tool testing and validation at first due to missing NA results.	Joined tool testing and validation. The LL expressed interest after the tools were presented at the GA meeting (see Section 7.2).
Capo Gallo -Isola delle Femmine (IT)	The LL was not considered as candidate for tool testing and validation at first as the NA results were provided with delay. However, the late provided results revealed significant shortages in financial and human resources, including shortage of qualified personnel and accounting software. It also highlighted a need for a structured financial strategy, self-funding mechanisms, and greater flexibility beyond public funding.	Joined tool testing and validation. Despite a tight schedule due to management changes, the LL agreed at the GA meeting (see Section 7.3) that the tools were needed and confirmed participation in tool validation in March 2025.
Baltic Sea MPA network (FI, SE, EE, LV, LT, PL, DE, DK)	FI, PL, and SE raised financial sustainability concerns in the NA survey. SE pointed out that lack of long-term funding was one of the factors that hinders monitoring and surveillance. FI expressed the needs on funding resources and mechanism, being interested in more funding or legal tools (e.g., biodiversity offsets) . PL emphasized funding sources and stakeholder compensation needs.	Joined tool validation. The main communication between the T2.4 team and the LL took place via HELCOM, rather than to single MPAs directly, making direct tool testing and validation with individual MPAs unfeasible. Therefore, this LL was only involved in the validation stage, by providing the tools for validation (PDF and excel document) and asking feedback through questionnaires.
Vlaamse Banken (BE)& SBZ 1-3 (BE)	The LL expressed that limited resources (finance) hindered in addressing the identified challenges, and efficient use of financial resources was suggested. The	Did not formally join tool testing and validation, but T2.4 team conducted initial testing of the Blue4all MPA Finance Planner, some feedback was provided through the CP. After presenting the identified tools to

	LL considered that the MPA was not financial sustainable. The LL expressed their needs to develop the prioritised action framework (PAF). The LL was also interested in the tools that support choosing applicable financing mechanisms (e.g. donation apps).	the LL, the LLs originally shared their interest in joining tool testing. After the change of MPA management, the new manager considered that the tools are not really implementable in the LL, as Belgian MPAs are managed collectively at ministry level, rather than at MPA level.
Danish Wadden Sea (DK)	This LL expressed both their challenges in financial issues (lack of funding and financial unsustainability) and the needs on sustainable tourism development (business).	Did not join the tool testing and validation. The LL prioritized other needs and tools from different tasks due to resource constraints.

7. Case Profiles of Selected Blue4all Living Labs

This section presents governance and financial profiles of the LLs selected for testing and validating financial tools within Task 2.4. The purpose of these case profiles is to provide contextual understanding of how different MPAs, operating under diverse administrative, legal, and socio-economic conditions, engage with financial management and sustainability challenges.

7.1 Capo Carbonara

The Capo Carbonara Marine Protected Area (MPA) was established in 1998 by Ministerial Decree, amended in 1999 and later fully replaced by the Environmental Ministerial Decree of February 7, 2012 ([Official Gazette No. 113 of May 16, 2012](#)). The MPA is managed by the Municipality of Villasimius and is located in south-eastern Sardinia (Italy).

During Blue4all's Need Assessment workshop with local stakeholders, several challenges were highlighted, among which the need to strengthen the MPA's financial strategy emerged as a key issue. Consequently, following an exploratory meeting held in September 2024 with the financial team, the MPA formally joined the financial tools testing and validation process.

Based on the MPA phases classified in Deliverable 1.1 (Bouvet et al. 2023), WP4 considered Capo Carbonara to be at the management and reviewing phases.

The governance of the MPA is defined by the Regulation for Implementation and Organization (REO), which ensures compliance with national conservation objectives and establishes the procedures for management, monitoring, and enforcement. The REO provisions are strict and allow limited flexibility in procedural adaptation. Any amendment to the regulation must undergo a complex approval process involving the Managing Entity, the Reserve Commission, and the Ministry, resulting in lengthy bureaucratic procedures.



As the MPA is under municipal jurisdiction, it must adhere to the administrative and financial procedures applicable to all Italian public administrations. This framework often conflicts with the MPA's specific operational needs, especially regarding funding cycles and project management. Financial resources come from multiple sources of ministerial, regional, European, and private funds, which are difficult to plan and harmonize with public accounting rules. Additional municipal revenues, such as the local tourist tax, administrative fees for permits within the MPA, and fines, also contribute to the overall budget.

However, the MPA's only stable and predictable funding source is the annual ministerial allocation, which includes both a fixed and a variable component. The variable portion depends on the activities carried out in the previous year, compliance with reporting requirements, and satisfactory project progress. All other funding streams remain uncertain and are contingent upon the MPA's capacity to successfully secure external project-based resources. These constraints often lead to delays or even interruptions in the implementation of conservation actions.

Another structural challenge concerns the lack of permanent staff, as only the MPA Director's position is funded directly by the Ministry of Environment and Energy Security (MASE), while all technical, scientific, and administrative staff depend on temporary, project-based contracts. This situation limits continuity in operations, planning, monitoring, and education activities, as well as the MPA's ability to maintain a stable and continuous workforce, which in turn affects long-term planning and operational consistency.

To address structural financial fragility and ensure long-term sustainability, the MPA is developing a new financial strategy. In this framework, they are planning to introduce an environmental tax, to be collected by local operators from visitors. This tax will be fully dedicated to supporting the MPA's operations and conservation activities.

7.2 Torre Guaceto

Torre Guaceto is a coastal, individual MPA. It was founded in 1991, and is, since 2000, run by a management consortium consisting of the municipalities of Brindisi and Carovigno, and WWF Italy. Based on the MPA phases classified in Deliverable 1.1 (Bouvet et al. 2023), WP4 considered Torre Guaceto is at the management and reviewing phases.

Torre Guaceto MPA was added as a testing site in Task 2.4 after the project's General Assembly in Tallinn in January 2025, where a representative of the MPA took part in sessions where the financial tools were presented and discussed. Further discussions between the MPA manager and Task 2.4 team led to the conclusion that Torre Guaceto is not only suitable as a testing site, but can also bring valuable insights for the tool testing, validation and refinement. Notably, the answers provided in the BA had indicated that there were no financial mechanisms and financial analysis considered during MPA planning or development of the management plan, and that no financial strategy nor business model were in place for the MPA. Contrary to this initially gathered information, the interaction with Torre Guaceto MPA management in the tool testing phase revealed that the MPA

has in place a structured financial framework and successful revenue-generating activities, as well as a diverse basis for funding and previous experience of implementing financial mechanisms.

The management of the MPA of Torre Guaceto is done by a public body, for which financial systems and schemes are set top-down. The MPA implements multiple standards and schemes for effective conservation and environmental management: the ISEA Scheme and the EU eco-management and audit scheme (EMAS). The output of these accountability schemes is published on the MPA website.

The budget of the MPA derives from consortium member (a fixed amount) and multiple public sources (Environmental Ministry, government public funding), but also from self-financing – i.e. activities that generate a revenue (mainly a parking area), which is then allocated to achieving the conservation objectives. The public funding part is determined based on indicators with different weights. Recently, the MPA initiated a Carbon credit scheme which is expected to generate a revenue of approximately €50,000. The MPA has strategic programmes that outline conservation actions and their costs, but funding for the programmes is not certain for more than one year at a time. The budget is balanced to 0 every year. Funding is also directed to the national natural terrestrial reserve area. Stakeholders are not directly engaged in financial planning, but there is public discussion about the management plan and the conservation objectives, for which financial means are then allocated.

7.3 Capo Gallo - Isola delle Femmine

Capo Gallo - Isola delle Femmine MPA was established in 2002 (Ministero dell'Ambiente e della Tutela del Territorio 2002), pursuant to Italian Laws No. 979/1982 and No. 394/1991 regulating the designation of MPAs. The MPA belongs to the Natura 2000 network, covering approximately 16 km of coastline and about 22 km² of marine area which is divided into 3 zones for different levels of restriction on fishing and recreational uses. Based on the MPA phases classified in Deliverable 1.1 (Bouvet et al., 2023), WP4 considered the Capo Gallo - Isola delle Femmine MPA to be in the management phase.

The upper-level authorities (e.g., MASE) and the overall system follow the same structure described for the cases of Capo Carbonara and Torre Guaceto. However, the MPA management body of Capo Gallo - Isola delle Femmine is currently temporarily entrusted to the Palermo Port Authority, which operates under a provisional management framework as an additional responsibility to its ordinary duties. Due to such management structure (lack of reserve commission and administrative council, dedicated director, qualified personnel, clear decision-making processes, etc.), the management body is unable to take many direct actions and mostly limits its role to granting permission to stakeholders who propose and implement initiatives. Currently, the MPA primarily relies on ministerial funding as a main financial source. There are no supplementary sources of revenue such as tourist taxes or other direct user fees. A previous attempt to implement a mooring buoy system – designed both to generate revenue and to minimise anchoring impacts – proved only partially effective, thereby limiting the MPA's financial flexibility.



The stakeholders often can get funding through collaborative projects to get grants from the MPA authority or other external funding bodies. The opinions of some of the stakeholders (i.e., diving centre) other than the MPA manager were included in the NA, also pointing out the financial challenges (see Section 6.2). However, only the MPA management authority joined the tool validation process in T2.4. Participation in the T2.4 tool validation was discussed during the project's GA in Tallinn (January 2025), where the MPA's contact point attended and took part in the sessions in which the financial tools were presented and discussed. Following the GA meeting, the contact point discussed with the MPA manager, who subsequently agreed to join the tool validation process.

7.4 Baltic Sea MPA Network (HELCOM)

The Baltic Sea MPA network is a regional network of MPAs consisting of protected areas from all littoral Baltic Sea countries (DE, DK, EE, FI, LT, LV, PL, RU, SE). The network is organised through the Baltic Marine Environment Protection Commission (also known as HELCOM), the regional sea convention for the Baltic Sea. The network includes Natura 2000 sites, HELCOM MPAs, Ecologically or Biologically Significant Marine Areas (EBSAs), Ramsar Sites, UNESCO sites, and privately owned marine areas (Finland and Sweden). The MPAs are regulated by national level legislation and administration.

Funding for the day-to-day management of individual MPAs is provided by national or subnational authorities within each country. HELCOM's regular contributions are limited to supporting cooperation, knowledge exchange, and coordination among member states, rather than directly financing MPA operations. HELCOM itself is funded through both monetary and in-kind contributions from its Contracting Parties. Major initiatives related to the development or evaluation of the network are uncommon and typically depend on external grant funding.

The financial needs of the Baltic Sea MPA network are complex and vary across member states, reflecting its multi-national structure. As a LL, the Baltic Sea MPA network provides valuable insights into how a transnational network can address financial sustainability issues collectively. However, due to its governance structure, engagement in the project primarily occurred through HELCOM rather than individual MPAs. This arrangement limited the feasibility of direct testing and validation of financial tools with MPA managers.

7.5 Special Protection Areas (SBZ 1-3)

Belgian MPA governance operates within a complex multi-level system where the federal government manages marine environmental and spatial planning competences, while the Flemish Region oversees fisheries and coastal affairs, requiring ongoing coordination. After early failures due to limited consultation, the 2003 creation of a dedicated Minister for the North Sea and the North Sea Master Plan marked a turning point, enabling the 2005 designation of five Natura 2000 sites. Conflicts, most notably regarding the designation of the Vlakte van de Raan MPA in 2008, exposed weak coordination between science, policy and administration. Subsequent reforms placed stronger emphasis on scientific grounding, transparency and stakeholder engagement, leading to



the 2012 designation of the Vlaamse Banken MPA and Belgium's first legally binding Marine Spatial Plan in 2014 (Pecceu et al., 2016).

Belgian MPAs are administered centrally by the Federal Public Service Health, Food Chain Safety and Environment through its Marine Environment Service, rather than by individual site authorities. Management plans and monitoring are coordinated at federal level with scientific support from institutes such as ILVO and RBINS. This centralized model ensures legal consistency but limits local accountability and adaptive management, contrasting with approaches in other countries where individual MPAs have designated managers responsible for site-level implementation.

Based on the MPA phases classified in Deliverable 1.1 (Bouvet et al., 2023), WP4 considered that SBZ 1-3 MPA is at the management and reviewing phase.

8. Overview of Tools for Business and Financial Planning in (Marine) Conservation

8.1 Landscape of Existing Tools

To determine which types of tools can effectively address the financing challenges identified in the BA and NA, Task 2.4 conducted a review of existing financial and business-planning tools relevant to MPAs as part of its extensive literature review mentioned previously. Most of the identified tools take the form of **guidebooks**, often supported by **Excel-based templates**, while only one **web-based tool** was found. Because they rely primarily on Excel or document-based guidance, the technical requirements for use are generally low, and user-friendliness is high. However, some tools still require a degree of prior expertise in financial planning or MPA management to be applied effectively.

The scanned tools fall broadly into four functional categories:

1. **Guidance and tools supporting financial planning for MPAs** (e.g., Flores et al., 2008; UNDP, 2010);
2. **Guidance and tools for preparing business plans for MPAs**, as defined in Section 4 (e.g., Landreau, 2012; MedPLAN tool – Binet et al., 2015);
3. **Decision-support tools for selecting appropriate financial mechanisms** (e.g., Bohorquez et al., 2022); and
4. **Tools tailored to specific instruments**, including implementation guidance or suitability assessments (e.g., payment for ecosystem services – Smith et al., 2013; biodiversity offsets - World Bank Group, 2015; Blue Recovery Bonds Assessment Tool - Planet Tracker, 2023).

Introducing new financial instruments typically requires a substantial lead time (2-10 years) (Bohorquez et al. 2021), including feasibility analysis, stakeholder consultation, compliance with legal frameworks, and institutional adjustments. These processes generally extend beyond the lifetime of EU-funded project cycles. For this reason, and after talking to the Blue4all LLs, who voiced their need for a higher-level financial strategy tool, T2.4 prioritised tools that **support business**

planning and financial-strategy development, rather than those focused on the full operationalisation of new mechanisms.

To avoid duplication of efforts and “reinventing the wheel,” preference was given to tools already available in adaptable Microsoft Excel format, given their accessibility, low technical barrier, and ease of revision. The most relevant Excel-based tools identified for adaptation under T2.4 are:

- **Bohorquez et al. (2022)** – a decision-support tool which applies a structured set of criteria to help MPAs select appropriate financial mechanisms and funding sources, to integrate them into a coherent financing strategy.
- **MedPLAN tool (MedPAN et al., 2023)** – an Excel-based instrument designed for financial gap analysis and strategy development, based on cost and revenue projections.

8.2 Description of First Stage Tools Chosen and Developed for Testing

In preparation for the tool testing with the Living Labs, the T2.4 team familiarised itself with the selected tools and decided to focus on the MedPLAN and Bohorquez et al. (2022) tools. In parallel, the team consolidated the knowledge and experience gained from an extensive literature review on financing mechanisms for MPAs and from internal expert discussions on how MPAs can be approached from a business perspective to enhance financial sustainability. This body of knowledge was synthesised into Guidelines ([*Guidelines for Applying a Business Approach to the Financial Management of Marine Protected Areas*](#)), which serves both as a standalone reference document and as a complementary guidance tool.

Subsequently, a new tool - the [Blue4all MPA Finance Planner](#) - was developed during the second stage of tool development, as further explained in the methodology section. This subchapter provides an overview of the first-stage tools, namely the *Guidelines*, *MedPLAN*, and *Bohorquez et al.* tool, and outlines their core features.

8.2.1 Guidelines for Applying a Business Approach to the Financial Management of Marine Protected Areas

The Guidelines provide a comprehensive framework for applying a business-oriented approach to the financial management of MPAs. It supports managers in understanding their current financial situation, defining the value proposition of their MPA, and structuring a long-term financial strategy. The Guidelines are designed as a practical, self-guided resource that can be used independently or in combination with the Blue4all MPA Finance Planner.

The Guidelines are organised into four main components that together outline the full pathway from conceptualisation to action:

(1) Introducing a business mindset to conservation

The opening chapters explain how business concepts - such as business models, business plans, value creation, and cost-revenue structures - can be adapted to the context of MPAs. The Guidelines clarify the distinction between a business model and a business plan, and shows how both can

support strategic thinking, financial sustainability, and long-term planning without framing conservation as a profit-driven activity.

(2) Developing the MPA business model

A dedicated section guides users through the core components of an MPA business model. This includes defining the MPA's basic concept, beneficiaries, ecological and social value, value chain, competitive advantages, and the financial flows that underpin operations. Each component is accompanied by structured templates to help MPA managers articulate the mission, identify cost drivers, map revenue sources, and describe the processes that create and deliver value.

(3) Developing the MPA business plan

The Guidelines present a template for building a complete business plan that operationalises the business model. It includes sections on governance, conservation priorities, stakeholder engagement, communication, financial planning, risk management, and monitoring and evaluation. Each subsection provides guiding questions, examples, and prompts that support the reflection and information gathering needed to build a robust and actionable plan.

(4) Understanding and selecting financial mechanisms

A substantial portion of the Guidelines compiles and categorises the financial mechanisms available to MPAs, including both traditional and innovative options. Eleven overarching categories and their corresponding instruments are described, such as philanthropy, public funding, market-based mechanisms, licensing, tourism-linked revenue, conservation funds, and risk-financing approaches. For each mechanism, the Guidelines outline its purpose, structure, advantages, limitations, typical issuers and beneficiaries, and practical examples from Europe and beyond.

8.2.2 MedPLAN tool

The MedPLAN Business Planning tool is a spreadsheet (.xlsx) aimed to support MPA managers and financial officers in identifying the financial gap (i.e. the difference between revenues and costs of operating) of the MPA, and to develop sustainable financial strategies for closing this gap. The MedPLAN tool is the joint property of WWF, MedPAN, UNEP, the Mediterranean Action Plan Barcelona Convention and RAC/SPA. It was originally developed by Vertigo Lab for MedPAN, RAC/SPA and WWF in 2015, and has been updated in 2020 by BlueSeeds and in 2023 by MedPAN.

The MedPLAN tool requires the user to fill in expected costs and revenues for the present and subsequent years. The tool contains the following worksheets: "recurrent costs", "investment costs", "revenues" and "costs and revenues summary". The costs and revenues categories are further broken down into more specific categories, for instance, human resources (under recurrent costs), material resources (under investment costs) and public funding (under revenues). Importantly, the starting point for the exercise with the MedPLAN tool should be the MPA's Management Plan or the MPA's management and conservation objectives. The cost estimates should be as realistic as possible and should cover at least five years (or the period of the

Management Plan). By filling in the costs and revenue sheets, the summary worksheet will automatically update, and show the estimated financial gap and its evolution over the period.

Ideally, the MedPLAN tool implementation should not end with a static report visualizing the current state of costs and revenues but instead initiate an iterative process of planning and developing the activities of the MPA. By using the tool (potentially supplemented with the material that is available online¹), the MPA can come up with strategies that enable sustainable financing (i.e. closes the financial gap). After entering the projections of costs and revenues, the MPA manager (or other relevant user) can use the results to explore how to improve the financial situation, by reducing costs, changing the current funding sources, or finding new sources of funding. Such strategies could include, for instance, optimizing the use of existing resources (e.g., revising work descriptions of employees); using the tool's outcomes in budget negotiations to show actual needs; or, coming up with new product or service propositions (for instance tourism activities) or ways to engage new financiers in the MPA activities. The strategy should be aligned with the Management Plan (or management and conservation objectives), stakeholder expectations, and relevant legislation.

8.2.3 Financial Mechanisms Selection Tool Bohorquez et al. (2022)

The Financial Mechanisms Selection Tool is an Excel-based instrument designed to support MPA managers in systematically assessing a wide range of financial instruments and funding sources, ranging from conventional mechanisms such as tourism fees to more innovative approaches like blue carbon credits or biodiversity offsets. The ultimate purpose of the tool is to enable the development of a sustainable financial strategy that is aligned with the governance, environmental, and socioeconomic characteristics of a given MPA. The tool was developed by researchers Bohorquez et al. (2022) based on a comprehensive review of scientific and grey literature. The development of the tool involved the identification of 11 key funding sources and 21 financial instruments applicable to MPAs. These were analysed using nearly 100 indicators that reflect the political, environmental, socioeconomic, and management contexts of MPAs. The result is a replicable framework that provides tailored solutions for managers in the selection of financing mechanisms.

The tool consists of three interlinked Excel workbooks: the *Financial Instruments Workbook*, which evaluates the feasibility of implementing various instruments (e.g. user fees, grants, blue bonds); the *Sources of Finance Workbook*, which assesses the viability of potential funding sources (e.g. government agencies, NGOs, private investors); and the *Matching Workbook*, which integrates the results of the first two workbooks to identify the most suitable combinations of instruments and sources for the MPA in question. The use of the tool follows a structured process. The starting point is the preparation phase, during which the user compiles relevant information about the MPA's ecological attributes, governance structure, and socioeconomic conditions. Based on these inputs,

¹ Available at websites of MedPAN and BlueSeeds: <https://medpan.org/en/training/business-planning-mediterranean-marine-protected-areas> and <https://blueseeds.org/en/tools/guide-financing-mechanisms-marine-protected-areas/> (accessed 15 August 2025).

the *Financial Instruments Workbook* and the *Sources of Finance Workbook* can then be completed, generating results on the feasibility and relevance of various financing mechanisms. The *Matching Workbook* subsequently consolidates these outputs and provides recommendations on optimal combinations of instruments and sources. The resulting analysis equips the MPA manager with a set of actionable strategies for financial sustainability, which can then inform planning, negotiations with stakeholders, and the prioritisation of implementation steps.

9. Methodological Approach to Tool Testing and Validation

The methodology for tool testing and validation under Task 2.4 followed a staged approach designed to assess suitability of existing financial and business-planning tools for the needs of MPAs, and inform the co-development and eventual validation of a new Blue4all MPA Finance Planner. This process consisted of (a) the selection of Living Labs for piloting, (b) testing of existing tools, (c) preparation for co-development and (d) validation.

9.1 Selection of Living Labs

The core team of T2.4 reviewed the outputs of the baseline and needs assessment (Sections 6.1 and 6.2 respectively) and conducted bilateral discussions with the LLs to identify which sites presented the most appropriate conditions for piloting financial planning tools. Selection criteria included the urgency of financial planning needs, the maturity of management frameworks², and the added value of introducing a structured planning tool. Based on these criteria, Capo Carbonara, the Danish Wadden Sea, Otranto–Leuca and SBZ 1–3 were initially selected. Following a presentation of the tools at the Blue4all General Assembly (January 2025), Capo Gallo - Isola delle Femmine and Torre Guaceto expressed interest in joining the process and were subsequently added to the Living Lab cohort involved in testing and validating the tools (Table 6). Partners from T2.4 were paired with each Living Lab to act as focal points for technical support and feedback collection.

Table 6 - Summary of tools tested/validated with the Living Labs

Living Lab	Testing/Validation	Tools selected
Capo Carbonara	Both	Guidelines; Bohorquez et al; Blue4all MPA Finance Planner
Torre Guaceto	Both	Guidelines; MEDPLAN; Blue4all MPA Finance Planner
Capo Gallo - Isola delle Femmine	Validation	Guidelines; MEDPLAN; Blue4all MPA Finance Planner

² As explained previously, Otranto Leuca initially expressed interest in conducting tool testing and validation under T2.4 but subsequently decided to withdraw, as the current stage of MPA development did not allow for sufficiently robust financial projections or an adequate understanding of the financial context.

HELCOM Working Group	Validation attempted	Guidelines, Blue4all MPA Finance Planner
SBZ 1-3	Validation attempted	Blue4all MPA Finance Planner

9.2 Testing of tools

The initial testing phase focused on assessing the usability and conceptual suitability of two existing tools, as mentioned above (Bohorquez et al., 2022; MedPAN et al., 2023), as well as the *Guidelines for Applying a Business Approach to the Financial Management of Marine Protected Areas* (Blue4All, 2025). These guidelines were developed by the T2.4 team based on desk research and a literature review conducted during the pre-testing phase, which examined how MPA financing has been addressed to date, including the use of business models and business plans in conservation contexts, and the range of financing mechanisms applied or proposed for MPAs, protected areas, and marine conservation initiatives more broadly.

Initially, the tools were presented to all the participating LLs and instructions on how to use the tools and on how they could be integrated were provided. Then, the LLs had the opportunity to explore the tools in their own time to better understand their functionalities and reflect on their usability and functionality. They collected qualitative insights on the initial impressions such as strengths, weaknesses, ease of use, clarity of guidance and suitability of the tools for their needs. This testing step focused mostly on the usability and functionalities of the tool rather than on a “real-world” application.

The core team of T2.4 developed an excel file to collect information related to the evaluation of each tool. One table was created for each tool being tested: Bohorquez, MedPlan and the Guidelines. The tables were organised in columns corresponding to different fields of information to be extracted where areas requiring refinement, conceptual gaps or alignment with user needs were documented (example for one tool in Table 7). Drop-down lists were included in the columns where fixed information was needed to be reported. “Free text” columns were used only in cases where further clarifications related to the information extracted in other columns was needed or if they needed to summarize specificities of the tool being evaluated. On a case-by-case basis, further bilateral meetings were held in order to collect oral feedback, discuss written feedback or provide guidance on specific sections.

Table 7 - Summary of the extraction fields with descriptions and brief instructions included in the extraction table provided to the LL teams of T2.4 for the extraction of information from the evaluation of the tool Bohorquez et al. (2019) being tested.

Field	Description/Associated question
Tool Name	Insert the name of the tool
Description of the Tool	Insert short text describing the tool
Link	Insert relevant link leading to the tool or info about it

Tool Type	What is the purpose of the tool? Financial Strategy, financial tool implementation or business tool?
Tool Format	What is the format of the tool? Web-based, excel, PDF guidebook...
Open Access	Is the tool open access (or is there a monetary cost/licensing)?
Original Geographical Focus	Where does the tool originate from? Where was the tool tested?
Transferability and Scalability	How well can the tool be applied to your MPAs context?
Time Investment	Please comment on the usage time that you foresee for this tool. How much time do you believe you would need for completing this tool? Is this amount of time appropriate in your eyes?
Usability	How would you rate the User-friendliness of the tool (how intuitive is the tool)? Is the spreadsheet easy/difficult to use? Please explain your previous selection. Is the language used difficult/easy to understand? Are the instructions provided sufficient? If no, please indicate where instructions are insufficient, what kind of instructions would still be relevant for you to apply the tool properly. Is the aim of the tool clear? Is it clear what information is needed and how to submit it in the tool? If no, please explain. Are the outputs provided by the tool (i.e. summary, graphs) clear, comprehensible, and/or useful? (Select from Drop-Down List) If no, please explain. Would you like to comment on any other aspect of the usability? Do you have any concrete suggestions on how to improve the tool?
Visualization	Is the tool itself visually appealing? Any suggestions on how an adjusted tool visualization could improve user-friendliness? Are the outputs of the tool visualized in an appealing and clear manner? Please suggest changes.
Functionality	Does the tool meet all desired functionalities, or are there any features that you find missing? What additional functionalities would you suggest for the tool to improve its utility
Data, resource and Expertise Requirement	Is the data and resources required feasible/reasonable for the outcome of the tool? Can you fill out the tool with your own expertise or would you have to gather external information/hire an external expert to properly use the tool?
Implementation Feasibility with Provided Resources	Could you implement the tool as it is or would further resources be required (i.e. tutorials, extra meetings and fill out together with B4A patterns etc)? Please specify.
Potential for Expansion/Modification	Do you think the tool has potential for additional features, integrations or enhancing? If yes, please elaborate on your ideas.
Tool Components: Excel Tables	Please provide further feedback specific to: Table 1 - Financial Instruments Please provide further feedback specific to: Table 2 - Financial Sources Please provide further feedback specific to: Table 3 - Instrument and Source Matrix

Indicators / Questions	Please indicate the questions and indicators in the respective excel sheets that are irrelevant/unclear in your opinion. (You can also mark them directly in the excel documents.)
	From your perspective, are any indicators or questions missing from the tool?
Other	Any other comments?

9.3 Co-development of the Blue4all MPA Finance Planner³

The co-development of the Blue4all [MPA Finance Planner](#) was initiated following the first round of usability testing of the existing tools (MedPLAN and the Bohorquez et al. decision-support tool). Based on this feedback, the core team of T2.4 organised an internal online development workshop to design an integrated and more user-friendly financial planning instrument tailored to MPA needs. The process began with a structural review of comments received from the LLs. Feedback on both tools was clustered into thematic areas (e.g. content gaps, technical usability, terminology, alignment with financial logic, and clarity of purpose). This analysis highlighted that neither tool, in its original form, could support the entire financial planning process, from financial diagnosis to strategy development, so that a consolidated approach would be better suited for practical application by MPA managers. Building on these lessons, the team agreed that the new tool should also address three complementary functions:

1. Assessing the financial health of the MPA;
2. Identifying and prioritising feasible financing mechanisms;
3. Developing a coherent financial strategy to close funding gaps and support long-term sustainability.

These functions provided the conceptual backbone for the structure of the Blue4all MPA Finance Planner and guided the integration of components from both earlier tools. The terminology was harmonised with the Blue4all-developed *Guidelines for applying a business approach to the financial management of Marine Protected Areas* to ensure consistency and interoperability across outputs. Additionally, new elements requested by the LLs, particularly related to stakeholder engagement and ongoing monitoring, were incorporated to support a more operational and context-sensitive planning process.

The resulting Excel-based tool is organised into nine sequential steps, grouped into three overarching blocks corresponding to the three functions described above. It includes a dedicated “Step-by-Step Guide” sheet that introduces the purpose of each step and cross-references the relevant guidance sections in the Blue4all- developed *Guidelines for applying a business approach to the financial management of Marine Protected Areas*, allowing users to move flexibly across steps depending on their needs and maturity level of their financial system. Steps 1–3 (costs, revenues, and financial gap analysis) build on the MedPLAN tool, with revisions to classification and layout to

³ Both the Guidelines as well as the Planner were developed in English.

align with the financial mechanism taxonomy used in the Guidelines. Step 4, feasibility assessment of financial mechanisms, is adapted and expanded from Bohorquez et al. (2022), including revised terminology, restructured questions, a refined scoring system, and additional assessment criteria reflecting Living Lab feedback. The results of this feasibility screening are graphically represented in Step 5.

To reflect feedback from Torre Guaceto, a preliminary Step 0 on clarifying conservation objectives was added to ensure financial strategy remains tied to ecological goals. Two new steps were also added: Step 6, which guides stakeholder engagement in the development of financing strategies, and Step 8, which introduces a monitoring function to assess whether both conservation and financing objectives are being met. Together, the nine steps offer a streamlined yet comprehensive workflow for MPA financial planning, combining financial diagnosis, mechanism feasibility assessment, and strategy development within a single supporting tool.

9.4 Validation of tools

The validation phase began with the presentation of the revised Guidelines and the prototype of the Blue4all MPA Finance Planner to the participating Living Labs. During this session, the T2.4 team introduced the logic and sequence of the tools, demonstrated their functionality, and answered questions to ensure that the participants had a clear understanding of how the tools should be applied. Following this introductory step, the Living Labs began to implement the tools together with CP or by LL themselves, adapting them to their respective governance contexts, with additional support from the T2.4 team when required.

Feedback on the tools was collected through a semi-structured interview - based on a question guide developed for the validation phase that was previously shared with the MPA managers to guide their reflection and validation process. This guide directed the conversation toward three dimensions of evaluation: user experience, tool outputs, and feasibility of application. The user experience questions examined the practical use of the tool, including the clarity of instructions, the ease of navigating between steps, the degree of technical difficulty during data input and processing, and whether the integration of earlier feedback from the pilot tests could be observed. The questions concerning outputs focused on the interpretability and usefulness of the results produced by the tool, and explored whether these results helped clarify the financial situation of the MPA and supported internal or external communication. The final set of questions addressed feasibility, in particular how well the tool fitted within existing planning processes, whether it facilitated discussion and decision-making within MPA teams and partner networks, and whether it was considered likely to be used again in the future or recommended to other MPAs.

Based on the feedback received during this validation phase, several improvements were incorporated into the final version of the Blue4all MPA Finance Planner and the Guidelines.

Note on Living Lab participation: We maintained direct and regular contact with Capo Gallo - Isola delle Femmine, Capo Carbonara and Torre Guaceto throughout the tool testing process. In contrast, with SBZ, communication became limited following the change in management at the

start of the testing phase. Although contact was later re-established, the new management expressed reduced interest in progressing with the testing due to the governance structure of Belgian MPAs and time constraints. Nevertheless, the T2.4 team conducted initial testing for this Living Lab and was able to extract several relevant insights from the experience. These reflections are discussed in Chapter 11. For the Baltic Sea MPA Network Living Lab, our intention was to validate the tool with the Biodiversity Working Group, specifically its MPA subgroup. The group agreed to review the material and circulate it ahead of their periodic meetings, accompanied by a follow-up survey. However, no responses were received. It is important to note that the working group is not the primary target audience for the tool, but was selected based on the network's structure and its previous expression of interest. Additional reflections on this are also provided in Chapter 11.

10. Results of Tool Testing and Validation

10.1 Guidelines for Applying a Business Approach to the Financial Management of Marine Protected Areas

Across the Living Labs, the Guidelines were generally perceived as highly applicable, intuitive to navigate, and broadly understandable, particularly for users already fluent in English. Its structured approach to financial sustainability was appreciated, as it offers a replicable methodology that can be adjusted to different institutional contexts and governance models. Capo Carbonara considered it especially useful for strengthening financial planning capacity over time, noting that once familiarity with the structure is gained, it becomes straightforward to apply and can help produce forward-looking annual forecasts that inform long-term management decisions. The Guidelines were also regarded as particularly valuable for new management teams or during transitional periods, as it provides a clear operational pathway for integrating financial thinking into broader conservation management.

However, several constraints were raised by Torre Guaceto, Capo Gallo - Isola delle Femmine and Capo Carbonara, particularly regarding the **length of the document** and the **time investment required** to read, interpret and apply its content. These LLs highlighted that implementation is challenging when MPAs lack internal staff capacity or technical support, and that the effective analysis of financial mechanisms often requires a deeper understanding of institutional finance and human resource structures than what many MPAs currently possess. They also noted that **stakeholder buy-in** is essential for many of the mechanisms proposed in the Guidelines, which can become a barrier where governance complexity, competing mandates or administrative dependency on higher government bodies limit local decision-making. In addition, many of the financial mechanisms outlined in the Guidelines require the active involvement of stakeholders (i.e. their strong collaboration and commitment) or require the involvement of experts for developing the implementation practices in the MPAs, which may turn into a barrier for implementing the mechanisms. For example, engagement of local community has an important role in implementing Payments for Ecosystem Services, Blue Carbon Credits and Community Membership Fees.

Conservation Trust Funds and Public-Private Partnerships rely on good partnerships and stakeholder relationships.

A further concern raised by Torre Guaceto related to the **explicit linkage between financial mechanisms and ecological objectives**. The ability of the different mechanisms to support ecological values should be carefully assessed (e.g., their efficacy in reaching conservation goals; potential negative impacts (e.g., unintentionally enabling greenwashing when the MPA implements the financial mechanism)).

10.2 Bohorquez et al. 2022 – Decision Support Tool

The Bohorquez financial tool was tested and validated by Capo Carbonara. Overall, the MPA found the tool valuable but challenging, with experiences improving between the testing and validation phases, although some issues remained consistent. The main challenges highlighted were the language barrier, which required translation of all materials, the time-consuming process needed to familiarize with the tool and gather information, and the level of expertise required from the MPA manager to handle financial management, resource allocation, and regulatory aspects.

The tool's clear objectives and straightforward structure were appreciated. However, limited visual appeal, initial difficulties in understanding certain questions, and limited contextual suitability for the Mediterranean setting were noted. As the tool was initially developed in the context of Latin American MPAs, some questions focused on i.e. international aid possibilities or habitats like mangrove ecosystems, which were not suitable for the LL's context. Answering questions on some aspects, such as managing donations, foreign funding, or staff requirements, remained complex for users without specific financial expertise.

The MPA team also suggested that the tool could be particularly useful for individuals new to structured financial planning, helping them understand how financial mechanisms operate within an MPA, but only if guided by experts in management and governance who can support interpretation and application of the tool.

Despite its challenges, the Bohorquez financial tool was recognized as a valuable instrument for identifying management and financial gaps, particularly for MPAs at the early stages of developing a structured financial strategy.

10.3 MedPLAN – Financial Gap Analysis

The LL experiences from getting familiar with and testing the MedPLAN tool illustrate how multifaceted financial management can be at MPAs. On the one hand, the MedPLAN tool was considered – by Torre Guaceto – to be very applicable to MPA management, fairly intuitive, and easy to use and understand. Overall, the tool was considered clear and useful, with potential to be used for comparison of multiple MPAs (if they all implement the same tool). On the other hand, it was pointed out that the MedPLAN tool lacks an integrated system for prioritization of conservation objectives and ecological/environmental impact assessment. More specifically, Torre Guaceto

highlighted the need to assess whether the financial strategies identified do support protection of marine ecosystems, and pointed out that the effectiveness of the tool depends on the capacity of, and choices made by, the MPA manager, including with regards to adaptation and alignment with existing budgetary tools and financial reporting system (e.g., financial structure and funding cycle).

Notably, two other LLs and their Contact Points provided initial comments on the MedPLAN tool without formally participating in the testing phase. While the MedPLAN tool was perceived potentially beneficial for Capo Gallo - Isola delle Femmine, the characteristics of its management structure, i.e. an authority carrying out the MPA management tasks besides its other responsibilities, brought some challenges in applying the tool. These challenges included the inability to extract cost and revenue data separately from the authority's ordinary operational data.

Several concrete improvements to the MedPLAN tool were proposed. These included incorporating a prioritisation of conservation objectives and tying financial strategies explicitly to environmental sustainability criteria; integrating ecological performance indicators into the gap analysis; adding an environmental impact assessment step for each strategy considered; and categorising the planning steps according to complexity and the maturity level of the MPA, so that users can identify which steps are appropriate for their development stage.

10.4 Blue4all MPA Finance Planner

The Blue4all [MPA Finance Planner](#) was validated by the LLs, but none of them implemented it fully, meaning that they did not fully fill out and consider all steps in the tool. None of the LLs estimated future costs and revenues, but their focus was instead on fitting the existing data from the past years in the Blue4all MPA Finance Planner framework (steps 1 and 2) and answering the questions about financing mechanisms (step 4). Regarding the potential new financing mechanisms, the results were consistent, with the most suitable and eligible mechanisms including (but not listed in order, due to different ranking positions for the different LLs): Government Grants/Tender-based Financing; EU-funded Projects; Eco-Tourism Packages; Foreign Conservation Finance; and, Annual Government Budget Allocation/Tax Revenue. Some mechanisms that were ranked at the top for one LL but lower for another were Concession Agreements and Revenue Sharing and Environmental Levies.

Regarding the feedback on the refined, integrated tool (i.e. the Blue4all MPA Finance Planner), Torre Guaceto was appreciative that prioritization of conservation objectives was included although the tool still lacks the technical linking of costs and revenues directly to these objectives. Some of the main spending categories chosen for the Blue4all MPA Finance Planner tool were considered too narrow (i.e. Research and Ecosystem restoration and compensatory actions) and/or placed in the wrong type of costs (recurrent costs instead of investments). It was also suggested that a category for general administration costs be added. Also, some revenue categories were considered misleading (e.g. "packages" in Eco-tourism packages), while volunteering was perceived to be difficult to monetize. A mid-level of public funds should be added, together with shareholder contributions.



The perceptions of the financial mechanism selection (step 4) were mixed. Capo Carbonara considered the feedback from the tool testing phase was well taken into consideration. The tool became easier to read and complete, and the outputs were generally understandable and supportive of decision-making. While the financial mechanism eligibility and feasibility questions might be less time-consuming to answer compared to finding and entering cost and revenue data for each year in previous steps (as expressed by one LL), step 4 has its own challenges. The difficulties identified by Capo Gallo - Isola delle Femmine include (1) perceived repetition of questions, (2) gaps in knowledge needed for some questions (especially relating to legal frameworks), and (3) time requirement for the follow-up feasibility questions.

Although the perceptions of the financial mechanism selection questions were mixed, the results-display component (Step 5) was generally viewed positively. Capo Gallo - Isola delle Femmine found the outputs clear and useful for identifying potential alternative funding sources for MPA managers. However, communicating the results of Step 5 to stakeholders was expected to be challenging, as it was assumed that they would often seek to understand how the identified mechanisms might directly affect them or their activities. Torre Guaceto also noted that while the tool's outputs indicated feasible financial mechanisms, they did not provide an immediate or actionable basis for decision-making at the individual MPA level. This challenge is similar to observations made in the Bohorquez et al. (2022) decision-support tool - though Torre Guaceto did not test that tool during the testing phase - where results highlighted potential mechanisms but required expert support in decision making and implementation. It was pointed out by Torre Guaceto that while a certain financial mechanism can display as feasible for the MPA, it may be very difficult to apply in practice because of the legal framework, especially (in Italy) where MPAs are public bodies and governed by strict regulatory framework. Several mechanisms cannot be directly "activated" by the MPA (e.g. tax revenues, Blue Carbon credits) because (although they might be legally available) the decision is taken by another (government) entity, and revenues from the financial mechanism is then distributed to the MPA only as budget allocations. In any case, the output was considered to be a good foundation on which discussions could be initiated about the possibility to implement certain or more financial mechanisms, in the long run (because it takes time to plan, negotiate and prepare a new financial mechanism/stream of revenue; for instance ten years in the case of a parking lot which provided self-generated income).

Table 8 - Summary of Strengths and Weaknesses of Tested/Validated Tools

Tool	Strengths	Shortcomings
Guidelines	• Clear and structured financial planning process • Supports diversification of funding sources • Includes practical templates and relevant European examples • Useful for new or transitioning MPA management teams	• Length and detail can be challenging with limited capacity • Requires financial and institutional understanding • Many mechanisms depend on external stakeholder cooperation

		Environmental safeguards and impact alignment not yet explicit
Bohorquez et al.	- Clear structure and clear objectives - Provides a useful diagnostic starting point - Helps newcomers understand financing logic in MPAs	- Language barrier and terminology require translation - Time-consuming to familiarise and populate - Requires higher financial expertise than some MPAs possess - Some elements not well adapted to Mediterranean governance context
MedPLAN	- Clear, intuitive and easy to use where financial management is consolidated - Useful for identifying funding gaps and structuring baseline financial data - Potentially valuable as a comparison tool across MPAs when used by public authorities	- Difficult to apply where governance is fragmented or financial data are distributed across institutions - Not well-suited for MPAs managed by provisional or multi-actor bodies - Does not integrate ecological or environmental performance criteria - Needs adaptation to different maturity levels of MPAs
Blue4all MPA Finance Planner	- Supports strategic thinking on diversified and long-term MPA financing. - Provides clear and understandable outputs to guide initial discussions. - Offers a structured process that helps identify potentially suitable financial mechanisms.	- Limited practical applicability due to legal and governance constraints. - Some steps are time-consuming and require expertise not always available in MPAs.

10.5 Uptake and Usefulness

The validation process showed that, while the tools differ in their level of complexity and in the type of support they offer, they were all regarded as useful when applied under the right conditions and when users were supported in navigating them. The LLs confirmed that the tools can help create a more structured approach to financial planning but also highlighted that their uptake depends on the availability of internal capacity and, in some cases, expert guidance to interpret the results. This is particularly relevant for tools that require a deeper understanding of regulatory frameworks or financial structures. A key limitation identified is the shortage of financial staff capacity across many MPAs. This creates a structural paradox: while MPAs require financial resources to carry out their core functions, they often lack the necessary expertise and capacity to develop robust financial plans and establish financing mechanisms. As a result, additional funding and specialized personnel are needed precisely at the stage when financial constraints are already most acute.



Torre Guaceto emphasised that the Blue4all MPA Finance Planner and the Guidelines have the potential not only to support a single MPA but also to serve as a basis for comparing financial management practices across multiple sites at local, regional or even international level. Similarly, Capo Gallo - Isola delle Femmine considered that the public body (i.e. the responsible authority that regulates and governs all or multiple MPAs in Italy) could benefit from the Blue4all MPA Finance Planner. For example, this tool can be used to compare and aggregate the results of different MPAs within the country if the tool can be applied consistently across several MPAs. Capo Carbonara stressed that both the Guidelines and the Bohorquez tool are especially useful for MPAs that are just beginning to structure their financial planning, as they help users understand how different financial mechanisms function within the governance context of an MPA. However, Capo Carbonara also noted that guided support from an experienced manager is important - particularly for the Bohorquez tool - in order to make the most of its learning potential and ensure that results can be translated into practical decisions. In this way, uptake and usefulness depend as much on institutional capacity and support structures as on the technical qualities of the tools themselves, which explains the variability in user experience observed across the Living Labs.

The feedback received from the tool testing and development phases was constructive and highlighted both the challenges and the potential of using the tools. In practice, however, the outcomes from the implementation of the tools were initial rather than transformative across the Living Labs, primarily serving as a first step towards more structured, transparent, and strategic financial thinking. For Torre Guaceto, the Blue4All MPA Finance Planner mainly confirmed the management's current understanding and approaches to financial management, while also providing a structured framework to reflect on existing practices and identify gaps, but has not, at the time of writing this deliverable report, resulted in concrete changes to internal practices, nor has the tool been used directly in communication with stakeholders or decision-makers. For Capo Carbonara, the tool indicated several suitable financing mechanisms (further discussed in the textbox below), thereby supporting internal discussions on diversification opportunities and long-term financial options; however, no next steps for comprehensive future financial planning nor adoption of any of the financing mechanisms had yet been taken. Importantly, the tool helped raise awareness of financial planning needs and options in both MPAs, but tool implementation took place over a relatively short time period, and a longer time horizon (for example, at least one full financial year) is likely required to fully assess outcomes, learning effects, and potential benefits. For Capo Gallo - Isola delle Femmine, the Coast Guard does not have the resources needed to further develop or implement additional financial mechanisms at this moment. Nevertheless, the results (see textbox below) from steps 4 and 5 help to highlight which options appear more feasible in general, considering legal, operational, and management aspects. Although these mechanisms are not currently in place in this specific MPA, some have already been used in other Italian MPAs or within the same national management framework, which offer the potential for future management body to take these mechanisms on board. Together with other mechanisms that have not yet been tested by other Italian MPAs but with high suitability, Capo Gallo - Isola delle Femmine would consider testing the implementation if resources and capacity conditions allow in the future.

Outcomes of Implementing the Blue4All MPA Finance Planner in Capo Carbonara

Potentially suitable financing mechanisms:

1. Government Grants/Tender-based financing
2. Foreign Conservation Finance
3. Environmental Levies
4. EU-Funded Projects
5. Eco-Tourism Packages
6. Annual Government Budget Allocation/Tax Revenue
7. Blue Carbon Credits
8. Non-Extractive Licenses and Permits
9. Private Voluntary Donations
10. Eco-Certification Programs
11. Community Membership Fees or Contributions
12. Philanthropic Grants

All listed financial mechanisms have a suitability score above 50%.

Among these, several are already implemented, such as government grants, EU-funded projects, annual government budget allocations, and philanthropic grants (referring to project-specific funding provided by partner organizations or NGOs). Private voluntary donations are also occasionally implemented; however, the MPA cannot collect small-scale or direct visitor donations (e.g., donation boxes or small individual contributions). It can, however, legally receive structured, purpose-specific donations from private donors or institutions, provided that funds are earmarked for a clearly defined objective or project and associated with an appropriate timeframe.

Other mechanisms appear highly suitable and realistically compatible with the MPA's institutional structure and national/local legislation. These include environmental levies (e.g., a tourist environmental tax), eco-tourism packages, and foreign conservation finance.

Mechanisms such as non-extractive licenses and permits, eco-certification programs, and community membership fees or contributions are potentially suitable but more complex to implement, mainly due to the current limited MPA staffing capacity.

Finally, blue carbon credits are currently being studied and developed in Italy, but there is not yet a clear regulatory path for their operationalization. They may become an interesting and valuable financial mechanism in the future.

Mechanism	Status/Feasibility	Notes
Government Grants/Tender-based Financing	Already implemented	Regular participation in national/regional tenders.
EU-Funded Projects	Already implemented	Participation in EU projects, especially LIFE programs.

Annual Government Budget Allocation / Tax Revenue	Already implemented	Core structural funding from public authorities.
Philanthropic Grants	Partly implemented	Project-specific grants provided by partner organizations or NGOs (e.g., MEDSEA).
Private Voluntary Donations	Partly implemented	Only structured, purpose-specific donations allowed; small-scale or casual contributions are not feasible.
Foreign Conservation Finance	Highly feasible	Suitable for innovation, restoration, training, monitoring.
Environmental Levies	Highly feasible	Could include municipal or regional environmental surcharges.
Eco-Tourism Packages	Highly feasible	Could be implemented through partnerships with local operators.
Community Membership Fees or Contributions	Potentially feasible	Requires structured network and coordination staff capacity.
Eco-Certification Programs	Potentially feasible	Voluntary standards for sustainable operators; staff capacity-dependent.
Non-Extractive Licenses and Permits	Potentially feasible	Requires administrative coordination and enforcement of staff capacity.
Blue Carbon Credits	Future potential	Awaiting national regulation and certification pathways; potential for monetizing carbon sequestration from <i>Posidonia oceanica</i> meadows.

Outcomes of Implementing the Blue4All MPA Finance Planner in Capo Gallo - Isola delle Femmine

Potentially suitable financing mechanisms:

1. Cultural and heritage-based contributions
2. Eco-tourism packages
3. EU-funded projects
4. Concession agreements with revenue sharing
5. Environmental levies.

All listed financial mechanisms have a suitability score above 80%.

Although no immediate action is planned, these findings suggest that public-sector and tourism-related approaches (especially EU funding) could offer useful opportunities for a future management body, which should help to sufficient resources and make institutional capacity become available.

While usability was rated positively by participating Living Labs, varying levels of engagement with these tools highlight that their application is shaped not only by the design of the tool but also by contextual and structural factors. A key constraint identified across multiple cases is the lack of dedicated financial staff capacity within MPAs. Financial planning remains a specialised task, often requiring expertise that is not available within existing teams. As a result, the full application of the Blue4all finance tools can be constrained by limited human resources and competing operational priorities.

Closely linked to this, the inherently complex nature of financial planning must be explicitly acknowledged when assessing usability. Although both tools were intentionally designed to be accessible, simplifying financial analysis into a structured step-by-step format, financial planning for MPAs remains a demanding task. Users without prior financial experience may still find the concepts, terminology, and data requirements overwhelming, which can lead to partial use or hesitation in fully engaging with the tools. At the same time, more experienced users may perceive certain elements, particularly within the Finance Planner, as lacking the level of detail required for advanced financial modelling. This reflects a deliberate design trade-off: the tools were simplified to increase accessibility across a wide range of MPA contexts, which inevitably limits their depth for highly specialised applications. The observed patterns of uptake therefore reflect not only usability in a narrow sense, but also the challenge of designing tools that are both broadly accessible and sufficiently detailed for expert use.

In addition to capacity and usability considerations, governance and institutional context play a decisive role in determining whether and how both the developed tools and suggested mechanisms can be applied. In several MPAs, financial decision-making authority is located outside the MPA management body itself or embedded within rigid administrative systems. In such contexts, the outputs generated by the Finance Planner or the strategic insights derived from the Guidelines cannot easily or fully be translated into action. These limitations reflect broader structural constraints within MPA governance systems. This issue is explored in greater depth in Chapter 11.

Importantly, the Blue4all MPA Finance Planner was designed as a flexible instrument, not only aiming at full implementation and functioning as a comprehensive financial planning tool. Instead, it can be applied in a modular and context-dependent manner. While it is capable of supporting the development of a complete financial plan, it can also be used more selectively, for example to map expenditure, income streams, and funding gaps, to improve transparency and communication with stakeholders, or to initiate discussions on suitable financing mechanisms. Feedback from Living Labs, such as Torre Guaceto, highlighted that the tool is particularly valuable for communicating how financial resources are allocated within the MPA and for making financial information more accessible to both internal and external stakeholders. Similarly, the Guidelines provide a structured framework that can guide strategic reflection even when full financial planning is not feasible. In this sense, both tools support not only implementation, but also learning, communication, and incremental engagement with financial planning processes.

These findings have important implications for future uptake. First, they demonstrate that neither the Finance Planner nor the Guidelines should be understood as standalone solutions, but rather as components of a broader support system that includes capacity building, facilitation, and adaptation to specific governance contexts. Second, they highlight the importance of flexibility: the ability to use the tools partially or iteratively allows MPAs to engage with financial planning at a level appropriate to their current capacities and mandates. Third, the findings make clear that while the tools can support structured financial thinking and decision-making, they cannot resolve underlying governance constraints or substitute for institutional authority.

Looking ahead, the work carried out under Blue4all provides a foundation for continued development and application. Future initiatives, such as BLUECONNECT, will build on both the tools and the insights generated in Task 2.4, further testing and refining financial mechanisms through broader case studies. In this context, the partial uptake observed in Blue4all should be understood as a valuable empirical result, highlighting the conditions under which financial planning tools can be most effectively applied. Ensuring their long-term relevance will depend not only on further technical refinement, but also on embedding these tools within enabling institutional environments and support structures that allow MPAs to translate financial planning into concrete action.

11. Critical Reflections and Implications for Future Implementation

11.1 Reflections on Co-development and Tool Testing Processes

The co-development of the Blue4all MPA Finance Planner was guided by the project's broader commitment to inclusive and effective conservation processes. The iterative approach aimed at ensuring that the tool evolved in response to real management needs and operational realities faced by MPAs. However, through the co-development cycle, several important lessons emerged regarding the use and design of financial planning tools for conservation.

A first reflection concerns the role of language as a barrier to effective tool use and co-development. One Living Lab, Capo Carbonara, faced challenges due to the tool and guidance being available only in English. The MPA staff primarily speaks Italian, and communication was only possible through MEDSEA as an intermediary. While this situation was managed well by the parties involved, it partially obstructed the open communication between the MPA management staff and the T2.4 team and hindered continuous alignment between the project aims/coordination and the management needs and realities. Additionally, it highlights an important limitation: financial planning tools intended for broad European uptake must be available in multiple languages to ensure equity, usability and meaningful engagement. Language barriers risk not only slowing the process but also reducing confidence in using the tools independently.

A second key reflection relates to the structure of the co-development process. The methodology was organised in two rounds: an initial phase focusing on overarching concepts, structure and logic of the tool, followed by a second phase dedicated to practical implementation and refinement. This sequencing proved highly effective. By decoupling strategic review from operational testing, MPA



managers were able to concentrate on different aspects at each stage, allowing targeted feedback and more efficient integration of improvements. This phased approach demonstrates the value of iterative design that respects the time limitations and cognitive load of MPA practitioners.

A third important insight concerns the diversity of financial expertise among participating MPAs. The Living Labs included managers with experience in financial planning alongside others with limited previous exposure to budgeting and revenue mechanisms. This diversity provided an advantage: it ensured that feedback came from both advanced users who could assess the tool's technical robustness and non-experts who could evaluate accessibility and clarity. As a result, the final version of the tool better reflects the needs of MPAs with different financial understanding, demonstrating that co-development benefits from engaging users with heterogeneous perspectives and skillsets.

Beyond these specific observations, the co-development process also underscored deeper structural challenges. Some MPAs struggled to fully engage due to limited time, high seasonal workload and resource constraints. This confirms that technical innovations alone cannot overcome capacity barriers; concurrent support structures, such as facilitation, training and follow-up guidance, remain essential for long-term adoption.

In addition, the experience revealed that the success of co-development depends not only on user consultation, but also on clarity of purpose and shared understanding of terminology. Concepts such as “business model” and “financial strategy” were interpreted differently by MPAs depending on their governance context and institutional culture. This indicates the importance of aligning language and definitions early in the process to avoid misunderstandings and ensure that users fully grasp the aim and potential of the tools being developed.

Stakeholder Engagement

Consistent with the principle of social justice, one of the additions to the Blue4all MPA Finance Planner tool made by the team was Step 6, “Engage Stakeholders in Financial Strategy Development”. This step was designed as an optional but recommended process to help MPA managers secure buy-in, ensure transparent communication, and draw on local insights when developing a financing strategy. The intention was to recognise the importance of legitimacy, shared ownership and practical feasibility in the implementation of new financing approaches. Notably, step 6 of the Blue4all MPA Financial Planner is an outline for a participatory process that is customized for this specific aspect of MPA management.

However, none of the participating Living Labs chose to apply this step in practice in the tool validation phase. Several factors appear to have contributed to this outcome. First, time and resource constraints played a significant role. The validation period was relatively short and overlapped with the summer season, which is generally a high-demand period for MPAs. In some cases, the management teams already operate with exceptionally limited human and financial resources, making it difficult to allocate time for an additional process such as stakeholder engagement, even when recognised as valuable.



A second reason why Step 6 was not used relates to how the LLs understood the purpose of the financial planning tools. Many MPAs perceived the tools primarily as something to support *internal planning*, rather than as a process to be carried out together with external actors. In several cases, managers felt that stakeholder engagement should come *after* a draft financial strategy is developed, not during its development. In addition, differences in experience with financial planning meant that some MPAs focused primarily on becoming familiar with the tool itself, rather than extending the process to external consultation. Even those MPA managers who were more experienced considered stakeholder engagement as something to be done at a later stage, once the results are clearer and ready to be shared.

The divergence between the intended design of Step 6 and its actual use in the validation phase provides an important learning outcome: although stakeholder engagement is recognised as a cornerstone of effective conservation finance, its implementation is highly dependent on management capacity, timing, and the perceived “readiness phase” of the financial planning process. In other words, the co-development process showed that even well-designed engagement steps may not be activated unless the right enabling conditions are present.

Reflections on Engaging MPA Networks

The experience of involving the Baltic Sea MPA network (HELCOM) in the tool testing process offered valuable lessons on how regional networks differ from individual MPA engagement, especially, but not exclusively, the financial planning of MPAs. While HELCOM brings together strong expertise in coordination, policy and regional cooperation, this did not always translate into access to the national or site-level staff who work directly with MPA finances and would have been best placed to test the tools.

This also demonstrated that approaches which worked effectively within the Living Labs, such as Stakeholder Engagement Groups, are not automatically transferable to a network setting involving multiple countries, administrative layers and institutional mandates. In practice, matters of timing, communication flow and matching expertise to task became much more complex at the network scale.

This challenge is amplified by the fact that the Baltic Sea MPA network spans nine countries, each with its own governance system, legal framework and funding arrangements for MPAs. Even within one regional network, there is no single “Baltic model” of MPA financing, but rather a patchwork of national and subnational arrangements that shape whether and how financial tools can be applied.

Another example of this is provided by the Wadden Sea MPA, where Denmark (one of Blue4all’s LLs as an individual MPA), Germany and the Netherlands cooperate through the Trilateral Wadden Sea Cooperation to manage a shared World Heritage site (BMU, 2019). This cooperation provides an overarching framework and a common management plan, but day-to-day protection and financing still rely on the individual systems and resources of each state. Joint initiatives such as the Wadden Sea Funding Guide (Gilles et al., 2022) focus on identifying external funding opportunities for trilateral projects, rather than creating a single shared operational budget. Therefore, financial

planning tools, such as the Blue4all MPA Finance Planner, could potentially still be applied to guide a network-level or regional planning, but structures to align financing at this level need to be in place.

Against this backdrop, the Blue4all approach to stakeholder engagement groups, which worked well at the scale of individual MPAs, proved more difficult to translate to a transnational network like the Baltic Sea MPA Network. This experience highlights an important insight: co-development processes at network level require tailored engagement models. Future efforts would benefit from dedicated time and design to ensure the right level of participation and a clearer pathway between regional structures and the practitioners who would ultimately apply the tools.

11.2 Context- and Governance-Specific Constraints in Implementing MPA Financing

While the conservation community has been enthusiastic about applying an economic mindset to the management of MPAs, and despite the development of well-informed and well-designed tools and guidelines, the practical application of these mechanisms beyond the tool testing and validation conducted under Blue4all strongly depends on the governance context of the MPA. During the testing of the tools with the Living Labs, and through informal exchanges with MPA managers and conservation finance specialists, several barriers and limitations were identified that are directly linked to the wider administrative, legal and institutional environment in which European MPAs operate.

Many European MPAs are public bodies and are financed primarily through public budgets. This creates a governance and financial context that differs substantially from MPAs in regions such as Southeast Asia or Latin America, which were influential in shaping the global discourse and literature on conservation finance (sources). In these regions, MPAs are often managed with greater legal and institutional flexibility to generate, retain and reinvest revenue streams at site level (source). By contrast, in Europe, the public governance model means that financing structures, legal frameworks and internal procedures are not always aligned with approaches derived from business practice or market-based conservation finance. This gap between theory and governance reality must be acknowledged when designing and applying financial tools.

The governance structure and level at which an MPA is managed strongly shape both the applicability of financing mechanisms and the relevance of financial planning tools, as illustrated through the Living Lab cases. Torre Guaceto, although publicly managed, operates under a co-management arrangement involving the municipality and NGOs. This hybrid model introduces greater flexibility in financial decision-making and has enabled the MPA to explore and, in certain cases, adopt innovative financing mechanisms (e.g., managing a parking lot). Capo Carbonara presents a different scenario. Managed at the municipal level, the MPA must operate within the municipality's administrative and budgetary procedures, which impose the typical constraints of public entities. Among these is the difficulties for the MPA to directly manage certain types of revenue, such as spontaneous donations or voluntary contributions, especially if they are not linked to a specific project or need to be handled within a short time frame. This complexity does not

prevent the implementation of institutional activities, but the administrative procedures require stronger financial and operational planning to ensure that programmed actions can be carried out effectively and consistently.

In other contexts, legal and institutional barriers are even more pronounced. Belgian MPAs, for instance, are fully publicly funded and managed by a public service that assumes MPA responsibilities (alongside other mandates) at the national level, rather than managing the MPAs through site specific local agencies. In such a context, the responsibility for the MPA is diffused through the different persons and entities that work on the various aspects of conservation. For example, in this case conservation objectives were defined in the past by a set of policymakers informed by scientists and monitoring is delegated to the public research institute. The people coordinating the different aspects of the MPA's management are neither trained in the financial aspects of the MPA nor fully aware of how the budget is allocated and distributed across the different tasks. Therefore, both the analysis of the financial gap and the assessment of which financial tools could suit the area could not be done by the MPA managers. Applying one of these tools appears even less feasible in this context.

The situation of the Belgian MPA (though often not to this extent) is common in Europe and illustrates the administrative complexity of the marine conservation landscape. Developing financial autonomy in some MPAs would require a major shift in governance, one that empowers MPA managers and enables the diversification of financing through the selection and implementation of new financing mechanisms. Even where MPA managers have the autonomy to pursue self-financing approaches, this often implies engaging with a new set of actors beyond the traditional conservation sphere, such as financial and legal experts, and potentially private or financial institutions, depending on the mechanism chosen. To ensure that the appropriate financing mechanism is selected and implemented correctly, the required expertise must be acquired, hired, or sourced externally, implying additional upfront costs. While these costs may be considered an investment enabling future revenue generation, they must be incurred before any returns are realised and therefore carry the risk inherent to business-related decisions, including the possibility that projected revenue targets are not met.

Another significant barrier to the implementation of financing mechanisms is the legal status of the MPA. Many MPAs are public entities that were not designed to act as businesses but need to plan for a balanced budget. A possibility to directly reinvest a revenue in the MPA may require changes to the legal status of or rules governing the MPA. While this is not unfeasible, it represents a long and significant effort and therefore constitutes a major barrier to MPA financing diversification and revenue retention.

Finally, another major barrier highlighted in the literature is the general cultural or political reluctance to monetizing and privatizing natural resources (Bohorquez et al., 2022). This is especially the case for tourism-related mechanisms, **such as the introduction of visitor fees, access charges, or tourism-related levies**, and is particularly strong in relation to the marine environment, which is traditionally perceived as a common good free for all to explore. In the Task 2.4 tool testing and

validation process, the question rose whether the language, which stems from a business context, used in the tools may be a factor that can contribute to an MPA manager's scepticism towards financial planning and **the introduction of such mechanisms**, but the establishment of a correlation between framing and tool uptake needs further exploration.

Despite the major barriers that make novel financing mechanisms challenging to implement in the current context, diversification of funding sources could be a major lever for MPAs to reach their conservation objectives and aim for even more ambitious conservation targets. Yet to make it happen, major shifts must occur at administrative, legal and governance levels. Only with the allocation of proper resources such as people, expertise, time and money, and with the empowerment of MPA managers can diversification of funding sources become a reality.

11.3 Broader Implications for Social Justice

As noted in the introduction of this report, both financial sufficiency and social justice are recognised as determinants of long-term effectiveness of MPA management, and therefore also of MPA financing. The testing and validation of financial tools in LLs within the Blue4all project indicate that MPAs in Europe still face several challenges related to the achievement of financial sufficiency, while there is room to develop stakeholder consideration and participation in financial planning. The challenges MPAs face include lack of consistent and sufficient levels of resources (including personnel that could focus on enhancing participatory equity in the financial planning and strategy development process), lack of experience in financial management or implementation of financial mechanisms and business models (thus, no or little experience in how to engage stakeholders in financial matters), resistance towards applying business approaches in MPA management (followed by little interest in using financial planning tools), and governance frameworks that are (or are perceived to be) incompatible with financial mechanisms or business approaches. The integration of long-term strategic financial planning into MPA management, especially combined with stakeholder engagement, is seemingly still overshadowed by the short-term budgeting practices and prioritizations that managers must do under constant resource constraints. To increase their funding, managers should invest time and resources into planning and developing the financial strategy, in order to increase the resources available for securing additional funding and furthering social justice in financial planning, but they are often too busy managing the daily operations of the MPA (sometimes as one task among others) with the little resources that they have. These challenges are making it difficult to initiate change towards sustainable financing of MPAs, whether such efforts are made with or without stakeholder consideration and/or engagement.

Despite the existence of challenges, the task 2.4 team identified opportunities for enhancing justice from the tool testing and validation process. Particularly, feedback from Torre Guaceto highlighted a potential risk that, since the MedPLAN tool lacked an explicit link between expenses and conservation objectives (i.e. the effects of the MPA activities and funding sources on the conservation targets), the user may get too focused on the numbers and disregard potential adverse environmental impacts of new financial mechanisms (e.g. tourism activities). For this reason, the Task 2.4 team included prioritization of conservation objectives as a first action point in the refined

tool (Step 0) as well as monitoring questions that focus on both the financial result and the achievement of conservation objectives (Step 8). These additions can support the advancement of environmental equity in financial planning (i.e. the efficacy of the conservation actions; the adequacy and effectiveness of management; and the flow of benefits of environmental conservation to local communities (Bennett et al., 2021)). Further, with the addition of Step 6 (“Engage Stakeholders in Financial Strategy Development”) the tool holds potential to support the MPA in enhancing the distributive equity dimension, since it provides a basis for assessing, communicating and discussing the impact (i.e., benefits and burdens (Bennett et al., 2021)) of the MPA objectives, activities and potential new or changes in financing mechanisms on stakeholders and nature. In addition, the Blue4all MPA Financial Planner was considered to hold the potential to function as a basis for discussions with regulators and political decision-makers. Such interventions could bring attention to the challenging financial situations of MPAs, and potentially spark reforms that can enable new revenue streams. Generally, to secure financing that is sufficient and reliable as well as increasingly equitable, the task 2.4 team see potential in applying the Blue4all MPA Financial Planner tool together with [The Justice Deliberation and Assessment Tool](#), (Varjopuro and Rekola, 2025), developed by Blue4all Task 2.2. This comprehensive approach for understanding social and cultural dimensions of nature conservation, should ideally be conducted as an integral part of conservation planning and management, to improve informed decision-making and create opportunities for resolving conflicts.

12. Conclusions and Recommendations

12.1 Implications for Future Implementation

The validation of the Blue4all financing tools shows that the core challenge for strengthening MPA financial sustainability is not only a lack of financial mechanisms or analytical tools, but the institutional environments in which they must function. In many European contexts, MPAs lack the mandate, authority or internal capacity to operationalise revenue-generating mechanisms. As long as budgetary control remains external to MPA managers, and financial responsibility is fragmented across different agencies, even well-designed tools serve primarily as advisory or planning instruments rather than drivers of practical change.

This explains why, during pilot testing, tool use largely remained internal to MPA teams and did not yet extend to stakeholder engagement or implementation planning. The HELCOM case demonstrates this most clearly: at the network scale, coordination roles are separated from legal and budgetary roles, limiting the ability to implement financing strategies across institutional boundaries.

Looking forward, improving financial sustainability depends on more than developing new instruments. It requires adapting governance arrangements so that MPAs have sufficient mandate, clarity of roles and internal capacity to act on financial plans. In the short to medium term, tools such as the Guidelines, MedPLAN, the Bohorquez framework and the Blue4all MPA Finance Planner can play a critical preparatory role. They help MPA teams clarify their needs, identify financing

options, and build financial literacy and readiness. At the same time, they can serve as evidence-based communication instruments, supporting dialogue with regulators, ministries and funding bodies.

Closing the financial gap for MPAs therefore requires a dual approach: gradual institutional strengthening over time, combined with immediate, practical measures that improve capacity, financial planning culture and cross-agency coordination. Strategic financial planning must become an integrated part of MPA management, without compromising conservation objectives or public accountability. Ultimately, financial sustainability remains a long-term process that depends on improving legal mandates, governance conditions and resource stability, but meaningful progress can still be achieved through incremental action and targeted policy support.

The findings and recommendations below as well as the critical reflections in *Chapter 11* are derived from the reflection process carried out within five case studies. It is important to note that only two MPAs (Capo Carbonara and Torre Guaceto) were able to test, validate and implement the financial planning tools chosen and developed by the T2.4 team. The remaining LLs provided valuable insights but could not test the tools to the same depth, often due to governance or institutional constraints. As a result, the conclusions presented here should not be read as universally applicable to all European MPAs, but as grounded learnings from a limited number of real-world contexts that nevertheless highlight broader systemic patterns and policy-relevant trends.

12.2 Conclusions for policy makers

Findings	Explanations	Policy Implications
Financial sustainability may require support beyond the MPA level	Across Europe, many MPAs lack the legal authority, staffing capacity or institutional mandate to raise, retain or reinvest revenue.	Funding frameworks should recognise that MPAs need enabling conditions, not just tools, to use finances strategically.
Stable public funding remains essential	Even with diversification, MPAs require predictable baseline budgets to cover core management and monitoring needs.	Diversification should complement, not replace, public funding commitments.
Financial planning could be better integrated into MPA governance	MPA staff frequently lack time, expertise or authority to engage in complex planning.	Policies should embed financial planning into management cycles, staffing profiles and training programs.
Governance diversity means that financing approaches need to be context-specific	The case studies showed significant differences between municipal, privately or co-managed, nationally administered and network-level MPAs.	Support measures may need to be adapted to different governance models, rather than following a single approach.
Tools play a valuable role but only under the right conditions	Planning tools helped MPAs understand financial gaps and mechanisms, but could not address	Tools might be most effective when paired with capacity-building, mandate clarity and institutional support.

	legal or institutional barriers by themselves.	
Capacity building appears to be a key enabling factor	Many MPAs share a need for additional knowledge in budgeting, financial planning and legal feasibility.	Investments in training, guidance and professional support could strengthen financial readiness

12.3 Recommendations

Recommendations for MPA Managers

- Integrate financial planning into core management processes and ensure it remains explicitly linked to conservation objectives.
- Apply tools such as the Blue4all MPA Finance Planner, Bohorquez Framework or MedPLAN modularly and in alignment with annual planning cycles to avoid overburdening staff capacity.
- Prioritise financial mechanisms that are legally and institutionally feasible in your governance context before exploring more innovative options.
- Engage the institutions or authorities that control budget decisions early in the process to avoid misalignment between planning and financial power.
- Use financial planning exercises to build internal consensus, strengthen strategic clarity and reinforce arguments for securing stable resources.
- Draw on external expertise from NGOs, researchers or co-management partners to address gaps in legal, financial or facilitation capacity.
- Introduce stakeholder engagement once a draft financing strategy is in place, and progressively integrate broader participation and social justice considerations as experience with financial planning tools and mechanisms grows.
- Communicate financial needs, funding gaps and constraints transparently to build legitimacy, trust and political or institutional support.

Recommendations for Researchers Working on MPA Finance

- Complement survey-based assessments with deeper qualitative engagement to accurately capture financial realities and institutional constraints.
- Tailor tools, methods and guidance to different governance models rather than assuming a single type of MPA.
- Develop and test financing approaches that account for public-sector budgeting rules, legal barriers, and limits on revenue retention common in Europe.
- Create multilingual versions of tools and frameworks to ensure accessibility for MPAs operating primarily in national languages.

- Strengthen research on financial planning needs and mechanisms for MPA networks, including transnational governance structures.
- Produce applied case studies that document not only successful mechanisms but also partial, failed or blocked financing attempts to support realistic learning.
- Co-develop tools and processes with MPA staff to ensure usability under real capacity constraints rather than ideal implementation conditions.
- Expand research on social acceptability, equity implications and stakeholder engagement in MPA financing.

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