BLUE4ALL FACTSHEETS

Tool Testing in Action

Blue4all

A closer look at our MPA sites across **Europe**



ABOUT BLUE4ALL

Blue4All is a Horizon Europe Mission Ocean project that addresses marine conservation and restoration challenges across Europe. In collaboration with MPA managers and stakeholders from 14 MPAs (Living Labs), the project is testing and developing practical tools to support the protection and recovery of the marine environment in a socially just way. The tools are brought together in a user-friendly Blueprint Platform to support the design and management of effective, efficient, and resilient MPAs and MPA networks.

From spring 2024 to fall 2025, Blue4All researchers actively tested many of these tools - including software based decision support tools, workshops, awareness campaigns, Excel-based resources, and guidebooks - by applying them to different Living Labs across Europe. The following publication summarizes the main tools that were tested and the specific activities that took place in each Living Lab.





Platamuni, Katič, and Stari Ulcinj

BLUE4ALL LIVING LAB

Location

Adriatic coast of Montenegro (south-east of the Bay of Kotor, near Bar Budva, Bar and Ulcinj)

DesignationNature Park

Main Pressures

Coastal development, anchoring in sensitive habitats, fishing, mass tourism, marine and land-based pollution, the spread of invasive species



Public Awareness and Engagement

Local communities are still in the acceptance phase and need targeted education and outreach activities.

Strengthen Institutional Capacity

There is a shortage of trained staff and experience in MPA implementation and enforcement.

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Sustainable Tourism Dialogue: Reducing Jet-Ski Impacts in MPAs

Focus: Examining tourist awareness of the impact jet-ski water recreation activities and proposing measures to mitigate these impacts.

Activities: Questionnaires; Result presentation at travelling exhibition; Workshops and discussions with MPA advisory bodies; Mitigation measures proposition meeting with tourism operators, measures specific to the impacts of personal watercrafts on the marine ecosystem

OUTCOMES



TOURISM PERCEPTION INSIGHTS



PARTICIPATORY MANAGEMENT PROPOSALS







Capo Carbonara

BLUE4ALL LIVING LAB

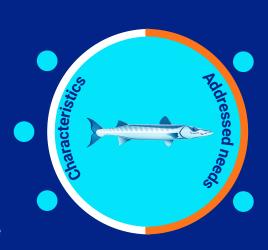
Location

South-eastern Sardinia, Italy - Mediterranean Sea

DesignationNational MPA and Natura 2000

Key Stakeholders

Tourism sector, the municipality, fishermen, researchers



Zoning and Spatial Clarity

Need to revise the current MPA zoning through a participatory process, supported by clear, accessible maps and guidance for users

Secure Sustainable Financing

Diversification of funding sources and greater financial planning capacity at the MPA level

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Financial Planning Tools – Guideline MPA Business Planning & Blue4All Finance Planner

Focus: Determining the financial health of the MPA, choosing suitable financing mechanisms, and developing a financial strategy

Activities: Consultation with MPA management, development of a guidebook and Excel tool for financial planning, completion of tools by MPA managers based on site-specific context

Participatory Rezoning for Balanced MPA Design

Focus: Ensuring that revisions of protection zones are both environmentally sound and socially acceptable, using a participatory stakeholder approach. Balancing ecological priorities with socio-economic and political considerations.

Activities: Technical review, internal consultation with the municipality, stakeholder workshops and consultations





Torre Guaceto

BLUE4ALL LIVING LAB

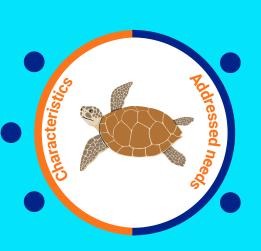
Location

Apulia region, southern Adriatic Sea, near Brindisi, Italy

Designation National MPA, Natura 2000

Key Stakeholders

Fishermen, NGOs, academics, cooperative representatives, MPA officials



Challenges of the MPA Expansion

Discussing ways to improve both social and conservation outcomes of the MPA expansion for actors such as recreational fishers and tourist operators

Dealing with Illegal Activities

Improving governance and equity in MPA management processes to help deal with challenges such as illegal fishing

BLUE4ALL TOOL TESTING

SAGE - Site-level Assessment of Governance and Equity

Enabling site-level actors to Focus: improve governance and equity of their conservation work to enhance both social and conservation outcomes: assessing perceptions of equity, stakeholder engagement and governance perceptions within the MPA management process through bottom-up approach

Activities: Stakeholder mapping, stakeholder surveys and interviews, analysis, workshops, knowledge sharing.

Financial Planning Tools -Guideline for MPA Business Planning & Blue4All Finance Planner

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Otranto Leuca

BLUE4ALL LIVING LAB

Location

Puglia, Italy -Mediterranean Sea

Designation

MPA still in establishment process

Key Stakeholders

Diving and boat operating sectors, tourists



Stakeholder Awareness and Involvement

Need to strengthen local understanding of the ecological and socio-economic benefits of the MPA and to actively involve stakeholders in the establishment process.

Develop Zoning and Governance Frameworks

There is a need to formalise the MPA perimeter, zoning, governance structure, and management regulations through participatory processes.

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Stakeholder Engagement Framework

Focus: Understanding the awareness, perceptions, and expectations of key stakeholders in Otranto Municipality to support effective stakeholder engagement and the long-term succes of the MPA.

Activities: Tourism-stakeholder mapping, semi-structured interviews, informative seminar, tourist survey

KEY CHALLENGES



Early-Stage Planning



Diverging Expectations



Complexity









Capo Gallo - Isola delle Femmine

BLUE4ALL LIVING LAB

Location

Northwestern coast of Sicily, near Palermo, Mediterranean Sea

Designation National MPA and Natura 2000

Key Stakeholders
Addressed
Tour operators,
tourists



User Perceptions and Compliance

Users' motivations for noncompliance and their views on the MPA need clarification

Tourism Stakeholder Awareness

Raising awareness among tourism stakeholders about the existence and goals of the MPA

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Understanding Perceptions and Compliance Patterns

Focus: Exploring user perceptions of the MPA, reasons for non-compliance, and enhancing public understanding of its relevance. Its focus is on tourism stakeholders, specifically scuba diving and boat operators and tourists.

Activities: Surveys targeting tourists and tourism operators, informational posters and leaflets distributed on-site

Financial Planning Tools - Guideline for MPA Business Planning & Blue4All Finance Planner

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Vlaamse Banken

BLUE4ALL LIVING LAB

Location

South-western Belgium – southern bight of the North Sea

Designation

Special Area of Conservation (SAC) – Natura 2000 site

Existing Restoration Efforts

Restoration of historical reefs of the European flat oyster (Ostrea edulis)



Stakeholder Ownership and Support

Recognized need to build a stronger sense of ownership and understanding among users regarding the purpose and value of MPAs.

Restoration Objectives and Measures

Need for targeted guidance on appropriate restoration actions and how they relate to species and habitat recovery.

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Ecosystem Service Valuation - Restoration of Oyster Reefs

Focus: Identification and valuation of ecosystem services linked to oyster reef restoration, with the aim of including differing stakeholder perspectives and providing clear, communicable arguments for conservation.

Activities: Data collection from existing studies to apply value transfer methods; Semi-structured interviews with experts, practitioners, policymakers, fisheries representatives, and marine conservationists; Production of a video presenting the work of the tool.



Irish MPA Network

BLUE4ALL LIVING LAB

Location

East coast of Ireland – part of the Irish Sea and the Celtic Sea

Designation

MPA network expansion still in the process; MPAs are not currently defined in Irish law; designation as national park

Main Human Activities

Fishing, Maritime Traffic, Infrastructure Development



Legal Framework and institutional clarity

MPAs are not currently recognised in Irish law, creating a significant gap in governance and formal engagement.

Cumulative Impacts

Need to assess combined pressures on ecosystems.

Stakeholder Engagement

No meaningful stakeholder collaboration has occurred to date in site identification or design.

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PlanWise4Blue - Cumulative Impact Assessment of Selected Nature Values

Focus: Assessing cumulative impacts of human activities and pressures on nature values

Activities: Data layers collection and assessment, ecological sensitivity analyses, refinement of the geographical scope of the analysis, selection of nature values, human activities and pressures, and impact scenarios evaluated

STEP BY STEP APPROACH













Dundalk Bay

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Location

Irish estuary near the border with Northern Ireland part of the Irish Sea

Designation

Natura 2000, Ramsar-protected site, OSPAR site, and expected to be incorporated into a national MPA network in the future

Key Stakeholders

Local government, national government, ORE, fisheries, environmental interest groups, community groups



Stakeholder Understanding

Understanding of priorities for future management and engaging with stakeholder groups as a basis for sustained engagement on MPA management

Inter-Stakeholder Engagement

A platform for engagement between stakeholders - to share ideas and concerns related to the current and future management of the bay

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Survey on MSP and MPAs

- Focus: Investigating links between values, place attachment, and the perceived community impact of policy
- Activities: Surveys around the bay

Facilitated Discussion Groups

- **Focus:** Understanding individual stakeholders and facilitating inter-stakeholder engagement
- Activities: Discussion groups with stakeholders

FINDINGS - Surveys

- Values, place attachment and the anticipated impact of policy changes on the community shape people's responses to new policy proposals
- These factors should be considered during the MPA designation process

FINDINGS - Discussion Groups

Phase 1 - Individual Perspectives

- Unclear governance structure
- Limited stakeholder consultation to date
- Untapped collaboration potential

Phase 2 - Shared Dialogues

- Sector-focused mindsets
- Need for coordination mechanism





Danish Wadden Sea

BLUE4ALL LIVING LAB

Location

South-western Denmark – part of the larger Wadden Sea UNESCO World Heritage Site

Designation

Natura 2000 site, National Park (Nationalpark Vadehavet), Danish Nature and Wildlife Reserve, Ramsar site, and UNESCO World Heritage

Focus Species

Dwarf eelgrass (Zostera noltii), dark-bellied brent goose (Branta bernicla bernicla)



Funding for Conservation and Research Activities

Need to holistically communicate the value of nature to inform investment decisions.

Cumulative Effects

Need to assess combined pressures on ecosystems.

Ecosystem Service Mapping

Need for maps of important ecosystem services for spatial planning.

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PlanWise4Blue – Cumulative Effects Assessment

- Focus: Assessing the cumulative effects of human pressures on eelgrass ecosystems
- Activities: Target species selection, dataset collection and harmonisation, software-based analysis in collaboration with local experts

Participatory Mapping of Ecosystem Services

- **Focus:** Mapping and valuing social and cultural ecosystem services, especially related to birdwatching and nature appreciation.
- **Activities:** Co-development of a visitor survey, fieldwork with locals and tourists, spatial analysis using GIS.

Expert-based Ecosystem Service Assessment for Social-Ecological System Communication and Support of Decision-Making

- **Focus:** Modelling interlinkages between pressures, ecosystem components, functions, and services related to dwarf eelgrass and brent geese in a visually attractive way, using Sankey Diagrams.
- **Activities:** Expert identification and interviews, compilation of preliminary pressure to service linkages, expert-based scoring and validation workshops, and building the Sankey Diagrams





French MPA Network

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Location

North East Atlantic (English Channel), France

DesignationNatura 2000 sites



Human Impact

Better understanding and communication of (in)direct human impacts on the MPA

Awareness and Acceptance Raising

Improved outreach is necessary to ensure stakeholders are informed about the conservation purpose and ecological importance of MPAs.

Stakeholder Communication

Recognised need for more frequent and effective communication between MPA managers, economic stakeholders, citizens, and local elected representatives

Key Stakeholders Addressed

Shellfish farmers, tourists, local communities and elected officials

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NEAT - Non-indigenous species Effect Assessment and mapping Tool

Focus: Assessing the environmental impact of invasive species across the entire MPA network

Activities: Data collection and alien species selection, particapatory mapping, systematic literature review, species distribution modelling, expert assessment

Ecological Issues Awareness in Tourism

Tested in the MPA Littoral Seino-Marin

- Focus: Raising awareness of ecological issues of the MPA in the tourism sector to reduce pressure on the MPA and increase acceptance of the MPA.
- Activities: Questionnaires with rating/ranking and contingent valuation, data harvesting and information sharing

Ecological Issues Awareness in Aquaculture

Tested in the MPA Littoral Seino-Marin

- Focus: Raising awareness of ecological issues of MPAs in the aquaculture sector to reduce the pressure on the MPA and increase acceptance of the MPA.
- Activities: Data collection for best-worst scaling

MPA Awareness Tool

Tested in in the MPA Littoral Seino-Marin

- Focus: Eliciting perceptions and raising awareness and acceptance of the MPA among local elected government representatives and residents
- Activities: Surveys, interviews with elected officials, workshops





Väinameri &Väike väin

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Location

Estonian part of the Baltic Sea

Designation

National MPA and Natura 2000 sites under the EU Habitats and Birds **Directives**

Main Pressures

Eutrophication, habitat degradation, fishing, maritime traffic, infrastructure development, tourism, dredging and dumping



Data Availability and Accessibility

Monitoring data are dispersed across platforms and often inaccessible or inconsistent, hindering informed decisionmaking.

Spatial Tools for Management

Clear need for a user-friendly, web-based mapping tool that integrates ecological values, pressures, and activities.

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PlanWise4Blue - Cumulative Effects Assessment

- Focus: Integrating and assessing cumulative and in-combination effects of human activities and pressures to improve spatial planning and conservation-specific decision-making.
- Activities: Nature values selection; Data collection and integration; Stakeholder workshops.

KEY CHALLENGES







Incomplete or Layers



Technical and Administrative **Integration Challenges**



High Demands on Time and Expertise





Finnish MPA Network

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Location

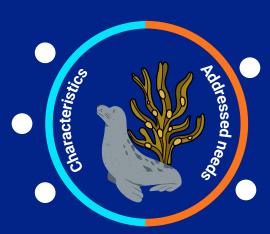
Territorial and offshore waters of Finland, Baltic Sea

Designation

Natura 2000, HELCOM MPA, and several national protected area categories

Flagship Species

Eelgrass (Zostera marina), Bladder wrack (Fucus vesiculosus), Charophytes (Chara globularis, and Ringed seal (Pusa hispida)



Network Planning

MPAs established on a case-bycase basis rather than as part of an ecologically coherent network

Stakeholder Engagement

Needed across multiple levels, including governmental, scientific, private, and community stakeholders

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Equity and Justice Assessment in Conservation Planning

Focus: Assessment of equity and justice in conservation planning; improving legitimacy, transparency, and inclusiveness in MPA planning processes

Activities: Development of a new national assessment tool, justice deliberation and assessment, stakeholder meeting







Baltic Sea MPA Network

BLUE4ALL LIVING LAB

Location

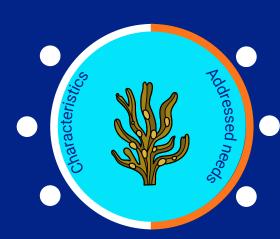
Baltic Sea (DK, S, FIN, EST, LV, LT, PL, D, (RUS)) - MPA Network

Designation

Natura 2000, Ramsar, HELCOM MPAs, UNESCO sites, ESBAs and national nature reserves

Managing Bodies

National environmental agencies (e.g. SwAM, Finnish Environment Institute, BfN), coordinated regionally via HELCOM



Financial Sustainability

Inadequate long-term financial sustainability and under-resourced management processes

Cumulative Impacts

Need for better assessment and management of cumulative human pressures

Monitoring

Insufficient monitoring, data availability, and knowledge-sharing on MPA effectiveness

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Equity and Justice Assessment

- Focus: Assessment of equity and justice in conservation planning, improving informed decision-making and creating opportunities for resolving conflicts
- Activities: stakeholder meetings, interviews, validation process through a comment (CMNT) document

PlanWise4Blue – Transnational Approach to the Assessment of Cumulative Threats

- Focus: Assessing cumulative and in-combination effects of human activities and pressures, defining relevant conservation targets and incorporating the distribution of human activities and pressures
- **Activities:** Nature values selection, data collection and integration, stakeholder workshops, CMNT document and questionnaires

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For more information on the Blue4All project and on our Living Labs, please visit our website or follow us on LinkedIn.





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