ADRIPLAN: a Pilot Project on MSP implementation in the Adriatic Ionian Region

Pierpaolo Campostrini

Director, Consortium for Managing Research Activities in the Venice Lagoon

Italy’s delegation in the Program Committee of the H2020 SC 2 and in JPI Oceans
ADRIPLAN PROJECT

ADRIPLAN has the objective to promote transboundary Maritime Spatial Planning in the Adriatic–Ionian Region. (December 2013 to July 2015)

Budget: 1.250.000 €, 80% funded by the EC – DG MARE

The ADRIPLAN project develops proposals and recommendations for an operational cross-border MSP process which:

- allows the development of different maritime activities, preventing conflicts for space allocations, while ensuring a good status of the marine ecosystems
- provides greater confidence for investment in infrastructures and in other economic activities, responding to the peculiarities of each area
- fully involves relevant regional and governmental bodies and other relevant stakeholders, also promoting an effective cross-border cooperation
- enhances coherence between terrestrial and Maritime Spatial Planning, also in relation with good ICZM practices

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ADRIPLAN Partners

CNR-ISMAR, Venice
OGS, Trieste
IUAV, Venice
City of Rijeka
Regional Development Centre Koper
Conisma, Lecce
University of Thessaly
HCMR, Athens

Emilia-Romagna Region
Veneto Region
Friuli Venezia Giulia Region
Marche Region
Molise Region
Puglia Region
Istria Region
Ionian Islands Region
Venice Port Authority

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Approach of ADRIPLAN to MSP in the AIM

BLUE GROWTH (benefits)

DOMAIN OF CO-BENEFITS DERIVING FROM MSP STRATEGY FOR AIM

GOOD ENVIRONMENTAL STATUS
(Not responding with the indications of MSFD)
(Not responding with the indications of Blue Growth)

(MSFD, 2008/56/EU)

(ADRIPLAN, Gissi et al, under preparation)
ADRIPLAN methodology - key challenge

How to implement an ecosystem based MSP process and plan?
How to implement a crossborder MSP process?
How to effectively involve stakeholders?

Cross-cutting issues:
- Stakeholders involvement (how? on what?)
- Monitoring and evaluation of the planning process
**ADRIPLAN methodology - Stakeholders involvement**

**Stakeholders contribution**
- Data & information
- Identification of conflicts and synergies
- MSP objectives and needs
- Visioning
- Identification of pivotal themes for the Focus Areas
- Inputs for Planning Options aimed at optimizing the rational use of coastal and marine spaces

**Typology**
- Large Enterprise, Small Medium Enterprise, Public Administration, Economic Interest Association, Civil Society Organizations, Research/Universities, Military, Marine Protected Areas, Projects

**Geographical relevance**
- International, national, regional and local

**ADRIPLAN scope**
- the Northern Adriatic (focus area 1)
- the Southern Adriatic and Northern Ionian (focus area 2)
- the whole Macro-region

Marine and maritime sectors in **cross-sectoral** and **cross-border** discussions, meetings, tables
ADRIPLAN methodology - Stakeholders involvement

Meetings, Conferences and Workshops

Meetings

<table>
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<tr>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tr>
<td>Italian Ministry for the Environment -Rome, 19 December</td>
<td>Apulia Region - Bari 7, May</td>
<td>Emilia Romagna Region – Bologna, 5 February</td>
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<td>FVG Region – Trieste, 12 May</td>
<td>Veneto Region – Venice, 10 June</td>
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<td>FVG Region- Trieste 10, November</td>
<td>Slovenian stakeholders at Ministry of Spatial Planning – Ljubljana, 15 June</td>
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<td>FVG Region- Trieste 22, December</td>
<td>Veneto, FVG, Emilia Romagna Regions - Venice, 18 June</td>
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<td>Slovenian Ministry of Spatial Planning- Ljubljana, 11 November</td>
<td>Apulia Region – Lecce, 6 July</td>
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<td>Apulia Region – Bari, 16 December</td>
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Conferences & Workshops

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<tr>
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<tr>
<td>Rijeka (HR) 28/02</td>
<td>Strunjan (SLO) 04/03</td>
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<td>Corfu (GR) 27/06</td>
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<td>Lecce (IT) 11/03</td>
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<tr>
<td>Trieste (IT) 07/07</td>
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<td>Venice (IT) 10/07</td>
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ADRIPLAN methodology - Monitoring planning process

Criteria of evaluation:
1. *Internal effectiveness*  
2. *External effectiveness*  
3. *Efficiency*  
4. *Inclusiveness*  
5. *Transparency*

With
- Stakeholders  
- Planning team
ADRIPLAN methodology

Pre-planning

Analysis

uses (2014)

uses (2020)

socio-economic analysis

stakeholder involvement

cumulative impacts

coexistence among uses

compatibility among uses

Interpretation

critical analysis of conflicts and synergies (user-user, environment-user, regulatory and management)

Adriatic-Ionian Macroregion

Design

strategic planning proposal

Focus Areas

Downscaling
Identification of relevant planning issues

Definition of planning options

Definition of planning measures

Evaluation

cumulative impacts

compatibility among uses

coexistence among uses

stakeholder involvement

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ADRIPLAN methodology

Pre-planning

Analysis
- uses (2014)
- uses (2020)
- socio-economic analysis
- stakeholder involvement
- cumulative impacts
- coexistence among uses
- compatibility among uses

Interpretation
- critical analysis of conflicts and synergies (user-user, environment-user, regulatory and management)

Adriatic-Ionian Macroregion
- Design
  - strategic planning proposal

Focus Areas
- Downscaling
  - Identification of relevant planning issues

Definition of planning options
Definition of planning measures

Evaluation
- cumulative impacts
- socio-economic analysis
- stakeholder involvement
- compatibility among uses
- coexistence among uses

Adaptation
ADRIPLAN pre-planning: geographical scope and boundaries

Establishing boundaries for cross-border MSP considering jurisdictions
ADRIPLAN methodology – analysis

Pivotal uses

Environmental components

Marine mammals & Turtles

Posidonia, coralligenous and sensitive habitats

Habitats Map Emodnet

Recruits Density
ADRIPLAN methodology – coexistence among uses

Analysis of most intensively used maritime areas, with coexistence in space and time
ADRIPLAN methodology – *coexistence among uses*

*Analysis of most intensively used maritime areas, with coexistence in space and time*

**Baseline:** 2014, **Future scenario:** 2020

**Main findings**
- Identification of transboundary areas with potential conflicts in space and time
- Differences are visible between territorial and high waters
- Results obtained are strictly dependent on data collected (and gaps)
- Future projections of maritime uses are not always spatially explicitly
Analysis of cumulative impacts on marine environmental components deriving from maritime uses and related pressures

ADRIPLAN methodology – cumulative impacts

Analysis of cumulative impacts on marine environmental components deriving from maritime uses and related pressures

Sensitivity analysis through Expert opinion (298 answers)
- 28 Environmental components
- 16 Maritime Uses
- 18 Pressures (from MSFD)
ADRIPLAN methodology – cumulative impacts

Analysis of cumulative impacts on marine environmental components deriving from maritime uses and related pressures

Main findings
- Impacts depend on the distribution of Environmental Components which are sensitive to Maritime Uses
- Not all marine areas are impacted in the same way (hotspots of impacts)
- The geometry of the results depends on the input data of the analysis (maritime uses, environmental components)
- Improvements to overcome data gaps → demand for science
- Involvement of experts on the entire AIM as a key challenge
ADRIPLAN methodology - interpretation

Pre-planning

Analysis

- uses (2014)
- uses (2020)
  - socio-economic analysis
  - stakeholder involvement
  - cumulative impacts
  - coexistence among uses
  - compatibility among uses

Interpretation

- critical analysis of conflicts and synergies (user-user, environment-user, regulatory and management)

Adriatic-Ionian Macroregion

- Design
  - strategic planning proposal

Focus Areas

- Downscaling Identification of relevant planning issues
- Definition of planning options
- Definition of planning measures

Evaluation

- cumulative impacts
- socio-economic analysis
- compatibility among uses
- coexistence among uses
- stakeholder involvement
ADRIPLAN methodology - interpretation

**Adriatic - Ionian Macroregion**
- coexistence
- density of uses
- environmental assets and sensitivities

**Focus Areas**
- Analysis of conflicts/synergies among uses
- Downscaling identification of relevant planning issues

**Strategic objectives**

**Planning objectives**

**Strategic proposal for AIM**

**Pilot actions at Focus Area Level**
Energy – interpretation from pivotal uses

ANALYSIS

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Energy – interpretation from pivotal uses

INTERPRETATION: focus
Fishery & Aquaculture – interpretation from pivotal uses

ANALYSIS

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INTERPRETATION

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Fishery & Aquaculture – interpretation from pivotal uses

**INTERPRETATION:** focus

- Lack of transboundary coordination between fleets
  - catches of fish differing in size and biomass
  - trawler fleets of neighboring countries exploiting shared demersal resources
  - spatial conflict + conflict for the use of resources between recreational and professional fishery

- Spatial conflict + conflict for the use of resources between small and medium-scale fishery

- Significant reduction of the quality and quantity of fishing resources

- Increasing aquaculture trend may lead to lower water quality

- Lack of quantitative and spatial knowledge and information in fishery

- Trawling in an area where more nursery/spawning areas overlap

**Spatial conflict with the foreseen Venice Offshore Terminal**

**Impacts on spawning/nursery areas**

[Diagram showing areas with fisheries and aquaculture activities]

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Maritime Transport & Tourism—interpretation from pivotal uses

ANALYSIS

INTERPRETATION

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Maritime Transport & Tourism—interpretation from pivotal uses

INTERPRETATION: focus

management conflict: lack of trans-boundary coordination between fleets

increasing hydrocarbons exploitation activities increase spatial conflicts with maritime transport and tourism

port development/expansion may lead to increased traffic congestion

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Environmental protection—interpretation from pivotal uses

ANALYSIS

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INTERPRETATION

ADRiatic Ionian maritime spatial PLANning
Environmental protection—interpretation from pivotal uses

**INTERPRETATION**

- Pollution may be exacerbated by ports expansion
- Subtraction of fishing ground
- Small scale fishery represents a threat because it is less regulated than other type of fishing
- The expansion of maritime transport activities could increase spatial conflicts with protected areas
- Synergies with MPAs and spawning areas
Sand extraction & military areas—interpretation from pivotal uses
Sand extraction & military areas—interpretation from pivotal uses

INTERPRETATION
DESIGN

STRATEGIC PROPOSAL FOR THE AIM

Strategic zoning for AIM

- Transboundary Sea Areas
  - Management areas of type 1
- National Sea Areas
  - Management areas of type 2
- Transboundary Sea Areas
  - Management areas of type 3

1. Transboundary area around Gulf of Trieste
2. Transboundary area in front of Gulf of Venice
3. Transboundary area in front of Emilia Romagna and Marche Regions
4. Transboundary area in front of Apulia Region
5. Coastal area in front of Gulf of Venice
6. Coastal area in front of Apulia Region
7. Transboundary area between Gulf of Trieste, Venice and Istria
8. Transboundary area between Italy and Croatia under Istria
9. Transboundary area between Italy and Croatia in the Central Adriatic Sea

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Strategic proposal for the AIR

Main issues
- General goal is to support the implementation of Blue Growth objectives, and specifically of EUSAIR & MSP accordingly Maritime Spatial Planning 2014/89/EU;
- Considering primarily transboundary issues/transboundary governance framework
- Identification of different types of management areas, characterized by specific management objectives reflecting on contextual use-use and environment-use conditions and coexistences.

Types of management areas
- 1) Consider the coexistence of multiple maritime uses in sensitive marine environments, high water, intensively used. Management options based on transboundary governance according future demand of space;
- 2) Located in territorial waters, so the governance system should consider National legal framework. Intensively used and with environmental challenges;
- 3) areas which assume a great importance for the delivery of ecosystems goods and services for the AIM
Coastal area in front of Gulf of Venice

- LNG terminal
- HC exploitation
- Aquaculture
- Small scale fishery
- Trawling

- Biological Protection Zones | Tregnui
- Persistence of nursery areas for commercial species
- Maritime transport and traffic lanes
- Maritime and coastal tourism - Ferry routes
- Naval base activities
- Offshore sand deposit
- Military areas

Transboundary area around Gulf of Trieste

- Energy cable IT-SL
- Small scale fishery
- Aquaculture
- Natura 2000 site
- Biological Protection Zones

Transboundary area between Gulf of Trieste, Venice and Istria

- Maerl beds
- Coralligenous communities
- Persistent nursery areas for commercial species
- Development of energy infrastructure strategically relevant in a transboundary perspective
- Intensification of Maritime Transport and Tourism
- Coexistence with Fishery activities, aquaculture and sand extraction

- Trieste and Koper Ports;
- Maritime Transport and traffic lanes;
- Maritime and coastal tourism - Ferry routes
- Maritime and coastal tourism - Marinas

> Coherent with the identification of Ecologically or Biologically Significant Areas (EBSAs) under the Convention on Biological Diversity

Transboundary area in front of Gulf of Venice

- LNG Terminal
- HC exploitation and HC platforms
- Pelagic and bottom trawling
- Persistence of nursery areas for commercial species

Transboundary area between Italy and Croatia under Istria

- Posidonia oceanica meadows
- Persistence of nursery areas for commercial species
- Macrozoobenthos of peculiar characteristics deriving from a sediments conditions related to the presence of the ancient Adriatic coastal line
- Relevant for future energy exploitation especially towards Croatia waters to be managed coherently with others blue economy issues and EUSAIR
- Intensification of Maritime Transport and transboundary coordination
- IT-HR transboundary issues related to Fishery

> Coherent with the identification of Ecologically or Biologically Significant Areas (EBSAs) under the Convention on Biological Diversity

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Transboundary area between Italy and Croatia in the Central Adriatic Sea

- Persistent nursery areas of commercial important species of demersal fish and shellfish
- Potential development of HC exploitation areas
- Potential development of offshore wind farms
- Increase of Maritime Transport
- IT-HR transboundary issues related to Fishery

> Coherent with the identification of Ecologically or Biologically Significant Areas (EBSAs) under the Convention on Biological Diversity
Final consideration

A planning scheme for AIR
- Introduction of MSP requires a strong commitments of regional and national government in the AIR
- A strong interaction with local planning systems accordingly a transboundary perspective is fundamental;

Some recommendations
- Future mandate by the National and Regional authorities
- Following with the implementation of European Directive on MSP
- Msp process tailored accordingly to the legal framework and institutional mandate
- Variable of planning intensity and scale
Thanks

campostrini@corila.it

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