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Workshop on Diving Tourism Rhodes, 28 November 2019

READ S.A

SESSION II : MARITIME ASPECTS OF DIVING AND MARITIME TOURISM

Multi-use of marine space : the role of diving tourism

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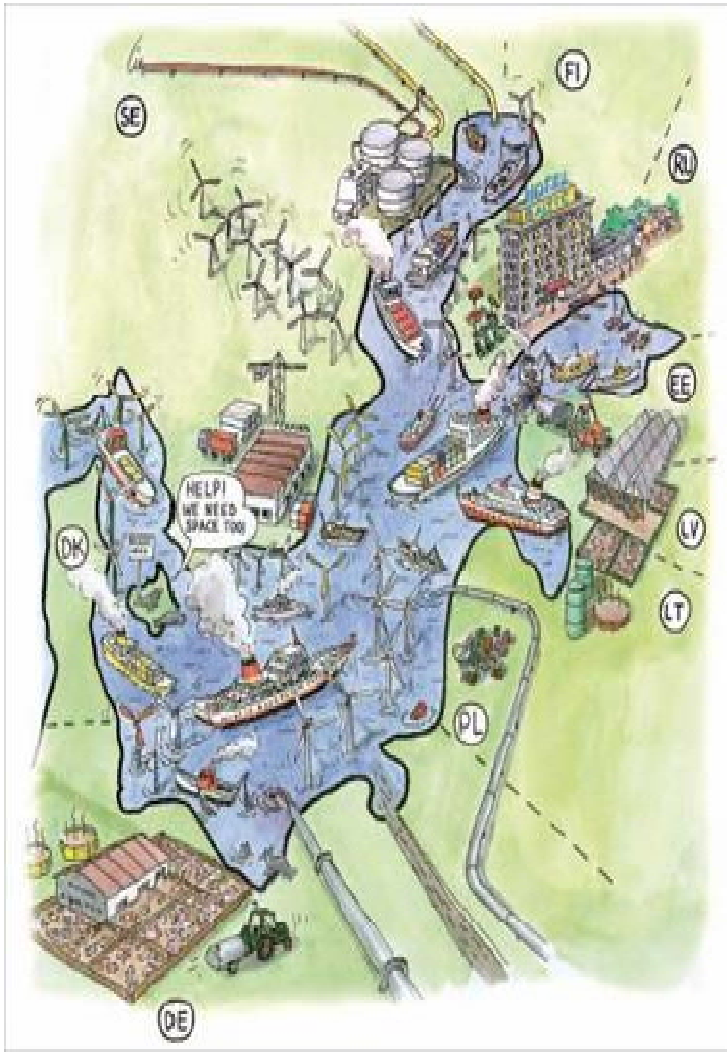
What is MSP ?

The Maritime Spatial Planning (MSP) Directive, published in 2014, defines MSP "as a process by which the relevant Member State's (MS) authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives" (EU, 2014).

- MS must implement maritime plans to ensure that human activities are developed within an EBM approach achieving the Good Environmental Status (GES) required within the Marine Strategy Framework Directive (MSFD) - the environmental pillar of the Integrated Maritime Policy of the European Union (EU) adopted in July 2008. The MSFD provides an integrated approach to the protection of European coasts, marine waters, and natural resources and a framework for the sustainable use of marine waters.
- Its aim is to achieve Good Environmental Status (GES) in European marine waters by 2020.



What is MSP?

- Historically, MSP was understood to be the strategic placement of human activities at the sea, in order to achieve the regulation, management and protection of the marine environment in such a way as to mitigate, if not to minimise conflicts and negative effects on the marine ecosystem, and to increase synergies.

- The described process can be achieved through widely acceptable spatial plans resulting from regular consultation among stakeholders, ensuring their active involvement in planning, throughout the whole implementation period and ideally from the beginning of the process (Ehler and Douvere, 2007).

- In recent years, MSP is gaining increasing importance as a new planning and management procedure for an integrated, ecosystem- based management of marine areas, which are partially considered as a continuation of the land and focus is being put on land-sea interactions.

Credit: Jochen Lamp, WWF-Germany

TRADE-OFFS Vs “WIN-WIN” Solutions in MSP

- Decisions in ecosystem-based Maritime Spatial Planning (MSP) follow **annoying and costly trade-offs** and this may negatively impact its acceptance.

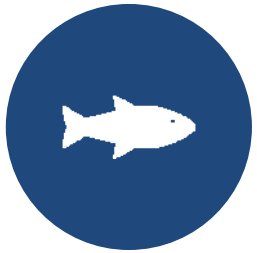
- To address conflicts and cumulative impacts and favor, as much as possible, interfering of marine activities, positive coordination and **win-win options**, it is necessary to develop **integrated and cohesive planning approaches** and new management tools.

COHESIVE PLANNING APPROACHES

THE MULTI-USE MSP :

TOWARDS A MARITIME COHESION

MSP is a regulating tool



Demand for marine goods and services (food, energy, habitats) is rising and often exceeds the capacity of marine areas.

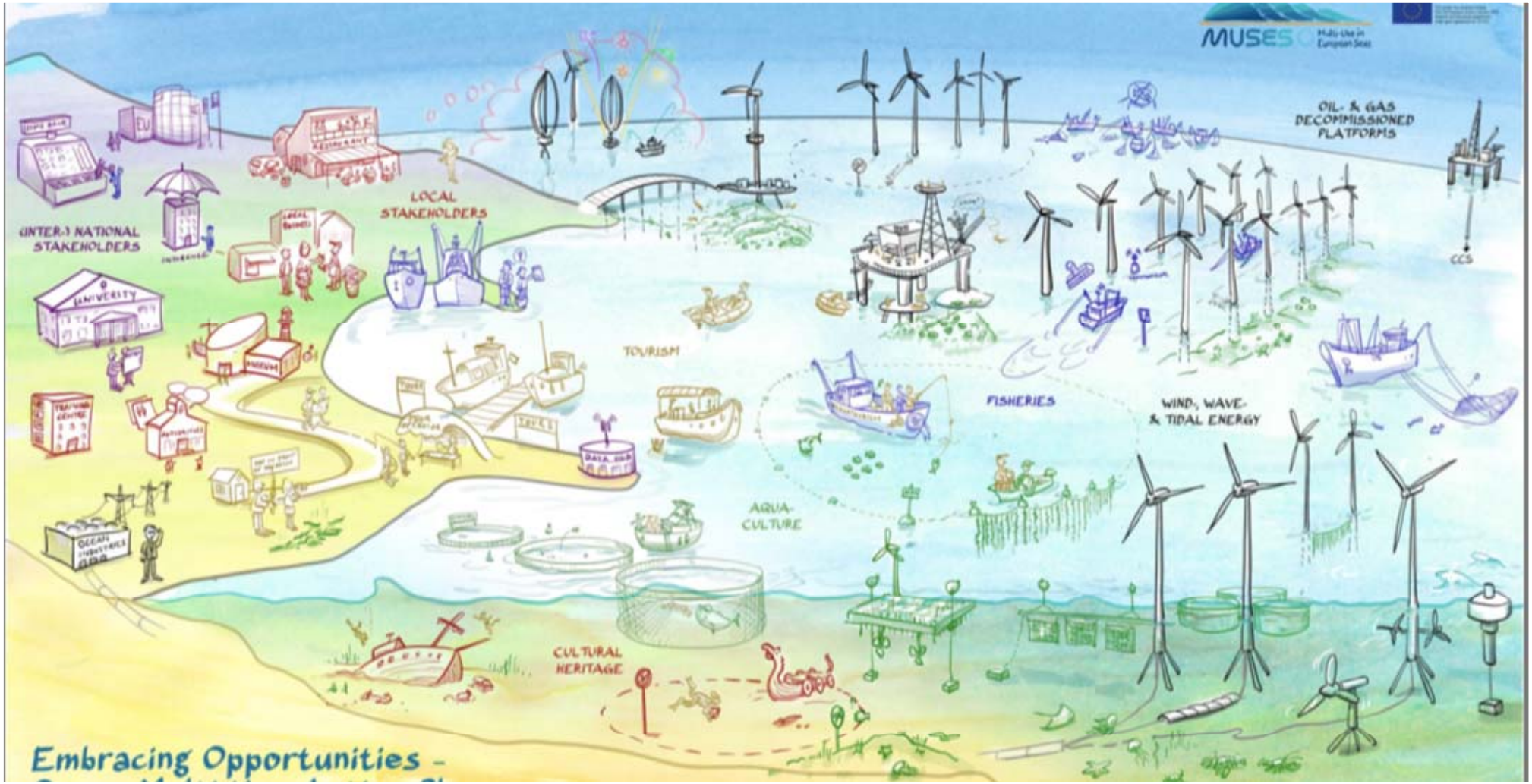
Free access to marine resources, including ocean space, often leads to over use, conflicts, and eventual degradation of marine resources

Marine goods and services are not priced in the market, e.g., **ecosystem services**, conflicts often cannot be resolved, and **trade-offs made through economic analysis alone.**

A **regulating tool** must be used to decide what mix of outputs or goods and services from the marine space should be produced over time and space.

MSP Process main characteristics

Place-based	*Focusing on marine spaces that people can understand, relate to, and care about*
Participatory	*Building and engaging a broad base of stakeholders to ensure long-term support for management of the marine space*
Multi-objective and integrated	*Achieving social and economic objectives as well as ecological; including all important economic sectors*
Strategic and future-oriented	*Considering alternative scenarios and means to achieve a desired spatial vision of the marine space*
Ecosystem-based	*Focusing on maintaining coastal and marine ecosystem services over time*
Continuing and adaptive	*Emphasising performance monitoring and evaluation of the success of management actions—and learning by doing*
Government led	*Engaging the institutions primarily responsible for implementing the plan*


MUSES
Multi-Use in European Seas
OIL- & GAS DECOMMISSIONED PLATFORMS
CCS
(INTER-) NATIONAL STAKEHOLDERS
LOCAL STAKEHOLDERS
UNIVERSITY
MUSEUM
TOURISM
FISHERIES
WIND-, WAVE- & TIDAL ENERGY
AQUA-CULTURE
CULTURAL HERITAGE
Embracing Opportunities -

What is Multi-Use MSP ;

- Multi use ~~is an~~ MSP related concept that expresses the evolution from the conservation planning oriented MSP to a MSP that balances social and economic development and presents strong commitment to the biodiversity and habitat protection (Susan Taljaard, 2012)

What is a Multi – Use MSP?

- The multi-use concept underpins the character of MSP as a **creative social process of building attractive identities of the sea** to create blue growth and jobs beyond being a process for allocating the different marine uses and avoid conflicts.

- This form of MSP has also a strong cultural dimension (Kyvelou, 2017).

What is a Multi – Use MSP? MUSES definition

The MUSES Project ((The Multi-Use in European Seas - a Horizon 2020 funded project) 2018) concludes that there is no globally accepted definition of Multi – Use but **from definitions used in other MU projects and initiatives** "Multi – use (MU) MSP is defined as

a *"joint intentional use of resources in close geographic proximity. This can involve either a single user of multiple users.*

*It is an umbrella term that covers **a multitude of use combinations** in the marine realm and represents a radical change from the concept of **exclusive resource rights to the inclusive sharing of resources by one or more users**".*

Is conservation compromised by MU?

- **Tessa Major et al. (2014**) found that by including increasing numbers of marine activities and zones in the planning process, greater compromises are required to reach conservation objectives.

  She illustrates a framework for adopting a transparent systematic process **to balance biodiversity goals and economic considerations** within a country's territorial waters.

Multi - use MSP Complexity

Smith et al. (2011) also support that **Multi–Use MSP is a complex process.** They emphasize two characteristics that increase complexity significantly from land–use planning :

- The first is the **three–dimensional nature of the marine environment** compared with the two–dimensional characteristics of land – use planning.
- Second, from the beginning multi–use MSP is associated with **the complex ecosystem – based approach.**

Main characteristics of a MULTI – USE MSP process

LIMITS THE CONFLICTS BETWEEN THE VARIOUS SECTORS AND CREATES SYNERGIES BETWEEN THE DIFFERENT ACTIVITIES;

ENCOURAGES INVESTMENTS PREDICTABILITY, TRANSPARENCY AND CLEARER RULES ;

INCREASES COORDINATION BETWEEN ADMINISTRATIONS IN INDIVIDUAL COUNTRIES THROUGH THE USE OF A SINGLE INSTRUMENT FOR THE DEVELOPMENT OF A SERIES OF MARITIME ACTIVITIES, CONSIDERABLY SIMPLER AND LOWER COSTS;

INCREASES CROSS-BORDER COOPERATION THROUGH A LEVEL OF CABLING, OIL PIPELINES, SPARE ROUTES, WIND FARMS, ETC.;

PROTECTS THE ENVIRONMENT THROUGH THE EARLY IDENTIFICATION OF COMMITMENT AND OPPORTUNITIES FOR A MULTI-PURPOSE USE OF SPACE.

Sectors presenting highest potential in the MEDITERRANEAN

- Highest potential for multi-use development are related to

- **tourism–driven multi-use combinations** (e.g. **pescatourism**) and

- the **re–use of Oil & Gas decommissioned platforms**.

Actors and opportunities in the Mediterranean

ACTORS RELEVANT TO MU

A SELECTION OF SEA BASIN ACTORS RELEVANT TO MU IN THE MEDITERRANEAN

ASCAME
The Association of the Mediterranean Chambers of Commerce and Industry

CIESM
The Mediterranean Science Commission

CPMR-IMC
Conference of Peripheral Maritime Regions – Intermediterranean Commission

EUSAIR
EU Strategy for the Adriatic and Ionian Region Facility Point

FEAP-Medcom
Federation of European Aquaculture Producers-Mediterranean Aquaculture Commission

GFCM
General Fishery Commission for Mediterranean and Black sea

GSO BlueMed WG
Senior Officials Group of BlueMed Working Group

MEDPAN
Mediterranean Marine Protected Areas

Med-Reg
Association of Mediterranean Energy Regulators

OME
Mediterranean Energy Observatory

UfM
Union for the Mediterranean

UNEP-MAP
United Nations Environment Programme – Mediterranean Action Plan

WWF Med
World Wildlife Fund Mediterranean

WESTMED
Support team for the Western Mediterranean Maritime Initiative

OPPORTUNITIES

Implementation Challenges and Constraints …

Almost, all authors agree that MU MSP **is not an easy process**

Different actors and groups - different interests - different perceptions of the sea space

Subjective understanding – different considerations about opportunities or risks

MU MSP is a complex process

There is often lack of political will

What is needed to implement MSP?

- Proper authority – Coordinating interministerial body
- Delegation to local agencies.
- Integration of new learning emerging from practice.
- Ensure openness of planning process.
- Ensure public participation, MSP is not an end in itself…

MU MSP is consistent with IMP

- **T. Michler- Cieluch et al. (2008**) pose as a fundamental question if it is really possible to continue to manage and develop all the different and often overlapping maritime activities independently of one another.
- It contributes to the idea of **conducting an integrated analysis of maritime activities** as referred to the **EU Integrated Maritime Policy.**

EXAMPLE : the establishment and operation of **mariculture facilities should preferentially occur in combination with existing installations. Wind farm foundations are mentioned as possible anchor points** for aquaculture systems in order to reduce spatial needs through **multiple use.**

The drivers for open ocean aquaculture and offshore energy production are not only food, trade, electricity, and technology.

There are powerful social and ethical concerns. In some sort of weird "food insanity", many Western nations import most of the seafood they eat, and export most of what they catch or produce. These nations are far too dependent on imports from aquaculture systems in nations where **aquaculture is threatened by coastal urbanization, industrialization, water pollution, and overall environmental degradation.** Such "food insane nations" also have a moral and ethical responsibility to develop large-scale open ocean aquaculture to feed their own people and not take these valuable foods from undernourished, food scarce nations.

Increase of productivity of labour and capital

- As pointed out by the MUSES project, MSP can help in overcoming high transaction costs of multi-uses that are considered to be new and more efficient ways of exploiting marine space.

- Multi-use in the long run leads to an increase **in the productivity of labour and capital**
- e.g. higher revenues from usage of ships both for servicing offshore wind farms and mariculture co-located with them.

- This, in turn, might result in a **clustering of economic activities in marine space.**

Islands of Blue growth ?

The environment can pose some limits to the concentration of Blue Growth.

However, it is not clear whether such **islands of higher productivity in the sea** would underpin a cumulative causation, that is, forward and backward linkages.

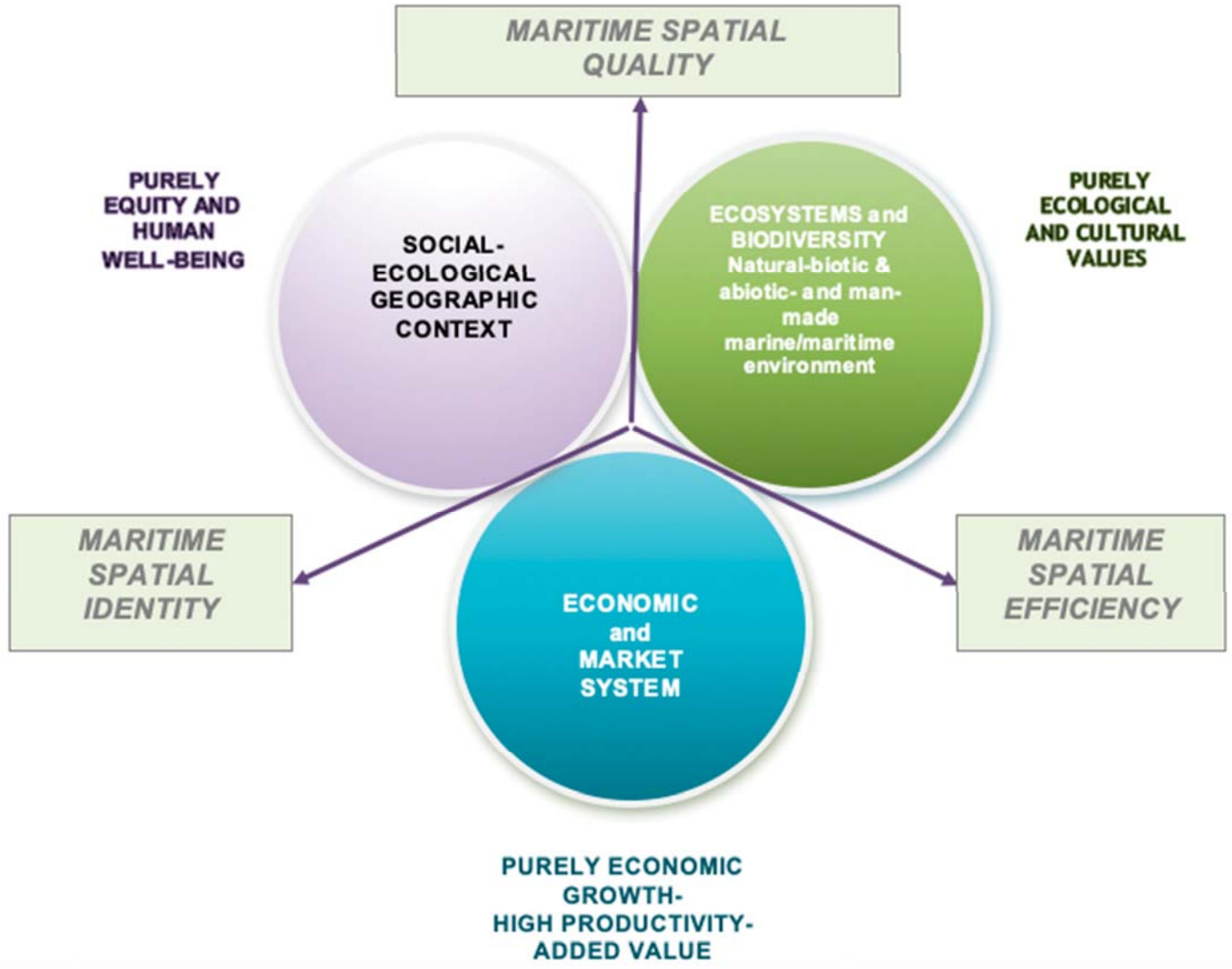
On the one hand, a combination of offshore energy and mariculture can attract or even foster entirely new uses, **such as tourism related to offshore industries or the construction of electricity filling stations for autonomous ships** but, on the other hand, **this might increase the cumulative pressure on the sea ecosystem that is essential for the provision of numerous marine ecosystem services.**

Multi–use MSP : towards maritime cohesion ?

Our own approach is that there is an understanding of the sea as a **physically tangible area** on the one hand, which can be subject to rational and “optimized” decisions in planning.

But there is also a subjective understanding of the sea as a symbolic space with **many intangible assets**, which may resist a purely rational and in particular an economic and optimisation–oriented planning strategy.

Our own vision : the maritime cohesion



Components of a cohesive MSP

Components	Sub-Components (Indicative)
Marine/Maritime Spatial Efficiency *	1. Multifunctional use of space 2. Co-use and co-management of activities 3. Intensity (versus density) linked to multiple-use 4. Frugal use of sea space 5. High productivity/Economic growth 6. Resource efficiency 7. Internal connectivity 8. External accessibility 9. Attractiveness of marine space 10. Stimulation of local businesses and complementary income 11. Maritime clusters 12. Network agglomeration economies on land and sea 13. Avoided costs linked with displacement of cultural and provisioning services by co-located uses
Marine/Maritime Spatial Quality **	14. Minimize environmental impacts 15. Creative and smart solutions 16. Shared understanding 17. Creating synergies 18. Mutual learning between marine sectors, participatory knowledge 19. Informed stakeholders' engagement 20. High quality seascapes 21. Ethical issues, food security, energy supply 22. Social and spatial equity 23. Distribution of the surplus from coexistence/cooperation among players 24. Adaptive management 25. Green infrastructure and blue corridors in marine areas
Marine/Maritime Spatial Identity ***	26. Aesthetic and recreational resources 27. Landscape resources 28. Tangible and intangible cultural heritage 29. Culturally significant areas—Cultural landscapes and seascapes 30. Local coastal/insular communities 31. Underwater and Marine Cultural heritage (UCH, MCH)

Challenges in the Scuba diving tourism industry

- General lack of communication and collaboration both within the scuba diving industry and between this and other stakeholders in the system.
- Poor connection with the **local communities**
- Poorly cohesive and unstable image of the industry

- The scuba diving industry cannot achieve sustainability goals without the support of other key role players, namely managing authorities (in MPAs and in government), local communities, academic institutions, NGOs

OPPORTUNITIES FOR MU MSP driven by diving tourism

In Portugal **aquaculture facilities** are used as potential tourist attractions where **recreational activities, including diving,** are developed.

Diving/snorkeling tourism, practiced next to aquaculture farms, where a rich fauna can be observed.

OPPORTUNITIES FOR MU MSP the role of diving tourism

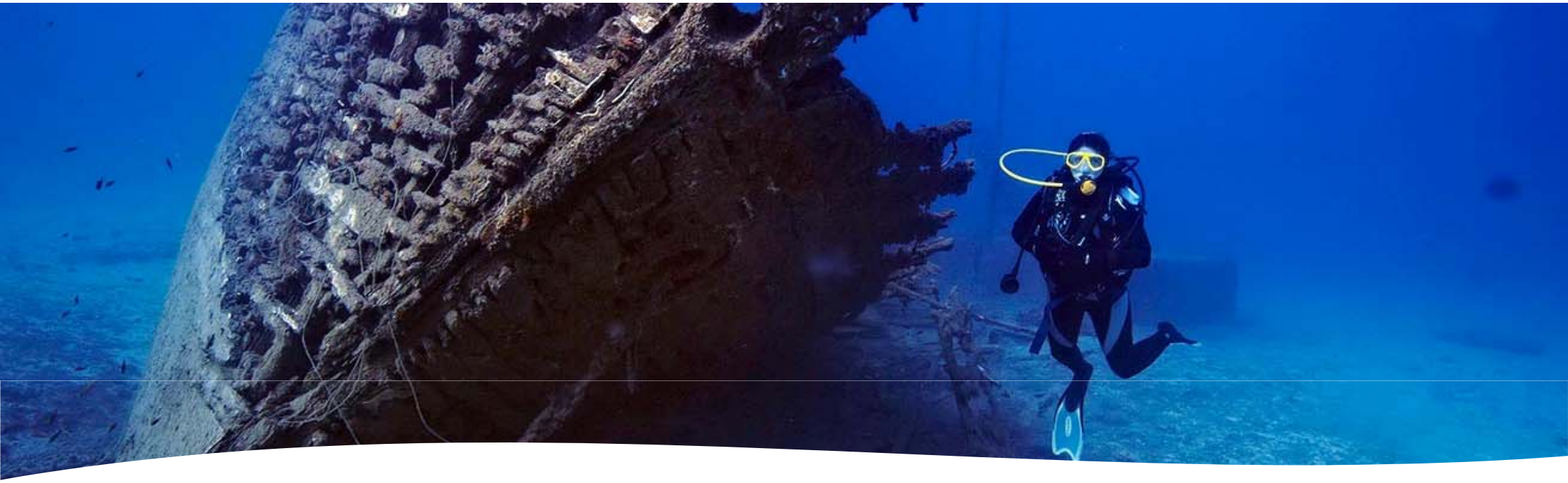
Development of **touristic activities (mainly diving) inside designated MPAs**, managed with the goal to preserve natural resources.

It is also seen as an opportunity to expand the protection of the marine environment, while at the same time developing socio- economic activities, with advantages for both sectors.

Image : Blutopia Marine Park is a virtual marine utopia where its guests are provided with a unique educational and adventurous experience.

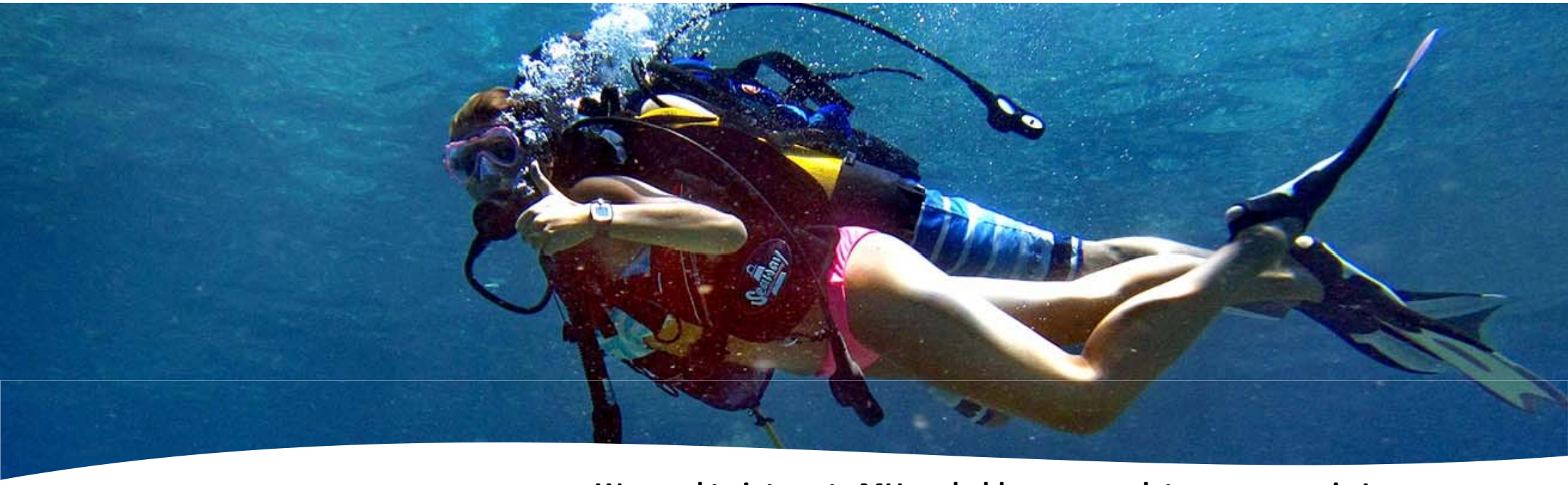
Tourism-UCH-environmental protection

- North Adriatic : the touristic exploitation of UCH sites (wrecks), specifically **through diving activities**, with the aim of valorising and safeguarding the cultural heritage from the current risk of looting and damage. This combination was also considered, in addition with environmental protection, in the MU triplet.



OPPORTUNITIES FOR MU MSP
the role of diving tourism

In Southern Denmark, touristic activities in and around offshore wind energy production areas include **diving and environmental education** initiatives.



OPPORTUNITIES FOR MU MSP IN GREECE the role of diving tourism

We need to integrate MU probably as a mandatory measure in Law 4546/2018 about MSP in Greece. We should also encourage private investments.

We should also focus on UCH that is abundant in Greek marine waters and especially in the Aegean sea and in combination with diving tourism make it the forefront of the MSP procedure in the country.

Image : Blutopia Marine Park *Situated within one of the most important marine ecosystem of the Mediterranean sea, on the west side of the Greek island of Rhodes.*

Our understanding of conservation is changing

	Meaning of conservation	
Prior to the 60s	**"nature for itself"**	Humans were considered separate from the environment with areas of wilderness locked away in reserves…
Over the turn of the century	**"nature despite people"**	avoiding extinction and loss of species was our focus
	"nature for people"	the value of **ecosystem services** was recognised and explored
The focus is no longer on isolated reserve "islands" in a landscape…instead		
We recognise the need to create **shared landscapes between people and nature**, with strong emphasis on maintaining ecological processes, adaptability and resilience in these **social-ecological systems**		

Threats and hazards that landscapes/seascapes face

Due to the blue growth trend for high productivity

- Growing demand for the development of sea-uses and installations (e.g bridges, platforms, windfarms), needing more and more space in the sea (surface, sea column, seabed)
- Growing demand for investments in the sea (exploitation of living and non-living resources)
- Need for the construction of general interest installations (pipelines, power cables, dredging etc)

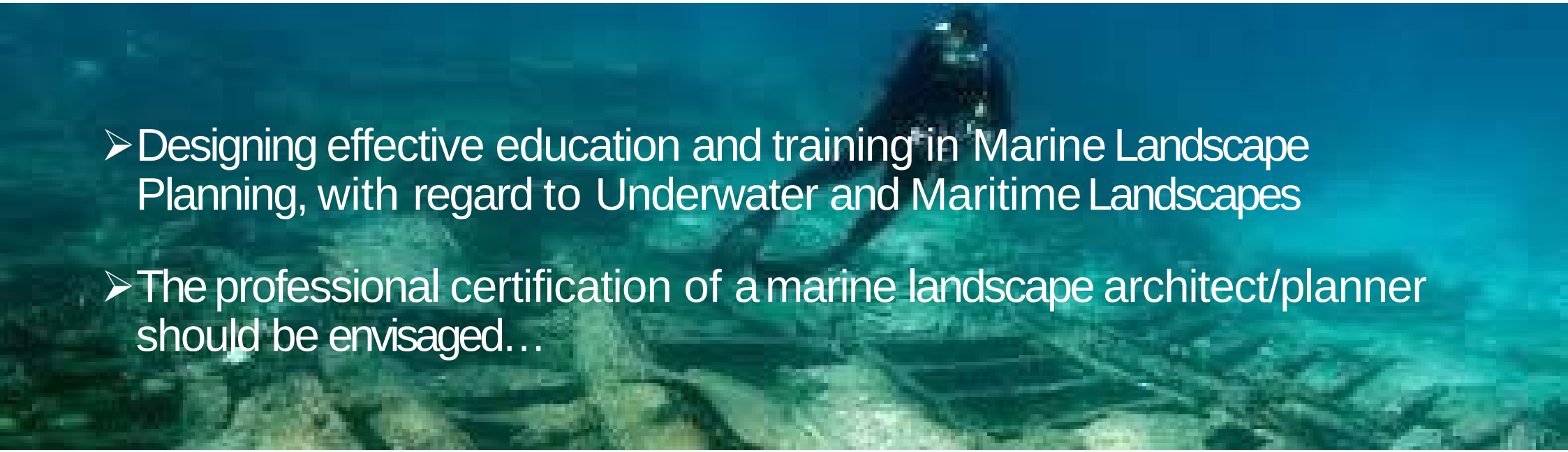
Due to climate change

- Changing environmental conditions of the sea waters (temperature, etc)
- Coastal erosion (affecting seabed morphology)
- Sea level rise (affecting mainly coastal monuments)
- Extreme weather conditions (strong waves, etc)

A marine landscape architect/planner ?

- The demand for specific training in the preparation and implementation of marine planning has shown itself to be quite significant on a global scale (Gissi and Suarez de Vivero, 2016).

In this context



- Designing effective education and training in Marine Landscape Planning, with regard to Underwater and Maritime Landscapes
- The professional certification of a marine landscape architect/planner should be envisaged…

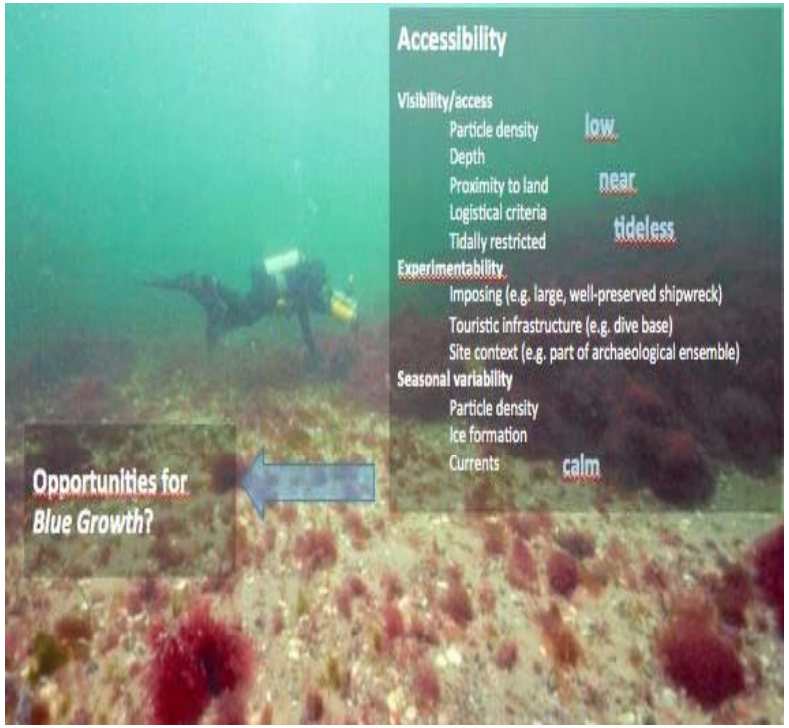
What can planners do?

- Set out strategic priorities to enhance and integrate the landscape/seascape dimension for a given area in a maritime spatial plan (MSP);
- Of course, conservation and policy to enable sustainable management are under the responsibility of the competent authority;
- **Main objective:** to integrate this indication into MSPs, assess cumulative impacts and solve any conflicts with other sectors that threaten carrying capacity of the social-ecological system and support sustainable use.

Landscapes/seascapes can be safeguarded only if they are included in sustainable management and Blue Growth plans. A holistic and integrated approach is needed.

Steps for planners to promote quality underwater landscapes

- Use surveys and UL assessment templates to get a comparable overview;
- Prepare spatial datasets and maps;
- Analyse regulatory needs for each potential UL to be integrated into a MSP;
- Map ULs, not as spots but as zones/polygones;
- Use **multi-use approaches**, e.g. with eco-tourism and buffer zones;
- Learn from case studies.

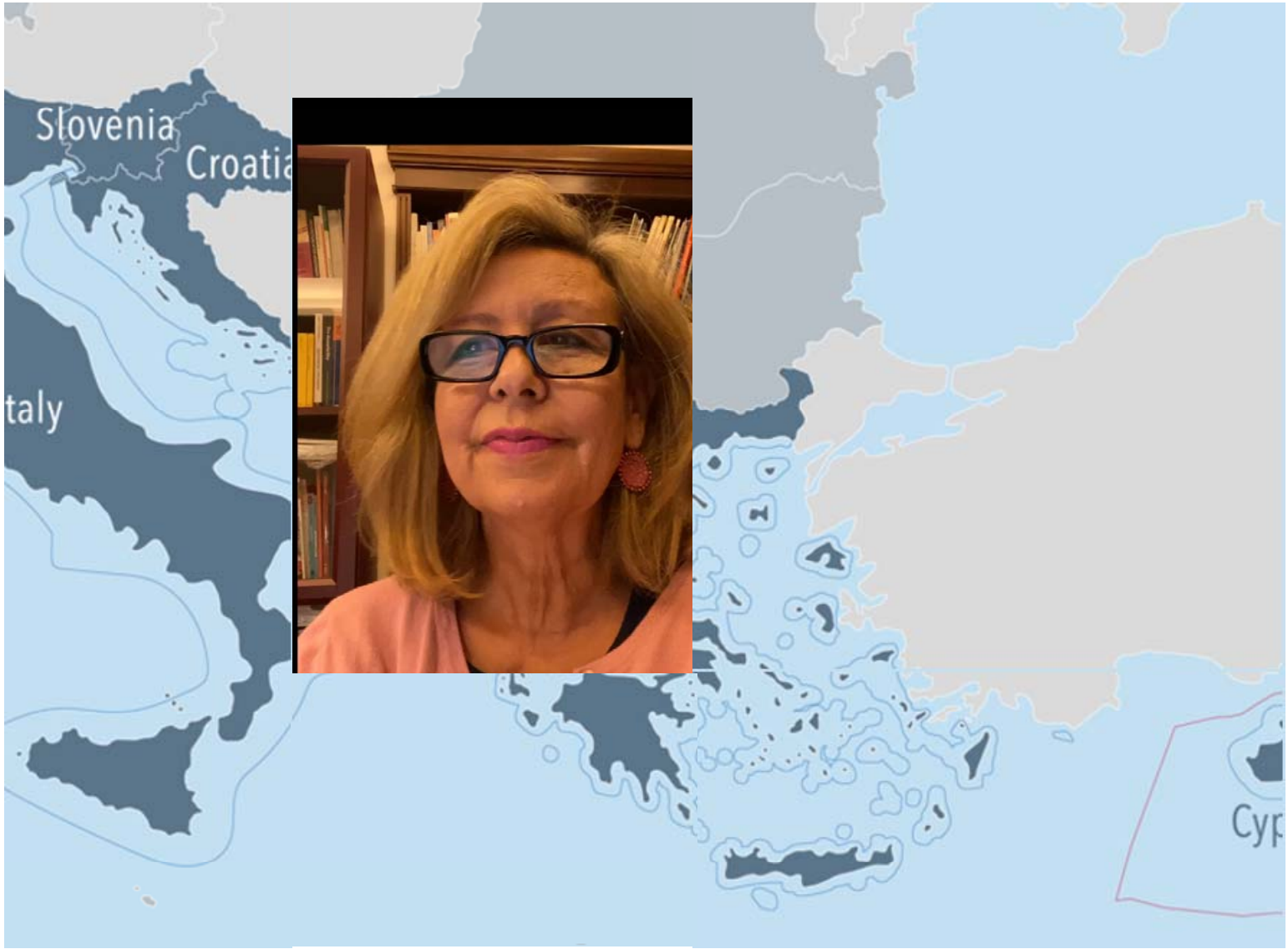


Thank you for your attention !

- And a reminder
- MSP Platform : www.msp-platform.eu

European MSP
Assistance mechanism

Eastern Mediterranean sea-basin expert



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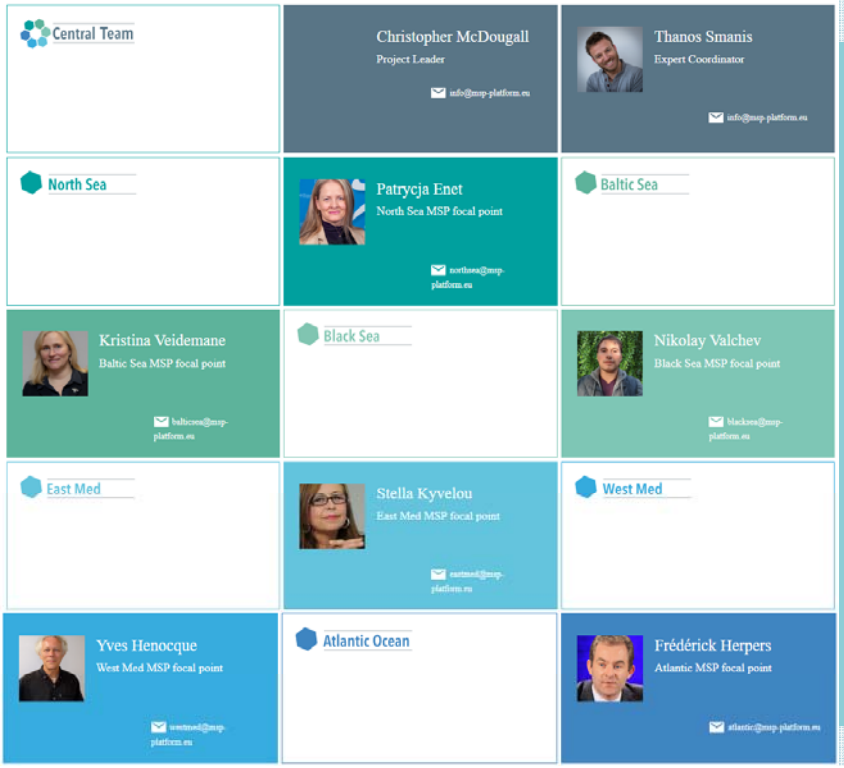

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