

# Drivers for Development Triggered by the Trilogy Tourism-Underwater Cultural Heritage-Environmental Protection, in Maritime Spatial Planning

Kamer-Ainur Aivaz

„Ovidius” University of Constanta, Faculty of Economic Sciences, Romania

[aivaz\\_kamer@yahoo.com](mailto:aivaz_kamer@yahoo.com)

Mari-Isabella Stan

„Ovidius” University of Constanta, Faculty of Law and Administrative Sciences, Romania

[stanisabella@yahoo.com](mailto:stanisabella@yahoo.com)

Ionela Ionițiu

„Ovidius” University of Constanta, Faculty of Letters, Romania

[ionelaionitiu@yahoo.com](mailto:ionelaionitiu@yahoo.com)

## Abstract

*Maritime Spatial Planning (MSP) is considered a process by which public authorities analyze and organize human activities in marine areas to achieve ecological, economic, and social objectives and aim to identify and encourage multiple uses, under the legislation and relevant national policies of the Member States. The purpose of this article is to analyze the stakeholders' perception grouped in public entities of local interest and entities in education and research on the political, economic, and social factors triggered by the trilogy Tourism - Underwater Cultural Heritage - Environmental Protection in Constanța - 2 Mai. The analysis carried out in this study is based on data collected from the stakeholders and took into account the statistical description of some elements from the DABI catalogue, more precisely from the Drivers category that can promote or prevent the implementation of the combination Tourism - Underwater Cultural Heritage - Environmental Protection or may positively or negatively influence the implementation of this combination.*

**Key words:** DABI, combination Tourism – Underwater Cultural Heritage – Environment, Romanian coastal area, Maritime Spatial Planning (MSP)

**J.E.L. classification:** O20, R10

## 1. Introduction

Maritime Spatial Planning (MSP) has become a topic of great interest to maritime countries in recent years and is considered in the broadest sense, as defined in Directive 2014/89/EU, as a process by which public authorities analyze and organize human activities in marine areas to achieve environmental, economic, and social objectives, the coastal and maritime sectors with significant potential for sustainable growth. Thus, MSP is one of the key tools for achieving a sustainable “Blue Growth” that promotes a collaborative and inclusive approach to the maritime economy (EASME, 2018, p.9), providing knowledge, legal and economic security (Salas-Leiton, Vieira and Guilhermino, 2021, p.2). Regarding the 19 recital of the MSP Directive, maritime spatial planning aims to identify and encourage multiple uses under the relevant national legislation and policies of the Member States, as an important facilitator for encouraging the development of maritime sectors (Schultz-Zehden, Weig and Lukic, 2019, p.134). Its ultimate goal is to encourage economic growth related to the maritime sectors in a sustainable way (Frazão Santos *et al*, 2014, p.62).

Each Member State of the European Union shall draw up and implement, based on the legal framework, a maritime spatial plan, being responsible and competent to design and determine the format and content of the plan for its marine waters (Directive 2014/89/EU). In this context, the role of the European Commission is to support these states, in their planning efforts, with concrete tools

and funding sources. In this sense, Romania, in partnership with Bulgaria, is carrying out the MARSPLAN BS-II project (2019-2021) which aims to develop a common MSP strategy that should lead to the elaboration of maritime spatial plans for both countries in 2021. That is why all parties involved must make a special effort to play crucial roles that will help build an inclusive and reliable MSP (Salas-Leiton, Vieira and Guilhermino, 2021, p.2) because without an existing MSP, the increased risk of spatial conflicts between the expansion of maritime uses, including the protection of the marine environment, can lead to a suboptimal combination of growth and sustainability (COM/2010/0771 final).

Thus, to achieve the objectives of the MARSPLAN BS-II project on maritime spatial planning and to establish a long-term mechanism for cross-border cooperation in the Black Sea basin with MSP, several precise tasks related to the development of maritime spatial planning plans in Bulgaria and Romania have been carried out, namely:

- development of the joint MSP strategy for the cross-border area of Bulgaria and Romania, addressing the concept of multiple-use (MU);
- ensuring the active participation of stakeholders in the national and cross-border MSP process and the exchange of best practices on the Black Sea in Romania and Bulgaria.

In this regard, several analyses, studies, and researches on multi-use have been developed in preparing the Black Sea Maritime Development Plan (MSP) (MARSPLAN - BS Projects; Stancheva and Stanchev, 2020), in an integrative approach, as it is necessary for the MSP to facilitate cross-border cooperation (Friess and Grémaud-Colombier, 2019, p.5).

## 2. Literature review

Maritime Spatial Planning (MSP) and the development of the multiple-use concept (MU) have recently emerged as a tool for the efficient management of the multiple activities that take place in the maritime space to achieve the goals of sustainable development. The idea of multiple-use (MU) of marine space (Douvere and Ehler, 2009, p.79) has been promoted as a viable approach to effective planning and mitigation of marine user conflicts (Onyango *et al*, 2020, p.77) and involves authorities, economic operators and other stakeholders at different levels (Directive 2014/89/EU). The expected benefits of such a coordinated approach to MSP inspire predictability and transparency throughout the process (Abramic *et al*, 2018, p.24).

Multiple-use (MU) has been defined as “an intentional shared use of resources in close geographical proximity”, an umbrella term covering a multitude of use combinations in the marine field (MUSES project, 2016, p.14). In the literature related to multiple-use, several definitions and terms have been developed that refer to different types of cross-sectoral interactions by referring to ecological notions (Depellegrin *et al*, 2019, p.613). Thus, MU is defined by Kite-Powell (2017, p.233) as the co-location of complementary maritime uses, Kyvelou and Ierapetritis (2019, p.8) emphasizing that co-location is a smart and attractive choice for marine planners and stakeholders.

Several European Union-funded projects have also provided models for combining coastal activities in terms of economic potential and environmental impact (Munteanu, 2021, p.62). Various uses in the maritime space have been promoted, such as tourism, renewable energy, fishing, aquaculture, offshore energy, oil, and gas, uses relevant to local sea basin conditions. However, in EU sea basins, MUs are at an early stage of development, and the existing ones are mainly related to aquaculture and environmental protection, combined with fishing, tourism, and underwater cultural heritage (Przedzimirska *et al*, 2021, p.6). Thus, the following recommended multi-use combinations were analyzed: Tourism – Fisheries – Environmental Protection, Tourism – Aquaculture, Tourism – Underwater Cultural Heritage – Environmental Protection, Offshore Wind Farm – Tourism, Offshore Wind Farm – Aquaculture, Offshore Wind Farm – Fisheries, Oil – Gas Decommissioning – Repurposing, Offshore Wind – Marine Renewable Energy Generation, Wave Energy – Aquaculture (Schultz-Zehden *et al*, 2018, p.40), the selected sectors being relevant for blue growth.

Within the MARSPLAN-BS-II project, the combination of Tourism – Underwater Cultural Heritage – Environmental Protection (Marine Protected Areas) in the Romania-Bulgaria cross-border area defined as the combination of tourist and recreational activities with the protection of underwater archeological sites and adjacent marine ecosystems was analyzed.

Coastal and maritime tourism is the most significant economic sector in the coastal zone due to its activities and associated benefits, some tourism activities have an impact on other areas of activity. The Romanian coastal area has a rich natural and cultural tourist potential, quite equally distributed throughout its territory.

Underwater Cultural Heritage (UCH) is defined by the UNESCO *Convention for the Protection of the Underwater Cultural Heritage* (2001) as all traces of human existence of a cultural, historical, or archaeological nature (sites, structures, buildings, artifacts, and human remains, together with their archaeological and natural context; ships, aircraft, other vehicles or any part thereof, cargo or other contents, together with their archaeological and natural context; and prehistoric objects) that have been partially or completely underwater, periodically or continuously, for at least 100 years.

Marine protected areas are a key component of integrated coastal and marine management. The European Union promotes the development of the Natura 2000 network of protected areas as the main tool for nature conservation; in Romania there are 9 sites of community importance belonging to the marine and coastal area, being known that this area has special importance for the variety of natural habitats and the diversity of flora and fauna.

As stated in the 19 recital of the European MSP Directive, the main purpose of maritime spatial planning is to promote sustainable development and to identify the use of maritime space for different maritime uses, as well as to manage spatial uses and conflicts in marine areas. Thus, to promote sustainable development effectively, stakeholders, authorities, and the public must be consulted because neglecting the crucial role and importance of local stakeholders in MSP can become an obstacle rather than an opportunity (Laskowicz, 2021, p.15).

MSP reflects the paradigm shift from authoritarian governance to governance that includes societal actors (Luhtala *et al*, 2021, p.1), as stakeholders generate important information in maritime spatial planning decision-making on the complexity of human influence on marine resources. In their paper, Dell’Ovo *et al* (2021, p.3) consider that in planning activities, the involvement of the public and stakeholders in the decision-making process allows approaches that are no longer technocratic, but rather participatory. Thus, the maritime spatial planning document, resulting from the cooperation between central and local public administration authorities, in consultation with academia and the scientific community, professional associations, the business community, and the non-governmental sector, will be able to identify and regulate the spatial distribution of activities of any kind, current, and future, in marine spaces.

### **3. Research methodology**

The purpose of this article is to analyze the perception of stakeholders, namely public entities of local interest and entities in education and research on certain drivers (political, economic, and social) triggered by the trilogy Tourism – Underwater Cultural Heritage – Environmental Protection in the Constanța - 2 Mai area.

To achieve the objectives of the MARSPLAN-BS-II project, a questionnaire was developed by all partners involved under the coordination of the National Institute for Research and Development on Marine Geology and Geoecology - GeoEcoMar. The questionnaire was applied online to MSP stakeholders to collect the most up-to-date information and exploit the documented knowledge and data.

The implementation team of the MARSPLAN-BS II project identified several potential factors that promote or hinder the implementation of the studied combination. According to the DABI (Drivers-Added values-Barriers-Impacts) methodology (Zauchá *et al*, 2016, p.1), the information came from the office analysis, the DABI framework providing a systematic approach and a useful tool for broad-spectrum mapping and analysis of factors relevant to the application of MU (Onyango *et al*, 2020, p.90). Each of the 4 templates includes several factors grouped according to different criteria that take into account key aspects of maritime spatial planning, such as policies, administrative/legal issues, environmental and socio-economic constraints, technical capabilities, and knowledge gaps. A semi-quantitative scoring system with 4 levels was applied when noting the factors: high priority (+3); medium priority (+2); low priority (+1); absent or irrelevant factor (0).

The empirical analysis in this article is based on data collected from stakeholders grouped into two categories: “public entities of local interest” and “entities in education and research” and took into account the statistical description of the elements in the DABI catalogue by selecting the promoters factors category (Drivers). Data processing, systematization of results, and obtaining indicators used for statistical analysis were performed using the *Statistical Program for the Social Sciences* (SPSS).

#### 4. Findings

For the analysis undertaken, from the statistical description of the elements from the DABI catalogue, the category of factors related to policies and economic and social promoters was selected.

Table 1 shows the policy drivers that are mainly supported by the Maritime Planning Directive, but also by other strategic documents.

Regarding the assessment of the two types of entities surveyed *in terms of policy drivers*, 63.2% of them give high priority to *the existence of strategic documents at the regional and Community level for sustainable development*, 28.9% a medium priority and 7.9% low, while for *the support of the Black Sea Commission through the strategic documents prepared* 55.3% of the entities consider it a high priority, 34.2% medium priority, 2.6% low priority and 7.9% do not know. The obtained results reflect the fact that stakeholders are aware of the complex importance of national, sectoral, and regional documents, strategies, and programs in line with the principles and practices of sustainable development. It is well known that the European Union supports the promotion of regional cooperation and sustainable development in the Black Sea region by annually allocating funds to projects.

However, a ranking of policy drivers shows that almost 70% of the surveyed entities give high priority to European directives on the marine environment (2014/89/EU, 2008/56/EC, and 92/43/EEC). It is obvious that 90% of education and research entities give high priority because they are connected to regulations and have a fundamental application, while for public entities of local interest these factors are of high interest in a proportion of 60%. The opinion of the interviewed stakeholders is supported by the fact that EU marine directives establish a set of environmental objectives and associated indicators, which must be taken into account when assessing the status of the EU maritime space (Lillebø *et al*, 2017, p.131), as MSP is considered an important tool for the sustainable development of marine areas and coastal regions and the restoration of Europe's seas to the optimum level of environmental health (Friess and Grémaud-Colombier, 2019, p.1).

Table no. 1 Promoting policy factors

Factor	Scale	Public entities of local interest	Education and research entities	Total
D.1.1.1. The existence of strategic documents at the regional and Community level for sustainable development (e.g. The Blue Growth Strategy, The Black Sea Strategic Research and Innovation Agenda, The South-East Development Strategy)	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	9 32.1%	2 20.0%	11 28.9%
	High priority	16 57.1%	8 80.0%	24 63.2%
D.1.1.2. The support from the Black Sea Commission through the strategic documents developed (e.g. The Strategic Action Plan).	Absent or irrelevant factor	2 7.1%	1 10.0%	3 7.9%
	Medium priority	11 39.3%	2 20.0%	13 34.2%
	High priority	14 50.0%	7 70.0%	21 55.3%
	Low priority	1 3.6%	0 0.0%	1 2.6%

D.1.1.3. Directive 2014/89/EU of the European Parliament and Council on 23rd July 2014 establishing a framework for maritime spatial planning.	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	7 25.0%	1 10.0%	8 21.1%
	High priority	17 60.7%	9 90.0%	26 68.4%
	Low priority	1 3.6%	0 0.0%	1 2.6%
D.1.1.4. Directive 2008/56/EC of the European Parliament and Council on 17th June 2008 establishing a framework for Community action in the field of marine policy ("Marine Strategy" Framework-Directive)	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	7 25.0%	1 10.0%	8 21.1%
	High priority	17 60.7%	9 90.0%	26 68.4%
	Low priority	1 3.6%	0 0.0%	1 2.6%
D.1.1.5. Council Directive 92/43/EEC on 21st May 1992 on the conservation of natural habitats and wild fauna and flora	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	6 21.4%	1 10.0%	7 18.4%
	High priority	19 67.9%	9 90.0%	28 73.7%
	Low priority	1 3.6%	0 0.0%	1 2.6%

Source: Own processing

Ensuring viable, long-term economic operations provides socio-economic benefits for all stakeholders in the Black Sea coastal area, without neglecting the optimal use of environmental resources.

Regarding *the economic drivers*, public entities of local interest and education and research entities attach less importance than the previous factors, because a small number of the surveyed stakeholders are involved in economic activities in the coastal area (Table 2).

Thus, according to the analysis based on the questionnaire, regardless of the type of entity, *the increased demand for diving activities in submerged sites/wrecks due to the increased interest of divers and tourism operators* is perceived by only 34.2% as a high priority, 47.4% as an average priority, 10.5% as a low priority, and 7.9% said they did not know. Although it is quite an expensive economic activity, the diving activity in the Black Sea is more and more requested by those who are passionate about adventure, exploration and who want to live new experiences in a totally different environment from the daily one.

Although coastal attractions have made coastal tourism one of the fastest-growing areas of contemporary tourism in the world (Chen, Kim, and Mueller, 2021, p.1), *the growing interest in diversifying the tourism sector* (e.g. new tourism offerings) is appreciated by 42.1% of the entities as a high priority, by 47.4% as a medium priority, by 2.6% as a low priority, and 7.9% do not know. This opinion of the stakeholders is supported by the fact that, in coastal tourism, the water/sea element is prevailing and is considered to be the main advantage (Papageorgiou, 2016, p.45).

Also, *the existence of initiatives and the demand for the extension of the tourist season by carrying out other recreational activities in the coastal area* is perceived by only 44.7% of entities as a high priority, 39.5% consider it a medium priority, 10.5% low priority, and 5.3% I do not know. Tourism in the Romanian coastal area is one of the most important economic activities and, although it is seasonal, it is an important source for generating jobs, income, and better living conditions. The option of extending the summer season through smart investments in tourism infrastructure can add extra value.

*Increasing eco-tourism options as opportunities for blue growth* is considered a high priority by 55.3% of the surveyed entities, 31.6% consider it a medium priority, 5.2% low priority, and 7.9% do not know. Stakeholders' opinions on the development of the blue business are supported by the fact that maritime spatial planning (MSP) affects the premises of business operations in marine and

coastal areas (Luhtala *et al*, 2021, p.2) and may eventually lead to streamlined processes, ultimately generating negative economic effects on businesses and communities (Schultz-Zehden, Weig and Lukic, 2019, p.135). Despite these considerations, however, 70.0% of education and research entities opt for a high priority for blue growth in the study area.

*The increase in the number of target groups interested in visiting the sites of Underwater Cultural Heritage and Marine Protected Areas* is estimated by 50.0% as a high priority, 39.5% a medium priority, 2.6% low priority, whereas 7.9% do not know. From the data analysis, it is observed that there is interest from the entities regarding the development of tourism with the maintenance of essential ecological processes that contribute to the conservation of natural heritage and biodiversity, this being a key element in the sustainable development of the Romanian coastal area.

Table no. 2 Economic promoting factors

Factor	Scale	Public entities of local interest	Education and research entities	Total
D.1.2.1. The increased demand for diving activities in submerged sites/wrecks due to increased interest from divers and tour operators.	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	12 42.9%	6 60.0%	18 47.4%
	High priority	10 35.7%	3 30.0%	13 34.2%
	Low priority	3 10.7%	1 10.0%	4 10.5%
D.1.2.2. The increased interest in diversifying the tourism sector (e.g. new tourist offers).	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	13 46.4%	5 50.0%	18 47.4%
	High priority	11 39.3%	5 50.0%	16 42.1%
	Low priority	1 3.6%	0 0.0%	1 2.6%
D.1.2.3. The existence of initiatives and demand for the extension of the tourism season by carrying out other recreational activities in the coastal area.	Absent or irrelevant factor	2 7.1%	0 0.0%	2 5.3%
	Medium priority	9 32.1%	6 60.0%	15 39.5%
	High priority	14 50.0%	3 30.0%	17 44.7%
	Low priority	3 10.7%	1 10.0%	4 10.5%
D.1.2.4. Increasing eco-tourism options as opportunities for blue growth (Blue Growth).	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	9 32.1%	3 30.0%	12 31.6%
	High priority	14 50.0%	7 70.0%	21 55.3%
	Low priority	2 7.1%	0 0.0%	2 5.3%
D.1.2.5. Increasing the number of target groups interested in visiting the sites of the Underwater Cultural Heritage and Marine Protected Areas.	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	11 39.3%	4 40.0%	15 39.5%

	High priority	13 46.4%	6 60.0%	19 50.0%
	Low priority	1 3.6%	0 0.0%	1 2.6%

Source: Own processing

Regarding *the social drivers* (Table 3), 60.5% of public entities of local interest and education and research entities consider that *increasing the interest in promoting and protecting the underwater cultural heritage and Marine Protected Areas* is a high priority, 26.3% a medium priority, 5.3% low priority and 7.9% don't know. Given the tourism potential of the coastal zone, there is a need to raise awareness of the attractiveness of this tourism product, to increase the number of tourists and thus the revenue generated provided that the ability of marine ecosystems to respond to human-induced changes is not compromised, as MSP aims to reduce or avoid conflicts between a variety of economic and non-economic functions (EASME, 2018, p.6).

*The ability to identify new itineraries with multiple interconnections with land and coastal historical sites, creating opportunities for socio-economic growth of the study area (e.g. connections with History Museums)* is appreciated by 50.0% of entities as a high priority, of 34.2% a medium priority, of 7.9% low priority, whereas 7.9% do not know. Although it is considered that even if UCH is a resource of great socio-cultural value and has very few direct or extractive uses of economic importance (Papageorgiou, 2018, p.201), stakeholders still appreciate that Romania's underwater cultural heritage can be highly capitalized for tourist purposes.

Table no. 3 Social promoting factors

Factor	Scale	Public entities of local interest	Education and research entities	Total
D.1.3.1. Increasing the interest in promoting and protecting underwater cultural heritage and Marine Protected Areas.	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	6 21.4%	4 40.0%	10 26.3%
	High priority	17 60.7%	6 60.0%	23 60.5%
	Low priority	2 7.1%	0 0.0%	2 5.3%
D.1.3.2. The possibility to identify new itineraries with multiple interconnections with terrestrial and coastal historical sites, creating opportunities for socio-economic growth of the study area (for example, connections with the History Museums)	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%
	Medium priority	10 35.7%	3 30.0%	13 34.2%
	High priority	12 42.9%	7 70.0%	19 50.0%
	Low priority	3 10.7%	0 0.0%	3 7.9%
D.1.3.3. Clusters, NGOs, groups of volunteers existing in the study area, with activities in the respective fields.	Absent or irrelevant factor	4 14.3%	0 0.0%	4 10.5%
	Medium priority	9 32.1%	4 40.0%	13 34.3%
	High priority	12 42.9%	5 50.0%	17 44.7%
	Low priority	3 10.7%	1 10.0%	4 10.5%
D.1.3.4. Development of local museums, tourist and cultural information centers,	Absent or irrelevant factor	3 10.7%	0 0.0%	3 7.9%



exhibitions on the history of the Black Sea, and opportunities for exploration and diving.	Medium priority	9 32.1%	5 50.0%	14 36.8%
	High priority	12 42.9%	5 50.0%	17 44.7%
	Low priority	4 14.3%	0 0.0%	4 10.5%

Source: Own processing

Regarding the *clustering factor*, NGOs, existing groups of volunteers in the study area, with activities in the respective fields, 44.7% of the surveyed entities consider that their existence is a high priority, of 34.3% a medium priority, of 10.5% low priority, whereas 10.5% do not know. Studies on the involvement of the non-governmental sector (Zervak, 2019, p.241) have shown that the contribution of NGOs varies from providing expertise, conducting fieldwork, and participating in monitoring and evaluation activities, to facilitating public participation by conducting campaigns, with the ability to mobilize volunteers.

The development of local museums, tourist and cultural information centers, exhibitions on the history of the Black Sea, and opportunities for exploration and diving are appreciated by 44.8% as a high priority, 36.8% a medium priority, 10.5% low priority, and 7.9% do not know. Stakeholders understand that creating an information network is a major promotional tool to spread the message of hospitality to tourists, while providing them with accurate information to assist them in guiding and assessing their destination, stakeholder engagement depending on the local and national context, especially the existing planning culture and the specificity of the planned maritime area (Zauchá and Kreiner, 2021, p.9).

As a result of the analysis, it is found that the involvement of stakeholders facilitated the collection of relevant information on the multiple-use implementation (MU) in MSP, education, and research entities being well anchored in the economic and social realities of the Romanian coastal area.

## 5. Conclusions

The studies conducted (Abramic *et al*, 2018, p.24) on Maritime Spatial Planning (MSP) and the development of the concept of multiple-use (MU) confirm the benefits of the public and all stakeholders' participation in the process by reducing conflicts, encouraging investment and increasing cooperation between administrations, as gathering stakeholders' views on the stated positive and negative effects of the MU combination is important.

Combining coastal activities in terms of economic potential and environmental impact requires predictability. Bonnevie, Hansen, and Schröder (2019, p.1) point out that maritime spatial planning (MSP) has gained attention as a planning framework that takes into account cross-sectoral compromises with an interdisciplinary and transparent approach that includes stakeholder involvement, representing a challenging mission. Moreover, to more easily integrate the concept of multiple-use in MSP Kyvelou and Ierapetritis (2019, p.14) indicated a broad definition of MSP: a “complex, multidimensional process specific to the marine management context between multiple users, led by technological, financial, socio-economic, cultural, environmental and governance factors - which should be nurtured by the planning, engineering, governance and management disciplines - to achieve an integrated, adaptive, transparent spatial planning process, coordinated, innovative and coherent, with limited exclusive rights, at sea and in the oceans”, which denotes the complexity of this process.

Thus, even if the importance of tourism activity in the Romanian coastal area is overwhelming for local development, nevertheless viable solutions must be found for an economic development based on the sustainable use of natural resources.

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