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PRELIMINARY REPORT

REVIEW OF THE STATE OF THE ART ON THE EXPLORATION AND EXPLOITATION OF MARINE MINERAL RESOURCES

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by

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1. MARITIME AREAS UNDER ITALIAN SOVEREIGNTY AND JURISDICTION

1.1. *The UNCLOS legal framework*

The 1982 United Nations Convention on the Law of the Sea (UNCLOS)[1] confers coastal States different rights, freedoms, and duties in relation to the area of sea concerned. Before exploring the specific issue assigned to our research unit and related to the exploration and exploitation of mineral resources in waters under Italian sovereignty and jurisdiction, it seems important to briefly analyse, for this specific purpose, the legal regime provided by UNCLOS for the *territorial sea* (TS)[2], the *exclusive economic zone* (EEZ)[3] and the *continental shelf* (CS)[4].

Over the territorial sea (not exceeding 12 nautical miles, measured from baselines determined in accordance with UNCLOS) well as to its bed and subsoil and which must be exercised in accordance with UNCLOS and with other rules of international law (Article 2 UNCLOS).

In the context of the territorial sea, a split between the regulation of the seabed and the subsoil on the one hand, and that of the space above it, i.e. the water column, on the other hand, should be noted. In this sense, while the seabed and the subsoil fall under the full sovereignty of the coastal State, in the corresponding water column applies a limitation of the national sovereignty concerning the 'innocent passage' which can be exercised by foreign ships (Articles 17-26 UNCLOS).

EEZ is an area adjacent to the territorial sea and with a maximum extension of 200 nautical miles from the baseline. In this area, the coastal State exercises a limited series of sovereign rights generally related to the economic exploitation of natural resources. Such rights include the right to exploration, exploitation, control, conservation, and management of natural resources, biological or non-biological, which are found in the waters above the seabed, on the seabed and in the relevant subsoil, and to conduct other activities connected, such as the production of energy derived from water, currents and winds. In the EEZ the coastal State is also recognized as having jurisdiction over the installation and use of artificial islands, systems and structures; the marine scientific research; the protection and preservation of the marine environment (Article 56(1) UNCLOS).

Differently, in the continental shelf, the coastal States exercises sovereign rights only in relation to the exploration and exploitation of the natural resources within it. These rights are *exclusive* in the sense that if the coastal State does not explore the continental shelf or exploit its resources, no one else may undertake such activities without its express consent (Articles 77(1) and (2) UNCLOS). The aforementioned *natural resources* consist of the mineral and other non-living resources of the seabed and subsoil as well as living organisms belonging to sedentary species, i.e. organisms which, at the adult stage, are immobile on or under the seabed or are incapable of moving except by being in continuous physical contact with the seabed or its subsoil.

[1] United Nations Convention on the Law of the Sea (with annexes, final act and procès-verbaux of rectification of the final act dated 3 March 1986 and 26 July 1993). Concluded at Montego Bay on 10 December 1982.
[2] UNCLOS, Part II. *Territorial Sea and Contiguous Zone*, Arts. 2-33.
[3] UNCLOS, Part IV. *Exclusive Economic Zone*, Arts. 55-75.
[4] UNCLOS, Part V. *Continental Shelf*, Arts. 76-85.

Article 78 UNCLOS specifies that the rights of the coastal State over the continental shelf shall not affect the legal regime of the waters and airspace above it and their exercise shall not impede navigation or produce any unjustifiable interference with it or with other rights and freedoms granted by the Convention to other States.
According to Articles 60, 80 and 81 UNCLOS, the coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes and in relation to the construction and regulation of artificial islands, installations and structures the legal regime is the same as that of the EEZ.
In brief, the powers vested in coastal States over their continental shelves only relate to the exploitation of specific resources and to connected activities.
In sum, for what concern the seabed mining, according to the UNCLOS, the coastal State exercises its jurisdiction over the territorial sea, the EEZ (if formally proclaimed) and the continental shelf with different grades of rights and duties.
The specific regulation of seabed mining within the scope of national sovereignty is thus devolved to domestic legislation, which must respect the general rules established by the UNCLOS.

a) Some remarks on the exploration and exploitation of natural resources in overlapping maritime areas

The UNCLOS rules applicable to cases featuring an overlap of claims between States in the delimitation of the EEZ or the continental shelf are, respectively, Article 74(3) and 83(3). They establish that, pending agreement on delimitation, "the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement", adding that "such arrangements shall be without prejudice to the final delimitation". The two rules dictate specific obligations of conduct: an obligation to enter into provisional arrangements of a practical nature[5] and an obligation not to jeopardize or hamper the reaching of the final agreement during the transitional period[6].
A precise interpretation of the first of the two obligations was offered by the Arbitral Tribunal in the *Guyana/Suriname* case, which outlined certain steps a State should take to be consistent with efforts to enter into provisional arrangements including: (1) giving the counterpart official and detailed notice of the planned activities, (2) seeking cooperation with the counterpart in undertaking the activities, (3) offering to share the results of the exploration and giving the counterpart an opportunity to observe the activities, and (4) offering to share all the financial benefits received from the exploratory activities[7].
Another question that the Arbitral Tribunal in the *Guyana/Suriname* case addressed is when a party engaging in unilateral exploratory drilling in a disputed area falls short of its obligation to make every effort, in a spirit of understanding and cooperation, not to jeopardise or hamper the reaching of the final agreement on delimitation. In this regard, the Arbitral Tribunal emphasised a clear distinction between lawful and unlawful activities as follows: "[t]hat however is not to say that all exploratory activity should be frozen in a disputed area in the absence of a provisional arrangement. Some exploratory drilling might cause permanent damage to the marine environment. Seismic activity on

[5] ITLOS, *Dispute concerning delimitation of the maritime boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire)*, Judgment of 23 September 2017, para. 627.
[6] Ibid., para. 629.
[7] *Arbitration regarding the delimitation of the maritime boundary between Guyana and Suriname*, cit., para. 477.

the other hand should be permissible in a disputed area. […]"[8]. In other words, unilateral exploratory drilling in a disputed area does not necessarily contravene international law, albeit it is generally a source of great political tension among the States concerned.

b) Protection of marine environment

It is appropriate to consider the environmental protection standards set by UNCLOS, which may involve the activities of exploration and exploitation of marine mineral resources in areas under national sovereignty.

In terms of Article 192 UNCLOS, signatory States have a general obligation to protect and preserve the marine environment within and outside their jurisdiction. Article 194(1) UNCLOS obliges States Parties to take all measures necessary "*to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities*". States are also required to take all measures necessary to ensure activities within their jurisdiction or control do not cause damage by pollution to other States and their environment (Article 194(2)). This duty may be relevant in the case of seabed mining, where the impacts of the activities concerned may extend to the EEZ of neighbouring States, with particular regard to the impact on fishery resources and migratory fish stocks.

Another significant obligation to this respect is that enshrined in Article 194(3)(c) UNCLOS, which provides that States Parties should put in place measures to minimise, to the fullest possible extent, "*pollution from installations and devices used in exploration or exploitation of the natural resources of the seabed and subsoil*". These should, in particular, include measures to ensure the safety of these operations, to prevent any possible damages, and to regulate the design, construction, and operativity of such installations or devices. These measures must also "*protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life*" (Article 194(5)).

The legal obligation of States Parties in respect of seabed mining and the protection of the marine environment has also been specified and outlined by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea[9].

Specifically, it was determined that domestic legislation governing seabed mining should be no less "effective than international standards, regulations and procedures". From this statement, it can be inferred that the domestic legislation, although related to seabed mining in areas of national jurisdiction and not in the Area, may not be less effective than the regulations established in the International Seabed Authority's Mining Code, which to date is still being drafted. The Seabed Disputes Chamber has also expressly ruled on the point as follows: "States have a direct obligation under international law to ensure that seabed mining activities are regulated in accordance with the precautionary approach, employing best environmental practices and conducting prior environmental impact assessment." In other words, "an effective state response to these obligations ultimately requires an appropriate national legislative framework" to regulate seabed mining.

As a result, it will be necessary to verify, first, that the domestic legal framework envisaged by Italy is in line with these principles and the general framework prescribed by UNCLOS. Secondly, it also

[8] *Arbitration regarding the delimitation of the maritime boundary between Guyana and Suriname*, cit., para. 481. This distinction between lawful and unlawful activities has not been disputed by ITLOS, which has had the opportunity to interpret Art. 83(3) UNCLOS in the *Dispute concerning delimitation of the maritime boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire)*, cit., para. 630.

[9] Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, 'Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area – Advisory Opinion', 1 February 2011.

seems interesting to check the process of drafting the International Seabed Authority's Mining Code in order to verify what environmental standards will be imposed. On the other hand, it will also be necessary to assess the compliance of Italian domestic legislation to the environmental obligations imposed by the European Union concerning seabed mining, which will be discussed in the following paragraphs.

1.2. *The Italian continental shelf*

With regard to the delimitation of the Italian continental shelf, Law No. 613 of 21 July 1967[10], in accordance with relevant international law, establishes that "the determination of the outer limit of the Italian continental shelf will be carried out through agreements with States whose coasts face those of the Italian State and which share the same continental shelf. Until the entry into force of the agreements referred to in the preceding paragraph, no non-exclusive prospecting and exploration permits or concessions for the production of liquid and gaseous hydrocarbons shall be issued on the Italian continental shelf except on this side of the median line between the Italian coast and that of the States bordering it".
Italy has already signed delimitation agreements with some Mediterranean States.
Of particular note are:

1) Agreement with Yugoslavia of 8 January 1968 (ratified by Presidential Decree No. 830 of 22 May 1969; in force since 21 January 1970). Slovenia, Croatia and Montenegro are successor states to this Agreement; in 2005, Italy and Croatia concluded a Technical Understanding that left the content of the Agreement unchanged;
2) Agreement with Tunisia of 28 August 1971 (ratified by Law no. 357 of 3 June 1978; in force since 16 December 1978);
3) Agreement with Spain of 19 February 1974 (ratified by Law No 348 of 3 June 1978; in force since 16 November 197);
4) Agreement with Greece of 24 May 1977 (ratified by Law No 290 of 23 March 1980; in force since 3 July 1980);
5) Agreement with Albania of 18 December 1992 (ratified by law n. 147 of 12 April 1995 and in force since 26 February 1999).

a) Maritime provisional delimitation between Italy and Malta

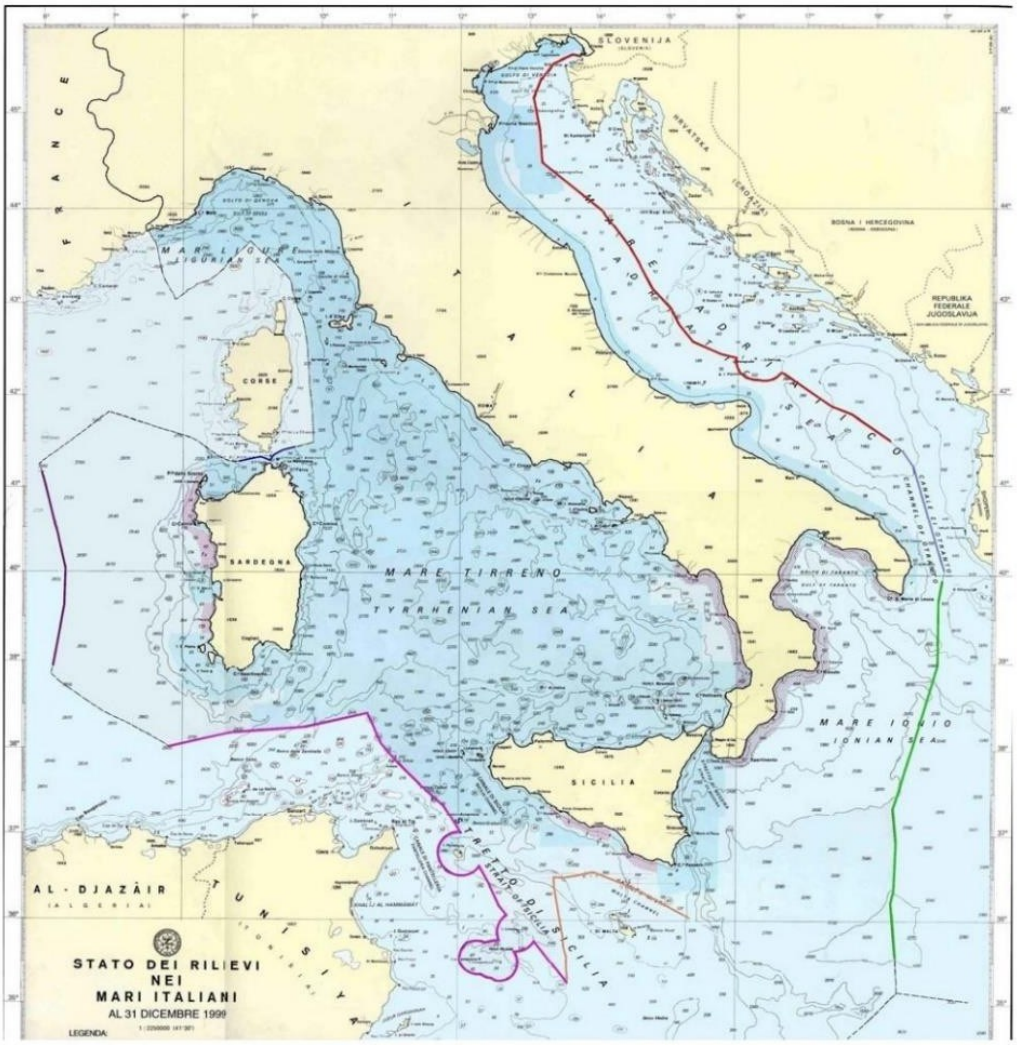
As far as relations with Malta are concerned, a *modus vivendi* exists to date, established with an exchange of verbal notes in April 1970, concerning the partial delimitation, of a provisional nature, of the seabed within the bathymetry of 200 metres by means of the equidistance line between Malta's northern coasts and the facing coasts of Sicily. Therefore, the arrangement only concerns the boundary of the seabed to the north of Malta and not that of the seabed to the east and west of the country.
The International Court of Justice examined Italian interests relating to the delimitation of the continental shelf in the central Mediterranean in the context of the dispute between Malta and Libya over the division of their respective continental shelves. In particular, in October 1983, Italy submitted to the Court a request to intervene as a third Party, pursuant to Article 62 of the Statute of the Court, in the context of the dispute between the two countries, in order to claim its interests in the disputed areas. Although the Court did not allow Italy to intervene for procedural reasons, in its judgment of

[10] Legge 21 luglio 1967, n. 613 - *Ricerca e coltivazione degli idrocarburi liquidi e gassosi nel mare territoriale e nella piattaforma continentale e modificazioni alla legge 11 gennaio 1957, n. 6, sulla ricerca e coltivazione degli idrocarburi liquidi e gassosi*.

3 June 1985, in ruling on the merits of the dispute over the delimitation of the continental shelf between Malta and Libya, the Court, nevertheless, took Italy's interests into account. Indeed, the Court required Libya and Malta to agree on the boundary of their continental shelves within the spatial area in which there were no claims by third States, according to the criteria indicated in the judgment[11].
Following this decision, however, no formal invitation was made by Malta to Italy to open negotiations to define their respective sea borders.
In any case, especially from the 2000s onwards, a series of individual initiatives were undertaken by the two countries, which represented significant developments and redefined (and perhaps compromised) the framework of maritime relations, in terms of delimitation[12].
Of particular note is a recent exchange of formal communications between the two countries, which took place in the course of 2023.
Through these notes, briefly, ItalyMalta's granting of an exploration licence to the company Albion Energy in an area disputed and claimed by Italy, as a unilateral and prohibited act under UNCLOS, and therefore requested its revocation. Italy also reaffirmed the need to conclude a bilateral delimitation agreement and represented its intention to continue negotiations with Malta, initiated by Italy on 21 November 2021, trusting in Malta's mutual willingness[13].
For its part, Malta responded by stating that the licence granted to Albion Energy in an offshore area, first of all, respects the median line criterion (claimed by Malta, while waiting for a final agreement, and denied instead by Italy), and observed that the licence refers only to a desktop study without any exploration operations taking place within the acreage. In any case, Malta also expressed its intention to reopening the technical discussion between the two States over overlapping maritime interests, in accordance with the provisions of UNCLOS and reaffirmed its commitment to the continuation of a constructive dialogue towards a friendly settlement between the two States[14]. Italy contested these Maltese claims and reiterated its willingness to resume negotiations on maritime areas whose jurisdiction has not been delimited yet[15].
It will therefore be necessary to verify the progressive development of bilateral relations between Italy and its neighbouring countries such as Malta, Libya[16] and Algeria[17], with which an agreement on the delimitation of the respective continental shelves has not yet been reached.

[11] ICJ, *Case concerning the Continental Shelf* (*Libyan Arab Jamahiriya/Malta)*, Judgment of 3 June 1985, para. 22; see also: Conforti, *L'arrêt de la Cour internationale de justice dans l'affaire de la délimitation du plateau continental entre la Libye et Malte*, in Revue Générale de droit International Public, 1986, 313 ff.
[12] Caffio, *La lunga storia del negoziato italo-maltese sulla delimitazione della piattaforma continentale*, in *Rivista del diritto della navigazione,* 2020, n. 1, 285-312; Caffio, *I confini marittimi italiani nella loro prospettiva storica: i casi di Tunisia, Malta, Libia,* in Caligiuri, Papanicolopulu, Schiano di Pepe, Virzo (eds.), *Italia e Diritto del Mare,* Editoriale Scientifica, 2023, 56-59.
[13] Italy: Communication from the Ministry of Foreign Affairs and International Cooperation of the Italian Republic to the Embassy of the Republic of Malta in Rome dated 16 February 2023.
[14] Malta: Communication from the Embassy of the Republic of Malta in Rome to the Ministry of Foreign Affairs and International Cooperation of the Italian Republic dated 28 March 2023.
[15] Italy: Communication from the Ministry of Foreign Affairs and International Cooperation of the Italian Republic to the Embassy of the Republic of Malta in Rome dated 26 April 2023.
[16] On maritime boundaries delimitation process between Italy and Libya, see *infra* lett. d), of this paragraph.
[17] On maritime boundaries delimitation process between Italy and Algeria, see *infra* lett. e), of this paragraph.

PIATTAFORMA CONTINENTALE ITALIANA



ITALIA - EX JUGOSLAVIA	D.P.R. 22 maggio 1969 n. 830 e Legge 14 marzo 1977 n. 73
ITALIA - ALBANIA	Legge 12 aprile 1995 n. 147
ITALIA – GRECIA	Legge 23 maggio 1980 n. 290
ITALIA - TUNISIA	Legge 3 giugno 1978 n. 347
ITALIA - SPAGNA	Legge 3 giugno 1978 n. 348
ITALIA - FRANCIA	Convenzione italo-francese 28 novembre 1986 – Bocche di Bonifacio
ITALIA – MALTA	Linea di equidistanza italo-maltese 29 aprile 1970

1.3. *Remarks on the establishing of the Italian EEZ and its relationship with the continental shelf*

It must be stated that there is a close relationship between the EEZ and the continental shelf regimes. Part V of UNCLOS clearly deals with the EEZ whereas Part VI establishes the continental shelf regime. Furthermore, Articles 74 and 83 CNUDM lays down similar criteria with respect to the delimitation of the two maritime spaces between bordering or adjacent states.

Art. 74 - Delimitation of the exclusive economic zone between States with opposite or adjacent coasts

1. The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an **equitable solution**.
2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the **procedures provided for in Part XV**.
3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into **provisional arrangements of a practical nature** and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.
4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the exclusive economic zone shall be determined in accordance with the provisions of that agreement.

Art. 83 - Delimitation of the continental shelf between States with opposite or adjacent coasts

1. The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an **equitable solution**.
2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the **procedures provided for in Part XV**.
3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into **provisional arrangements of a practical nature** and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.
4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the continental shelf shall be determined in accordance with the provisions of that agreement.

In addition, Article 56(3) UNCLOS establishes that the rights, jurisdiction and duties of the coastal State in the EEZ with respect to the seabed and subsoil shall be exercised in accordance with its Part VI.

a) *Legal regime of the EEZ under UNCLOS*

The institution of the EEZ, provided for in general international law and codified by UNCLOS (Articles 55-75) has assumed a fundamental role in the law of the sea and continues to be much discussed in doctrine as well as the protagonist of several international disputes.

Very briefly, the EEZ was created as a compromise solution to the requests of some developing states, especially in Latin America, to extend their powers of exploitation of marine resources to an area adjacent to their coasts but wider than the territorial sea, limited to 12 nautical miles from the baseline. The EEZ in fact allows the coastal state to maintain a series of exclusive prerogatives of an essentially economic nature in an area, to be defined, but which cannot in any case exceed 200 nautical miles. In particular, in the EEZ, as mentioned above, the coastal State holds sovereign rights for the purpose of exploration, exploitation, conservation and management of the biological and non-biological natural marine resources of the water column, the space above it, the seabed and its subsoil, as well as any other activity directed to the exploration and use of the area for economic purposes. The exploration and exploitation of marine mineral resources falls squarely within the scope of these powers.

In the EEZ, the coastal state has also jurisdiction over: (i) installation and use of artificial islands, installations and structures; (ii) marine scientific research; and (iii) protection and preservation of the marine environment.

The EEZ was originally designed for oceanic spaces and not for enclosed or semi-enclosed seas. It is no coincidence, in fact, that in the Mediterranean, a notoriously difficult sea in terms of the possibilities of delimiting state marine spaces, there has been a long period of abstention on the part of states with respect to the establishment of their own EEZs. Coastal states firstly opted for the proclamation of so-called *minoris generis* zones, i.e. zones attributing to the coastal state a limited set of powers with respect to those proper to the EEZ, such as, alternatively, "exclusive fishing zones", "ecological protection zones" or "mixed zones"[18]. Recently, however, this practice is changing across

[18] See MOLENAAR, "New Maritime Zones and the Law of the Sea", in RINGBOM, *Jurisdiction over Ships. Post-UNCLOS Developments in the Law of the Sea*, Leiden, 2015, 249 ff., 261-263.

Mediterranean States, which are progressively transforming their reduced zones into exclusive economic zones through the enactment of specific domestic laws. As is well known, in fact, while the TS and the CS are so-called automatic maritime zones, in the sense that the relative exclusive powers are granted to all coastal states regardless of their will and behaviour, the EEZ, in order to be established, requires an express proclamation, as indispensable act of a coastal state for the establishment of its rights and powers within it.

b) ***Italian Law establishing an EEZ***

Italy has long espoused a policy of not claiming the EEZ (proclaiming only an "ecological protection zone" (EPZ) with Decree No. 209/2011[19]) and of reluctance towards the extension of its "economic" jurisdiction in the Mediterranean, due to mainly fishing and military interests.

This policy was abandoned relatively recently, when Law No 91 of 14 July 2021 authorised "the establishment of exclusive economic zones from the outer limits of the Italian territorial sea".

The Law stipulates that the EEZ must be established by "decree of the President of the Republic, after deliberation by the Council of Ministers, on the proposal of the Minister of Foreign Affairs and International Cooperation, to be notified to the States whose territory is contiguous to or overlooks Italian territory". A decree that, to date, although authorised, has not yet been issued; hence it can be said that the Italian EEZ is an institution that is currently in the making but not yet in place.

The same authorisation Law also provides, regarding the spatial delimitation of the Italian EEZ, that it may extend up to the limit resulting from bilateral agreements to be entered into with the States concerned, subject to the authorisation procedure for ratification under Article 80 of the Italian Constitution. To date, only two bilateral agreements have been concluded with Greece[20] and Croatia,[21] which have simply consolidated as delimitation for the EEZ the demarcation line already established for the reciprocal continental shelves; a line that has therefore become an *all-purposes line*, i.e. valid for all marine spaces subject to bilateral economic interests.

The question of the delimitation of the respective EEZs between Italy and other States appears more problematic.

c) Maritime delimitation between Italy and Tunisia

The ongoing dispute over the so-called "Mammellone" contested area as regards relations between Italy and Tunisia[22].

Italian law (Ministerial Decree of 25 September 1979, abrogated in 2010) considered it a portion of the high seas that is "traditionally recognised as a restocking area and in which fishing by Italian citizens and Italian-flagged vessels is prohibited" in order to ensure the protection of its biological resources. On the same area, at the same time, Tunisia claims fishing rights on the basis of a legislation dating back to the last century, the application of which was recently recalled by the domestic legislation establishing the Tunisian EEZ (Law No. 50 of 27 July 2015)[23].

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[19] ANDREONE, La zona ecologica italiana (2007) Il Diritto marittimo 3.

[20] Agreement Italy – Greece on the delimitation of the exclusive economic zones (9 June 2020).

[21] Agreement between the Italian Republic and the Republic of Croatia on the delimitation of the exclusive economic zones (24 May 2022).

[22] CONFORTI, *La disciplina della pesca costiera nella prassi internazionale recente*, in *Annuario di diritto internazionale*, 1966, 140-141.

[23] CAFFIO, *Glossario di diritto del mare: Diritto e geopolitica del Mediterraneo allargato,* V Ed., 2020, 106-108, https://www.marina.difesa.it/media-cultura/editoria/marivista/Documents/supplementi/Glossario_di_diritto_del_mare_2020.pdf.

Therefore, although it is true that the agreement delimiting the continental shelf between the two countries, mentioned above[24], establishes that the so-called "Mammellone" area falls entirely within the Tunisian continental shelf, this does not mean that it must necessarily fall within the Tunisian EEZ. In fact, Italian doctrine does not consider the negotiated solution for the seabed to be immutable, also given the absence of principles imposing the coincidence of the boundary of the seabed with that of the waters superjacent to the seabed. It is therefore considered desirable that a protection restriction be reintroduced for the purpose of fish stocks in this area, either by a unilateral act adopted by Italy, in the same way as the restriction previously provided for by the aforementioned Ministerial Decree of 1979, later abrogated, or by a joint initiative of the two countries[25].

d) Maritime delimitation between Italy and Libya

As for the possible delimitation of the continental shelf between Italy and Libya, it should first be pointed out that, to date, there is no bilateral agreement on maritime delimitation between the two countries.

One controversial aspect certainly concerns Libya's claim, made since 1973, of the Gulf of Sirte as a "historic bay"[26].

This claim still meets with criticism and protest from the United States and the European Union, as it does not fall under the definition of a "well-marked indentation" under the UNCLOS and is therefore not recognised by the international community as a "historic bay". Furthermore, in 2005 Libya established the 62-mile Fisheries Protection Zone (FPZ) starting from the Sirte closure line, and then proclaimed, in 2009, the actual EEZ, including the previous FPA, and "extending as far beyond its territorial waters as permitted under international law"[27]. The absence of a precise delimitation of the boundaries of Libyan EEZ and the fact that Libya has never ratified the UNCLOS are certainly problematic aspects, which means that recourse must be made to customary law or, alternatively, to bilateral agreements with neighbouring states, such as Italy.

e) Maritime delimitation between Italy and Algeria

For what concerns relations between Italy and Algeria, it should be noted that Algeria proceeded to establish its own EEZ by presidential decree on 20 March 2018, without prior agreement with the bordering and neighbouring States, claiming an overlapping area, west of Sardinia, with the Ecological Protection Zone (EPZ) established by Italy in 2011 and with the similar EEZ established by Spain in 2013[28]. Italy formally contested the Algerian decision with a verbal note dated 26 November 2018. In March 2020, Italy and Algeria signed an agreement to establish a joint technical commission for the delimitation between the two countries of their respective EEZs, in accordance with the principles established by the UNCLOS.

Finally, it should be specified that, with regard to the surveillance of the future outer limit of the EEZ, the combined provisions of Article 2(c) of the Law No. 979 of 1982 and Article 115 of the Legislative Decree No. 66 of 2010, in a far-sighted manner, already assign to the Navy the ownership of the "surveillance service of maritime and economic activities, including fishing activities, subject to

[24] See para. 1.2. of the present report.
[25] PAPANICOLOPULU, *Il confine marino: unità o pluralità?,* Milano, Giuffrè Editore, 2005.
[26] TANI, *Le baie storiche: un'anomalia nel rapporto tra terra e mare*, Torino, 2020, 215.
[27] On Lybian EEZ and FPA, see: N. Ronzitti, *La tormentata vicenda della pesca nelle acque libiche,* in *Affarinternazionali,* 11 novembre 2020.
[28] See: ALOUPI, *Algerian exclusive economic zone proclamation – French perspectives,* in *Question of International Law,* 2022, vol. 88, 57-66; LARBI, *The Algerian Exclusive Economic Zone and the Question of Maritime Boundaries with Neighboring States*, in *Revue droit des transports et des activités portuaires*, 2021, Volume VIII, N°01, 6-22; BROGGINI, *Law of the Sea: Maritime Delimitation in the Central Mediterranean Sea and Algeria's Proclamation of an Exclusive Economic Zone*, in *Italian Yearbook of International Law*, 2021, vol. 30, 506-510.

national jurisdiction in areas beyond the outer limit of the territorial sea", including the future EEZ, when it will be formally established.

The research unit's objective is therefore to monitor, firstly, the gradual "construction" process of the Italian EEZ, both in terms of the stipulation of bilateral delimitation agreements with the concerned States and in terms of the issuance of the relevant domestic law of institution. This progressive and dual mapping is aimed to verify how legislative interventions to establish the EEZ may affect the domestic regulation related to exploration and exploitation activities of marine mineral resources in areas under national jurisdiction, precisely in view of the powers and duties that the coastal State exercises in the EEZ under Article 56(3) UNCLOS.

2. THE RELEVANT NATIONAL LEGISLATION ON THE EXPLORATION AND EXPLOITATION OF MARINE MINERAL RESOURCES

The first relevant domestic legislation regarding the exploration and exploitation of marine mineral resources is represented by Law No. 613/1967[29], which established a (new) regulation for "research" and "cultivation" of hydrocarbons to be carried out in seabed and subsoil subject to jurisdiction and sovereignty of the Italian State, i.e. within the territorial sea and/or within the continental shelf.
A distinction of legal regulation on mining activities was realized depending on the location of the mining deposits, "onshore" (Law No. 6/1957) or, vice versa, "offshore" (Law No. 613/1967), which persisted until the unification of the two regulations (for land and sea) implemented by Law No. 9/1991[30].
Following European Directive 94/22/EC, specifically dedicated to the "[...] conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons," which was functional to reach competitiveness in the sector through the removal of all forms of discrimination between operators in the access to and subsequent exercise of mining activities, Legislative Decree No. 625/1996,[31] and subsequent modifications, transposing the aforementioned directive and amending the previous regulations, was then adopted at the domestic level.
The internal legal framework regarding the issuance of offshore mining titles provides for a clear separation of the 3 mining macro-activities that are part of the "upstream mining" chain ("prospecting," "exploration," and "cultivation"). These expressly defined activities, precisely considering their structural diversity, are treated separately and thus characterized by separate authorizing and licensing mining titles, each of which has its own specific legal regime.
As for the maritime areas that may be affected by mining titles, within the limits of the continental shelf, Law No. 9/1991, with a view to the protection of the maritime ecosystem, had provided, both an express legislative prohibition to carry out hydrocarbon prospecting, exploration and cultivation activities "[...] in the waters of the Gulf of Naples, the Gulf of Salerno and the Egadi Islands, without prejudice to existing permits, authorizations and concessions" (see Article 4), as well as the

[29] Legge 21 luglio 1967, n. 613, *Ricerca e coltivazione degli idrocarburi liquidi e gassosi nel mare territoriale e nella piattaforma continentale e modificazioni alla legge 11 gennaio 1957, n. 6, sulla ricerca e coltivazione degli idrocarburi liquidi e gassosi*.
[30] Legge 9 gennaio 1991, n. 9, *Norme per l'attuazione del nuovo Piano energetico nazionale: aspetti istituzionali, centrali idroelettriche ed elettrodotti, idrocarburi e geotermia, autoproduzione e disposizioni fiscali*.
[31] Decreto Legislativo 25 novembre 1996, n. 625, *Attuazione della direttiva 94/22/CEE relativa alle condizioni di rilascio e di esercizio delle autorizzazioni alla prospezione, ricerca e coltivazione di idrocarburi*.

suspension of "[...] exploration permits in areas declared a national park or marine reserve" (see Article 6(13)).
A further reduction of the marine areas subject to mining titles was implemented by Legislative Decree No. 128/2010,[32] which established a ban concerning any legally protected marine and/or coastal area under any title. In addition, it was established that the interdictory constraint of protection against any mining activity is not imitated to the boundary perimeter of the marine protected area only but also involves an additional marine area, the so-called "protection frame".
Following the establishment of the no-take zone, under which mining titles involving these areas were extended with reductions and/or completely revoked, in the period between 2015 and 2020 there was a significant overall decrease in the marine belts affected by mining titles.
The aforementioned Legislative Decree No. 128/2010 also provides that, outside the areas subject to the highest environmental protection (prohibition areas), all hydrocarbon prospecting, exploration and cultivation activities, which may affect the marine environment, shall be subject to an environmental impact assessment procedure (so-called V.I.A.) following the procedures outlined in Articles 19 ff. of Legislative Decree 152/2006[33] (the so-called Consolidated Environmental Act) with extensive involvement of local autonomies potentially affected by the impact of the requested activities (in this case, the local authorities located within a 12-mile radius of the marine and coastal areas affected by the interventions).
Another domestic regulation pertaining to the exploration and exploitation of marine mineral resources in areas under national jurisdiction, which is particularly relevant to environmental matters, is the Legislative Decree No. 145/2015,[34] which transposes European Directive 2013/30/EU ("Offshore Directive"), which established precise rules for the entire cycle of exploration, drilling and production activities at sea, starting from the initial project until the decommissioning of the facilities, with a special focus on safety and prevention of pollution and serious environmental accidents.
With the Legislative Decree 145/2015, the Italian competent authority for offshore safety was established in the form of a collegial body, called the "Committee for the Safety of Operations at Sea," with regulatory, supervisory and control powers in order to prevent serious accidents in upstream activities at sea and to limit their possible consequences.
Therefore, it will be appropriate to investigate the regulation, composition, internal organization, and scheduling of the activities of this body, as well as to verify its current effective operativity, from its establishment to the present.
Another relevant regulation is the Ministerial Decree of 7 December 2016,[35] which updated the domestic legal framework governing the administrative procedures for the issuance and exercise of licences for the prospecting, exploration and exploitation of liquid and gaseous hydrocarbons, formalizing the separation between the regulatory functions, relating to the safety of the oil and gas sector, and the functions relating to the issuance of licences for energy-mineral resources.
In implementation of European Directive 2014/52/EU, amending Directive 2011/92/EU on the assessment of the environmental impact of certain public and private projects, Legislative Decree No.

[32] Decreto Legislativo 29 giugno 2010, n. 128, *Modifiche ed integrazioni al decreto legislativo 3 aprile 2006, n. 152, recante norme in materia ambientale, a norma dell'articolo 12 della legge 18 giugno 2009, n. 69*.
[33] Decreto Legislativo 3 aprile 2006, n. 152, *Norme in materia ambientale,* Titolo III. *Valutazione di impatto ambientale,* artt. 19-29.
[34] Decreto Legislativo 18 agosto 2015, n. 145, *Attuazione della direttiva 2013/30/UE sulla sicurezza delle operazioni in mare nel settore degli idrocarburi e che modifica la direttiva 2004/35/CE*.
[35] Decreto ministeriale 7 dicembre 2016, *Modalità e termini per la concessione delle agevolazioni per programmi di sviluppo per la tutela ambientale*.

104/2017[36] was also adopted, which intervened on the regulation of environmental impact assessment procedures for projects relating to upstream mining activities.
The largest part of the EU's domestic oil and gas in Mediterranean Sea is produced in by Italy and Croatia; Italy is the most active Member State for all installations in the EU waters in Mediterranean (25%), followed by Croatia.
With regard to the issue of the decommissioning of exhausted Oil&Gas platforms[37], current international and regional regulatory frameworks (i.e. the 1958 Geneva Convention; the 1976 Barcelona Convention, the 1982 UNCLOS, the 1989 IMO Guidelines, the 1992 OSPAR Convention 1992) are in favour of a complete removal at the end of the useful life of offshore Oil&Gas platforms, pipelines and other ancillary offshore infrastructure provided that maritime shipping, fishing and environmental protection are taken into account. With reference to the Italian law, it should be noted that there is currently no systematic and homogeneous regulatory framework of the matter, although some indications can be found in the aforementioned Legislative Decree No. 145 of 18 August 2015 (Article 2(1)(g)) as well as in Article 25(6) of Legislative Decree No. 104/2017[38] (Environmental Impact Assessment"), which established that the Ministry of Economic Development, in agreement with the Ministry of the Environment and the Ministry of Culture, had to adopt national guidelines for the decommissioning of offshore platforms in order to ensure the quality and completeness of the assessment of their environmental impact. These guidelines have been adopted with Ministerial Decree 15 February 2019[39] and provide for two alternative ways of decommissioning: 1) removal of the platform; 2) reuse for different purposes. The Guidelines apply to production platforms, compression platforms, transit platforms and related infrastructures serving mining facilities within the framework of mining concessions to produce hydrocarbon deposits located in the territorial sea and the continental shelf.
It will therefore be appropriate to verify and monitor the actual implementation of these guidelines as well as their compatibility with the international and European legal framework on the decommissioning of platforms.
Lastly, it is worth mentioning the adoption of the Decree of the Minister of Ecological Transition of 28.12.2021[40], approving the Plan for the Sustainable Energy Transition of Eligible Areas (PiTESAI), adopted in order to identify a defined framework of reference of the areas where hydrocarbon prospection, exploration and production activities are permitted on the national territory, aimed at enhancing their environmental, social and economic sustainability. The PiTESAI must take into account all the characteristics of the territory, from a social, industrial, urban and morphological point of view, with particular reference to the hydrogeological structure and current planning. With regard to marine areas, the PiTESAI must consider the possible effects on the marine ecosystem, as well as take into account the analysis of sea routes, the fishiness of the areas and the possible interference on

[36] Decreto Legislativo 16 giugno 2017, n. 104, *Attuazione della direttiva 2014/52/UE del Parlamento europeo e del Consiglio, del 16 aprile 2014, che modifica la direttiva 2011/92/UE, concernente la valutazione dell'impatto ambientale di determinati progetti pubblici e privati, ai sensi degli articoli 1 e 14 della legge 9 luglio 2015, n. 114*.
[37] In Italy, as well as in other parts of the world, the vast majority of the offshore Oil&Gas installations (mainly jacket steel platforms) were developed during the 1960s and 1980s. In particular, 49 platforms, positioned in very shallow waters, have already reached the end of their economic life and decommissioned whilst about 145 offshore Oil&Gas platforms are still in operation offshore in the Italian coast within and outside the 12-mile zone. Source: Assomineraria, 2016. *Guida tecnica operativa per lo smantellamento a fine vita degli impianti, installazioni, infrastrutture e piattaforme utilizzati per la coltivazione di idrocarburi in mare e il ripristino dei luoghi*. Rapporto interno, 1-41.
[38] Decreto Legislativo 16 giugno 2017, n. 104 *cit.*
[39] Decreto 15 febbraio 2019, *Linee guida nazionali per la dismissione mineraria delle piattaforme per la coltivazione di idrocarburi in mare e delle infrastrutture connesse*.
[40] Decreto del Ministro della Transizione Ecologica n. 548 del 28 dicembre 2021 con cui è stato approvato il Piano per la transizione energetica sostenibile delle aree idonee (PiTESAI).

the coasts. The PiTESAI must also indicate when and how to decommission installations that have ceased their activities.
With reference to offshore activities, it should finally be noted that in compliance with the PiTESAI, only 5% of the entire marine area under Italian jurisdiction may still be considered "suitable" for new hydrocarbon prospection, exploration and production activities, but only for gas. Given the decarbonization objectives for 2050 and the European objective of expanding the sea area covered by the network of marine protected areas to at least 30%, the PiTESAI has decided to exclude for the future the opening to upstream activities of new marine areas that have not been open to hydrocarbon exploration and production to date, and to revoke the licences for those areas for which no new instances have been submitted in the last 30 years, thus adopting a criterion of "re-perimeter" of the current marine areas.

Source: *https://www.mase.gov.it/notizie/newsletter-n-10-2022-approvato-e-pubblicato-il-piano-la-transizione-energetica-sostenibile*.

It is precisely in line with the PiTESAI, for example, that the Plan for the Maritime Space of the Adriatic Area (adopted on the basis of Legislative Decree, no. 201/2016, transposing Directive 2014/89/EU; the so-called Maritime Spatial Planning Directive) specifies, for platforms falling within the territorial sea, the possibility of maintaining exploitation until the technical and/or economic cultivability of the deposit ceases, reducing conflicts and increasing synergies with other sectors of the sea economy. For offshore areas, the Plan envisages a similar approach. In the suitable areas envisaged by PiTESAI, there is the possibility, in any case discouraged, of submitting research and concession applications and continuing research activities already begun, but only as regards the gas

resource. Regarding the decommissioning of platforms, the Adriatic Plan also promotes the reconversion of these infrastructures for other uses, such as supporting the production, transformation and storage of renewable energy, the creation of "biological protection" areas and/or sites of interest for tourism and underwater fishing, aquaculture and marine research.
A further objective of the research unit will therefore be to investigate future Maritime Spatial Management Plans, with particular attention to the provisions dedicated to seabed mining activities, assess their compatibility with the relevant national, European and international regulatory framework and monitor their actual implementation.
In conclusion, to date, the national legal framework relating to the exploration and exploitation of marine mineral resources in areas under national jurisdiction appears to be broad and constantly evolving, also in the light of the progressive updating with respect to the relevant European legislation.

The research unit's objective will therefore be to monitor the domestic legal developments in the field, assess their concrete implementation, and evaluate their compatibility with relevant international and European legal rules, with particular reference to standards related to the protection and preservation of the marine environment, adopting an ecosystem approach. The research unit, as final output of the project, intends to draft proposals of legislative changes, to be addressed and submitted to the relevant institutional bodies.

3. EXPLORATION AND EXPLOITATION OF MARINE MINERAL RESOURCES UNDER EU LEGISLATION

As a member of the EU, Italy must also comply with EU law when it applies at sea. Regarding the exploitation and exploitation of marine mineral resources, the European Union does not have express competence but the possibility of intervening in this matter derives, indirectly, from its competence in environmental matters, established in general terms under Article 4(2)(e) TFEU. In particular, according to Articles 11 and 191-193 TFEU, the EU has the concurrent competence to act in all areas of environmental policy, such as air and water pollution, waste management and climate change.
Because of its concurrent competence, the EU scope of action is limited by the principle of subsidiarity and the requirement of unanimity in the Council in matters of taxation, spatial planning, land use, quantitative management of water resources, choice of energy sources and the structure of energy supply. In particular, Article 191 TFEU establishes the objectives of preserving, protecting and improving the quality of the environment and the prudent and rational use of natural resources. The same provision also establishes the obligation for Member States to support all UE actions through a high level of protection based on the precautionary principle and the principles of preventive action, of correction, as a priority at source, of damages caused to the environment, and the "polluter pays" principle.
According to Article 192 TFEU, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, shall decide on the action to be taken by the Union in order to achieve the objectives set out in Article 191 TFEU.
It was on this legal basis that the Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC was adopted.
"The objective of this Directive is to reduce as far as possible the occurrence of major accidents relating to offshore oil and gas operations and to limit their consequences, thus increasing the protection of the marine environment and coastal economies against pollution, establishing minimum conditions for safe offshore exploration and exploitation of oil and gas and limiting possible

disruptions to Union indigenous energy production, and to improve the response mechanisms in case of an accident"[41].
A key point of the directive is the protection of the marine environment, an objective set out in the marine strategy framework directive - Directive 2008/56/EC, which establishes a framework for action in the field of marine environmental policy.
The Directive 2013/30/EU, as already mentioned, was transposed into domestic law by Legislative Decree 145/2015, which was followed by the formal establishment of the "Committee for the Safety of Offshore Operations", as the competent state authority for the supervision and control of offshore oil and gas operations.
As far as the spatial scope of the Directive is concerned, the doctrine considers that the future creation of an Italian EEZ would have the effect of extending the discipline dictated by the Directive also to this area.
Another European legislative act relevant in the field of seabed mining in the area of national jurisdiction is Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning.
The directive requires EU Member States to elaborate maritime spatial plans no later than 31 March 2021, which should offer recognition of existing human activities in their marine waters and identify their most effective future spatial development. Through these plans, as already mentioned, the use related to the extraction and exploitation of mineral resources will also be redefined.
Finally, a number of European Commission studies relevant to the topic being studied by the research unit should be considered, such as, for example, the "Study on the offshore grid potential in the Mediterranean Region" (2022), and the "Study on Decommissioning of offshore oil and gas installations: a technical, legal and political analysis" (2021).

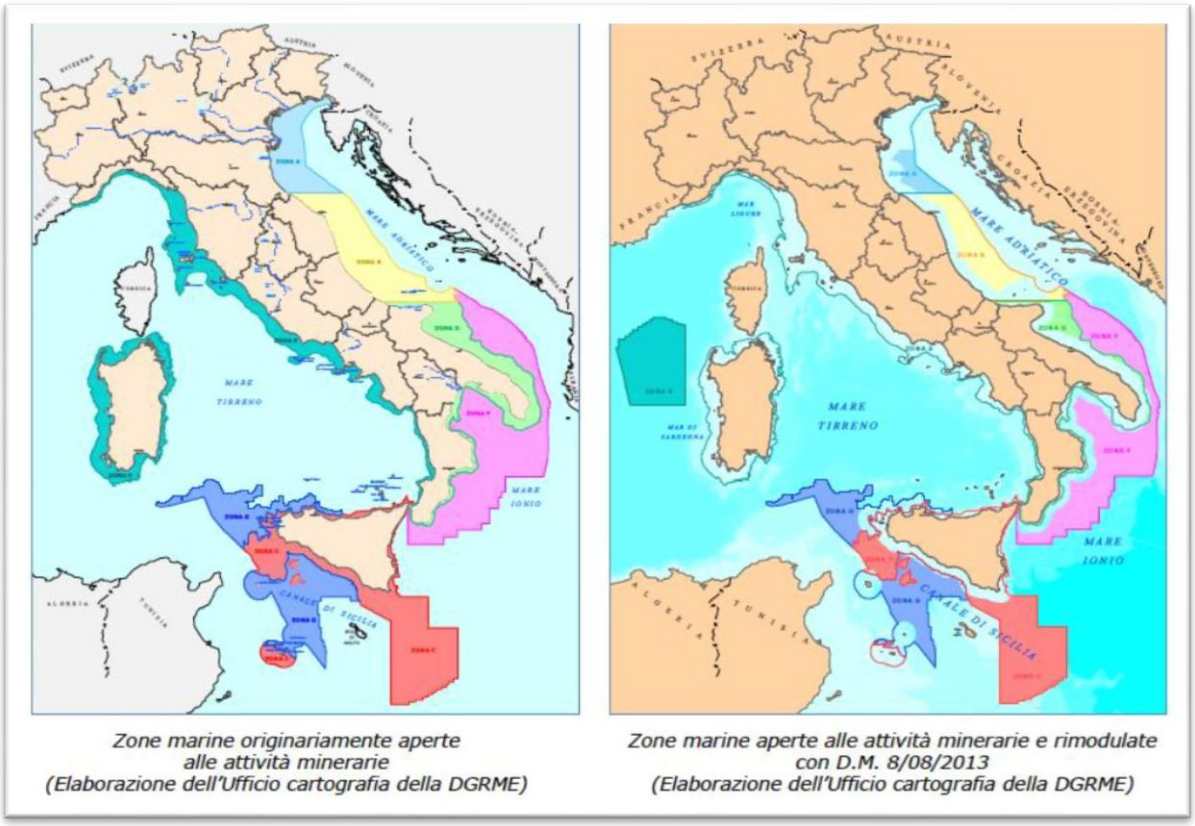
4. THE OFFSHORE SECTOR FOR OIL AND GAS IN ITALY

Italian waters are divided into 8 different "marine areas" identified by alphabetical letters. The search for liquid hydrocarbons/gases in the Italian sea can only be carried out in certain "marine areas" designated by the Parliament.
The subdivision of this area also includes disputed areas between States, such as "Zone C". Malta has in fact for decades occupied all sections of its pretended continental shelf area with "offshore blocks" overlapping the Italian continental shelf, including Italian "Area C" (an area located to the east of Malta and opened to exploration by Italy by Ministerial Decree of 27 December 2012).
In order to protect the coasts and the environment, restrictions have been introduced on the areas where mining activities can be carried out (Ministerial Decree of 9 August 2013).
Following this legislative constraint, an important work was started to review the requested areas which fall in whole or in part within the prohibited zone. In particular, as of 31 December 2015 there were 40 applications for research permits at sea and 9 applications for cultivation permits, for a total surface area requested at sea of 24,713.04 km^2. As of 31 January 2016, following the aforementioned measures, the requests for research permits were reduced to 36 and those for cultivation concessions to 4, for a total surface area requested at sea of 20,693.26 km^2.
This intervention therefore resulted in a 16.27% reduction in the surface area affected by applications, with the consequence that there are no longer any applications within the prohibited areas, thus fully implementing the law provisions.

[41] *Considerandum* 2 of Directive 2013/30/EU.

As of March 31, 2020, the total maritime area affected by applications for research permits and requests for cultivation concessions is 13,887.27 km^2.
Overall, the marine area affected by existing mining titles (mining concessions and exploration permits) decreased from km^2 17,260.85 as of 31 December 2015, to km^2 16,983.35 as of 31 March 2020. In general, the area affected by existing marine titles, which constituted about 3.03% of the Italian marine area in 2015, decreased to about 2.72% by 2020.

The research unit's objective will therefore also be to monitor the evolution of the actual state of mineral exploitation in the various Italian marine areas. This progressive evaluation will make it possible to assess the actual and concrete implementation of the relevant domestic, European and international legal framework on the field and to consider and analyse, in case of violation, the possible remedies available. The research unit will take action to discuss these issues, in forms yet to be defined, with the relevant stakeholders and institutions as identified in the final part of this report.



Zone marine originariamente aperte alle attività minerarie (Elaborazione dell'Ufficio cartografia della DGRME)

Zone marine aperte alle attività minerarie e rimodulate con D.M. 8/08/2013 (Elaborazione dell'Ufficio cartografia della DGRME)

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POTENTIALLY INTERESTED STAKEHOLDERS

- Fondazione Leonardo https://www.civiltadellemacchine.it/it/subacqueo
- ENI https://www.eni.com
- Associazione Ravennate degli Operatori nell'Off-Shore Petrolifero https://www.roca-oilandgas.com
- ASSORISORSE (Risorse Naturali ed Energie sostenibili) https://www.assorisorse.org

INVOLVED INSTITUTIONS

Ministero dell'ambiente e della sicurezza energetica

- Direzione generale infrastrutture e sicurezza (IS) – Ufficio nazionale minerario per gli idrocarburi e le georisorse (UNMIG) https://unmig.mase.gov.it/
- Direzione generale patrimonio naturalistico e mare (PNM) https://www.mase.gov.it/pagina/direzione-generale-patrimonio-naturalistico-e-mare-pnm

Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA)

- Area per le Emergenze Ambientali in Mare (CRE-EMA) https://www.isprambiente.gov.it/it/attivita/Crisi-Emergenze-ambientali-e-Danno/area-emergenze-ambientali-in-mare

Ministero della Cultura

- Soprintendenza nazionale per il patrimonio culturale subacqueo https://www.patrimoniosubacqueo.it/

Marina Militare:

- *Polo Nazionale della Dimensione Subacquea (La Spezia)*

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