

**EU Report on the implementation of measures pertaining to the protection of vulnerable marine ecosystems from the impact of bottom fishing on the high seas in UNGA Resolution 64/72 of 2009, UNGA Resolution 66/68 of 2011 and UNGA Resolution 71/123 of 2016**

The European Union welcomes the opportunity to inform the Secretary-General about the actions undertaken in the European Union to implement paragraphs 113, 117 and 119 to 124 of UNGA Resolution 64/72, paragraphs 121, 126, 129, 130 and 132 to 134 of Resolution 66/68 and paragraphs 156, 171, 175, 177 to 188 and 219 of UNGA Resolution 71/123 in order to facilitate a further review of such actions.

The European Union would like to declare its full support for this exercise, which should establish what further action is required to ensure the long-term protection of vulnerable marine ecosystems and deep-sea species from the impacts of bottom fishing on the high seas.

**1. Policy framework and provisions**

Deep-sea fisheries in the European Union are managed on the basis of the objectives and general rules set out in **Regulation (EU) No 1380/2013 (so-called "Basic Regulation"<sup>1</sup>) on the Union's Common Fisheries Policy**. This Regulation entered into force on 1 January 2014.

It establishes the legal framework for the conservation, management and sustainable exploitation of 'living marine biological resources' and marine ecosystems concerned, where such activities take place on the territory of EU Member States or in Union waters or are carried out by EU fishing vessels outside Union waters.

In its Articles 2 to 5, the Basic Regulation sets out the following objectives of the Common Fisheries Policy (CFP), which are also relevant to deep-sea fisheries, notably:

- The CFP shall ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies;
- The CFP shall apply the precautionary approach to fisheries management, and shall aim to ensure that exploitation of living marine biological resources restores and maintains populations of harvested species above levels which can produce the maximum sustainable yield;
- In order to reach the objective of progressively restoring and maintaining populations of fish stocks above biomass levels capable of producing maximum sustainable yield, the maximum sustainable yield exploitation rate shall be achieved by 2015 where possible and, on a progressive, incremental basis at the latest by 2020 for all stocks;
- The CFP shall implement the ecosystem-based approach to fisheries management so as to ensure that negative impacts of fishing activities on the marine ecosystem are minimised, and shall endeavour to ensure that aquaculture and fisheries activities avoid the degradation of the marine environment;
- The CFP shall, in particular, progressively eliminate discards of all regulated stocks. In

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<sup>1</sup> Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy

this regard, the so-called “landing obligation” was introduced in 2015, coming into force progressively on a case-by-case basis. As of 1 January 2019, the landing obligation is fully in force, requiring that all catches of regulated commercial species on-board to be landed and counted against quota. Nevertheless, there are some limited derogations for specific circumstances, for example, where there are high survival rates or for some small quantities, if selectivity can no longer be improved or retaining catches on board results in disproportionate costs.

To achieve those objectives, the Common Fisheries Policy applies the precautionary approach in taking measures designed to protect and conserve living marine biological resources, to provide for their sustainable exploitation and, the ecosystem approach to minimise the negative impact of fishing and aquaculture on the marine ecosystem. These basic obligations are highly relevant for managing deep-sea fisheries and their impacts on the ecosystem, particularly on vulnerable marine ecosystems (VME).

More detailed rules for the application of the above principles are set in the **multiannual plans covering the North Sea<sup>2</sup> and the Western Waters<sup>3</sup>**, which came into force in 2018 and in 2019 respectively. They set the following principles for setting fishing opportunities for demersal stocks, including deep-sea stocks:

- Where the stocks are target stocks under the multiannual plan, they are managed according to the maximum sustainable yield, wherever this level of scientific information is available. Remedial measures must be taken to restore the biomass to safe biological limits if the biomass is below Blim.
- If the stocks are by-catch stocks, they are managed in line with the best available scientific advice (in some cases – MSY). In cases where this results in a premature closure of the fishery, the fishing opportunities may be set in line with the precautionary approach.

On this basis, every two years the EU sets **fishing opportunities for some deep-sea stocks**, which cover both European Union waters and international waters in the North East Atlantic. The latest decision is enshrined in **Council Regulation (EU) 2018/2025<sup>4</sup>**. The TACs are fixed on the basis of the scientific advice delivered by the International Council for the Exploration of the Sea (ICES), ensuring sustainable exploitation of the stocks. It should be noted that the fixing and sharing of fishing opportunities falls exclusively with the competence of the Union.

In close coherence with the obligation to implement the ecosystem-based approach to fisheries management the CFP further promotes the **establishment of protected areas due to their biological sensitivity** (Articles 8 and 11 of the Basic Regulation<sup>5</sup>) in order to contribute to the conservation of living aquatic resources and marine ecosystems.

Under the rules of the Common Fisheries Policy, Member States are obliged to collect biological, environmental, technical, and socio-economic data necessary for fisheries management, in accordance with specific rules for data collection. To this end, Article 25(2)

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<sup>2</sup> Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008

<sup>3</sup> Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008

<sup>4</sup> Council Regulation (EU) 2018/2025 of 17 December 2018 fixing for 2019 and 2020 the fishing opportunities for Union fishing vessels for certain deep-sea fish stocks

<sup>5</sup> See No.1 Above

of the Basic Regulation<sup>6</sup> sets out key principles, such as: accuracy, reliability and timeliness; the use of coordination mechanisms to avoid duplication of data collection; safe storage and protection of collected data and ensuring confidentiality; and availability of relevant data for bodies with a research or management interest. The **Data Collection Framework**<sup>7</sup> (DCF) establishes the Union framework for the collection, management and use of data in the fisheries sector, which provides the basis for the provision of scientific advice for the CFP. The multiannual Union programme for data collection (EU MAP)<sup>8</sup> establishes the details of data requirements and thresholds as well as a list of mandatory research surveys, including beyond EU waters. Data to be collected includes biological data, data on the impact of Union fisheries on marine ecosystems, data on the activity of Union fishing vessels, and socio-economic data both on fisheries and marine aquaculture.

Member States plan and carry out their data collection activities under the DCF at the same time respecting other legal data collection or monitoring obligations, such as the collection of data required by RFMOs. A DCF feature relevant for this topic is research surveys at sea (complementing the data stemming from commercial fishing activities), where the mandatory list in the EU MAP includes surveys with direct relevance in the context of the VME.

In addition, besides the DCF, several schemes foresee the collection of data in the high seas:

- In the North-East Atlantic (EU waters), the relevant framework in terms of scientific data is laid out by the deep-sea access regulation (see below)<sup>9</sup>. The deep-sea access regulation also aims at improving the scientific knowledge on deep-sea species and their habitats. As such, it specifies the requirements of the scientific data collection and reporting in its Article 15(2), with further detail provided in Annex II. Notwithstanding these requirements, its Article 15(1) states that the DCF should apply to the collection of the deep-sea related data.
- In the NAFO area, the obligations in terms of data collection derive from the NAFO enforcement programme. It provides for an observer program on board fishing vessels, for the detailed information to be collected by on-board observers in case of VME encounters and for a list of the NAFO relevant VME indicators species. While this program is implemented by control observers and not by scientific ones, it provides also for scientific data. In addition, within the framework of the DCF, an on-board scientific observer scheme is foreseen. Besides, three scientific surveys at sea are carried out by Member States every year in NAFO international waters as part of the mandatory surveys under the EU MAP and in which environmental and VME data are collected.
- For fishing activities outside the scope of an RFMO, provisions for collection of scientific data collection are also included in two other regulations: Regulation 734/2008<sup>10</sup>, (the “VME Regulation” - see below) and the SMEFF Regulation<sup>11</sup> (see below).

### **Council Regulation (EC) No 734/2008 on the protection of vulnerable marine**

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<sup>6</sup> See No.1 Above

<sup>7</sup> Regulation (EU) 2017/1004 of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008.

<sup>8</sup> Commission Implementing Decision (EU) 2019/909 of 18 February 2019 establishing the list of mandatory research surveys and thresholds for the purposes of the multiannual Union programme for the collection and management of data in the fisheries and aquaculture sectors; OJ L 145, 4.6.2019, p. 21–26 and Commission Delegated Decision (EU) 2019/910 of 13 March 2019 establishing the multiannual Union programme for the collection and management of biological, environmental, technical and socioeconomic data in the fisheries and aquaculture sectors;

<sup>9</sup> See No. 16 below

<sup>10</sup> See No. 13 below

<sup>11</sup> See No. 18 below

**ecosystems in the high seas from the adverse impacts of bottom fishing gears**<sup>12</sup>: The European Union adopted this Regulation in 2008 following the adoption of UNGA Resolution 61/105. It transposes the measures contained in the UNGA Resolution into Union law for ships flying flags of its Member States, for those areas of the high seas where no RFMO had been established or where no interim measures were put in place during negotiations for the establishment of an RFMO. The main areas of the high seas where this Regulation is applicable to EU vessels is the South West Atlantic, where there is no RFMO/A with a competence for bottom fishing.

The Regulation sets out the measures for fishing vessels carrying out fishing activities with bottom gears in the high seas. It establishes that the competent authorities of an EU Member State can only issue special fishing permits for the use of bottom fishing gears on the high seas if specific conditions are met. Member States are obliged to carry out an assessment of the potential impacts of the vessels' intended fishing activities and can only issue a special fishing permit after concluding that such activities are not likely to have significant adverse impacts on vulnerable marine ecosystems. The use of bottom gears is prohibited in areas where no proper scientific assessment has been carried out and made available. The Regulation also contains provisions on unforeseen encounters with VMEs, area closures and an observer scheme for all vessels which have been issued with a special fishing permit. EU Member States are obliged to report regularly under this Regulation.

As a result of its research project 'Atlantis' in the South-West Atlantic and in application Council Regulation (EC) 734/2008, from 1 January 2009 to date, Spain established the restriction of fishing to the area defined by the historical footprint of the fishery and closed off 9 areas containing VME<sup>13</sup>, covering an area of 41.000 Km<sup>2</sup> to bottom fishing. Spain also adopted a comprehensive set of measures and standards, amongst which the mandatory presence on board of an observer. A similar encounter protocol to that established in the two North Atlantic RFMOs is also in place.

The European Union is also of the opinion that Council Regulation (EC) N° 734/2008 has served to ensure that EU vessels undertaking bottom fishing respected the measures contained in the UN GA Resolutions 61/105 and 64/72 in areas beyond national jurisdiction where there is no RFMO/A. This Regulation might require updating to take into account the latest available information as well as the lessons learnt from past experience.

Area-based fisheries management with a view to protect sensitive and vulnerable habitats including areas beyond national jurisdiction is further promoted by the **Council Regulation (EC) 1967/2006**<sup>14</sup> (the "Mediterranean Regulation" which addresses some of the specificities of Mediterranean fisheries) through the establishment of 'fishing protected areas". A dedicated pillar of this Regulation is the protection of coastal areas and vulnerable habitats, which includes prohibitions of fishing over Posidonia beds and other marine phanerogams, as well as over coralligenous habitats and maerl beds.

At the end of 2016, the European Union adopted the **new regime for deep-sea access (Regulation (EU) 2016/2336)**<sup>15</sup>. The objectives of the new regime are improving scientific

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<sup>12</sup> Council Regulation (EC) No 734/2008 on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears

<sup>13</sup> Areas concerned: Fondón, A Pistola, Caixón, Norte 44, Bingo, Cañon Sur, Cañón Norte, Playa Norte, Cantil Norte 42

<sup>14</sup> Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94;

<sup>15</sup> Regulation (EU) 2016/2336 of the European Parliament and of the Council of 14 December 2016 establishing specific conditions for fishing for deep-sea stocks in the north-east Atlantic and provisions for fishing in international waters of the north-east Atlantic and repealing Council Regulation (EC) No 2347/2002

knowledge on deep-sea species and habitats; preventing significant adverse effects on VMEs within the framework of deep-sea fishing and ensuring long-term conservation of deep-sea fish stocks; and ensuring that Union measures are consistent with the relevant provisions in UN GA Resolutions 61/105 and 64/72.

Differently from the previous regime in force until 2016, which covered a larger geographical area of the whole ICES area and Union waters of CECAF areas 34.1.1, 34.1.2, 34.1.3 and 34.2, the new regime applies to the Union waters of the North-East Atlantic and CECAF areas 34.1.1, 34.1.2 and 34.2. The reason for excluding the international waters of the North East Atlantic from the new regime was that NEAFC adopted a recommendation on deep-sea fisheries in the NEAFC Regulatory Area with appropriate management measures in respect of VMEs, which are implemented in the EU Technical Measures Regulation.

The deep-sea access regime includes the following definition of deep-sea species, based on the FAO definition: “species that occur in deep-sea waters and that are characterised by a combination of the following biological factors: maturation at relatively old ages, slow growth, long life expectancies, low natural mortality rates, intermittent recruitment of successful year classes and spawning that may not occur every year”. The list of the deep-sea species caught in the geographical area covered by the regime is set out in Annex I of the Regulation.

Fishing for deep-sea species is subject to a fishing authorisation: targeting fishing authorisation (vessels that in a calendar year recorded more than 8% of deep-sea species in any fishing trip, but excluding vessels that caught less than 10 tonnes) and by-catch fishing authorisation for vessels that have by-catches of deep-sea species fishing for other species. Fishing vessels not holding any fishing authorisation are prohibited from fishing for deep-sea species in excess of 100 kg in each fishing trip. The capacity of fishing fleets of each Member State of the European Union is capped at the maximum yearly capacity in years 2009-2011.

The deep-sea access regime limits deep-sea fishing activities to those areas where deep-sea fishing has already taken place. The footprint is established on the basis of VMS data of where such data is not available on the basis of other verifiable data from fishing activities in 2009-2011. Activity outside the footprint can only take place in line with the provisions for exploratory fishing, as set out in Article 8 of the Regulation. Exploratory fisheries are subject to a prior impact assessment in accordance with the standards set out in the 2008 FAO International Guidelines for the management of Deep-Sea Fisheries in the High Seas. When submitting a request for exploratory fisheries, the Member State has to indicate the estimated duration of exploratory fisheries and the estimated number of vessels taking part and their capacity. It also has to propose mitigating measures to prevent an encounter with or effectively protect VMEs.

Deep-sea fishing activities are limited to a depth of 800 meters and cannot take place in deeper waters. When a vessel fishes with bottom gears below a depth of 400 metres and where, in the course of fishing operations, the quantity of VME indicators caught exceeds the thresholds (30 kg of live coral and/or 400 kg of live sponge; for a longline set 10 hooks per 1 000 hook segment or per 1 200 m section of longline, whichever is the shorter) , an encounter with VMEs shall be considered to have taken place. The fishing vessel is obliged immediately to cease fishing in the area concerned and to move at least five nautical miles from the area in which the encounter occurred. The encounter with VMEs has to be notified to the competent authorities without delay. The known areas where VMEs are present have to be closed to the fishing activities on the basis of the scientific advice.

Scientific advice from the International Council for the Exploration of the Sea (ICES) on the footprint and the VME areas is expected in November 2020. The adoption of the legal acts establishing the footprint and the closed areas where VMEs are known to be present should take place in the first half of 2021.

The EU deep-sea access regime also contains reinforced control measures, such as the system of designated ports, prior notification before landing, reporting catches on a haul-by-haul basis, withdrawal of fishing authorisation for at least two months for certain infringements. There is also a required observer coverage of at least 20% for bottom trawls and bottom set gillnets and at least 10% for other vessels catching deep-sea species.

Regulation (EU) 2016/2336 foresees that by no later than 13 January 2021, an evaluation of the impacts of the measures should be carried out. Such evaluation is on-going.

**Regulation (EU) 2019/1241 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures**<sup>16</sup>, applies to all EU vessels operating in EU waters (including outermost regions) as well as to vessels of third countries operating in the EU waters. The regulation applies beyond EU waters to the EU vessels operating in certain areas, i.e. NEAFC, GFCM and Black Sea (Art. 2 and 5). With regard to the prohibited gears and methods, Art. 7 will apply to the Union vessels in non-EU waters except where the rules adopted by multilateral fisheries organizations, under bilateral or multilateral agreements specifically provide otherwise.

This regulation is largely aimed at reducing catches of juveniles, improving selectivity, reducing discards and minimising the negative impacts on habitats. Having entered into force 14 August 2019, it provides a novel approach to technical measures by granting Member States (with the involvement of various stakeholders through the Advisory Councils) a right to come up with equally or more-stringent technical measures to reach CFP objectives through the so-called regionalisation process.

It aims at minimising impacts of fishing gears on marine ecosystems (Art. 3) and uses the concept of “sensitive habitat” with its own definition (Art. 6). Reference is made to the VME Regulation to include VMEs as defined by it into the concept of “sensitive habitats” and with a view to restricting fishing in certain defined areas (Annex II) and allowing Member States to establish closed areas or other conservation measures in accordance with Art. 11 CFP (Art. 12.3).

Technical measures for each region have to fulfil the objectives of this regulation, amongst which minimizing negative impacts on marine habitats (Art. 15.4). In particular, joint recommendations relating to innovative fishing gear should assess the likely impacts on sensitive species and habitats and innovative gears should not be permitted if they lead to significant negative impacts on sensitive habitats and non-target species (Art. 20).

As a consequence of the need to quantify the progress of this regulation, the review and reporting entails a close look at the most important elements in order to know the starting point and identify those areas in which more action from the EU Member States is required.

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<sup>16</sup> Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005

The Commission will produce the first report on the progress of implementation of this regulation by December 2020. Efforts will focus on the most important measures, their status and identify those fields in which more effort are to be put. Following the publication of the report, EU Member States will have 12 months to submit a plan setting out the actions to be taken to contribute to achieve the objectives and targets of this regulation.

**Regulation (EU) 2017/2403 on the sustainable management of the EU external fleet<sup>17</sup>** (SMEFF) was adopted to strengthen oversight on fishing activities of EU vessels fishing outside EU waters and third country vessels in EU waters. It also aims to establish similar standards for Union vessels fishing outside and inside Union waters. This regulation also requires third country vessels fishing in Union waters to comply with the rules of the Common Fishery Policy.

For this purpose, the SMEFF contains a set of generic common eligibility criteria upon which fishing authorisations granted by EU Member States to a vessel flying their flag will be based (e.g. administrative information on the vessel, its owner and the master; the vessel's IMO unique vessel identification number; possession of a valid fishing licence; non-inclusion of the vessel in an IUU vessel list adopted by a RFMO and/or by the EU), as well as more specific criteria according to activity.

Throughout the period of validity, the Flag State must regularly monitor whether the vessel continues to meet the conditions of the authorisation. The Flag State must also ensure that the activities are carried out in waters of a foreign Coastal State with the authorisation of that Coastal State. In the case of direct fishing authorisations (outside a access agreement with the EU), as well for fishing in the high seas outside an RFMO framework, a scientific evaluation must be carried out and validated by the flag State scientific body, verifying the sustainability of the fishing operations before the granting of the authorisation.

Outside Union waters, where the fishing activity is undertaken with bottom gears, while the SMEFF establishes a generic authorisation framework, the criteria for authorisation under the VME regulation (EC) No 734/2008<sup>18</sup>, which is the more specific authorisation framework in relation to the protection of VME from bottom fishing, need to be observed.

The EU has also been proactively promoting the improvement of bottom fishing measures adopted by **Regional Fisheries Management Organisations (RFMOs)** and other organisations dealing with demersal fishery resources. Notably the EU has submitted proposals to improve VME protection in SPRFMO and is leading the review of the VME framework in CCAMLR. In general, the conservation of deep-sea species and the protection of VMEs from bottom fishing is a priority for EU in all organisations where it participates, which in addition to SPRFMO and CCAMLR it also includes NAFO, NEAFC, SEAFO and SIOFA. The EU and its Member States are contributing to the Sustainable Oceans Initiative under CBD and FAO and its Global Dialogue between Regional Seas Organizations and Regional Fishery Bodies on accelerating progress towards the Aichi biodiversity targets and the Sustainable Development Goals. The recommendations and findings in the outcome of the second meeting in Seoul 2018 are also relevant for improving protection of vulnerable marine ecosystems from the impacts of bottom fishing.

In the Mediterranean, the adoption of the MedFish4Ever (2017) and Sofia (2018) ministerial

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<sup>17</sup> Regulation (EU) 2017/2403 of the European Parliament and of the Council of 12 December 2017 on the sustainable management of external fishing fleets, and repealing Council Regulation (EC) No 1006/2008

<sup>18</sup> See No.13 above

Declarations, signed by most coastal states, provided comprehensive action plans to redress governance in the Mediterranean and Black Sea. The EU adopted Regulation (EU) 2019/1022<sup>19</sup>, which also contains provisions for the protection of sensitive nursery areas and sensitive habitats. The EU has also been instrumental for the establishment by the General Fisheries Commission for the Mediterranean (GFCM) of four "Fisheries Restricted Areas (FRA)", to ensure the protection of deep sea sensitive habitats in well-delimited sites of the Mediterranean<sup>20</sup>. In 2017 GFCM established a fisheries restricted area in the Jabuka/Pomo Pit in the Adriatic Sea and in 2019 endorsed a multiannual plan for demersal species in the Adriatic that included a framework for the development of further FRA. Along the same line the GFCM has also endorsed the decision of prohibiting fishing with bottom towed gears in waters deeper than 1000 m in order to protect the deep-sea benthic environments of the Mediterranean and Black Sea. These provisions have been implemented via the Regulation (EU) 1343/2011<sup>21</sup>, while Regulation (EU) 2015/2102<sup>22</sup> also contained provisions for the protection of red coral in the Mediterranean. Furthermore, reporting protocols for the protection of VMEs, endorsed in 2018, included a VME encounter reporting protocol, the mapping of existing deep-sea fishing areas and an exploratory deep-sea bottom fishing reporting protocol in the GFCM area of application. In the same year, it was decided to implement a research programme on red coral in the Mediterranean with the aim of supporting the updating of advice on conservation measures for the species. In 2019 the GFCM, with the support of the EU, adopted a management plan for the sustainable exploitation of red coral and established a set of measures to protect vulnerable marine ecosystems formed by cnidarian (coral) communities in the Mediterranean Sea.

The **EU's environment legislation** provides a comprehensive system for the protection of EU marine waters, including vulnerable marine ecosystems.

- Under the **Marine Strategy Framework Directive**<sup>23</sup>, EU Member States are obliged to assess and monitor their marine environment, with the aim of achieving good environmental status (GES) for their marine waters, including its biodiversity and sea-floor integrity. The Member States have conducted initial assessments and put in place monitoring programmes and programmes of measures, which may include measures for the conservation of vulnerable marine ecosystems. GES is to be achieved in accordance with criteria and specifications laid down in **Commission Decision (EU) 2017/848**. The Marine Strategy Framework Directive applies to all marine areas of EU Member States, including the seabed and subsoil of Continental Shelf areas that lie beyond the Exclusive Economic Zones of Member States, where these Member States have or exercise jurisdictional rights in accordance with UNCLOS.
- In addition, the **Habitats Directive**<sup>24</sup> identifies reefs as habitats whose conservation requires the designation of special areas of conservation, and red coral as a species whose exploitation may be subject to management measures. As of end of 2018, marine N2000 sites covered 551.899 km<sup>2</sup>, which is 9.5% of the marine waters around the EU. The

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<sup>19</sup> Regulation (EU) 2019/1022 of the European Parliament and of the Council of 20 June 2019 establishing a multiannual plan for the fisheries exploiting demersal stocks in the western Mediterranean Sea and amending Regulation (EU) No 508/2014

<sup>20</sup> "Lophelia reef of Capo Santa Maria di Leuca", "The Nile delta area cold hydrocarbon seeps", "The Eratosthenes Seamount", a FRA in the Gulf of Lion

<sup>21</sup> Regulation (EU) No 1343/2011 of the European Parliament and of the Council of 13 December 2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) Agreement area and amending Council Regulation (EC) No 1967/2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea

<sup>22</sup> Regulation (EU) 2015/2102 of the European Parliament and of the Council of 28 October 2015 amending Regulation (EU) No 1343/2011 on certain provisions for fishing in the GFCM (General Fisheries Commission for the Mediterranean) Agreement area

<sup>23</sup> Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy;

<sup>24</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;

percentage of total MPAs was ~13%, which represents ~ 740.000 km<sup>2</sup>.

- In the framework of **LIFE multiannual work programme** for 2018-20<sup>25</sup>, the LIFE programme funds marine projects including application of tools, technologies and practices to ensure the sustainability of human activities related to the marine environment, including by reducing the pressure of human activities on the marine environment, and addressing the topics of high concern i.e. underwater noise, disturbance of the sea floor, deep sea mining, fishing, agriculture, and navigation. The LIFE programme also funds projects implementing the marine component of the EU Habitats and Birds Directives and related provisions under the EU Marine Strategy Framework Directive, where such projects focus on the following actions:
  - a) completing and finalising national inventories for setting up the offshore marine Natura 2000 network of sites,
  - b) restoration and management of marine Natura 2000 sites, including the preparation and implementation of site management plans,
  - c) actions addressing species-, habitat- or site-related conflicts between marine conservation and fishermen or other ‘marine users’, as well as actions which combine conservation measures with a sustainable use of Natura 2000 sites, and,
  - d) demonstrative and innovative approaches to assess or monitor the impact of human activities on critical marine habitats and species and their application as a tool to guide concrete conservation measures.

The EU is also a Contracting party to Regional Seas Conventions that address marine waters around Europe (e.g. UNEP/MAP - Barcelona Convention for the Mediterranean, HELCOM - Helsinki Convention for the Baltic Sea and OSPAR - Oslo-Paris Convention for the North-East Atlantic). These provide a forum for international cooperation on marine ecosystem protection and are an important mechanism by which Member States cooperate to fulfil their obligations under the Marine Strategy Framework Directive. The important developments in these frameworks include periodic quality status reports and the strengthening of cooperation on monitoring and assessments by, for example, implementing the Mediterranean Integrated Monitoring and Assessment Programme in the context of the Barcelona Convention.

Finally, **Regulation (EU) No 508/2014**<sup>26</sup> (the EMFF Regulation) provides financial support for measures that contribute to the protection of VMEs and to restore marine biodiversity and ecosystems, such as:

- Innovation linked to the conservation of marine biological resources in order to contribute to the gradual elimination of discards and by-catches and to facilitate the transition to exploitation of living marine biological resources at Maximum Sustainable Yield;
- Investments in equipment improving size or species selectivity of fishing gear;
- Investments on board or in equipment that eliminates discards by avoiding and reducing unwanted catches of commercial stocks, or that deals with unwanted catches to be landed in accordance with Article 15 of the CFP;
- Investments in equipment that limits and, where possible, eliminates the physical and biological impacts of fishing on the ecosystem or the seabed;
- Contributions to a better management or conservation of marine biological resources;

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<sup>25</sup> Commission Implementing Decision (EU) 2018/210 of 12 February 2018 on the adoption of the LIFE multiannual work programme for 2018-2020 (C/2018/0686)

<sup>26</sup> Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund and repealing Council Regulations (EC) No 2328/2003, (EC) No 861/2006, (EC) No 1198/2006 and (EC) No 791/2007 and Regulation (EU) No 1255/2011 of the European Parliament and of the Council

- Preparation, including studies, drawing-up, monitoring and updating of protection and management plans for fishery-related activities relating to NATURA 2000 sites and spatial protected areas referred to in Directive 2008/56/EC and relating to other special habitats;
- Protection of the marine environment, in particular its biodiversity and marine protected areas such as Natura 2000 sites, in accordance with the obligations established in Directives 92/43/EEC and 2009/147/EC;
- Improvement of the knowledge on the state of the marine environment, with a view to establishing the monitoring programmes and the programmes of measures provided for in Directive 2008/56/EC, in accordance with the obligations established in that Directive.

The Commission's proposal for the 2021-2027 programming period is currently under examination by the co-legislators (the European Parliament and the Council) and includes the same actions under a simplified delivery, with the objectives of achieving sustainable fisheries and protecting marine biodiversity and ecosystems.

## **2. Research activities**

As regards scientific research and mapping, the EU Member States provide their survey data to ICES, which conducts scientific research and provides scientific advice to the European Union. Data collection in the area of deep-sea fisheries is subject to the general rules of the EU DCF (see above). Data as well as best practice are also made available to the RFMOs to which the EU is a party.

Since 2009, the EU contributes to the financing of the project "NAFO Potential Vulnerable Marine Ecosystem-Impacts of Deep-sea Fisheries" (NEREIDA), bringing together data from visual surveys and multidisciplinary surveys of the seafloor. The ongoing work of NEREIDA supports the reassessment of the NAFO bottom fisheries and represents a major multidisciplinary research effort on the sensitive habitats and fishing activities in the North West Atlantic, as well as an in-depth analysis of the impacts of fishing on vulnerable marine ecosystems.

In line with the calls for increasing current knowledge on the location of VMEs, including those in the UN GA Resolutions 61/105 of 2006 and 64/72 of 2010, since 2005, Spain (by itself or in collaboration with other States) has undertaken an ambitious and costly programme of scientific mapping of the seabed in different parts of the oceans, in the high seas where the Spanish bottom fisheries took place. The appropriate multidisciplinary methodology to identify vulnerable marine ecosystems and to select areas to close to bottom fishing was put in place by Spanish scientists. The results of these research activities are being published in leading scientific journals. A short description of the different projects can be found in the annex as well as a summary of Spain's training activities.

## **3. Conclusions**

Overall, it can be concluded that the EU has a comprehensive policy and legal framework in place that allows to manage deep-sea fisheries in a sustainable way and to protect VME from bottom fishing.

This framework will be reinforced over the next months and years through the

implementation of actions under the recently adopted European Green Deal<sup>27</sup>, which has the aim of making the EU's economy sustainable by turning climate and environmental challenges into opportunities. Under one of the main pillars of the European Green Deal, the protection and preservation of biodiversity, including the marine environment and its biodiversity, the Commission will be proposing a new EU Biodiversity Strategy for 2030 and through which measures to address the main drivers of biodiversity loss will be subsequently adopted.

The European Union would like to stress the important scientific work undertaken by the EU and its Member States, notably Spain, particularly with respect to mapping of the sea bed and which is being disseminated when available. This work provides the international community with a better basis on which to establish management measures which will adequately protect VMEs and deep-sea stocks in the future. The European Union is of the view that still more scientific work needs to be done in order to increase knowledge on VMEs and the impacts of bottom fishing on them.

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<sup>27</sup> [https://ec.europa.eu/info/sites/info/files/european-green-deal-communication\\_en.pdf](https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf)

## Research and seabed mapping activities by EU Member States

### North-East Atlantic

- Spanish research project: "Project ECOVUL / ARPA to study vulnerable ecosystems in relation to fishing gear"

Three experimental campaigns were conducted between 2005 and 2008, in the Hatton Bank area in cooperation with the Spanish fishing industry, to study the impacts of bottom fishing gears. Furthermore, three multidisciplinary scientific surveys for mapping ecosystems were also undertaken. Experimental campaigns were carried out by scientific personnel embarked on board merchant vessels. Multidisciplinary campaigns were made on board oceanographic research vessels of the Spanish *Secretaria General del Mar* (Viscount de Eza and Miguel Oliver) equipped with cutting-edge technologies.

As a result of these investigations, the bathymetric mapping of deep trawl fisheries of the Spanish fleet at depths exceeding 1000 m was obtained. Around 19,000 km<sup>2</sup> of seabed were mapped using a multibeam probe and more than 1,200 km of high resolution seismic profiles were obtained, in addition to numerous samples of surface sediments, rocks and reefs by dredging. Additionally trawl sets were made in the fishing grounds to study the benthic communities.

With this project, a total area protected in Hatton Bank reaches approximately 16,000 km<sup>2</sup> in a depth range between 500 and 1500 m. This area is closed to all fishing with bottom gear.

- North East Atlantic Fisheries Commission (NEAFC): Spain has a scientific observation programme in international waters of NEAFC. In this programme, a variety of data are collected as indicators of VMEs. Later, they are presented in ICES Working Groups by Spanish scientists. Based on these data, NEAFC adopted the Recommendations which identify two VMEs: Hatton Bank and Edora Bank. The subsequent closure of the Edora Bank in 2013 was based on data relating to VMEs in this area came from the experimental campaigns organized by Spain, with EU funding, in collaboration with the Spanish fishing sector
- Northwest Atlantic Fisheries Organization (NAFO)
  - "Project Nereida"

As part of the "NAFO Potential Vulnerable Marine Ecosystem-Impacts of Deep-sea Fisheries" (NEREIDA) project, in 2009 and 2010 new multidisciplinary research surveys were undertaken to map the VMEs in the NAFO regulatory area in waters which were less than 2000 meters deep and to study the impacts of fishing activities, using the Spanish research vessel "Miguel Oliver". Other objectives included to identify organisms that constitute VMEs; to describe the ecology of deep-sea habitats by studying distinct features in the area and to develop a GIS database.

The survey was funded by EU-Spain, Canada, EU-United Kingdom and the Russian Federation. Participating in this project together with the scientific bodies of the Spanish Oceanographic Institute and the Spanish National Research Council were scientific

organizations in Canada, Russia and the United Kingdom.

The work began in June 2009 and lasted until October 2010. During this period, the vessel made a total of 6 campaigns covering a total area of 68,000 km<sup>2</sup> of seafloor and which involved mapping and sampling with dredges.

Moreover, the Canadian ship "Hudson" complemented the work in two campaigns where a Deep-sea Remotely Operated vehicle (ROV) was used for video transects at selected points, taking video footage of both pristine coral areas and areas where corals had been impacted by bottom contact gears.

The data collected from these campaigns is currently being analysed by a committee created to coordinate this work.

- Annual research campaign: "Vizconde de Eza" and scientific observers on board on fishing vessels in the NAFO area

The surveys undertaken by research vessel "Vizconde de Eza", cover the seabed in Flemish Cap and the "tail" and "nose" of the Grand Banks in Newfoundland. The results are used as indicators of VMEs. In addition, there is a scientific observation programme in NAFO. All data from campaigns and observers are presented by Spanish scientists in the NAFO Scientific Council every year in order to establish Recommendations related to VMEs. Other research projects focusing on data collection of VMEs in the NAFO area are those listed in the following table: (follow the link:<http://www.fao.org/in-action/vulnerable-marine-ecosystems/background/surveyresearch-projects/es/>)

- South-West Atlantic: Spanish research project: Project Atlantis

Since 2008, Spain has been using the same methodology set-up used in the northeast Atlantic in the southwest Atlantic (Division FAO 41), in order to map and identify sensitive habitats and possible interactions with fisheries in the defined area between 42 ° S and 48 ° S latitude, and longitudinally between the western boundary 60 ° 55 ' W and the eastern boundary of 57 ° 20 'W. This is an area where Spanish ships have been undertaking bottom trawl fisheries. 13 campaigns of multidisciplinary research were carried out between 2007 and 2010, by Spanish scientists led by the Spanish Institute of Oceanography, aboard the research vessel "Miguel Oliver". The scientific report with key findings and recommendations has in fact already been provided to Argentina and will also be made available to other parties upon their request.

Major tasks accomplished during the campaign were: seabed mapping, description of types of seabed and benthic fauna, obtaining rates of biomass and abundance of species of commercial interest, and finally, localization and characterization of sensitive habitats.

An area of 59,105 km<sup>2</sup> was mapped to know its topography. To locate and describe sensitive habitats, a total of 91,905 km of profile surveying were carried out, detecting them in an area of approximately 41,300 km<sup>2</sup>. These works were carried out with multibeam echo sounders, using the existing protocols of the International Hydrographic Bureau (IHO-S44). As result, Spain closed the bottom fishing activity in nine (9) areas for the Spanish vessels where the VMEs have been found.

In addition there is a scientific observation program similar to those in NAFO and NEAFC.

- South-East Atlantic: Spanish/Namibian research project: Walvis Ridge in the South Atlantic

A multidisciplinary campaign was carried out by the Spanish Institute of Oceanography and the National Marine Information and Research Centre (Namibia), in 2008 and 2009 on board the research vessel "Vicomte de Eza" on the seamounts of the Walvis Ridge off the coast of Namibia, as a pilot study for the location and identification of vulnerable marine ecosystems associated with seamounts that could be impacted by fishing gear. The prospected area was 17,899 km<sup>2</sup> and had a depth range between 200 and 3000 meters.

As part of the Horizon 2020 project iAtlantic<sup>28</sup>, the Spanish Research Vessel "Sarmiento de Gamboa" will take part in the iMirabilis expedition in the second semester of 2020. This expedition will mobilise state-of-the-art seabed survey equipment including the Autonomous Underwater vehicle (AUV) Autosub6000 and the Remotely Operated Vehicle (ROV) Lusso (EMEPC) to explore benthic ecosystems in great detail producing large high-resolution photographic results that will be processed automatically using new machine learning approaches. The results of these surveys will be used to produce high-resolution habitat maps in South Atlantic areas from which scarce or no-information is currently available. Moreover, the ROV Lusso will allow collection of selected specimens for taxonomic purposes and for dating, which will enable the assessment of the health of the deep-sea ecosystem on the Walvis Ridge.

- Antarctic area/CCAMLR

In the framework of CCAMLR, Spain carries out exploratory fisheries, previously approved by the CCAMLR Scientific Committee that can support CCAMLR's work in relation to the location and identification of VMEs.

- Arctic area

Spain regulates its fishing activities in the area of "Svalbard", through the Treaty of Paris (1920). In this framework, Spain complies with Norwegian regulations to protect VMEs. Furthermore, Spain has a scientific observer programme that not only collects stock assessment data but also indicators of VMEs. Moreover, Spain carries out an annual scientific assessment survey which collects data of VMEs indicators. All the data from observers and campaigns are presented in ICES Working Groups by Spanish scientists.

### Training activities

Spain has also utilised its fisheries oceanographic vessels: "Miguel Oliver", "Vizconde de Eza", and "Emma Bardán" as well as its fisheries cooperation vessel "Intermares" to provide training in a number of countries in Africa and Latin and South America. In fact, Spain has signed 22 Memoranda of Understanding with African and Latin American Countries. In particular, the vessel "Intermares" is used to provide fisheries training in all areas and activities related to the marine environment for both senior staff of government, scientists and other professionals in the fisheries and aquaculture. During 2010 and early 2011 a total of 14 courses have been given to countries in these areas, establishing for the period a Cooperation

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<sup>28</sup> <http://www.iatlantic.eu/expeditions.html>

Programme for Training in Marine Fisheries and Aquaculture. These courses include modules dealing with the research and data collection, basic safety on board, use of selective fishing gear, oceanography, fisheries control, and institutional strengthening, among others.

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