

BlueMed Pilot Action For a plastic-free, healthy Mediterranean Sea

# Mapping of initiatives – National Hubs SPAIN

[Extract from the DRAFT SUMMARY REPORT, BLUEMED Pilot: For a Plastic-free, Healthy Mediterranean Sea (Tuesday 12 March 2019, 9:00 – 17:00, Room: CDMA -1/44, Rue du Champ de Mars 21, Brussels, Belgium)]



#### Spain

In 2015 the Ministry of Fisheries, Agriculture and Environment (MAPAMA) elaborated the **Programme of Measures** on marine litter for the five marine areas in Spain. An expert's workshop on marine litter was organised to discuss the scientific proposal for the programme of measures related to this descriptor, that are here summarized in 4 blocks:

- Measures for the prevention of marine litter with a marine origin
- Measures for the prevention of marine litter with a land origin
- Measures for the removal of marine litter
- Measures on dissemination and social awareness on the challenge of marine litter

Content of the Monitoring programme of marine litter in the Spanish Marine Strategies is:

| Action                             | Objectives   | Additional info |
|------------------------------------|--|-----------------|
| BM-1: Marine litter in the beaches | This programme aims at counting and characterise the litter found, compare the situation of different Spanish beaches, in order to provide systematic information for the establishment of measures towards the reduction of litter in the marine environment. |                 |
| BM-2: Floating litter              |  |                 |
| BM-3: Litter on sea floor          |  |                 |
| BM-4: Microparticles in water      |  |                 |
| BM-5: Microparticles in sediment   |  |                 |

| Action                                  | Objectives  | Additional info  |
|---|---|--|
| BM-6: Microparticles in beaches         | During 2015 and 2016, with the support of CEDEX, the methodologies for sampling, analysis and monitoring of microplastics in beaches was put in place. The study started in October 2016 with 9 beaches of the Spanish coast. |  |
| BM-7: Citizen Science (additional data) | The Spanish Marine Strategies (EsMarEs) include this important aspect in its monitoring programmes through a harmonized protocol for the data collection on marine litter, though a "card for field work".                    | The card is the result of combined work developed in the frame of the interdisciplinary forum on marine litter that MAPAMA runs through the organisation of an Annual Seminar within the Programme of Permanent Seminars of CENEAM.                                |
| MT-5: Marine litter in biota            | In February 2017 the project <u>INDICIT</u> started with European Commission's funding, with the main objective of developing the monitoring of marine litter in biota, with special interest in sea turtles as indicators    | Improvement of the knowledge for the development of impact indicators at subregional level and quantitative definition of GES (Good Environmental Status). This activity gives the scientific basis and main tools (models and protocols) for the rest of actions. |

### LIST OF PROJECTS FUNDED BY THE SPANISH NATIONAL PLAN IN THE PERIOD 2015-2018, MANNAGED BY the SPANISH RESEARCH AGENCY (AEI)

| Funding source | Area          | Project   | Coordinator  | Duration  |           | Budget in € |
|----------------|---------------|---|--|-----------|-----------|-------------|
| AEI            | Biotechnology | Emerging contaminants, nanomaterials and micro-plastics in rivers, estuaries and coastal areas: an integrated study | AGENCIA ESTATAL CONSEJO<br>SUPERIOR DE INVESTIGACIONES<br>CIENTIFICAS (CSIC) | 01-ene-15 | 31-dic-17 | 183920      |

| Funding source | Area       | Project   | Coordinator  | Duration  |           | Budget in € |
|----------------|------------|---|--|-----------|-----------|-------------|
| AEI            | Sea        | Impact of regulated and emerging pollutants and microplastics in marine ecosystems and establishment of their environmental quality criteria                                | INSTITUTO ESPAÑOL DE<br>OCEANOGRAFIA (IEO)                                   | 01-ene-14 | 30-sep-17 | 169400      |
| AEI            | Sea        | Impact of regulated and emerging pollutants and microplastics in marine ecosystems and establishment of their environmental quality criteria                                | UNIVERSIDADE DA CORUÑA   | 01-ene-14 | 31-dic-16 | 168190      |
| AEI            | Technology | Environmental risk of micro and nanoplastics in wastewater treatment systems and receiving bodies   | UNIVERSIDAD DE ALCALA  | 30-dic-16 | 29-dic-20 | 189970      |
| AEI            | Technology | Environmental risk of micro and nanoplastics in wastewater treatment systems and receiving bodies   | UNIVERSIDAD AUTONOMA DE MADRID   | 30-dic-16 | 29-dic-20 | 188760      |
| AEI            | Sea        | Emergent pollutants in coastal systems: distribution and biological effects. from lab to field  | AGENCIA ESTATAL CONSEJO<br>SUPERIOR DE INVESTIGACIONES<br>CIENTIFICAS (CSIC) | 30-dic-16 | 29-dic-19 | 192390      |
| AEI            | Sea        | Environmentally friendly alternatives for polymers and their chemical additives in aquatic environments   | UNIVERSIDAD DE VIGO  | 30-dic-16 | 29-dic-19 | 142780      |
| AEI            | Sea        | Environmentally friendly alternatives for polymers and their chemical additives in aquatic environments; subproject polymeric materials and additives and their degradation | ASOC. DE INVESTIGACION DE MATERIALES PLASTICOS                               | 30-dic-16 | 29-dic-19 | 112530      |
| AEI            | Sea        | Environmentally friendly alternatives for polymers and their chemical additives in aquatic environments. subproject environmental analytical chemistry                      | UNIVERSIDADE DA CORUÑA   | 30-dic-16 | 29-dic-19 | 173030      |
| AEI            | Technology | Microplastics as vectors of emerging contaminants in the terrestrial ecosystem: exposure biomarkers and ecotoxicological impact   | UNIVERSIDAD COMPLUTENSE<br>DE MADRID   | 01-ene-18 | 31-dic-21 | 225060      |
| AEI            | Technology | Exposome assessment of emerging contaminants in the aquatic environment   | UNIVERSIDADE DE SANTIAGO<br>DE COMPOSTELA                                    | 01-ene-18 | 31-dic-20 | 175450      |
| AEI            | Technology | Exposomic assessment of emerging contaminants in the aquatic environment  | UNIVERSIDAD DE LAS ISLAS<br>BALEARES   | 01-ene-18 | 31-dic-20 | 173030      |
| AEI            | Sea        | Aquaculture derived plastics: impacts and effects in marine food webs   | INSTITUTO ESPAÑOL DE OCEANOGRAFIA (IEO)                                      | 01-ene-18 | 31-dic-20 | 165770      |

| Funding source | Area          | Project   | Coordinator  | Duration  |           | Budget in € |
|----------------|---------------|---|--|-----------|-----------|-------------|
| AEI            | Sea           | Microplastics and microcontaminants in the Mediterranean coast: toxicity and environmental and human health impacts   | AGENCIA ESTATAL CONSEJO<br>SUPERIOR DE INVESTIGACIONES<br>CIENTIFICAS (CSIC) | 01-ene-18 | 31-dic-20 | 177870      |
| AEI            | Sea           | Microplastics and microcontaminants on the Mediterranean coast.toxicity and impact on environment and human health  | FUNDACIÓ INSTITUT CATALA DE<br>RECERCA DE L AIGUA                            | 01-ene-18 | 31-dic-20 | 159720      |
| AEI            | Sea           | Influence of microplastics on the transfer and effects of contaminants of emerging concern in marine organisms. ecotoxicological and environmental impact in marine systems | INSTITUTO ESPAÑOL DE<br>OCEANOGRAFIA (IEO)                                   | 01-ene-18 | 31-dic-20 | 158510      |
| AEI            | Tecnology     | Defining the baselines and standards for microplastics analyses in european waters  | UNIVERSIDAD DE LAS ISLAS<br>BALEARES   | 01-jul-18 | 30-jun-20 | 17000       |
| AEI            | Biotechnology | Defining the baselines and standards for microplastics analyses in European waters  | UNIVERSIDADE DA CORUÑA   | 01-dic-15 | 31-mar-19 | 125000      |
| AEI            | Biotechnology | Defining the baselines and standards for microplastics analyses in European waters  | INSTITUTO ESPAÑOL DE OCEANOGRAFIA (IEO)                                      | 01-dic-15 | 30-nov-18 | 125000      |
| AEI            | Sea           | Ecotoxicological effects of microplastics in marine ecosystems: studies with the mussel (mytilus galloprovincialis)   | INSTITUTO ESPAÑOL DE OCEANOGRAFIA (IEO)                                      | 01-dic-15 | 31-may-19 | 100000      |
| AEI            | Sea           | Ecotoxicicological effects of microplastics in marine ecosystems: studies with european sea bass (dicentrarchus labrax)   | UNIVERSIDAD DE MURCIA  | 01-dic-15 | 30-nov-18 | 60000       |
| AEI            | Sea           | Ecotoxicicological effects of microplastics in marine ecosystems  | UNIVERSIDAD DE VIGO  | 01-dic-15 | 31-mar-19 | 140000      |
| AEI            | Technology    | Impacts of microplastics in agro-systems and stream environments  | FUNDACION IMDEA AGUA   | 01-abr-17 | 31-mar-20 | 135000      |

#### SPANISH PARTICIPATION IN JPI OCEANS PROJECTS ON MICROPLASTICS

In 2015, a call on Microplastics was launched under the initiative JPI OCEANS. In this context, the Spanish Research Agency (AEI) funded 2 international cooperation projects in which 5 Spanish institutions received 550.000 €

| Acronym         | <b>AEI contribution</b> |
|-----------------|-------------------------|
| BASEMAN         | 250.000€                |
| <b>EPHEMARE</b> | 300.000€                |

The AEI plans to fund 2 more projects in the JPI OCEANS call open until February 2019, with a Budget of 400.000€.

### SPANISH PARTICIPATION IN PROJECTS FUNDED UNDER HORIZON 2020 ON MARINE LITTER/PLASTICS

| BLUE GROWTH        |  |              |
|--------------------|--|--------------|
| CLAIM              | Cleaning Litter by developing and Aplying Innovative Methods in European Seas  |              |
| ES Partners        | IKERCONSULTING EUROPEAN AND REGIONAL INNOVATION SOCIEDAD LIMITADA  | € 297 798,38 |
| UTOFIA             | Underwater Time Of Flight Image Acquisition system   |              |
| ES Partners        | FUNDACION AZTI   | € 468 780    |
| Respon-Sea-ble     | Sustainable oceans: our collective responsibility, our common interest. Building on real-life knowledge knowledge systems for developing interactive and mutual learning media |              |
| ES Partners        | FUNDACION AZTI   | € 219 352,50 |
| SME Instrument     |  |              |
| UPCYCLINGTHEOCEANS | High quality clothes made from marine plastic litter   |              |
|                    | ECOALF, S.L.   | € 50 000     |

| CIRC - Circular Economy      |   |              |
|------------------------------|---|--------------|
| PlastiCircle                 | Improvement of the plastic packaging waste chain from a circular economy approach                       |              |
| ES Partners                  | INSTITUTO TECNOLOGICO DEL EMBALAJE, TRANSPORTE Y LOGISTICA Coordinator                                  | € 1 010 750  |
|                              | FUNDACION DE LA COMUNITAT VALENCIANA PARA LA PROMOCION ESTRATEGICA EL DESARROLLO Y LA INNOVACION URBANA | € 328 625    |
|                              | SOCIEDAD ANONIMA AGRICULTORES DE LAVEGA DE VALENCIA   | € 623 070    |
|                              | INDUSTRIAS TERMOPLASTICAS VALENCIANAS, S.A.   | € 150 850    |
|                              | Fundacio Knowledge Innovation Market Barcelona  | € 311 250    |
|                              | ECOEMBALAJES ESPANA, S.A.   | € 294 500    |
|                              | PICVISA MACHINE VISION SYSTEMS SL   | € 359 625    |
| PolyCE                       | Post-Consumer High-tech Recycled Polymers for a Circular Economy  |              |
| ES Partners                  | TECNALIA  | € 589 625    |
|                              | ONA PRODUCT SL  | € 102 427,50 |
| LEIT Leadership in enabling  | and industrial technologies   |              |
| P4SB                         | From Plastic waste to Plastic value using Pseudomonas putida Synthetic Biology                          |              |
| ES Partners                  | AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS   | € 561 875    |
|                              | BACMINE SL  | € 684 625    |
| BBI JU - Bio-based Industrie | s Joint Undertaking   |              |
| AFTERLIFE                    | Advanced Filtration Technologies for the Recovery and Later conversion of relevant Fractions from       |              |
|                              | wastEwater  |              |
| ES Partners                  | OPTIMIZACION ORIENTADA A LA SOSTENIBILIDAD SL   | € 250 750    |
|                              | L'UREDERRA, FUNDACION PARA EL DESARROLLO TECNOLOGICO Y SOCIAL   | € 301 250    |
|                              | AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS   | € 216 000    |
|                              | ASOCIACION EMPRESARIAL DE INVESTIGACION CENTRO TECNOLOGICO NACIONAL DE LA CONSERVA                      | € 199 560    |
|                              | JAKE SA   | € 93 825     |
|                              | CITROMIL SL   | € 97 200     |

## blueMed