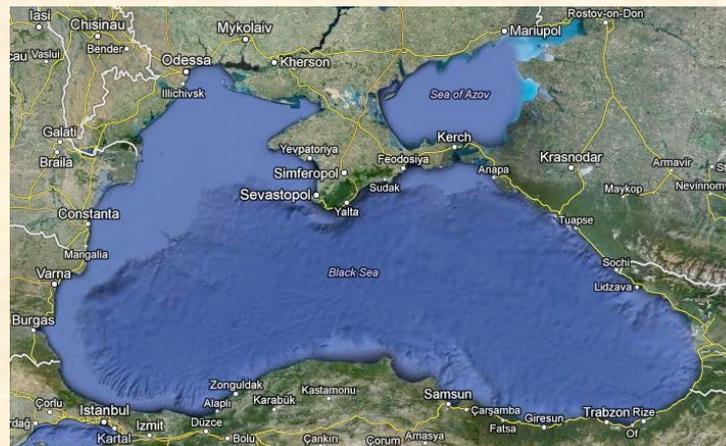




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Main European Union and Ukrainian policies and directives relevant to marine and regional sustainability, main Ukrainian scientific centers that implement the policies and Ukrainian proposals for Horizon 2020 and for future bi- or multilateral joint projects





Main European Union policies and directives relevant to marine sustainability

<i>Policies and directives</i>	<i>Aims</i>
Integrated maritime policy	To provide a more coherent approach to maritime issues, with increased coordination between different policy areas
Common fisheries policy	To ensure that fishing and aquaculture are environmentally, economically and socially sustainable and that they provide a source of healthy food for EU citizens
Marine strategy framework directive (MSFD) (2008/56/EC)	To take measures to achieve or maintain good environmental status (GES) in the marine environment by the year 2020 at the latest
Marine spatial planning directive (2014/89/EU)	To establish a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources.
Water framework directive (2000/60/EC)	To achieve good surface water status (including good ecological status) for water bodies by 2015 at the latest (covers coastal and transitional waters)
Habitats directive (92/43/EEC)	To contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora
Birds directive (2009/147/EC — amended version 79/409/EEC)	Conservation of all species of naturally occurring birds in the wild state
Invasive alien species regulation (1143/2014)	To prevent, minimise and mitigate the adverse impact on biodiversity of the introduction and spread of invasive alien species.

Maine Ukrainian policies and directives	Aims
Marine Doctrine of Ukraine till 2035 (approved by the Cabinet of Ministers of Ukraine of 7 October 2009 r. No 1307)	<i>Much attention in this document is paid to marine and maritime research and technology, in particular the role of NAS of Ukraine in their development.</i>
Decree of the Cabinet of Ministers of Ukraine of 20.07.1996 number 815 "On approval of the state water monitoring»	<i>In Ukraine, a network monitoring of coastal waters, which consists of monitoring stations in areas wastewater discharges and research stations located in the coastal areas of the Black and Azov Seas. The existing stations are measured from 16 to 26 hydro-chemical parameters of waters and sediments. Managed by the State Hydrometeorological Service of the Ministry of Emergency Situations (MES).</i>
The Law of Ukraine "On Approval of the National Program Protection and Rehabilitation of the Azov and Black Seas" (Approved by the Law of Ukraine March 22, 2001 N 2333-III)	<i>National Programme for Protection and Rehabilitation of the Azov and Black Seas (hereinafter - the Program) aimed at ensuring the implementation of the Convention on the Protection of Black Sea from Pollution (1994), the Ministerial Declaration on the Protection of the Black Sea (1993) and the Strategic Action Plan for reproduction and protection of the Black sea (1996) (Approved by the Law of Ukraine March 22, 2001 N 2333-III) State inspections of the Black and Azov Seas (MEP) have their own monitoring system. These powers include monthly sampling and analysis of the impact of pollution sources, which are located on the coast; monitoring of discharges from ships; pollution from activities of prospecting and extraction of oil, gas and building materials offshore; supervision over the use of marine living resources</i>

<i>Ukrainian policies and directives</i>	<i>Aims</i>
<p>Bucharest Convention for the Protection of Black Sea from Pollution (Convention ratified by Verkhovna Rada N 3939-12 from 02.04.94) <i>and</i> Protocol of the preservation of biodiversity and landscapes of the Black Sea to the Convention for the Protection of the Black Sea Against Pollution</p>	<p>Much attention in this document is paid to control of pollution in the Black Sea to conserve biodiversity and maintain and restore ecosystem functions</p>
<p>Water Code of Ukraine, Verkhovna Rada Decision N 214/95-VR of 06.06.95,</p>	<p>In conjunction with managerial, legal, economic and educational measures, help to form water and environmental law enforcement and ensuring ecological safety of Ukraine's population, as well as more effective, science-based use of waters and their protection from pollution and exhaustion</p>
<p>The Law of Ukraine “On the exclusive (maritime) economic zone of Ukraine” Verkhovna Rada Decision N 163/95-VR of 16.05.95,</p>	<p>Identifies legal regime and governing all matters relating to the legal regime of the exclusive (maritime) economic zone of Ukraine, including: maintenance and use of fish and other living resources (Article 7); Ukraine's jurisdiction over artificial islands, installations and structures (article 11). Marine research and Conditions of conducting and prohibitions (Articles 13, 14,15); Competence competent authorities of Ukraine to prevent pollution of the marine environment (Article 17); The disposal of waste or other materials and items (Article 18); 26. The pollution of the marine environment (Article 26); The bodies and officials authorized to impose sanctions in the event of any violation of this Law (Article 27) and others.</p>

Main Ukrainian scientific centers relevant to Black sea region sustainability

Names / *Location*

State Institution “Institute of Marine Biology, **National Academy of sciences of Ukraine** / *Odesa* /

Institute for Market Problems and Economic-and-Ecological Research, **National Academy of sciences of Ukraine** / *Odesa* /

State Institution “Department of Marine Geology and Sedimentary Ore Formation of **National Academy of sciences of Ukraine**”, / *Kyiv* /

Institute of Geological Sciences, **National Academy of sciences of Ukraine**, / *Kyiv* /

Institute of Geophysics, **National Academy of sciences of Ukraine**), / *Kyiv* /

Institute of Archeology, **National Academy of sciences of Ukraine**), / *Kyiv* /

Ukrainian Hydrometeorological Institute, **National Academy of sciences of Ukraine** and **State Emergency Service of Ukraine**, / *Kyiv* /

Ukrainian scientific center of Ecology of Sea (UkrSCES), **Ministry of Ecology and Natural Resources of Ukraine**, / *Odesa* /

Odessa National University named after I.I. Metchnikov , / *Odesa* /

Odessa State Environmental University, / *Odesa* /

- Ukraine offers several topics with the follows titles for research topics that we believe may be of mutual interest to the research, technological and innovation cooperation between the Member States of the EU, Horizon 2020 associated countries and the countries of the Black Sea region in terms of preparing proposals for Horizon 2020 and for future bi- or multilateral joint projects.
- *All these topics are complex. It is clear that high-quality results in the performance of these topics can be obtained only by using the ecosystem approach and with the joint participation of scientists from different specialties: marine geologists, biologists, geochemists, ecologists and archaeologists and medical biologists.*
- The main objective of the proposed topics is to improve predictive models of the dynamics of natural and natural-economic systems in the transition zone "land-sea" within the borders of the Black Sea region countries to propose measures aimed at ensuring the harmonious development of these systems, including human.
- Over ten well-known scientific research institutes and other organizations of Ukraine are ready to participate in that researches.

Ukrainian scientists propose, considering the theme of the seminar, the names of some research topics:

1	The tendencies of development and dynamics of ecosystems of coastal zones and water bodies in the Black Sea region during the Holocene, and the risks associated with the global climate changes and exploration of their resources for human and environment.
2	Investigation of influence of natural and anthropogenic factors on the features of the structure and functioning of the geocological systems in the transition zone "land - the Black Sea" ((within the borders of the countries of the Black Sea region.
3	An impact of natural and anthropogenic factors on the peculiarities of the structure and functioning of ecological systems in the transition zone "land - sea" of the Black Sea region from the Nativity of Christ to the present time
4	An impact of water geoecosystems (river mouths, estuaries, lagoons, shelves, etc.) Coastal Black Sea countries on the health of the population, and its

In addition to the research topics listed above, Ukraine proposes to discuss a number of more specialized research topics, which are also aimed at the solution of common challenges for the Black Sea Region:

- *Changes in River Sedimentation caused by the Influence of the Modern Ecosystem of Ukraine (Ukrainian Black Sea Coast);*
- *Modern Black Sea coastal sediments and their mineral composition, effective use and environmental safety;*
- *Evaluation of ecological status and ecological potential of different types of estuaries Black Sea on the principles of Water Framework Directive 60/2000 / EC;*
- *Remote monitoring of the the coastal zones in different bands of the electromagnetic spectrum with using drones “,*

and a number of specialized research topics which proposes the **Institute of Marine Biology of National Academy of sciences of Ukraine:**

- The system of decision-making for conservation and management of biodiversity of the coastal waters ecotones of the Black Sea region.
- The ratio of the biotic and abiotic components in the mapping of biocenoses (habitats): preparation of the preliminary maps of biocenosis of the coastal zone of the Black Sea
- Assessment of the Black Sea region ecosystems' vulnerability to climate change.
- Coastal Zone Management Strategy in growing natural dynamics and anthropogenic impacts for the protection of the Black Sea region biological diversity.
- The role of the Black Sea basin in the ecological potential of the marine water bodies and assessment of potential environmental and socio-economic risks in the region.
- Assessment of the endemic species of the Black Sea region and the study of their role in the region's ecosystem stability.
- Risk assessment of the expansion of the Black Sea basin invasive species in the context of climate change and anthropogenic impacts.
- The Black Sea region as an ecological corridor for the expansion areas of alien species in the conditions of anthropogenic transformation of ecosystems.

(Note: the prior agreement on cooperation is obtained from the representative of the Georgian National Environment Agency (Batumi,) regarding the topics close to the employees specialization)

During 2016-2017 years the Institute of Marine Biology, National Academy of Sciences of Ukraine, and the National Environment Agency (Batumi, Georgia) are involved in the activities of the international EU and UN project «Improving Environmental Monitoring in the Black Sea - EMBLAS».

Marine Hydrophysical Institute of the National Academy of Sciences of Ukraine took part in the project: "The development of innovative tools for the study of marine biodiversity and evaluation of good ecological status ".

Project implementation will hand over (from 2012 to 2016.)

http://cordis.europa.eu/project/rcn/105613_en.html

Institute of Biology of the Southern Seas NAS of Ukraine participated in the implementation of the research project: "Marine Environmental study of the southern European seas with maximum regard for the requirements of the policy"

The project is in progress. http://cordis.europa.eu/project/rcn/102043_en.html

Marine Hydrophysical Institute and the Institute of Biology of the Southern Seas NAS of Ukraine were co-authors of a large EU research project integration "Kokonet: "Marine protected areas network from coast to coast, from the coast to the bottom with the wind energy potential of the sea"(Towards COast to COast NETWORKS of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential).

The project is planned for 4 years, from 2012 to 2016 . The customer research in the framework of the project - the European Union, represented by the European Commission (DG Research & Innovation E4). http://cordis.europa.eu/project/rcn/101654_en.html

Marine Hydrophysical Institute and the Institute of Biology of the Southern Seas NAS of Ukraine were withdrawn from the project in connection with the sanctions of the Russian Federation which were conditioned the Crimea annexation.

In the last decade, the institutions of NAS of Ukraine conducted researches in the Black Sea region for several scientific programs.

In particular, from 2013 to 2015 the researches were conducted under the Project "Multipurpose monitoring, evaluation and prediction of the dynamics of the marine environment and resource base of Black Sea in the face of increasing anthropogenic pressure and climate change."

The aim of this researches was to develop a theoretical, scientific, technical and technological bases for sustainable and environmentally friendly use of resources of the Azov-Black Sea basin within Ukraine.

Unfortunately, the largest institutes of NASU maritime profile, including research vessels, which were based in Sevastopol, from 2014 to the present time are outside the jurisdiction of Ukraine.

But in Ukraine, despite all the difficulties, a new Center for Marine Researches and Technologies of NAS of Ukraine and MES of Ukraine is created. We hope that it will start working within 2 to 3 months.

From 2016 to 2020 the study will be conducted under the Program Comprehensive study of Black Sea and other areas of the oceans in order to strengthen maritime potential of Ukraine."