Work package number	3	Start date (month)			3	
Activity Type		RTD / Innovation Activities				
Participant Id		CDF	CEFAS	DINARA	NRM	KESCOM
Person-months per participant:		18	10	16	32	16

Objectives:

The "Biomap" workpackage will provide authoritative knowledge about the occurrence of marine species in space and time and in response to climate change, with the following objectives:

1. Provide access to point data from all available sources (collections, surveys, observations) and from historical times to present for all organisms occurring in areas covered by this project;
2. Combine data from 1) with relevant environmental parameters to define the preferred niche and to create standardized electronic maps for all species;
3. Establish a system where maps can be verified by experts;
4. Based on (2) and (3), provide authoritative species inventories;
5. Using current climate change scenarios and knowledge about resilience of species and ecosystems, predict potential changes in species composition or abundance, with special attention to harmful algal blooms, invasive species, and predator-prey overlap.

Description of work:

Biogeographic niche modelling will be used to define the preferred environmental conditions for key marine coastal zone species. This specific niche information will then be used to create standardized electronic maps of predicted distributions for all coastal zone species. In addition, the niche circumscription of species of interest will be connected with physical and bio-geochemical models thus producing dynamic distribution maps driven by models of forcing functions. This will allow exploring changes in distribution of species resulting from natural and anthropogenic environmental changes. The maps and related tools will be made freely available on the Internet with an easy-to-use interface. This will provide crucial support for efforts to promote, protect, and preserve the coastal zone environment. Throughout the process there will be close interaction with WP 1, 2, 4, 5, 6.

Deliverables:

All WP participants will contribute to all deliverables.

D3.1 Standardized electronic maps with predicted distribution (likelihood of occurrence) for all coastal zone species relevant to this project (web-based maps, month 13);

D3.2 Before – After maps with predicted distribution before and after a certain point in time (web-based maps, month 19).

D3.3 Maps with predicted seasonal distribution (web-based maps, month 25);

D3.4 Dynamic maps where species distribution is predicted from the occurrence of the respective niche in space and time as predicted by physical models of the oceans (web-based maps, month 31).

D3.5 Further population of maps, interactions with WPs, final report (report, month 34)

D3.6 At least five scientific publications related to this WP to be published or submitted by WP members before the end of the project (month 34)

Milestones[1] and expected result

- First workshop to review data body, perform gap analysis, and assign tasks (WP members, representative of WPs 1, 2, 5, 6; month 5)**;**
- Second workshop to review maps, tools, and outcome of analyses; decisions on dissemination and interfaces (WP members, representatives of WPs 1, 2, 5, 6, month 27);

[1] Milestones are control points at which decisions are needed; for example concerning which of several technologies will be adopted as the basis for the next phase of the project.