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sea level rise scenarios along the mediterranean coasts

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NEWSLETTER June 2017 | Issue 1

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Content:

- Kick-off meeting
- Preliminary results of Stakeholders engagement
- Pilot test in Lefkada
- SAVEMEDCOASTS' WebGIS
- 1st Technical meeting

Project Partners:

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ISOTECH environmental reserach and consultancy Cyprus

ΠΕΔ IN Regional Union of Ionian islands Greece

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PROJECT KICK-OFF MEETING

Article I

The kick-off meeting of the SAVEMEDCOASTS project took place in Brussels on January 18°, 2017 at the Directorate General for European Civil Protection and Humanitarian Aid Operations (DG-ECHO)' Offices.

The aim of the meeting was to provide Project Leaders with information on administrative, financial and legal issues and to facilitate networking.

After the presentations of the DG-ECHO' Officers, the Project Managers presented the 26 selected projects, available at the following link http://ec.europa.eu/echo/funding-evaluations/financing-civil-protection-europe/selected-projects_en, including SAVEMEDCOASTS project .

After this session, the participants had the opportunity to visit the European Response & Coordination Centre (ERCC).

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PRELIMINARY RESULTS OF STAKEHOLDERS ENGAGEMENT

Article II

ISOTECH is a private research oriented SME located in Cyprus, with extensive experience in international consulting and decision making support. ISOTECH is the Task leader of the project's activity under which stakeholders' views and perceptions were recorded in Italy, Greece and Cyprus.

The first step of the Task included the stakeholder's mapping, aiming to identify stakeholders who are directly and indirectly affected by SLR and key stakeholders who can significantly influence the decision making process. The stakeholders where later engaged in three activities: A targeted questionnaire, a number of key stakeholder interviews in each participating country and three small group one in each country.

The preliminary results show that several perceptions are repeated across all records and activities among stakeholders. Table 1 provides an overview of the common attributes derived from the three small group meetings in each country. This is not unexpected since SLR is a global issue that results in similar effects and thus requires similar solution measures. However when examining the results separately, there were several differentiations on how SLR is affecting each country, as a result of the different economic, political and social landscape of each participating country.

Common Attributes		
Risks identified with regards to SLR	**Gaps/ needs identified with regards to SLR**	**Actions to address SLR**
Loss of land	Lack of knowledge, data, scenarios	Strategic planning
Damages on the infrastructures adjacent to the sea	Lack of strategic planning at a national level	Stakeholder engagement
Floods, Storms	Lack of colaboration n among scientists, stakeholders/ decision-makers	Risk assessment
Beach erosion	Need of awareness raising	Mitigation measures to address the phenomenon (site specific)
Sanitation of aquifers	Need of data collection and processing	Transnational cooperation and exchange of good practices and know-how
Social and economic impacts	Need of legislations and policies	Research- Data collection- Monitoring

Table 1: Common attributes with regards to SLR identified during the three small group meetings, in Italy, Greece and Cyprus

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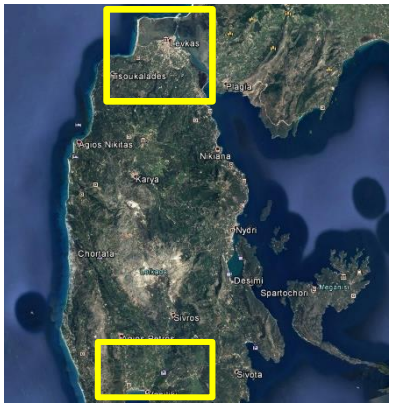
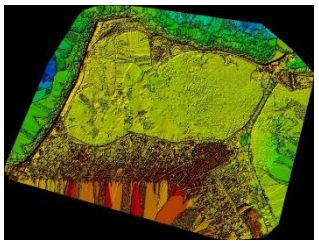
PILOT TEST IN LEFKADA

Article III

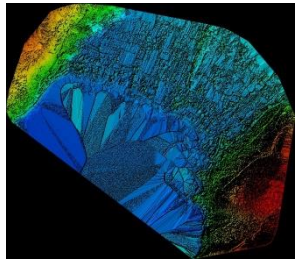
Between May 29 and June 3, 2017 the Laboratory of Photogrammetry and Remote Sensing (AUTH P&RS-LAB) [perslab.topo.auth.gr/general-en], School of Rural & Surveying Engineering [www.topo.auth.gr], performed the first UAV Surveys in Greece, at Lefkas Island. Aerial photogrammetric surveys were carried out using an e-bee UAV over the coastal villages of Lefkada and Vassiliki.



Some thousand of images were acquired during the survey of both areas (2.702 for Lefkada and 1,056 for Vassiliki). The collected images were used in the analysis for the production of DSM and orthophotos with a grid and pixel size of 4 cm, respectively. For the photogrammetric processing, 37 Ground Control Points and 6 Check Points in Lefkada and 20 Ground Control Points and 5 Check Points for Vassiliki were measured by GPS receivers.
Additional 50 control points were measured for the processing of the satellite images pairs covering the two investigated areas.
Land data will be soon combined with bathymetric data to realize a detailed Marine and Digital Terrain Model (MDTM) of the investigated areas. The high resolution MDTM will be used to prepare the marine flooding scenarios for the incoming years due to sea level rise.



Lefkada: very high resolution orthophoto (left) and DSM (right).



Vassiliki: very high resolution orthophoto (left) and DSM (right)

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SAVEMEDCOASTS' WEBGIS

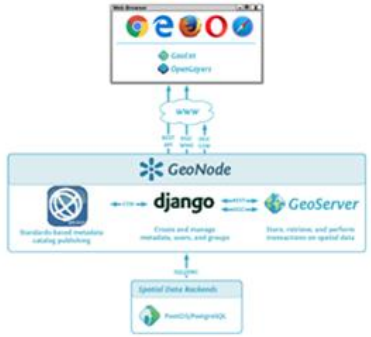
Article IV

The partner CGIAM is working within Task C.3 to carry on the SAVEMEDCOASTS WebGIS that will be on-line by mid-July 2017. The WebGIS platform is a Geo-Portal which allows the release, cataloguing, display, query of informative layers produced under the project. It will be used as data-showing of data output in accordance with the European standards (INSPIRE Directive) and will be made accessible to authorized users.

The WebGIS has been realized by integrating Open Source information technologies to publish geographical data (cartographic) on the web, orienting the application to a simple and intuitive consultation for the final user.

The IT development is based on Geonode, a content management system for the management, sharing and dissemination of spatial data based on Geoserver, Django, and GeoExt with DataBase PostgreSQL with extension for PostGIS. This last one is used for data storage.

This solution has been achieved after the analysis and comparison of the main WebGIS solutions in Open Source environment by considering the development needs of the portal. The selected solution allows to make geographical processed data available, in a simple and reliable way, through WMS (Web Map Service) interoperability standards defined by OGC (Open Geospatial Consortium).



The system architecture

The portal is organized in the following sections:

- Layers
- Maps
- Documents
- People
- Groups

SAVEMEDCOASTS WebGIS interface

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1° TECHNICAL MEETING

Article V

The 1° Technical Meeting was held on June 26°, 2017 at INGV, Rome. The participation of all project partners waas crucial for the discussion and analysis of all actions already performed and achieved results, in particular:

State of the art of the SAVEMEDCOASTS project: assessment of milestones and deliverables,
- Preliminary results of Stakeholders engagement,
- Pilot test in Lefkada,
- SAVEMEDCOASTS' WebGIS,
- Dissemination: current results and next actions,
- What's fine and what's wrong: problems and solutions,
- Next activities to be planned.

A field trip to Santa Severa and Santa Marinella – Rome was followed to see evidences of sea level rise and coastal retreat,. In the photo a submerged Roman fish tank.