

LIFE-IP 4 NATURA ppGIS/webGIS: A Public Participation Geographic Information System (ppGIS/webGIS) for visualizing, monitoring and mapping ecosystem services over Greece

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Introduction

In order to facilitate the integration of data collected and analyzed under the Action A.3 (Mapping and Assessment of Ecosystem Services - MAES), an interactive and interoperable Public Participation Geographic Information System (ppGIS/webGIS) was developed to enhance public awareness, to support the incorporation of the concept of ecosystem services into policy and governance, and ultimately to contribute to the protection, conservation, and management of ecosystems into decision-making processes for land-use planning.

The web-based ppGIS/webGIS LIFE-IP 4 NATURA, presents at the national scale the ecosystem services (such as timber production, climate regulation and erosion regulation, recreation provision, etc.) of the Greek ecosystems.

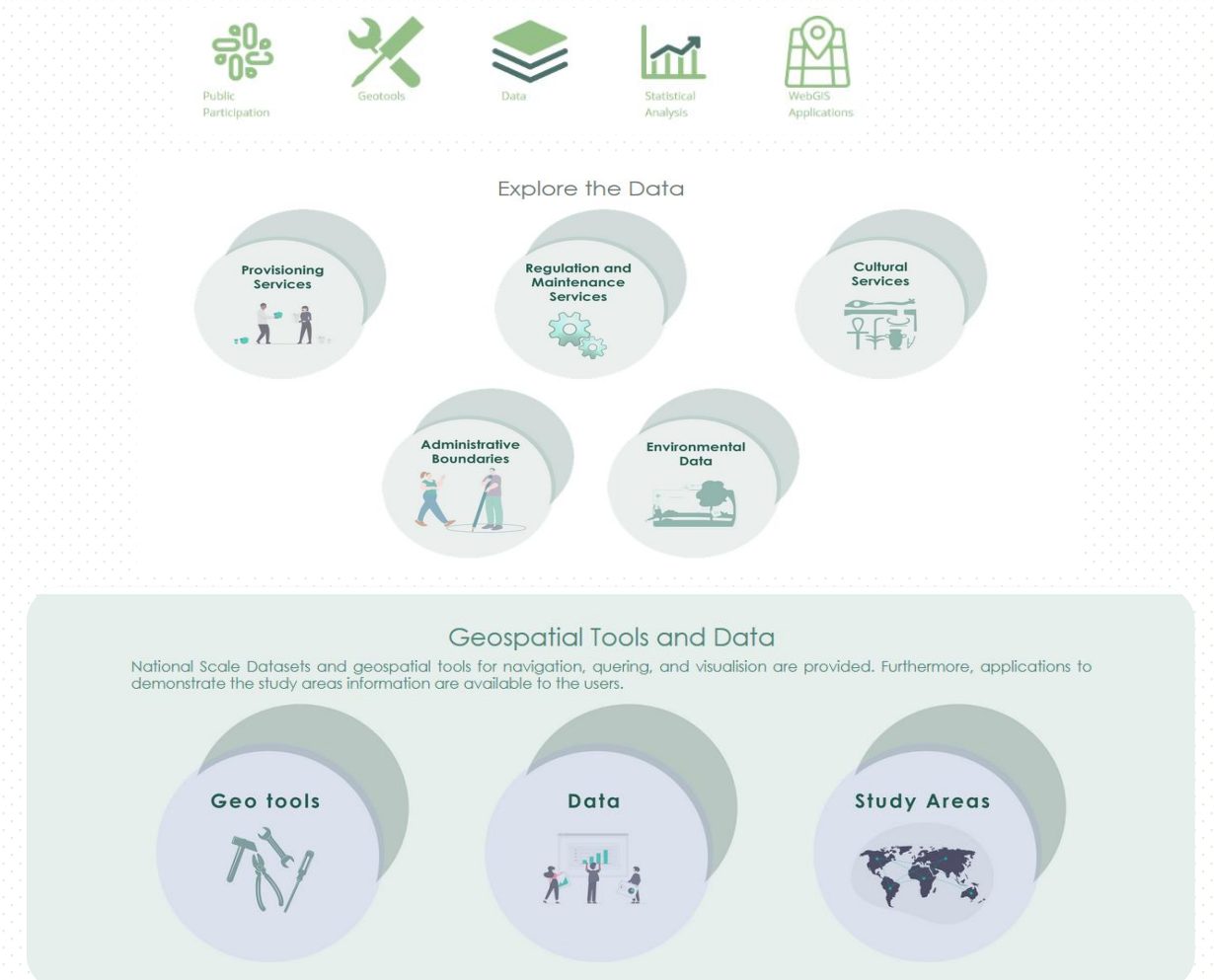
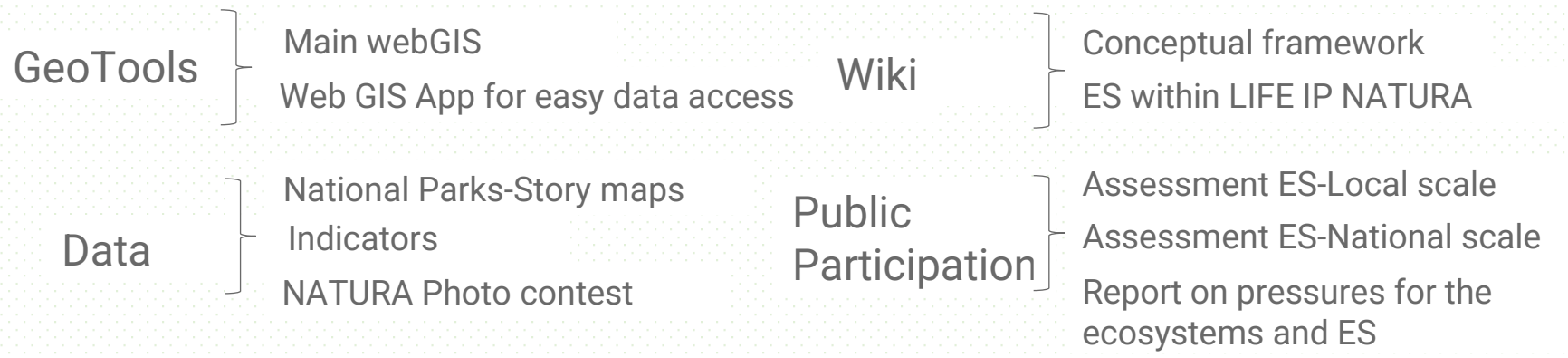
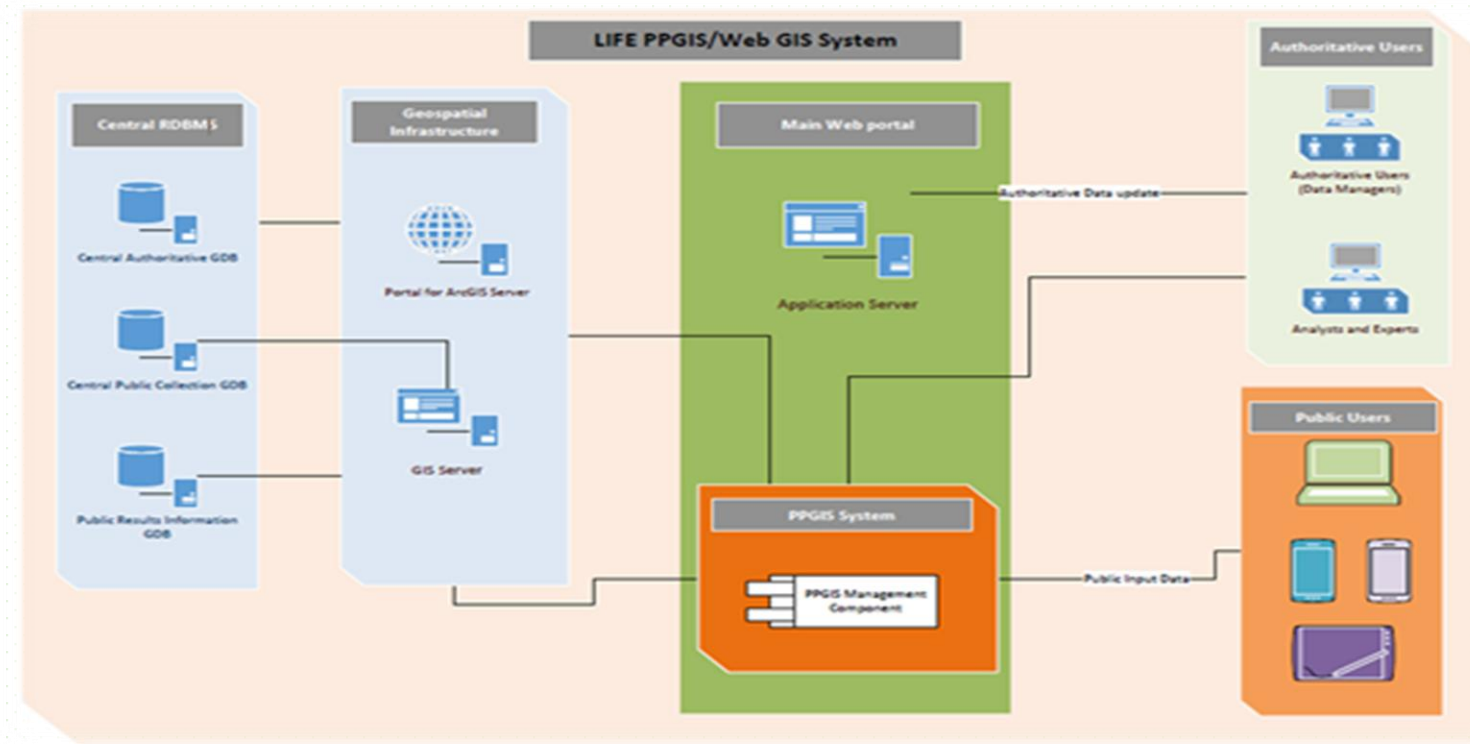
Scope

- ✓ Provide an interactive spatial data infrastructure for geo-referenced cartography at a national scale
- ✓ Query the databases and get answers immediately
- ✓ Locate points of interest in high-resolution satellite images, and connect their portable computers, GPS or smartphone devices to access and download information
- ✓ Tools for making queries and exporting results on ecosystem services from Action A.3
- ✓ Tools for uploading participatory data

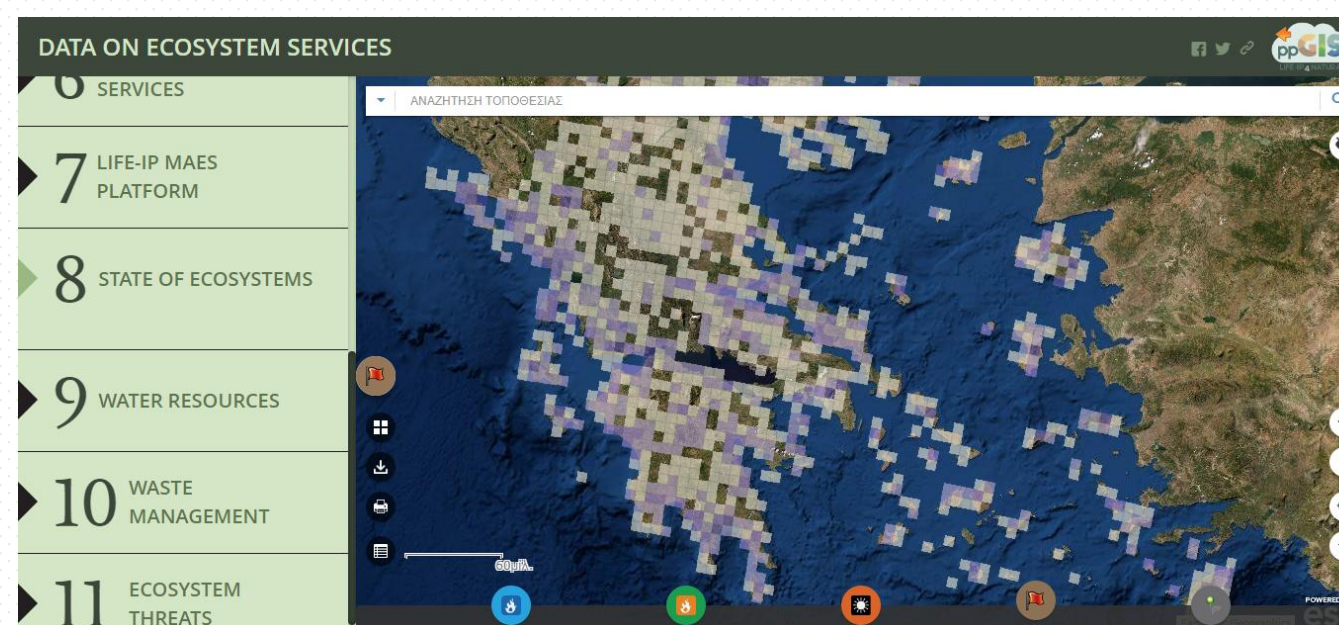
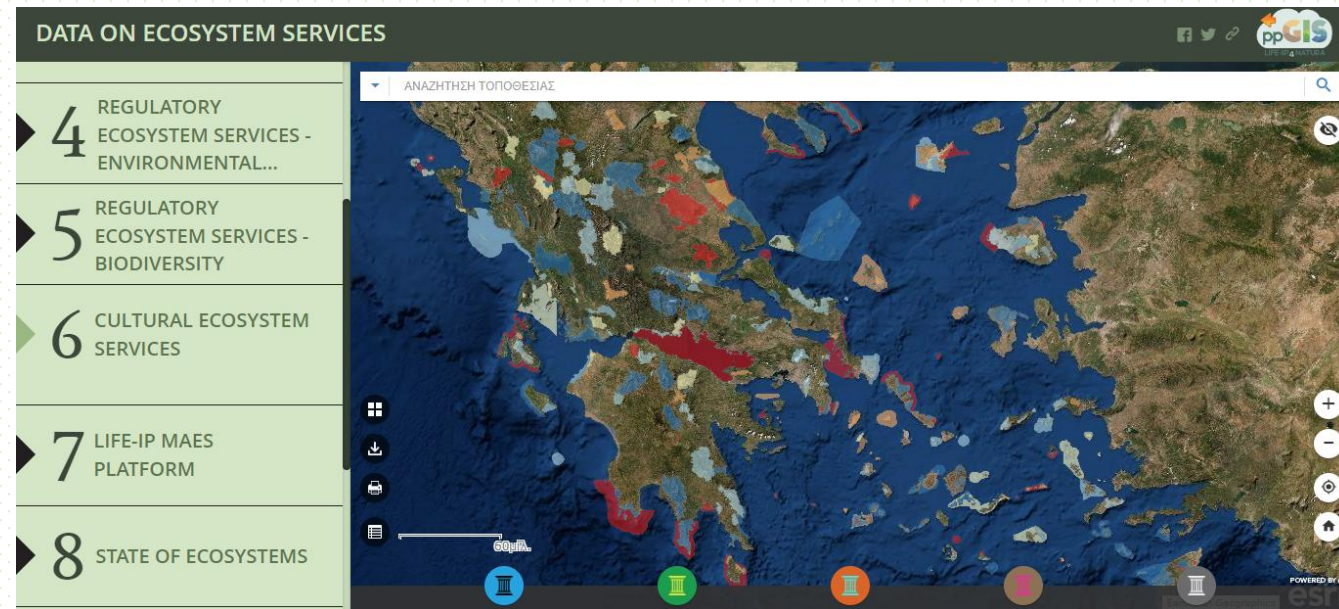
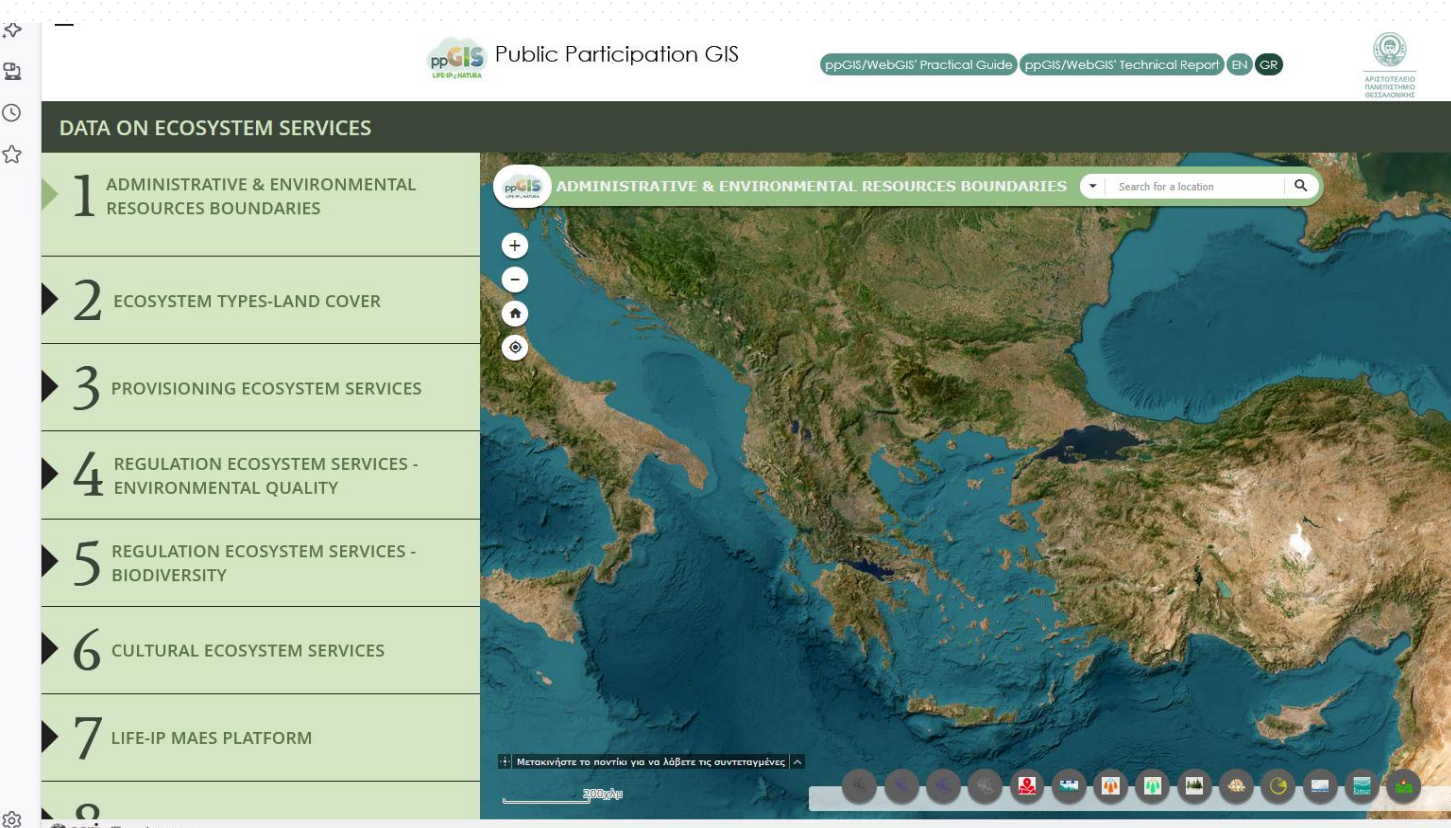
System Architecture Content Management System (ppGIS Web platform)

The development of the webGIS system, as well as the participatory tools and platforms for the creation of the ppGIS/webGIS LIFE-IP 4 NATURA, was based on a multi-stage and multi-technology development process, designed to address the needs of the system's users.

- Main Geodatabase Infrastructure
 - Spatial Data Management
 - Raster
 - Vector
 - DB tools to support functionalities
 - Statistics – Data production
- GIS Server Infrastructure
 - Serve data and Services for the ppGIS Users
- ArcGIS Portal Infrastructure
 - Web GIS Apps for:
 - Data representation
 - Data Query
 - Data Extraction
 - Infrastructure for Data Collection and Analysis
 - Mobile App
 - Web Forms
 - Collection Data analysis
 - Wiki Infrastructure
 - Web Site CMS to disseminate the tools and Results



The data are presented in the form of either narrative maps for the country's National Parks, or in individual web-applications (such as dashboards) where information on various ecosystem service indicators is presented in combination.

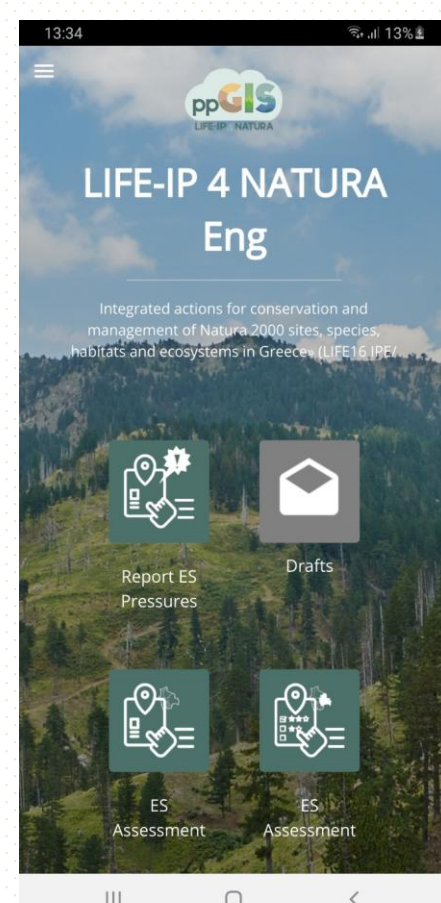


Web & Mobile Applications

In order to support public participation for the protection of ES and to increase awareness and the participation of citizens in the protection of Greece's natural capital, the following Mobile and Web Apps were developed.

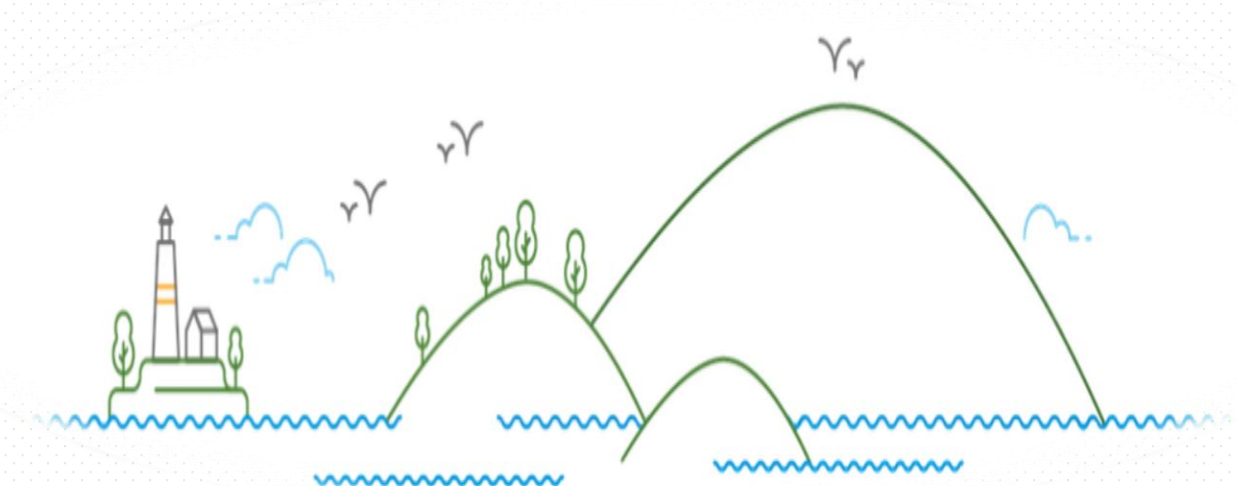
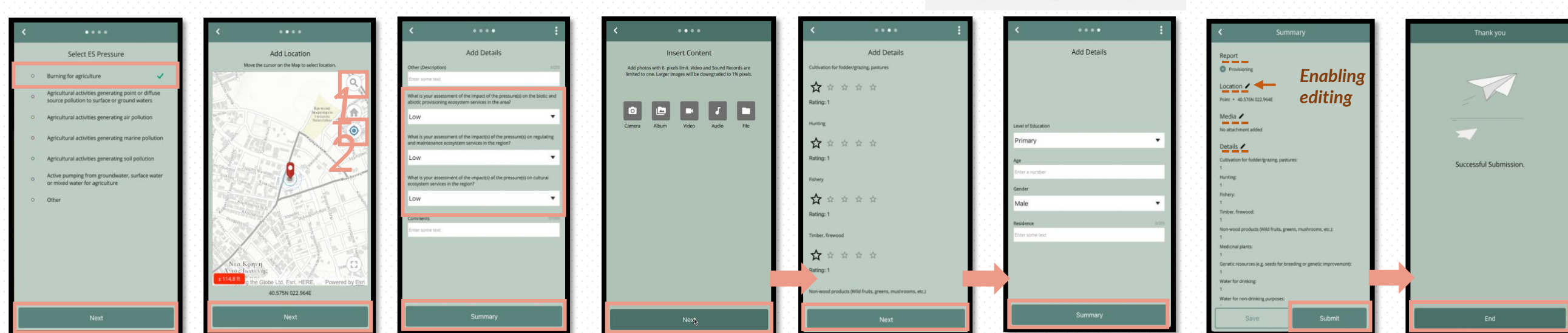


Mobile Apps provide direct access to information and tools to collect data and help users understand LIFE -IP 4 NATURA data.



The ppGIS/ webGIS platform is hosted in the National Environment and Climate Change Agency (NECCA) premises, since it holds the legal competence to implement the environmental policy set by the Ministry of Environment and Energy for the management of protected areas in Greece (including the Greek Natura 2000 Network). Moreover, NECCA provides opinion on the Natura 2000 appropriate assessment process carried out for projects or plans which may have significant adverse effects on the integrity of the Natura 2000 sites and their conservation objectives.

<https://gis-natura.gr/en/collaboration>



www.edozoume.gr