

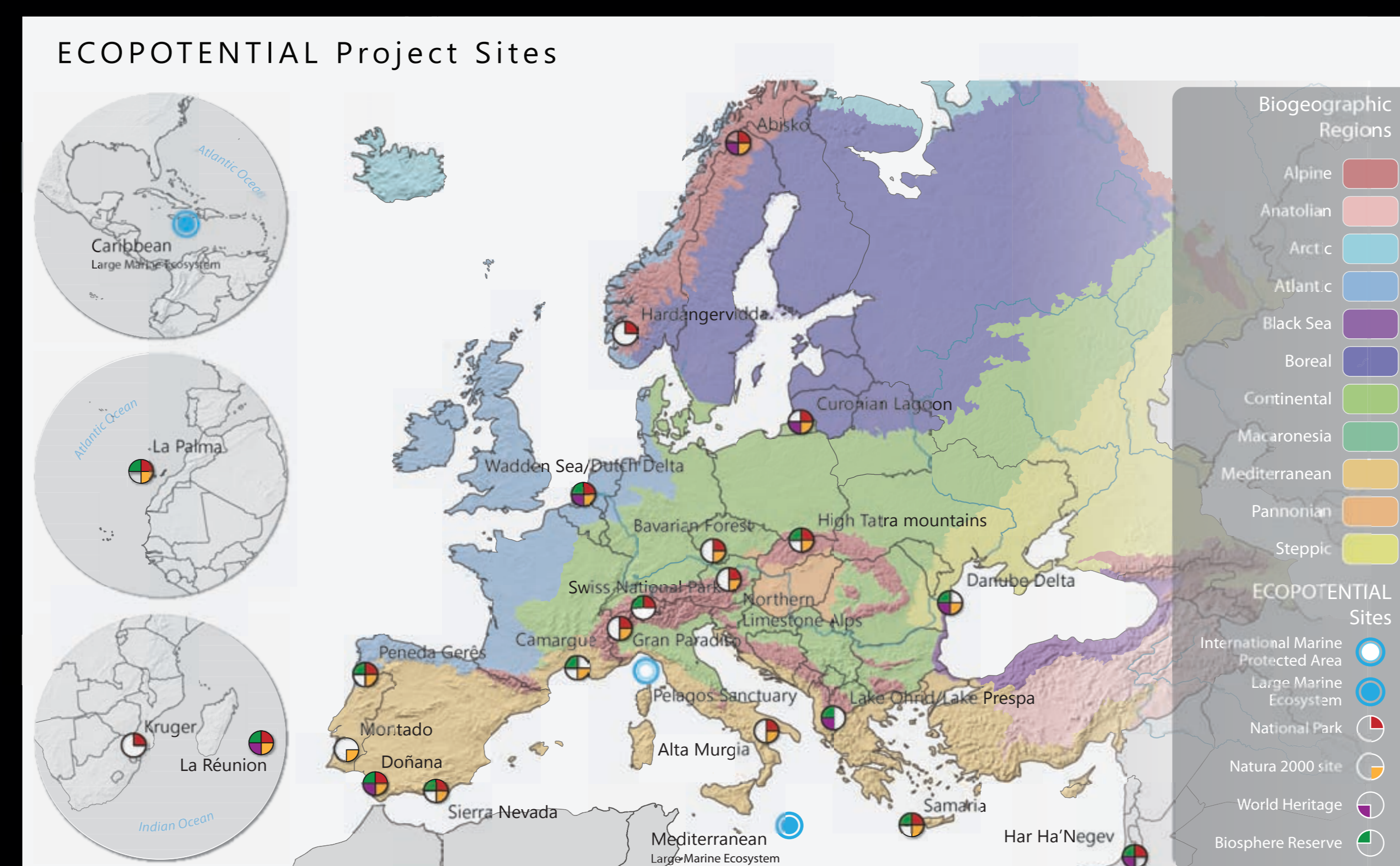


Lagoon landscape in the Camargue, France.

ECOPOTENTIAL in a nutshell

Terrestrial and marine ecosystems provide human societies with essential goods and services. However, in the last decades, anthropogenic pressures have altered many ecosystem functions that are essential for human wellbeing as well as climate regulation at local and regional scales. To improve ecosystem benefits, knowledge-based conservation, management and restoration policies are urgently needed. Fundamental to this goal is the effective monitoring of the state and trends of ecosystems. From the Sputnik to the European Sentinels, passing through the iconic Earthrise image of Apollo 8 taken fifty years ago, our ability to monitor and observe the planet from space has dramatically increased, leading to the possibility of detecting the health state and ongoing changes of environments and ecosystems at local to global level.

ECOPOTENTIAL, a large European H2020 project, develops its pilot actions in a set of internationally recognized protected areas in Europe and beyond, spanning all biogeographical regions of Europe and focusing on mountain, arid and semi-arid,



and coastal and marine ecosystems. The project delivers Earth Observation products to monitor, understand and predict changes in ecosystems and ecosystem services, supporting knowledge-

based management and conservation of protected areas. The project focuses on both changes at the continental level, as well as on specific conservation challenges linking research to real-

life issues in each of the project's protected areas. This exhibition provides examples of the way satellite observations, field data and conceptual approaches are combined to address some of the most pressing issues affecting the natural ecosystems in the project's protected areas together with stakeholders and decision-makers.

ECOPOTENTIAL's conceptual view is that ecosystems are "one physical system" with their environment, and they are characterized by strong interactions across multiple space and time scales. ECOPOTENTIAL has strong links with many other international programmes, such as the GEO Global Ecosystem Initiative (GEO ECO), the European Long-Term Ecological Research Network (eLTER), GEO BON and the European LifeWatch Infrastructure. All data, model results and knowledge will be available on common and open platforms, contributing to the Global Earth Observation System of Systems (GEOSS). In this way, ECOPOTENTIAL will benefit different communities, scientists, protected area managers and citizens.

Bird's eye view of the Trebecchi Lakes – Gran Paradiso National Park, Italy.



Scrub vegetation grows in HaMakhtesh HaKatan (The Small Crater) in Negev Desert, Israel.



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