

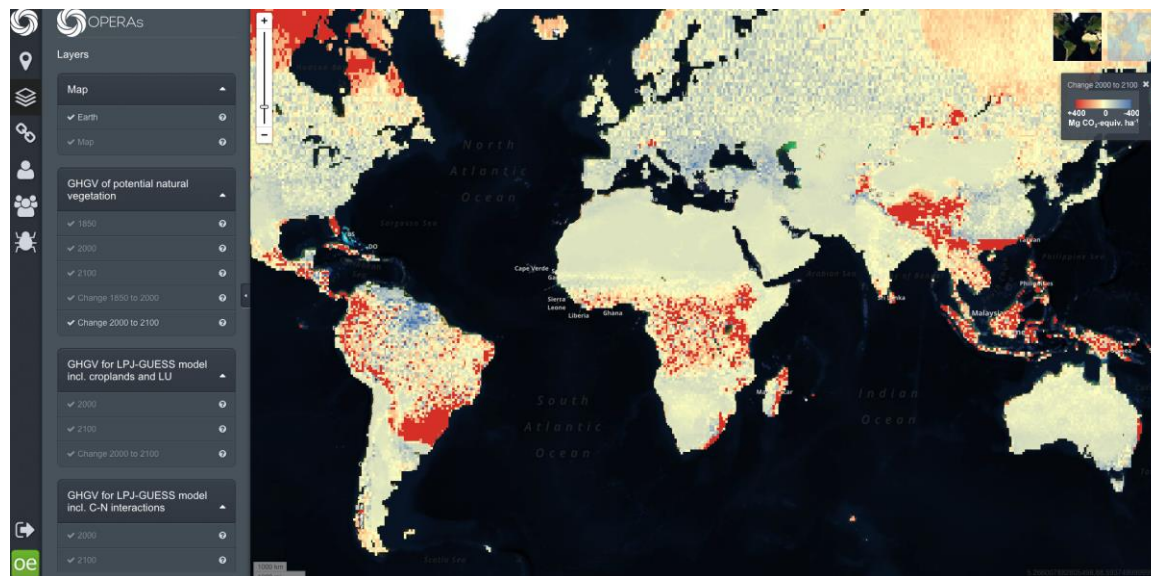
**Ecometrica Mapping: a web-based tool for sharing and analysing complex spatial research outcomes in support of sustainable ecosystem management.**



## OPERAs WP4: facilitate the uptake and use of the ES approach

→ How can the Ecometrica Mapping tool be used in the context of ES and NC?

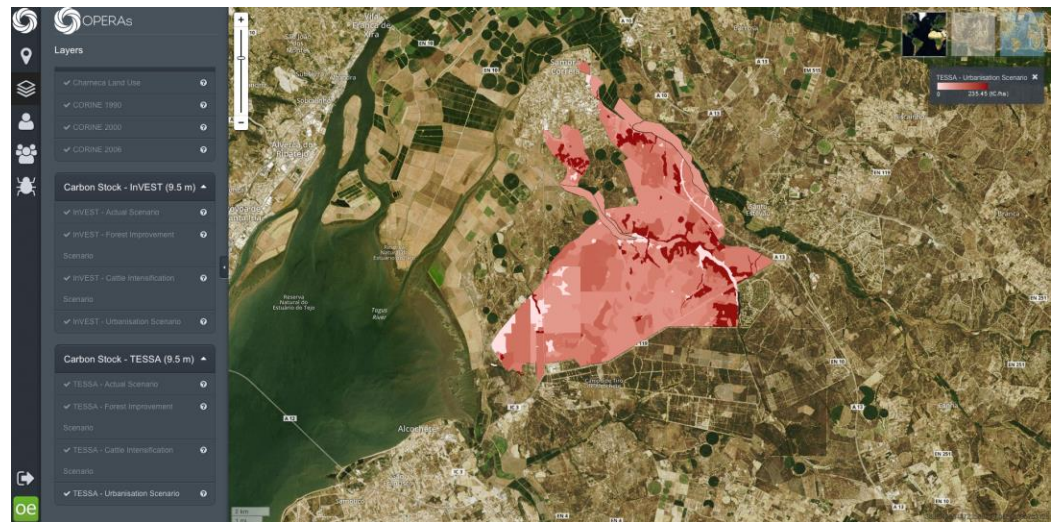
• Global data



## OPERAs WP4: facilitate the uptake and use of the ES approach

→ How can the Ecometrica Mapping tool be used in the context of ES and NC?

• Compare models outputs



## OPERAs WP4: facilitate the uptake and use of the ES approach

→ How can the Ecometrica Mapping tool be used in the context of ES and NC?

• Assess risk and ES



# What is the Ecometrica Mapping tool?

- Web-based mapping platform
- Accessing, sharing, organising and querying spatial data
- Allows effective collaboration with stakeholders in industry, public agencies and other institutions



# Carbon sequestration from a GHGV perspective

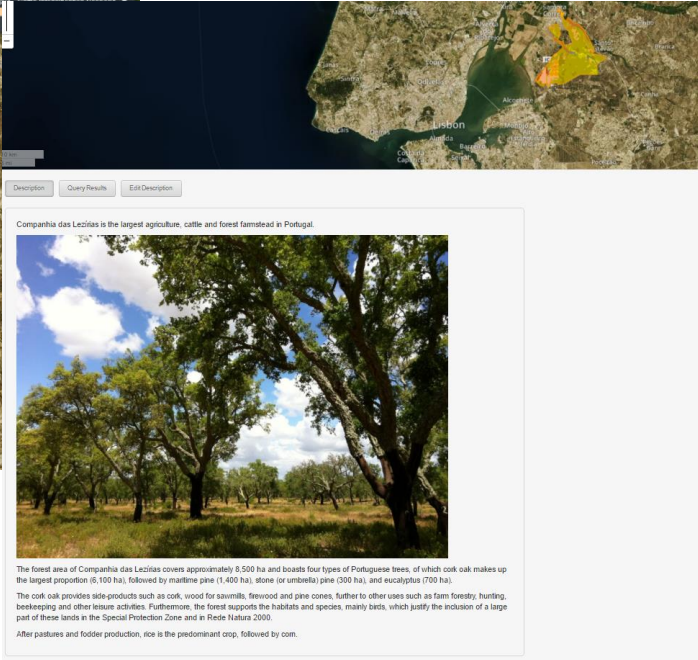
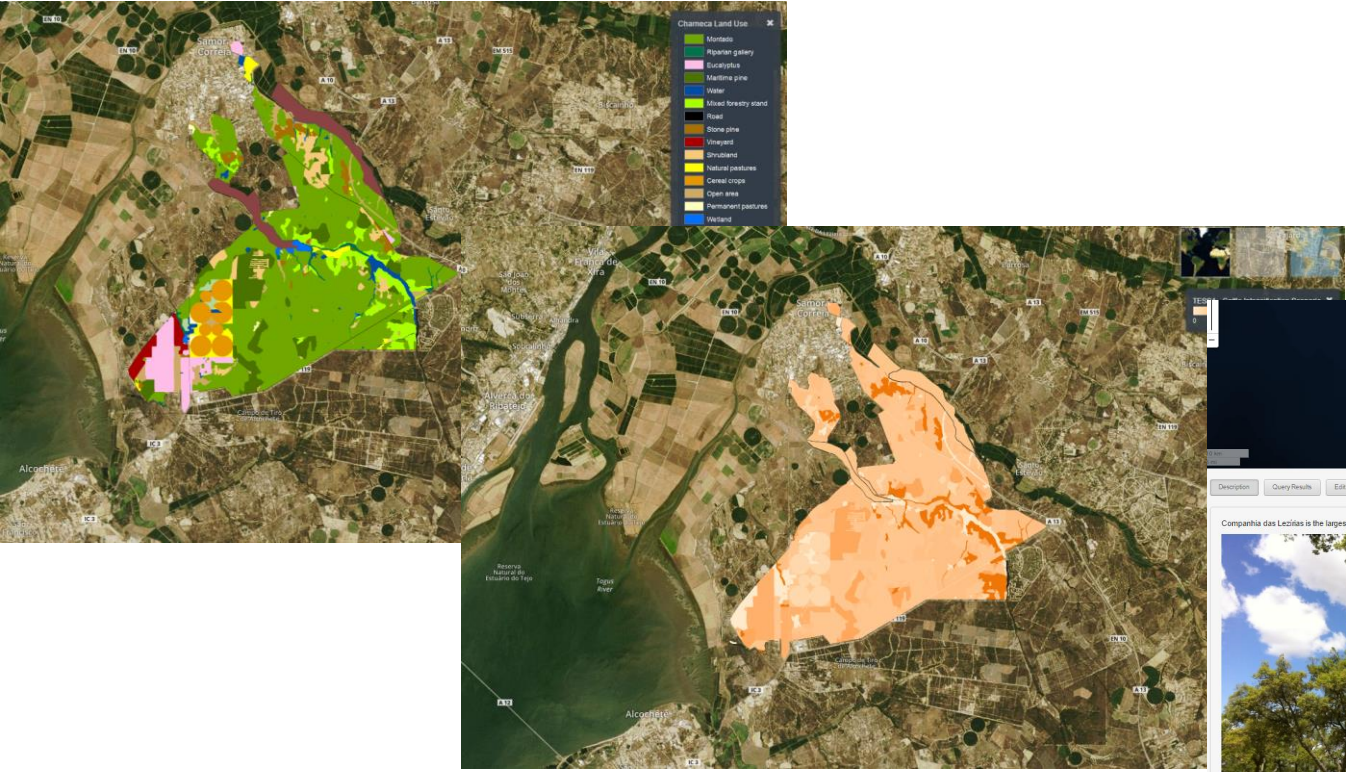


The screenshot displays the OPERAS web application interface. On the left, a 'Layers' panel lists various data layers, including 'GHGV of potential natural vegetation' for years 1850, 2000, and 2100, and 'GHGV for LPJ-GUESS model' for croplands, LU, and C-N interactions. The main map shows a world map with a color-coded overlay representing carbon sequestration, with a legend indicating values from 0 to 1500 Mg CO<sub>2</sub>-equiv. ha<sup>-1</sup>. On the right, a 'Details' panel shows the selected area's statistics: AREA (1 822 947 480 ha) and PERIMETER (26 341 899 m). Below this, a bar chart titled '% Coverage of major biomes, per year' shows the percentage coverage of six major land biomes (Tropical forest, Temperate forest, Boreal forest, Tropical savanna, Temperate shrub/woodland, and Temperate grassland) for the years 1850, 2000, and 2100. At the bottom, a table titled '1a. Potential Natural Vegetation (PNV), Ave GHGV' shows the average GHGV (Mg CO<sub>2</sub>-equiv/ha) for the selected area as modeled for 1850, 2000, 2100, and the change from 1850 to 2000.

[operas-ghgv.ourecosystem.com](http://operas-ghgv.ourecosystem.com)


Year	Average GHGV (Mg CO <sub>2</sub> -equiv/ha)
1850	476
2000	543
2100	695
Change 1850 to 2000	67

# Montado, compare InVEST and TESSA carbon models



Description Query Results Edit Description

Compañhia das Lezírias is the largest agriculture, cattle and forest farmland in Portugal.



The forest area of Compañhia das Lezírias covers approximately 8,200 ha and boasts four types of Portuguese trees, of which cork oak makes up the largest proportion (6,100 ha), followed by maritime pine (1,400 ha), stone (or umbrella) pine (300 ha), and eucalyptus (700 ha). The cork oak provides side-products such as cork, wood for sawmills, firewood and pine cones, further to other uses such as farm forestry, hunting, beekeeping and other leisure activities. Furthermore, the forest supports the habitats and species, mainly birds, which justify the inclusion of a large part of these lands in the Special Protection Zone and in Rede Natura 2000. After pastures and fodder production, rice is the predominant crop, followed by corn.

[operas-montado.ourecosystem.com](https://operas-montado.ourecosystem.com)

# ES provided by *Posidonia oceanica* at risk in the Balearic Islands



### Seagrass Distribution


Seagrass Meadows	Area [ha]	Area [km2]	Coverage [%]
● <i>Posidonia oceanica</i>	5 582	56	22

#add description for dataset #

### Posidonia oceanica at risk

Posidonia oceanica - Risk

Under anchoring (unregulated) risk



Under no pressure

Risk	Area [ha]	Coverage [%]
● Under no pressure	5 501	21
● Under anchoring (unregulated) risk	80	0.31

### Ecosystem Services

Total Estimate of Ecosystem Service

Seagrass Meadows	Total Ecosystem Service			
	CO2 sequestration rate (Mg CO2/year)	Organic C stored in the top 30cm of sediments (Mg C)	Fisheries production (kg of catch/year) *	Total N sequestration rate (Mg N/year)
● <i>Posidonia oceanica</i>	5 199	33 281	15 384	104

\* Fisheries production: this value is a conservative estimate as it is adjusted using a Seagrass Residency Index to account for the time each species spends in seagrass meadows throughout their life cycle.

[source?]

[operas-balearicislands.ourecosystem.com](http://operas-balearicislands.ourecosystem.com)



# Ecometrica Mapping tool - specificities

- Tool applicable at various geographical scale – **from local to global** scale
- The mapping tool incorporates **spatial** qualitative and quantitative **data** – along with guidance on how users can interpret the results presented
- Users can be academics, NGOs, local authorities, government bodies, private sector ...
- Helps **Non-GIS** users to interact with spatial data

# Thank you!



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## Ecometrica Platform

**GET**

**Layers**

- Map
- Carbon Density Change
- Deforestation/Degradation Risk
- Landul 30m (2013)
- Deforestation Risk Model - Gorongosa, Mozambique

**Scale:**  
Global

**License:**  
Commercial

**Development stage:**  
Full, working product

**Publication date:**  
1 August 2016

**Primary language:**  
English

**Other languages:**  
French, Portuguese, Spanish, Swedish

**Professional indemnity:**  
None

The Ecometrica Platform brings together sustainability, environment, risk and business management with geospatial intelligence and mapping applications to allow businesses, governments and organisations to make smarter decisions and build long-term value. The Platform is arranged into four module suites: Sustainability, Mapping, Reporting, and Advanced. All our software modules are fully integrated.