The ESA Ulysses project and the exploitation in the Mediterranean area of Soil Sealing products and indicators

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The Ulysses project (ESA Mediterranean initiative) is led by Planetek Italia and with CLS and ISPRA, is producing soil sealing products for the coastline of the Mediterranean Sea, exploiting the large volume of EO data made available by Copernicus. The project aims at embedding EO-derived information into the strategies and cooperation actions by:

- Assessing the soil sealing - annual time series from 2018 to 2022
- Delivering the products together with a web exploitation tools
- Involving directly and actively authoritative end users

The project has been implemented in two subsequent phases: the first phase ended in December 2022, with the delivery of the soil sealing map for 2020.

The second phase started in 2023 and ended in 2024, with the delivery of the complete time series from 2018 to 2022.

In 2024 started the demonstration to some potential users involved since the project began and the promotion to a large audience during workshops.
• Availability as time series from 2018 to 2022
• Production over a buffer of 20 km inland of the Mediterranean Sea coastline
• 10-meters resolution
• Processing exploiting Machine Learning algorithms
• Deployed on the CreoDIAS, thanks to the NoR
ULYSSES: Soil Sealing Assessment and Monitoring Project
A Mediterranean Regional Initiative by ESA

The project Mediterranean Soil Sealing, promoted by ESA - European Space Agency aims at providing actionable information related to soil sealing presence and extent over the Mediterranean coastal areas by exploiting EO data.

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