



Horizon 2020

H2020 LC-SPACE-04-EO-2019-2020

Copernicus Evolution – Research for harmonised and Transitional-water Observation (CERTO)

Project Number: 870349

Deliverable No: D5.3		Work Package: 5	
Date:	4-FEB-2021	Contract delivery due date	30-SEP-2022
Title:	Update of the prototype and documentation		
Lead Partner for Deliverable	HYGEOS		
Author(s):	François Steinmetz, Didier Ramon, HYGEOS		
Dissemination level (PU=public, RE=restricted, CO=confidential)			PU
Report Status (DR = Draft, FI = FINAL)			DR

Acknowledgements

This project has received funding from the European Union's Horizon 2020 research and innovation programme grant agreement N° 870349



1 Update of the prototype and documentation

The Polymer atmospheric correction software has been updated to version v4.15 to include the developments carried out in WP5:

- Update of the water reflectance model to improve the adequacy to highly turbid waters
- Modifications to improve the stability and performance of the algorithm over complex waters
- Addition of an option to correct for vegetation adjacency
- Addition of an uncertainty propagation scheme for OLCI and MSI

These modifications are detailed in D5.4 and their activation is described in the [changelog](#) included with the software.

The code is publicly available on Hygeos forum after free registration:

<https://forum.hygeos.com/viewtopic.php?f=5&t=200>

This page can also be accessed from <http://www.hygeos.com/polymer>.

2 Reasons for delay in submission

The work on the development and optimization of the atmospheric correction prototype has relied on the use of the in-situ data provided by WP3. Because of the delays to WP3 due to the COVID-19 pandemic, the development was initiated with the data available from the 2021 campaigns; however, these data were insufficient to give conclusive results on the analysis of the atmospheric correction performances, thus on the final prototype. Therefore, this analysis has been delayed by 4 months to use the in-situ campaign data from 2022, and the historical data, which allowed to significantly improve the quality of the analysis and consolidate the prototype.