



BLUE DRONES
24/10/2019
ANTWERP, BE



Airborne drones in
support of dredging

London Gateway



Scheldt river



London Gateway



Panama Canal

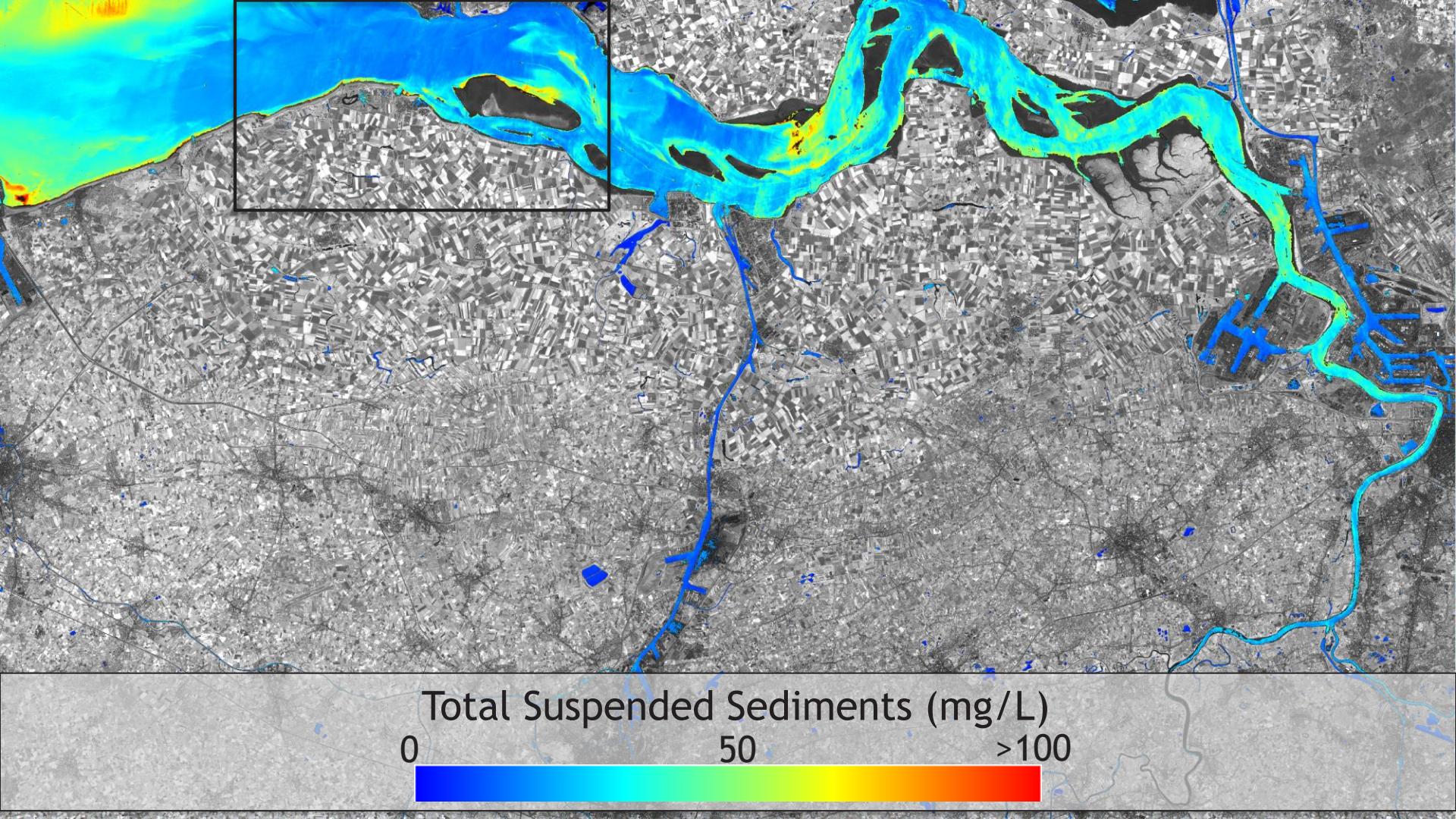


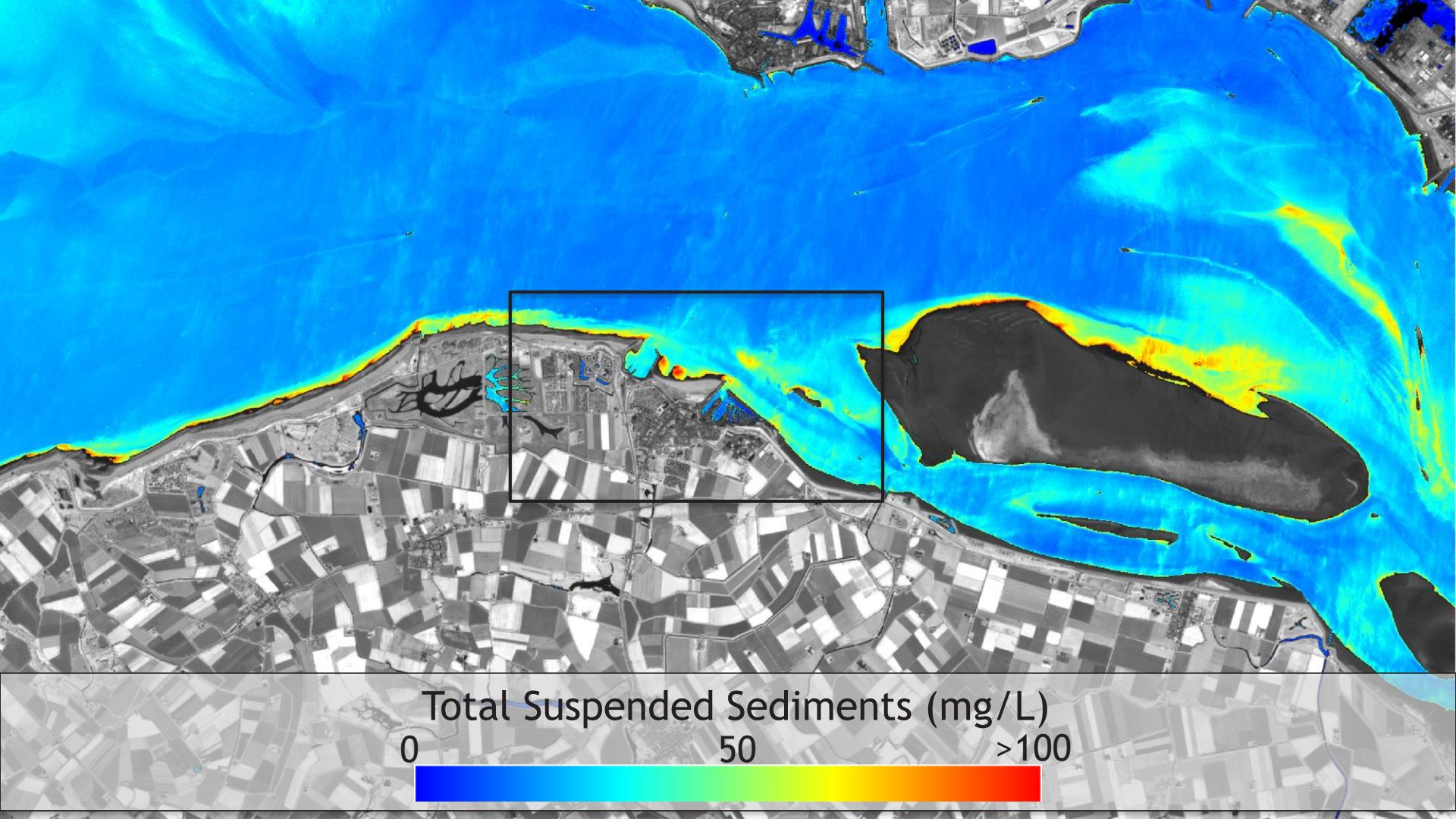
Maasvlakte

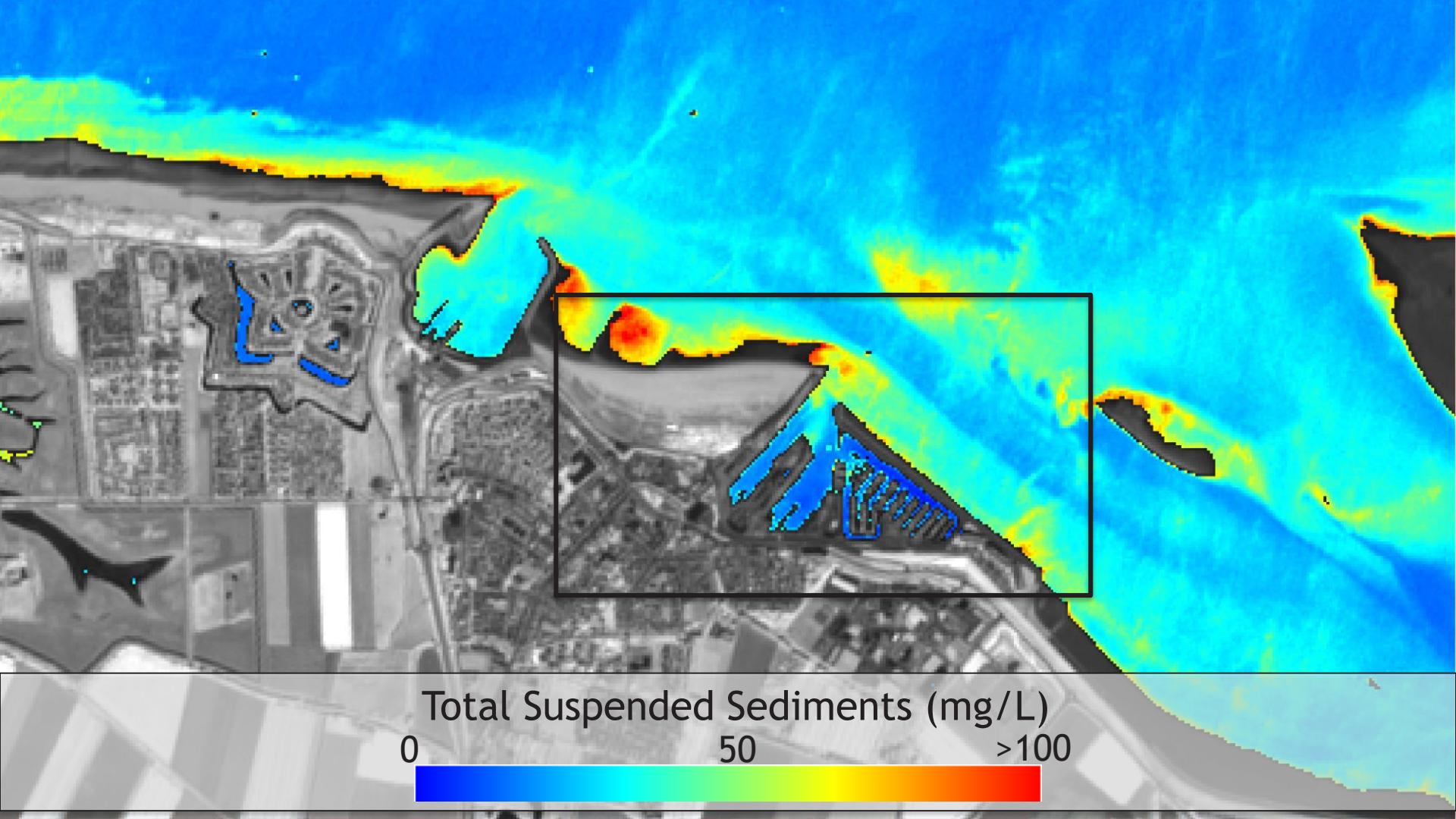


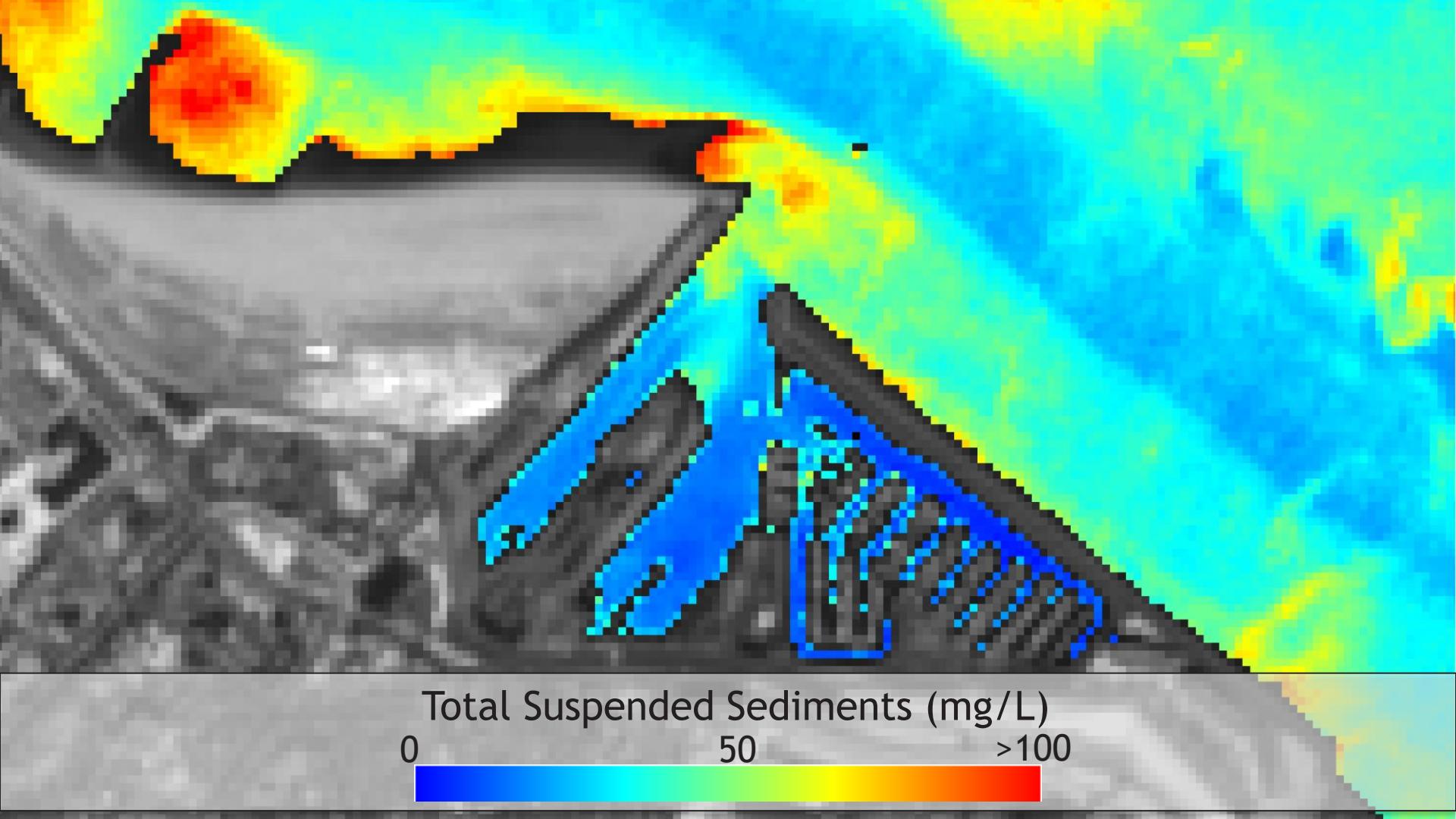


Sentinel-2 10/07/2016 10:55 UTC © Copernicus Sentinel data







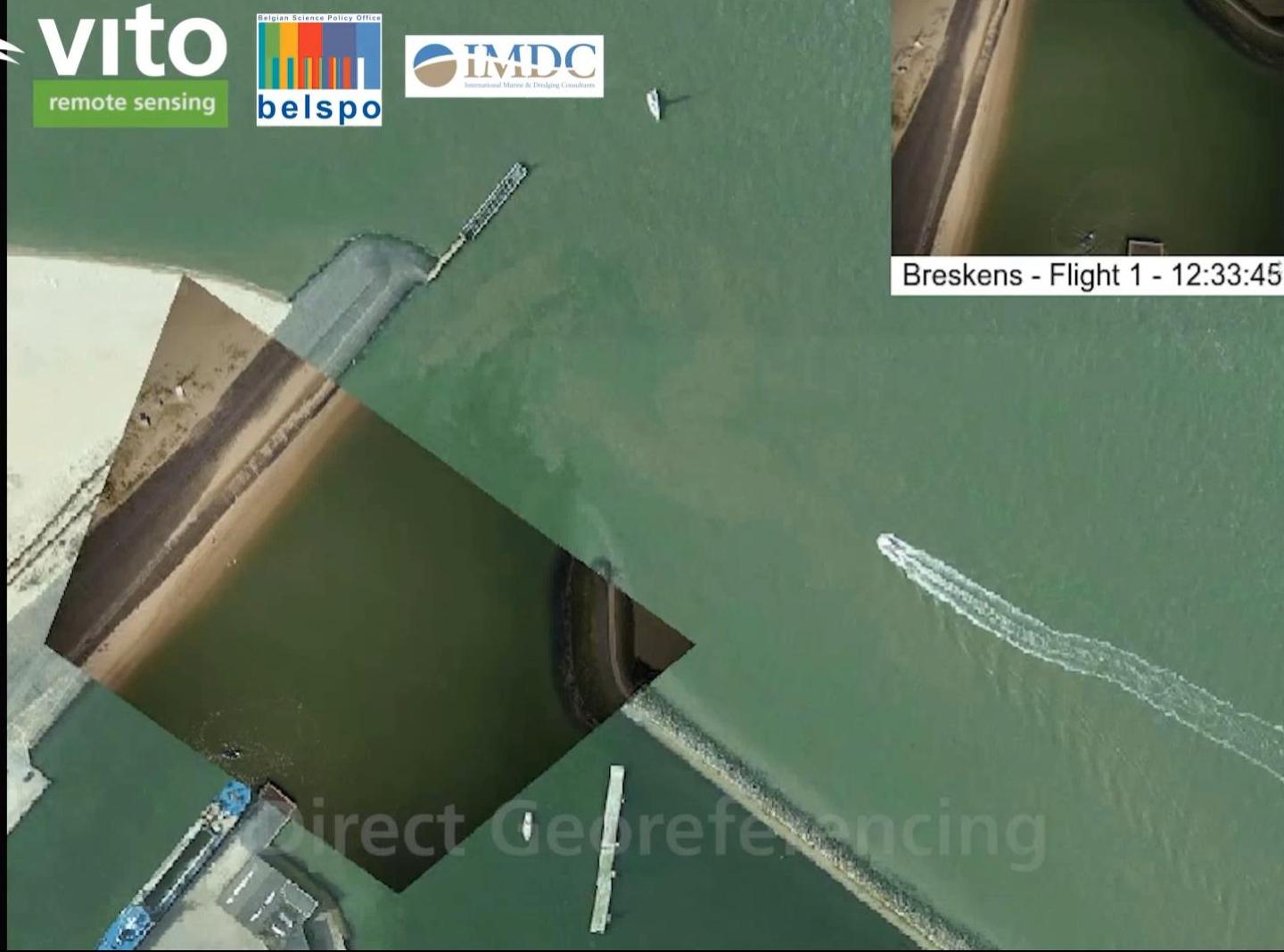


Flight 1
Start 10:45
End 11:00





vito
remote sensing



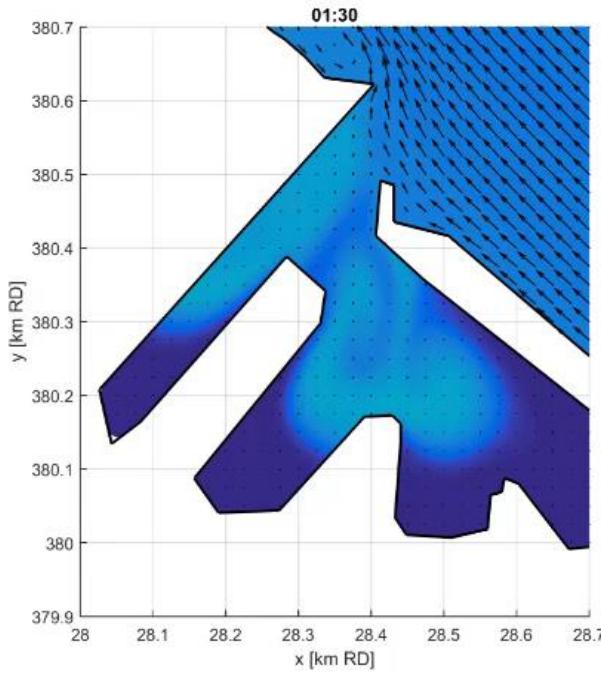
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Modelling



Harbour of Breskens

- Sediment dynamics caused by tides
- Simulation based on
 - Tidal flow model
 - Sediment transport model

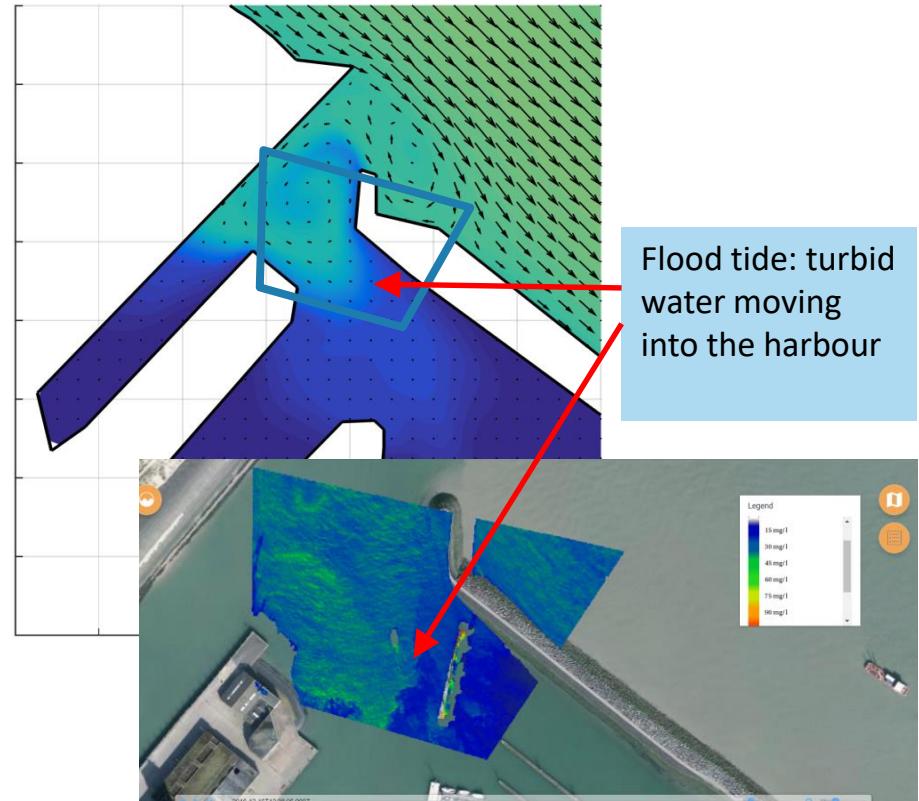


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Modelling

Harbour of Breskens

- Sediment dynamics caused by tides
- Simulation based on
 - Tidal flow model
 - Sediment transport model
- Drone data
 - Spatial patterns of sediment cloud
 - Calibration/validation of model





04/08/2018



13/09/2018



13/10/2018



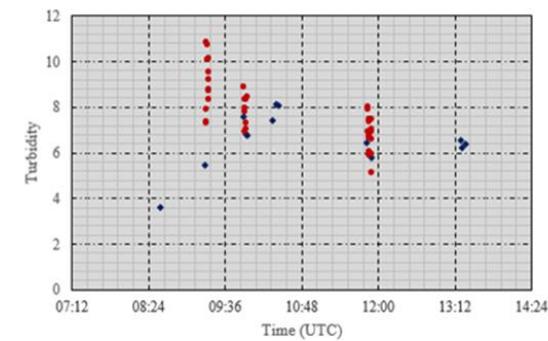
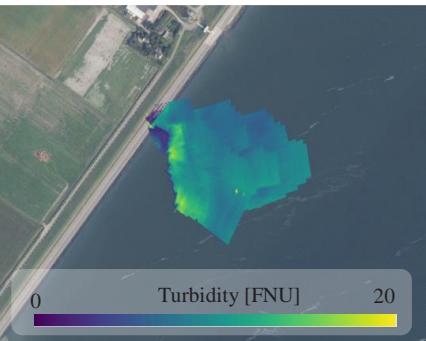
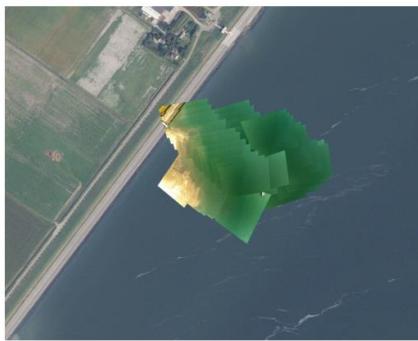
28/10/2018



17/11/2018



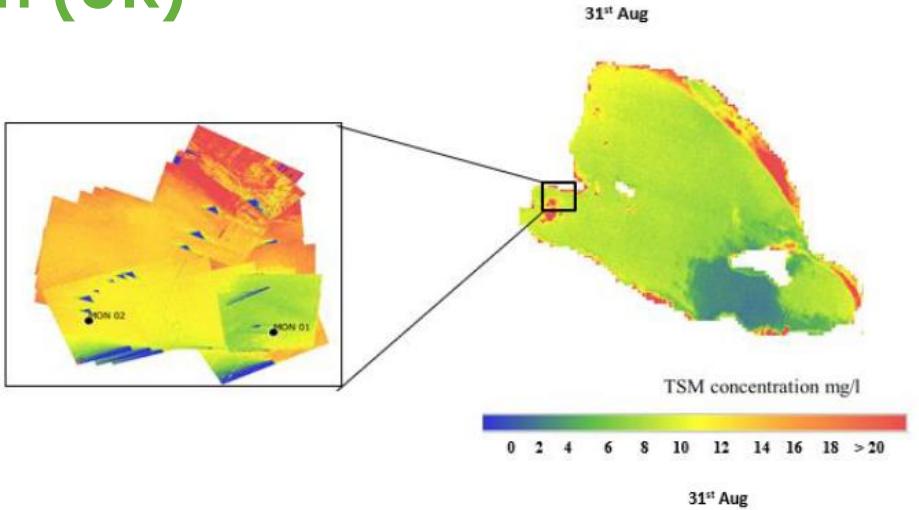
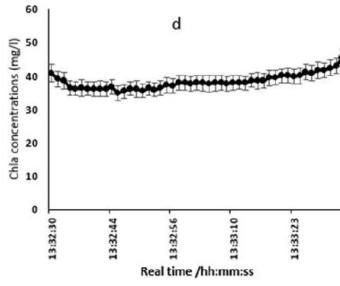
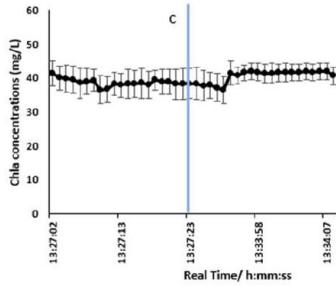
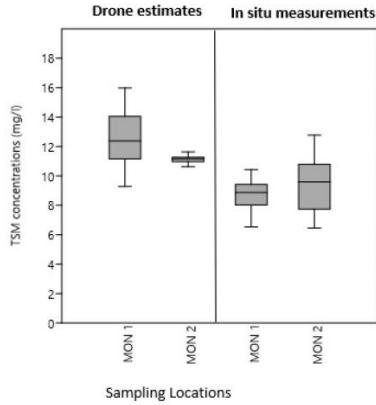
Case Study Texel (NL)





Case Study Loch Leven (UK)

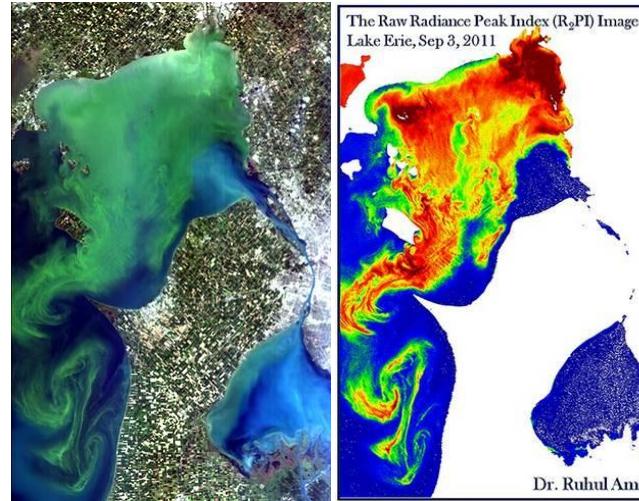
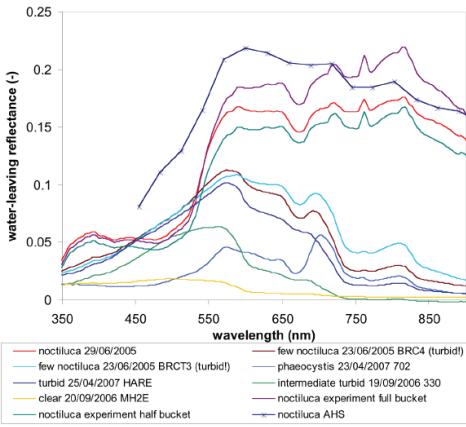
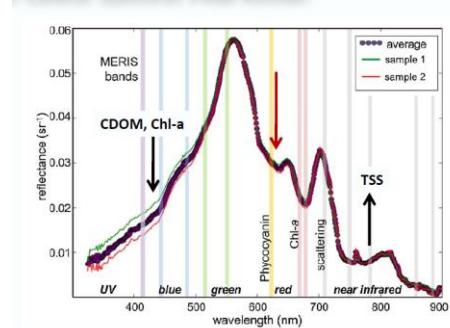
Nansumbi (2019)
Thesis





Harmfull Algae Blooms

Cyanobacteria Bloom



Hyperspectral Imager for the Coastal Ocean (HICO) data to identify algal bloom characteristics, this one detailing a massive Microcystis bloom in western Lake Erie, Sept. 3, 2011.

Red Tides



A “red tide bloom” of *Noctiluca scintillans* in New Zealand.
(Photo credit: M. Godfrey)

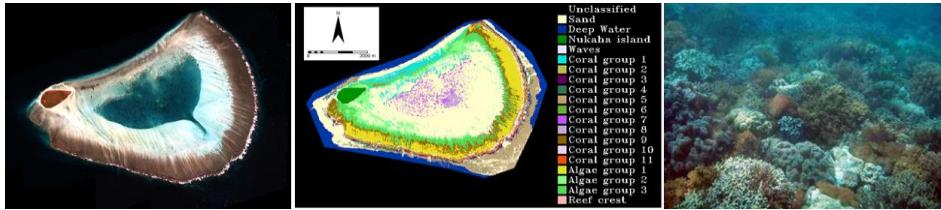


And more

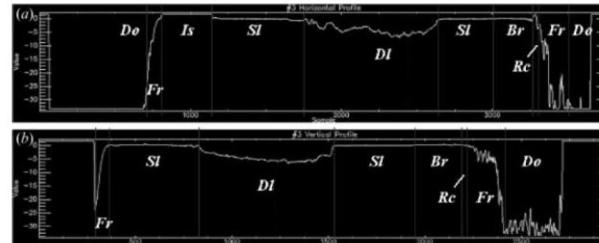
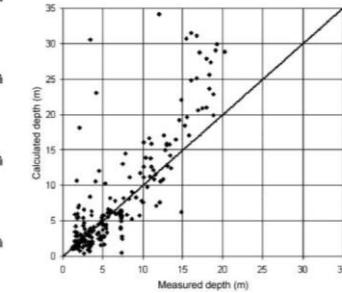
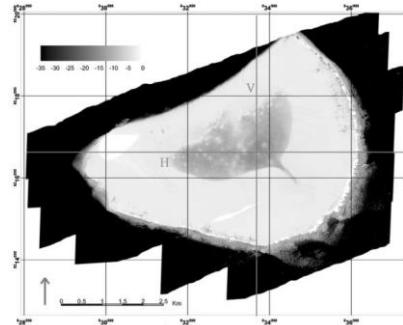
Detection of Marine Plastics



Waterbouwkundig
Laboratorium
 Vlaanderen
is wetenschap



Coral reefs & Bathymetry



Do : Deep ocean
Fr : Fore reef
Br : Back reef
Rc : Reef crest

Sl : Shallow lagoon
DI : Deep lagoon
Is : Island



Field Campaigns

Texel
25/10/2018



Loch Leven
20-24/08/2018

Lake Balaton
1-5/07/2019



Molse meren
05/2018



Field Campaigns

Texel
25/10/2018



Lake Balaton
1-5/07/2019



Loch Leven
20-24/08/2018



Breskens
02/2020



Molse meren
05/2018

Danube Delta
09/2020









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www.monocle-h2020.eu



And by BELSPO - STEREO III under contract nr SR/67/311 (DRONESED)





THANK YOU

remotesensing.vito.be