

# PONDER

Exploiting very high resolution satellite imagery for  
coastal and inland water monitoring

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*Pléiades 2014-09-08*

*MOW1 tidal wake*



**PONDER**  
**SR/00/325**



*Pléiades 2014-09-08*

*MOW1 tidal wake*



**PONDER**  
**SR/00/325**



[www.deme-group.com](http://www.deme-group.com)

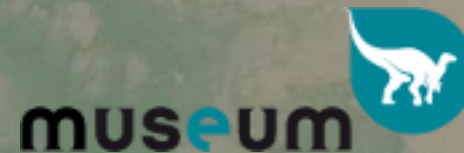


*Pléiades 2014-09-08*

*dredging ship*



**PONDER**  
**SR/00/325**

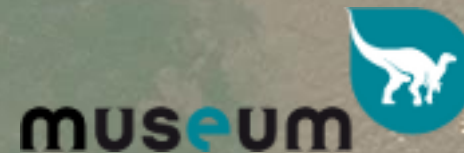


*Pléiades 2014-09-08*

*Zeebrugge harbour entrance*



**PONDER**  
**SR/00/325**



# Partners and Objectives

***Develop an atmospheric correction and open source processor for VHR satellites, and investigate aquatic monitoring capabilities of the Pléiades constellation.***



*atmospheric correction and processor, validation and VHR coastal applications*

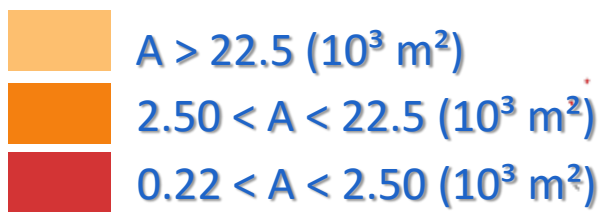
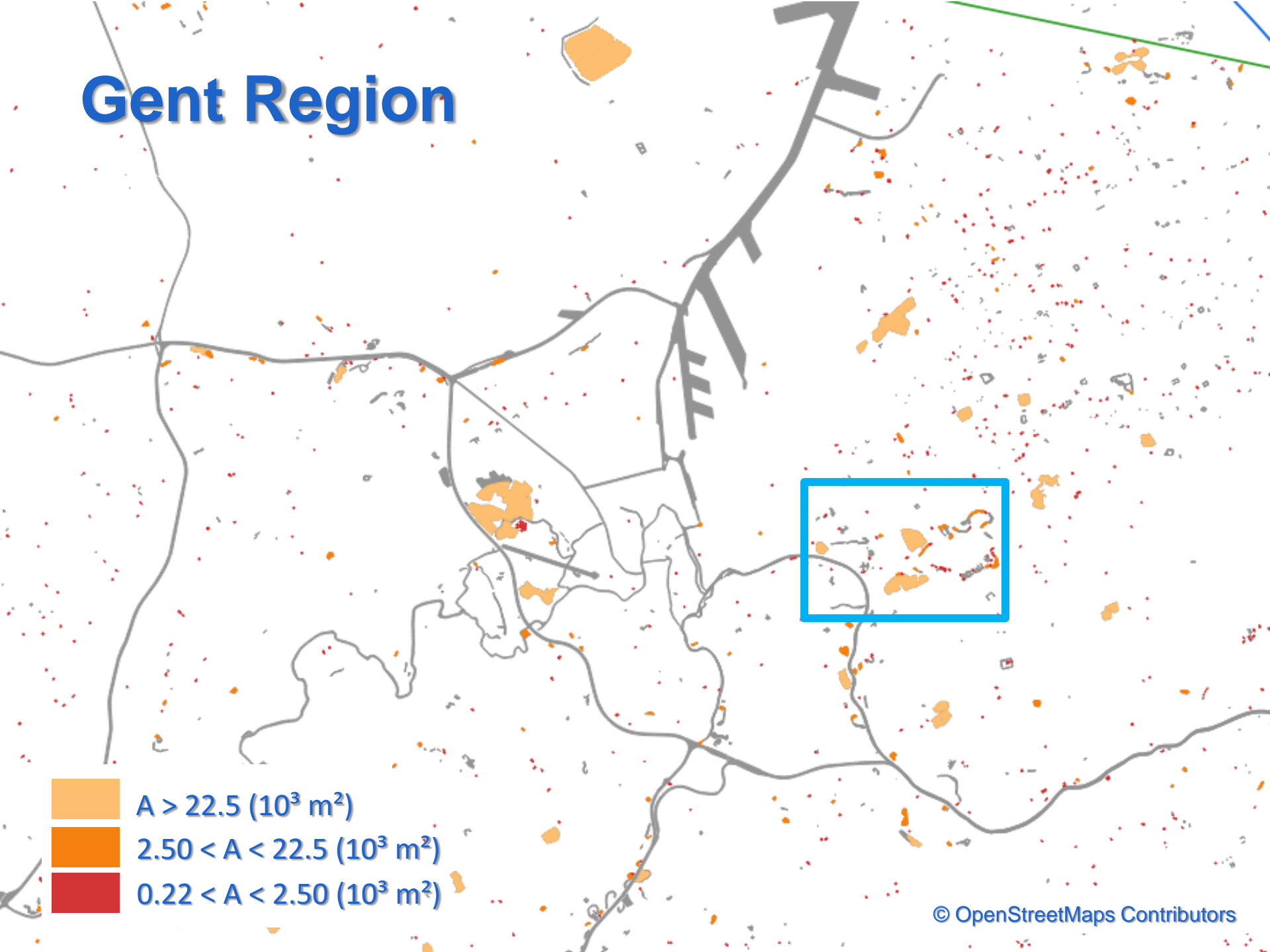


*opportunistic campaigns, validation and VHR coastal/river applications*



*inland water campaigns: planning and measurements, validation and VHR applications*

# Gent Region



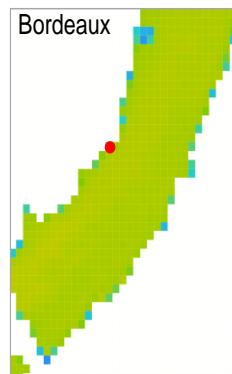
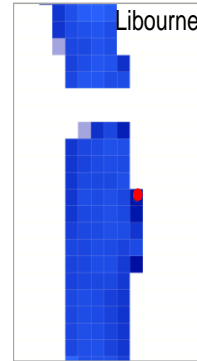
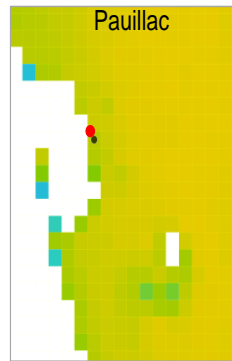
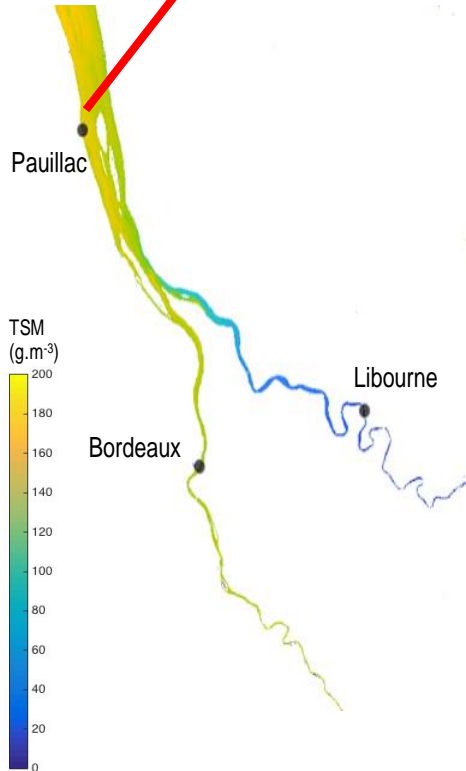
# Gent Region



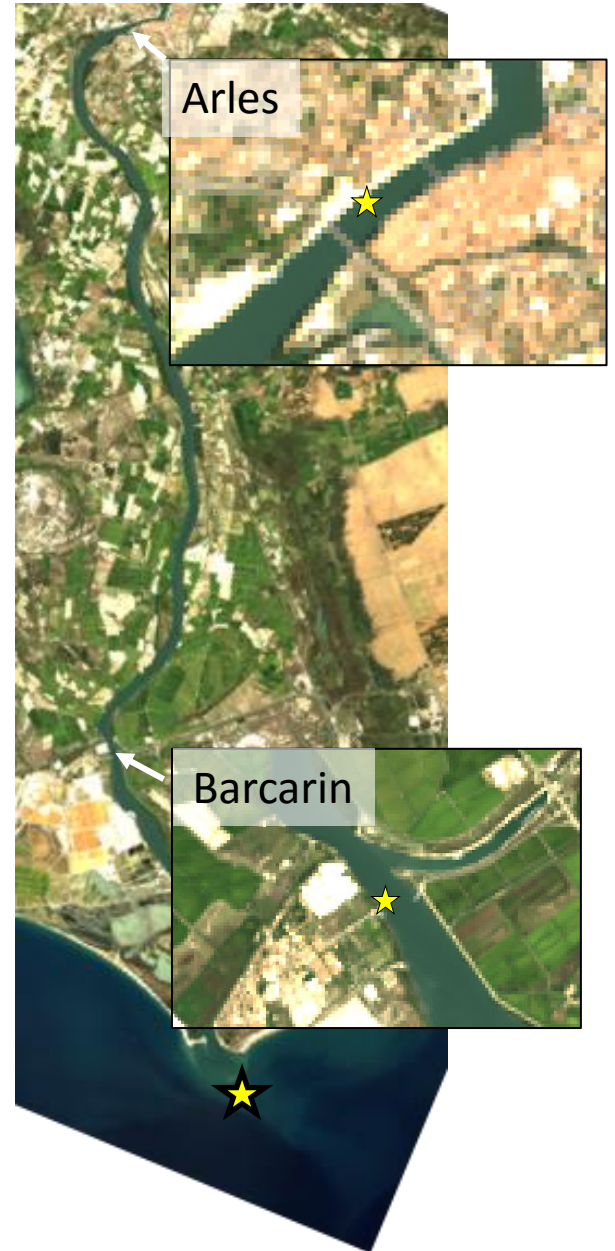
100 m

Pléiades 1B 2013/07/22  
source: Belgian Pléiades Archive

# Gironde



# Rhône



Arles

Barcarin

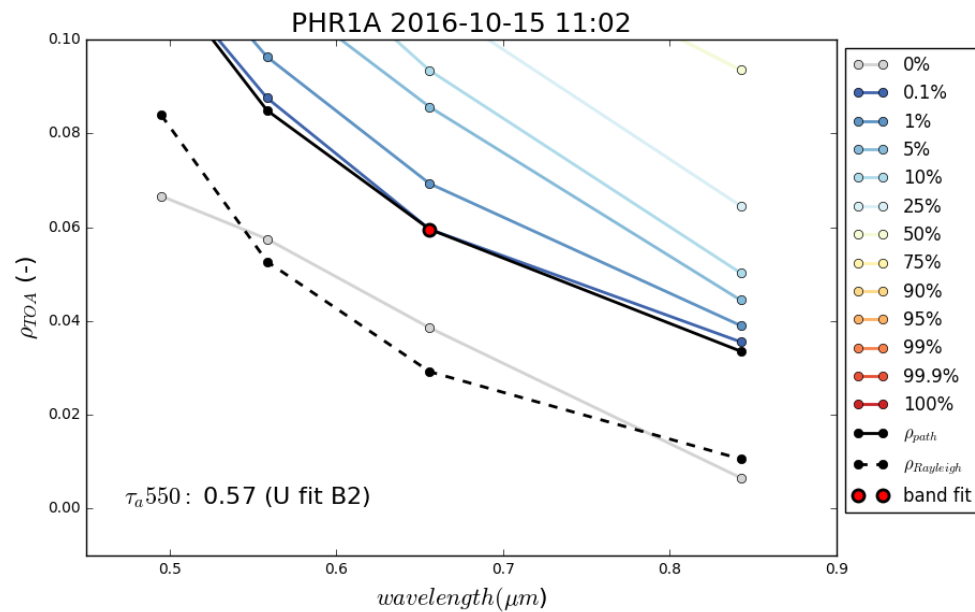
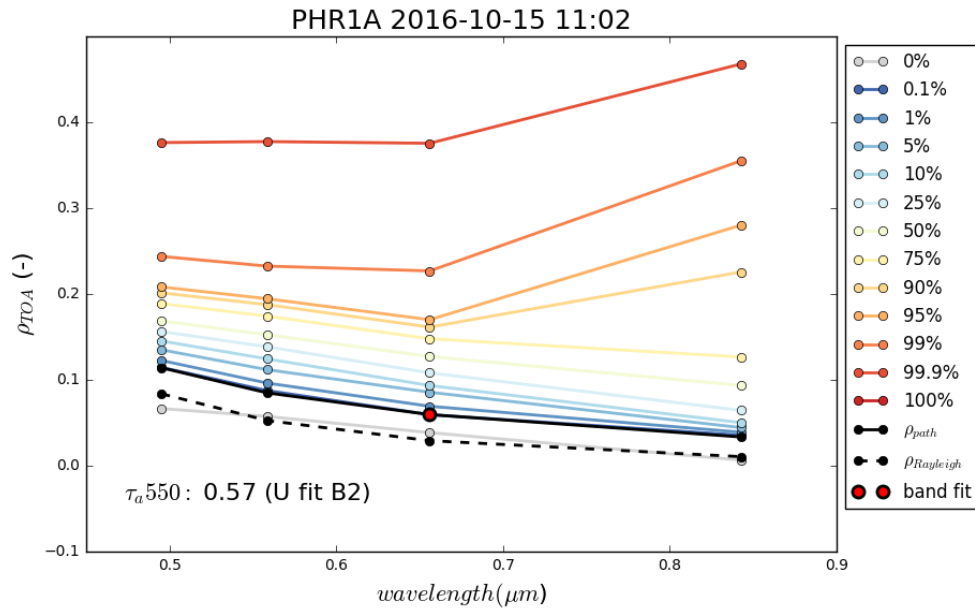


MOW1 A-OC



A-OC unfortunately parked  
due to weather ☺

RBINS/PONDER processing



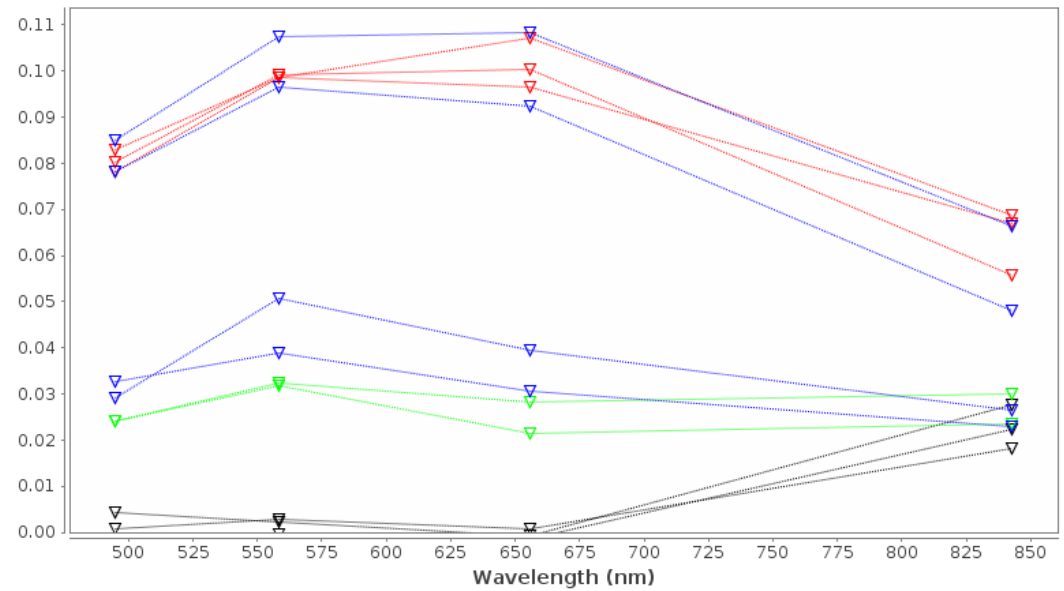
dark spectrum pixels  
 B,G,R: tree shadows  
 NIR: water

Zeebrugge

P1B 2016-11-16 11:06



Spectrum View



# Conclusions and Perspectives

Atmospheric correction and processor development well underway

- Processing BPA imagery for evaluation A/C
- Interest in Pléiades surface reflectance in BEL EO community?

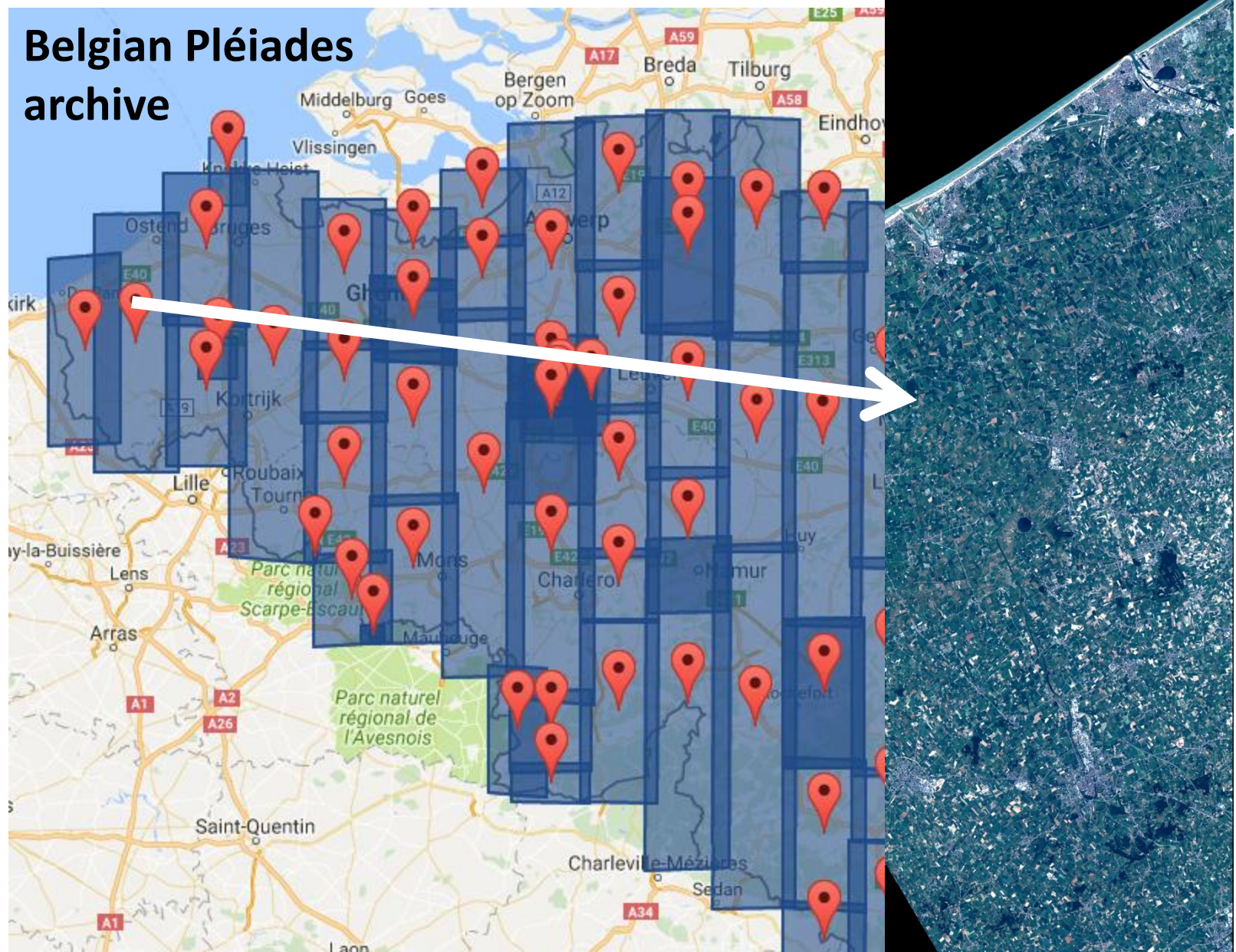
Intensive in situ campaigns in 2017

- Gent and Oostende
- Gironde/Rhone

Acquisition of validation imagery (60 in 2017-18)

- AERONET-OC station in Zeebrugge
- MAREL/MESURHO sites in Gironde/Rhone
- Gent/Oostende inland water bodies

# Belgian Pléiades archive



Interested in evaluating Pléiades surface reflectance?  
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