

## Suitability of Proba-V 100 m products for turbidity mapping in coastal areas

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Coastal areas are of high ecological and economic value, however they are subjected to intense human-induced environmental pressures. An effective monitoring system is therefore vital for the operational management and safeguarding of the coastal areas. Traditional in-situ sampling can be very labour-intensive and often doesn't cover the whole area at once. Satellite imagery can fill this gap. Typical ocean colour satellites have a spatial resolution of 250-300 m (e.g. MODIS 250 m channels, MERIS, Sentinel-3). Although ideal for a lot of applications, this can be insufficient for the monitoring of small scale features in near shore areas such as port or estuaries. The remote sensing community has already been looking to some extent into the usage of non-ocean-colour sensors to include these small features. Examples include Landsat, Sentinel-2, SEVIRI, Deimos and Formosat. This work shows the suitability of the Proba-V sensor (spatial resolution of 100 m) for the retrieval of water quality parameters. Proba-V was neither conceived as an ocean colour mission, but its specifications (spectral bands and signal-to noise ratio) allow to monitor the turbidity. Proba-V derived turbidity products, atmospherically corrected with an adapted version of iCOR (De Keukelaere et al. (Submitted)) and a modified version of Nechad et al. (2009), are compared with continuous buoy measurements (CEFAS Smartbuoys) and cross-validated with MODIS aqua products. References De Keukelaere, L., Steckx, S., Adriaensen, S., Knaeps, E., Reusen, I., Giardino, G., Brescani, M., Hunter, P., Van der Zande, D., Vaicute, D. iCOR Image Correction for Atmospheric Effects, Results for Landsat-8 OLI and Sentinel-2 MSI, *European Journal of Remote Sensing* (Submitted). Nechad, B., Ruddick, K. G., & Neukermans, G. (2009). Calibration and validation of a generic multisensor algorithm for mapping of turbidity in coastal waters. *SPIE European International Symposium on Remote Sensing*, Berlin