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## ***30 years of changes in Belgian waters as observed (or not) by high resolution satellites***

The opening up of free data archives from both new satellite missions (e.g. Landsat-8, Sentinel-2A) and historical missions (e.g. Landsat-5) provides a valuable opportunity to assess changes in suspended sediments and Phaeocystis blooms over the last 30 years. This period includes significant human activities such as the construction of the port of Zeebrugge and of offshore windmills and the introduction of nutrient reduction policies to reduce eutrophication.

In this presentation the complete archive of Landsat imagery of Belgian waters will be processed and analysed along with the latest imagery from the new Sentinel-2A mission. Careful attention is paid to defining algorithms that may be applied to all missions and to understanding the impact of any differences in the satellite missions (spatial resolution, temporal coverage, spectral bands, signal:noise, calibration uncertainties, etc.) on the merged time series and the possibility of detecting change.

The imagery will be used to explain processes of and, where possible, detect changes in sediment transport and blooms of Phaeocystis globosa.

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