



## **Copernicus Climate Change Service Greenhouse Gases: Analysis of recent satellite derived CO<sub>2</sub> growth rates variation**

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Satellite-derived atmospheric CO<sub>2</sub> data products are being generated and made available by the Copernicus Climate Change Service (C3S, <https://climate.copernicus.eu/>). The C3S satellite greenhouse gas (GHG) sub-project (C3S\_312a\_Lot6) is led by University of Bremen supported by University of Leicester, SRON and CNRS-LMD. The first Climate Data Record (CDR) data set covers the time period 2003-2016 and consists of column-average dry-air mole fraction CO<sub>2</sub> and CH<sub>4</sub> products, i.e, XCO<sub>2</sub> and XCH<sub>4</sub>, from SCIAMACHY/ENVISAT and TANSO-FTS/GOSAT. We present an overview of this dataset and results of a first scientific application namely an analysis of the recent variation of the atmospheric CO<sub>2</sub> growth rate influenced by human emissions and climate variability in particular ENSO.