

Production of IASI FDR and CDRs at EUMETSAT

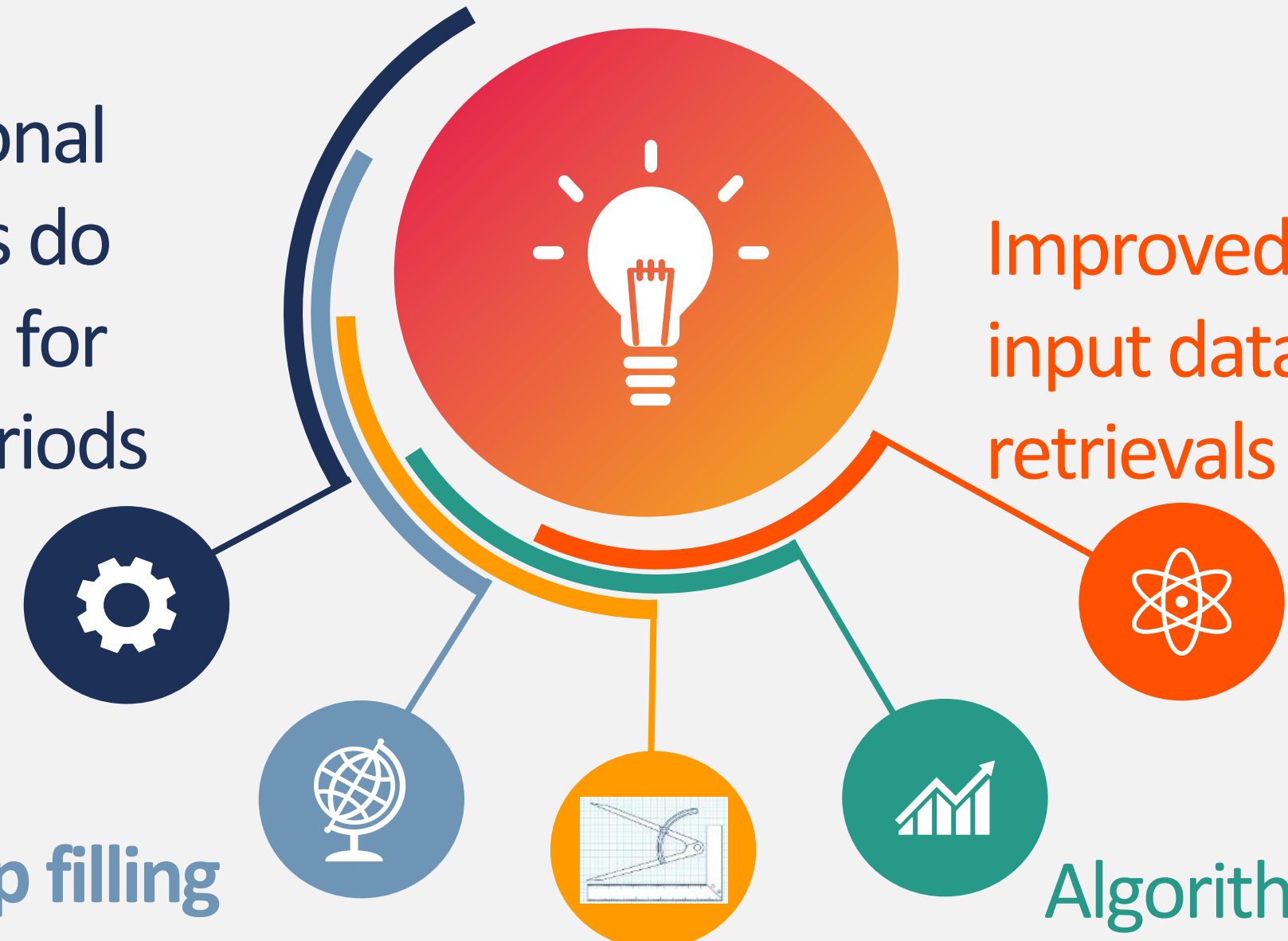
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Why do we need to reprocess satellite observations to create a CDR?

Operational products do not exist for older periods



Gap filling

Correction / recalibration

Algorithm changes

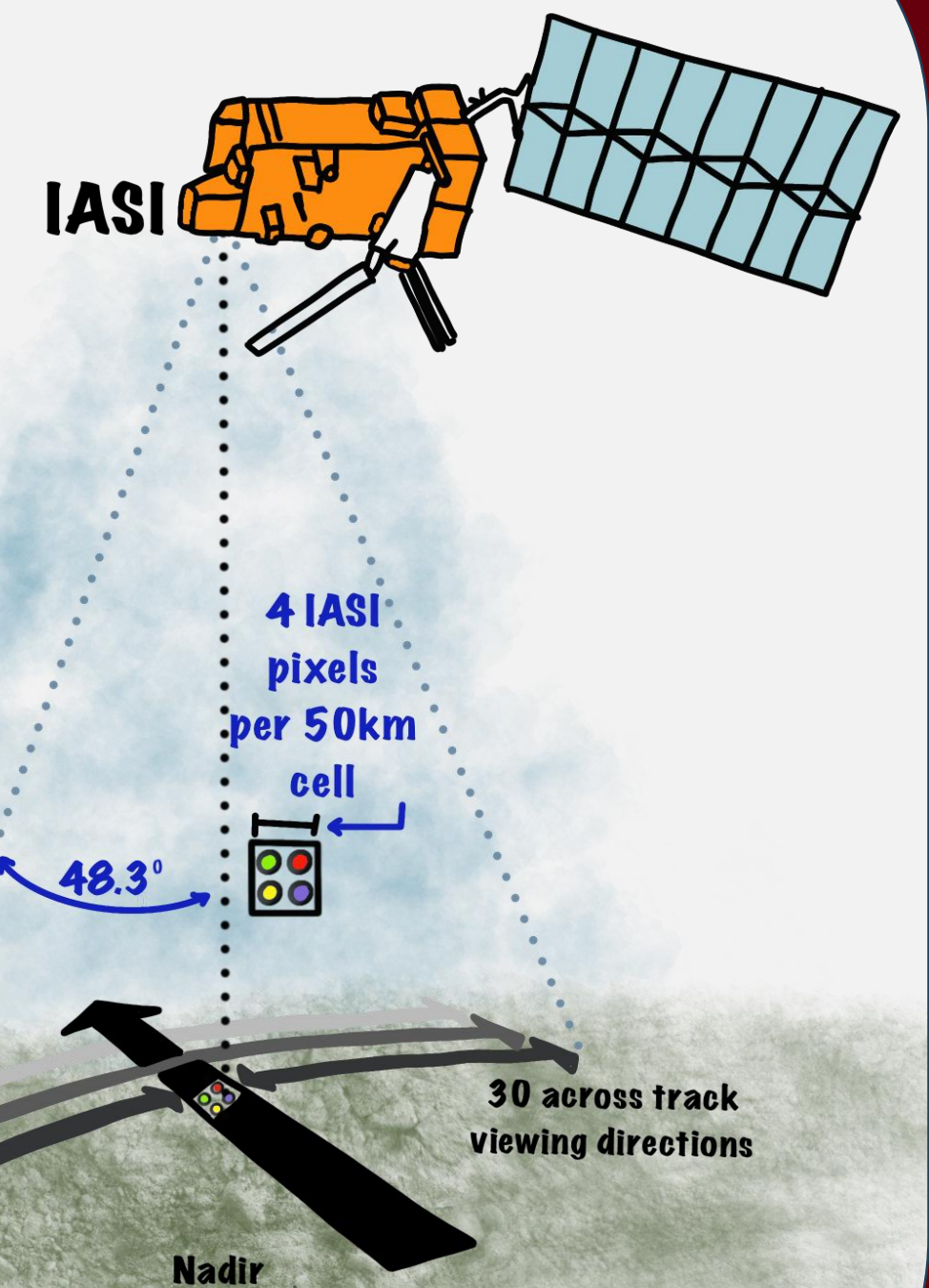
Improved auxiliary input data for the retrievals

IASI Fundamental Data Record (FDR) are produced at EUMETSAT
Climate Data Record (CDR) are produced via a collaboration EUMETSAT SEC and AC SAF

FDR / CDR production from IASI-A and -B instruments

2007/2013 → 2023

CDR available in netCDF format

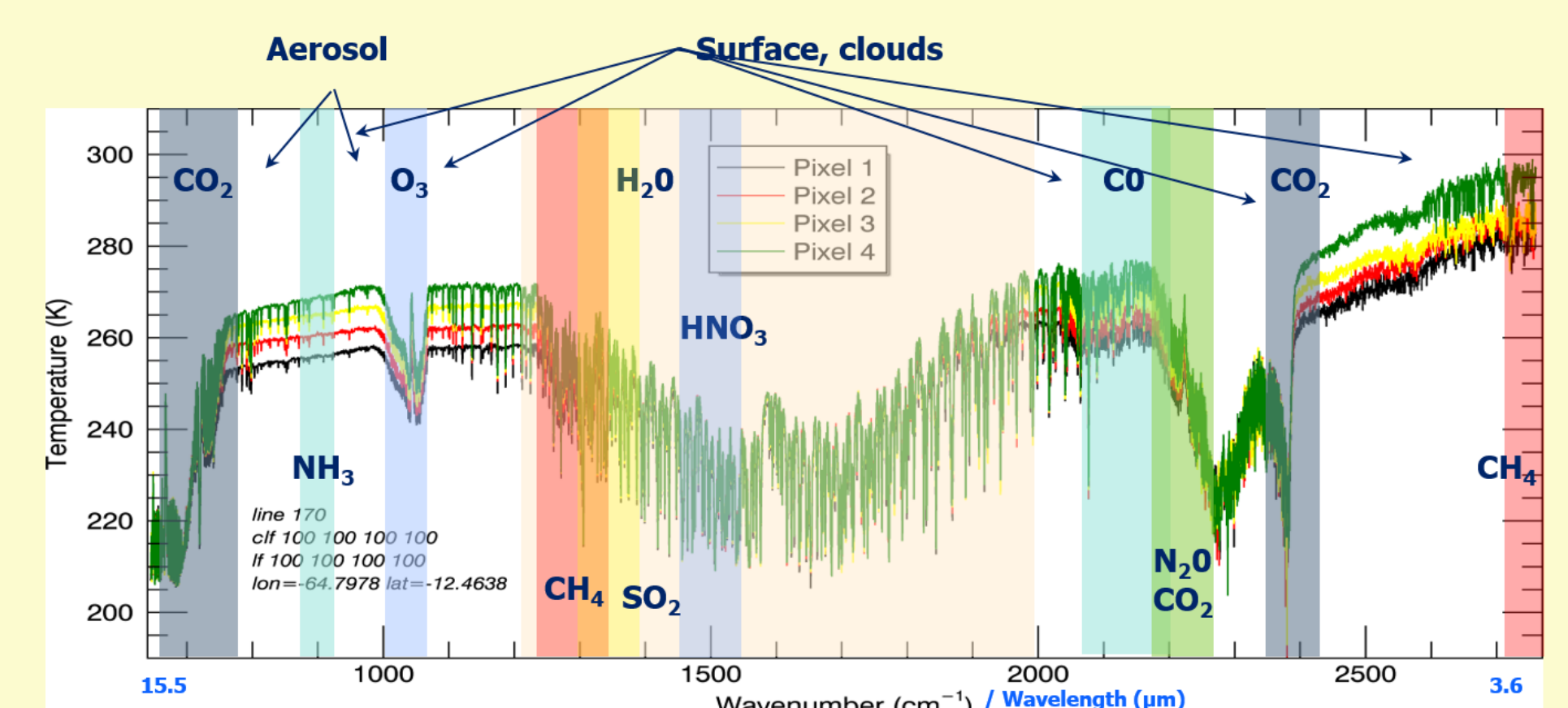


FDR

IASI L1C – R2 10.15770/EUM_SEC_CLM_0064

Principle Components Scores (PCS)

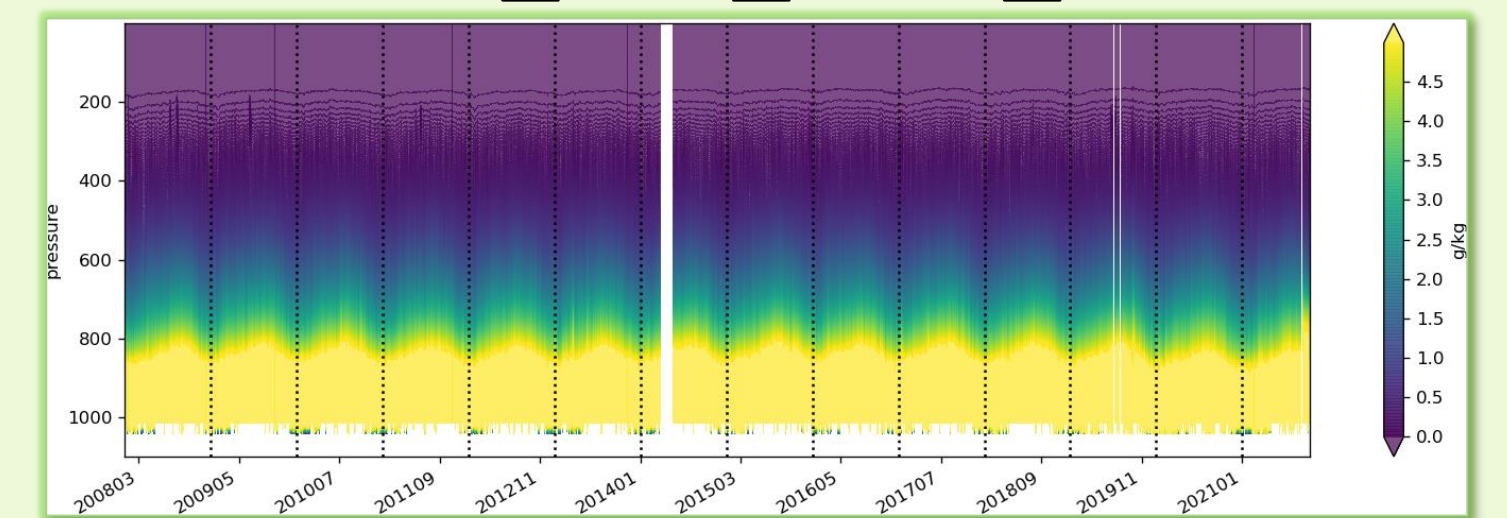
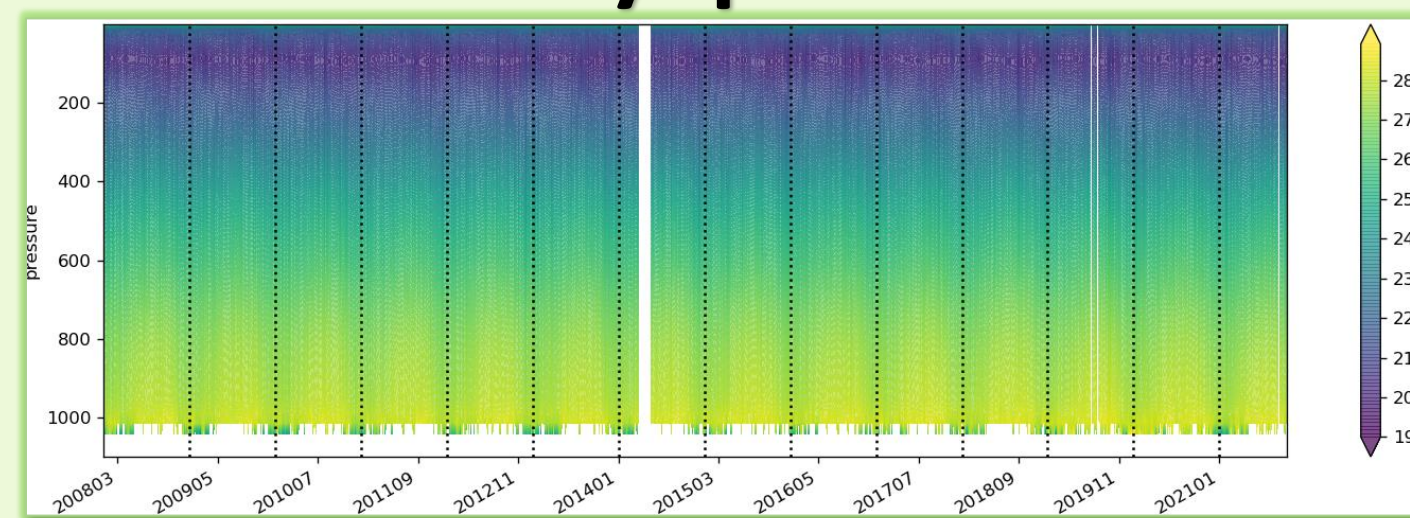
10.15770/EUM_SEC_CLM_0084



All sky temperature and humidity profiles - 10.15770/EUM_SEC_CLM_0063

Synergy IASI + MHS + AMSU-A

PWLR3 - version 6.5.4, 12/2019

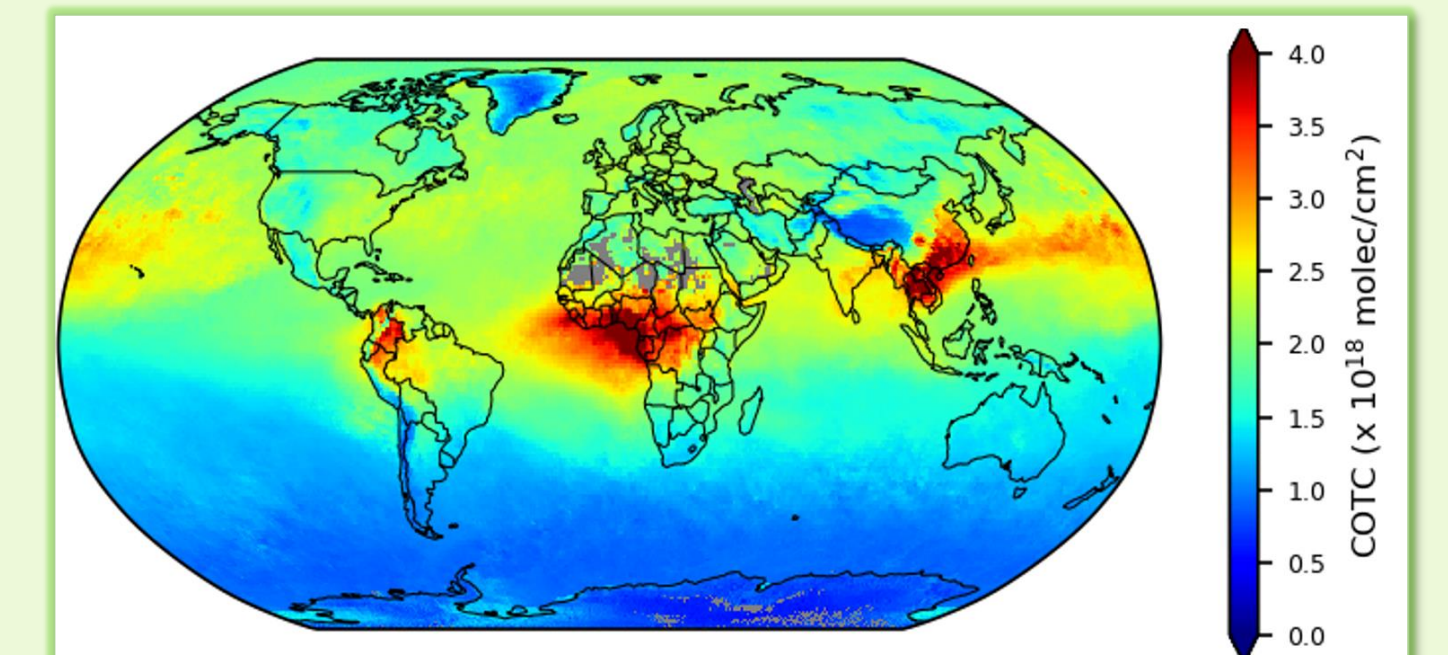


CDR

Carbon monoxide (CO) - 10.15770/EUM_SAF_AC_0047

FORLI-CO – version 20151001

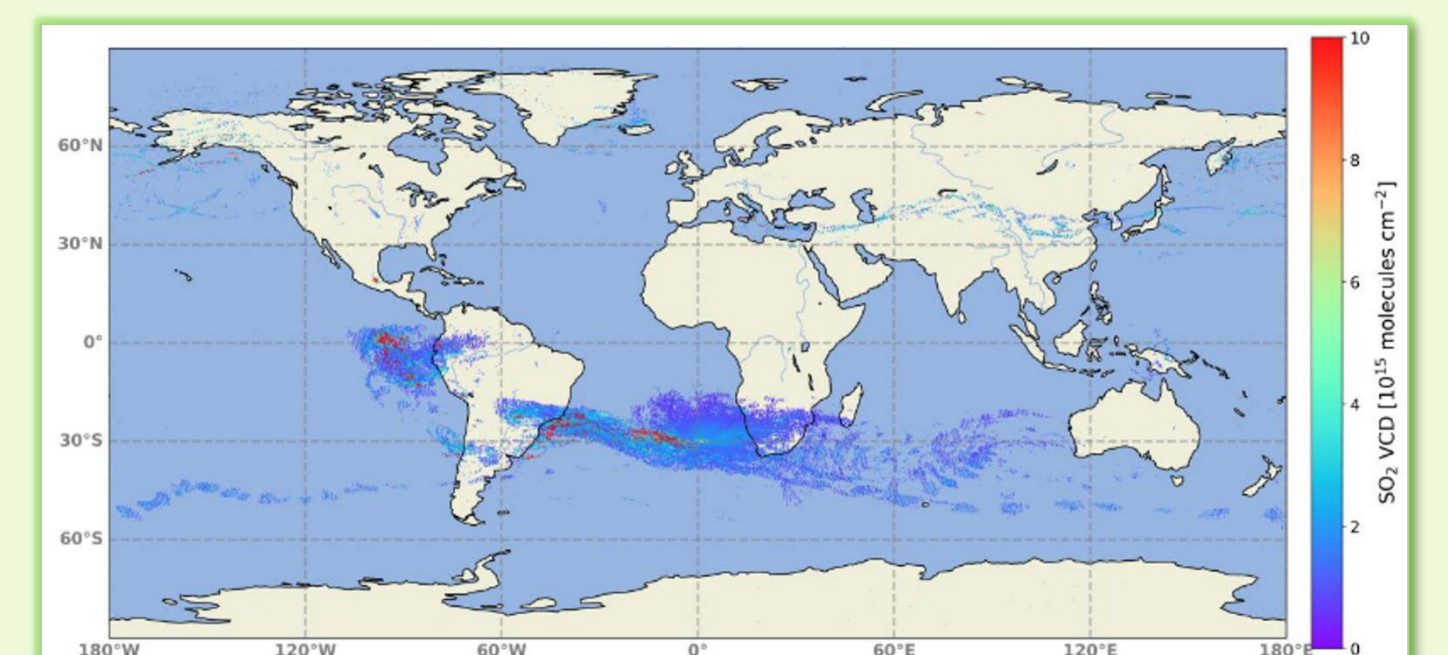
→ **vertical profile of CO** on 18 layers, from the ground to 18 km with an additional layer from 18 km to TOA



Sulfur dioxide (SO₂) - 10.15770/EUM_SAF_AC_0046

BRESCIA – version 20180401

→ **SO₂ columns at 5 different altitudes** 7, 10, 13, 16 and 25 km



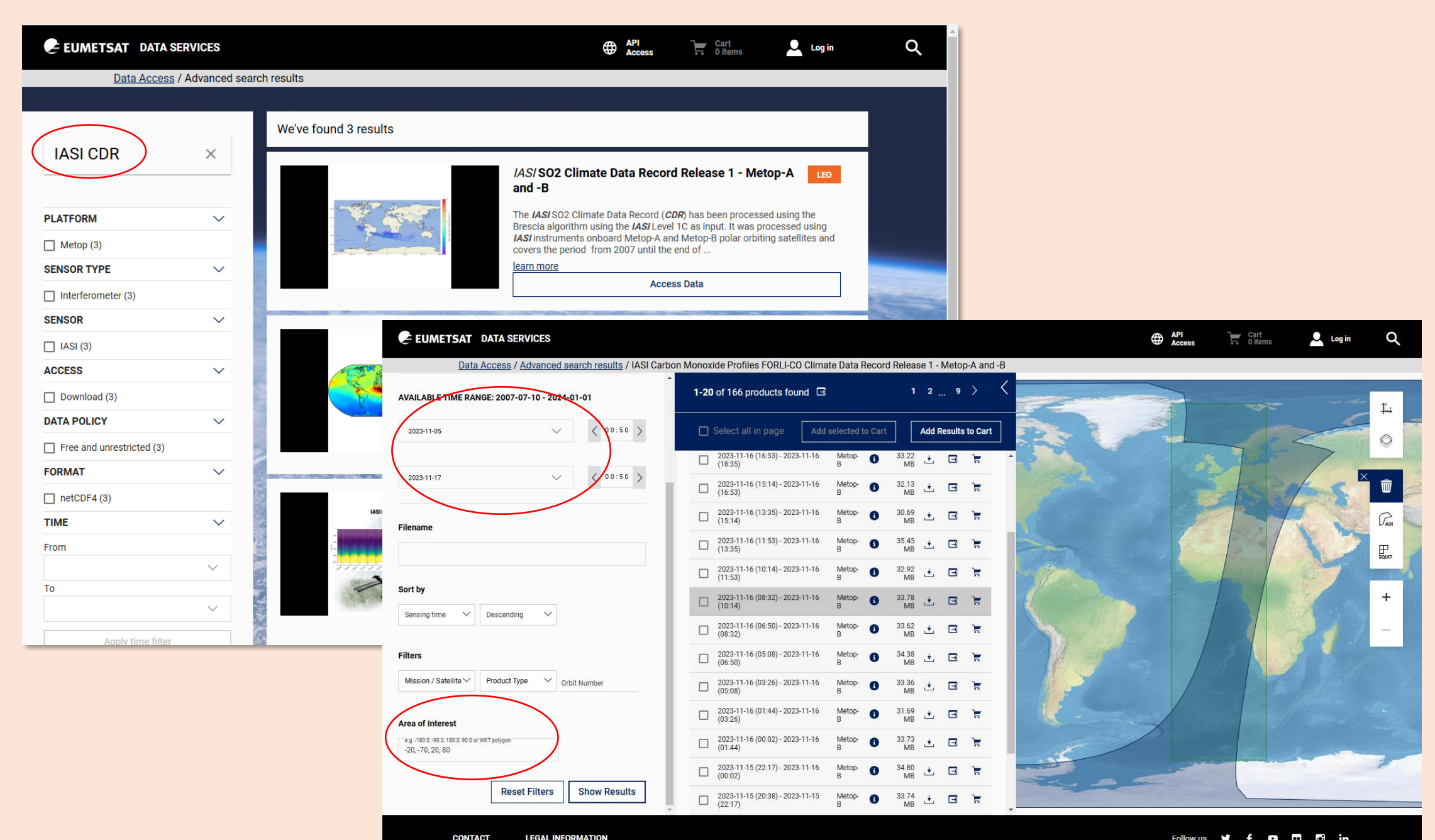
iCDR

Produced to consistently continue the FDR/CDR until a new full reprocessing

Access EUMETSAT user portal

user.eumetsat.int or access the EUMETSAT datastore: <https://eoportal.eumetsat.int/>

- Register or use your existing account
- Choose your product by typing either a doi or a keyword (e.g. 'IASI CDR')
- Select the time period
- Select the location



You can also use the EUMETSAT API



Repeat regularly as soon as new knowledge emerges