

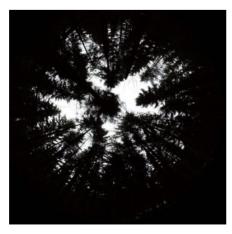
Discover, visualize and download greenhouse gas data for free!



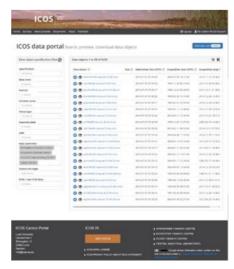
Carbon Portal Newsletter 1/2018

All Thematic Centres now connected to CP

The dataflow connections between the Thematic Centres (OTC, ATC and ETC) and CP are completed and initial data are now collected at the CP. The upload is still limited; ATC supplied raw data files, OTC has uploaded data files that were produced for the Surface Ocean $\rm CO_2$ Atlas (SOCAT) and ETC started with canopy photographs from different sites. With the active data connections, it will be easier to upload more data products from the Thematic Centres and make them available for the users. CP is ready to receive!



Digital Hemispherical Picture from Hyltemossa station on 18 November 2017 14:04



First uploads of data files to CP!

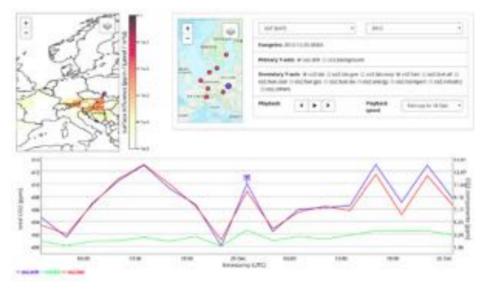
New data portal interface available

The CP is updated with a new search, view and download interface. The constant growing collection of datasets can be filtered by using ten different selection options. By clicking on the small 'eye' next to the dataset you can preview the list of variables in the dataset. The '+' sign adds them to the data cart for combined downloading. If you expect to download data regularly from the CP we advise you to register a personal account.

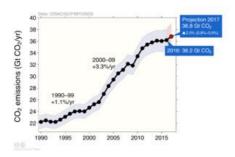
Go ahead and check out the new Data Portal!

CP demonstrates the power of cloud computing in footprint demo

Any person logged in to his/her user account on CP can now test drive our footprint calculation application at https://stilt.icos-cp.eu/worker. This has been developed as showcase for the use of cloud resourcing from the EUDAT Collaborative Data Infrastructure and the EGI Grid Computing services. Anyone can now calculate atmospheric emission sensitivity footprints and calculated CO2 concentrations for any point in Europe. The time period with available meteorological data is limited to December 2012 for this demo, but will be extended in the operational version. Gradually, and based on user demands, we will extend also to using other transport models than STILT. The results are dynamically added to the repository of available model results and can be viewed together with the other available data with the interactive viewer at https://stilt.icos-cp.eu/viewer. If observation data is available for a station, this will also be loaded dynamically and added to the graph. The demo is quite computationally heavy, so please limit your testing to reasonable amounts. We appreciate all feedback on the tool!



Example output from the footprint demo for virtual station Krakow in Poland, showing that in this 2012 Christmas period CO_2 concentration above background at Krakow is dominated by fossil fuel emissions.



CP serves GCP data

Just in time for the COP23 meeting, the Global Carbon Project (GCP) released its 2017 update of the global carbon budget. The detailed data of the analysed emissions is now served through the CP!

It is projected that in 2017, CO_2 emissions from fossil fuels and industry will grow by about 2% (estimates range from 0.8% to 3%). This follows three years of nearly no growth (2014-2016).

The detailed analysis is published as a paper in ESSD.



Help us improve CP

During 2018 we will evaluate and improve the CP website information and the services provided. To do so, we need your help! We are looking for researchers (ICOS as well as non-ICOS) from different domains (atmosphere, ecosystem and marine) that are willing to answer some questions and be interviewed while using the website services. We welcome both men and women and people of all ages!

Are you interested in helping us? Please send an e-mail to <u>Ulrika Jönsson Belyazid</u> and we will get in touch with you!





CP joins EOSC-hub

CP is joining the EOSC-hub project. By mobilising e-Infrastructures comprising more than 300 data centres worldwide and 18 pan-European infrastructures, this project is a ground-breaking milestone for the implementation of the European Open Science Cloud (something that the European Commission would like to see operational in 2020).

CP will, together with <u>eLTER</u>, pilot a Competence Centre on identifying data objects, managing station information and staging of data processing in the cloud.

The ICOS/LTER Competence Centre is a small part (less than 1 % of the 30 M€ budget) of the project.

EUDAT2020 ends

EUDAT2020 (2015-2018), a Horizon 2020 project bringing together e-infrastructure providers, research infrastructure operators, and researchers from a wide range of scientific disciplines, has come to an end. However, it will continue as Collaborative Data Infrastructure (CDI).

By participating in EUDAT2020, CP has gained a lot of useful contacts, knowledge and experience. Our own contributions include providing feedback to service developers, assisting with documentation, and helping other research communities with service uptake.

Read more about EUDAT and CDI on our webpage.

Scientists call for rethink on current inventories of greenhouse gas emissions

CP contributed to a <u>recent article in Atmospheric Environment</u> entitled "A complete rethink is needed on how greenhouse gas emissions are quantified for national reporting". In the article, the authors argue that in support of the COP21 agreements we should make more use of observations to get better estimates of actual greenhouse gas budgets of regions instead of the current practice of relying only upon statistical information. For this to work it is argued that especially in-situ observational networks should be expanded and that improved inverse transport models should be applied on these observational constraints to derive at greenhouse gas budgets for cities, regions and countries.

Naomi Smith new team member at CP

Naomi Smith, with a background in applied maths and mathematical modelling, joins the CP team at Wageningen University in the Netherlands. The 27-year-old Brit comes straight from Reading University, UK, where she has spent the last four years working on mathematical calculations of the ice melt in the Arctic seas

At CP, Naomi Smith will contribute to the data analysis of global carbon budgets, the inverse modelling of the 2015/2016 El Niño in the Amazon and to the Eurocom project. "The access to standardized data is very important for understanding the carbon fluxes throughout the world. I hope to be able to contribute to this work, and also to giving the data providers adequate recognition for their work", says Naomi Smith.



CP team member Maggie Hellström chosen as European Open Data Champion

Maggie Hellström, data management specialist at CP, has been chosen as one out of 14 European Open Data Champions by SPARC Europe. SPARC's European Open Data Champions is a service intended to highlight individuals (champions) who stand out in their efforts to promote open access to data in the European academic community.

On their web page, SPARC Europe writes that "While support for Open Data continues to build at a policy level, it is the research community, senior administration and library community who are needed to bring about the cultural change necessary to embrace a new scholarly communication system."







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