

Monitoring tools for the CERA system

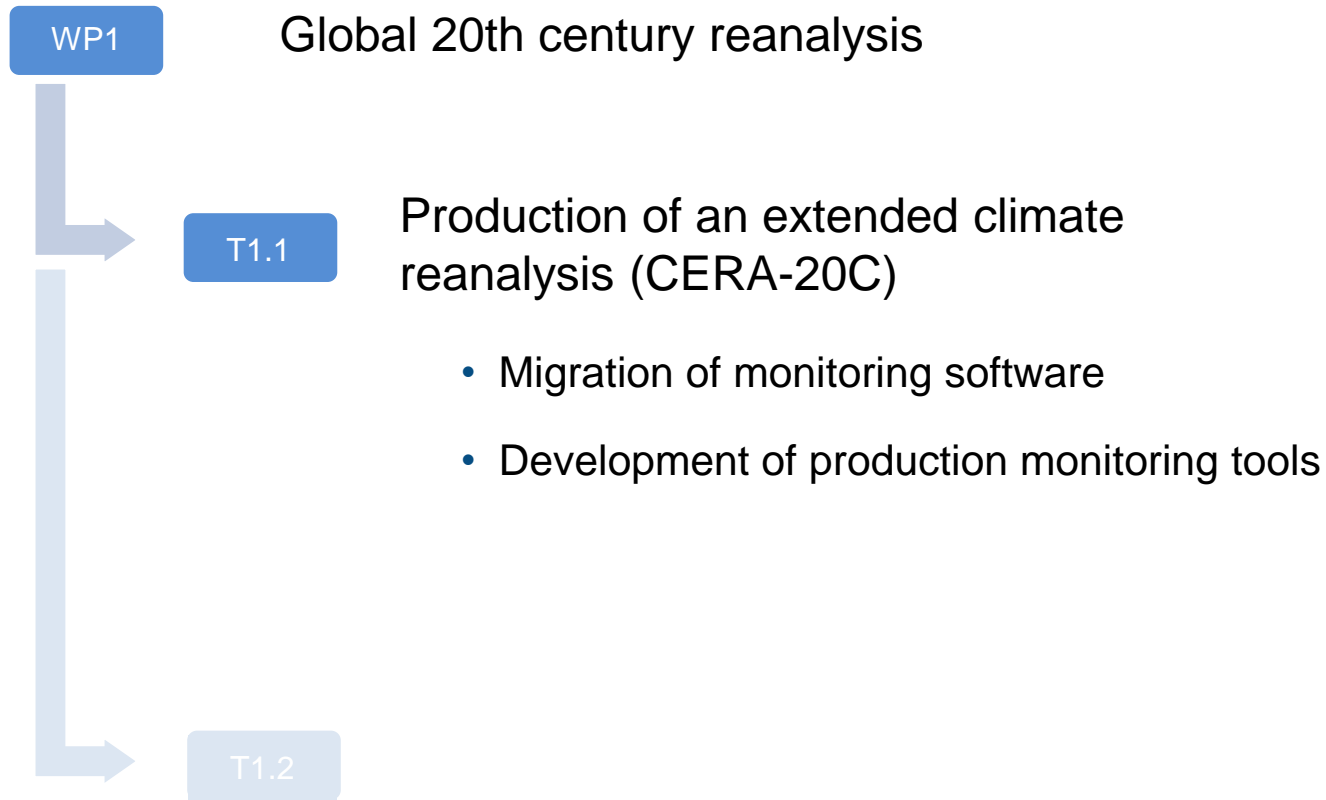
Dinand Schepers

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To introduce myself

- Joined the ERA-CLIM2 team at ECMWF last July
- Background:
 - PhD. in satellite-borne remote sensing of atmospheric trace gases.
 - Ground-based calibration campaign of satellite-based (Sentinel-5P) spectrometer.

Resent work



Migration of monitoring software

Changes in the HPC infrastructure at ECMWF:

- Replacement of HPC Linux server

Required porting of

- Production monitoring tools
- Build methods



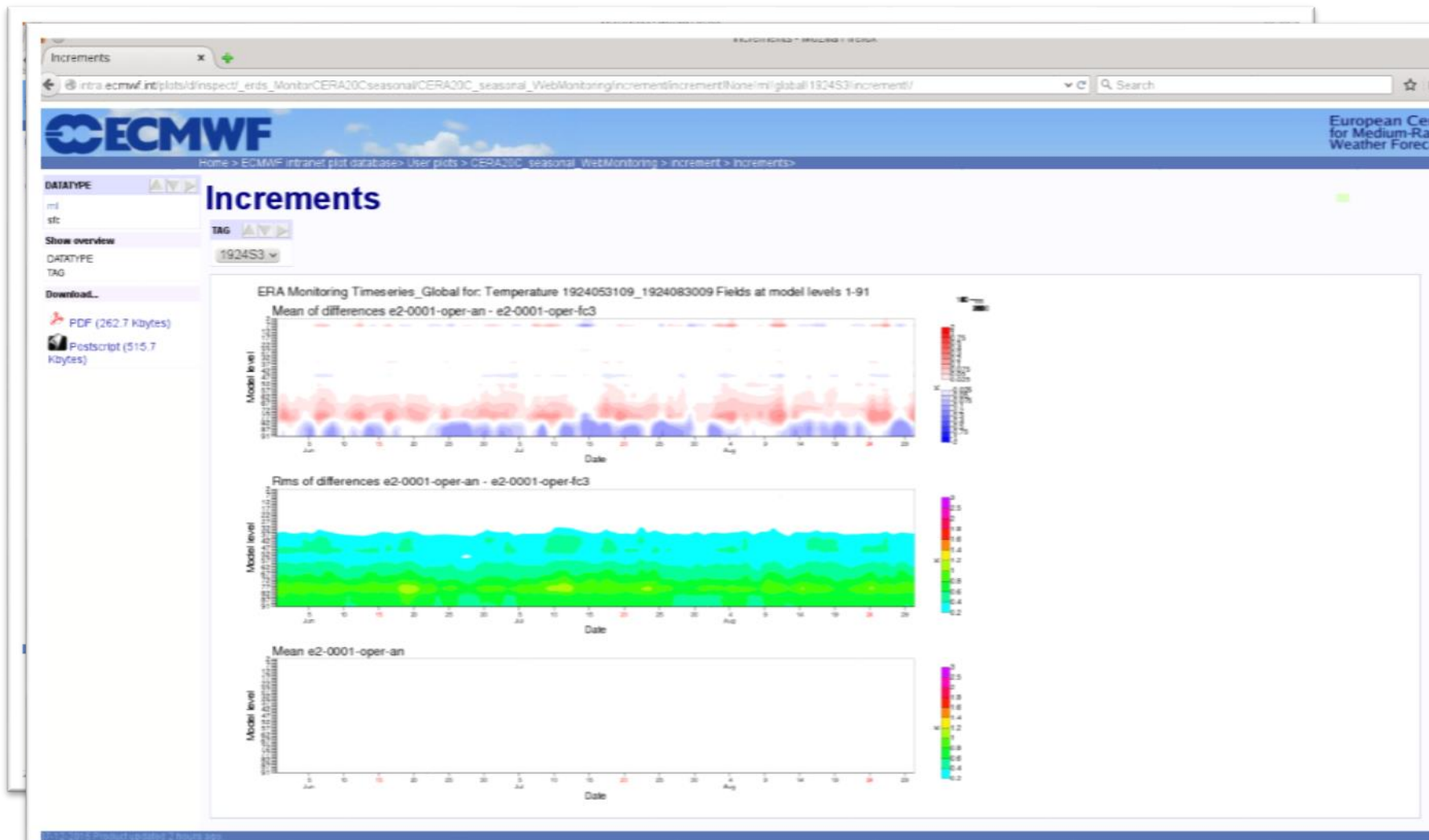
ECMWF-internal website

Easy-access way of sharing near-real time production analyses – get as many experts involved as possible

The screenshot displays the ECMWF internal website interface. The browser address bar shows the URL: `intra.ecmwf.int/plots/summary/_ends_MonitorCERA20CseasonalCERA20C_seasonal_WebMonitoring/increment/increment@zone=mc-global/1900S1/increment/TAG/`. The page header includes the ECMWF logo and navigation links: Home > ECMWF Intranet out database > User plus > CERA20C_seasonal_WebMonitoring > increment > increments. On the right, there are search boxes for Content and People, and a Log In link. The main content area is titled "Increments" and features a sidebar with "DATATYPE" (ml, st) and "TAG" (non applicable). The central part of the page is a grid of 50 small thumbnail plots, each representing a different year and increment (e.g., 1900S1, 1900S2, 1908S1, 1908S2, 1908S3, 1916S1, 1916S2, 1916S3, 1924S1, 1924S2, 1924S3, 1932S1, 1932S2, 1932S3, 1940S1, 1940S2, 1940S3, 1948S1, 1948S2, 1948S3, 1956S1, 1956S2, 1956S3, 1964S1, 1964S2, 1964S3, 1972S1, 1972S2, 1972S3, 1980S1, 1980S2, 1980S3, 1988S1, 1988S2, 1988S3, 1996S1, 1996S2, 1996S3, 2004S1, 2004S2, 2004S3). Each plot shows a horizontal bar chart with green and red segments. At the bottom of the page, there is a footer with the text "© ECMWF 2013" and "Product updated 2 hours ago".

ECMWF-internal website

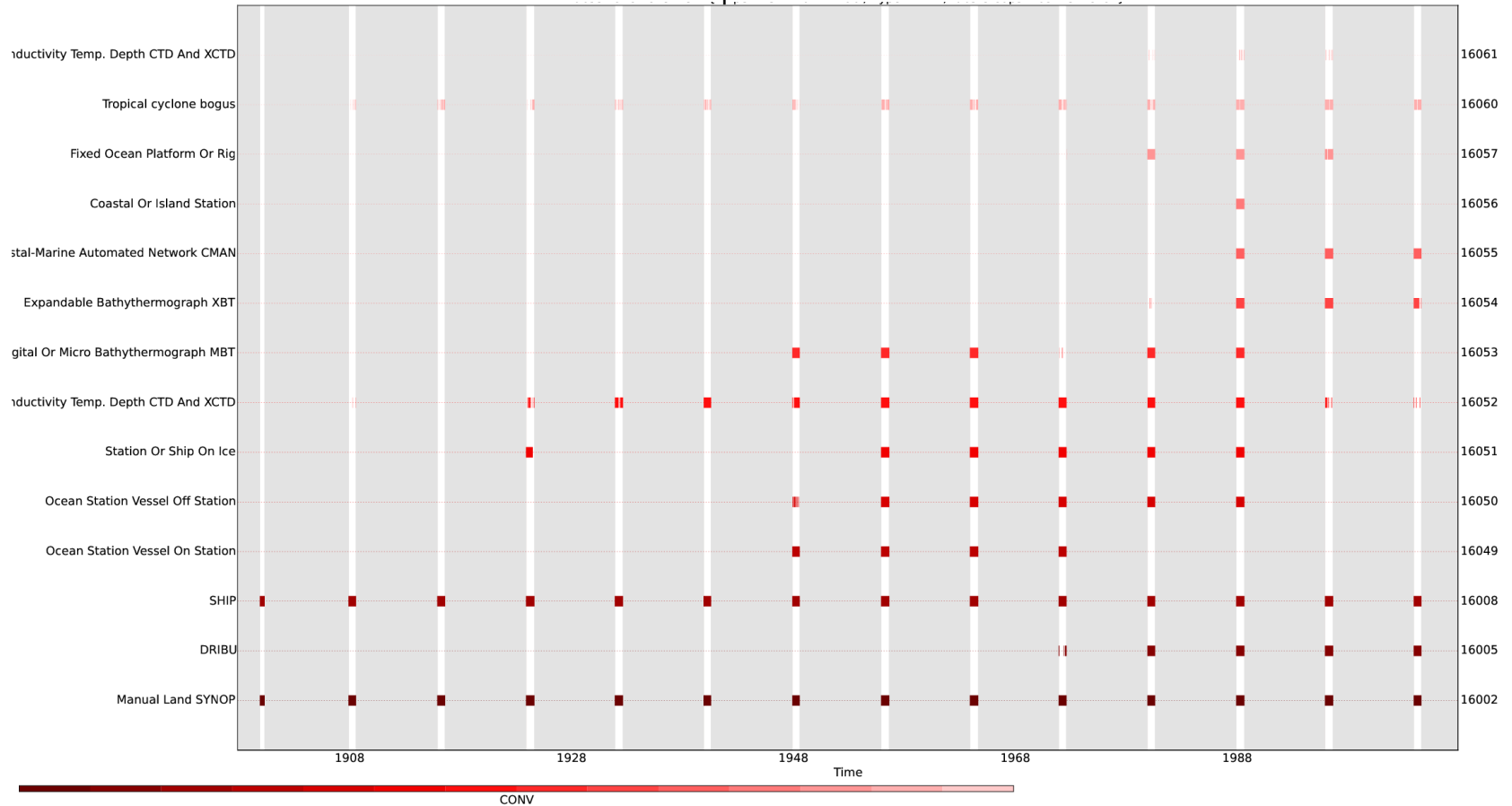
Easy-access way of sharing near-real time production analyses – get as many experts involved as possible



Observation usage monitoring

Easily interpretable overview of observation usage

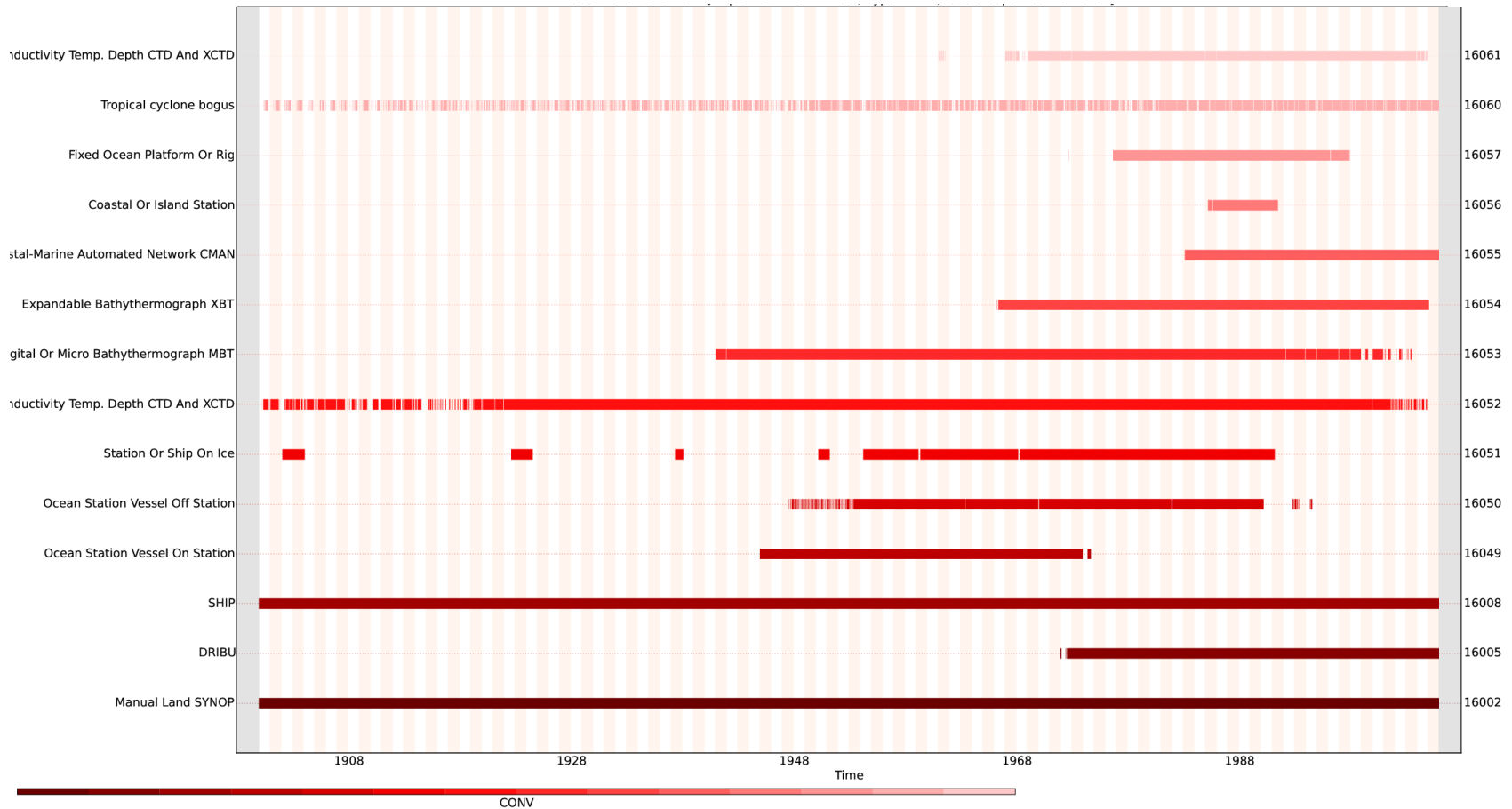
CERA-20C production streams:



Observation usage monitoring

Easily interpretable overview of observation usage

Previous reanalysis - final product



Current and future work

WP1

Global 20th century reanalysis

T1.1

Production of an extended climate reanalysis (CERA-20C)

- Migration of monitoring software
- Development of production monitoring tools

T1.2

Production of a reanalysis of the satellite era (CERA-SAT)

- Initiated close cooperation with the ERA-5 team on satellite-era reanalysis and observation system
- Start implementation of the CERA-SAT reanalysis (Q1 2016)

Thank you