Sea Level CCI project Phase II

System Engineering Status

WP3000 System Evolution Tasks

- WP3100: System Engineering activities (CGI-led)
  - WP3110: System Specification (CGI)
    - Documenting evolutions from Phase I and addressing key system issues within Phase II including interoperability and commonality across CCIs
  - WP3120: Engagement with SEWG (CGI)
    - Fully participate in cross-CCI System Engineering Working Group activities, which look at common system engineering aspects which affect all ECVs.
  - WP3130: Engagement with DSWG (CLS)
    - Fully participate in cross-CCI Data Standards Working Group activities, which look at common standards for metadata and data across the ECVs.
- WP3200: System Evolution (CLS-led)

Deliverables associated with WP3

No change

- System Specification Document (SSD)
  - Defines **how** the system will do it
  - **D3.1 SSD Issue 1.1** – [May 2015] – submitted & accepted

- System Verification Report (SVR)
  - Describes the tests undertaken to **ensure** the system will do it
  - **D3.2 SVR Issue 1.1** – no update is planned and v1.1 of the document remains the up to date version

System Engineering Working Group (SEWG)

- **What is the point of the SEWG?**
  - Cost effectiveness "*as a whole*" [SoW]
- **Who participates?**
  - Aerosol ECV, Cloud ECV, Fire ECV, GHG ECV, Ice Sheets ECV, Land Cover ECV, Ocean Color ECV, Ozone ECV, Sea Ice ECV, Sea Level ECV, SST ECV & ESA
- **Most Useful aspects of SEWG & DSWG (2015 survey):**
  - **Harmonisation** of CCI data & format
  - Discussion of **new ideas** on data harmonisation and system engineering
  - Identifying **common challenges** on operational usage
  - Discussion of **common ideas** on operational usage
  - **Receiving Information** from CCI programme on major accomplishments, plans and issues. .

SLCC involvement in SEWG

- **Participate in SEWG meetings**
  - Attend and contribute to the SEWG telecoms / meetings
  - Responded to the SEWG survey, key points raised:
    - *Most useful aspects*: key was ability to share experiences and common issues between different ECV teams
    - *Least useful aspects*: sometimes hard to access the full record of the various SEWG / DSWG documents in a single central location
    - *Structure, frequency and nature of the meetings*: we deem these to be all fine
    - *New topics of interest*: a need for climate data taxonomies, which could be something that the DSWG leads or participates in
    - *Adding products to the CEOS ECV inventory*: This is something where more guidance would be appreciated.

SLCC involvement in DSWG / SEWG in 2016

- **Key issues discussed at 2016 Collocation (raised in 2015)**
  - Links to C3S and Copernicus – CCI are not part of inner Copernicus network, but shall contribute to C3S
  - Obs4MIPS – support for the submission provided by the CCI Open Data Portal team
  - Climate Data Taxonomies – would be good to get assistance and guidance from the DSWG to help ensure datasets correctly match the such new end-user needs, such as they can be correctly interpreted by human readers and software

DSWG / SEWG wiki: http://esacci.pbworks.com

SLCC involvement in CCI Open Data Portal

- **Activities with the CCI Open Data Portal (ODP) Web Presence team:**
  - Engage with the CCI ODP team to allow them to understand **website deployment characteristics** – namely Drupal version, modules installed
  - Update the look and feel of the SL CCI portal website in accordance with the **Style Guide** generated by the CCI ODP team – Done. The aim of this style guide was to promote consistency of views between the various CCI project webpages
  - **Response to requests** from the CCI ODP team, including:
    - Update and enhance Drupal core and modules as suggested by Portal Team – for security, and user experience as well as backup
    - Fix any broken hyperlinks identified by the CCI ODP Team
- **Future activities with the CCI ODP Web Presence team:**
  - **Update** Drupal core and modules if advised – a set of quick wins regarding changes to the website will be provided by the CCI ODP team in coming weeks
  - Respond to a future requests for updates in the style of the SLCC website in line with further CCI Portal **Style Guide**

SLCC involvement in CCI Open Data Portal

- **Task 5: Obs4MIPs.**
  - Objectives is to provide a new dataset for Climate Modelers via the Observations for Model Inter-comparisons activity.
  - We have responded to the call from the Obs4MIPs / WDAC team that came in late 2015
  - For SLCC it will be an updated version of the AVISO dataset provided in 2011 – ADT
  - Multiple steps involved:

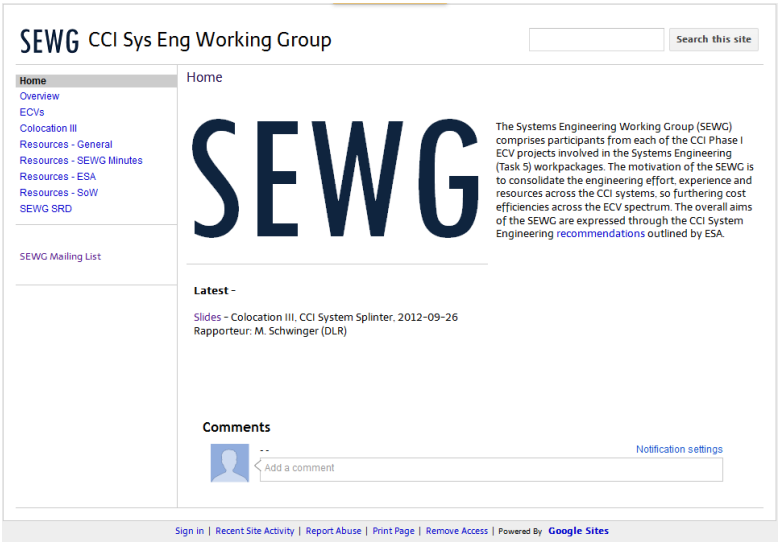
1. Agree with WDAC the most suitable parameter that matches CMIP5 standard outputs – Sea Surface height above geoid (ADT) maps to the CMIP5 parameter zos, sea_surface_height_above_geoid
2. Submit a Data Set form, that describes key parameters such as temporal range and spatial resolution –done
3. Submit a Technical Note, that describes process to generate the dataset – first versions produced and submitted, review comments received and being responded to.
4. Convert the dataset to the Obs4MIP netCDF format with appropriate metadata – Dataset to be used is the recent SL_CCI v2.0 Sea Level Anomalies (1993 to 2015). Training material received from CCI ODP team

Obs4MIPs processing steps

1. WDAC agreement on a parameter in the CMIP5 Tables
   - CCI Team: Suggest Parameter
   - Task 5: Engage WDAC
2. Dataset Proposal Form (Variable, Resolution, Coverage)
   - CCI Team: Write First Version
   - Task 5: Review the Form and send it
3. Technical Note (Detailing the data source and the processing)
   - CCI Team: Write First Version
   - Task 5: Review the note and send it
4. Prepare the scientific data for rewriting
   - CCI Team: Prepare the scientific data (create the time series, check missing values, check scientific values format (float 64/32 …))
5. Rewrite Dataset with CMOR software (CF-Compliance, Metadata)
   - Task 5: Rewrite data (NETCDF3 format) and add Obs4MIPs Metadata. Check Compliance
6. Export Data to an ESGF Node
   - Task 5: Do the export process

Way forward

- **Continued SLCCI consortium activity In SEWG**
  - Engage with the DSWG / SEWG if relevant in the next period
- **Support the CCI Open Data Portal team**
  - Update the SL website if directed
  - Continue on the Obs4MIPs submission process



Thank you