

ERA-CLIM2 2nd General Assembly Welcome and Introduction

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Welcome



Welcome .. and thank you to:

- All of you for your help and engagement, especially to the WP Leaders for their leadership role
- All for your work and progress (we will hear more about it ..)
- *Joerg S* for helping with the logistics and organisation
- *M Kacik* for her support and help with the amendment (with the 12-month extension)
- EUMETSAT for hosting the 2nd GA and for inviting us to dinner on Wednesday evening

After the WS:

- Please let me know if you object that your slides will be made available on ECMWF ERA-CLIM2 project web site: <http://www.ecmwf.int/en/research/projects/era-clim2>
- WP Leaders please send me a short (say about 2 pages) report on progress and plan

Agenda

Wednesday 9 December (1300-1800)		
1300	Start of General Assembly	
1300-1330	Introduction	R Buizza
1330-1530	WP1 (Global 20th century reanalysis) and WP5 (Service developments)	
1330-1345	Overview of WP1	P Laloyaux
1345-1415	Status, plans and first CERA results	P Laloyaux
1415-1430	Ocean initialisation and monitoring for CERA	E de Boisseson
1430-1440	Initial diagnostics on CERA-20C ensemble performance	P Dahlgren
1440-1450	Monitoring tools for CERA	D Schepers
1450-1505	ICOADS usage in ERA20C and CERA20C	S Hirahara
1505-1520	CERA-LAND	P Peylin
1520-1530	CERA data servers	P Laloyaux
1530-1600	Coffee break	
1600-1800	WP3 (Earth system observation)	
1600-1610	Overview of WP3	S Brönnimann
1610-1625	Upper Air, surface and snow data deliverables contributed by RIHMI to WP3	A Sterin
1625-1640	Progress on Météo France work	S Jourdain
1640-1655	Progress on digitising Portuguese and Chilean surface data plus Spanish pilot balloon data	M A Valente
1655-1700	ERA-CLIM2 Global Registry	M A Valente
1700-1715	Progress on Met Office work	N Rayner
1715-1730	Satellite data records for ERA-CLIM2	R Roebeling
1730-1745	Progress on FMI work	J Pulliainen
1745-1800	Questions and Discussion	
1800	End of first day	
1830	WS Dinner (at EUMETSAT) offered by EUMETSAT	

WP1

WP3

Thursday 10 December (0900-1800)

0900-1100 **WP2 (Future coupling methods)**

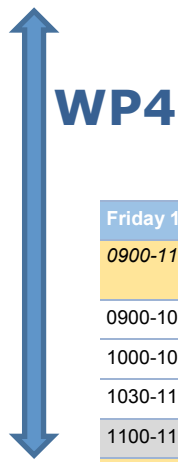
0900-0910	Overview of WP2	M Martin
0910-0920	Improved assimilation of SST observations	M Martin
0920-0930	Improved assimilation of sea-ice observations	C-E Testut
0930-0950	Use of ensemble information and development of efficient 4D-Var in ocean analysis	A Weaver
0950-1000	Generation of ocean ensemble information	A Storto
1000-1010	Land carbon developments	P Peylin
1010-1020	Ocean biogeochemistry in reanalysis	M Gehlen
1020-1040	Strengths/weaknesses of weakly coupled DA, coupled error covariance estimation and developing bias correction methods for coupled reanalysis	K Haines
1040-1050	Strongly coupled DA in simplified systems	F Lemarié
1050-1100	Questions	



1100-1130 Coffee break

1130-1430 **WP4 (Quantifying and reducing uncertainties)**

1130-1135	Overview of WP4	L Haimberger
1135-1155	Homogenization tests on surface data using 20CR and ERA20C as reference series	M A Valente
1155-1215	Precipitation assessment with focus on station density, convective and stratiform precipitation	E Rustemeier
1215-1230	Input uncertainties for carbon estimates	P Peylin
1230-1330	Lunch break	
1330-1345	On reproducing rescued UA data for the 50's of last century and IGRA dataset by reanalyses	A Sterin
1345-1400	Radiosonde humidity bias adjustments using reanalysis background departures	M Blaschek
1400-1415	Radiosonde bias adjustments as input for ERA5	L Haimberger
1415-1430	Results from ERA-preSAT – Chances and challenges of assimilating pre-IGY upper air data	S Brönnimann (presented by L Haimberger)



1430-1500 *Instructions to Working Groups (break-out sessions)*

1530-1600 Coffee break

1600-1800 **Working Groups (break-out sessions, WP1/WP2/WP3/WP4)**

1800 End of second day

Friday 11 December (0900-1300)

0900-1100 **Plenary discussion (WP Leaders to report key points from the break-out discussions and present plan for next 12 months)**

0900-1000	Report of WG discussions and 1-year plan	WP Leaders
1000-1030	Review and comments	Advisers
1030-1100	Discussion	Chaired by R Buizza
1100-1130	Coffee break	

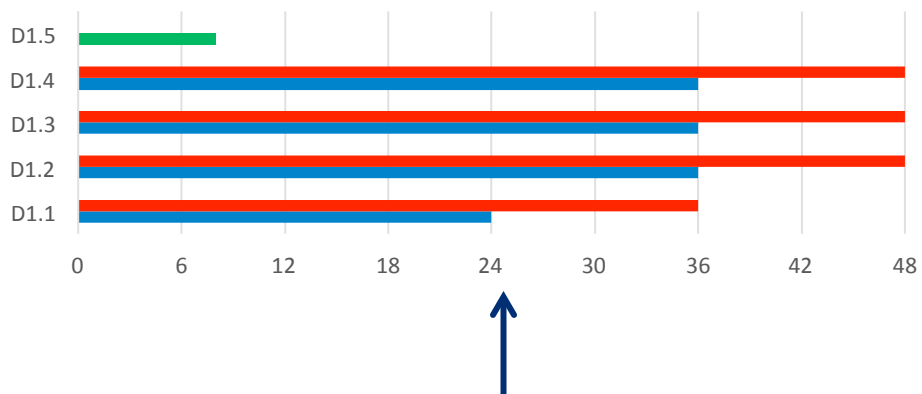
1130-1300 **Project summary**

1130-1145	EU comments to ERA-CLIM2 project	M Kacic
1145-1300	Recommendations and actions	Chaired by R Buizza
1300	End of General Assembly	

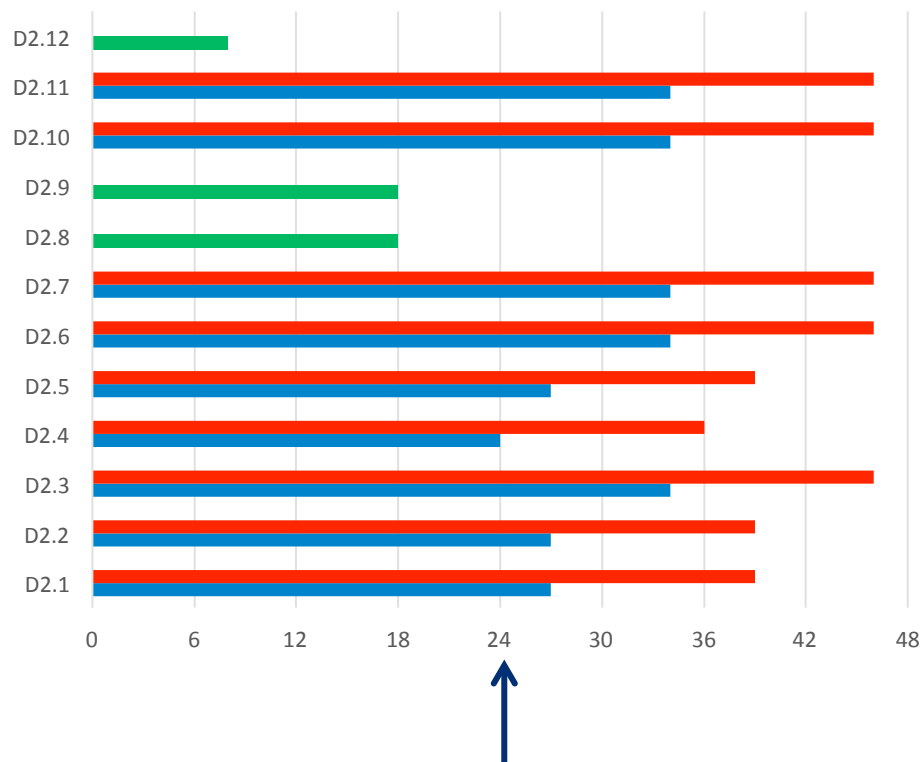
Project status: deliverables WP1-WP2



Deliverables - WP1



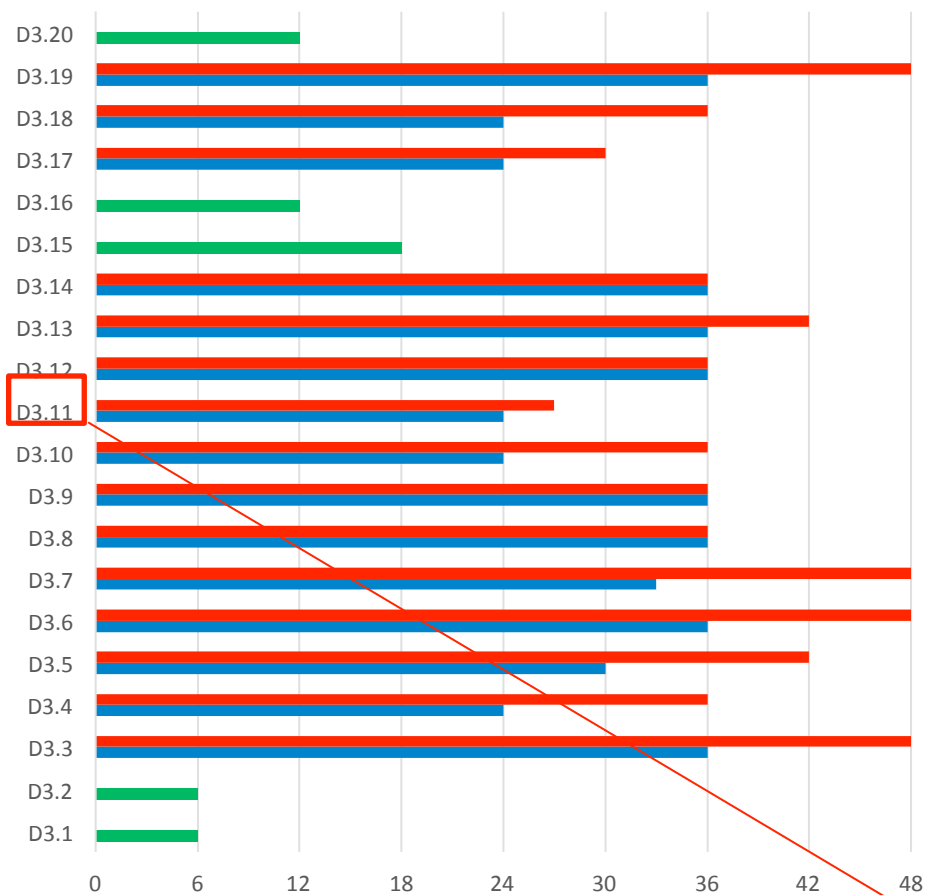
Deliverables - WP2



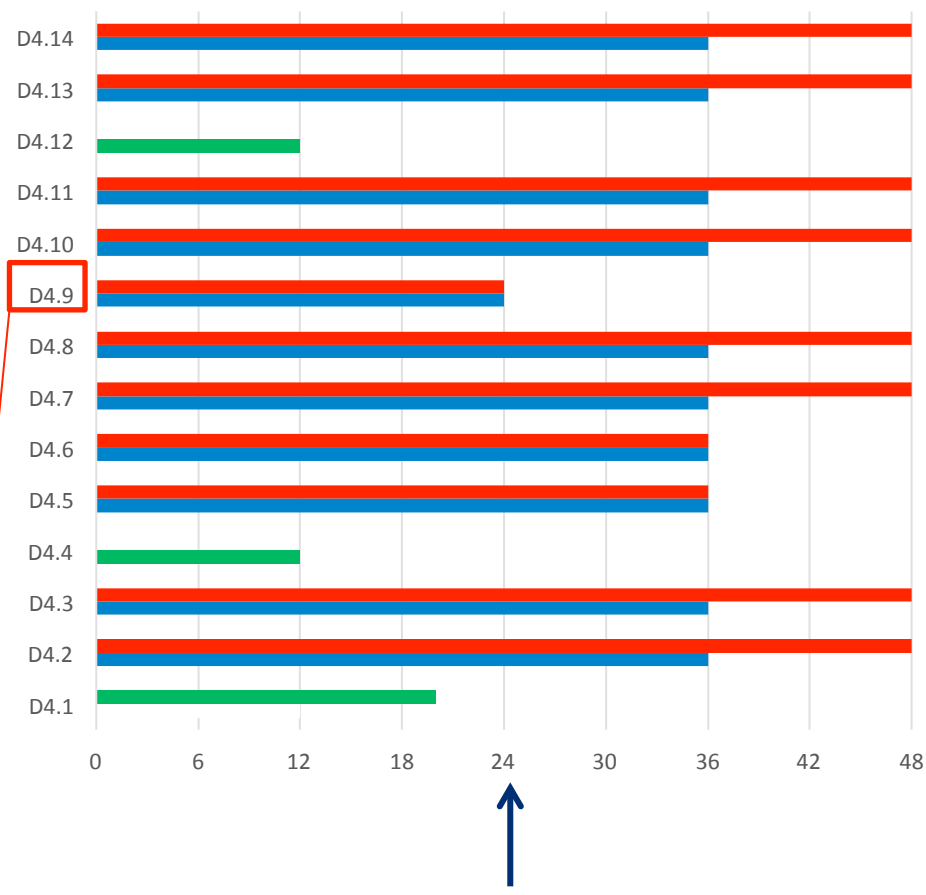
Project status: deliverables WP3-WP4



Deliverables - WP3



Deliverables - WP4

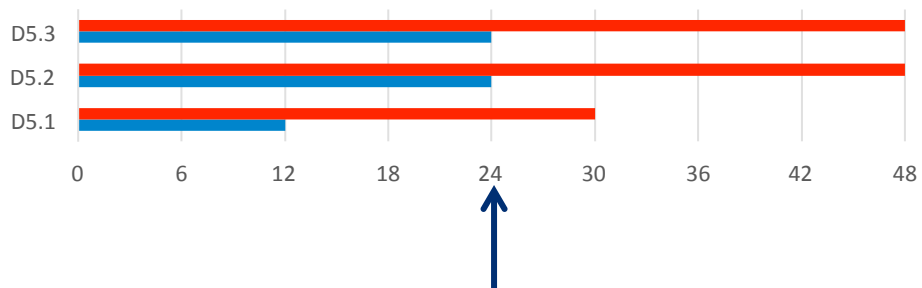


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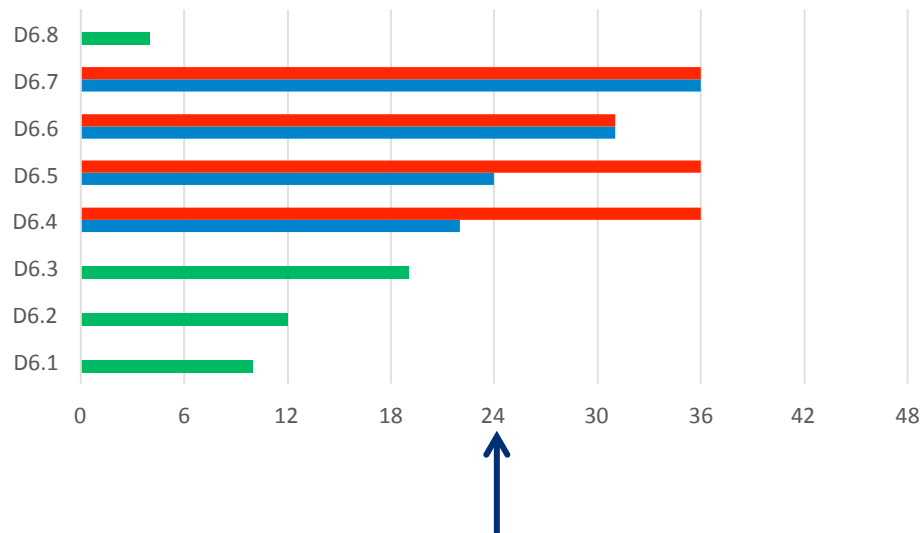
Project status: deliverables WP5-WP6



Deliverables - WP5



Deliverables - WP6



Financials

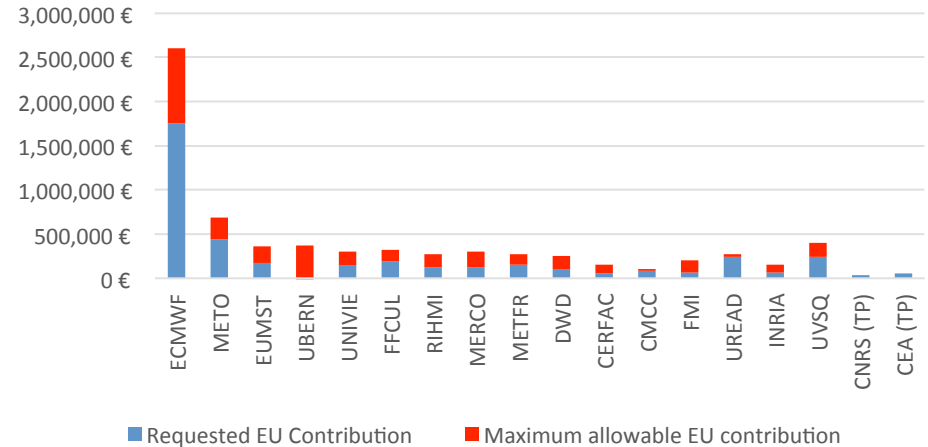


Please note that the 12-month extension is at no extra cost. With the extension of the project the payments are as following:

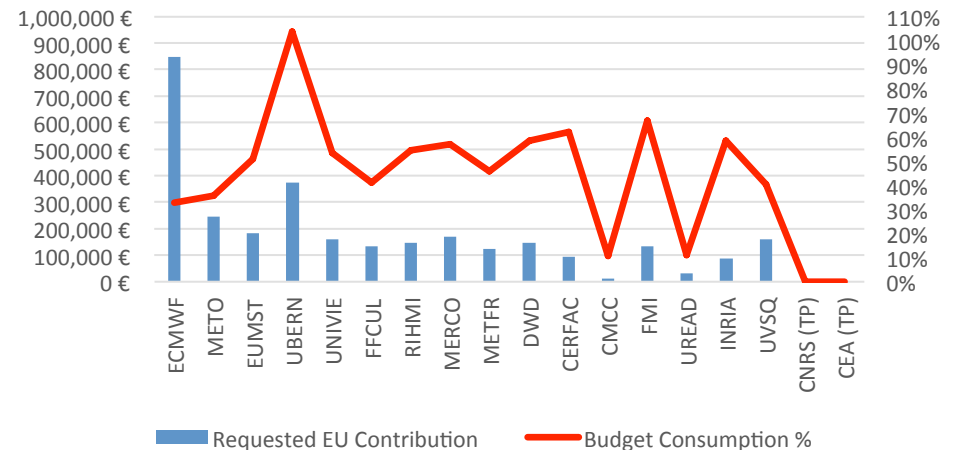
1. Pre-financing (60% with retention of 5% guarantee fund) – Q1-2014
2. First interim after month 18 (up to 90% of the budget) – To be paid in the coming days/weeks
3. Final payment after month 48 (remaining balance)

So at the end of reporting period 1 (now) the EU will have paid up to 90% of the grant. 10% of the funding is retained for the final payment.

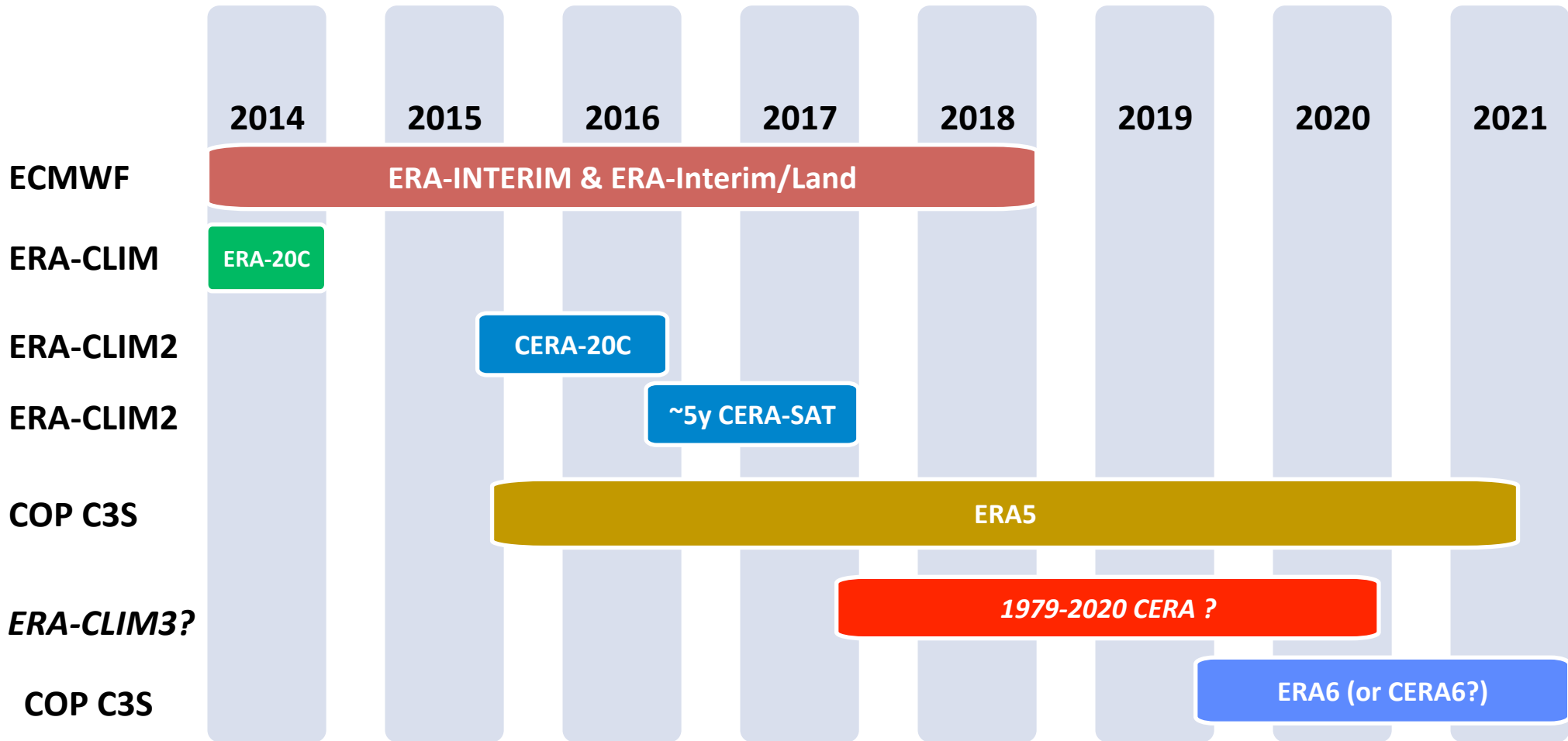
Partners' total and consumed budget (30/6/15)



Partners' consumption - 30/06/2015



Looking ahead in reanalysis production: is there a scope for ERA-CLIM3?



ERA-CLIM3 (Earth System Reanalysis): possible R&D scope



ERA-CLIM3 will still be an R&D project involving:

1. More data rescue: e.g. sea-level data from tide gauges; Atmospheric Motion Vectors from Nimbus satellite instrument THIR going back to early '70s, or addressing radiance records from older microwave instruments (NEMS and SCAMS) also covering early 1970s, ...
2. The addition of more existing data (e.g. for the ocean/sea-ice CRYOSAT, SMOS, Altimeter, ..)
3. The assimilation of new data (e.g. from SENTINELS, deep ARGO, ..)
4. The development and testing of new/better ways of assimilating sea-surface data:
 - a) Assimilation of high-frequency satellite data
 - b) Assimilation of historical and sparse data (sea level and sea-surface temperature)

ERA-CLIM3 (Earth System Reanalysis): possible R&D scope



5. The testing of existing assimilation methods and of new ones:
 - a) Assessment/development of more fully coupled DA methods
 - b) R&D of hybrid methods (flow dependent background error stats) in the ocean (e.g. from the EDA)
 - c) R&D of 4D-Var methods in the ocean (including sea-ice)
 - d) R&D of weak-constraint, multi-temporal-scales methods
 - e) Development of more scalable/flexible methods (e.g. OOPS)
 - f) Better handling/simulation of observation errors
6. Better integration of carbon, bio-chemistry and aerosols:
 - a) observational constraints on fluxes in these subsystems
 - b) still above average improvement can be expected in remote sensing of these constituents/subsystems
7. Higher-quality, higher-frequency output data (if asked for)

R&D in these areas should deliver improvements to be included in COP-C3S first coupled re-analysis (CERA6?) and will advance our knowledge for the future (higher-quality) systems.

Next meetings



ERA-CLIM2 WSs and GAs:

- User WS on observations for reanalysis (2016 – D5.5, M30) - Key organizer? Shall we co-organize it with Copernicus C3S?? When? Where?
- ERA-CLIM2 3rd General Assembly (2016 - M36) – Nov 2016? Where (Bern, Wien, Lisbon, ..)?
- WS on Coupled Data-Assimilation (2017 - M48) – Q2-2017? At ECMWF?
- ERA-CLIM2 4th General Assembly (2017 – M48) – Q4-2017 (close to the WCRP/WWRP 5th International Reanalysis Conference)? At ECMWF?

Other meetings where we could present ERA-CLIM2 work:

- Jan 2016 - AMS 96th Annual Meeting (New Orleans, 10-14 Jan 2016)
- Mar 2016 - Global Climate Observations: the road to the future (2-4 March 2016, Amsterdam; CFA 15/12/15)
- Apr 2016 - EGU General Assembly 2016 (Wien, 17-22 Apr 2016; CFA 13/1/16)
- May 2016 - ESA Living Planet Symposium (Prague, 9-13 May 2016)
- Sep 2016 - ECMWF Annual Seminar on 'Earth-System modelling' (5-9 Sep 2016)
- Sep 2016 - EUMETSAT Meteorological Satellite Conference (6-30 Sep 2016, CFA 31/01/16)
- Sep 2016 - CLIVAR Open Science Conference (19-23 Sep 2016) – Qingdao (China, TBC)
- 2017 - WCRP/WWRP 5th International Re-analysis Conference (Q4-2017? ECMWF?)
- 2017 - AMS 97th Annual Meeting

Common spaces: WGs, plenary, advisers, discussion



1) WG breakout sessions (Thursday 14.30-18.00):

- A space for the WP to review progress, discuss challenges and plan work
- Two groups (WP1+WP2, WP3+WP4)
- WG chairs please deliver a short summary (2-4 slides) to be presented to the plenary

2) Plenary (Friday 9.00-10.00):

- Each WG Chair to present short summary of the WG discussion (15m each) to the plenary, to be followed by a general discussion

3) Advisers (Friday 10.00-10.30):

- Advisers to give feedbacks and comments on progress

4) EU Commission (Friday 11.30-11.45)

5) Recommendations, actions and plan for 2016 (Friday 11.45-13.00)