Contract Awards

under Copernicus Delegation Agreement 1 January 2018 to 31 December 2018¹

¹ One or more Service Contracts may be awarded under a Framework Agreement. This list covers Service Contracts awarded in the period mentioned above. The relevant Framework Agreement may have been awarded in a previous period. Page **1** of **21**

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
C3S_23a	Software Infrastructure for the Climate Data Store (CDS)	FA: 26 May 2016 SC3: 25 Jun 2018	Telespazio Vega UK Ltd	350 Capability Green Luton, LU1 3LU United Kingdom	1,997,000.00	7 Jun 2019	80,738.55

This contract is for development of software infrastructure for a Climate Data Store (CDS) that will provide access to climate data and tools needed for climate services development and delivery. The software infrastructure will support:

- A web portal providing a central and holistic view of all information available to the C3S;

- Consistent and seamless access to data repositories distributed over multiple data suppliers;

- A catalogue of all data and products available;

- Provision of quality information on all data and products;

- Implementation of toolboxes to allow users to perform computations on the data and develop information products;

- Performance monitoring in terms of usage, system availability of the CDS, response time(s).

C3S_25	Software Development for the	FA: 12 Aug 2016	B-Open Solutions Srl	Via Principe Eugenio 15	973,292.31	31 Aug 2019	45,105.00
	Climate Data Store (CDS)	SC3: 20 Dec 2018		00185 Rome			
	Toolbox			Italy			

Description:

This contract is for development of software for the Climate Data Store (CDS) Toolbox. The CDS is composed of a set of distributed data repositories containing all types of climate data and products ranging from very large datasets such as observation, reanalysis, climate projection, multi-model seasonal forecast products, to smaller and more elaborated value added products such as climate indicator maps, time series, tables, etc.

One of the aims of the C3S is to provide an authoritative set of software (the CDS Toolbox) that will allow the users to develop applications that will make use of the content of the CDS. The Toolbox will be composed of:

- Tools that perform basic operations on data, such as computation of statistics, sub-setting, averaging, value at points, etc.;

- Workflows that combine tools by chaining them so that the output of some feeds as input to others;

- Applications that make use of workflows and selected data and products of the CDS to build interactive webpages.

These applications will be made available to users of the CDS via the C3S web portal, allowing them to perform data manipulation on the data and products of the CDS, and visualise their results. Users will also be able to share with other users of the CDS useful and quality controlled applications they have developed.

The data available in the CDS will vary greatly in volume (kilobytes to petabytes), in format (GRIB, NetCDF) and in nature (observations, fields, time series).

The contractor will:

- Establish the minimum set of tools required (differences or re-gridding, as well as statistical computations such as means or standard deviations);

- Review the existing software that could be used to implement this set of tools;

- Design a common data model that can be used to combine data and products of different types;

- Establish a method by which workflows using data and products that are held in various distributed data repositories can be orchestrated, allowing computation to be performed close to the data and data transfers to be minimised;

- Implement a series of reference applications that will demonstrate all functions offered by the Toolbox and will be used as examples.

The contractor will work closely with ECMWF and developments will follow an agile methodology. Technological choices will be based on existing open source software. Ownership of all rights in the resulting software will be assigned, through ECMWF, to the European Commission and ECMWF will release the resulting software, on behalf of the European Commission, under an open source licence. The architecture of the system will be open and extendible, and scale both in terms of the number of concurrent users and volume of available data.

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
C3S_34a Lot 1	Global climate projections: data access, product generation and impact of front line developments	FA: 30 Sep 2016 SC2: 27 Feb 2018 SC3: 2 Nov 2018	Science and Technology Facilities Council	Polaris House North Star Avenue Swindon SN2 1SZ United Kingdom	1,329,965.33	14 Dec 2019	SC2: 405,138.46 SC3: 430,961.00

Lot 1 Title: Provision of support to one Earth System Grid Federation (ESGF) node in Europe

Description:

The contractor for Lot 1 will facilitate access and manipulation of global climate projections from the CMIP5 archive. On the technical side, requirements will be set in terms of response time, availability of a user friendly interface with the C3S Climate Data Store and web portal, documentation standards, implementation of appropriate protocols (e.g. OPeNDAP) to allow computations from stored data on local servers. Scientific requirements on available data will also be specified in terms of number of supported models, number of available scenarios, availability of historical (e.g. 20th century to current date) simulations, minimum ensemble size. The focus of this particular contract is on non-initialized scenario simulations running up to 2100.

C3S_34a Lot	Global climate projections: data	FA: 3 Nov 2016	Royal Netherlands	PO Box 201	1,139,741.72	31 Mar 2019	567,536.78
2	access, product generation and	SC2: 30 Jan 2018	Meteorological Institute	3730 AE De Bilt			
	impact of front line			Netherlands			
	developments						

Lot 2 Title: Multi-model product generation

Description:

The contractor for Lot 2 will define the metrics aimed at quantifying the fidelity of available models in simulating historical climate condition, and the application of these metrics to most historical model datasets served by C3S. These metrics will make use of observations and reanalyses from the C3S Climate Data Store, and will be translated into quality flags to be used for the selection of the appropriate input to specific applications. This contract will also provide a suite of interactive tools for the generation of both generic products (for example, maps of intra-ensemble variability for different models and scenarios, etc.), and tailored products for at least four economic sectors (including energy and water).

C3S_34b Regional climate projections

General Description:

ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) has issued contracts for providing access to climate projections at global and regional level, developing multimodel products focussed on projected values of Essential Climate Variables (ECVs), assessing the potential benefit of improving specific aspects in the production of climate projections (e.g. with respect to the standards specified in international inter-comparison projects), and filling recognized gaps in the production of regional projections. A common goal across the C3S activities is a comprehensive assessment of the projection uncertainties, with reliable estimations of the roles played by different emission scenarios, global and regional model formulation, and internal climate variability.

These contracts are dedicated to the provision and assessment of regional projections produced with regional climate models (RCMs) for different emission scenarios (using an appropriate set of GCM lateral boundary forcings), to be developed as a part of the Service. The contract awarded under Lot 1 is concerned with providing technical solutions to access data from existing RCM simulations and boundary conditions with future experiments; the one awarded under Lot 2 will support a new and well-coordinated set of simulations for the European domain and its scientific exploitation.

C3S_34b	Lot Title: Definition and	FA: 11 May 2017	Swedish Meteorological	SE-601 76 Norrköping	3,664,999.14	30 Apr 2021	1,039,640.00
Lot 2	generation of a '3-D matrix' of	SC2: 21 Mar 2018	and Hydrological	Sweden			
	RCM projections		Institute				

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contrac Awarded, Euro
C3S_51 Lot 3	Evaluation and Quality Control Function for the Climate Data Store	FA: 26 May 2016 SC2: 9 Jan 2018	Barcelona Supercomputing Center (Centro Nacional de Supercomputación)	Calle Jordi Girona 29, Edificio Nexus II, 2 pl 08034 Barcelona Spain	1,681,759.97	30 Sep 2018	418,299.9
account of	ctor for Lot 3 is expected to work close experience gained in a number of exist c measures of skill, verification of info	sting European initiatives (e	.g. EUROSIP) and research p	projects (e.g. ECLISE, EUPORIA	S). Areas of focus in as	sessment shall i	
and the last of the second	a massures of skill varification of inf	armation on uncortaintion	tachnical achaota including	time alter and of super-liventice and	· · · · · · · · · · · · · · · · · · ·		
sectoral app	plications. The contractor will also pro-	vide an assessment of benef	fits of downscaling activities	to address regional application	ns at seasonal time-sca	iles.	
sectoral app C3S_51 Lot 4	Evaluation and Quality Control Function for the Climate Data Store	vide an assessment of benef FA: 10 Aug 2016 SC2: 22 Feb 2018	fits of downscaling activities Finnish Meteorological Institute				oducts for servin 526,974.3
sectoral app C3S_51 Lot 4 Lot 4 Title: 0 Description Activities in multi-mode Federation under the a Identificatio CORDEX). T	Dications. The contractor will also provide the contractor will also provide the control of the climate Data Store Climate Store Sto	vide an assessment of benef FA: 10 Aug 2016 SC2: 22 Feb 2018 nate Projections (at Global a multi-model climate projec ns. For global projections C ons restricted to the Europ el projection products will ta sely with ECMWF as well as t	fits of downscaling activities Finnish Meteorological Institute and Regional Scales) ctions, both global and regional 3S will rely initially on CMIF ean domain C3S will rely provide the cascount of experience grather the cascount of experience grather cascount of experience grat	to address regional application Erik Palmenin aukio 1 FI-00101 Helsinki Finland Ponal. C3S_34a contracts have P5 (Coupled Model Intercomp rimarily on CORDEX (Coordina ained in a number of existing E specially Lot 2) on the develop	been awarded to deve arison Project Phase 5 ted Regional Climate E uropean networks and ment of an EQC framev	elop a C3S capab output via the ownscaling Exp research project	ility f Earth erime cs (IS- oduc

General Description:

ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued contracts for activities to support climate reanalysis by extending the coverage and quality of input data from the data-sparse past. The overall objective for this set of services is to improve and harmonise access to the early (pre-1979) instrumental record. Deliverables shall be used as input for future climate reanalyses, including the next-generation C3S global reanalysis ERA6 which is scheduled to go into production by 2023. Access to all datasets and associated documentation shall be provided via the C3S Climate Data Store.

C3S_311c	Lot Title: Satellite Data Rescue	FA: 19 Nov 2018	SPASCIA: Space Science	Parc Technologique du	1,399,985.89	30 Jun 2021	125,998.73
Lot 1		SC1: 19 Nov 2018	Algorithmics SAS	Canal, 10 avenue de l'Europe			
				Ramonville-Saint-Agne			
				F-31520			

	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
				France			
	ed a contract for activities in suppor ne impact of such data by targeted c			• • • •		vailable for clima	ite reanalysis, and
C3S_311c Lot 2	Historic Upper-air Data	FA: 20 Dec 2018 SC1: 20 Dec 2018	University of Vienna	Universitätsring 1 1010 Vienna Austria	545,922.88	30 Jun 2021	545,922.88
together with observations	ed a contract for development and in metadata and information needed of upper-air weather data for temp	I for data assimilation such a	as bias adjustments and unc				
C3S_312b	Essential Climate Variable products derived from						
ECMWF as the observations,	observations ription: ne Entrusted Entity for the Copern , global and regional Essential Climat	e Variable (ECV) products de	erived from observations, glo	bal and regional climate rear	alyses, seasonal forecast	data and mode	-generated future
ECMWF as the observations, climate change for a variety of user support.	observations ription: ne Entrusted Entity for the Copern , global and regional Essential Climat ge scenarios. To support analysis and of ECVs. ECMWF issued contracts fo	e Variable (ECV) products de d monitoring of climate chan	erived from observations, glo ge, CDS users need access to	bal and regional climate rear o state-of-the-art Climate Dat	alyses, seasonal forecast a Records (CDRs) and Int	t data and mode erim Climate Da	-generated future ta Records (ICDRs)
observations, climate chang	observations ription: ne Entrusted Entity for the Copern , global and regional Essential Climat ge scenarios. To support analysis and of ECVs. ECMWF issued contracts for	e Variable (ECV) products de d monitoring of climate chan or reliable access to ECV pro	erived from observations, glo ge, CDS users need access to oducts via the CDS by procu	bal and regional climate rear state-of-the-art Climate Dat ring services related to produ	alyses, seasonal forecast a Records (CDRs) and Int uction, quality assurance	data and mode erim Climate Da , data access, do	-generated future ta Records (ICDRs) ocumentation and
ECMWF as the observations, climate change for a variety of user support. C3S_312b Lot 1 The contractor — Precipitation	observations ription: ne Entrusted Entity for the Copern , global and regional Essential Climat ge scenarios. To support analysis and of ECVs. ECMWF issued contracts for Lot Title: Atmospheric physics por for Lot 1 shall ensure timely access on, diation Budget, pour, perties,	e Variable (ECV) products de d monitoring of climate chan or reliable access to ECV pro FA: 10 May 2018 SC1: 10 May 2018	erived from observations, glo ge, CDS users need access to oducts via the CDS by procu Deutscher Wetterdienst	bal and regional climate rear o state-of-the-art Climate Dat ring services related to produ Frankfurter Str. 135 63067 Offenbach	alyses, seasonal forecast a Records (CDRs) and Int uction, quality assurance	data and mode erim Climate Da , data access, do	-generated future ta Records (ICDRs) ocumentation and
ECMWF as the observations, climate change for a variety of user support. C3S_312b Lot 1 The contractor — Precipitation — Surface Ra — Water Vap — Cloud Prop	observations ription: ne Entrusted Entity for the Copern , global and regional Essential Climat ge scenarios. To support analysis and of ECVs. ECMWF issued contracts for Lot Title: Atmospheric physics por for Lot 1 shall ensure timely access on, diation Budget, pour, perties,	e Variable (ECV) products de d monitoring of climate chan or reliable access to ECV pro FA: 10 May 2018 SC1: 10 May 2018	erived from observations, glo ge, CDS users need access to oducts via the CDS by procu Deutscher Wetterdienst	bal and regional climate rear o state-of-the-art Climate Dat ring services related to produ Frankfurter Str. 135 63067 Offenbach	alyses, seasonal forecast a Records (CDRs) and Int uction, quality assurance	data and mode erim Climate Da , data access, do	-generated future ta Records (ICDRs) ocumentation and

Dcean nall ensure timely access t re, and hydrology and e nall ensure timely access	FA: 4 May 2018 SC1: 4 May 2018	Collecte Localisation Satellites ed with the following ECVs: EODC Earth Observation Data Centre for Water Resources Monitoring GmbH	11, rue Hermes, Parc Technologique du Canal 31520 Ramonville-Cedex France Franz-Grill-Straße 9 1030 Vienna Austria	2,969,487.94	30 Jun 2021 30 Jun 2021	681,169.36
nall ensure timely access t re, and hydrology and e	SC1: 27 Mar 2018 to data products associate FA: 4 May 2018 SC1: 4 May 2018	Satellites ed with the following ECVs: EODC Earth Observation Data Centre for Water Resources Monitoring	Technologique du Canal 31520 Ramonville-Cedex France Franz-Grill-Straße 9 1030 Vienna			
re, and hydrology and e	FA: 4 May 2018 SC1: 4 May 2018	EODC Earth Observation Data Centre for Water Resources Monitoring	1030 Vienna	3,048,407.14	30 Jun 2021	620,697.16
e	SC1: 4 May 2018	Data Centre for Water Resources Monitoring	1030 Vienna	3,048,407.14	30 Jun 2021	620,697.16
nall ensure timely access	**					
/es,	to data products associate	ed with the following ECVs:				
and biosphere	FA: 27 Mar 2018 SC1: 27 Mar 2018	Vlaamse Instelling Voor Technologisch Onderzoek NV	Boeretang 200 2400 Mol Belgium	3,775,963.44	30 Jun 2021	3,775,963.44
	·					I
l Reanalysis- l Bias Correction for	FA: 13 Jul 2018 SC1: 13 Jul 2018	Norwegian Meteorological Institute	Henrik Mohnsplass 1 0313 Oslo Norway	199,672.90	30 Jun 2020	80,000.00
ו ו	all ensure timely access otosynthetically Active I Reanalysis- Bias Correction for	SC1: 27 Mar 2018 all ensure timely access to data products associate otosynthetically Active Radiation, Reanalysis- Bias Correction for SC1: 13 Jul 2018	SC1: 27 Mar 2018Technologisch Onderzoek NVall ensure timely access to data products associated with the following ECVs:otosynthetically Active Radiation,Reanalysis- Bias Correction forFA: 13 Jul 2018 SC1: 13 Jul 2018Norwegian Meteorological Institute	SC1: 27 Mar 2018Technologisch Onderzoek NV2400 Mol Belgiumall ensure timely access to data products associated with the following ECVs:otosynthetically Active Radiation,Reanalysis- Bias Correction forFA: 13 Jul 2018 SC1: 13 Jul 2018Norwegian Meteorological InstituteHenrik Mohnsplass 1 0313 Oslo Norway	SC1: 27 Mar 2018Technologisch Onderzoek NV2400 Mol Belgiumall ensure timely access to data products associated with the following ECVs:otosynthetically Active Radiation,Reanalysis- Bias Correction forFA: 13 Jul 2018 SC1: 13 Jul 2018Norwegian Meteorological InstituteHenrik Mohnsplass 1 0313 Oslo Norway199,672.90	SC1: 27 Mar 2018Technologisch Onderzoek NV2400 Mol Belgiumall ensure timely access to data products associated with the following ECVs:otosynthetically Active Radiation,Reanalysis- Bias Correction forFA: 13 Jul 2018Norwegian Meteorological InstituteHenrik Mohnsplass 1 0313 Oslo199,672.9030 Jun 2020

of ECMWF's global reanalysis services under C3S. The 6th global reanalysis (ERA6) will use the (C++ based) Object-Oriented Prediction System (OOPS) and (Fortran-based) Integrated Forecasting System (IFS). This contract aims to meet the requirement to optimise the variational bias correction system under OOPS and IFS.

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
C3S_330	Operational Production of Seasonal Forecasts						

General Description:

ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued contracts for the production of seasonal forecasts, to contribute to the operational phase of the C3S seasonal forecast service. The service will be a continuation of the activity started by C3S in 2016, which has at its core a multi-system seasonal forecast infrastructure. The focus will be on production and delivery of forecast data to an operational schedule. Each month during the next 3 years, each of the contractors will deliver 6-month forecasts from their respective operational seasonal forecast system. Similar inputs will be collected from ECMWF's operational seasonal forecast system, to the same deadlines. C3S will take ownership of the data products thus delivered, create further data and graphical products — including multi-system combinations — and make them available to the public without charge. While the task of maintaining and updating the operational system of each provider remains their responsibility, these contracts will support some of the activities involved. In addition to their production activities, each of the contractors is committed to contributing to user support and documentation associated to the data and products, under the coordination of C3S.

	0 11						
C3S_330		FA: 11 Apr 2018	Météo-France	73 avenue de Paris	1,993,434.69	30 Jun 2021	1,993,434.69
		SC1: 11 Apr 2018		94165 Saint Mande Cedex			
				France			
C3S_330		FA: 28 Feb 2018	Met Office	FitzRoy Road	2,307,907.51	31 May 2021	796,300.34
		SC1: 28 Feb 2018		Exeter, EX1 3PB			
				United Kingdom			
C3S_330		FA: 11 Apr 2018	Centro Euro-	Via Augusto Imperatore 16	2,027,032.00	30 Jun 2021	2,027,032.00
		SC1: 11 Apr 2018	Mediterraneo sui	73100 Lecce			
			Cambiamenti Climatici	Italy			
			S.C. A R.L.				
C3S_330		FA: 6 Jul 2018	Deutscher Wetterdienst	Frankfurter Str. 135	2,018,124.59	30 Jun 2021	2,018,124.59
		SC1: 6 Jul 2018		63067 Offenbach			
				Germany			
C3S_422	Global and European Services						

General Description:

ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued an Invitation to Tender (ITT) for services related to operational service provision. Copernicus Climate Change Service(C3S) aims to provide information to support the development of a climate resilient society. Through the Sectoral Information System (SIS), C3S has already 7 Proof of Concept elements (POCs) under development, addressing the needs of sectoral users in water, energy, insurance, agriculture and urban-management sectors in Europe. It is expected that building upon the experience gained from the POCs, a new set of operational services will be developed and delivered to address the sectors that are not served by the existing contracts.

Lot 1 aims to develop a set of operational services able to provide relevant and high-impact climate information to users operating on a global scale, addressing sectors such as health, agriculture and food security, air and marine transport, tourism, biodiversity. The service will be designed to provide high-visibility to the development that is taking place within C3S. The service will build upon the experience acquired during the preparation of the proof of concept demonstrators that are being developed as part of the SIS but whilst those covered the European domain and focussed mainly on individual sectors, the service developed in the context of this Lot will need to be global and might have a broader scope across several sectors.

Lot 2 aims to develop a set of services demonstrators based on the Climate Data Store (CDS) and able to provide relevant climate information to users operating at regional scale in Europe or in other regions of European interest. In particular, we are looking for services addressing the needs of one or more of the following sectors: transport, tourism, coastal areas, marine and fisheries, health and biodiversity. The service will build upon the experience acquired during the preparation of the proof of concept demonstrators that are being developed as part of the SIS. The services

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
	n and act as demonstrators of the find interoperable with them.	unctionalities of the CDS an	d thus will need to be put to	ogether solely using the tools a	and datasets available	on the CDS and	be designed fully
C3S_422 Lot 1	Lot Title: Global Services	FA: 9 Aug 2017 SC2: 6 Feb 2018	O.M. Offshore Monitoring Ltd	Nicou Pattichi 26 3071 Limassol Cyprus	2,496,935.78	28 Feb 2019	2,112,407.67
	or will deliver a set of operational on the seasonal time-scale whilst also lo			sea captains and shipping co		aims to extend t	he use of routing
C3S_422 Lot 1	Lot Title: Global Services	FA: 23 Aug 2017 SC2: 23 Mar 2018	Swedish Meteorological and Hydrological Institute	SE-601 76 Norrköping Sweden	2,543,533.80	28 Feb 2019	1,698,287.80
national orga	or will deliver operational climate s nisations aims to develop climate se o make hydrological predictions as	ervices to their needs using t	he datasets and the tools ava		_		
C3S_422 Lot 1	Lot Title: Global Services	FA: 9 Aug 2017 SC2: 24 Jan 2018	Stichting Wageningen Research — Wageningen Environmental Research	PO Box 47 6700 AA Wageningen Netherlands	2,496,773.79	31 Jan 2019	1,965,239.70
	or will deliver a set of operational g of local agricultural calendar and cli		-		stable crops (Maize, w	heat, rice and ba	arely) and, using a
C3S_422 Lot 2	Lot Title: European Services	FA: 1 Sep 2017 SC2: 27 Mar 2018	Stichting Deltares	Boussinesqweg 1 2629 HV Delft Netherlands	1,247,066.00	28 Feb 2019	674,835.71
	or will deliver operational climate s s and will look at how these events o						
C3S_422 Lot 2	Lot Title: European Services	FA: 25 Oct 2017 SC2: 15 May 2018	Plymouth Marine Laboratory	Prospect Place, The Hoe Plymouth, PL1 3DH United Kingdom	1,496,172.04	31 Mar 2019	978,146.16
	or will deliver operational climate se face circulation in the European she	•		ract will examine how the clim	ate-change induced al	terations of the	oxygen & nutrient
C3S_422 Lot 2	Lot Title: European Services	FA: 25 Sep 2017 SC2: 14 May 2018	, Tourisme, Transports, Territoires, Environnement Conseil	38 rue Sénac de Meilhan 13001 Marseille France	1,263,030.76	31 Mar 2019	993,839.01

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
Description:							
	or will deliver operational climate s				• •		
	lisrupt the tourism business. With s		g the needs of winter, coast	al and global tourism, the contra	act aims to provide th	ie target users w	with the tools they
C3S_422	are the sector for the changes to con Lot Title: European Services	FA: 31 Oct 2017	Vlaamse Instelling Voor	Boeretang 200	999,809.94	30 Apr 2019	638,262.53
Lot 2	Lot Inte. European services	SC2: 21 May 2018	Technologisch	B-2400 Mol	999,009.94	20 Abi 2013	036,202.33
2012		302. 21 Way 2010	Onderzoek NV (Flemish	Belgium			
			Institute for	Deigian			
			Technological Research)				
Description:		1	, ,				1
The Contracto	or will deliver operational climate ser	rvices for the health sector.	Using a combination of high-	resolution urban modelling and	vector borne diseases	the contractor	will provide health
authorities in	Europe with usable information abo	out the likelihood of upcomi	ing heatwaves or outbreaks	of specific diseases.			
C3S_424	Operational Sectoral	FA: 21 May 2018	Swedish Meteorological	SE-601 76 Norrköping	1,499,999.95	31 May 2021	846,368.00
	Information System for the	SC1: 21 May 2018	and Hydrological	Sweden			
	Water Sector		Institute				
Description:							
	e Entrusted Entity for the Copernicu	•					
	e-operational phase of the Sectoral						
	Ind will ensure — with the support of f_{1} includes the EEAS outputs	ECIVITY F STATT — THIS WIII FU	n operationally on ECIVIWF I	machines. The contractor will als	o be responsible for t	the developmen	t of a multi-model
	h includes the EFAS outputs.						
C3S_426	Operational Sectoral						
	Information System for the Energy and Wind Storm						
	Insurance Sectors						
General Desc							
	e Entrusted Entity for the Copernic	us Climate Change Service ((C3S) issued contracts for th	e development of operational se	ervices that build upo	on the experience	e acquired during
	ational phase of the Sectoral Information	<u> </u>				in the experience	
C3S_426	Lot Title: Operational Sectoral	FA: 3 May 2018	World Energy and	c/o School of Environmental	999,944.07	30 Apr 2020	578,592.37
Lot 1	Information System for the	, SC1: 3 May 2018	Meteorology Council	Sciences	,	•	
	Energy Sector	,	0,	University of East Anglia			
				Norwich			
				NR4 7TJ			
				United Kingdom			
Description:							
The Contracto	or for Lot 1 will deliver a series of ind	dicators relevant to the energy	rgy sector covering the histo	prical period, the fore coming dec	cades, as well as prov	iding an outlook	for the upcoming

The Contractor for Lot 1 will deliver a series of indicators relevant to the energy sector covering the historical period, the fore coming decades, as well as providing an outlook for the upcoming season. Differently from the pre-operational phase, all of the Climate Impact Indicators calculations and the user-interface will be based on the CDS Toolbox infrastructure.

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
C3S_426	Lot Title: Operational Sectoral	FA: 3 May 2018	Royal Netherlands	Utrechtseweg 297	299,885.89	31 Dec 2019	239,069.05
Lot 2	Information System for the	SC1: 3 May 2018	Meteorological Institute	3731 GA De Bilt			
	Wind Storm Insurance Sector			Netherlands			

Using a statistical downloading approach, the Contractor for Lot 2 will deliver a series of footprints for all the storms available on the historical catalogue. The Contractor will maintain and update such a catalogue with any new storm that happens, as well as will characterize the damages and the losses associated with each of the storms.

C3S_441 Sect	ectoral Information System –			
Proc	oof of concept			

General Description:

ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) has awarded contracts for a proof-of-concept aiming at demonstrating the value chain from earth observation and model outputs to actionable climate information in different Sectors. This Sectoral Information System (SIS) will translate and combine climate information from the Climate Data Store of the C3S and other sources to support users acting in specific sectors. Customized information products in the form of climate change indicators and ancillary information pertinent to the sectors and various EU sectoral policies will be disseminated via the Climate-ADAPT platform and the C3S data portal as it develops. The contractors will take full advantage of existing capabilities and products in European Member States and Commission Services. This proof-of-concept will require large sectoral user engagement, and demonstration of the value chain from earth observation and model simulations to tailored climate indicators addressing specific sectors, based on case studies. The focus will be over Europe. The contractors will bring together both providers and users to operate each component. The providers will be expected to deliver data products and information services and to engage with (and develop) the corresponding user communities across public and private sectors.

C3S_441	Lot Title: Energy	FA: 27 Nov 2015	University of East Anglia	Norwich Research Park	1,694,869.99	31 Mar 2018	94,886.63
Lot 2		SC3: 5 Feb 2018		Norwich			
				NR4 7TJ			
				United Kingdom			

Description:

In the energy sector, on national or international levels, efforts have been put into addressing scientific and technological challenges in implementing efficient ways to produce and manage sources of energy. The resilience and efficiency of energy systems is strongly influenced by the weather and climate environment. Climate variables and ancillary information is key to address energy industry challenges in the most effective and innovative way. Changes in temperature, precipitation, sea level, and the frequency and severity of extreme weather events will likely affect how much energy is produced, delivered, and consumed. The sectoral information system in energy will consider climate change indicators and ancillary information important to the totality of all of the industries involved in the production and sale of energy, including fuel extraction, manufacturing, refining and distribution involving relevant users.

C3S_512	Quality Assurance for the	FA: 10 Oct 2018	Barcelona	Carrer Jordi Girona 31	6,000,000.00	30 Jun 2021	6,000,000.00
	Climate Data Store	SC1: 10 Oct 2018	Supercomputing Center	08034 Barcelona			
			– Centro Nacional de	Spain			
			Supercomputación				

Description:

ECMWF as the entrusted entity for the Copernicus Climate Change Service (C3S) issued a contract for implementation of the Evaluation and Quality Control (EQC) function for the C3S Climate Data Store (CDS). The Contractor shall be responsible for evaluation of the quality and the provision of quality assurance information to users of the CDS, including its technical infrastructure, data catalogue, and toolbox. The purpose of the EQC function in C3S is to provide quality assurance information for all C3S products and services, and to ensure that users have the information they need in order to use the products and services for their own purposes. The EQC function also keeps track of user requirements, and informs ECMWF about gaps, limitations and shortcomings

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
	d service delivery. C3S users include		nners and policy makers, the	e media and the general public. T	he aim of this contra	ct is to verify tha	at the C3S Climate
Data Store is f	it for purpose, and to ensure that it						
C3S_513	Evaluation and Quality Control Framework for the Sectoral Information Systems	FA: 1 Nov 2018 SC1: 1 Nov 2018	Telespazio VEGA UK Ltd	350 Capability Green Luton LU1 3LU United Kingdom	2,999,554.70	30 Jun 2021	580,315.00
Information Sy contracts inclu	Entrusted Entity for the Copernicus ystems (SISs). The objective of this of uding their ability to engage with the m ECMWF, the European Commissi	contract is to identify the me e target users and provide v	ethodologies to assess the c alue to them. The Contracto	quality of both technical and deli or will design the routines and th fulness, usability and uptake of t	very components of e reporting procedur	the services dev	veloped by the SIS
CAMS_22	Provision of Up-To-Date European Air Quality Observations	FA: 13 Mar 2018 SC1: 13 Mar 2018	Trabajos Catastrales S.A.U.	C/ Cabarceno 6 31621 Sarriguren Spain	798,210.00	30 Jun 2021	298,249.00
(EEA), are nee	aims at improving the provision of u ded for assimilation, verification ar EEA to consolidate the existing dat	d validation of the CAMS gl	obal and regional forecasts	, deliverables of the Service to t	he European Commi	ssion. The Contr	
CAMS_42	Development of global reactive gases aspects	FA: 27 Sep 2016 SC3: 28 Nov 2018	Koninklijk Nederlands Meteorologisch Instituut (Royal Netherlands Meteorological Institute)	PO Box 201 3730 AE De Bilt Netherlands	1,299,999.98	30 Sep 2019	225,688.84
of reactive gas related Remov	s for providing support for and furth es in the troposphere and stratosph val Process Parameterizations, will c he contractor will also provide advio	nere through data assimilation develop and test the assimila	on and numerical modelling. ation of satellite radiance of	The contractor will deliver nume oservations in the wavelength ra	erical code represent	ing Chemical Me	chanisms and the
CAMS_50(II)	Regional Production						
component of — 1 Framewo forecasts and — 1 Framewo	ted Entity for implementing the Co CAMS. Two Frameworks Agreemer rk Agreement with Météo-France (ro analyses production, ensemble and rk Agreement with INERIS (ref. ECM	its with the following object ef. ECMWF/COPERNICUS/20 all models (except CHIMER	ives have been awarded: 18/CAMS_50_MF) covering) developments,	the following activities: overall r	egional production m	nanagement, ma	nagement of daily
development	and production.	FA: 16 Oct 2018	Météo-France	73 avenue de Paris	4,866,515.05	31 Dec 2021	2,207,938.89
		SC1: 16 Oct 2018	ואופנפט-דו מוונפ	94165 Saint-Mandé	4,000,515.05	JI DEC 2021	2,207,938.89

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
				France			
		FA: 16 Oct 2018 SC1: 16 Oct 2018	Institut National de l'Environnement Industriel et des Risques	Parc technologique Alata 60550 Verneuil-en-Halatte France	821,268.25	31 Dec 2021	376,131.76
CAMS_71	Products in support of policy users	FA: 26 Apr 2016 SC3: 19 Jan 2018	Institut national de l'environnement industriel et des risques	Parc technologique Alata 60550 Verneuil-en-Halatte France	1,299,998.05	31 Mar 2019	531,751.09

This contract will deliver a range of products of the CAMS portfolio that are especially targeted for (and continually developed with) Policy Users. These products are:

- Annual interim assessment reports based on the Interim Regional Re-analyses in support of national annual reporting duties about air quality and threshold exceedances;

- Annual assessment reports based on the Regional Re-analyses performed with validated surface observations, to serve as a reference document on the status of air quality in Europe;

- Daily 'green scenarios', which offer alternative forecasts of European air quality obtained with reduced level of anthropogenic emissions and allowing assessing and comparing the effectiveness of possible temporary mitigation measures or of candidate measures as part of future policies development:

- Daily and on-demand source-receptor calculations, which allow tracking the pollutants according to their sources and evaluating the different contributions to the local air quality.

The contract also comprises the organisation of an annual workshop of the CAMS Policy Users for discussing evolution and usability of the CAMS policy products and, more generally, of the CAMS Regional and Global Products that are relevant for EU, national and local policies.

CAMS_72(II)	Solar Radiation	FA: 22 Nov 2018	Deutsches Zentrum für	Linder Höhe	1,192,519.84	31 Dec 2021	443,486.29
		SC1: 22 Nov 2018	Luft- und Raumfahrt e.V.	51147 Köln			
				Germany			

Description:

As the entrusted entity for implementing the Copernicus Atmosphere Monitoring Service (CAMS), ECMWF issued a contract to provide, improve/extend and continuously evaluate the CAMS products related to solar radiation. This includes the evaluation of the global UV forecasts provided by ECMWF as well. The solar radiation service consists of global (clear sky) and multi-continental (defined by the field of view of geostationary satellite sensors to take into account the effect of clouds) solar irradiance databases. Time series based on an on-request access to long-term data sets up to several days' behind real-time information should be made available to users, targeting particularly solar energy applications.

CAMS_73(II)	Greenhouse-Gas Fluxes	FA: 23 Oct 2018	Commissariat à l'énergie	Bâtiment "Le Ponant D"	690,000.00	31 Dec 2021	295,970.59
		SC1: 23 Oct 2018	atomique et aux	25 rue Leblanc			
			énergies alternatives	75015 Paris			
				France			

Description:

As the entrusted entity for implementing the Copernicus Atmosphere Monitoring Service (CAMS), ECMWF issued a contract to provide quantitative estimates of natural and anthropogenic surface fluxes of greenhouse gases, which are key drivers of the earth's climate evolution. Ground-based and satellite remote-sensing observations allow these to be monitored. This contract is for extending the time-series of CH4, CO2 and N2O surface flux fields, both forwards and backwards (as far as possible) in time, while maintaining their quality at the highest international standard. Periodically, the contractor will reprocess the whole period in order to reflect improvements in spatial resolution as well as in modelling and data assimilation techniques used for the atmospheric flux inversions. The documentation of associated errors and comparison with independent observations as well as with main competing international products will also form part of the activities.

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
CAMS_74	Radiative forcings	FA: 21 Jan 2016 SC3: 5 Mar 2018	University of Reading	PO Box 217 Whiteknights Reading, RG6 6AH United Kingdom	524,605.76	31 Dec 2018	156,319.07
the strength of and particles and this cont estimate radio	is for providing quantitative estimat of the various mechanisms affecting are both short-lived and long-lived, ract is aiming at making the most o ative forcings from CAMS outputs (g	the Earth's radiation balance depending on the atmosphe f CAMS outputs to derive F	ce and thus causing climate eric residence time of the co RF distributions in support o	change. RF arising from change rresponding species. Some of tl f climate research and assessm	s in distributions of ra he RF are highly heter hents, such as the one	diatively active a ogeneous spatia es of the IPCC. T	atmospheric gases Ily and temporally he contractor wil
extension. CAMS_81	Global and regional emissions	FA: 11 Jul 2017 SC2: 28 Nov 2018	Centre National de la Recherche Scientifique	16, Avenue Edouard Belin 31400 Toulouse	1,289,984.26	31 Aug 2020	413,190.60
This contract 10 to 50 km (will provide gridded distributions of global) and 5 to 10 km (Europe). Th fied into headline activity sectors. T	e emissions will include aer	osol, NOx, NH3, SO2, DMS/(DCS, NMVOCs, CO, CH4, N2O, C	02, certain halogen s	pecies and Rado	on-222. They must
This contract 10 to 50 km (also be stratif regional emis Contractor wi emissions and of the develo	global) and 5 to 10 km (Europe). Th fied into headline activity sectors. T sions. Subsequent years will be add ill deliver monthly, weekly and diurn d investigating modelling methodolo pmental aspects of the work.	e emissions will include aer he period covered will be f ed at the pace of 1 addition al temporal profiles, so tha ogies to calculate certain em	osol, NOx, NH3, SO2, DMS/ rom 2000 to present for the nal year every year, as repor- t variations can be accounte hissions as a function of met	ons (global only) in direct suppo DCS, NMVOCs, CO, CH4, N2O, C e global emissions, and from 20 ting or ancillary or activities pro ed for in the CAMS systems. Imp eorological parameters (includ	CO2, certain halogen s DO3 to as close as pos oxy data become avail proving the representa ing forecasted ones) c	pecies and Rado sible to present able. Besides the ation of the temp or of other proxie	on-222. They must for the Europear e yearly totals, the poral variations of es will be in scope
10 to 50 km (also be stratif regional emis Contractor wi emissions and	global) and 5 to 10 km (Europe). Th fied into headline activity sectors. T sions. Subsequent years will be add ill deliver monthly, weekly and diurn d investigating modelling methodolo	e emissions will include aer he period covered will be f ed at the pace of 1 addition al temporal profiles, so tha	osol, NOx, NH3, SO2, DMS/0 rom 2000 to present for the nal year every year, as repor t variations can be accounted	ns (global only) in direct suppo DCS, NMVOCs, CO, CH4, N2O, C e global emissions, and from 20 ting or ancillary or activities pro d for in the CAMS systems. Imp	CO2, certain halogen s DO3 to as close as pos oxy data become avail proving the representa	pecies and Rado sible to present able. Besides the ation of the tem	on-222. They must for the European e yearly totals, the poral variations of
This contract 10 to 50 km (also be stratif regional emis Contractor wi emissions and of the develo CAMS_84(II) Description: As the Entrus main activitie and for those basis for furth Arctic and the	global) and 5 to 10 km (Europe). Th fied into headline activity sectors. T sions. Subsequent years will be add ill deliver monthly, weekly and diurn d investigating modelling methodolo pmental aspects of the work. Global and Regional a Posteriori Evaluation and Quality	e emissions will include aer he period covered will be f ed at the pace of 1 addition hal temporal profiles, so that ogies to calculate certain em FA: 16 Nov 2018 SC1: 16 Nov 2018 pernicus Atmosphere Moni- in outputs of these activities in parallel. This contract will be integrated in the CAMS w egional air quality products	osol, NOx, NH3, SO2, DMS/0 from 2000 to present for the nal year every year, as report t variations can be accounten hissions as a function of met Royal Netherlands Meteorological Institute toring Service (CAMS), ECM s will be a series of 3-month I also provide harmonised of vebsite. While the coverage of	ons (global only) in direct suppo DCS, NMVOCs, CO, CH4, N2O, C e global emissions, and from 20 ting or ancillary or activities pro- ed for in the CAMS systems. Imp ecorological parameters (includ Utrechtseweg 297 3731 GA De Bilt Netherlands WF issued a contract for Evalua ly EQA reports for the real-time n-line graphics and quality mor of the EQA should be global, spe	202, certain halogen s 203 to as close as pos 203 to as close as pos 2,649,904.06 2,649,904.06 ation and Quality Assu global products, the intoring statistics, usin cific efforts are targete	pecies and Rado sible to present able. Besides the ation of the temp or of other proxie 31 Dec 2021 urance (EQA) act continued CAMS g pre-existing CA ed at validation o	ivities, one of the global reanalysis MS software as a ver the Europear

ITT Ref.	Title	Date of award of	Name of recipient	Address of recipient	Amount of	End date of	Amount of
		Framework Agreement			Framework	Framework	Service Contract
		(FA) and of Service			Agreement, Euro	Agreement	Awarded, Euro
		Contract (SC)					

As the Entrusted Entity for implementing the Copernicus Atmosphere Monitoring Service (CAMS), ECMWF issued a contract for activities to support ECMWF with the management of the relationship between CAMS and its users, with the overarching goal to ensure the best possible use of the products by the users and to their full satisfaction.

In more detail, the objectives are to:

- facilitate understanding of the requirements of users through detailed analyses and translate these user requirements into specifications for the service lines and the supporting upstream processing, product delivery, and web facilities,

- organize user feedback loops via user workshops, and

- set up and maintain the CAMS User Requirements Data Base (URDB) that keeps a record of all user requirements and their analysis.

This will be achieved by gathering and analysis of user requirements from the user workshops, through the CAMS Service Desk, and via the various CAMS Service Providers.

CAMS_95 CAMS Use Cases ______

General Description:

ECMWF as the Entrusted Entity for the Copernicus Atmosphere Monitoring Service (CAMS) issued eight contracts as a result of the ITT CAMS_95 CAMS Use Cases. The overall objective of the projects funded under this ITT, which are focused on the Eastern and Southern European Countries, is to develop and demonstrate end-to-end applications (product, software or service) based on CAMS products with the aim to stimulate innovative ideas and support the development of downstream applications.

CAMS_95a	Contract Title: Air quality	FA: 16 Jun 2017	Heich Consult GmbH	Bergiusweg 1	95,000.00	30 Jun 2019	47,450.00
	forecasts for urban	SC2: 5 Jul 2018		D-50354 Huerth			
	environments using CAMS			Germany			
	services and public open data						
	sets						
CAMS_95h	Contract Title: Assistance for	FA: 29 Jun 2017	Institut national de	Parc technologique ALATA	94,988.91	31 Dec 2019	40,183.64
	use of CAMS product in the	SC2: 2 Aug 2018	l'environnement	60550 Verneuil-en-Halatte			
	field of air quality monitoring		industriel et des risques	France			
CAMS_95(II)	CAMS Use Cases (second batch)						

General Description:

ECMWF as the Entrusted Entity for the Copernicus Atmosphere Monitoring Service (CAMS) issued six contracts as a result of the ITT CAMS_95 (second batch) Use Cases. The overall objective of the projects funded under this ITT, is to develop and demonstrate end-to-end applications (product, software or service) based on CAMS products with the aim to stimulate innovative ideas and support the development of downstream applications. This was the second call for CAMS_95 Use cases which aimed selecting new cases for continuing to bring about success stories of uptake of CAMS products and to spin-up sustainable businesses.

CAMS_95i	Contract Title: Aire salud	FA: 21 Jun 2018	Aria Technologies	8-10 rue de la Ferme	96,085.00	31 Mar 2020	SC1: 28,257.00
		SC1: 21 Jun 2018		92100 Boulogne-Billancourt			SC2: 67,828.00
		SC2: 6 Dec 2018		France			
CAMS_95j	Contract Title: AsSISt: Aircraft	FA: 8 Aug 2018	Capgemini	109 Avenue Eisenhower	99,981.85	31 Jan 2020	78.903,93
	Support & Maintenance	SC1: 8 Aug 2018		31036 Toulouse Cedex			
	Services			France			

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
CAMS_95k	Contract Title: Global Air Quality Forecasting for Urban Areas	FA: 23 May 2018 SC1: 23 May 2018 SC2: 20 Dec 2018	Science & Technology BV	Olof Palmestraat 14 2616 LR Delft The Netherlands	99,998.30	30 Nov 2019	SC1: 52,604.40 SC2: 47,393.90
CAMS_95I	Contract Title: UTAQ: Urban Tool for Air Quality	FA: 15 Jun 2018 SC1: 15 Jun 2018 SC2: 6 Dec 2018	TerrAria srl	Via Melchiorre Gioia 132 20125 Milan Italy	78,210.00	28 Feb 2020	SC1: 38,929.00 SC2: 39,281.00
CAMS_95m	Contract Title: Particulate Matter Source Apportionment Service tailored for German City Authorities	FA: 28 Jun 2018 SC1: 28 Jun 2018 SC2: 6 Dec 2018	ΤΝΟ	Stieltjesweg 1 2628 CK Delft The Netherlands	99,604.55	31 Dec 2019	SC1: 59,000.00 SC2: 40,604.55
CAMS_95n	Contract Title: ATMOSYS-CAMS: The integration of CAMS global data to test the feasibility for the smart city market in India	FA: 19 Jun 2018 SC1: 19 Jun 2018 SC2: 4 Dec 2018	VITO	Boeretang 200 B-2400 Mol Belgium	99,994.01	29 Feb 2020	SC1: 53,152.54 SC2: 46,841.47
COP_001	Framework for Agencies to Supply Copernicus Communication Services	FA: 9 Aug 2016	List as provided in the 2016 Copernicus Contract Awards report		9,500,000.00	14 Aug 2020	See separate table below (Contract IDs with "COP_001" prefix)

General Description:

ECMWF has set up a roster of agencies to supply communication services and products for its Copernicus Climate Change Service (C3S) and Copernicus Atmosphere Monitoring Service (CAMS) activities.

The areas of work that will be covered by the framework are broadly as follows:

- Event design and delivery;

- Stakeholder engagement;
- Media and public relations;
- Content development, in both copy and graphic design;
- Marketing and marketing research;

- Specialist digital media solutions and services.

In total, 16 agencies have been accepted to the roster for different service areas as a result of this procurement exercise. It is anticipated that further invitations to tender will be launched for accepting additional agencies onto the framework.

The total financial value of the contract stated above is the maximum budget available for the Framework to which the awarded entities are accepted.

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
COP_010	Copernicus User Learning Services						
Copernicus U These learnin as energy, ins user learning	ription: ne entrusted entity for the delivery o lser Learning Services under two lots ng services will also increase the upta surance and water; policy-makers an s services (Lot 1) and develop and d ups and develop a training strategy t	. The focus is provision of le ke of the Copernicus Climat d local government planner eliver training for a wide ra	arning services in order to s e Change Service and Atmo s; and academic and scienc nge of audience types in C	upport existing and new users to sphere Monitoring Service respe e communities. The contractors	o make best use of Co ectively targeting thos will provide the tech	opernicus data a se working in ind nical infrastructu	nd products. ustry sectors such ure supporting the
COP_010 Lot 1	Contract title: The provision of the technical infrastructure for the Copernicus User Learning Services	FA: 21 May 2018 SC1: 21 May 2018	Arcusys Oy	Koskikatur 7 A, 8 0100 Joensuu Finland	499,963.25	31 Dec 2020	245,062.50
COP_010 Lot 2	Contract title: Building and delivering training content	FA: 13 Jun 2018 SC1: 13 Jun 2018 SC1.a: 17 Sep 2018 SC1.b: 4 Dec 2018 SC2: 4 Dec 2018	Stichting Wageningen Research - Wageningen Environmental Research	Droevendaalsesteeg 3 6708 PB Wageningen The Netherlands	2,499,949.99	31 Dec 2020	SC1: 570,137.10 SC1.a: 121,165.50 SC1.b: 79,352.25 SC2: 376,134.82
COP_020	Copernicus Communications Services						
communicati Atmosphere	ription: le entrusted entity for the delivery of ons services in order to assist and Monitoring Service. The contracts a munity, media and general public. Contract title: Events activities	reinforce regular ECMWF C	Copernicus Department cor	nmunication and outreach activ	ities for both Coper	nicus Climate Ch	nange Service and
COP_020	Contract title: Press activities	SC1. 3 Aug 2018 SC1.a: 17 Dec 2018 FA: 8 Aug 2018	HBI Intl. PR & MarCom	Italy Stefan-George-Ring 2	1,483,835.00	31 Dec 2020	121,687.71 SC1: 115,070.00
Lot 2		SC1: 8 Aug 2018 SC1.a: 19 Dec 2018	Agency GmbH	81929 Miinchen Germany	,,		SC1.a: 119,211.90
COP_020 Lot 3	Contract title: Public outreach activities	FA: 8 Aug 2018 SC1: 8 Aug 2018 SC1.a: 6 Dec 2018	EJR-Quartz	3e Binnenvestgracht 23F 2312NR Leiden Netherlands	1,455,314.49	31 Dec 2020	SC1: 119,708.44 SC1.a: 99,661.14

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
COP_031	Provision of audit services to ECMWF for Copernicus contracts	FA: 28 Mar 2018 SC1: 28 Mar 2018	BDO LLP	16 The Havens, Ransomes Europark Ipswich IP3 9SJ United Kingdom	299,700.00	27 Mar 2021	99,900.00
establishing t of approxima of this ITT wa — supporting — carrying o	rates the Copernicus Delegation Agre the Copernicus Programme. The tota ately 70 contracts, ranging from 100 as to obtain quotes from suppliers fo g ECMWF in establishing the Coperni ut the audits in accordance to the an rded a 36-month framework agreem	I budget expected to be aw 000 EUR to 6 000 000 EUR, r the provision of audit serv cus contracts audit function nual audit plan (Work Packa	arded to third parties over t signed with entities establis ices to ECMWF for Copernic (Work Package 1), age 2).	he period 2014-2021 amounts t shed in any of the European Uni sus contracts by:	o 208 410 000 EUR. E on Member States or	CMWF anticipat • ECMWF Memb	tes a total number
COP_033	Copernicus IT Consultancy Support Services in scope of the CDS and Copernicus DIAS						
General Desc		I	1	1		1	1
	on-premises IT consultancy support t			· · ·			
COP_033 Lot 1	Lot Title: Web Developers for the Copernicus Data Store (CDS) infrastructure	FA: 10 May 2018 SC1: 10 May 2018	Global Technologies SAS	6 boulevard du Général Leclerc 92110 Clichy France	182,185.00	14 Jun 2020	91,092.50
within the CD	ed a contract for one full-stack Web DS team, which is in charge of the im ncy support requires a full-time avail JK.	plementation, operation an	d maintenance of that platfo	orm.			_
COP_033 Lot 2	Lot Title: Systems Integrator for Data Access and Processing within the Copernicus Data and Information Access Services (DIAS) group of projects	FA: 10 May 2018 SC1: 10 May 2018	Global Technologies SAS	6 boulevard du Général Leclerc 92110 Clichy France	269,985.00	14 Jun 2020	134,992.50
	ed a contract for one Systems Integ						g on Data Access

ITT Ref.	Title	Date of award of Framework Agreement (FA) and of Service Contract (SC)	Name of recipient	Address of recipient	Amount of Framework Agreement, Euro	End date of Framework Agreement	Amount of Service Contract Awarded, Euro
The consultan	cy support requires a full-time availa	ability of the System Integrat	or for the full duration of th	e contract. The tasks of the Cons	ultant shall be carried	d out mainly at E	CMWF's premises
in Reading, U.	K. but occasional travel within Europ	pe may be required.					
COP_043	DIAS — Processing, Data Access	FA: 28 Nov 2018	GMV Aerospace and	Calle de Isaac Newton 11	1,470,132.49	31 Dec 2019	1,212,211.51
	and Tools Software	SC1: 28 Nov 2018	Defence S.A.U.	PTM-Tres Cantos			
				28760 Madrid			
				Spain			
As part of the	European Union's Copernicus progr	amme, the European Centr	e for Medium-Range Weath	er Forecasts (ECMWF), together	with the European C	Organisation for t	he Exploitation of
Meteorologica	al Satellites (EUMETSAT) and Merca	tor Ocean, have joined force	es to implement a Data and	Information Access Services (DIA	S) platform called W	EkEO.	
The WEkEO (D	DIAS) platform will consist of a cloud	-based infrastructure that w	/ill make all Copernicus data	and information available to its	users as well as the t	ools needed to p	process the data.
The objective	of this contract is to design, develo	p, implement, test, and deli	ver the processing, data acc	cess, and tools software for Itera	tion V1 of the WEkE	O (DIAS) platfori	m. It also requires
the contractor	r to prepare and deliver related doc	umentation, prepare and de	liver related training materi	als, and provide related lifecycle	support. Together w	ith the output fr	om ITT-1 Iteration
V1, this will th	en form the entire Iteration V1 DIAS	5 platform. The V1 DIAS plat	form is required to be opera	ational by the end of Q1 2019 an	d to be supported th	rough to end of	Q4 2019.

Contract ID	Title	Date of award	Name of recipient	Address of recipient	Amount of contract, Euro or Pounds	End date of contract
C3S_23c	Development of additional features and support to corrective maintenance for the Climate Data Store	20 Aug 2018	Telespazio VEGA UK Ltd	350 Capability Green Luton LU1 3LU United Kingdom	€ 150,000.00	completed
C3S_23d	Maintenance support and knowledge transfer for the Climate Data Store Infrastructure	19 Dec 2018	Telespazio VEGA UK Ltd	350 Capability Green Luton LU1 3LU United Kingdom	€ 114,960.00	31 Dec 2019
COP_001_035	Corporate design and print support	1 Feb 2018	Red Stone Design	9-10 Charterhouse Buildings London, EC1M 7AN United Kingdom	€ 150,000.00	completed
COP_001_035	Corporate design and print support	1 Mar 2018	Carol Byrne Creative Communications	Daidadi, 32 Platia Papagou, Ermopolis 84100 Syros Greece	€ 12,000.00	completed
COP_001_035 Amendment 1	Corporate design and print support	14 Dec 2018	Carol Byrne Creative Communications	Daidadi, 32 Platia Papagou, Ermopolis 84100 Syros Greece	€ 6,910.00	completed
COP_001_036	EU Parliament Event	6 Feb 2018	Design & Data GmbH	Hohenzollernring 56 50672 Cologne Germany	€ 124,828.00	completed
COP_037	CAMS General Assembly 2018	28 Jun 2018	Forum d'Ideias, Lda	Rua da Juventude Azeitonense, 137B 2925-588 Vila Nogueira Azeitão Portugal	€ 40,308.97	completed
COP_038	JIRA Service Desk Integration Add- on	21 Jun 2018	SourceSense	Unit 214, Burford Road Business Centre 11 Burford Road London E15 2ST United Kingdom	€ 28,000.00	completed
COP_039	Requirements Study for C3S Attribution Services	1 Jun 2018	Royal Netherlands Meteorological Institute	Utrechtseweg 297 3731 GA De Bilt Netherlands	€ 130,302.80	completed

Contract ID	Title	Date of award	Name of recipient	Address of recipient	Amount of contract, Euro or Pounds	End date of contract
COP_040	Analysis of technologies and solutions to implement DIAS platform	9 Apr 2018	Thales Services SAS	290, Allée du Lac 31670 Labège France	€ 12,000.00	completed
COP_040	Analysis of technologies and solutions to implement DIAS platform	9 Apr 2018	GMV Aerospace and Defence S.A.U.	Calle de Isaac Newton 11 PTM-Tres Cantos 28760 Madrid Spain	€ 22,000.00	completed
COP_041	UX testing for C3S / CAMS websites and CDS prototype review	27 Mar 2018	CX Partners Ltd	First Floor 2 College Square Anchor Road Bristol, BS1 5UE United Kingdom	€ 25,311.00	completed
COP_042	Technical Support for Contract Management of C3S_312b Contracts	9 Jul 2018	Assimila Limited	Reading Enterprise Centre University of Reading Earley Gate Reading, RG6 6BU United Kingdom	€ 164,525.00	30 Jun 2019
COP_001_044	2D animations for CO2 in the context of CAMS activities and Ozone in the atmosphere and the phenomena of the annually recurring Ozone hole in the arctic	22 Jun 2018	Design & Data GmbH	Hohenzollernring 56 50672 Cologne Germany	€ 25,080.00	completed
COP_045	Toll for CDS	28 Nov 2018	Splunk Solution	3 Shelden Square London W2 6HY United Kingdom	€ 28,452.00	27 Nov 2019
COP_001_046	Additional video production for the C3S General Assembly and CAMS 3D Ozone Visualisation	10 Jul 2018	Design & Data GmbH	Hohenzollernring 56 50672 Cologne Germany	€ 24,200.00	31 Jan 2019
COP_047	Event Management Services for the C3S General Assembly	24 Sep 2018	Event Consult Gesellschaft für Messe- und Congress- Management mbH	Neue Kantstraße 20 14057 Berlin Germany	€ 73,507.81	completed
COP_001_017 SC1 Amendment 1	Provision of Copernicus Websites Design and Build, Hosting and Support	22 Aug 2018	Code Enigma Ltd	Smithfield Business Centre 5 St John's Lane London, EC1M 4BH United Kingdom	€ 18,545.00	17 Nov 2019
COP_001_017 SC2	Provision of Copernicus Websites Design and Build, Hosting and Support	20 Dec 2018	Code Enigma Ltd	Smithfield Business Centre 5 St John's Lane London, EC1M 4BH	€ 41,440.00	30 Nov 2019

Contract ID	Title	Date of award	Name of recipient	Address of recipient	Amount of contract, Euro or Pounds	End date of contract
				United Kingdom		
COP_001_024 SC2	Copernicus Media Partnership Proposition	21 May 2018	CAP&CIME PR	8 rue Royale 75008 Paris France	€ 904,349.00	31 May 2019
COP_048	Provision of lesson template to be used in the Valamis platform as deployed for the C3S User Learning Services	31 Oct 2018	Valamis Oy	Koskikatu 7 A, 8 0100 Joensuu Finland	€ 25,200.00	completed
C3S_425	Migration of Sectorial Information System demonstrators onto the operational infrastructure	15 Jan 2018	Predictia Intelligent Data Solutions SL	Avda. los Castros s/n I+D Building S345 39005 Santander Spain	€ 80,817.50	completed
18-8011	AAAS2018 Participation fees	13 Jan 2018	Créaset SA	Avenue de l'Industrie 9 1420 Braine-l'Alleud Belgium	€30,000.00	completed
18-8054	Meteorological Technology World Expo 2018	25 Apr 2018	UKi Meida & Events Ltd	Abinger House Church Street Dorking Surrey, RH4 1D United Kingdom	€ 17,346.00	completed
18-8081	ESOF 2018 Participation	18 Jun 2018	Europa Group	19, allées Jean Jaurès, BP 61508 31015 Toulouse Cedex 6 France	€ 15,350.00	completed
18-8122	Sponsorship package for workshop - improving the value chain from observations	12 Nov 2018	World Meteorological Organization	7 bis, Avenue de la Paix CH-1211 Geneva Switzerland	€ 15,000.00	completed