

# Contract Awards

## under Copernicus Delegation Agreement

### 1 January 2018 to 31 December 2018<sup>1</sup>

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<sup>1</sup> 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.

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

**Description:**

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 Climate Data Store (CDS) Toolbox	FA: 12 Aug 2016 SC3: 20 Dec 2018	B-Open Solutions Srl	Via Principe Eugenio 15 00185 Rome Italy	973,292.31	31 Aug 2019	45,105.00
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**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
<p>Lot 1 Title: Provision of support to one Earth System Grid Federation (ESGF) node in Europe</p> <p>Description:</p> <p>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.</p>							
C3S_34a Lot 2	Global climate projections: data access, product generation and impact of front line developments	FA: 3 Nov 2016 SC2: 30 Jan 2018	Royal Netherlands Meteorological Institute	PO Box 201 3730 AE De Bilt Netherlands	1,139,741.72	31 Mar 2019	567,536.78
<p>Lot 2 Title: Multi-model product generation</p> <p>Description:</p> <p>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).</p>							
C3S_34b	Regional climate projections						
<p>General Description:</p> <p>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 multi-model 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.</p> <p>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.</p>							
C3S_34b Lot 2	Lot Title: Definition and generation of a '3-D matrix' of RCM projections	FA: 11 May 2017 SC2: 21 Mar 2018	Swedish Meteorological and Hydrological Institute	SE-601 76 Norrköping Sweden	3,664,999.14	30 Apr 2021	1,039,640.00

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_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	418,299.91
<p>Lot 3 Title: Quality Assurance for Multi-model Seasonal Forecast Products</p> <p>Description:</p> <p>Activities in Lot 3 will address multi-model seasonal forecast products. A C3S multi-model seasonal forecast product capability is currently being developed at ECMWF. It will rely on contributions from several providers who maintain their own seasonal forecast systems; the providers selected will adapt aspects of their production systems to the scientific and operational needs of C3S. The contractor for Lot 3 is expected to work closely with ECMWF as well as the selected providers on the development of an EQC framework. Identification of user requirements must take account of experience gained in a number of existing European initiatives (e.g. EUROSIP) and research projects (e.g. ECLISE, EUPORIAS). Areas of focus in assessment shall include: the use of probabilistic measures of skill, verification of information on uncertainties, technical aspects including timeliness of production and fitness for purpose of multi-model products for serving sectoral applications. The contractor will also provide an assessment of benefits of downscaling activities to address regional applications at seasonal time-scales.</p>							
C3S_51 Lot 4	Evaluation and Quality Control Function for the Climate Data Store	FA: 10 Aug 2016 SC2: 22 Feb 2018	Finnish Meteorological Institute	Erik Palmenin aukio 1 FI-00101 Helsinki Finland	1,642,817.67	31 Oct 2018	526,974.33
<p>Lot 4 Title: Quality Assurance for Multi-model Climate Projections (at Global and Regional Scales)</p> <p>Description:</p> <p>Activities in Lot 4 will address products based on multi-model climate projections, both global and regional. C3S_34a contracts have been awarded to develop a C3S capability for delivering multi-model products based on climate projections. For global projections C3S will rely initially on CMIP5 (Coupled Model Intercomparison Project Phase 5) output via the Earth System Grid Federation (ESGF). For higher resolution projections restricted to the European domain C3S will rely primarily on CORDEX (Coordinated Regional Climate Downscaling Experiment) activities under the auspices of WCRP.</p> <p>Identification of user requirements for multi-model projection products will take account of experience gained in a number of existing European networks and research projects (IS-ENES, SPECS, CORDEX). The contractor is expected to work closely with ECMWF as well as the C3S_34a contractors (especially Lot 2) on the development of an EQC framework for these products. Areas of focus in assessment will include the use of probabilistic measures of skill, verification of information uncertainties, recommendations on the future inclusion of initialised projections, technical aspects including timeliness of production and fitness for purpose of multi-model products for serving sectoral applications.</p>							
C3S_311c	Support for Climate Reanalysis including Satellite Data Rescue						
<p>General Description:</p> <p>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.</p>							
C3S_311c Lot 1	Lot Title: Satellite Data Rescue	FA: 19 Nov 2018 SC1: 19 Nov 2018	SPASCI: Space Science Algorithmics SAS	Parc Technologique du Canal, 10 avenue de l'Europe Ramonville-Saint-Agne F-31520	1,399,985.89	30 Jun 2021	125,998.73

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				France			
Description: ECMWF issued a contract for activities in support of satellite data rescue. The objective is to extend the coverage and quality of input satellite data records available for climate reanalysis, and to improve the impact of such data by targeted development of forward modelling capability, quality control and bias correction schemes.							
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
Description: ECMWF issued a contract for development and maintenance of a quality-controlled global database containing all known digitised in-situ upper-air weather observations made prior to 1979, together with metadata and information needed for data assimilation such as bias adjustments and uncertainty estimates. The objective is to provide C3S users with access to quality-assured observations of upper-air weather data for temperature, wind and humidity.							
C3S_312b	Essential Climate Variable products derived from observations						
General Description: ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) is building a Climate Data Store (CDS) that will provide open and free access to quality-assured climate observations, global and regional Essential Climate Variable (ECV) products derived from observations, global and regional climate reanalyses, seasonal forecast data and model-generated future climate change scenarios. To support analysis and monitoring of climate change, CDS users need access to state-of-the-art Climate Data Records (CDRs) and Interim Climate Data Records (ICDRs) for a variety of ECVs. ECMWF issued contracts for reliable access to ECV products via the CDS by procuring services related to production, quality assurance, data access, documentation and user support.							
C3S_312b Lot 1	Lot Title: Atmospheric physics	FA: 10 May 2018 SC1: 10 May 2018	Deutscher Wetterdienst	Frankfurter Str. 135 63067 Offenbach Germany	4,151,789.25	30 Jun 2021	4,151,789.25
The contractor for Lot 1 shall ensure timely access to data products associated with the following ECVs: — Precipitation, — Surface Radiation Budget, — Water Vapour, — Cloud Properties, — Earth Radiation Budget.							
C3S_312b Lot 2	Lot Title: Atmospheric composition	FA: 23 May 2018 SC1: 23 May 2018	Deutsches Zentrum für Luft- und Raumfahrt e.V.	Linder Höhe 51147 Köln Germany	2,739,788.02	30 Jun 2021	2,739,788.02
The contractor for Lot 2 shall ensure timely access to data products associated with the following ECVs: — Carbon Dioxide, — Methane, — Ozone,							

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— Aerosol.							
C3S_312b Lot 3	Lot Title: Ocean	FA: 27 Mar 2018 SC1: 27 Mar 2018	Collecte Localisation Satellites	11, rue Hermes, Parc Technologique du Canal 31520 Ramonville-Cedex France	2,969,487.94	30 Jun 2021	681,169.36
The contractor for Lot 3 shall ensure timely access to data products associated with the following ECVs: — Sea Surface Temperature, — Sea Level, — Sea Ice, — Ocean Colour.							
C3S_312b Lot 4	Lot Title: Land hydrology and cryosphere	FA: 4 May 2018 SC1: 4 May 2018	EODC Earth Observation Data Centre for Water Resources Monitoring GmbH	Franz-Grill-Straße 9 1030 Vienna Austria	3,048,407.14	30 Jun 2021	620,697.16
The contractor for Lot 4 shall ensure timely access to data products associated with the following ECVs: — Lakes, — Glaciers, — Ice Sheets and Ice Shelves, — Soil Moisture.							
C3S_312b Lot 5	Lot Title: Land 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
The contractor for Lot 5 shall ensure timely access to data products associated with the following ECVs: — Albedo, — Land Cover, — Fraction of Absorbed Photosynthetically Active Radiation, — Leaf Area Index, — Fire.							
C3S_321a	C3S Global Reanalysis-Variational Bias Correction for ERA6	FA: 13 Jul 2018 SC1: 13 Jul 2018	Norwegian Meteorological Institute	Henrik Mohns plass 1 0313 Oslo Norway	199,672.90	30 Jun 2020	80,000.00
Description: ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued a contract for a service related to bias correction of observations in support of the further development 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.							

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

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will rely upon and act as demonstrators of the functionalities of the CDS and thus will need to be put together solely using the tools and datasets available on the CDS and be designed fully compatible and interoperable with them.							
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
Description: The Contractor will deliver a set of operational climate services for the shipping industry. Working with sea captains and shipping companies the contract aims to extend the use of routing software to the seasonal time-scale whilst also looking at risks (e.g. icebergs) and opportunities (e.g. north passage) generated by a warmer world.							
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
Description: The Contractor will deliver operational climate services addressing the needs of a varied set of communities all over the world. The Contractor having already engaged with national and sub-national organisations aims to develop climate services to their needs using the datasets and the tools available on the Climate Data Store. Among other things the contract will develop a global system able to make hydrological predictions as well as long-term projections.							
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
Description: The Contractor will deliver a set of operational global climate services for the agricultural sector. The Contractor will look at the main stable crops (Maize, wheat, rice and barely) and, using a combination of local agricultural calendar and climate information, will predict the global crop yield for the season to come.							
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
Description: The Contractor will deliver operational climate services for the coastal community. More specifically, the contract will put together detailed datasets of historical storm surges and associated coastal floods and will look at how these events could be changing with climate change. Specific case studies will be developed to address the needs of specific user communities.							
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
Description: The Contractor will deliver operational climate services for European fisheries. More specifically, the contract will examine how the climate-change induced alterations of the oxygen & nutrient level and surface circulation in the European shelf seas could alter the distribution and the seasonality of the fish stocks.							
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



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Description: The Contractor will deliver operational climate services for the tourism sector. The significant changes we expect to take place in the climate of Europe, if unmitigated, have the potential to significantly disrupt the tourism business. With specific indicators addressing the needs of winter, coastal and global tourism, the contract aims to provide the target users with the tools they need to prepare the sector for the changes to come.							
C3S_422 Lot 2	Lot Title: European Services	FA: 31 Oct 2017 SC2: 21 May 2018	Vlaamse Instelling Voor Technologisch Onderzoek NV (Flemish Institute for Technological Research)	Boeretang 200 B-2400 Mol Belgium	999,809.94	30 Apr 2019	638,262.53
Description: The Contractor will deliver operational climate services 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 about the likelihood of upcoming heatwaves or outbreaks of specific diseases.							
C3S_424	Operational Sectoral Information System for the Water Sector	FA: 21 May 2018 SC1: 21 May 2018	Swedish Meteorological and Hydrological Institute	SE-601 76 Norrköping Sweden	1,499,999.95	31 May 2021	846,368.00
Description: ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued a contract for the development of an operational water service that builds upon the experience acquired during the pre-operational phase of the Sectoral Information System (SIS). The contractor will develop a pan European hydrological prediction system (covering the seasonal and multi-decadal time scale) and will ensure — with the support of ECMWF staff — this will run operationally on ECMWF machines. The contractor will also be responsible for the development of a multi-model product which includes the EFAS outputs.							
C3S_426	Operational Sectoral Information System for the Energy and Wind Storm Insurance Sectors						
General Description: ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued contracts for the development of operational services that build upon the experience acquired during the pre-operational phase of the Sectoral Information System (SIS).							
C3S_426 Lot 1	Lot Title: Operational Sectoral Information System for the Energy Sector	FA: 3 May 2018 SC1: 3 May 2018	World Energy and Meteorology Council	c/o School of Environmental Sciences University of East Anglia Norwich NR4 7TJ United Kingdom	999,944.07	30 Apr 2020	578,592.37
Description: 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.							

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C3S_426 Lot 2	Lot Title: Operational Sectoral Information System for the Wind Storm Insurance Sector	FA: 3 May 2018 SC1: 3 May 2018	Royal Netherlands Meteorological Institute	Utrechtseweg 297 3731 GA De Bilt Netherlands	299,885.89	31 Dec 2019	239,069.05
Description: 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	Sectoral Information System – Proof 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 2	Lot Title: Energy	FA: 27 Nov 2015 SC3: 5 Feb 2018	University of East Anglia	Norwich Research Park Norwich NR4 7TJ United Kingdom	1,694,869.99	31 Mar 2018	94,886.63
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 Climate Data Store	FA: 10 Oct 2018 SC1: 10 Oct 2018	Barcelona Supercomputing Center – Centro Nacional de Supercomputación	Carrer Jordi Girona 31 08034 Barcelona Spain	6,000,000.00	30 Jun 2021	6,000,000.00
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							

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in products and service delivery. C3S users include scientists, consultants, planners and policy makers, the media and the general public. The aim of this contract is to verify that the C3S Climate Data Store is fit for purpose, and to ensure that it remains so.							
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
ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued a contract for the implementation of the Evaluation and Quality Control (EQC) framework for the Sectoral Information Systems (SISs). The objective of this contract is to identify the methodologies to assess the quality of both technical and delivery components of the services developed by the SIS contracts including their ability to engage with the target users and provide value to them. The Contractor will design the routines and the reporting procedures that each SIS team will have to follow to inform ECMWF, the European Commission, and the users themselves about the quality, the usefulness, usability and uptake of their products.							
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
Description: This contract aims at improving the provision of up-to-date European air quality information to CAMS. These regulatory air quality observations, collected by the European Environment Agency (EEA), are needed for assimilation, verification and validation of the CAMS global and regional forecasts, deliverables of the Service to the European Commission. The Contractor will work in support of the EEA to consolidate the existing data collection and dissemination system and to liaise with data providers in EU Member States and EEA countries.							
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
Description: This contract is for providing support for and further development of the global production system of CAMS operated by the Global Service Provider, which delivers 3-dimensional distributions of reactive gases in the troposphere and stratosphere through data assimilation and numerical modelling. The contractor will deliver numerical code representing Chemical Mechanisms and the related Removal Process Parameterizations, will develop and test the assimilation of satellite radiance observations in the wavelength range between 0.24 and 2.5 µm, as well as memoranda and reports. The contractor will also provide advice and support for the team developing the global production system at ECMWF.							
CAMS_50(II)	Regional Production						
Description: As the Entrusted Entity for implementing the Copernicus Atmosphere Monitoring Service (CAMS), ECMWF issued contracts for the operational delivery of the European-scale air quality component of CAMS. Two Frameworks Agreements with the following objectives have been awarded: — 1 Framework Agreement with Météo-France (ref. ECMWF/COPERNICUS/2018/CAMS_50_MF) covering the following activities: overall regional production management, management of daily forecasts and analyses production, ensemble and all models (except CHIMERE) developments, — 1 Framework Agreement with INERIS (ref. ECMWF/COPERNICUS/2018/CAMS_50_INERIS) covering the management of interim and validated reanalyses production and the CHIMERE model development and production.							
		FA: 16 Oct 2018 SC1: 16 Oct 2018	Météo-France	73 avenue de Paris 94165 Saint-Mandé	4,866,515.05	31 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

**Description:**

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 SC1: 22 Nov 2018	Deutsches Zentrum für Luft- und Raumfahrt e.V.	Linder Höhe 51147 Köln Germany	1,192,519.84	31 Dec 2021	443,486.29
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**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 SC1: 23 Oct 2018	Commissariat à l'énergie atomique et aux énergies alternatives	Bâtiment “Le Ponant D” 25 rue Leblanc 75015 Paris France	690,000.00	31 Dec 2021	295,970.59
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**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 CH<sub>4</sub>, CO<sub>2</sub> and N<sub>2</sub>O 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
Description: This contract is for providing quantitative estimates of the Radiative Forcings (RF) from atmospheric constituents considered in CAMS. RF are an essential element for evaluating and comparing the strength of the various mechanisms affecting the Earth's radiation balance and thus causing climate change. RF arising from changes in distributions of radiatively active atmospheric gases and particles are both short-lived and long-lived, depending on the atmospheric residence time of the corresponding species. Some of the RF are highly heterogeneous spatially and temporally and this contract is aiming at making the most of CAMS outputs to derive RF distributions in support of climate research and assessments, such as the ones of the IPCC. The contractor will estimate radiative forcings from CAMS outputs (greenhouse gases, reactive gases and aerosol) and will also assess feasibility of deriving Effective Radiative Forcings (ERF) as a potential service 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 France	1,289,984.26	31 Aug 2020	413,190.60
Description: This contract will provide gridded distributions of anthropogenic (global and Europe) and natural emissions (global only) in direct support of CAMS production chains, with target resolutions of 10 to 50 km (global) and 5 to 10 km (Europe). The emissions will include aerosol, NOx, NH3, SO2, DMS/OCS, NMVOCs, CO, CH4, N2O, CO2, certain halogen species and Radon-222. They must also be stratified into headline activity sectors. The period covered will be from 2000 to present for the global emissions, and from 2003 to as close as possible to present for the European regional emissions. Subsequent years will be added at the pace of 1 additional year every year, as reporting or ancillary or activities proxy data become available. Besides the yearly totals, the Contractor will deliver monthly, weekly and diurnal temporal profiles, so that variations can be accounted for in the CAMS systems. Improving the representation of the temporal variations of emissions and investigating modelling methodologies to calculate certain emissions as a function of meteorological parameters (including forecasted ones) or of other proxies will be in scope of the developmental aspects of the work.							
CAMS_84(II)	Global and Regional a Posteriori Evaluation and Quality Assurance	FA: 16 Nov 2018 SC1: 16 Nov 2018	Royal Netherlands Meteorological Institute	Utrechtseweg 297 3731 GA De Bilt Netherlands	2,649,904.06	31 Dec 2021	1,255,257.44
Description: As the Entrusted Entity for implementing the Copernicus Atmosphere Monitoring Service (CAMS), ECMWF issued a contract for Evaluation and Quality Assurance (EQA) activities, one of the main activities in support of CAMS users. The main outputs of these activities will be a series of 3-monthly EQA reports for the real-time global products, the continued CAMS global reanalysis, and for those from experimental chains running in parallel. This contract will also provide harmonised on-line graphics and quality monitoring statistics, using pre-existing CAMS software as a basis for further integration and development, to be integrated in the CAMS website. While the coverage of the EQA should be global, specific efforts are targeted at validation over the European, Arctic and the Mediterranean areas. EQA of the regional air quality products in the free troposphere are also part of these activities in a similar 3-monthly cycle with an additional focus on the interface between the global and regional forecasting systems.							
CAMS_94(II)	User Interaction Activities	FA: 22 Nov 2018 SC1: 22 Nov 2018	Deutsches Zentrum für Luft- und Raumfahrt e.V.	Linder Höhe 51147 Köln Germany	629,755.27	31 Dec 2021	207,870.59

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
<p>Description:</p> <p>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.</p> <p>In more detail, the objectives are to:</p> <ul style="list-style-type: none"> <li>— 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,</li> <li>— organize user feedback loops via user workshops, and</li> <li>— set up and maintain the CAMS User Requirements Data Base (URDB) that keeps a record of all user requirements and their analysis.</li> </ul> <p>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.</p>							
CAMS_95	CAMS Use Cases						
<p>General Description:</p> <p>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.</p>							
CAMS_95a	Contract Title: Air quality forecasts for urban environments using CAMS services and public open data sets	FA: 16 Jun 2017 SC2: 5 Jul 2018	Heich Consult GmbH	Bergiusweg 1 D-50354 Huerth Germany	95,000.00	30 Jun 2019	47,450.00
CAMS_95h	Contract Title: Assistance for use of CAMS product in the field of air quality monitoring	FA: 29 Jun 2017 SC2: 2 Aug 2018	Institut national de l'environnement industriel et des risques	Parc technologique ALATA 60550 Verneuil-en-Halatte France	94,988.91	31 Dec 2019	40,183.64
CAMS_95(II)	CAMS Use Cases (second batch)						
<p>General Description:</p> <p>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.</p>							
CAMS_95i	Contract Title: Aire salud	FA: 21 Jun 2018 SC1: 21 Jun 2018 SC2: 6 Dec 2018	Aria Technologies	8-10 rue de la Ferme 92100 Boulogne-Billancourt France	96,085.00	31 Mar 2020	SC1: 28,257.00 SC2: 67,828.00
CAMS_95j	Contract Title: AsSIS: Aircraft Support & Maintenance Services	FA: 8 Aug 2018 SC1: 8 Aug 2018	Capgemini	109 Avenue Eisenhower 31036 Toulouse Cedex France	99,981.85	31 Jan 2020	78.903,93

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_95l	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	TNO	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						
<p>General Description:</p> <p>ECMWF as the entrusted entity for the delivery of Copernicus Atmosphere Monitoring Service (CAMS) and Copernicus Climate Change Service (C3S) has awarded two contracts for provision of Copernicus User Learning Services under two lots. The focus is provision of learning services in order to support existing and new users to make best use of Copernicus data and products. These learning services will also increase the uptake of the Copernicus Climate Change Service and Atmosphere Monitoring Service respectively targeting those working in industry sectors such as energy, insurance and water; policy-makers and local government planners; and academic and science communities. The contractors will provide the technical infrastructure supporting the user learning services (Lot 1) and develop and deliver training for a wide range of audience types in Copernicus member states; shall identify knowledge gaps, training requirements of the audience groups and develop a training strategy to address such gaps (Lot 2).</p>							
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						
<p>General description:</p> <p>ECMWF as the entrusted entity for the delivery of Copernicus Atmosphere Monitoring Service (CAMS) and Copernicus Climate Change Service (C3S) has awarded three contracts for provision of communications services in order to assist and reinforce regular ECMWF Copernicus Department communication and outreach activities for both Copernicus Climate Change Service and Atmosphere Monitoring Service. The contracts awarded under three lots will develop and deliver communications activities for a wide range of target audiences including policy-makers, the scientific community, media and general public.</p>							
COP_020 Lot 1	Contract title: Events activities	FA: 9 Aug 2018 SC1: 9 Aug 2018 SC1.a: 17 Dec 2018	Adria Congrex s.r.l.	Via Sassonia 30 Rimini - 4 7922 Italy	3,000,000.00	31 Dec 2020	SC1: 346,564.00 SC1.a: 121,687.71
COP_020 Lot 2	Contract title: Press activities	FA: 8 Aug 2018 SC1: 8 Aug 2018 SC1.a: 19 Dec 2018	HBI Intl. PR & MarCom Agency GmbH	Stefan-George-Ring 2 81929 Miinchen Germany	1,483,835.00	31 Dec 2020	SC1: 115,070.00 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
<p>Description:</p> <p>ECMWF operates the Copernicus Delegation Agreement signed by ECMWF and the European Union under EU regulations No 377/2014 of the European Parliament and of the council of 3.4.2014 establishing the Copernicus Programme. The total budget expected to be awarded to third parties over the period 2014-2021 amounts to 208 410 000 EUR. ECMWF anticipates a total number of approximately 70 contracts, ranging from 100 000 EUR to 6 000 000 EUR, signed with entities established in any of the European Union Member States or ECMWF Member States. The aim of this ITT was to obtain quotes from suppliers for the provision of audit services to ECMWF for Copernicus contracts by:</p> <ul style="list-style-type: none"> <li>— supporting ECMWF in establishing the Copernicus contracts audit function (Work Package 1),</li> <li>— carrying out the audits in accordance to the annual audit plan (Work Package 2).</li> </ul> <p>ECMWF awarded a 36-month framework agreement, with annual Service Contracts. ECMWF reserves the right to extend the contract for a further 12 months.</p>							
COP_033	Copernicus IT Consultancy Support Services in scope of the CDS and Copernicus DIAS						
<p>General Description:</p> <p>Provision of on-premises IT consultancy support to ECMWF in scope of activities on the Copernicus Data Store (CDS) and the Copernicus Data and Information Access Services platform (DIAS).</p>							
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
<p>Description:</p> <p>ECMWF issued a contract for one full-stack Web Developer to support on the deployment and operations of the current Copernicus Data Store platform. The Developer will work integrated within the CDS team, which is in charge of the implementation, operation and maintenance of that platform.</p> <p>The consultancy support requires a full-time availability of the Web Developer for the full duration of the contract. The tasks of the Consultant shall be carried out mainly at ECMWF's premises in Reading, UK.</p>							
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
<p>Description:</p> <p>ECMWF issued a contract for one Systems Integrator to support ECMWF's contribution to the development and implementation of a Cloud Computing Platform focusing on Data Access, Processing and Tools that ingest large volume datasets. The incumbent will work closely with equivalent peers at our partner organisations EUMETSAT and Mercator Ocean.</p>							

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 consultancy support requires a full-time availability of the System Integrator for the full duration of the contract. The tasks of the Consultant shall be carried out mainly at ECMWF's premises in Reading, U.K. but occasional travel within Europe may be required.							
COP_043	DIAS — Processing, Data Access and Tools Software	FA: 28 Nov 2018 SC1: 28 Nov 2018	GMV Aerospace and Defence S.A.U.	Calle de Isaac Newton 11 PTM-Tres Cantos 28760 Madrid Spain	1,470,132.49	31 Dec 2019	1,212,211.51
<p>As part of the European Union's Copernicus programme, the European Centre for Medium-Range Weather Forecasts (ECMWF), together with the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) and Mercator Ocean, have joined forces to implement a Data and Information Access Services (DIAS) platform called WEkEO.</p> <p>The WEkEO (DIAS) platform will consist of a cloud-based infrastructure that will make all Copernicus data and information available to its users as well as the tools needed to process the data. The objective of this contract is to design, develop, implement, test, and deliver the processing, data access, and tools software for Iteration V1 of the WEkEO (DIAS) platform. It also requires the contractor to prepare and deliver related documentation, prepare and deliver related training materials, and provide related lifecycle support. Together with the output from ITT-1 Iteration V1, this will then form the entire Iteration V1 DIAS platform. The V1 DIAS platform is required to be operational by the end of Q1 2019 and to be supported through to end of Q4 2019.</p>							

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