

Contract Awards under Copernicus Delegation Agreement 1 January 2019 to 31 December 2019¹

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.

ITT/RFP 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_25c	Climate Data Store (CDS) Maintenance and Usability	FA: 5 Aug 2019 SC1: 5 Aug 2019	B-Open Solutions srl	Via Principe Eugenio 15 00185 Rome Italy	1,299,725.77	30 Jun 2021	958,680.92

Description:
The objective of this framework agreement is to ensure that the services offered by the CDS will continue to improve and meet the users' needs and expectations. To achieve this, the contractor shall:

- improve and maintain the current CDS Toolbox,
- enhance the CDS Toolbox experience (UX, design, documentation for the Toolbox editor and the generated applications),
- develop a set of CDS Toolbox applications for non-expert users,
- maintain and consolidate the CDS infrastructure.

C3S_34b	Regional climate projections						
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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 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.

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 1	Lot Title: Access to CORDEX simulations for the European domain	FA: 11 May 2017 SC2: 23 Jan 2019	Centre National de la Recherche Scientifique	1 place Aristide Briand 92195 Meudon France	1,279,194.04	30 Apr 2021	361,938.51
C3S_34b Lot 2	Lot Title: Definition and generation of a '3-D matrix' of RCM projections	FA: 11 May 2017 SC3: 5 Jun 2019	Swedish Meteorological and Hydrological Institute	SE-601 76 Norrköping Sweden	3,664,999.14	30 Apr 2021	1,020,352.00
C3S_34c	Prototype Service for Decadal Climate Predictions	FA: 14 Nov 2019 SC1: 14 Nov 2019	Deutscher Wetterdienst	Frankfurter Str. 135 63067 Offenbach Germany	866,373.17	30 Apr 2021	866,373.17

Description:
The objective of this framework agreement is to develop the prototype for a decadal prediction service of relevance to users. The work will cover 2 main topics: the development of robust, credible and reliable encoding standards for forecasts and products, resulting in recommendations for best practice in this respect and the analysis of a set of case studies to test the value of decadal predictions in applications of relevance to users from several sectors of economic activity.

The technical work in the first category will consider standards from existing activities (like, for example, those used in the Decadal Climate Prediction Project (DCPP) of the Coupled Model Intercomparison Project (CMIP), or at WMO's Lead Centre for Annual to Decadal Prediction) and current standards followed by C3S for other activities (like seasonal forecasts and climate

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<p>projections). Discussions with the data-standard community will be initiated and will be facilitated through a workshop at the facilities of one of the partners in Barcelona. In addition, a robust definition of methods for post-processing of forecast data, including the generation of multi-model and the assessment of forecast quality, will be formulated into recommendations and provided to C3S at the end of the contract. These aspects will be illustrated using the DCP-P-A simulations.</p> <p>The set of case studies will include contributions from each of the participants in the contract. Four examples have been identified: the first addresses the management of water level and water quality of the Upper catchment in North-Rhine-Westphalia; the second tests the potential for planning of crop yield; the third estimates the predictability of the risk associated with tropical and extra-tropical cyclones over the Atlantic basin and the fourth addresses the production of hydro- and solar power and solar in European regions. Each of the case studies will develop their application in collaboration with a specific user.</p> <p>Together, these 2 areas of work aim to achieve significant progress in the understanding of the potential value of decadal predictions to society and pave the way towards a decadal prediction service at C3S.</p>							
C3S_34d	Provision of additional world-wide CORDEX simulations for the C3S Climate Data Store	FA: 20 Dec 2019 SC1: 20 Dec 2019	Agencia Estatal Consejo Superior de Investigaciones Científicas	Calle Serrano 117 28006 Madrid Spain	498,233.35	31 Jan 2021	498,233.35
<p>Description:</p> <p>The contract plans to build a curated World-wide CORDEX dataset and deliver it in time to feed the AR6 IPCC Atlas activity, thus contributing to this initiative (the cut-off deadline for AR6 is end of September 2020, so it is also a good timing for the objectives of the contract). The contract plans to cover as much information as possible (in principle all simulations stored at ESGF and most of the available through local providers, depending on data availability and formats). An initial estimation with the currently available information (from CORDEX, although a bit outdated) is 500+ simulations. Therefore, the Contractor plans to focus only on a reduced set of variables (those most requested by users, according to existing surveys and download statistics) and to maintain a dynamic inventory of data availability in order to dynamically scale the tasks. Moreover, full integration with the C3S_34a Lot 1 (later 34f) and C3S_34b Lot 1 initiatives is planned in order to ensure homogeneity in the treatment of data (using the same quality checkers) and following the same data publication process.</p>							
C3S_34e	The link between the CDS Toolbox and the ESGF compute nodes: design and implementation	FA: 23 Dec 2019 SC1: 23 Dec 2019	Science and Technology Facilities Council as part of the United Kingdom Research and Innovation	Polaris House North Star Avenue Swindon SN2 1SZ United Kingdom	417,636.00	30 Jun 2021	417,636.00
<p>Description:</p> <p>This contract builds on the WPS framework already developed by the partners in previous contracts. It recognises, and responds to, both the C3S requirements for "data-reduction" services and also has wider applicability in terms of concentrating effort on quality and integrity. The objective of the Framework Agreement is to provide a reliable and robust WPS service across three main areas: the low-level operations will be thoroughly tested, the processes will be pre-tested against a significant sample of the input datasets, and the deployed architecture will be resilient and scalable. There are numerous WPS services and software tools that aim to support processing of large climate simulations but there is a common drawback with many of them. The focus on advanced functionality typically causes a rapid reduction in reliability - as more features are added the integrity of the service is compromised and the end-user experiences more failures. The only way to overcome this is to build a comprehensive system for validating the mathematical operations and testing the processes against a significant coverage of the supported datasets. In this case, the contract will focus on the quality-assured subset of CMIP5 and CORDEX data already supported by other C3S contracts.</p>							

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C3S_62	Prototype Extreme Events and Attribution Service	FA: 19 Nov 2019 SC1: 19 Nov 2019	Royal Netherlands Meteorological Institute	Utrechtseweg 297 3731 GA De Bilt The Netherlands	1,147,563.82	30 Jun 2021	1,147,563.82
<p>Description:</p> <p>The objective of this framework agreement is to develop a prototype with the initial building blocks needed to implement an operational set of extreme events and attribution service elements, with a particular focus on communication. The results of this pilot attribution service will be a set of protocols on attribution, communication and data use, products to use for communication, an effective transfer of skills from the scientists to the operational people at the participating NMSs, contacts with further NMSs and other entities interested in attribution of events, as well as quality assurance on practical, methodological, scientific and communication levels of all protocols and products.</p>							
C3S_311a	Collection and Processing of In Situ Observations						
<p>General Description:</p> <p>ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued a number of services related to collection and processing of in situ observations in support of climate services development. The overall objective for this set of services is to improve access to available in situ instrumental data records and data streams from observing networks, as needed for monitoring climate change and to support climate science. The C3S has the ambition to provide open and free access to all observations relevant to climate services development via a unified Climate Data Store. Development of observational content for the Climate Data Store relies on the scientific framework provided by the Global Climate Observing System (GCOS). Goals to be addressed by the services tendered include: improvement of the historic instrumental record by means of data rescue, quality control and homogenisation of in situ observations; harmonisation of access to data from major archives of climate observations as well as specialised networks of observing sites; development of merged collections of in situ observations suitable for climate reanalysis; development of high-resolution ECV products for Europe.</p>							
C3S_311a Lot 1	Lot Title: Coordination of data rescue activities	FA: 22 Mar 2017 SC2: 28 Mar 2019	Met Office	FitzRoy Road Exeter, EX1 3PB United Kingdom	2,335,843.92	31 Mar 2021	569,880.73
<p>Description:</p> <p>The Contractor for Lot 1 will deliver a coherent set of services to support coordination and harmonisation of in situ data rescue activities around the world. The objective is to facilitate and support ongoing efforts to digitise documented historic instrumental data records and to make these records more easily accessible for further processing and analysis.</p> <p>The Contractor for this Lot shall:</p> <ul style="list-style-type: none"> — Work with existing international data rescue support initiatives such as the Atmospheric Circulation Reconstructions over the Earth (ACRE) and the International Data Rescue Portal (I-DARE); — Develop and maintain a global inventory of known data rescue activities; — Support imaging and digitization activities for selected high-priority data records; — Provide data-rescue registry services including: <ul style="list-style-type: none"> — Access to up-to-date information about completed, active and planned data rescue activities world-wide; — Access to standardised and searchable metadata on these activities; — Tools for identifying opportunities, gaps and priorities in data rescue; — Facilities to support collaboration on data rescue projects; — Facilities for submitting digitised data sets to international climate data archives; — Promote community tools for imaging, digitizing and quality control; — Promote best practices, data standards and metadata requirements. 							

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C3S_311a Lot 2	Lot Title: Access to observations from global climate data archives	FA: 1 Mar 2017 SC2: 24 Jan 2019	National University of Ireland Maynooth	County Kildare Maynooth Ireland	2,212,888.79	28 Feb 2021	1,274,931.28
<p>Description:</p> <p>The Contractor for Lot 2 will deliver services providing reliable access to data from managed archives of historic, quality-controlled, in situ climate observations. The objective is to rationalise, harmonise and improve access to the large variety of climate data archives existing at various locations around the world.</p> <p>The Contractor for this Lot shall:</p> <ul style="list-style-type: none"> — Address near-surface observations over land and ocean; — Aim for maximum access to the entire instrumental data record available for the domains addressed; — Coordinate with existing climate data providers in Europe or elsewhere; — Broker access to quality-assured in situ observations with maximum spatial (global) and temporal (multi-decadal) coverage; — Manage differences and changes in data supply, sources, quality, formats etc.; — Harmonise data formats and metadata conventions; — Provide a uniform data service to users via the C3S Climate Data Store; — Develop a governance structure and operating rules together with the data custodians, to allow for continued operation of data services after the end of contract. 							
C3S_311a Lot 3	Lot Title: Access to observations from baseline and reference networks	FA: 1 Mar 2017 SC2: 5 Feb 2019	Consiglio Nazionale delle Ricerche — Istituto di Metodologie per l'Analisi Ambientale	Piazzale Aldo Moro 7 00185 Rome Italy	2,085,247.46	28 Feb 2021	811,857.11
<p>Description:</p> <p>The Contractor for Lot 3 will deliver services to provide reliable access to data from baseline and reference networks of observation sites. The objective is to rationalise, harmonise and improve access to measurements provided by the large variety of existing networks, to facilitate climate monitoring, estimation of ECVs and uncertainty assessments.</p> <p>The Contractor for this Lot shall:</p> <ul style="list-style-type: none"> — Prioritise access to observations of ECVs that are not well observed from space; — Prioritise access to data that can be used and redistributed without restriction; — Address multiple atmospheric ECVs; — Provide timely access to observations from GCOS-relevant network components and systems supporting one or more ECVs; — Harmonise data formats and metadata conventions; — Make use of the coordination function carried out by the European Environment Agency; — Take account of the requirements of other Copernicus services for in situ network data; — Develop a governance structure and operating rules together with the network operators, to allow for continued operation of data services after the end of contract. 							
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</p>							

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be provided via the C3S Climate Data Store.							
C3S_311c Lot 1	Lot Title: Satellite Data Rescue	FA: 19 Nov 2018 SC2: 10 Apr 2019	SPASCIA: Space Science Algorithmics SAS	Parc Technologique du Canal, 10 avenue de l'Europe Ramonville-Saint-Agne F-31520 France	1,399,985.89	30 Jun 2021	1,055,769.50
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_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 3	Lot Title: Ocean	FA: 27 Mar 2018 SC2: 9 Apr 2019	Collecte Localisation Satellites	11, rue Hermes, Parc Technologique du Canal 31520 Ramonville-Cedex France	2,969,487.94	30 Jun 2021	2,291,293.85
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 SC2: 26 Apr 2019	EODC Earth Observation Data Centre for Water Resources Monitoring GmbH	Franz-Grill-Straße 9 1030 Vienna Austria	3,048,407.14	30 Jun 2021	2,427,709.98
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.							

ITT/RFP 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_321b	Technical Preparations for C3S Seasonal Initialization and Global Reanalysis: Enabling an Ensemble of Data Assimilation for the Ocean	FA: 24 Jan 2019 SC1: 24 Jan 2019	Institut National de Recherche en Informatique et Automatique	Domaine de Voluceau Rocquencourt 78153 Le Chesnay France	599,985.34	31 Mar 2021	259,184.03

Description:
ECMWF, as the Entrusted Entity for the Copernicus Climate Change Service (C3S), issued a contract for a service related to the development of an ensemble of data assimilation for the ocean in support of climate services development, specifically the initialization of the ECMWF seasonal forecasts, and as part of a coupled ocean-atmosphere global reanalysis. The development within this contract will advance the ocean data assimilation capabilities used in the initialization of seasonal forecasts and generation of coupled Earth System reanalyses. Both seasonal forecast and Earth System reanalyses are key elements of the Copernicus Climate Change Service. Specific targets of the contract are the better utilization of the Earth system observations by provision of more accurate reanalyses, and provision of reliable uncertainty estimates. The implemented developments are expected to be used in the production of the next generation of C3S's Reanalysis System (ERA6), which will provide a monitoring capability for the Earth system, including atmosphere, land, ocean, sea-ice and ocean waves. Some of the developments will also contribute to the production of ocean initial conditions for the next ECMWF seasonal forecasting system SEAS6, by preparing ocean initial conditions spanning several decades, with corresponding uncertainty estimates. The ocean data assimilation will be based on the NEMO ocean model, on the NEMOVAR data assimilation system and it will use the (C++ based) Object-oriented prediction system (OOPS) infrastructure.

C3S_322	Regional Climate Reanalysis						
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General Description:
ECMWF as the Entrusted Entity for the Copernicus Climate Change Service (C3S) issued contracts for the production of regional reanalyses covering geographical areas of special interest to European users of climate services. The regional reanalyses are needed to generate high-resolution, physically consistent, gridded estimates of Essential Climate Variables (ECVs, Bojinski et al. 2014) that will complement the information available from lower-resolution global reanalyses.
The scope of activities for each contract includes:
— development of a production system for regional reanalysis;
— preparation and quality control of observations and other input data;
— reanalysis production, post-processing and quality assurance;
— user guidance and user support via the C3S Service Desk;
— management, implementation and coordination.
C3S shall take ownership of all regional reanalysis data products delivered by these contracts.

C3S_322 Lot 1	Lot Title: Regional Reanalysis Products for Europe	FA: 14 Aug 2017 SC2: 25 Jan 2019	Swedish Meteorological and Hydrological Institute	SE-601 76 Norrköping Sweden	3,295,716.59	31 Aug 2021	863,978.05
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Description:
The Contractor for Lot 1 will generate and deliver regional reanalysis products for Europe based on the concept of a single pan-European reanalysis in accordance with the following requirements:
— the spatial domain shall be a single domain consistent with CORDEX Region 4 (see www.cordex.org);
— the effective spatial resolution of data products shall be 10 km or less;
— the reanalysis shall span a time period of at least 30 years continuing into present time;
— the temporal resolution of data products shall be sufficient to resolve the diurnal cycle;
— reanalysis products shall be updated on a monthly basis;

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<ul style="list-style-type: none"> — the reanalysis shall be produced using a single model-based data assimilation system with firm basis in estimation theory; — consistent estimates of uncertainty shall be generated based on explicit statistical assumptions on model errors and observation errors; — a well-defined strategy for ensuring temporal consistency of the reanalysis products shall be implemented; — well-defined strategies for quality assessment during production and post-production shall be implemented, e.g. based on comparison with alternative C3S ECV products derived from observations and/or global reanalyses. 							
C3S_322 Lot 2	Lot Title: Regional Reanalysis Products for the Arctic	FA: 23 Aug 2017 SC2: 30 Jan 2019	Norwegian Meteorological Institute	P.O.Box 43 Blindern 0313 Oslo Norway	3,099,999.00	31 Aug 2021	826,090.16
<p>Description:</p> <p>The Contractor for Lot 2 will generate and deliver regional reanalysis products for the Arctic based on the concept of a single pan-Arctic reanalysis in accordance with the following requirements:</p> <ul style="list-style-type: none"> — the reanalyses shall assimilate the main components of the Arctic observing system, including satellite data; — the reanalyses shall make good use of complementary data on surface properties in the region, e.g. related to snow and sea ice; — the reanalyses shall span a time period that is as long as possible given the availability of observations and other input data; — spatial and temporal resolution of data products shall be commensurate with key processes affecting climate change in the region; — reanalysis products shall be updated on a monthly basis; — consistent estimates of uncertainty shall be generated based on explicit statistical assumptions on model errors and observation errors; — a well-defined strategy for ensuring temporal consistency of the reanalysis products shall be implemented; — well-defined strategies for quality assessment during production and post-production shall be implemented, e.g. based on comparison with alternative C3S ECV products derived from observations and/or global reanalyses. 							
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: 28 Feb 2018 SC2: 5 Apr 2019	Met Office	FitzRoy Road Exeter, EX1 3PB United Kingdom	2,307,907.51	31 May 2021	676,745.11
C3S_426	Operational Sectoral Information System for the Energy and Wind Storm Insurance Sectors						

ITT/RFP 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
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 SC2: 29 May 2019	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	445,900.00
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.							
C3S_426 Lot 2	Lot Title: Operational Sectoral Information System for the Wind Storm Insurance Sector	FA: 3 May 2018 SC2: 29 Apr 2019	Royal Netherlands Meteorological Institute	Utrechtseweg 297 3731 GA De Bilt Netherlands	299,885.89	31 Dec 2019	94,421.38
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_427	Sectoral Information System to Support Biodiversity Sector	FA: 28 Feb 2019 SC1: 28 Feb 2019 SC2: 17 Sep 2019	Vlaamse Instelling Voor Technologisch Onderzoek NV	Boeretang 200 2400 Mol Belgium	1,393,089.91	28 Feb 2021	SC1: 427,617.65 SC2: 965,472.26
Description: The objective of this framework agreement is to develop an operational service able to provide relevant climate information, addressing the needs of key users in the assessment of climate change impacts on biodiversity and ecosystems. The service shall be designed to provide high-visibility to the development that is taking place within C3S. The contractor will develop a service that will be integrated into the Climate Data Store (CDS) that is currently being integrated into the overall C3S infrastructure. The biodiversity sectoral information system service will rely upon, and act as a demonstrator of, the functionalities of the CDS and thus will need to be put together using the CDS infrastructure and data contained within the CDS catalogue.							
C3S_428	C3S Use Cases						
General Description: This invitation to tender (ITT) aimed at selecting use cases to bring about success stories of the uptake of the Copernicus Climate Change Service (C3S) products to spin-up sustainable applications and businesses. Based on a market analysis, the contractor should develop and demonstrate an end-to-end application based on C3S products and the tools provided by the Climate Data Store (CDS) infrastructure. The objective of such contracts is to create downstream applications at the service of users based on C3S data and the associated infrastructure.							
C3S_428 Round 1	C3S Use Cases (Round 1)	FA: 6 Mar 2019 SC1: 6 Mar 2019	Agroapps PC	7 Filikis Etaireias Str. 55337 Triandria Greece	189,200.00	31 Aug 2020	189,200.00
Description: The objective of this Framework Agreement is to develop a climate service for the agricultural insurance sector, through which insurance companies will have access to crop-specific climate							

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analytics in order to design more accurate and climate 'smart' insurance contracts.							
C3S_428 Round 1	C3S Use Cases (Round 1)	FA: 5 Apr 2019 SC1: 5 Apr 2019	Jeremy Benn Associates Ltd	South Barn, Broughton Hall Skipton BD23 3AE United Kingdom	249,956.14	30 Sep 2020	249,956.14
Description: The objective of this Framework Agreement is to develop a highly innovative end-to-end climate risk assessment service for the ports sector based on the CS3 products and tools.							
C3S_428 Round 1	C3S Use Cases (Round 1)	FA: 20 May 2019 SC1: 20 May 2019	Fundación Tecnalia Research and Innovation	Parque Científico y Tecnológico de Bizkaia, Astondo Bidea Edificio 700 48160 Derio Spain	249,940.70	31 Oct 2020	249,940.70
Description: The objective of this Framework Agreement is to develop an application to increase the climate resilience of the forestry sector through the delivering of tailored climate information generated from the CDS.							
C3S_428 Round 2	C3S Use Cases (Round 2)	FA: 19 Jun 2019 SC1: 19 Jun 2019	Vortex Factoria de Calculs S.L.	Marie Curie 8/14 Parc Tecnologic BCN nord 08042 Barcelona Spain	201,699.00	30 Nov 2020	201,699.00
Description: The objective of this Framework Agreement is to develop an online platform fed by observational, reanalysis and climate change data, to offer the customer access to on-demand downscaled scenarios. Such platform will seamlessly interact with the existing Copernicus data streams, providing a user-friendly tool to access climate information. The proposal builds upon Vortex business model and extend it to a broader range of users with a demand for high resolution and easy to access climate risk information at different time scales. The platform will offer a similar structure of products as the current Vortex system adapted to climate risks management applications.							
C3S_428 Round 3	C3S Use Cases (Round 3)	FA: 18 Sep 2019 SC1: 18 Sep 2019	Assimila Limited	Reading Enterprise Centre Whiteknights Road Reading RG6 6BU United Kingdom	218,393.89	28 Feb 2021	63,968.00
Description: The objective of this Framework Agreement is to develop and market a tool to allow users, manufacturers and Governments to estimate the time taken for a biopesticide to control insect populations in specific scenarios and hence the latest date that a biopesticide could be applied whilst still being effective. The tool combines temperature data from ERA5, delivered via the CDS, with biological models of insect development and biopesticide efficacy. It will predict the 'time-to-kill', based upon location and time of application, using climatologies and data from individual years to show where applications will be most reliable. The potential for CDS Seasonal forecasts to contribute to in-season guidance will also be explored. This will allow regulators, users and manufacturers to plan for expansion in usage.							
C3S_428 Round 3	C3S Use Cases (Round 3)	FA: 28 Nov 2019 SC1: 28 Nov 2019	Finnish Meteorological Institute	Erik Palménin aukio 1 00560 Helsinki Finland	249,824.65	30 Apr 2021	117,210.36

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<p>Description:</p> <p>The objective of this Framework Agreement is to develop a service to assess and assist with the survival of coniferous forests in northern latitudes, which are at risk with the advance of climate change. Hotter and drier climate will drain the natural defences of trees while also favouring reproduction of their main enemies – bark beetles – both of which may potentially lead to a lower value of wood products and stands. Meanwhile catastrophic events like forest fires are also likely to become more frequent because of dead trees by bark beetle outbreaks. The potential service will assess past, current and future risks to forest health, based on the integration of data from the Copernicus Climate Data Store (CDS) to forest specific data. CDS products used for this purpose will include the recently added ERA5 reanalysis and Euro-CORDEX regional climate projections.</p>							
C3S_429	C3S Demo Cases						
<p>General Description:</p> <p>This invitation to tender (ITT) aimed at demonstrating the full potential of the Copernicus Climate Change Service (C3S) infrastructure, including the diverse set of datasets in the Climate Data Store (CDS) catalogue and the CDS toolbox, by setting up and demonstrating downstream applications, using one or more of the C3S products as input. These contracts would facilitate the creation of indicators, tools and visualisations that do not necessarily have a sustainable business case, but are excellent communication tools and will show-case the CDS and, hence, increase uptake.</p>							
C3S_429 Round 1	C3S Demo Cases (Round 1)	FA: 3 May 2019 SC1: 3 May 2019	World Energy and Meteorology Council	School of Environmental Sciences, University of East Anglia Norwich NR4 7TJ United Kingdom	150,000.00	30 Apr 2020	150,000.00
<p>Description:</p> <p>The objective of this Framework Agreement is to develop visually compelling material to be used by high-school teachers to develop training modules on climate change and climate change impacts, building upon C3S products and the tools provided by the CDS infrastructure and including products developed by the C3S Sectoral Information Systems (SISs).</p>							
C3S_429 Round 1	C3S Demo Cases (Round 1)	FA: 14 May 2019 SC1: 14 May 2019	Fundación Tecnalia Research and Innovation	Parque Científico y Tecnológico de Bizkaia, Astondo Bidea Edificio 700 48160 Derio Spain	149,910.52	30 Apr 2020	149,910.52
<p>Description:</p> <p>The objective of this Framework Agreement is to develop dashboards to support decision-makers and help them visualise complex and large bits of information in a synthesized way. These dashboards will include a series of customisable widgets (maps, search and filter tools, timelines and animations, charts, comparison tools, contextualisation tools...) that explain the status and trends of some climate change data in a specific location for a specific area. Specific dashboards will be developed for Climate Watch Data Portal, the Spanish Climate Change Office, IHOBE in the Basque Region of Spain, and Madrid and Malaga city Councils.</p>							
C3S_429 Round 1	C3S Demo Cases (Round 1)	FA: 31 May 2019 SC1: 31 May 2019	Climate Adaption Services	Bussummergrindweg 1-J 1406 NZ Bussum The Netherlands	125,184.56	31 May 2020	125,184.56
<p>Description:</p> <p>The objective of this Framework Agreement is to develop a web-based platform that gives farmers and farm organizations in Kenya access to easy-to-understand interactive maps and graphs (an adaptation services toolkit). The Toolkit translates the most critical signals from climate projections and seasonal forecasts, tailored to specific crops and critical agro-climatic conditions. The Toolkit will be developed in co-production together with the target users and the University (JKUAT).</p>							

ITT/RFP 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_429 Round 2	C3S Demo Cases (Round 2)	FA: 25 Jun 2019 SC1: 25 Jun 2019	HR Wallingford Ltd	Howbery Park Wallingford OX10 8BA United Kingdom	133,960.52	31 May 2020	133,960.52
Description: The contractor for this Framework Agreement proposed an approach designed to showcase the benefits of C3S data in water resource planning. There is no water resources outlook available to water companies or regulators, and this tool provides an opportunity to introduce water companies to some of the datasets in the CDS catalogue or CDS Toolbox. The gap that this demonstration will bridge is linking water resources drought planning to meteorological forecasting using language, metrics, and visualisations that are directly translatable to the format used by relevant decision makers.							
C3S_429 Round 2	C3S Demo Cases (Round 2)	FA: 8 Jul 2019 SC1: 8 Jul 2019	Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici	Via Augusto Imperatore, 16 73100 Lecce Italy	136,000.00	30 Jun 2020	136,000.00
Description: The objective of this Framework Agreement is to develop an application that will allow end-users to gather and visualize information about soil loss due to water erosion for point/areas of interest (i.e. regions, watersheds, agricultural districts, forested hillslopes), accounting also for climate change projections. User-tailored CDS toolbox widgets will be devised and integrated in the web interface to produce maps/plot/graphs. These operations will be helped by some attractive and communicative artistic elements.							
C3S_429 Round 3	C3S Demo Cases (Round 3)	FA: 8 Oct 2019 SC1: 8 Oct 2019	Randbee Consultants S.L.	C/Martinez Campos 16, Entreplanta A/B 29001 Malaga Spain	149,998.14	30 Sep 2020	149,998.14
Description: The objective of this Framework Agreement is to generate an innovative, user-friendly storytelling tool showing the long-term spatial effects of climate change on bird migration across Europe. The contract, which targets primarily birdwatchers and outdoor enthusiasts, will help raise awareness among general public of the impact climate change might have on birds' migration. Migratory birds are considered bioindicator species and thus the tool will also provide practical information on the environmental changes caused by global warming. To reach its objectives the contractor aims to build machine learning models predicting changes in migratory bird behaviour in relation to climate change in Europe.							
C3S_429 Round 3	C3S Demo Cases (Round 3)	FA: 11 Nov 2019 SC1: 11 Nov 2019	Barcelona Supercomputing Centre	C/Jordi Girona 29, Edificio Nexus II 08034 Barcelona Spain	149,978.24	31 Oct 2020	149,978.24
Description: The objective of this Framework Agreement is to develop an application that facilitates the use of the Climate Data Store (CDS) data products for the creation of effective and emotionally impactful climate change messages to be used by one of the major players creating narratives about climate change: journalists. The application will allow journalists to create tailored and compelling visualisations using 3 key products (ERA5 reanalysis, ECMWF S5 seasonal forecasts and CMIP5 projections). These products will help enrich articles with climate information for the past, the near-term future and the long-term future while simplifying the interface and interaction with the CDS. The application will be co-designed in close collaboration with journalists, creating a co-design group that will participate in the creation and testing of the prototypes.							
C3S_430	Sectoral Information System to Support Disaster Risk Reduction	FA: 5 Jun 2019 SC1: 5 Jun 2019 SC2: 20 Dec 2019	Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici	Via Augusto Imperatore, 16 73100 Lecce Italy	922,100.58	31 May 2021	SC1: 186,046.11 SC2: 736,054.47

ITT/RFP 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>ECMWF, as the Entrusted Entity for the Copernicus Climate Change Service (C3S), issued a contract for services related to operational service provision. The objective of this framework agreement is to develop an operational climate change service that exploits data produced by C3S and generates knowledge required for assessing present risks stemming from extreme weather and climate related events. The service will inform the implementation of the Sendai framework for disaster risk reduction 2015-2030, the multi-hazard risk assessments by the EU civil protection mechanism, and climate change adaptation strategies and plans. It builds upon the concept of integration of climate datasets (ERA5, ERA5-land, UERRA) available in the CDS and ERA5 downscaled at about 2 km on a set of relevant European cities. All the integrated data sources will be exploited to develop a catalogue of high impact weather events and combine these with observed damage and loss records from public repositories such as Sendai Monitor, EMDAT and Desinventar.</p>							
C3S_431	Sectoral Information System to Support Infrastructure, Transport and Associated Standards	FA: 5 Aug 2019 SC1: 5 Aug 2019	Fundación TECNALIA Research and Innovation	Parque Científico y Tecnológico de Bizkaia, Astondo Bidea Edificio 700 48160 Derio Spain	1,499,894.31	30 Jun 2021	401,221.09
<p>Description:</p> <p>ECMWF, as the Entrusted Entity for the Copernicus Climate Change Service (C3S), issued a contract for services related to operational service provision. The objective of this framework agreement is to support the development of a prototype service able to provide relevant climate inputs into the standards that underpin civil engineering assets and transport infrastructure. Given the scope and considering the requirements — within existing standards — for very localised climate information, the Contractor shall prioritise the development of generic methodologies over the provision of detailed datasets to be used directly within standards. The contract shall also develop at least 5 case studies showing how a changing climate could impact existing critical or iconic infrastructure.</p>							
C3S_511	Quality Assessment of ECV Products	FA: 14 Nov 2017 SC2: 29 May 2019	Consiglio Nazionale delle Ricerche - Istituto di Scienze dell'Atmosfera e del Clima	Via Piero Gobetti, 101 40129 Bologna Italy	4,888,061.88	30 Jun 2021	2,744,751.86
<p>Description:</p> <p>ECMWF as the entrusted entity for the Copernicus Climate Change Service (C3S) has issued a contract for quality assessment of Essential Climate Variable (ECV) products derived from observations and from climate reanalyses. The contract contributes to the Evaluation and Quality Control (EQC) function of the C3S, which is designed to ensure that C3S users have access to the best available data about climate, and receive clear contextual guidance on the use of these data. C3S users include scientists, consultants, planners and policymakers, the media and the general public.</p> <p>This contract will carry out independent quality assessments of ECV products available on the C3S Climate Data Store (CDS), and will ensure that the assessments stay up-to-date. Information from the assessments will be used to develop user guidance on fitness-for-purpose for specific use cases. As the C3S enters its operational phase in 2018, the product assessments and user guidance will be available on the CDS as part of a standardised set of quality assurance information.</p>							
C3S_513	Evaluation and Quality Control Framework for the Sectoral Information Systems	FA: 1 Nov 2018 SC2: 26 Apr 2019	Telespazio VEGA UK Ltd	350 Capability Green Luton LU1 3LU United Kingdom	2,999,554.70	30 Jun 2021	2,419,239.70
<p>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</p>							

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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 SC2: 18 Jan 2019	Trabajos Catastrales S.A.U.	C/ Cabarceno 6 31621 Sarriguren Spain	798,210.00	30 Jun 2021	254,632.00
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_23	Provision of EAN Observations	FA: 5 Mar 2019 SC1: 5 Mar 2019	Medical University of Vienna	Währiger Gürtel 18-20 A-1090 Vienna Austria	799,780.49	30 Jun 2021	363,484.92
Description: This contract aims at improving the provision of pollen observations from the European Aeroallergen Network (EAN) to CAMS. These observations are needed for the verification and validation of the CAMS global and regional forecasts, as well as for performing a posteriori reanalyses, deliverables of the Service to the European Commission.							
CAMS_26	Provision of ICOS NRT Atmospheric Observations	FA: 22 Sep 2017 SC2: 5 Feb 2019	Commissariat à l'énergie atomique et aux énergies alternatives	Bâtiment Le Ponant D 25 rue Leblanc 75015 Paris France	580,922.69	30 Jun 2021	176,482.40
Description: The Integrated Carbon Observation System (ICOS) is one of the European Research Infrastructures selected as an ESFRI landmark. ICOS provides the long-term observations required to understand the present state and predict future behaviour of climate, the global carbon cycle and greenhouse gases emissions. This contract is for the provision of an improved access to the ICOS atmospheric data for the purposes of the validation of CAMS global and regional forecasts. The specific activities support routine and reliable preparation, transmission and quality control of ICOS data.							
CAMS_27	Provision of NDACC Observations	FA: 20 Jul 2017 SC2: 8 Feb 2019	Royal Belgian Institute for Space Aeronomy	Ringlaan 3 B-1180 Brussels Belgium	800,000.00	30 Jun 2021	176,050.13
Description: The international Network for the Detection of Atmospheric Composition Change (NDACC) is composed of more than 70 high-quality, remote-sensing research stations for observing and understanding the physical and chemical state of the stratosphere and upper troposphere and for assessing the impact of stratosphere changes on the underlying troposphere and on global climate. This contract is for the provision of an improved access to the NDACC atmospheric data for the purposes of the validation of CAMS global and regional forecasts. The specific activities support routine and reliable preparation, transmission and quality control of NDACC data.							
CAMS_41(II)	Development of Global Greenhouse Gas Aspects	FA: 11 Apr 2019 SC1: 11 Apr 2019	Commissariat à l'énergie atomique et aux énergies alternatives	Bâtiment Le Ponant D 25 rue Leblanc 75015 Paris France	415,000.00	31 Dec 2021	311,313.21

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<p>Description:</p> <p>This contract is for providing support for and further development of the global production system of CAMS operated at ECMWF, which delivers 3D distributions of greenhouse gases (CO₂ and CH₄) in the troposphere and stratosphere through data assimilation and numerical modelling.</p> <p>The contractor will deliver an improved representation of methane fluxes from natural wetlands for use in the CAMS global production system, implement the Farquhar photosynthesis model to allow future use of satellite observations of solar-induced chlorophyll fluorescence (SIF) to further optimize the land surface model used in the CAMS global production system, provide timely retrieval products from the GOSAT satellite, as well as deliver memoranda and reports. The contractor will also provide expertise to the team working on the global production system at ECMWF regarding greenhouse-gas aspects.</p>							
CAMS_42(II)	Development of global reactive gases aspects	FA: 1 Nov 2019 SC1: 1 Nov 2019	Royal Netherlands Meteorological Institute	PO Box 201 3730 AE De Bilt Netherlands	1,149,991.95	30 Jun 2021	858,076.03
<p>Description:</p> <p>This contract is for providing support for and further development of the global production system of CAMS operated at ECMWF, which delivers 3D distributions of reactive gases in the troposphere and stratosphere through data assimilation and numerical modelling. The contractor will deliver improvements to the chemistry schemes and the related parameterisations of source and sink processes in the CAMS global production system. Further, the contractor will provide comprehensive documentation and to contribute to the development of chemistry-specific CAMS products to attract a wider range of users for CAMS.</p>							
CAMS_43(II)	Development of global aerosol aspects	FA: 11 Apr 2019 SC1: 11 Apr 2019	HYGEOS	165 Avenue de Bretagne 59000 Lille France	814,840.30	31 Dec 2021	601,392.41
<p>Description:</p> <p>This contract is for providing support for and further development of the global production system of CAMS operated at ECMWF, which delivers 3D distributions of aerosols in the troposphere and stratosphere through data assimilation and numerical modelling. The contractor will be expected to deliver improvements to Aerosol Schemes and the related removal parameterizations and dynamical source parameterizations for use in the CAMS global production system, and to provide further developments towards radiance assimilation for aerosols with the CAMS system, as well as provide memoranda and reports. The contractor will also advise the team working on the global production system at ECMWF.</p>							
CAMS_44(II)	Development of the global fire assimilation system	FA: 20 Jun 2019 SC1: 20 Jun 2019	King's College London	3 rd Floor 5-11 Lavington Street London, SE1 0NZ United Kingdom	739,636.04	31 Dec 2021	570,848.52
<p>Description:</p> <p>This contract is for providing support for and further development of the global fire assimilation system (GFAS) of CAMS operated at ECMWF. GFAS delivers near-real-time emissions of gases and aerosols through data assimilation and numerical modelling supporting atmospheric composition forecasts. The contractor will provide improvements for the current GFAS system in terms of updated injection height estimation using the plume rise and IS4FIRES models, provide near-real-time fire radiative power (FRP) observations from the GOES and Himawari geostationary satellites, monitor global FRP, improve GFAS usage, and regularly update information on land cover maps and spurious FRP signals, as well as deliver memoranda and reports. The contractor will also advise the team working on the global production system at ECMWF.</p>							
CAMS_50(II)	Regional Production						
<p>Description:</p> <p>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</p>							

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<p>component of CAMS. Two Frameworks Agreements with the following objectives have been awarded:</p> <ul style="list-style-type: none"> — 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 SC2: 20 Nov 2019	Météo-France	73 avenue de Paris 94165 Saint-Mandé France	4,866,515.05	31 Dec 2021	1,704,809.48
		FA: 16 Oct 2018 SC2: 20 Nov 2019	Institut National de l'Environnement Industriel et des Risques	Parc technologique Alata 60550 Verneuil-en-Halatte France	821,268.25	31 Dec 2021	305,492.84
CAMS_63	Development of Post-Processing Methods and Tools for the CAMS Regional Air Quality Ensemble	FA: 28 Nov 2019 SC1: 28 Nov 2019	Institut National de l'Environnement Industriel et des Risques	Parc technologique Alata 60550 Verneuil-en-Halatte France	489,232.60	31 Dec 2021	489,232.60
<p>Description:</p> <p>The objective of this framework agreement is to further develop CAMS regional air quality ensemble products and to improve their presentation for conveying the associated uncertainty information. A central aspect is to improve the quality and performance of the products by testing advanced post-processing methods and by considering the most adapted one(s) for the different types of air quality indicators. The contractor will also liaise with users and stakeholders of CAMS regional products in order to develop best ways of providing uncertainty information.</p>							
CAMS_71(II)	Products in Support of Users in the Policy Domain	FA: 14 Jun 2019 SC1: 14 Jun 2019	Institut national de l'environnement industriel et des risques	Parc technologique Alata 60550 Verneuil-en-Halatte France	976,961.21	31 Dec 2021	727,119.42
<p>Description:</p> <p>This contract is about activities to deliver a range of products of the CAMS portfolio especially relevant for policy users. These products are:</p> <ul style="list-style-type: none"> — annual interim assessment reports based on the interim regional reanalyses and material in support of national reporting duties on air quality and threshold exceedances, — annual assessment reports based on the regional reanalyses which make use of validated data, to serve as a reference document on the status of air quality in Europe, — an 'air control toolbox' that offers alternative forecasts of European air quality with reduced level of emissions, which allow assessing the effectiveness of possible temporary mitigation measures or of candidate measures as part of future policy developments, — daily source-receptor calculations, which allow tracking the pollutants according to the geographical origin and chemical composition of their (or their precursors) sources, — reports about major air pollution episodes in Europe produced within one month after the event in support of the concerned Member States' a posteriori analysis, — 2 sensitivity studies relying on different emissions scenarios in order to assess the impact of pollutants emissions abatement on health impacts and agriculture. <p>It also comprises the organisation of annual workshops to gather the community of policy users of CAMS in order to discuss and gather feedback on the products delivered under this contract as well as more generally on other CAMS regional and global products that are relevant for EU, national and local policies.</p>							

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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_95j	Contract Title: AsSIS: Aircraft Support & Maintenance Services	FA: 8 Aug 2018 SC2: 28 Mar 2019	Capgemini	109 Avenue Eisenhower 31036 Toulouse Cedex France	99,981.85	31 Jan 2020	21,077.92
CAMS_95o	Contract Title: CAMS sponsorship of windy.com	SC1: 1 Mar 2019 Amendment1: 5 Nov 2019	Windyty SE	Strakonická 1199/2d Hlubočepy 150 00 Praha 5 Czech Republic	N/A	31 Dec 2020	SC1: 100,000.00 Amendment1: 64,462.50
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 SC2: 5 Feb 2019	Valamis Oy	Koskikatur 7 A, 8 0100 Joensuu Finland	499,963.25	31 Dec 2020	133,900.38
COP_010 Lot 2	Contract title: Building and delivering training content	FA: 13 Jun 2018 SC2.a: 25 Jan 2019	Stichting Wageningen Research - Wageningen Environmental Research	Droevendaalsesteeg 3 6708 PB Wageningen The Netherlands	2,499,949.99	31 Dec 2020	SC2.a: 645,552.38
COP_017b	Provision of website improvement and support services	FA: 20 Dec 2019 SC1: 20 Dec 2019	Eau de Web SRL	Str. Maior Gheorghe Șoșu No. 8, et. 1 011448 Bucharest Romania	274,578.11	31 Dec 2021	274,578.11
<p>Description:</p> <p>The main purpose of the agreement is to contribute to effective implementation of ECMWF Copernicus Communication in the areas of digital outreach and data service strategy: — technical support and maintenance of the C3S and CAMS websites;</p>							

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<ul style="list-style-type: none"> — migration of the current website to the data service infrastructure, the Climate Data Store (CDS); — implement and integrate new Copernicus web templates with existing C3S and CAMS websites; — define best user journey flows to achieve seamless C3S website integration with the CDS as well as CAMS website integration with the Atmosphere Data Store (ADS); and — implement seamless C3S website integration with the CDS as well as CAMS website integration with the ADS. 							
COP_020	Copernicus Communications Services						
<p>General description: 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 SC2: 28 Feb 2019 SC2.a: 28 Feb 2019 SC3: 6 Dec 2019 SC3.a: 6 Dec 2019	Adria Congrex s.r.l.	Via Sassonia 30 Rimini - 4 7922 Italy	3,000,000.00	30 Jun 2021	SC2: 403,626.00 SC2.a: 751,255.00 SC3: 521,674.00 SC3.a: 811,328.29
COP_020 Lot 2	Contract title: Press activities	FA: 8 Aug 2018 SC2: 28 Feb 2019 SC2a: 28 Feb 2019	HBI Intl. PR & MarCom Agency GmbH	Stefan-George-Ring 2 81929 Miinchen Germany	1,483,835.00	31 Dec 2020	SC2: 269,010.00 SC2.a: 345,345.00
COP_020 Lot 3	Contract title: Public outreach activities	FA: 8 Aug 2018 SC2: 6 Mar 2019 SC2.a: 6 Mar 2019 SC2.b: 6 Mar 2019	EJR-Quartz	3e Binnenvestgracht 23F 2312NR Leiden Netherlands	1,455,314.49	31 Dec 2020	SC2: 303,376.79 SC2.a: 251,817.08 SC2.b: 20,584.00
COP_024b	Copernicus Media Partnership						
<p>General description: The European Centre for Medium-range Weather Forecast (ECMWF) as the entrusted Entity for Copernicus Atmosphere Monitoring Service (CAMS) and the Copernicus Climate Change Service (C3S), issued contracts for the development of the Copernicus Media Partnership services in support of ECMWF's Copernicus Department communication and outreach activities for both CAMS and C3S. The contractors will provide impactful and far-reaching media partnership activities that are contributing to effective implementation of ECMWF Copernicus Communication strategy in the areas of media engagement and outreach.</p>							
COP_024b Lot 1	Contract title: Media Partnership with Euronews	FA: 20 Jun 2019 SC1: 20 Jun 2019	Repeat	114 avenue Charles de Gaulle 92200 Neuilly-sur-Seine France	1,841,962.50	31 May 2021	1,423,253.00

ITT/RFP 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_024b Lot 2	Development and Implementation of New Creative Solutions and Novel High Impact Services to Further Expand Media Coverage of CAMS and C3S (Media Partnership with CNN)	FA: 17 Jul 2019 SC1: 17 Jul 2019	Repeat	114 avenue Charles de Gaulle 92200 Neuilly-sur-Seine France	1,585,069.20	31 May 2021	755,229.20
COP_024b Lot 2	Contract title: Development and Implementation of New Creative Solutions and Novel High Impact Services to further Expand Media Coverage of CAMS and C3S	FA: 2 Aug 2019 SC1: 2 Aug 2019	Design and Data GmbH	Hohenzollernring 56 50672 Cologne Germany	979,860.00	30 Jun 2021	234,400.00
COP_031	Provision of audit services to ECMWF for Copernicus contracts	FA: 28 Mar 2018 SC2: 1 Feb 2019	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"> — supporting ECMWF in establishing the Copernicus contracts audit function (Work Package 1), — carrying out the audits in accordance to the annual audit plan (Work Package 2). <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 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 FA Amendment: 15 Sep 2019 SC1: 10 May 2018 SC2: 17 Jun 2019 SC3: 24 Dec 2019	Global Technologies SAS	6 boulevard du Général Leclerc 92110 Clichy France	FA: 269,985.00 FA Amendment: 198,421.00	14 Jun 2020	SC1: 162,975.00 SC2: 83,947.00 SC3: 83,640.00

ITT/RFP 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>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. 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.</p>							
COP_043	DIAS — Processing, Data Access and Tools Software	FA: 28 Nov 2018 SC2: 1 Jul 2019	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	257,920.49
<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. 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>							
COP_049	Provision of a Massive Online Course (MOOC) on Climate	FA: 31 Jul 2019 SC1: 31 Jul 2019	Imperative Space GovEd Ltd	13 Wood End Close Sharnbrook, MK44 1JY United Kingdom	126,985.43	31 May 2020	126,985.43
<p>The objective of this Framework Agreement is for the Copernicus Climate Change Service (C3S) to extend the contents of their learning services with a Massive Open Online Course (MOOC) to provide a free course on climate science applied to sectoral climate sensitive decisions. This MOOC will provide tools to understand and use the open data served by C3S via the Climate Data Store (CDS) for applications that demonstrate how climate data can be accessed, transformed and made relevant to address specific contexts. The MOOC will differentiate itself from the existing market in being specific to the C3S mission and products. The contractor will provide an end-to-end MOOC service covering course development, instructional design, content production, interactivity and course delivery.</p>							

Contract ID	Title	Date of award	Name of recipient	Address of recipient	Amount of contract, Euro or Pounds	End date of contract
C3S_23b_OPT2	Consultancy Services for Copernicus 2019	1 Jan 2019	CloudFerro sp. z o.o.	ul. Nowogrodzka 31 00-511 Warsaw Poland	€ 146,880.00	completed
C3S_25b	Maintenance of the Climate Data Store Toolbox	1 Feb 2019	B-Open Solutions srl	Via Principe Eugenio 15 00185 Rome Italy	€ 111,554.00	completed
C3S_34f	Maintenance of the dedicated C3S ESGF infrastructure for CMIP Global Climate Models	16 Dec 2019	Science and Technology Facilities Council as part of the United Kingdom Research and Innovation	Polaris House North Star Avenue Swindon SN2 1SZ United Kingdom	€ 179,238.46	30 Apr 2021
COP_042b	Technical Support for Contract Management of C3S_312b Contracts	1 Jul 2019	Assimila Limited	Reading Enterprise Centre University of Reading Earley Gate Reading, RG6 6BU United Kingdom	€ 164,925.00	30 Jun 2020
COP_049D	Animation of "Air Quality Forecasting" for CAMS	1 Feb 2019	Design & Data GmbH	Hohenzollernring 56 50672 Cologne Germany	€ 13,970.00	completed
COP_050	CDS Training at the ECCA 2019 Conference	22 May 2019	Fundación Tecnalia Research and Innovation	Parque Científico y Tecnológico de Bizkaia, Astondo Bidea Edificio 700 48160 Derio Spain	€ 3,230.00	completed
COP_052	Splunk Services for CDS	26 Jun 2019	Somerford Associates Ltd	Park House, Church Place Swindon, SN1 5ED United Kingdom	€ 38,014.00	completed
COP_053	Assessment of Ørsted GNSS radio occultation measurements	30 Sep 2019	Danish Meteorological Institute	Lyngbyvej 100 2100 Copenhagen Denmark	€ 58,533.02	31 May 2020
COP_054	CDS Training at the 1 st CAFÉ school	11 Sep 2019	Fundación Tecnalia Research and Innovation	Parque Científico y Tecnológico de Bizkaia, Astondo Bidea Edificio 700 48160 Derio Spain	€ 5,970.00	completed
CAMS_74	Climate Forcings	1 Jul 2019	University of Reading	PO Box 217 Whiteknights	€ 179,974.67	30 Jun 2020

Contract ID	Title	Date of award	Name of recipient	Address of recipient	Amount of contract, Euro or Pounds	End date of contract
				Reading, RG6 6AH United Kingdom		
PO:30000605	Participation to the 16th International Weather and Climate forum - 27-28 May - Paris	25 Mar 2019	International Weather Climate Company (IW2C)	21 rue de l'Odeon 75006 Paris France	€15,000.00	completed
EE70476	10Gbps Resilient Connectivity	13 May 2019	Exponential-e Limited	100 Lemn Street London, E1 8EU United Kingdom	£ 97,122.00	12 May 2020