



EUROPEAN COMMISSION

Executive Agency for Small and Medium-sized Enterprises (EASME)

H2020 Environment & Resources



ANNEX 1 (part A)

Coordination and support action

NUMBER — 689029 — ECOMS2

Table of Contents

1.1. The project summary.....	3
1.2. The list of beneficiaries.....	4
1.3. Workplan Tables - Detailed implementation.....	5
1.3.1. WT1 List of work packages.....	5
1.3.2. WT2 List of deliverables.....	6
1.3.3. WT3 Work package descriptions.....	10
Work package 1.....	10
Work package 2.....	15
Work package 3.....	18
Work package 4.....	21
Work package 5.....	24
Work package 6.....	27
1.3.4. WT4 List of milestones.....	31
1.3.5. WT5 Critical Implementation risks and mitigation actions.....	33
1.3.6 WT6 Summary of project effort in person-months.....	34
1.3.7. WT7 Tentative schedule of project reviews.....	35
1.4. Ethics Requirements.....	36

1.1. The project summary

Project Number ¹	689029	Project Acronym ²	ECOMS2
One form per project			
General information			
Project title ³	European Climate Observations, Modelling and Services - 2		
Starting date ⁴	The first day of the month after the signature by the Commission		
Duration in months ⁵	60		
Call (part) identifier ⁶	H2020-SC5-2015-one-stage		
Topic	SC5-05b-2015 Earth-system modelling and climate services		
Fixed EC Keywords	Project management and coordination, Communication networks, media, information society, Climatic research		
Free keywords	Earth system modelling, climate services, coordination, network		
Abstract ⁷			
<p>The ECOMS2 Action will coordinate and support Europe's knowledge base to enable better management of climate-related risks and opportunities thereby creating greater social and economic value. ECOMS2 has 4 main objectives: 1. Develop a European framework for Earth-system modelling and climate service activities. The framework will be built around a managed network of European, national and international activities and organisations. Such a network does not yet exist but is becoming increasingly necessary. 2. Coordinate and integrate European climate modelling, climate observations and climate service infrastructure initiatives (including JPI-Climate, Climate-KIC, Copernicus C3S) and facilitate dialogue among the relevant stakeholders, including climate science communities, funding bodies, providers and users. This will improve synergies, reduce fragmentation and promote alignment between activities. The user communities will include public sector, businesses, industry and society. 3. Establish multi-disciplinary expert groups to assess the state-of-the-art in Earth-system modelling and climate services in Europe; and identify existing gaps, new challenges and emerging needs. 4. Enhance communication and dissemination activities with stakeholders, in particular through events to bring the network together and showcase progress; stakeholder-oriented reports on the state-of-the-art in Earth-system modelling and climate services in Europe; operating a website; and undertaking additional stakeholder interactions to increase awareness and maximise project impacts. This CSA will deliver a range of highly beneficial impacts. Two key impacts are (i) to greatly enhance the transfer of information between suppliers and users to improve the resilience of European society to climate change and mitigation of the risk of dangerous climate change; and (ii) to improve coordination to increase efficiency, reduce fragmentation and create synergies with international R&I programmes.</p>			

1.2. List of Beneficiaries

Project Number ¹	689029	Project Acronym ²	ECOMS2
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List of Beneficiaries

No	Name	Short name	Country	Project entry month ⁸	Project exit month
1	MET OFFICE	MET OFFICE	United Kingdom	1	60
2	AGENCE NATIONALE DE LA RECHERCHE	ANR	France	1	60
3	BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	BSC	Spain	1	60
4	CENTRO EURO-MEDITERRANEO SUI CAMBIAMENTI CLIMATICI SCARL	CMCC	Italy	1	60
5	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE	IC	United Kingdom	1	60
6	EUROPEAN CENTRE FOR MEDIUM-RANGE WEATHER FORECASTS	ECMWF	United Kingdom	1	60
7	HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIAL- UND KUSTENFORSCHUNG GMBH	HZG	Germany	1	60
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	CNRS	France	1	60
9	KONINKLIJK NEDERLANDS METEOROLOGISCH INSTITUUT-KNMI	KNMI	Netherlands	1	60
10	REPUBLICKI HIDROMETEOROLOSKI ZAVODSRBIJE	RHMSS	Serbia	1	60
11	SVERIGES METEOROLOGISKA OCH HYDROLOGISKA INSTITUT	SMHI	Sweden	1	60

1.3. Workplan Tables - Detailed implementation

1.3.1. WT1 List of work packages

WP Number ⁹	WP Title	Lead beneficiary ¹⁰	Person-months ¹¹	Start month ¹²	End month ¹³
WP1	Project Management	1 - MET OFFICE	25.00	1	60
WP2	Create and manage the network	1 - MET OFFICE	59.00	1	60
WP3	Mapping and analysis of current Earth system modelling and climate service activities	11 - SMHI	59.00	1	55
WP4	Forward-looking recommendations	8 - CNRS	44.00	1	55
WP5	Festivals	7 - HZG	27.00	1	60
WP6	Communication and dissemination	9 - KNMI	59.00	1	60
Total			273.00		

1.3.2. WT2 list of deliverables

Deliverable Number ¹⁴	Deliverable Title	WP number ⁹	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D1.1	Summary report on project progress (month 3)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	3
D1.2	Data Management Plan	WP1	1 - MET OFFICE	Report	Public	6
D1.3	Summary report on project progress (month 9)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	9
D1.4	Summary report on project progress (month 15)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	15
D1.5	Summary report on project progress (month 21)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	21
D1.6	Summary report on project progress (month 27)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	27
D1.7	Summary report on project progress (month 33)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	33
D1.8	Summary report on project progress (month 39)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	39
D1.9	Summary report on project progress (month 45)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the	45

Deliverable Number ¹⁴	Deliverable Title	WP number ⁹	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
					Commission Services)	
D1.10	Summary report on project progress (month 51)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	51
D1.11	Summary report on project progress (month 57)	WP1	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	57
D2.1	Initial list of organisations in the network and the international forums to be used to ensure network is active	WP2	2 - ANR	Report	Public	9
D2.2	The status of the network and effectiveness of integration and coordination, and future plans for the network	WP2	1 - MET OFFICE	Report	Public	30
D2.3	Potential future sustainability and improvement of the network	WP2	1 - MET OFFICE	Report	Public	54
D3.1	Report on European Earth system modelling for climate services	WP3	11 - SMHI	Report	Public	15
D3.2	Progress on the integration of climate services and Earth system modelling	WP3	3 - BSC	Report	Public	35
D3.3	Matching new demands of climate services with evolving Earth system modelling and prediction capabilities	WP3	5 - IC	Report	Public	55
D4.1	Integration of Earth system modelling and climate services	WP4	3 - BSC	Report	Public	12

Deliverable Number ¹⁴	Deliverable Title	WP number ⁹	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D4.2	Lessons and practice of co-developing climate services with users	WP4	7 - HZG	Report	Public	24
D4.3	Research needs and European funding landscape	WP4	1 - MET OFFICE	Report	Public	36
D4.4	Recommendations on research needs	WP4	8 - CNRS	Report	Public	50
D5.1	First festival held	WP5	7 - HZG	Other	Public	12
D5.2	Second festival held	WP5	7 - HZG	Other	Public	36
D5.3	Third festival held	WP5	7 - HZG	Other	Public	60
D6.1	Website and Internet Communication Platform	WP6	4 - CMCC	Websites, patents filling, etc.	Public	4
D6.2	Updated dissemination and exploitation plan	WP6	9 - KNMI	Report	Confidential, only for members of the consortium (including the Commission Services)	6
D6.3	Policy briefings and fact sheets (month 12)	WP6	4 - CMCC	Report	Public	12
D6.4	Scientific review papers (month 12)	WP6	9 - KNMI	Report	Public	12
D6.5	State of European Earth-system modelling and Climate Services publication series releases (month 20)	WP6	11 - SMHI	Report	Public	20
D6.6	Policy briefings and fact sheets (month 30)	WP6	4 - CMCC	Report	Public	30
D6.7	Scientific review papers (month 30)	WP6	9 - KNMI	Report	Public	30
D6.8	State of European Earth-system modelling and Climate Services publication series releases (month 40)	WP6	11 - SMHI	Report	Public	40
D6.9	Policy briefings and fact sheets (month 60)	WP6	4 - CMCC	Report	Public	60

Deliverable Number ¹⁴	Deliverable Title	WP number ⁹	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D6.10	Scientific review papers (month 60)	WP6	9 - KNMI	Report	Public	60
D6.11	State of European Earth-system modelling and Climate Services publication series releases (month 60)	WP6	11 - SMHI	Report	Public	60

DRAFT

1.3.3. WT3 Work package descriptions

Work package number ⁹	WP1	Lead beneficiary ¹⁰	1 - MET OFFICE
Work package title	Project Management		
Start month	1	End month	60

Objectives

1. Undertake project management and coordination to enable objectives, deliverables and impacts to be effectively and efficiently achieved on time and within the resources budgeted
2. Establish and maintain an effective interaction and communication with the European Commission, including regular reporting on progress
3. Coordinate and facilitate relationships, collaboration and coordination between partners within ECOMS2, including sharing of information associated with project management
4. Facilitate efficient running of groups, such as Expert groups, Stakeholder group and Editorial teams

Description of work and role of partners

WP1 - Project Management [Months: 1-60]

MET OFFICE

This work package is led by Met Office.

The management of ECOMS2 is described in detail in Section 3.2, and summarised below through the following tasks.

T1.1 [M1-M60] Project Management and Coordination (Lead: Met Office)

Manage the project using effective management procedures based on PRINCE2 (Projects IN Controlled Environments) formal project management methodology. These will primarily be the responsibility of the Met Office. Managing the project includes the following (non exhaustive) activities:

- (i) Implementation and maintenance of the Grant Agreement and the preceding Consortium Agreement. The Consortium Agreement will layout the rules for participation of the partners, including agreement of ownership and access to knowledge and results (i.e., Intellectual Property Rights), the processes for making decisions, and also for resolving disputes;
- (ii) Overall legal, financial, administrative management and reporting; and
- (iii) Appropriate management of gender aspects (MS1), ethics issues (MS10), disputes/complaints and risks/issues/benefits on behalf of the General Assembly of partners.

The following coordination activities are the responsibility of the Coordinator to reinforce coordination at both strategic and technical level:

- (i) Ensuring all reports and deliverables for the European Commission are prepared, delivered on time and are of high quality;
- (ii) Controlling the overall consistency between the progress and achievements of the CSA, and compliance with the work plan and the Action's objectives;
- (iii) Monitoring and controlling the overall consistency and synthesis between the WPs' activities and outcomes – including avoiding duplication of effort and identifying any gaps in activity; and
- (iv) Endorsement of recommendations from the CSA and decisions made.

T1.2 [M1-M60] Liaising with, and reporting to, the European Commission (Lead: Met Office)

Maintain regular and comprehensive contact with the European Commission in Brussels. This will be partially fulfilled through the provision of regular summary reports outlining progress (D1.1). The Coordinator will be the interface between ECOMS2 and the European Commission, and will ensure that the appropriate project obligations from the Grant Agreement are carried out. The Coordinator will inform the European Commission of any significant project achievements and also any deviations from plans, and also invite the European Commission to major project-organised meetings/workshops including the festivals.

T1.3 [M1-M60] High level engagement with policy and decision makers (Lead: Met Office)

The coordinator will engage with policy and decision makers to communicate the impact and significance of the ECOMS2 network and reports (for example, through participation in decision making bodies, such as advisory boards and panels, executive and steering committees). The coordinator will use output from WP6 which will be specifically

written for this audience, with the aim of strengthening the science-policy interface. This will ensure that ECOMS2 remains well aligned with European and national requirements throughout the lifetime of the Horizon 2020.

T1.4 [M1-M60] Facilitation of internal communication (Lead: Met Office)

Sharing knowledge and information across the project partners. The project office will ensure optimal internal information exchange through regular and routine communications. Building upon the experience of the partners in a number of FP7 and Horizon 2020 projects, the Project Office will provide and manage an information sharing platform in the form of a dedicated internal project website/wiki (MS2). This will host templates, documents and tools that the project office will develop to aid management and reporting, along with contractual documents and consortium documents, calendars of future meetings. There will be space for each partner and work package in order to encourage continual conversations, dialogue and knowledge exchange amongst the partners. The wiki will host a continually updated table detailing all the dissemination activities and publications resulting from the Action. Keeping this table up to date will be the responsibility of the project office. This task will also ensure the implementation and maintenance of mailing lists for partners.

T1.5 [M1-M60] Knowledge and innovation management (Lead: Met Office)

This task is linked with WP2, 3, 4, 5, and 6. However, it is the responsibility of the Coordinator through this task, to take the overview and ownership of the strategies and processes around exploitation, knowledge and innovation management within this Action.

A knowledge management strategy will be kept up to date and the Coordinator will ensure that the associated protocols are adhered to. One of the specific knowledge management activities carried out under this task is the review of the project's dissemination materials to ensure quality and adherence to European Commission guidelines.

A simple Data Management Plan (DMP) will be produced and implemented, in coordination with WP6 (D1.2). It will be drafted in compliance with the guidelines given on data management in Horizon 2020 by the European Commission. The strategy and implementation of the DMP will be continually reviewed. The DMP will be aligned to the Dissemination and Exploitation Plan (written and managed through WP6). This task will also oversee the participation in the Open Research Data Pilot, including ensuring that peer-reviewed publications will be accessed through an Open Access mechanism.

This task will oversee effective innovation management for this Action. This links strongly with WP6 in ensuring that innovative products are created and innovative communication mechanisms are used to disseminate them.

T1.6 [M1-M60] Provide secretariat function in supporting the Expert groups, Stakeholder Group and Editorial Teams (Lead: Met Office)

The Project Office will provide a secretariat function for the Expert Groups, the Stakeholder Group and Editorial Teams and support partners where possible. This task will ensure the implementation and maintenance of mailing lists for partners, the expert groups and stakeholders.

Participation per Partner

Partner number and short name	WP1 effort
1 - MET OFFICE	25.00
Total	25.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D1.1	Summary report on project progress (month 3)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	3

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D1.2	Data Management Plan	1 - MET OFFICE	Report	Public	6
D1.3	Summary report on project progress (month 9)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	9
D1.4	Summary report on project progress (month 15)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	15
D1.5	Summary report on project progress (month 21)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	21
D1.6	Summary report on project progress (month 27)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	27
D1.7	Summary report on project progress (month 33)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	33
D1.8	Summary report on project progress (month 39)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	39
D1.9	Summary report on project progress (month 45)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	45
D1.10	Summary report on project progress (month 51)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the	51

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
				Commission Services)	
D1.11	Summary report on project progress (month 57)	1 - MET OFFICE	Report	Confidential, only for members of the consortium (including the Commission Services)	57

Description of deliverables

D1.1 : Summary report on project progress (month 3) [3]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 3) [Task 1.2]. Participants: all

D1.2 : Data Management Plan [6]

ECOMS2 has chosen to participate in the Horizon 2020 Open Data Research Pilot. Therefore a Data Management Plan will be written [Task 1.5]. Participants: all

D1.3 : Summary report on project progress (month 9) [9]

A one page summary report will be provided to the European Commission every six months (month 9) [Task 1.2]. Participants: all

D1.4 : Summary report on project progress (month 15) [15]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 15) [Task 1.2]. Participants: all

D1.5 : Summary report on project progress (month 21) [21]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 21) [Task 1.2]. Participants: all

D1.6 : Summary report on project progress (month 27) [27]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 27) [Task 1.2]. Participants: all

D1.7 : Summary report on project progress (month 33) [33]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 33) [Task 1.2]. Participants: all

D1.8 : Summary report on project progress (month 39) [39]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 39) [Task 1.2]. Participants: all

D1.9 : Summary report on project progress (month 45) [45]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 45) [Task 1.2]. Participants: all

D1.10 : Summary report on project progress (month 51) [51]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 51) [Task 1.2]. Participants: all

D1.11 : Summary report on project progress (month 57) [57]

A one page summary report will be provided to the European Commission every six months, starting at month 3 (month 57) [Task 1.2]. Participants: all

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
MS1	Gender Action Plan	1 - MET OFFICE	3	A Gender Action Plan will be produced which will detail measures and actions to contribute to meeting the Horizon 2020 gender balance objectives. The plan will be written and agreed by the partners [Task 1.1]
MS2	Design and implement internal communication platform and tools	1 - MET OFFICE	3	An internal project communication platform will support collaboration and communication between project partners. This information platform will be available for use by Month 3 [Task 1.4]
MS10	Description of process and procedures for treatment of personal data	1 - MET OFFICE	2	Procedures will be implemented for the collection, storage, protection, access, retention and destruction of any personal data. These procedures will be developed and documented through this milestone report [Task 1.1]

Work package number ⁹	WP2	Lead beneficiary ¹⁰	1 - MET OFFICE
Work package title	Create and manage the network		
Start month	1	End month	60

Objectives

1. Create a network, and ensure it evolves, to integrate and coordinate on-going and future research and innovation activities in the fields of Earth-system modelling and climate services within the EU and beyond
2. Provide forums to ensure the network is active and effective

Description of work and role of partners

WP2 - Create and manage the network [Months: 1-60]

MET OFFICE, ANR, BSC, CMCC, IC, ECMWF, HZG, CNRS, KNMI

This work package is led by Met Office (lead) and ANR (co-lead).

WP2 will define and establish a coordination mechanism for on-going and future research and innovation activities in the fields of Earth-system modelling and climate services within the EU and beyond, including relevant existing networks. Non-research activities will also be taken into account. This will create an active community of users, providers and intermediaries throughout the duration of Horizon 2020, and will assist implementation of the Climate Services Roadmap recently launched at the European Commission.

The coordination mechanism will be created by (i) identifying, as an on-going activity, the relevant parties and establish a clear point of contact for each one; (ii) identifying and designing suitable forums where the relevant parties will network; (iii) facilitate the networking for better alignment and synergy (including through the other WPs).

This network will also coordinate, create synergies between, and better align EU initiatives (see Task 2.1 below) and nationally funded climate research and innovation actions. The network will connect the various actors around common areas of interest and action, and provide a forum to enable development of joint projects and programmes, develop international forward looking analyses on emerging needs and increase the overall attractiveness and competitiveness of the European Research Area (see Task 2.2 below).

This network will ensure the other WPs are able to access the relevant initiatives, organisations and individuals to maximise the overall impact of the European research and innovation and to increase awareness and effective use of climate science and knowledge.

T2.1 [M1-M60] Create, manage and develop the network (Lead: Met Office, Participants: All in WP)

The network will include, as far as is practically possible, on-going and future European climate modelling, climate observations and climate service infrastructure initiatives, and will engage beyond Europe. An initial list of organisations, initiatives and individuals will be created at the start of the CSA (MS3) and will constantly evolve. For each organisation and initiative, a key individual will be identified and contacted. The initial list will be consistent with the activities listed in Section 1.3. The network will also identify policy makers, businesses, industry, professional federations and funding bodies through existing contacts, and through contacts as the network evolves (D2.1). The network will be managed through specific activities detailed in WPs3-6, and those activities will also lead to an updating of the network through additional organisations, initiatives and individuals. Reports on the effectiveness of the network (D2.2) and on recommendations for the network in the future (D2.3) will also be made openly available.

T2.2 [M1-M60] Develop international forums to ensure the network is active, attractive and effective (Lead: ANR, Participants: All in WP)

Suitable forums, i.e. meetings and medium for the network to exchange ideas on particular issues, will be identified to ensure that the network is active and effective (D2.1 and MS6). Particular attention will be paid to developing suitable international forums for funders. The forums need to be designed to attract the actors identified in Task 2.1 and to bring them together effectively to ensure ECOMS2's objectives are met. Most of the forums will be interactive, to ensure high levels of involvement and interest, and some will be more passive where appropriate.

A range of forums have already been identified as essential to the success of the CSA and have dedicated tasks and WPs, particularly the Expert groups, Stakeholder group, Festivals, interactive elements of the web-site, social media and workshops (see Table 1). WPs 5 and 6 will play particularly important roles to ensure the forums are effective. The forums in WPs 5 and 6 will be of great use in identifying ideas for improving these forums or developing new ones (D2.2 and D2.3). For example, for research funders, the forums will facilitate links between the networks of research funders of key European initiatives (such as C3S; Climate-KIC; the Joint Programming Initiatives (JPIs) for Water,

Urban, Oceans, and Climate (including the JPI Climate's 2015 ERAnet for Climate Services) and Agriculture, Food Security and Climate Change) or international initiatives (such as GFCS, Future Earth, Belmont Forum). It will be done in close cooperation with the High Level Group on Joint Programming (GPC), the DG R&I "Climate action and resource efficiency" and the European Strategic Forum for International Cooperation (SFIC), to engage MS and EC together. The learning from the forums will be of use to all of the existing networks involved, such as the JPIs.

Participation per Partner

Partner number and short name	WP2 effort
1 - MET OFFICE	10.00
2 - ANR	26.00
3 - BSC	6.00
4 - CMCC	2.00
5 - IC	5.00
6 - ECMWF	1.00
7 - HZG	3.00
8 - CNRS	3.00
9 - KNMI	3.00
Total	59.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D2.1	Initial list of organisations in the network and the international forums to be used to ensure network is active	2 - ANR	Report	Public	9
D2.2	The status of the network and effectiveness of integration and coordination, and future plans for the network	1 - MET OFFICE	Report	Public	30
D2.3	Potential future sustainability and improvement of the network	1 - MET OFFICE	Report	Public	54

Description of deliverables

D2.1 : Initial list of organisations in the network and the international forums to be used to ensure network is active [9]

Report documenting the initial list of organisations in the network, the international forums to be used to ensure the network is active, and the composition of the Stakeholder Group [Tasks 2.1 and 2.2]. Participants: all

D2.2 : The status of the network and effectiveness of integration and coordination, and future plans for the network [30]

A report will be produced on the status of the network and effectiveness of integration and coordination and future plans for the network [Tasks 2.1 and Tasks 2.2]. Participants: all

D2.3 : Potential future sustainability and improvement of the network [54]

Report on the potential future sustainability and improvement of the network, including recommendations for the network and the development of new forums [Task 2.1 and Task 2.2]. Participants: all

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
MS3	Identification of the relevant parties to be involved in the network	1 - MET OFFICE	6	An initial list of organisations, initiatives and individuals will be created. General Assembly to approve list of parties [Task 2.1]
MS6	Identification of suitable forums for networking	2 - ANR	12	Suitable forums (for example, meetings and medium for the network to exchange ideas) will be identified. General Assembly to approve the planned forums [Task 2.2]

Work package number ⁹	WP3	Lead beneficiary ¹⁰	11 - SMHI
Work package title	Mapping and analysis of current Earth system modelling and climate service activities		
Start month	1	End month	55

Objectives

1. Establish procedures for creating reports on the state of Earth system modelling and climate service provision in Europe, involving expertise from Earth-system modelling, climate services and stakeholders
2. Create the content of the reports, collect feedback from all involved and write the reports

Description of work and role of partners

WP3 - Mapping and analysis of current Earth system modelling and climate service activities [Months: 1-55]

SMHI, MET OFFICE, BSC, CMCC, IC, ECMWF, HZG, CNRS, KNMI, RHMSS

This work package is led by SMHI (lead) and BSC (co-lead).

WP3 will map, assess and analyse the state-of-the-art of European Earth system modelling for climate services and produce reports, which will form the base for forward-looking recommendations (in WP4). The WP3 reports will be of use for climate scientists, climate service developers, and a range of policy- and decision-makers. Summaries of the reports will be created targeting those different audiences. Tailor-made dissemination and editing of the reports (in WP6) will lead to an improved understanding of the current activities in Europe with the potential to foster new interactions (in WP4) between provider and users and promote the identification of new spaces for co-development and innovation. WP4 makes use of the potential with involvement of expert groups, who will feed back to WP3, and WPs 3 and 4 will be closely connected. The reports will also form the basis to identify the most relevant topics that will inspire the climate festivals (WP5).

ECOMS2 will contribute to the "European Research and Innovation Roadmap on Climate Services". The mapping in WP3 will explore the scientific foundation and definition of an envisaged market framework from the supply side. It will also identify gaps in the Roadmap that could foster the development of such a market framework.

Tasks T3.1 [M1-M10] Quality procedure for mapping and analysis (Lead: BSC, Participants: IC, HZG, SMHI)

A robust procedure will be created for mapping the European landscape of Earth-system modelling and climate services, and for creating the reports in Task 3.2 (MS4). A network of key experts from Earth system modelling and climate services institutions, as well as users' perspectives will be involved, identified in WP2. The analysis will use a wide range of particular sources including existing initiatives and projects, publications, interviews, stakeholder conferences and expert assessment.

The analysis will utilise the relevant initiatives in Earth-system modelling and climate service research, including contact points. The different initiatives will be categorised and appropriate communication channels will be established for each category. The information will be gathered by partner experts either involved in science or programming initiatives, or participating in the network activities in WP2. The added value compared to existing initiatives under FP7 and JPI-Climate is the overarching perspective covering a diverse range of climate-related research and innovation activities, thereby addressing a perceived lack of coordination between the specific activities. The "European Research and Innovation Roadmap on Climate Services" will be used as guideline, with the additional aim of identifying aspects not yet considered in the Roadmap that can help create a European climate services market.

T3.2 [M7-M55] Mapping and analysis (Lead: SMHI, Participants: All in WP)

Based on the procedure established in Task 3.1, reports will be created at months 15, 35 and 55. Expert contributors will be used. Qualified editing will be carried out by the WP partners, and a team of scientists and stakeholders will review the reports.

The reports will be print-ready integrated sources of information for Earth-system modelling and climate service professionals. The information will be disseminated to stakeholder and user audiences by WP6, which also provides an executive summary. Information gathered will be made regularly available through the ECOMS2 dissemination portal (WP6), often before the reports are finalised. Both the reports and the interim information will be offered in the context of the "European Research and Innovation Roadmap on Climate Services" and will make clear what is new with respect to other mapping exercises, such as the one carried out by the JPI-Climate.

The first report (D3.1) will focus on the state of the art of European Earth System modelling (ESM), which forms a key foundation of climate services. The ESMs' ability to perform long-term climate projections, and seasonal-to-decadal scale predictions will be scrutinized in relation to the complexity of model configurations, uncertainties and

opportunities for climate services. Stakeholder-oriented application often requires regionalization of the global climate change signal. Therefore the report will review the state of downscaling efforts in the CORDEX community. Further refinement techniques such as bias correction and selection techniques for all the type of data sources considered will be reviewed. The state of the art of the rising European climate services research and its links to the climate adaptation community will also be mapped. Currently, sector-oriented products based on climate modelling output are distributed by scattered providers before they can be bundled as European services. These products need to be mapped to fully understand the complete chain from ESM research to user-oriented services. A special focus needs to be given to the interfaces and liaisons between different products and providers, which constitute a network.

The second report (D3.2) will update the first report and provide progress on the integration of climate services and Earth-system modelling. As CMIP6 will be in a mature phase, the report will also cover opportunities in ESM applications during CMIP6, regionalization and evolving links to climate services, including a survey of marketable products as well as selection of success stories. The report will also review the process of bundling climate service products from a stakeholder perspective. As far as possible the focus will be on the identifications of the "unknown knowns" which are the subset of our Earth system knowledge that can be relevant to the users and that has not yet been identified. This will include a validation of the evolving landscape with an emphasis on usability, coordination of dissemination methods, and missing features. The status of balancing advancing user expectations with ESMs, downscaling capabilities and uncertainties will be described. The report will summarize lessons learned from the on-going convergence in climate services to serve recommendations to be issued by WP4, and dissemination to various sectors in WP6.

The third report (D3.3) will review progress compared to the second report and, in addition, assess the impact of forward-looking recommendations during the ECOMS2 project. The use of the key scientific projects CMIP6 and CORDEX for climate services will be evaluated, and the results of multi-model operational seasonal-to-decadal forecast systems will be critically analysed with respect to results and usability. Experiences with evolving climate services during the first four years of the project will need to feed back to the ESM and climate prediction community. By mapping this essential feedback, and by directly involving stakeholders, the stakeholder perspective in the report for innovation is crucially strengthened.

T3.3 [M1-M55] Interaction with outreach work packages (Lead: IC, Participants: BSC, CMCC, HZG, KNMI, SMHI) The reports feed into and interact with the forward-looking recommendations (WP4), network communication festivals (WP5) and dissemination activities (WP6). The recommendations and festivals receive "ground truth" information from the reports. WP6 exploits the reports with the aim of extracting the most relevant parts of the reports for dissemination. This task will also provide a flow of current information to the outreach WPs as soon as available, e.g. in between the formal reports. This will ensure the project web site contains the latest information identified, making the project web site a live portal of network information in tune with what is being discovered for the next due reports.

Participation per Partner

Partner number and short name	WP3 effort
1 - MET OFFICE	6.00
3 - BSC	15.00
4 - CMCC	4.00
5 - IC	5.00
6 - ECMWF	1.00
7 - HZG	3.00
8 - CNRS	3.00
9 - KNMI	3.00
10 - RHMSS	5.00
11 - SMHI	14.00
Total	59.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D3.1	Report on European Earth system modelling for climate services	11 - SMHI	Report	Public	15
D3.2	Progress on the integration of climate services and Earth system modelling	3 - BSC	Report	Public	35
D3.3	Matching new demands of climate services with evolving Earth system modelling and prediction capabilities	5 - IC	Report	Public	55

Description of deliverables

D3.1 : Report on European Earth system modelling for climate services [15]

This first report of the work package will focus on the state of the art of European Earth-system modelling, which forms a key foundation of climate services [Tasks, 3.1, 3.2 and 3.3]. Participants: SMHI, Met Office, BSC, HZG, CNRS, KNMI

D3.2 : Progress on the integration of climate services and Earth system modelling [35]

This second report of the work package will update the first report and provide progress on the integration of climate services and Earth-system modelling [Tasks, 3.1, 3.2 and 3.3]. Participants: BSC, CMCC, IC, ECMWF, HZG, KNMI, SMHI

D3.3 : Matching new demands of climate services with evolving Earth system modelling and prediction capabilities [55]

This third report of the work package will review progress compared to the second report and, in addition, assess the impact of forward-looking recommendations during the ECOMS2 project [Tasks 3.1, 3.2 and 3.3]. Participants: IC, BSC, KNMI, RHMSS, SMHI

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
MS4	Procedure for quality reports ready	3 - BSC	10	A robust procedure will be created for creating mapping and analysis reports of the state-of-the-art of European Earth system modelling for climate services. Reports will be approved by General Assembly [Task 3.1]

Work package number ⁹	WP4	Lead beneficiary ¹⁰	8 - CNRS
Work package title	Forward-looking recommendations		
Start month	1	End month	55

Objectives

1. Assess new challenges and determine emerging needs relating to Earth system modelling and climate services, through the use of expert groups
2. Provide recommendations to the European Commission on future research and innovation priorities for Earth system modelling and climate services

Description of work and role of partners

WP4 - Forward-looking recommendations [Months: 1-55]

CNRS, MET OFFICE, BSC, CMCC, IC, HZG, RHMSS, SMHI

This work package is led by CNRS (lead) and RHMSS (co-lead).

The WP will assess new challenges and determine emerging needs related to Earth system modelling and climate services, with a focus on Europe. The assessment will be conducted through multi-disciplinary expert groups and will use the networks created in WP2, the analysis conducted in WP3 and outcomes from the festivals. Where appropriate, the expert groups will involve end users and stakeholders. In order to secure sustained engagement of the large number of stakeholders, WP4 will rely on the network created in WP2 and the measures addressed in T6.4 by establishing cooperation and communication with identified stakeholders, including national stakeholders, and where appropriate will involve stakeholders in expert groups. WP4 will provide recommendations for future research (for example for investment under future Framework Programmes) required to fill gaps and improve the quality of climate services. It will address both research and infrastructures aspects.

Expert groups will address challenging issues and emerging needs. Expert groups will draw on the knowledge and expertise from the network created in WP2, and will be informed by WP3, the European Commission, stakeholders and users. Additional topics may also be identified during the course of the CSA.

The output of this WP will be communicated through events such as the festivals developed in WP5, reports produced by WP6, and feed back to WP3 to inform further analyses therein.

T4.1 [M1-M36] Assess new challenges and emerging needs for Earth system modelling and climate services (Lead: RHMSS, Participants: All in WP)

Expert groups will be created (drawing on expertise from ECOMS2 and other experts from the network developed in WP2 if needed). The expert groups will use information from the ECOMS2 network and from the analysis in WP3. Each expert group will produce a report that will be disseminated through WP5 and WP6. Each year will be dedicated to the production of one expert group report (D4.1, D4.2 and D4.3), each led and co-led by different participating partners. Expert groups will address in priority the following issues:

- (i) Integration between Earth system modelling and climate services, emphasizing research needs, infrastructure issues such as exchange of data beyond the research community, identification of unknown-knowns, how to enhance data usage (D4.1)
- (ii) Co-development of climate services with users, sharing experience, dealing on how to foster co-development, developing standards for user engagement and effective communication of science to stakeholders, policy-makers and users (D4.2)
- (iii) Improving the global vision of who does what in Europe on Earth system modelling and climate services based on the WP2 network and mapping of WP3 (D4.3)

T4.2 (M35-50) Recommendations on future research needs in Earth system modelling and climate services (Lead: CNRS, Participants: All in WP)

Drawing on the output from WP3, expert groups reports (Task 4.1), as well as discussions from festivals, an expert group will be convened to produce recommendations for addressing the challenges and emerging needs for Earth system modelling and climate services. A scoping workshop (MS8) involving experts from the network and Principle Investigators from relevant Horizon 2020 projects will provide a consultation on research needs and provide a first version of the D4.4. Outcome from Task 4.2 will be further discussed with the scientific community through an open forum.

Participation per Partner

Partner number and short name	WP4 effort
1 - MET OFFICE	6.00
3 - BSC	6.00
4 - CMCC	2.00
5 - IC	3.00
7 - HZG	3.00
8 - CNRS	15.00
10 - RHMSS	6.00
11 - SMHI	3.00
Total	44.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D4.1	Integration of Earth system modelling and climate services	3 - BSC	Report	Public	12
D4.2	Lessons and practice of co-developing climate services with users	7 - HZG	Report	Public	24
D4.3	Research needs and European funding landscape	1 - MET OFFICE	Report	Public	36
D4.4	Recommendations on research needs	8 - CNRS	Report	Public	50

Description of deliverables

D4.1 : Integration of Earth system modelling and climate services [12]

Report on the integration between Earth-system modelling and climate services, produced by an expert group formed in WP4 and drawing on knowledge and expertise from the network, and informed by WP3. This report will emphasize research needs, infrastructure issues such as exchange of data beyond the research community, identification of 'unknown-knowns', and how to exchange data usage [Task 4.1]. Participants: BSC, RHMSS (co-lead) and all other work package partners

D4.2 : Lessons and practice of co-developing climate services with users [24]

Report produced by an expert group on the co-development of climate services with users, sharing experiences, dealing with how to foster co-development, developing standards for user engagement and effective communication of science to stakeholders, policy-makers and users [Task 4.1]. Participants: HZG, co-lead RHMSS, Met Office, IC

D4.3 : Research needs and European funding landscape [36]

Report by expert group on improving the global vision of who does what in Europe on Earth-system modelling and climate services based on the WP2 network and mapping of WP3 [Task 4.1]. Participants: all in work package

D4.4 : Recommendations on research needs [50]

Report by expert group on recommendations on future research needs will draw upon the output of WP3, the other reports from this work package, as well as discussions from the Festivals [Task 4.2]. Participants: CNRS, co-lead Met Office, and all other work package partners

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
MS8	Scoping workshop to assess research needs on Earth-system modelling and climate services	8 - CNRS	38	Workshop to be held involving experts from the network and Principal Investigators from relevant H2020 projects. Successful outcomes will enable recommendations to be made on future research needs [Task 4.2]

Work package number ⁹	WP5	Lead beneficiary ¹⁰	7 - HZG
Work package title	Festivals		
Start month	1	End month	60

Objectives

WP5 will organise Festivals to:

1. Enable exchange of knowledge among the network (including users, providers, intermediaries, funders) through showcases of European climate services and Earth System modelling
2. Provide results from mapping and forward looking analyses developed in WP3 and WP4 to a larger audience
3. Strengthen science-policy and science-use interface

Description of work and role of partners

WP5 - Festivals [Months: 1-60]

HZG, MET OFFICE, CMCC, IC

This work package is led by HZG (lead) and IC (co-lead).

This WP organises and delivers three festivals to showcase climate services and Earth System modelling within Europe, to reflect on existing gaps in those fields and to strengthen the science-policy and science-user interfaces to support the uptake of science-based services. The festivals will be an opportunity for climate service providers (including climate researchers, data re-users and data providers), users, intermediaries and funders in the EU and elsewhere to display best in class outcomes and engage in world class networking. As described in Section 2.2, the festivals are a key platform for communication and dissemination within ECOMS2.

T5.1 [M1-M59] Planning the festivals (Lead: HZG, Participants: All in WP)

Three festivals will be held during the project, in years 1, 3 and 5, each lasting 2-5 days (D5.1, 5.2, 5.3). Planning these will include identifying the key target audiences, the desired outcomes and measures of success for the festivals, choosing suitable locations, options for remote participation and designing an innovative, useful and engaging programme of festival workshops, presentations and other activities. Planning documents will be produced ahead of each festival to assist with this (MS5, MS7 and MS9). MS7 and MS9 will include lessons learned from previous festivals.

The potential participants will include all of those in the network developed through WP2, for example the wider scientific community (natural sciences, social sciences and humanities), all other users, providers of climate services and Earth system modelling and funding bodies. While many of the participants will be European representatives, international organisations will be represented in the ECOMS2 network, and the intention is to attract relevant users and providers from around the world.

WP5 will ensure that the mapping activities in WP3 are used as guidelines for festival participants. A carefully developed stakeholder analysis, building on existing surveys and activities, will provide a list of key participants who should attend the festivals. The festivals need to be sufficiently large to attract and be representative of key stakeholders, and should still be able to allow efficient networking. It is anticipated that the festivals will grow in size through the project, with the first one attended by up to 100 participants and the final one by 200-300 participants. The Festivals could be structured in a flexible/rotational way, with participants varying according to the relevance of sessions on a particular day.

There will be sessions on the use of climate services in the public and private sectors. Some sessions will be of general interest and some will be targeted (for example to gather key sectors together), therefore making them very applicable and attractive to different users and decision-makers. The Festival will encompass best practice and lessons learned from other successful meetings (e.g. Annual Meeting of the World Economic Forum in Davos, Switzerland) and will be of high quality. There will be a mixture of open and closed sessions, networking will be a key outcome of the festivals and will be actively facilitated. This is also true of remote participation, and technological solutions such as online streaming so that they are available to a wide audience will be used.

The festivals will be held within Europe and the location will need to have suitable facilities, be readily accessible and value for money, amongst other considerations. The location will be carefully chosen by the General Assembly.

T5.2 [M12-M60] Successfully hold the festivals (Lead: HZG, Participants: All in WP)

The festivals will be delivered professionally through HZG who will take primary responsibility for them, along with a team of professional moderators and advisors with expertise to ensure that the key aims of the festival are achieved. These will be based around the following statements.

The festivals will:

- demonstrate the progress of European climate service and Earth System modelling, building on the network, mapping and outreach activities in other WPs
 - offer two-way engagement to delineate the contents of the ECOMS2 reports and to present findings
 - support the uptake of services by decision and policy makers in a range of sectors, in order to improve society's resilience to climate change and to mitigate the risk of dangerous climate change
 - actively facilitate interaction between suppliers, users and funders of climate services
 - publicise the outcomes of the WP4 expert groups and the outcomes of the forward look analysis
 - develop the capabilities of participants through knowledge transfer
- The presentations, recordings and all other material from the Festivals will be made available through the project website.

T5.3 [M13-M60] Gathering Feedback (Lead: IC, Participants: All in WP)

Feedback on the festivals needs to be actively collected during and after the events to improve the quality of future events and ensure their usefulness. This will help the festivals to achieve an overarching aim, which is to better integrate and coordinate the on-going and future climate change research and innovation initiatives within the EU and beyond.

Participation per Partner

Partner number and short name	WP5 effort
1 - MET OFFICE	3.00
4 - CMCC	6.00
5 - IC	3.00
7 - HZG	15.00
Total	27.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D5.1	First festival held	7 - HZG	Other	Public	12
D5.2	Second festival held	7 - HZG	Other	Public	36
D5.3	Third festival held	7 - HZG	Other	Public	60

Description of deliverables

D5.1 : First festival held [12]

The first Festival will be held within Europe [all Tasks]. Participants: all in work package

D5.2 : Second festival held [36]

Second Festival will be held with Europe, using lessons learnt from first Festival [all Tasks]. Participants: all work package partners

D5.3 : Third festival held [60]

The third Festival will be held near the end of the project and will be use lessons learnt from the first two festivals [all Tasks]. Participants: all work package partners

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
MS5	Planning document for the first Festival (including structure, location, invitation list)	7 - HZG	10	A document will be produced ahead of the first festival to assist with coordination, planning and delivery of the event. Document written and approved by General Assembly [Task 5.1]
MS7	Planning document for the second Festival (including structure, location, invitation list)	7 - HZG	30	A document will be produced ahead of the second festival to assist with coordination, planning and delivery of the event. Will include lessons learned from first festival. Document written and approved by General Assembly [Task 5.1]
MS9	Planning document for the third Festival (including structure, location, invitation list)	7 - HZG	54	A document will be produced ahead of the third festival to assist with coordination, planning and delivery of the event. Will include lessons learned from first two festivals. Document written and approved by General Assembly [Task 5.1]

Work package number ⁹	WP6	Lead beneficiary ¹⁰	9 - KNMI
Work package title	Communication and dissemination		
Start month	1	End month	60

Objectives

1. To establish, facilitate and coordinate the dissemination, exploitation and communication strategies, processes and activities for ECOMS2
2. Produce widely accessible “State of European Earth-system modelling and climate services” publication series
3. Provide science-stakeholder communication channels which will strengthen the science-policy interface and ensure optimum information exchange amongst providers and users
4. Develop and maintain the ECOMS2 website and other innovative dissemination and communication methods

Description of work and role of partners

WP6 - Communication and dissemination [Months: 1-60]

KNMI, MET OFFICE, BSC, CMCC, IC, HZG, SMHI

This work package is led by KNMI (lead) and CMCC (co-lead).

This WP will coordinate all dissemination (ensuring that the project results are available to the target audiences that are identified) and communication (providing information about, and promoting, ECOMS2 and the results to the identified audiences), consistent with Sections 2.2.1 and 2.2.2 respectively.

The collection, synthesis and sharing of information with stakeholders is at the heart of ECOMS2. Communication and dissemination methods are therefore not simply a “broadcasting service”, but information, knowledge and expertise is exchanged in all directions, and is targeted appropriately to audiences and information channels. For example: (i) the EC will be provided with aggregated information which illustrates the European playing field of Earth-system modelling and climate services; (ii) climates services, observations and Earth-system modelling research communities will be targeted with the aim of promoting cooperation and co-creation between different disciplines and institutions, and to accelerate exchange of knowledge and requirements between themselves and information users; (iii) the information users will benefit from aggregated information tailored to their various needs, access to users and providers through the ECOMS2 network and interaction through targeted events and existing professional networks. For detailed communication measures see Section 2.2.2.

T6.1 [M1-M6] Preparation of updated Dissemination and Exploitation plans (Lead: KNMI, Participants: Met Office, CMCC)

A Dissemination and Exploitation plan will be developed at the beginning of the project, and updated on an annual basis (D6.2). It will be based on the measures outlined in Section 2.2.1, and will provide detail on dissemination activities, audiences and deadlines and the exploitation strategy within ECOMS2. It will also contain a detailed plan for ECOMS2 communication measures, and will be an updated version of the information in Section 2.2.2.

T6.2 [M1-M60] ECOMS2 website and Internet Communication Platform (Lead: CMCC, Participants: KNMI)

This will be the central dissemination and communications hub for ECOMS2 (D6.1). It will be the official project platform and will host all relevant information about the project, project activities and its results. It will be for all target audiences and will enable engagement with those audiences. Project reports will be published here, and WP2 and 3 will utilise the website for collecting information that they require.

As part of the website there will also be an interactive internet communication platform. This will be the area through which the network and other stakeholders can interact with each other. This will be done via discussion forums, chat rooms and other methods. The website will be a dynamic and multimedia tool. Brief articles will be made available on the web site which will highlight the potential benefits of the project and which can be used to promote events such as the festivals (WP5). Intended content is listed in Section 2.2.1.

Website construction and design will be carried out by a specialised subcontractor. An ECOMS2 editorial board will be responsible for the content and functionality of the internet service.

T6.3 [M1-M60] Other dissemination and communication activities (Lead: KNMI and CMCC, Participants: All partners)

As indicated in the draft Dissemination and Exploitation plan, this WP will determine the most suitable methods of dissemination and communication with the appropriate target audiences (identified by WP2 and 3) and will carry out these activities. The list of activities that it is anticipated will take place are given in Section 2.2.1.a. These include policy briefings and factsheets (D6.3) and scientific review papers (D6.4) amongst much other targeted material.

T6.4 [M1-M60] Stakeholder engagement (Lead: KNMI, Participants: All in WP)

This task focuses on effective interaction and engagement with key stakeholders, and will ensure that two-way communication is established. Activities that have already been identified to enable this are; visits and interviews with stakeholders, gaining ECOMS2 representation on established stakeholder boards, online discussion sessions focusing on evaluation of scientific findings, development of European policy, tailoring and application of climate services, and targeted workshops where ECOMS2 results such as reports and fact sheets can be presented and reviewed.

T6.5 [M1-M60] Editing, Production and Release of the “State of European Earth-system modelling and climate services” publication series. (Lead: SMHI, Participants: All in WP)

This task is responsible for editing, producing and releasing the three reports produced in WP3. The final reports produced under this task will be publically and openly available. The publication series will also include edited versions of the recommendations from WP4 and insights that are available from the Festivals in WP5. Specific activities in this task will include; designing and editing of the report structure, in close cooperation with the content providers and agreement of the final versions; production of the reports, including implementation on various digital platforms; official release, dissemination and communication of the reports to all identified audiences (D6.5).

Participation per Partner

Partner number and short name	WP6 effort
1 - MET OFFICE	4.00
3 - BSC	3.00
4 - CMCC	20.00
5 - IC	4.00
7 - HZG	3.00
9 - KNMI	20.00
11 - SMHI	5.00
Total	59.00

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D6.1	Website and Internet Communication Platform	4 - CMCC	Websites, patents filling, etc.	Public	4
D6.2	Updated dissemination and exploitation plan	9 - KNMI	Report	Confidential, only for members of the consortium (including the Commission Services)	6
D6.3	Policy briefings and fact sheets (month 12)	4 - CMCC	Report	Public	12
D6.4	Scientific review papers (month 12)	9 - KNMI	Report	Public	12

List of deliverables

Deliverable Number ¹⁴	Deliverable Title	Lead beneficiary	Type ¹⁵	Dissemination level ¹⁶	Due Date (in months) ¹⁷
D6.5	State of European Earth-system modelling and Climate Services publication series releases (month 20)	11 - SMHI	Report	Public	20
D6.6	Policy briefings and fact sheets (month 30)	4 - CMCC	Report	Public	30
D6.7	Scientific review papers (month 30)	9 - KNMI	Report	Public	30
D6.8	State of European Earth-system modelling and Climate Services publication series releases (month 40)	11 - SMHI	Report	Public	40
D6.9	Policy briefings and fact sheets (month 60)	4 - CMCC	Report	Public	60
D6.10	Scientific review papers (month 60)	9 - KNMI	Report	Public	60
D6.11	State of European Earth-system modelling and Climate Services publication series releases (month 60)	11 - SMHI	Report	Public	60

Description of deliverables

D6.1 : Website and Internet Communication Platform [4]

The ECOMS2 website and Internet Communication Platform will be the central dissemination and communication hub for ECOMS2 [Task 6.2]. Participants: all in work package

D6.2 : Updated dissemination and exploitation plan [6]

A Dissemination and Exploitation plan will be developed at the start of the project and updated on an annual basis [Task 6.1]. Participants: KNMI, Met Office, CMCC

D6.3 : Policy briefings and fact sheets (month 12) [12]

Policy briefings and fact sheets will be produced by months 12, 30 and 60 (month 12) [Task 6.3]. Participants: all work package partners

D6.4 : Scientific review papers (month 12) [12]

Scientific review papers will be produced by months 12, 30 and 60 (month 12) [Task 6.3]. Participants: all work package partners

D6.5 : State of European Earth-system modelling and Climate Services publication series releases (month 20) [20]

"State of European Earth-system modelling and climate services" publication series releases, planned for months 20, 40 and 60 (month 20) [Task 6.5]. Participants: all work package partners

D6.6 : Policy briefings and fact sheets (month 30) [30]

Policy briefings and fact sheets will be produced by months 12, 30 and 60 (month 30) [Task 6.3]. Participants: all work package partners

D6.7 : Scientific review papers (month 30) [30]

Scientific review papers will be produced by months 12, 30 and 60 (month 30) [Task 6.3]. Participants: all work package partners

D6.8 : State of European Earth-system modelling and Climate Services publication series releases (month 40) [40]

"State of European Earth-system modelling and climate services" publication series releases, planned for months 20, 40 and 60 (month 40) [Task 6.5]. Participants: all work package partners

D6.9 : Policy briefings and fact sheets (month 60) [60]

Policy briefings and fact sheets will be produced by months 12, 30 and 60 (month 60) [Task 6.3]. Participants: all work package partners

D6.10 : Scientific review papers (month 60) [60]

Scientific review papers will be produced by months 12, 30 and 60 (month 60) [Task 6.3]. Participants: all work package partners

D6.11 : State of European Earth-system modelling and Climate Services publication series releases (month 60) [60]

"State of European Earth-system modelling and climate services" publication series releases, planned for months 20, 40 and 60 (month 60) [Task 6.5]. Participants: all work package partners

Schedule of relevant Milestones

Milestone number ¹⁸	Milestone title	Lead beneficiary	Due Date (in months)	Means of verification
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1.3.4. WT4 List of milestones

Milestone number ¹⁸	Milestone title	WP number ⁹	Lead beneficiary	Due Date (in months) ¹⁷	Means of verification
MS1	Gender Action Plan	WP1	1 - MET OFFICE	3	A Gender Action Plan will be produced which will detail measures and actions to contribute to meeting the Horizon 2020 gender balance objectives. The plan will be written and agreed by the partners [Task 1.1]
MS2	Design and implement internal communication platform and tools	WP1	1 - MET OFFICE	3	An internal project communication platform will support collaboration and communication between project partners. This information platform will be available for use by Month 3 [Task 1.4]
MS3	Identification of the relevant parties to be involved in the network	WP2	1 - MET OFFICE	6	An initial list of organisations, initiatives and individuals will be created. General Assembly to approve list of parties [Task 2.1]
MS4	Procedure for quality reports ready	WP3	3 - BSC	10	A robust procedure will be created for creating mapping and analysis reports of the state-of-the-art of European Earth system modelling for climate services. Reports will be approved by General Assembly [Task 3.1]
MS5	Planning document for the first Festival (including structure, location, invitation list)	WP5	7 - HZG	10	A document will be produced ahead of the first festival to assist with coordination, planning and delivery of the event. Document written and approved by General Assembly [Task 5.1]
MS6	Identification of suitable forums for networking	WP2	2 - ANR	12	Suitable forums (for example, meetings and medium for the network to exchange ideas) will be identified. General Assembly to approve the planned forums [Task 2.2]
MS7	Planning document for the second Festival (including	WP5	7 - HZG	30	A document will be produced ahead of the second festival to assist with coordination, planning

Milestone number ¹⁸	Milestone title	WP number ⁹	Lead beneficiary	Due Date (in months) ¹⁷	Means of verification
	structure, location, invitation list)				and delivery of the event. Will include lessons learned from first festival. Document written and approved by General Assembly [Task 5.1]
MS8	Scoping workshop to assess research needs on Earth-system modelling and climate services	WP4	8 - CNRS	38	Workshop to be held involving experts from the network and Principal Investigators from relevant H2020 projects. Successful outcomes will enable recommendations to be made on future research needs [Task 4.2]
MS9	Planning document for the third Festival (including structure, location, invitation list)	WP5	7 - HZG	54	A document will be produced ahead of the third festival to assist with coordination, planning and delivery of the event. Will include lessons learned from first two festivals. Document written and approved by General Assembly [Task 5.1]
MS10	Description of process and procedures for treatment of personal data	WP1	1 - MET OFFICE	2	Procedures will be implemented for the collection, storage, protection, access, retention and destruction of any personal data. These procedures will be developed and documented through this milestone report [Task 1.1]

1.3.5. WT5 Critical Implementation risks and mitigation actions

Risk number	Description of risk	WP Number	Proposed risk-mitigation measures
R1	Lack of effective involvement of key nations or regions in Europe	WP2	Ensure that the network created (WP2) includes appropriate representation from activities and organisations in key nations and regions. Consortium members, their networks, and the evolving ECOMS2 network will be drawn upon to ensure this is achieved
R2	Ineffective framework arising from stakeholder fatigue leading to lack of engagement	WP2, WP5, WP6	Ensure that the network is well managed (WP2) with compelling plans for stakeholder engagement activities (WP5 and WP6), and that feedback from the Festivals' participants is taken into account
R3	Individual partners are unable to complete tasks assigned by them	WP1, WP2, WP3, WP4, WP5, WP6	Regular communication within the work packages and with the Coordinator will ensure that any potential problems will be identified quickly, actions can be discussed, and tasks can be reassigned as required
R4	Insufficient engagement from key on-going and future European Earth-system modelling and climate service initiatives	WP1, WP2, WP3, WP4, WP5, WP6	Ensure the network is well managed (WP2), the mapping and analysis are actively undertaken with proactive engagement with the key initiatives (WP3), the Festivals (WP5) and other communication and dissemination activities (WP6) are designed to be sufficiently inspiring to ensure effective engagement
R5	Non-objectivity and partiality (personal, political or organisational)	WP1, WP2, WP3, WP4, WP5, WP6	Ensure open debate on issues allowing everyone to discuss issues as objectively and impartially as possible, and encouraging everyone to do so. General Assembly can discuss resolutions if needed

1.3.6. WT6 Summary of project effort in person-months

	WP1	WP2	WP3	WP4	WP5	WP6	Total Person/Months per Participant
1 - MET OFFICE	25	10	6	6	3	4	54
2 - ANR	0	26	0	0	0	0	26
3 - BSC	0	6	15	6	0	3	30
4 - CMCC	0	2	4	2	6	20	34
5 - IC	0	5	5	3	3	4	20
6 - ECMWF	0	1	1	0	0	0	2
7 - HZG	0	3	3	3	15	3	27
8 - CNRS	0	3	3	15	0	0	21
9 - KNMI	0	3	3	0	0	20	26
10 - RHMSS	0	0	5	6	0	0	11
11 - SMHI	0	0	14	3	0	5	22
Total Person/Months	25	59	59	44	27	59	273

1.3.7. WT7 Tentative schedule of project reviews

Review number ¹⁹	Tentative timing	Planned venue of review	Comments, if any
RV1	20	Bruxelles	
RV2	38	Bruxelles	
RV3	60	Bruxelles	

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1.4. Ethics Requirements

Ethics Issue Category	Ethics Requirement Description
PROTECTION OF PERSONAL DATA	- If applicable, detailed information must be provided on the procedures that will be implemented for data collection, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation before the end of month 1.
PROTECTION OF PERSONAL DATA	- If applicable, detailed information must be provided on the informed consent procedures that will be implemented before the end of month 1.
NON-EU COUNTRIES	- The applicant must confirm that the ethical standards and guidelines of Horizon2020 will be rigorously applied, regardless of the country in which the research is carried out (before grant signature) .

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1. Project number

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

2. Project acronym

Use the project acronym as given in the submitted proposal. It can generally not be changed. The same acronym **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

3. Project title

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

4. Starting date

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry into force of the Grant Agreement (NB : entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a written justification.

5. Duration

Insert the duration of the project in full months.

6. Call (part) identifier

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

7. Abstract

8. Project Entry Month

The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.

9. Work Package number

Work package number: WP1, WP2, WP3, ..., WPn

10. Lead beneficiary

This must be one of the beneficiaries in the grant (not a third party) - Number of the beneficiary leading the work in this work package

11. Person-months per work package

The total number of person-months allocated to each work package.

12. Start month

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

13. End month

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

14. Deliverable number

Deliverable numbers: D1 - Dn

15. Type

Please indicate the type of the deliverable using one of the following codes:

- R Document, report
- DEM Demonstrator, pilot, prototype
- DEC Websites, patent filings, videos, etc.
- OTHER

16. Dissemination level

Please indicate the dissemination level using one of the following codes:

- PU Public

CO Confidential, only for members of the consortium (including the Commission Services)
EU-RES Classified Information: RESTREINT UE (Commission Decision 2005/444/EC)
EU-CON Classified Information: CONFIDENTIEL UE (Commission Decision 2005/444/EC)
EU-SEC Classified Information: SECRET UE (Commission Decision 2005/444/EC)

17. Delivery date for Deliverable

Month in which the deliverables will be available, month 1 marking the start date of the project, and all delivery dates being relative to this start date.

18. Milestone number

Milestone number: MS1, MS2, ..., MSn

19. Review number

Review number: RV1, RV2, ..., RVn

20. Installation Number

Number progressively the installations of a same infrastructure. An installation is a part of an infrastructure that could be used independently from the rest.

21. Installation country

Code of the country where the installation is located or IO if the access provider (the beneficiary or linked third party) is an international organization, an ERIC or a similar legal entity.

22. Type of access

VA if virtual access,
TA-uc if trans-national access with access costs declared on the basis of unit cost,
TA-ac if trans-national access with access costs declared as actual costs, and
TA-cb if trans-national access with access costs declared as a combination of actual costs and costs on the basis of unit cost.

23. Access costs

Cost of the access provided under the project. For virtual access fill only the second column. For trans-national access fill one of the two columns or both according to the way access costs are declared. Trans-national access costs on the basis of unit cost will result from the unit cost by the quantity of access to be provided.