CREAM

D1.1 Project Management Handbook

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ABSTRACT	This document provides all related information and description of the methods, means, tools and practical guidelines regarding the management of the CREAM project.
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WORKPACKAGE	WP1
NATURE	**R** : Report
CONFIDENTIALITY LEVEL	**PU** : Public

Table of Contents

Acronym

EU	European Commission
GA	Grant Agreement
CA	Consortium Agreement
DoW	Description of Work
EEG	Electro EncephaloGram
EIT	Electrical Impedance Tomography
tACS	Transcranial Alternating Current Stimulation
tDCS	Transcranial Direct Current Stimulation

Introduction

This Handbook is written in the framework of WP1 – Project Management (Task 1.1 Implementation of project management structures) of CREAM project under Grant Agreement No. 612022.
Its intention is to provide useful information to all partners about the procedures of the project, deliverables and milestones and about general issues of the 7th Framework Programme. The initial version of this Handbook is delivered on February 2014 but it will be updated throughout the duration of the project, if needed.
Any procedure decided after February 2014 will be included in this Project Handbook and sent as another version of this report.
The terms and provisions of the EU Grant Agreement (and its annexes) and the CREAM Consortium Agreement (also referred to as EPCA) will prevail in the event of any inconsistency with recommendation and guidelines defined in the present Project Handbook.

It must be noticed that the Handbook does not express the opinion of European Commission and does not, in any case, replace the European Commission documentation. This Handbook express only the authors' views: the Community is not liable for any use that may be made of the information contained therein.

Partners are advised to read carefully and follow all FP7 documentation and conform to the "*Guide to Financial Issues relating to FP7 Indirect Actions*".

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1. Definition Phase

1.1. The Consortium

CREAM Project is made up of seven partners:

1) Alma Mater Studiorum – Università di Bologna - UNIBO, IT (Coordinator)
2) Fondazione Guglielmo Marconi - FGM, IT
3) Goldsmiths' College - GOLD, UK
4) Guger Technologies OG - G TEC, AT
5) Medizinische Universitaet Wien – MUW, AT
6) Universidad de La Laguna – ULL, ES
7) Engine Partners – Engine, UK

Contact details for all partners can be found on the project website under "Contacts".

1.2. Project Vision

Current ICT technology provides new capabilities to measure the functional activity of the brain and to compute in real-time stimuli that can be applied to the brain itself in order to train and modify its activity. This new frontier of research is made possible by a dramatic increase in cheap computing power, novel design methodologies for high-performance software, integrated circuits and systems for sensors and actuators, and algorithms and software environments for collaborative interaction of people cooperating on solving a specific problem. This project will explore the consequences of exploiting these novel technologies in a deliberate attempt to improve a higher-order cognitive function such as creativity.

1.3. Project Goal

Item	State of the art	Goal of the project
Multi-dimensional measurement approach to detect creative performance.	The study of creativity in neuroscientific research is characterised by numerous difficulties in operationalising creative performance during neurological measurements. The measurement variation across creativity studies leads to important difficulties in comparing across studies.	To develop and to test the validity and reliability of a battery of cognitive tasks suitable to the measurement of creative behavior in neuroscientific research. In particular we intend to: 1. Test on a wide sample of participants a cognitive tasks battery composed by different cognitive tests. 2. Use a measurement approach that integrates quantitative and qualitative aspects of creative performance. 3. Enhance the creative cognitive tasks discriminant validity. Specific criteria for evaluation will be: 1. measures reliability: Cronbach's $\alpha > .60$ 2. interraters reliability: Kohen's $\kappa > .60$

		significant ($\alpha > .05$) portion of creative achievement variance explained by the battery
Creativity performance data referenced to creative achievement in the scientific and artistic domain.	Even if some isolated studies analysed the neurological substrates of creative behaviour in artistic behaviour, no attempt has been made in neuroscientific research to explore the neuro-anatomical correlates associated to creative achievement in different domains.	To provide a reliable cognitive methodology to neuroscientific research for measuring the creative performance associated to creative achievement in different knowledge domains by: 1. Associating CAQ scores in the scientific and artistic domain with cognitive creative tasks scores. 2. Defining for each cognitive task used in WP2 the scores associated to different creative achievement levels in the two knowledge domains. Outcome evaluation will be performed by setting the specific norms to detect creativity in Science and Art by the tasks battery (M24)
Neuroscientific studies of creativity	While several studies have identified the neural correlates of divergent thinking, the temporal dynamics (i.e. different stages of creative problem solving like receptive to new information, ignoring distractor or irrelevant information) have not been characterized. Further the association between resting state brain activity and creative performance and styles are also not known.	To characterize the neural correlates of dynamical stages of creative problem solving by: 1. Investigating the spatiotemporal neuronal network in processing external cues during creative problem solving. 2. Revealing neuronal network for processing irrelevant versus relevant information for the creatively solved problem versus unsolved ones. 3. Establishing the possible link between resting state brain network and creativity (both domain-general and domain-specific).
Brain Stimulation Studies of Creativity	While several studies have indicated neural correlates of creativity, few have addressed the causal role that these correlates play in different aspects of creative behaviour or whether modulating these correlates can enhance creative abilities.	To determine whether creative abilities can be enhanced using non-invasive brain stimulation. Specifically we intend to: 1. Examine whether modulating cortical oscillations with tACS can enhance creative abilities in convergent and divergent thinking tasks. 2. Determine whether modulating cortical excitability with tDCS can boost creative abilities in convergent and divergent

		thinking tasks. 3. Delineate the optimal brain stimulation parameters to boost creative performance for training experiments in WP5. INTERMEDIATE OUTCOME: Determine what neural correlates of creativity play a causal role in different aspects of creativity (M21).
Integrated platform for high resolution EEG, EIT data acquisition and stimuli production	One attempt to integrate EEG and EIT on active electrodes has been reported. However, injected current levels are too low to stimulate the subject's brain activity. tDCS is currently performed with large electrodes, a few works address the need for better estimation of current patterns generated by electrode placement.	Integrated platform able to extract EEG, EIT and provide electrical stimuli by modifying the behaviour of each electrode (at least 128). Active electrodes will be able to inject complex current patterns and waveforms, from DC up to few hundreds of KHz and amplitudes up to about 1 mA, in order to allow both EIT measurements and current stimulation. Higher current levels will be achieved by injecting currents on clusters of electrodes in order to reduce user discomfort by increasing the effective injection area. To accommodate a high number of electrodes, their size will need to be limited to less than 2 cm^2, with contact area of about 0.5 cm^2 to avoid the risk of shorts; the overall weight of the electrode-cable system will be of a few hundred grams, in order to reduce user discomfort. INTERMEDIATE OUTCOMES: 1. Active electrode incorporating EEG/EIT and electrical stimulation (M12) 2. Rapid prototyping platform for feedback and stimulus generation (M6)
Training procedures altering creativity-enhancing neural activity	Training based on neurofeedback	Neurofeedback training based on EEG-driven source localization; multiple adaptive stimuli based on specific response of person under training INTERMEDIATE OUTCOMES: - Algorithms for functional brain imaging on a heterogeneous multiprocessor system, tuned for multiple data sets (M24). - Improvement of source localization accuracy with respect to existing

		algorithms for multiple data-sets, thanks to the inclusion of EIT data. - Improvement of SNR with respect to single data-sets algorithms.
Training procedures for stimulation of creativity	Few studies adopting only fMRI as source of information.	To determine if creativity performance can be increased by training procedures based on the HW/SW platform developed in the scope of the project. INTERMEDIATE OUTCOME: Application of the newly developed system to improved neuroimaging of creative cognition (M33).
Electrical stimulation of creativity	No studies have examined the effect of repeated sessions of non-invasive brain stimulation on creative abilities.	1. To determine if pairing electrical stimulation with creativity training can result in long term increases in the participant's creativity ability. 2. To examine the neural changes associated with changing by recording EEG concurrently with the stimulation within and across training sessions. INTERMEDIATE OUTCOME: Protocol for electrical stimulation of creativity with the newly developed hardware(M33).

2. Executive Summary

The table here below presents a list of the management procedures, means and tools described in this document.

	Section	Description
3.	**Project Governance**	This section describes the management structure with its operational and decision making bodies and their respective responsibilities.
4.	**Implementation Plan**	This section refers to detailed listing of activities, costs, expected difficulties and schedules that are required to achieve the objectives of the project.
5.	**Deliverables Management**	This section describes the development and validation process for having contractual deliverables submitted on time and on quality to the EU. It presents a tool for monitoring the status of deliverables.
6.	**Reporting**	This section describes the content and production process of reports to be delivered to the EU as part of the partners' contractual obligations. It also describes the internal reporting procedures. This section concerns both the technical and the financial reporting.
7.	**Reviews**	This section describes the procedures and actions to be followed for preparing, organising and managing internal reviews and contractual project reviews with the EU.
8.	**Document Management & Internal Communication**	This section describes the processes to be used for document management (including general rules on the production of documents, templates, file coding and format) and for related exchanges between project partners with the aim of assuring confidentiality, security, traceability, and consistency of information exchanged.

9.	**External Communication**	This section outlines procedures for external communication, including publications, presentations, and communication towards the EU. Aspects related to knowledge management, handling of IPR, access rights and confidential information are not dealt with in this document. For any detail please refer to the CREAM Consortium Agreement, the EU Grant Agreement and the relevant Project Deliverables.
10.	**Risk Management**	This section describes the Risk Management procedures and the use of Risks Register tool. The objective is to provide Task Leaders, WP Leaders and the GPC with a common reference for managing risks.
11.	**Exception Handling**	This section concerns the process of responding to the occurrence of exceptional events requiring special processing.
12.	**Deviation from plan**	This section concerns any *deviation* from project plan.

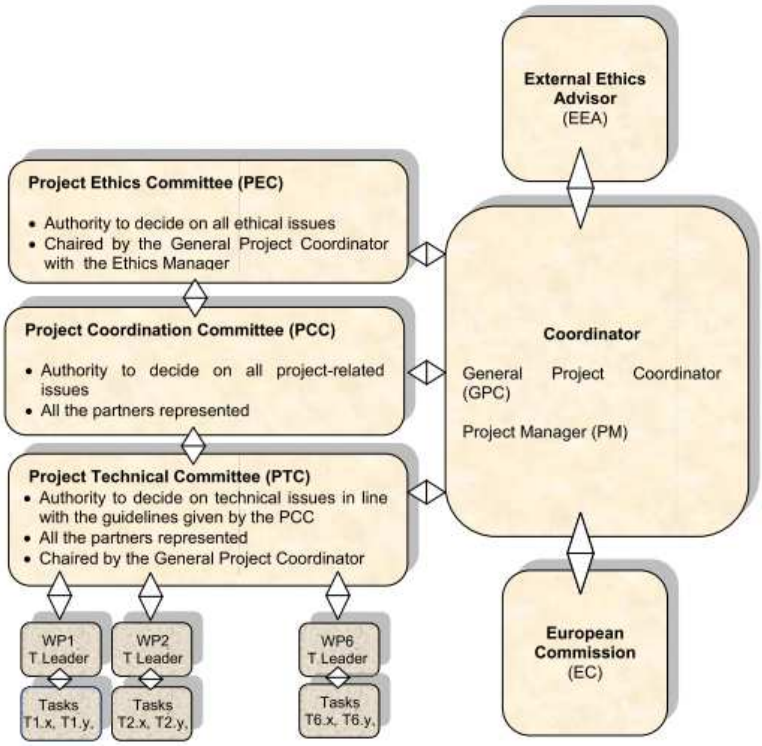
3. Project Governance

This section describes the project governing bodies that have in charge all the project management activities and the procedures/recommendations aiming to the correct implementation of the management activities concerned with the WP1 (Project Management) of the CREAM project.
These procedures and recommendations include the rules to manage the organization and the execution of the meetings; the actions recommended to identify and manage risks; the rules to manage and resolve internal conflicts among partners.

3.1. Consortium management structures

The management of the CREAM consortium is governed by the Consortium Agreement (CA) signed by the partners on December 2013.
The project management will consist of the following structures and control functions, whose interaction is shown in the figure below:

1. General Project Coordinator (GPC);
2. Project Coordination Committee (PCC);
3. Project Technical Committee (PTC);
4. Project Manager (PM);
5. Exploitation Manager (EM);
6. Work-Package Leaders (WPLs) and Task Leaders (TLs);
7. Project Ethics Committee (PEC) and Ethics Manager (EtM);
8. External Ethics Advisor (EEA).



The project is coordinated by the General Project Coordinator (GPC). The Project Coordination Committee (PCC) includes the General Project Coordinator (GPC) and the Project Manager (PM). The Project Coordination Committee (PCC) nominates the Exploitation Manager (EM) and the Ethics Manager (ETM) and decides on all

organisational project-related issues, whereas the Project Technical Committee (PTC) decides on all technical project-related issues. Each project Work-Package will be coordinated by the corresponding Work Package Leader (WPL). Each project Task will be coordinated by the corresponding Task Leader (TL). The Project Ethics Committee (PEC) includes an External independent Ethics Advisor (EEA) appointed to oversee the ethical concerns involved in the research.

3.2. Roles and responsibilities of project bodies

3.2.1 General Project Coordinator (GPC)

The project will be coordinated by the General Project Coordinator, who will be properly assisted by the Project Office. The GPC is responsible for the following tasks:

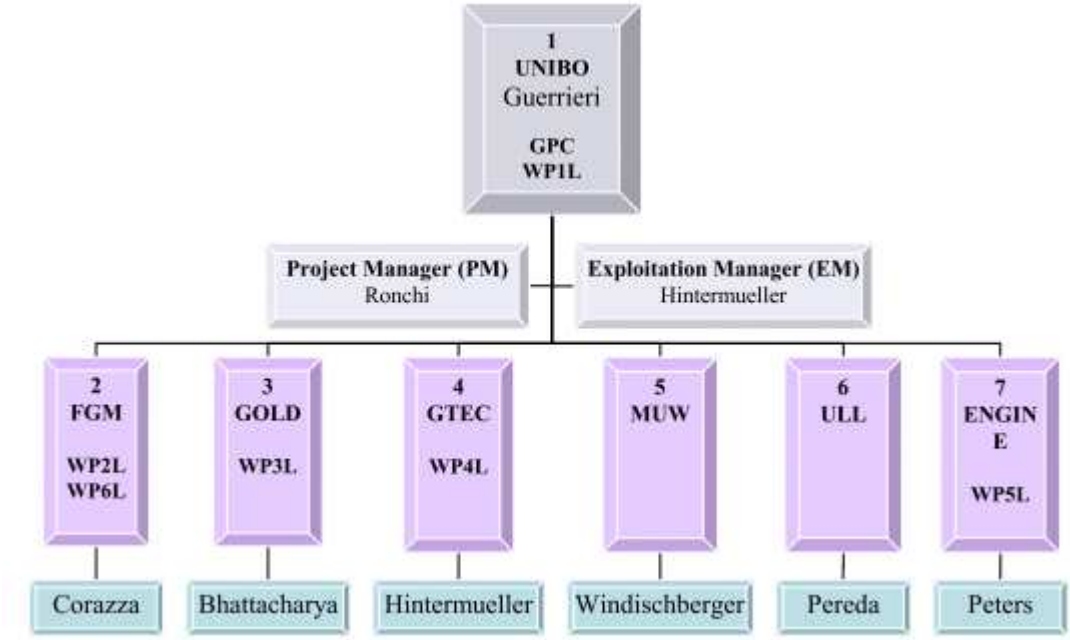
- Interfacing to the European Commission.
- Distribution of the funding.
- Preparation of Reviews and Project meetings (PCC, PTC)
- Chairing of PCC and PTC.
- Negotiation on contract, budget, Consortium Agreement.
- Representation of the Consortium.
- Management of the Consortium in the wide sense on a continuous basis (i.e. Monitor project progress and workload consumption, anticipate corrective actions when/if necessary, resolve conflicts within the Consortium as earlier as possible).

3.2.2 Project Coordination Committee (PCC)

The PCC is composed of one representative for each partner in the Consortium, plus the GPC, the PM, the EM, the EtM and the WPL. The representatives will have the authority to make decisions on behalf of his or her organization in terms of overall strategy and resources allocated to the project. The GPC will chair the PCC. The PCC is responsible for the overall direction of the project and has a final decision authority. The PCC will meet for administrative and scientific management. The decisions will be taken by consensus or by simple majority in the case where consensus is not possible. Changes to work-plan will require consensus or a double majority. Each member of the PCC will have one vote.

The main responsibilities are summarized as:

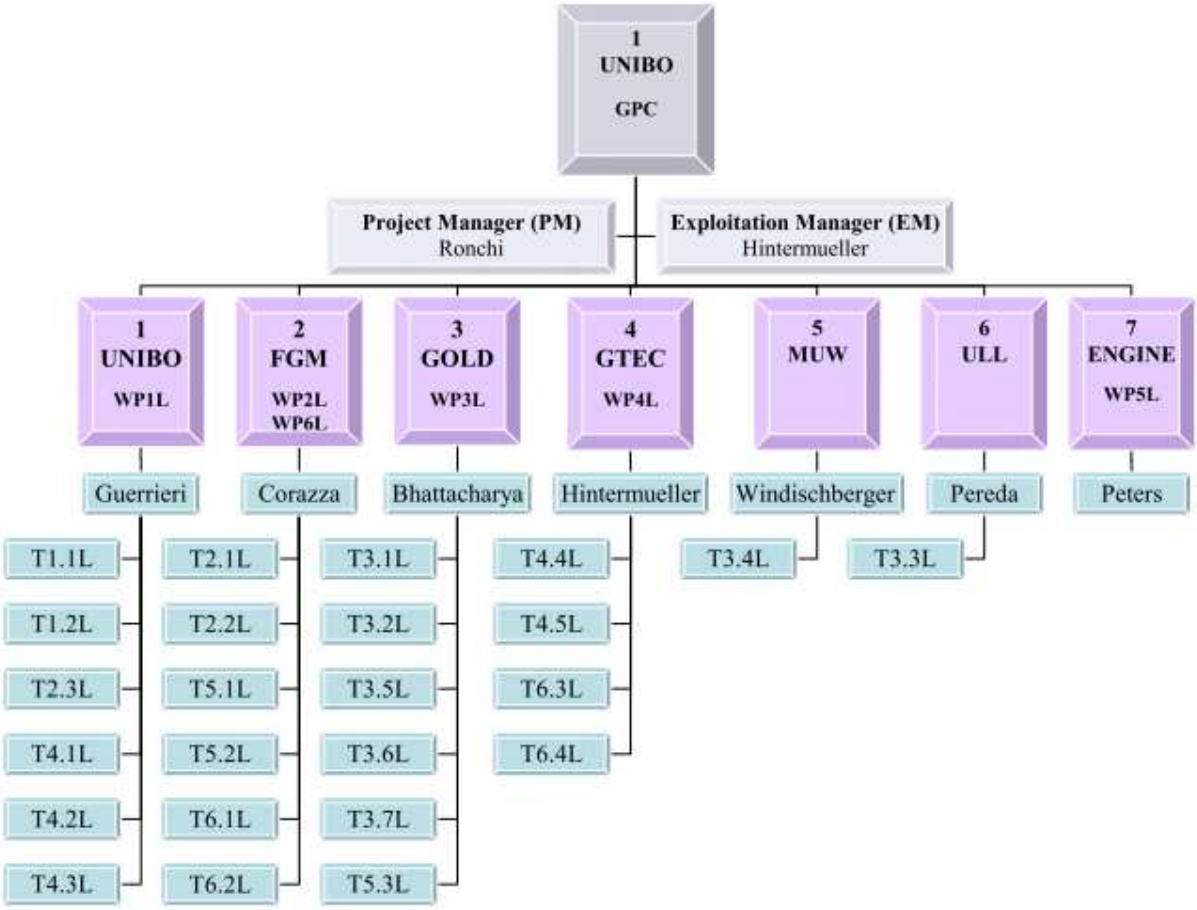
- The management of the project.
- Deciding on adaptations of the work-plan.
- Agreeing on the (re)allocation of the project's budget.
- Making proposals for reviewing/amending the contract, if the case.
- Taking measures to cope with defaulting partners.
- Deciding on issues like: Technical roadmaps, joint publications and press releases, IP rights, exploitation and dissemination plans, control and auditing procedures.
- Maintaining the Consortium Agreement.
- Appointing the Exploitation Manager.



3.2.3 Project Technical Committee (PTC)

The PTC is composed of the WP Leaders and, since all partners in the Consortium shall be represented in the PTC, (co-opted) partner representatives, plus the GPC, the PM, the EM and the TL. Members of the PTC differ from the PCC for their scientific and technical focus. The representative in the PTC shall be able to make decisions as to the particular technical interests and how to use the resources allocated to achieve the project's goals. The members of the PTC will be appointed by each of the prime partners. The GPC will chair the PTC. The PTC is responsible for the monitoring of the project progress and the preparation, review and updating of the detailed work-plan. The decisions will be taken by consensus or by a simple majority in the case where consensus is not possible. Each member of the PCC will have one vote. Changes to work-plan will require consensus or a double majority. The PTC will meet every 3 months. Meetings will be generally held by telephone conference. The voting procedure as well as the responsibilities of the PTC will be laid down in the Consortium Agreement.
The main responsibilities are summarized as:

- Coordinating the overall technical work on a continuous basis.
- Coordinate the interaction and collaboration across activities.
- Preparing proposals for the PCC on issues like: the (re)allocation of budget, the adaptation of the work-plan, when and if needed.



3.2.4 Project Manager (PM)

The Project Manager (PM) is appointed by the Coordinator. He/she is the head of the Project Office and he/she is in charge of the daily management of the project.

3.2.5 Exploitation Manager (EM)

The Exploitation Manager (EM) will be responsible for the day-by-day management of the project exploitation activities. He/she will be in charge of the coordination of the exploitation actions for the CREAM Consortium as a whole.

3.2.6 WP Leaders (WPLs) and Task Leaders (TLs)

The main responsibilities of the WP Leaders are summarized as:

- co-ordinate the work in the WP.
- ensure a close communication among the participants.
- convene WP internal meetings.
- ensure the on-time availability of WP deliverables.
- participate to the meetings of the PTC.
- report progress and deviations from the work-plan to the GPC and the PTC.

WP Leaders are assisted by Task Leaders, whose mission is to:

- organize the technical exchanges between the partners contributing to the Task.
- check the progress and on-time delivery of the Deliverables of the Task.
- report to the Work Package leader, who will be coordinating all Tasks of his WP.

3.2.7 Project Ethics Committee (PEC) and Ethics Manager (EtM)

The Project Ethics Committee will include an Ethics Manager (EtM) who will assist the coordinator in all ethical aspects of the project. It will run internal procedures of reviewing, verification and approval of each study involving humans.
The Project Ethics Committee will consider the following issues;

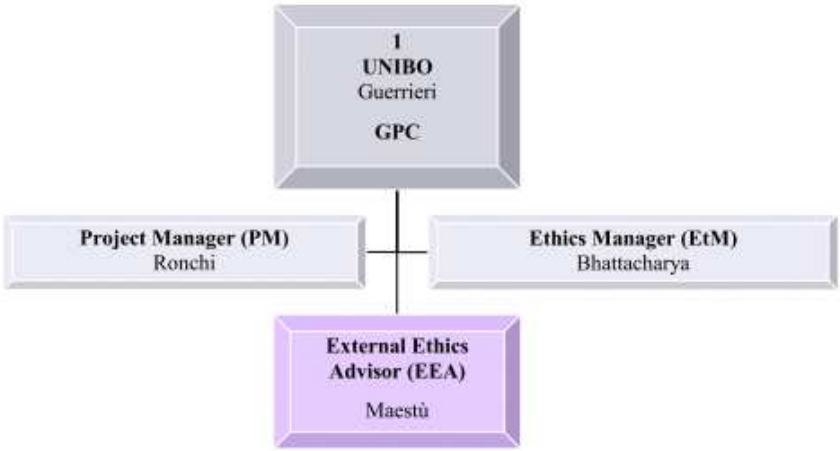
- Compliance with national regulations and international codes of conduct;
- Local ethics committee's authorisations required from competent bodies;
- Research involving persons;
- Requirements for Informed Consent;
- The Protection of Personal Data;
- Ethical implications of research results;
- Other ethics related considerations.

3.2.8 External Ethics Advisor (EEA)

The Project Ethics Committee includes an External independent Ethics Advisor (EEA) to oversee the ethical concerns involved in the CREAM research. The EEA will be invited to attend the annual review meetings in order to give his vision and advice regarding the project strategy and to provide an objective assessment of the ethics related issues. This role has been appointed according to the indications of the Commission and prof. Maestù has been selected.

Fernando Maestù is Associate Professor at the Department of Basic Psychology II - cognitive process (Departamento de Psicología básica II - procesos cognitivos), Faculty of Psychology, Complutense University of Madrid, and Director of the Laboratory of Cognitive and computational neuroscience (Center for Biomedical Technology), Complutense University of Madrid and Technical University of Madrid.

A report by the Ethics Advisor should be submitted to the European Commission along with the Periodic Reports.



4. Implementation Plan

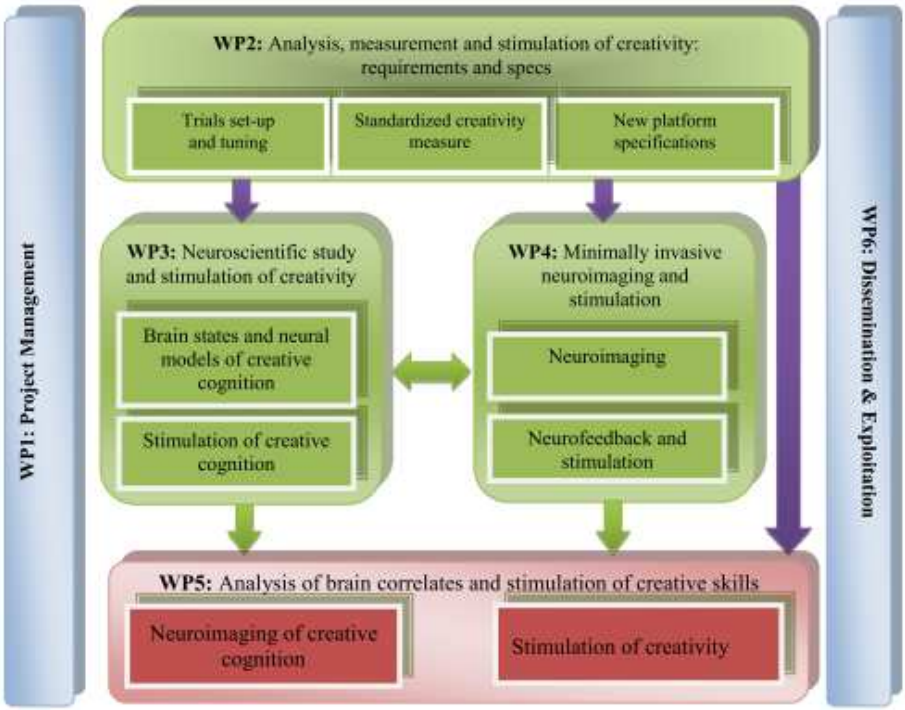
The objectives of the project will be pursued by the CREAM Consortium through the actuation of a work-plan, described in the DoW, consisting of a total of six work-packages (WPs) and spanning a three-year temporal frame. Several Consortium partners participate to each work-package, according to their specific expertise, know-how and business interests, thus creating the ideal mix of research competence and implementation capabilities, which is the key to guarantee a successful and timely achievement of the objectives.

Out of the six work-packages, four will address scientific, technical and demonstration work, and represent the core of the project's R&D effort. One, equally important work-package, will implement some accompanying measures for ensuring the largest impact of the CREAM project, thus including dissemination and exploitation activities. Finally, one WP will focus on the various aspects of project management.

Each work-package is led by one of the Consortium partners, whose role is that of coordinating the work inside the work-package and the interfacing and communication to the other work-packages. Each work-package is further broken down into tasks, each of which is responsible for specific portions of the work. Each task is led by one of the Consortium partners, whose role is that of ensuring consistency and coherence of the performed work with the main goals of the WP of concern.

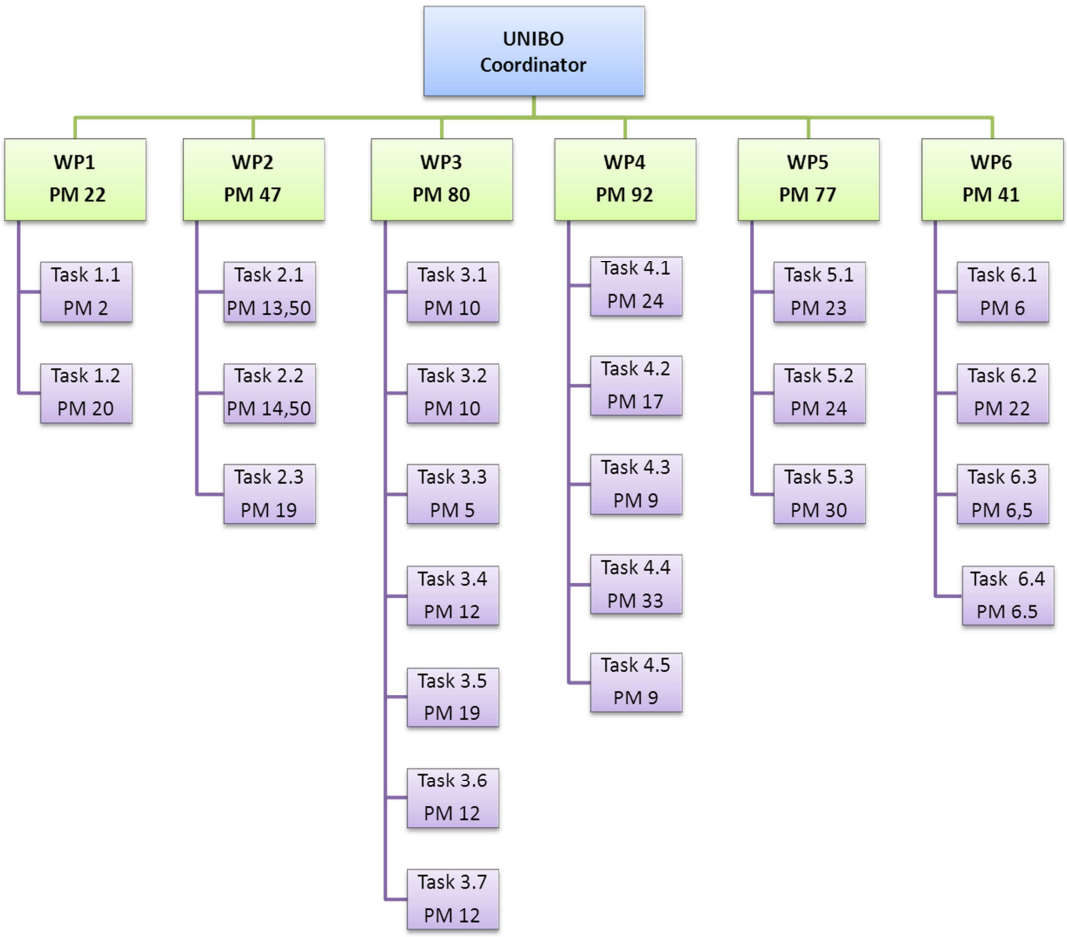
Pictorially, the architecture of the CREAM project is shown in the figure below.

WPs shown in green and red identify RTD activities, while WPs in blue correspond to dissemination/exploitation and management activities, respectively.



4.1. Work Breakdown Structure (WBS)

The work breakdown structure (WBS) and the associated work packages (WP) description sheets shall identify the logical relationship between WPs: dependency, incoming and outgoing elements, contributors and related tasks and organization documents, "internal deliverables" from or to other WPs.
The starting point is given by the WBS and WP sheets included in the contract DOW. The WP sheets will be updated and completed by the WP leaders under PTC control all along the project life.
After completion of the detailed work planning after the project kick-off meeting, the WP sheets will be completed to contain the interdependence elements mentioned above.
A general structure of Work-Packages is shown in the figure below:



5. Deliverables and Milestones Plan

Deliverables and milestones should be completed on time. Progress on deliverables or milestones should be reported in the reports for the period in which they are due. If any deliverables or milestones due in the period are late, an explanation for this must be given, as well as the anticipated completion date.
The list and schedule of deliverables follow, sorted by year.
Each deliverable has a reference number, title, due date and leading partner.

5.1. Deliverables Plan

Year 1

No.	Title	Due date	Leading Partner
D6.1	Set-up of the public web-site	M1	FGM
D1.1	Project Management Handbook	M3	UNIBO
D6.9	IPR Management Database: Pre-Existing Know-How	M3	GTEC
D2.3	System-level specifications of the neuroimaging/ stimulation platform	M6	UNIBO
D4.3	Rapid prototyping platform for feedback	M6	GTEC
D6.5	Initial dissemination plan	M6	FGM
D3.1	Report on the neural representations of receptive brain states in creative problem solving based on fMRI results	M9	MUW
D2.1	Report on the joint use of the creative cognitive tasks	M12	FGM
D6.2	First report on web-site accesses and performed updates	M12	FGM
D6.6	First report on dissemination & exploitation	M12	FGM

Year 2

No.	Title	Due date	Leading Partner
D3.2	Report on the neural representation of relevance detection based on fMRI experiments	M18	MUW
D3.3	Report on the development of a computational platform for studying network properties of creative brain	M18	ULL
D6.10	IPR Management Database: First Release	M18	GTEC

D6.12	Preliminary Exploitation Plan	M18	GTEC
D4.1	HW platform for bio-electrical neuroimaging and stimulation	M21	GTEC
D2.2	Association between creative performance and creative achievement in the Scientific and the Artistic domain	M24	FGM
D3.4	Report on functional correlations and effective interaction from connectivity results based on fMRI experiments	M24	MUW
D3.5	Report on the relationships between resting state spontaneous brain fluctuations and domain-specific and domain-general creativity	M24	GOLD
D3.6	Report on what neural correlates are causal to creativity and on the efficacy of non-invasive brain stimulation as a tool to improve different aspects of creativity in a single session	M24	GOLD
D4.2	SW libraries for brain imaging algorithms tuned for multiple data sets and report on the validation on ERP	M24	UNIBO
D6.3	Second report on web-site accesses and performed updates	M24	FGM
D6.7	Second report on dissemination & exploitation	M24	FGM

Year 3

No.	Title	Due date	Leading Partner
D1.2	Final Publishable Summary Report	M36	UNIBO
D4.4	System for visual, acoustic and electrical stimulation and feedback	M27	GTEC
D4.5	SW libraries for stimulus production to feed-back brain activity information to the subject	M27	GTEC
D6.13	Market survey document	M30	GTEC
D5.1	Report on study of EEG correlates of domain-specific and domain-general creative cognition	M33	FGM
D5.2	Report on the training procedures for increasing creativity in different knowledge domains	M36	FGM
D5.3	Report on electrical brain stimulation training of creativity in different knowledge domains	M36	GOLD
D6.4	Final report on web-site accesses and performed updates	M36	FGM
D6.8	Final report on dissemination & exploitation	M36	FGM
D6.11	IPR Management Database: Final Release	M36	GTEC

D6.14	Final Exploitation Plan	M36	GTEC

Each deliverable must be presented in a common format as shown below. The related template can be downloaded by the CREAM partners from the Restricted Area of the CREAM website (http://www.ict-cream.eu, folders "Documents", "Other documents" and "Templates" respectively).

Title	Description
Introductory pages	The deliverable standard includes a cover page, revision and approval status table, glossary, table of content and list of figures.
Introduction	This section should always present the purpose of the deliverable as well as its context. Additional information depending on the deliverable's specificities.
Executive Summary	This section should be a synopsis or general overview, summarising the content of the document.
Knowledge Portfolio	This optional section concerns the identification, acquisition, diffusion, and renewal of all knowledge of the project.
Core text	This is the main part of the deliverable and should explain clearly how the results were achieved, including diagrams or pictures to illustrate technical/scientific points. For prototype or test results etc., it should contain an user manual, photos and description of location, specifications, test scenario or any other appropriate information.
Conclusions	This section should be a summary of the major outputs of the deliverable.
Bibliography	This optional section should be a documents list, publications and other key references relevant to the deliverable.
Glossary	List and description of acronym/abbreviations used in the document.
Appendix	This optional section could be necessary to produce additional information, which may remain confidential and not be delivered.

5.2. Deliverable status

Each deliverable will, at any moment, have a status described by one of following statements:

Status	Description
Open	Not started or under development.

Done	Done but deliverable not yet submitted.
Delivered	Reviewed and approved internally within the project and submitted to EU.
Approved	Approved and accepted by EU, and available for use.
Delayed	Initial deadline will not be met.
Cancelled	Deliverable has been cancelled and will not be delivered.

5.3. Confidentiality and Dissemination Level

Each deliverable has a predefined level of dissemination identified in the Annex I – Description of Work (DoW) on List of deliverables. These levels are from the smallest to the widest audience:

CO = Confidential, only for members of the Consortium (including the EU services)
RE = Restricted to a group specified by the Consortium (including the EU services)
PP = Restricted to other programme participants (including the EU services);
PU = Public

The deliverables will be posted in the Restricted Area of the CREAM website (http://www.ict-cream.eu, folder "Deliverables Repository"). Access to these documents will be granted by the PO according to their confidentiality and dissemination level.

5.4. Deliverable Development and Validation Process

For each deliverable, a Deliverable Leader has been identified and indicated on the List of Deliverables. She/He will be responsible for the quality of the deliverable in terms of both its content and form. However, the deliverable will be reviewed before sending it to users, the EU Project Officer and Reviewers sufficiently in advance to allow for proof reading, feedback and updates. The Deliverable Leader shall:

- define the document structure;
- collect inputs from contributors/authors, check their quality and merge them into a single document;
- circulate such draft document for revision until agreement is reached from all partners involved;
- produce the final version of the deliverable document to be submitted;
- indicate the organisations/persons which/who are granted access right to a restricted deliverable.

To ensure that deliverables are of an appropriate standard, all deliverables must be validated internally before being submitted to the EU.

The internal quality validation in terms of content (internal technical validation) will be performed by a reviewer/partner chosen by the WP Leader, who will make sure that the

deliverable meets the expected levels of quality. The formal review (internal formal validation) will be performed by the PM and/or the GPC.

Once approved, the Coordinator will submit the deliverable to the EU either by sending it via email or by using the electronic exchange system set up by the Commission.

The PM will monitor the deliverable development, submission to and acceptance by the Commission.

6. Reporting

The EU Grant Agreement requires a full Periodic Report to be issued annually according to the reporting periods as defined in the Annex I (DoW) and the EU GA. The annual report shall provide information covering the whole year. The periodic reports are due within 60 days after the end of each reporting period (including the last reporting period). The reporting periods (as defined in Article 4 of the GA) are:

- **P1**: from month 1 to month 12
- **P2**: from month 13 to month 24
- **P3**: from month 25 to the last month of the project.

All Periodic Reports (scientific and financial parts) have to be transmitted by the Project Consortium through the GPC to the EU by an electronic system set up by the Commission.

The Commission evaluates the reports and deliverables in accordance with Article II.5 of the GA. It may be assisted in this task by independent experts through technical project reviews. Payments shall be made after the Commission's approval of the deliverables.

A report entitled "*Guidance Notes on Project Reporting*" for FP7 Collaborative Project is available at the following link:

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#fp7

6.1. The Periodic Report

The Periodic Report for each period (including the last one) shall address both the technical and the financial aspects of the project. It shall consist of a front page, a self-declaration by the scientific representative of the project coordinator, a table of contents with pagination and the following sections:

- **Publishable Summary:** it includes a summary description of project context and objectives, a description of the work performed since the beginning of the project and the main results achieved so far, the expected final results and their potential impact and use.
- **Core of the report: Project objectives, work progress and achievements, project management** – This section provides an overview of the project objectives, a summary of the recommendations from the previous reviews (if any) and indicate how these have been taken into account, a concise overview of the progress of the work.

For each Work Package, except Project Management written separately by the PM, **each WP Leader** must provide the PM with:

- ✓ a summary of progress towards objectives and details for each task;
- ✓ highlight clearly significant and tangible results;
- ✓ if applicable, explain the reasons for deviations from Annex I (DoW) and their impact on other tasks as well as on available resources and planning;
- ✓ if applicable, explain the reasons for failing to achieve critical objectives and/or not being on schedule and explain the impact on other tasks as well as on available resources and planning;
- ✓ a statement on the use of resources, in particular highlighting and explaining deviations between actual and planned person-months per WP and per partner in Annex I (DoW);
- ✓ if applicable, propose corrective actions.

Project Management includes, amongst others:

- consortium management tasks and achievements;
- problems which have occurred and how they were solved or envisaged solutions;
- changes in the project consortium, if any;
- list of Project meetings, dates and venues;
- project planning and status;
- impact of possible deviations from the planned milestones and deliverables, if any;
- any changes to the legal status of any of the Project partners;

Each Project partner must provide the PM with an explanation of the **use of the resources**, such as effort (in terms of person-months), personnel costs, subcontracting and any major direct costs incurred, linking them to Work Packages according to EU templates.

- **Deliverables and milestones table.**
- **Financial statements** have to be provided within the Form C for each beneficiary.
  For each partner an audit certificate (Certificate on the Financial Statements – CFS) is moreover mandatory for every claim (interim or final) in the form of reimbursement of costs whenever the amount of the EU contribution is equal to or larger than EUR 375.000 when cumulated with all previous interim payments (not including the pre-financing) for which a CFS has not been submitted. Once a CFS is submitted, the threshold of EUR 375.000 applies again for subsequent EU contributions but the count starts from 0.
  A guide to audit certificates is available from
  http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#fp7

Except for the parts where specific contributions are indicated above, the Periodic Reports will be written jointly by the **GPC & PM** with inputs from the **WP Leaders**, the **partners** and the **Exploitation Manager**.

6.2. The Final Report

For the last reporting period, the Consortium has to submit to the EU a final report 60 days after the end of the Project. It shall include three separate parts:

a) A **final publishable summary** covering results, conclusions and socio-economic impact of the project;
b) A **plan for use and dissemination of foreground**.
c) A report covering the **wider societal implications** of the Project, in the form of a questionnaire, including where applicable gender equality actions, ethical issues, efforts to involve other actors and to spread awareness.

These parts of the Final Report will also be written jointly by the **GPC & PM** with inputs from the **WP Leaders** and the **Exploitation Manager**.

6.3. Non-submission by Partners

The PM will inform the GPC of any difficulty encountered and where appropriate will propose contingency measures. In case a partner does not submit inputs in time, the PM will inform this partner that the parts related to his organisation will NOT be included in the submission to the EU and that consequently the partner will not receive any funds, or will have to wait until the next year's period.
Finally, the PM will compile the technical report in one PDF document and send it to the EU within 60 days after the end of the reporting period.

7. Reviews

The GPC will be in regular contact with the EU Project Officer to report on the project's progress in a transparent and practical manner. These contacts will remain informal without any minutes unless specific actions are required. Such contacts will occur through emails, phone calls and possibly through meetings in Brussels or Luxembourg whenever needed. The GPC may request the participation of other project partners depending on the subjects to be discussed. In this way the Project Officer will be able to continuously monitoring the performance of the Project in accordance with Annex I of the DoW.
The EU will also undertake periodic contractual technical reviews to assess the work carried out by the project. Such reviews may cover scientific, technological and other aspects relating to the proper execution of the project.
In addition to these assessments, the CREAM project consortium will organise internal reviews to provide an internal assessment and approval mechanism for the project.
Objectives and procedures to be followed for these reviews are described in the next sections.

7.1. Contractual Annual Project Reviews

Contractual Project Reviews are technical reviews carried out by the EU to monitor the performance of the project in accordance with Annex I (DoW).
The aim of such reviews is to objectively assess the following:

- the degree of fulfilment of the project work-plan for the relevant period and the status of related deliverables;
- the continued relevance of the objectives and breakthrough potential with respect to the scientific and industrial state-of-the-art;
- the resources planned and utilised in relation to the achieved progress, in a manner consistent with the principles of economy, efficiency and effectiveness;
- the management procedures and methods of the project;
- the partner's contribution and integration within the project;
- the expected potential impact in economic, competition and social terms, and the project partners plan for the use and dissemination of Foreground.

The periodicity of contractual reviews is annual. The EU can also carry out intermediate technical reviews that may not cover the whole of a given reporting period. In this case the review process is similar to the periodic technical reviews, unless otherwise specified by the EU.
The EU may be assisted in technical reviews by independent, external scientific or technological experts. The reviewing team may have access to the locations and premises where the work is being carried out, and to any document concerning the work. Any such review shall be carried out on a confidential basis. Each Project partner shall have the right to refuse the participation of a particular external scientific or technological expert on grounds of commercial confidentiality.
The Project partners attending the review should be those involved in the work under review, except if duly justified and provided that the partners present can report on behalf of the missing partners.

The EU shall send a report on the review outcomes to the GPC, who may make observations thereon within one month of receiving it. On the basis of the experts' formal recommendations, the EU will thus inform the GPC of its decision:

- to accept or reject the deliverables;
- to allow the project to continue without modifications to Annex I (DoW) or with minor modification;
- to consider that the Project can only continue with major modifications;
- to initiate the termination of the GA according to Article II. 20;
- to issue a recovery order regarding all or part of the payments made by the EU and to apply any applicable sanction or initiate judiciary procedures.

7.2. Internal Project Reviews

An internal assessment of the project will be carried out every 6 months and will be similar to the contractual annual project reviews but with a lower level of formality. These reviews shall provide a clear picture of the project progress as a whole and the performance of each partner.
The GPC is responsible for the coordination of such internal assessment. The PCC should assess the global project progress compared to the plans and expectations and the general evolution of the technology state-of-the-art and market trends and assess the involvement of each partner. In order to assess the contribution of each individual partner, the PCC members will look at the periodic internal reports, technical reports and deliverables produced by the partners and compare them to the planned work according to the Project work-plan.

7.3. Review Preparation Schedule

The following schedule is recommended for the preparation of Reviews:

- At least **six months** before the Review, the date and location of the Review must be fixed with the EU Project Officer and communicated to the Project partners.
- Approximately **two months** before the Review, the objectives of the Review should be defined (i.e. which results to show, etc.), roles assigned to the participants, detailed agenda and supporting documentation defined, and participants instructed on the preparation of their contribution. The logistics for the Review should also be fixed at that time: meeting rooms and hotel selected.
- Approximately **six weeks** before the Review, a formal agenda (using the template available on the Internal Area of the CREAM website, folder "Templates") must be sent to the participants including the EU Project Officer and Reviewers. The content of the Review shall be first agreed by the PCC and then validated with the EU Project Officer. The required logistics for rehearsals and review meetings as well as for any planned demonstration shall be also ensured at that time (e.g. beamer, flip chart, computers/software for demos, photocopy equipment, etc.).
- Approximately **two weeks** before the Review, all supporting documentation necessary for the Review is made available to the EU Project Officer and Reviewers; rehearsals for the contractual Review should be held and PowerPoint presentations finalised.
- **One week** before the Review, the final presentations are sent to the EU Project Officer and Reviewers (preliminary comments from the EU Project Officer are possibly gathered by the GPC).

- **One day** before the Review, a rehearsal meeting is held to check presentations/demonstrations.
- The **day of the Review**, the EU Reviewers will produce, if necessary, recommendations and proposals for action. These actions will be discussed with the present project partners immediately after the review to ensure that recommendations are verified and understood; described as 'critical', 'major' and 'normal'; and allocated to the respective Project partner with the appropriate responsibility.
- **After the Review**, decisions and actions agreed during the Review meeting must be recorded using the Minutes template and the Actions Lists for each WP; these documents will be available on the Internal Area of the CREAM website, respectively folder "Templates" and sub-folder "Actions Lists" nested in the relevant WP folder).

It is the responsibility of each WP Leader to maintain each WP Action List. When an action concerns several WPs it should be registered in the action lists of all concerned WPs; when an action requires project level coordination and/or PCC/PTC decisions it should be registered in the Action Lists of WP1.

7.4. Dates and Venues

Tentative Review dates and venues for contractual and internal reviews are listed in the table below.

Date	Venue	Hosted by	Review type
M12	Bruxelles or Luxembourg	EU	Annual Review
M24	Bruxelles or Luxembourg	EU	Annual Review
M36	Bruxelles or Luxembourg	EU	Annual Review

For further information please refer to the EU "*Guidance notes on Project Technical Review"* at the following link
http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#fp7

8. Document Management and Internal Communication

This section describes the processes to be used for document management and for related exchanges between project partners with the aim of assuring confidentiality, security, traceability, and consistency of information exchanged.
Note: Aspects related to knowledge management, handling of IPR, access rights and confidential information are not dealt with in this document. For details please refer to the CREAM EPCA.

8.1. Templates

A set of templates are available for download on the Restricted Area of the CREAM website (http://www.ict-cream.eu, folder "Documents", "Other Documents", "Templates") to all project partners to facilitate and standardise project communications (internal, contractual and external). For all official project documents and external presentations, the use of these templates is mandatory. In addition, all project documents produced shall be written in English.
The templates' definition includes the project logo on the cover page and the layout of the cover page as well as of the inner pages, including basic information fields, specific sections to be completed, and MS Word styles to be used.

Title	Description
Agenda	Required for the preparation of meetings, teleconferences and reviews.
Slides	Required for presentations in meetings, reviews and dissemination actions.
Minutes	Required for the follow-up of meetings, teleconferences and reviews.
Deliverable	Required for the release of any contractual deliverable.
Report	Required for the release of reports (such as technical reports on project results, contractual and internal progress reports, review reports, etc.) by any of the partners.

8.2. Confidentiality and Dissemination Level

For each document produced within the CREAM project the confidentiality/dissemination levels as well as the property/copyright must be mentioned both on the cover page and in the footer of each page.
By default, each document created within CREAM is considered CREAM confidential.
Corresponding legal mentions are included in each document template and should not be removed, unless a more restricted copyright applies (e.g. at Work Package level, organisation level, etc.).

Concerning the dissemination level one the following codes must be used:

- **PU** = Public
- **PP** = Restricted to other programme participants (including the EU services);
- **RE** = Restricted to a group specified by the Consortium (including the EU services);
- **CO** = Confidential, only for members of the Consortium (including the EU services);
- **INT** = Internal, only for members of the Consortium (excluding the EU services).

Note: the level INT typically applies to internal working documents of the project consortium (e.g. meeting minutes, etc.) and can NOT be used for contractual deliverables.
If needed, it is possible to create a public version of (part of) a restricted document, under the condition that the owners of the restricted document agree collectively in writing to release such public version. In this case, a new document code should be given so as to distinguish between the different versions.

Note: when the dissemination level of a document is restricted, the Document Leader (i.e. the identified responsible for a deliverable, or the issuing partner for any other document) must list the organisations or persons which/who are granted access rights.

8.3. Document Archive

The Internal Area of the CREAM website is used as collaborative platform to facilitate cooperation and exchanges between partners, document management and coordination of tasks.
The access to the Restricted Area of the CREAM website is controlled by an individual login and password providing a good level of security for storing confidential documents. Access rights to the CREAM website are controlled and can be modified according to needs.
The Restricted Area of the CREAM website will be used as:

- virtual work space supporting on-line coordination, information exchange and collaborative work on documents, such as Project reports and deliverables;
- project archive for all important documents produced within the Project or relevant to the Project.

Alternatively, since the large majority of the documents exchanged in the Project are not supposed to have a critical level of confidentiality, the partners will use standard electronic communication means.

8.4. Communication Means and Tools

8.4.1 Meetings and Teleconferences

The following principles should be respected for successful meetings/teleconferences:

- the meeting should be limited to the minimum number of participants necessary;
- the date, time, logistics and/or connection details, expected duration, agenda and list of expected participants should be communicated in advance (typically at least 1-2 weeks before);

- all required documents must be distributed before the meeting (at least the time required for reading those documents + a couple of days);
- teleconferences should be limited to 2 hours maximum to ensure the participants concentration;
- minutes summarising the decisions and actions should be prepared and distributed to all concerned partners within 3 days after the meeting/ teleconference;
- all important meeting documents should be posted on the Restricted Area of the CREAM website.

The Agenda and Minutes templates must be used as well as the Actions Lists created for each WP, all available on the Restricted Area of the CREAM website.

8.4.2 Contacts and Mailing Lists

To facilitate communication between the CREAM partners, a MS Excel file containing contacts and mailing lists will be created and available for download on the Restricted Area of the CREAM website. This file contains the contact details of all the reference persons involved in the Project, that is:

- the participants in each WP/Task with the indication of the Deliverable Leader and its due date;
- the members of the various management bodies (PCC, PTC, etc.);
- the contact persons for the administrative-financial matters and those for the legal matters.

To make sure that all concerned partners receive the emails, these lists should be used by all the people involved in the Project instead of self-managed lists in the users e-mail application.
These lists are regularly updated by the PM. It is the responsibility of each individual partner to inform the PM rapidly in case of any change of email address, telephone numbers, persons that should be added or removed, etc. to make sure the contacts and mailing lists are always up-to-date.

8.4.3 Fax

Communication by fax should be used only when communication by e-mail is not possible, e.g. if the transmission of a paper document is needed. Scanned pages should be preferred to fax transmission to allow for electronic archiving.

9. External communication

This section provides simple operational rules to be followed in order to facilitate the management of external communication and dissemination of project results. Aspects related to knowledge management, handling of IPR, access rights and confidential information are NOT dealt with in this document. For any detail please refer to the CREAM CA and to the GA. In particular, the activities to be carried out to support the dissemination and exploitation of information and knowledge will be described in the deliverables of WP6, as defined in the Annex I (DoW) of the Project.

9.1. Publications and Presentations

Publication of information generated (Foreground) or used (Background) in the Project or information about Project (presentations, media relations, etc.) are governed by the CREAM EPCA and EU GA.
Scientific publications and presentations in key journals and at conferences shall pass through the acceptance procedures as defined in the CREAM EPCA.
The Exploitation Manager will manage authorisation of publications and presentations.
As the Project develops, exploitation of results (Foreground) will be identified by partners and tracked by the Exploitation Manager. The result of the tracking will be recorded and reported on Periodic Reports due to the EU, as well as during the contractual Reviews.

9.2. Mention of EU support and disclaimer

Publications resulting from the Project MUST carry the following mention:
"*The CREAM project has received funding from the European Commission under Grant Agreement n° 262022."*
The EU logo should be displayed on the publication in a visible manner. It can be downloaded from the Restricted Area of the CREAM website.
On external communications about CREAM the following disclaimer should be also added:
"This document has been created in the context of the CREAM project. All information is provided "as is" and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability. The EU has no liability in respect of this document, which is merely representing the authors' view."

9.3. Website storage

The Public Area of the CREAM website has been set up to present the Project, its main results as well as key up-to-date information relevant to the Project. The URL of this public website is www.ict-cream.eu.
The information that has been accepted for publication by all partners will be stored by the PM also on the Restricted Area of the CREAM website.
Electronic material and copies/highlights of non-electronic material (scan of brochures, degraded videos, photos of pieces, etc.) will be stored in the Restricted Area of the CREAM website as well and made accessible to Project partners, according to specific access rights, for use in their own Project dissemination actions.

9.4. Communication with the EU

The GPC is the official interface to the EU. He is assisted in this task by the PM. All formal exchanges of information with the EU must therefore be handled through the GPC and the PM.

10. Risk Management

10.1. Objective

The implementation of a risk management procedure aims at providing a structured approach to project monitoring through the identification of risks and proper consideration of mitigation strategies, a the improvement of plans, schedules and budgets for the achievement of the Project objectives.

Technical Risks	Probability	Impact	Remedial Actions
The combined compilation of the cognitive tests included in the creativity measurement methodology demands excessive resources to the participants	Low	High	Alternative reliable cognitive tasks will be identified and tested for substitute the highly demanding tests
The recruitment of participants is difficult and time demanding	Medium	High	A financial compensation will be provided for the participation in the experiments
Neuro-feedback based on EEG sources ROI might prove to need further development	Medium	Medium	Neuro-feedback will be limited to more traditional techniques such as alpha/theta enhancement
EEG activity correlation among different cognitive tasks and subjects might prove to be weak	Medium	Medium	Multiple trial analysis will be limited to same-subject, same-task.

Consortium Risks	Probability	Impact	Remedial Actions
Not able to intervene with correction just in time	Low	Medium	To ask to WP leaders to periodically prepare reports based on specific forms defined at the beginning of the project
Researchers might leave	Low Medium	Low	All work to be regularly documented and stored
Divergence among partners on project running	Low	Medium	Consortium agreement rules every conflict situation. The research of consensus is the first objective. However, after a reasonable amount of time has been allowed to illustration and defence of conflicting positions, in order

			to avoid deadlock in project operational progress, the approval of a two-third majority of Partners will be considered conclusive.
Bad consortium communication	Medium	High	Improve team building among members; improve communication facilities; increase face to face or telephone communications when possible

Management Risks	Probability	Impact	Remedial Actions
Overestimate work load	Medium	Low	Start working on improvements or secondary objectives
Underestimate work load	Medium	High	Minimise the scope of WPs concerned
Unrealistic Time Schedule	Medium	High	Identify critical components of the project, removing those that are not essential
Inaccurate budget allocation	Medium	Medium	Identify necessary re-allocations among partners and/or between cost categories, define a new budget distribution to be approved by the Management Board and to be submitted to the Project Officer approval

Dissemination and Exploitation Risks	Probability	Impact	Remedial Actions
Dissemination channels strategy not appropriate	Medium	Medium	Discuss among all the partners and redesign the dissemination strategy in order to reach the right result.
Exploitation strategy not appropriate	Medium	Medium	Discuss among all the partners and redesign the strategy or the potential final market for the exploitable results.

Partners are recommended to adopt the risk management procedure described in this section. If different processes are employed by individual partners for the management of risks, WP Leaders are nevertheless required to provide a three-monthly update (or more frequent, if necessary) using the Risks Register established for CREAM. This will allow having a common presentation format for each WP throughout the Project.

10.2. Risk Management Procedure

The risk management procedure is an iterative process that is used throughout the life cycle of the CREAM project and consists in the following phases:

1. **Identification**: WP Leaders shall identify and define risks within the Project and allocate them to a risk owner.
2. **Assessment**: All risks shall be analysed and allocated to a category of probability ('High', 'Medium' or 'Low'). Each category will have a different level of impact on the Project, as defined below:
   - **High** – will add significant issues to the Project (timeline, budget, achievement of results); represents a major problem for which there is currently no solution; the risk requires decision by the PTC / PCC;
   - **Medium** – will add minor issues to the Project; the risk has the potential of being resolved at a working level;
   - **Low** – minimal impact on the Project but could be a threat; if the risk arises can be dealt with easily at working level.
3. **Planning**: A Risk Owner is appointed for each risk and is fully accountable for the action plan. Mitigation actions can be:
   - preventive actions to remove the cause of the risk;
   - mitigation actions to reduce the probability and/or the impact of the risk;
   - recovery actions to reduce the impact after the risk has happened (i.e. it has become an issue).

   Action plans for each risk are defined and approved by the WP Leader or, depending on the impact of the risk, by the GPC or PTC. An action plan may encompass several actions. The Risk Owner may choose to nominate different Action(s) Owner(s), if he/she considers that he/she is not in a position to implement the mitigation action(s) by him/herself.
4. **Monitoring**: This process includes:
   - following up risks' mitigation actions;
   - monitoring risks by detecting new risks or modification of current known risks;
   - re-assessing risks according to implementation results of mitigation actions/ Project evolution;
   - writing risks reports to higher management (PTC / PCC).

All Risks and their associated mitigation plans are the responsibility of the Risk Owner and WP Leader. If risks fall outside a WP and are Project related, they will be the responsibility of the GPC.

10.3. Associated management tool

10.3.1 Risks Register

Risks are managed with the help of a Risks Register which describes the risk identification and mitigation plan, and allows monitoring the progress of each of the identified risks. As it contains non-confidential information, it will be shared with all partners. Such Register has been created as an MS Excel spreadsheet which contains the following columns:

Column Title	Description
Risk ID	Reference number of the risk – maintained by the tool.
WP	It makes reference to the WP number which is related to the risk. When several WPs are affected by a risk, the word "Project" is used.
Task	It makes reference to the Task number which is related to the risk. When several Tasks are affected by a risk, the word "WP" or "Project" is used.
Description (The risk is that if…)	Accurate description of risk.
Impact (Then…)	Description of impact of the risk on the Project (objectives, schedule, costs).
Risk Owner (Name, Partner)	Name and affiliation of the person who will take charge of the risk.
Initiation Date (When it is identified)	Date or period when the risk has been identified.
Probability	The level of the risk ('High', 'Medium', or 'Low')
Action ID	ID of relevant action(s) identified in the mitigation planning.
Action description	Description of relevant action(s) identified in the mitigation planning.
Action owner	Name and affiliation of the person who will perform the mitigation action.
Due date	Deadline for performing and reporting on the mitigation action.
Additional comments	Any additional information about the risk and relevant mitigation actions.

The Risk Register is located in the Restricted Area of the CREAM website and has been populated by the PM from the Risks outlined in the Annex I (DoW) of the Project.

WP Leaders should provide the PM with relevant information to update this Register every 3 months, or more often if necessary, by filling in or updating the Risks Register spreadsheet with risks and actions scheduled (risk descriptions, risk probability, actions descriptions).

11. Exception Handling

The procedures defined in this document should be followed by all the CREAM partners. The governance and reporting procedures defined for the CREAM project will normally allow proactive management of all significant problems or risks that might question the value of the Project results for its stakeholders.
However there may be some cases where decisions cannot be made or actions cannot be undertaken according to the defined rules. This may be the case, for instance, when any unforeseeable event prevents application of agreed rules and immediate action is required.
Proposal for actions and clear justification should be sent to the GPC defining risks and benefits for the CREAM project. In view of the level of urgency and impact or risks for the Project, the GPC will then organise an extraordinary PCC meeting.
This should remain a procedure for exceptional cases.

12. Deviation from Plan

Deviations from plan could result from strategic factors and/or dynamic factors.

- Strategic factors:
  - ✓ changes in the context of the Project: new regulations (making the work in a particular work-block either impossible to perform due to strict regulations or irrelevant), new situation of the market (resulting in products goals being superseded), or new state-of-the-art (resulting in a scientific achievement becoming obsolete);
  - ✓ changes in the strategy of partners due to internal constraints such as important restructuring or external constraints such as being purchased by another company, default of payment, bankruptcy, etc.;
  - ✓ changes in the strategy of the EU resulting in cuts in the planned funding, major delay of the European advanced funds or cost reimbursements.
- Dynamic factors:
  - ✓ major internal contingencies (logistic, human, financial problems, etc.) met by partners;
  - ✓ major conflicts between partners;
  - ✓ major disagreement with the EU;
  - ✓ lack of skills of partners;
  - ✓ deficiencies in the different levels of governance of the project.

The consequences of the problems explained above could be:

- impossibility to issue planned deliverables or a major change in the nature of deliverables;
- major delay in providing deliverables;
- impossibility or clear irrelevance to maintain Tasks or WPs;
- major delay in starting or carrying out Tasks or WPs.

The EU offers some flexibility to deal with certain deviations from the plan, through the updates of the Annex I (DoW), the possibility of re-allocating the budget and the provisions for the evolution of the Project consortium.
If a deviation from plan cannot be tackled by these means, or needs to be addressed before the updated implementation plan is in force, immediate corrective measures need to be taken. Whenever possible, such a deviation should be formalised in a recovery plan explaining the problem met, the consequences and impact on the Project, the actions taken to recover and any corresponding planning. Such a recovery plan should normally be provided under the form of a PCC decision.
Several actions could then be envisaged and taken by the PCC to palliate the problems arising from the difficulties encountered in the progress of the Project.