MANAGEMENT PROCESSES

Defining rules and standards for joint work

SmartH2O

Project FP7-ICT-619172

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Executive Summary

The **SmartH2O** Management Processes document is designed to facilitate co-operation in the **SmartH2O** project by defining rules and standards for joint work. The intention is that all partners have the same point of reference and a common understanding of methods and procedures.

This deliverable contains a description of the project management structure, and of the quality control procedures for meeting, for deliverables, for communication within the project and for internal and external reporting

1. Introduction

For the avoidance of doubt, the Grant Agreement and Consortium Agreement take precedence over this document. This document on Management Processes does not replace by any means the contractual obligations among partners and between partners and the Commission: i.e. the Contract, its Annexes and the Consortium Agreement.

This document is instead a help to facilitate the adoption of cooperative principles in the **SmartH2O** project, by defining rules and standards for the day-to-day work. The intention is that all partners have the same point of reference and a common understanding of methods and procedures, which are essential to harmonise their work.

If used with discipline, these guidelines will reduce project overhead, alleviate project management for all partners and increase efficiency, quality and effectiveness of the work carried out, that is:

- collaborating to achieve a common objective, share experience and know-how and develop results using their complementary skills.
- organise and plan the work in a result-driven way. Whilst the internal organisation of each partner's work is his own problem (as long as he meets his commitments), the interactions between partners working at distance must be based on the flow of results. Common planning must hence be a reference for everybody and must always be up-to-date.
- effectiveness of meetings between the partners is absolutely critical to the progress of work. An inconclusive meeting can cause serious delays, risks and costs.
- coordination, clear rules for communication and unambiguous mechanisms for decision-making, involving different levels of decision-makers in different domains (strategic, technical, financial, and administrative). The rules for such decision-making need to be clear.

It is thus imperative that all **SmartH2O** partners be aware of this document, and understand and use the rules, suggestions and standards that are specified.

The document starts by summarising how the project is organised and what its management structure is. This is derived from the descriptions already available in the Description of Work (DoW) and Consortium Agreement (CA), but presented with an emphasis on clarifying the decision-making activities. For somebody joining the project, this is a good starting point to understand how things are managed.

The next section looks at the Quality Control procedures put in place for **SmartH2O Meetings**, how decisions are taken and what should go in the minutes is presented. The way to prepare for a Review is also examined.

Then the Quality Control procedures for **Communication** within the project are presented. Principally, this is through the project Wiki, hosted at http://smarth2o.idsia.ch In particular, the Administration Area website is examined, illustrating where to find officially-released deliverables, contractual documents, minutes of meetings and supporting information such as document templates. An overview of internal communication tools such as e-mail and Skype is then included.

A major section concerns the Quality Control procedures for producing **Deliverables**. Document standards and templates are introduced, and an explanation of document coding given. This section also explains how to prepare a Deliverable Development Plan, and the quality control procedures that are active to ensure that released documents have gone through the appropriate level of assessment.

Next, the Quality Control procedures for Project Management in general are presented. This includes the **Reporting** principles active in **SmartH2O** and the necessary content to be provided in Progress Reports. How problems are managed is then illustrated, from the different points of view of the partners and the management structure. The section concludes with a summary of Financial Management issues, including the preparation of Financial

Statements, how the Commission advance payments are distributed and the obligations of the partners.

Thus this document is effectively a handbook for how to be involved in the project. All the administrative issues are explained, how reporting must be performed is described and how the overall project management is set up to ensure that the project reaches its goals.

2. Project Organisation and Management

2.1 Overview of the Management Structure

The governance structure of **SmartH2O** is implemented through the following Bodies:

- The **Project Director,** representative of the **Coordinating partner,** is the single point of contact between the EC and the **SmartH2O** Consortium;
- The **Executive Board** ensures the day-to-day management of the project. It decides on the project work plan, budgets, payment transfers, takes action against non-performing partners and performs other matters necessary for the project advancement and success. The Executive Board is composed of the **Project Director**, the **Deputy Director**, the **R&D Director**, the **Integration Director**, the **Use Case Director**, and the **Communications** Director, each of whom is overall responsible for one or more work packages
- The partners' interests are represented by a **General Assembly**, to which the Executive Board reports. This Assembly, which is composed of one representative per partner, ultimately validates the major decisions concerning the project, and is also the ultimate decision-making body for any issue concerning the proper operation of the consortium.

This structure is complemented by the **Workpackage leaders** who lead the scientific and technical activities in the **Workpackages** described in the Project Workplan.

This organisational structure and the decision-making mechanisms set in **SmartH2O** is formalised in the **SmartH2O Consortium Agreement**, which all partners have signed before the start of the project.

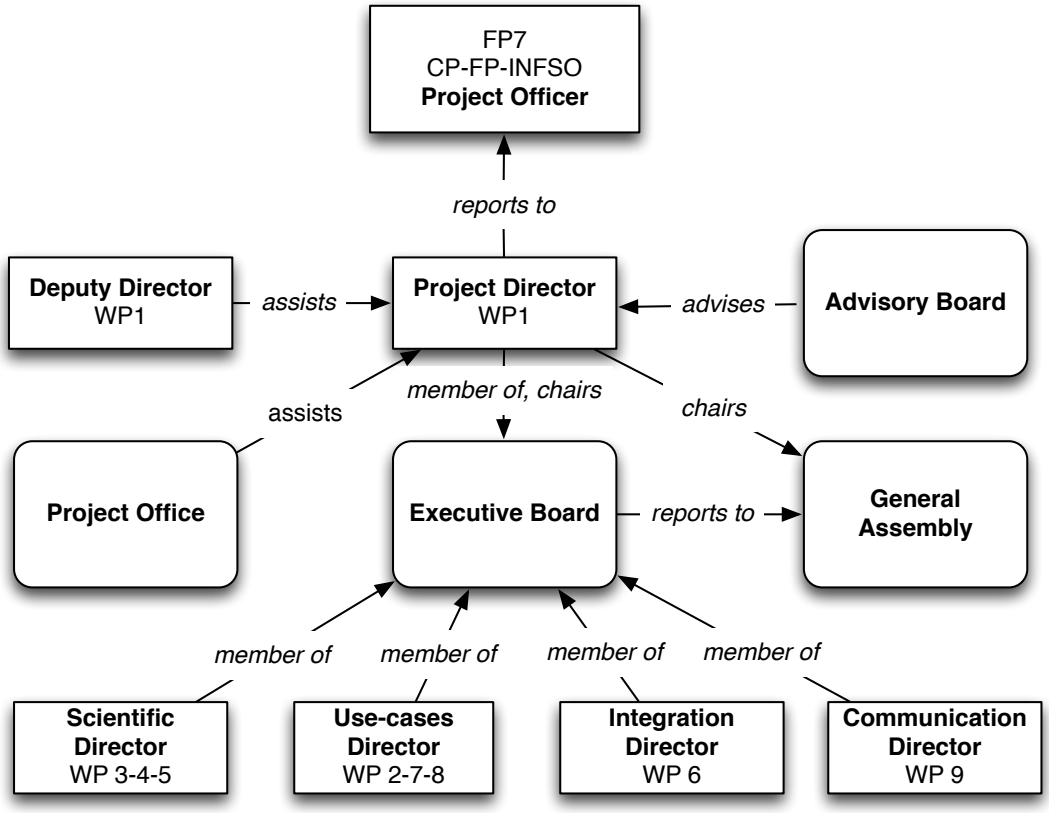


Figure 1.1 – The management structure of SmartH2O.

2.2 Coordinating partner and Project Director

The Coordinating partner is SUPSI, Scuola Universitaria della Svizzera Italiana (SUPSI), which is the single point of contact between the European Commission and the **SmartH2O** Consortium. The Coordinator receives all payments from the EC and transfers them to the partners in accordance with the conditions specified in the **Consortium Agreement**. The Coordinator is also responsible for ensuring that all contractual documents are provided to the EC.

The **Project Director** is **Prof Andrea Emilio Rizzoli** of SUPSI.

2.3 Project Coordination

Management activities are conducted by SUPSI. The activities include:

- the strategic, financial and contractual management of the consortium, ensuring the official interface between the consortium and the Commission;
- the day-to-day operational project management, providing the consortium with its project management experience, methods and tools.

The management responsibilities are:

- chair management board meetings and ensure follow-through of decisions;
- establish and benchmark project milestones, monitor achievements and project progress, control quality and consistency against technical and contractual aspects and make proposals for workplan evolution to the management board as required;
- administer the EC financial contribution, and distribute partner shares according to the rules defined in the Grant Agreement and the Consortium Agreement;
- establish procedures, project management methods and tools;
- support periodic project meetings (planning, preparation, meeting logistics, minutes) for progress review, decision making and conflict resolution;
- coordinate internal and contractual periodic reporting;
- coordinate timely production of deliverables and reports, and maintain project archive;
- coordinate administrative issues: (financial statements submission by project partners, follow-up of EC payments, calculate partner shares according to rules agreed in the CA);
- maintain contractual documents (Workplan, Consortium Agreement);
- provide a helpdesk to assist individual project partners on administrative issues;
- provide access to and administration of tools that facilitate collaboration, communication and coordination, such as a web-based Wiki, electronic archives, dedicated mailing lists.

2.4 Quality Management (QM) function

Part of the management team is a Quality Management (QM) function, deployed across all project tasks. The QM is responsible for:

- Assessment of compliance of deliverables with Milestones and Target Objectives
- Evaluation of deliverables for compliance with the DoW
- Non-technical quality assessment of deliverables
- Verification of compliance of correct formatting and numbering of deliverables, prior to the submission to the EC. The authors of deliverables are responsible to provide documents that adhere to the **SmartH2O** look and feel, ensuring correct formatting and numbering.

The Quality Manager task is covered by SUPSI staff, who will report to the Project Director.

2.5 General Assembly

The General Assembly (GA), which is chaired by the Project Director, is composed of one institutional representative appointed by each of the partners. It is this Board that ultimately validates the major decisions concerning the project. The General Assembly is the arbitration body for all decisions taken by the Executive Board (see below). Thus, any Contractor may submit for arbitration by the General Assembly any decision by the Executive Board it deems to be contrary to its interests. General Assembly is also the decision-making body for any issue concerning the proper operation of the Consortium. In principle, approval by the General Assembly can be given by mail vote, upon proposition by the Executive Board. It is anticipated that formal meetings of the General Assembly will only be necessary under exceptional circumstances. The matters to be acted upon by the GA may include:

- The political and strategic orientation of the project;
- Approving any change to the structure of the project that requires Contract amendments to be submitted to the Commission,
- Approving changes in work sharing and budget proposed by the Executive Board and approving respective amendments in Annex I of the Contract,
- Approving proposals made by the Executive Board concerning non-performing partners,
- Approving the entering into the Contract and the Consortium Agreement of new Contractors,
- Approving the (even premature) completion or termination of the project,
- Approving alterations to the Consortium Agreement proposed by the Executive Board,
- Hearing appeals from any partner and deciding on appropriate action concerning decisions taken by the Executive Board that any partner concerned considers to be unfair and contrary to its interests.

The members of the General Assembly are:

Company	Name	e-mail
SUPSI	Andrea Emilio Rizzoli	andrea@idsia.ch
POLIMI	Andrea Castelletti	andrea.castelletti@polimi.it
UoM	Julien Harou	julien.harou@manchester.ac.uk
EIPCM	Jasminko Novak	j.novak@eipcm.org
SETMOB	Luigi Caldararu	luigi@setmobile.ro
TWUL	Ricardo Wissmann-Alves	Ricardo.Wissmann.Alves@ThamesWater.co.uk
SES	Per Angelo Ceschi	Pier.Angelo.Ceschi@ses.ch
MOONSUB	Giuseppe Pasceri	Giuseppe.Pasceri@moonsubmarine.com

Table 2-1 SmartH2O General Assembly members

2.6 Executive Board

The main role of the Executive Board, which is chaired by the Project Director, is to ensure the day-to-day management of the project. It decides on the project work plan, budgets, payment transfers and other matters necessary for the project advancement and success, takes action against non-performing partners, and implements the project orientations approved by the General Assembly. The Executive Board reports to the General Assembly.

The Executive Board will make propositions to the General Assembly on the project work plan, budgets, and other matters necessary for the project advancement and success; and to

implement the project orientations approved by the General Assembly.

Its responsibilities include to:

- Define and update the Work Plan;
- Make progress reports on the state of advancement of the Project;
- Establish the Project Deliverables for the Commission;
- Propose the Project budget to the Governing Board as well as the allocation of funding between the Contractors;
- Propose and implement the competitive selection procedure for any new Contractors;
- Make proposals to the General Assembly for changes in the consortium membership.

In general, the Executive Board will propose any and all decisions required for the proper conduct of the Project. Its members are:

Member	Responsibility	Responsible partner
Project Director	Overall Responsibility	Andrea Emilio Rizzoli (SUPSI)
R&D Director	Scientific monitoring and coordination	Piero Fraternali (POLIMI)
Integration Director	Component and pipelines development	Luigi Caldararu (SETMOB)
Use Cases Director	SmartH2O applications and Users	Jasminko Novak (EIPCM)
Communications Director	Community, brand and communications	Andrea Castelletti (POLIMI)

Table 2-2 SmartH2O Executive Committee members

2.7 Advisory Board

The role of the Advisory Board is to provide advise during the project lifetime on technical issues. The role of the External Expert Advisory Board (EEAB) is also formalized in the Consortium Agreement. More specifically, the experts will be asked to provide their feedback on selected deliverables, either during the progress of the associated task, or prior to the submission to the Commission. To facilitate the interaction with the EEAB and to maximize the impact and effectiveness, the EEAB has been composed of experts covering the different themes faced by the project, from research oriented issues, to technical matters. The deliverables will be therefore directed to those members whose expertise is closer to the topic under discussion. The EEAB composition might change during the project lifetime, when need should arise.

The current composition is described in Table 2-3.

Member	Affiliation	Type
Prof Dragan Savic (chair)	University of Exeter (UK)	Academic
Prof Martin Anda	Murdoch University (AUS)	Academic
Prof Holger Maier	University of Adelaide (AUS)	Academic
Prof Lorenz Hilty	University of Zürich (CH)	Academic
Prof Max Maurer	ETH Zürich (CH)	Academic
Dr Corrado Noseda	AGE Chiasso (CH)	Water Utility

Table 2-3 SmartH2O Advisory Board members

2.8 Workpackage Leaders

Workpackage Leaders are responsible for coordination of tasks within their sector of activity to integrate the work of the partners, control and update planning of the tasks, organise thematic meetings as appropriate, monitor production, coordinate work with other workpackages, and stimulate scientific and technical exchange within their workpackage. They report to the Executive Committee.

The Workpackage Leader's role is to:

- Drive the implementation of the Workpackage, and ensure it is reaching its planned milestones;
- Present progress reports on the state of advancement of the Workpackage;
- Make proposals on the allocation of Workpackage tasks, financial needs and allocation among the Contractors, the need to bring in new Contractors;
- Prepare and validate Workpackage Deliverables;
- Identify risks within a Workpackage and inform the Executive Committee ;
- Inform the Governing Board of any other difficulty arising in connection with the conduct of the Workpackage

The workpackage chairpersons are:

WP	Title	Resp	Leader
WP1	Project management and coordination	SUPSI	Andrea Emilio Rizzoli
WP2	Requirements, design and specifications	EIPCM	Jasminko Novak
WP3	User modelling	SUPSI	Dario Piga
WP4	Saving water by social awareness	POLIMI	Piero Fraternali
WP5	Saving water by dynamic water pricing	UoM	Julien Harou
WP6	Platform implementation and integration	SETMOB	Luigi Caldararai
WP7	SmartH2O Validation	SES	Marco Bertocchi
WP8	Business development	TWUL	Ricardo Wissmann-Alves
WP9	Communication and Dissemination	POLIMI	Andrea Castelletti

Table 2-4 SmartH2O Workpackage Leaders

3. Quality Control Procedures for Meetings

3.1 General rules for all type Meetings

Whether virtual or physical, a meeting is convened by the chairperson, who also determines the location in consultation with the foreseen attendees. For major meetings, SUPSI will provide support and keep track of the action items. If SUPSI is not present, it is the responsibility of the chairperson to prepare and distribute the action items.

Meetings should be convened with at least fifteen (15) calendar days prior notice and be accompanied by an agenda proposed by the chairperson. The agenda will be considered to be accepted unless one of the partners notifies the chairperson and the other partners in writing of additional points to the agenda, at the latest two working days before the date of the meeting. Partners may also participate to physical meetings by teleconference, if the facilities are available.

Please note that it is good practice to publish action items or minutes of every meeting, this can help support any audit checks the Commission may carry out concerning claimed travel expenses.

3.2 Project Plenary Meetings

The project **kick-off meeting** was the first plenary meeting and marked the effective launch of the project. It reinforced the sense of common purpose of all partners, and identified the responsibility of each in the endeavour. Unresolved technical issues were identified and debated; co-operation between work packages was initiated. The management exposed what is expected of each in terms of results, performance and reporting. The detailed course for the whole duration of the project was confirmed and fine-tuned.

Other **project plenary meetings** will take place approximately every 6 months, usually timed with project milestones or the preparation of the annual reports and rolling updates of the implementation plan. They will involve all the participants. They will be complemented and prepared by Executive Board meetings to be held in the same time frame. Additional Executive Board meetings will be convened as required. Topical working meetings will be organised by the work package leaders as needed for the progress of their tasks.

3.3 General Assembly meetings

In normal circumstances, the General Assembly itself will only meet formally every 12 months, although additional “Virtual Meetings” may be held by e-mail or teleconference if necessary. All General Assembly meetings, whether virtual or physical, are convened by the chairperson, who also determines the location in consultation with the Executive Board.

Any decision requiring a vote at a General Assembly meeting must be identified as such on the pre-meeting agenda, unless there is a unanimous agreement to vote on a decision at that meeting. In the case of “virtual” meetings, decisions may be taken by e-mail using suitable tools for authentication of sender, such as certified e-mail.

The General Assembly shall not deliberate and decide validly unless a majority of two-thirds (2/3) of its voting members are present or represented (“quorum”), including those participating by teleconference. Where decisions are to be taken unanimously, all members must be present or represented at the meeting.

For decisions affecting the Consortium Agreement, or any decision to end the project, 100% of the partners must agree. All other decisions by the General Assembly require a majority of 75% of the partners present or represented. Full details can be found in the Consortium Agreement.

3.4 Executive Board meetings

3.4.1 General

Executive Board meetings or video/audio conferences can be held as necessary. The Executive Board chairperson can convene meetings of the Executive Board whenever required, giving members at least seven calendar days notice and providing an agenda.

3.4.2 Decisions

Day-to-day decisions can be taken by a majority of 75% of the partners present or represented in the meeting. For major decisions, the Executive Board chairperson must inform the General Assembly for final approval.

3.5 Workpackage meetings

3.5.1 General

Technical meetings or video/audio conferences can be held as necessary. A Workpackage Chairperson can convene meetings of the Workpackage whenever required, giving members at least seven (7) calendar days notice and providing an agenda.

3.5.2 Decisions

Day-to-day decisions can be taken by a majority of 75% of the partners present or represented in the meeting. For major decisions, the Workpackage Chairperson should consult with the Executive Board Director for final approval.

3.6 Project Reviews

3.6.1 General

The European Commission controls the progress of the project by essentially three means:

- Annual Monitoring Reports;
- Deliverables;
- Project Reviews.

Project Reviews are normally one or two-day meetings held every 12 months, where the participants illustrate the status to the Project Officer and a number of independent Project Reviewers nominated by the Commission.

These meetings are the most important events in the project's life, for the following reasons:

- The Project Officer and the Project Reviewers usually do not have much time to dedicate to the project. For them, Project Reviews are the main events to evaluate the project.
- Project Reviews are the only occasion to present to the Project Officer and Reviewers results of the project and to discuss its progress.
- Project Reviews are real opportunities to demonstrate the cohesion of the consortium and the commitment of the partners to achieve project objectives.

As a consequence, Project Reviews should be paid special attention by all the partners.

3.6.2 Preparation

The following procedure is recommended for the preparation of Project Reviews:

- Approximately one to two months before the Review, the Project Director in consultation with the General Assembly will define the main objectives to be accomplished during the Review, and consequently assign roles to the partners, prepare a detailed agenda and ask partners to prepare their contributions;

- Once agreed, the agenda will be sent to the Project Officer and agreed with her;
- Approximately two weeks before the Review, all project deliverables for the time period concerned must be made available to the Reviewers. This will be done by granting access to them to the **SmartH2O** Administrative Wiki site;
- Also two weeks before the Review, all presentation material must be ready internally, so that everybody can check its consistency and the quality of the presentations, and choose the best approach. The Project Director and the Quality Manager will ensure the necessary quality checks are carried out.
- The day before the Review, a final rehearsal will be held for fine-tuning. Rules among the attending partners will be agreed (e.g. order of presentations, signals to warn that time is almost finished, etc.).

3.6.3 Logistics

In case that the review meeting is not held on EC premises, a detailed description of travel details (not just the address – but details of train, metro, taxi, schematic map of the meeting location, telephone number of someone in contact with the meeting coordinator) must be made available to the reviewers at least two weeks before the Review. This is to ensure that the Reviewers are not late or subject to any nervous irritation prior to the Review.

The location should be easy to access – DO NOT have Reviews in places that imply long and complicated travel arrangements. Too much time is lost and the Project Officer and the Project Reviewers will not appreciate it.

Ensure that the meeting has internet access, printing services and photocopy equipment available at the Review location.

The Project Director must liaise with the Project Officer for logistics information, checking that all the necessary information has been supplied.

3.6.4 Agenda of Review

The objective of a Project Review is to:

- Demonstrate project progress to the Project Officer and the Project Reviewers;
- Demonstrate achievements through presentations, demonstrations, etc.;
- Explain modifications to initial project objectives or planning to the Project Officer and the Project Reviewers.

The agenda must be organised accordingly, and have the following contents:

- Welcome,
- Introduction (by Project Director)
  - Presentation of the partners,
  - Presentation of project objectives,
  - Presentation of project organisation.
- Management summary:
  - Activities performed since last Review,
  - Dissemination efforts (publications, participation to conferences, press releases, contact with other Projects, etc.),
  - Industrial exploitation.
- Technical summary:
  - Major results achieved since last Review,
  - Modifications to the Workplan.
- Answer to questions, comments made by the Project Officer or Project Reviewers since last Review (when appropriate);
- Technical presentation of major results (presentation documents, demos, visit of laboratories, etc.);
- Conclusions and plans for the next period.

4. Quality Control Procedures for Communication

A complex international project needs clear and transparent communication between participants. Day-to-day communication and distribution of intermediate results will be carried out mainly by e-mail and file sharing via the project Wiki.

4.1 Public Website

Public information about **SmartH2O**, supporting external communication and dissemination purposes and targeted to the public at large, is available at the following URL: http://www.smartH2O-fp7.eu

This site will be kept updated and improved along the project lifetime, adding new content and functionality, under the responsibility of WP9 Communication and Dissemination.

4.2 Wiki

The Wiki is hosted at http://smarth2o.idsia.ch. It contains all the technical information about the project, designed to support online cooperation. Partners should use the Wiki to share information, upload intermediate versions of deliverables, and explain the work being carried out.

It is powered by TWiki™ (http://twiki.org/). Access is controlled by login and password, which are assigned and validated by the TWiki administrator Andrea Emilio Rizzoli <andrea@idsia.ch>

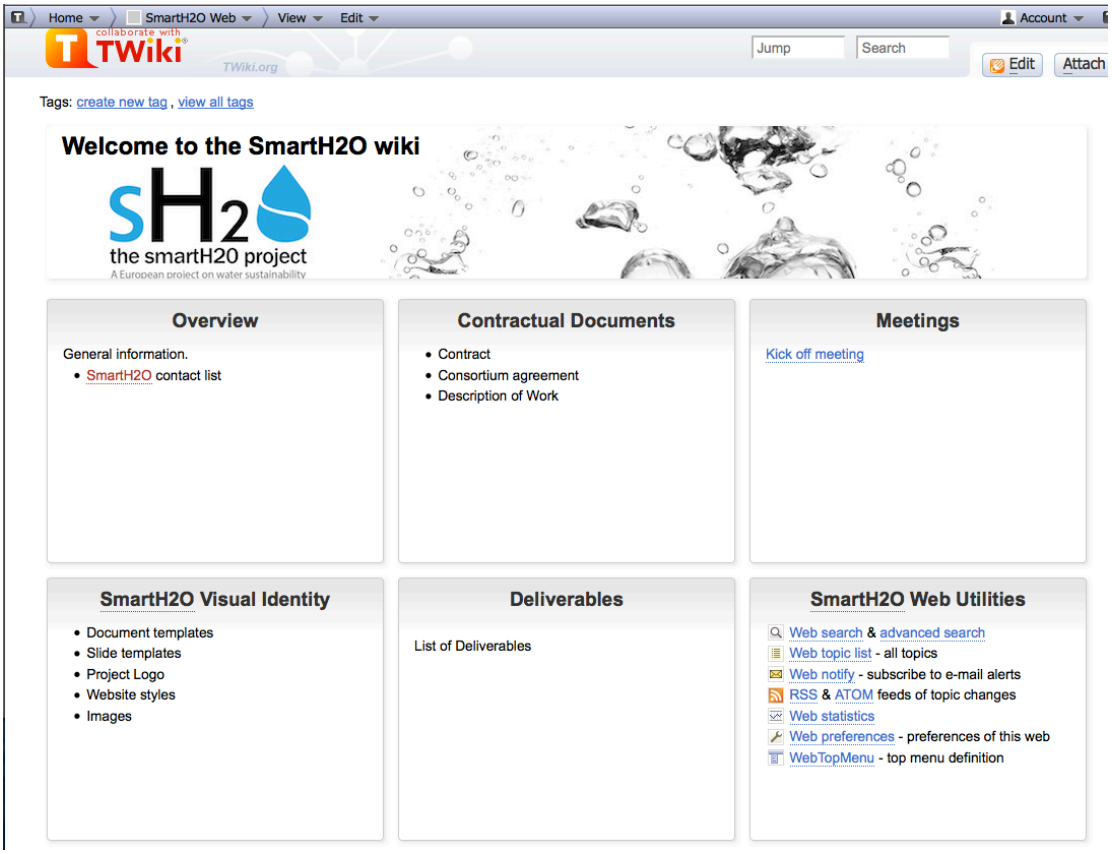
The Wiki also contains a structured repository of officially released documents, together with all contractual information, templates and so on.

Administrative Home Page

The Administration Area of the WIKI contains the following information that can be downloaded:

Useful information	Contact details of project participants
Contractual	Latest contractual documents.
Deliverables	Project deliverables and internal documents.
Useful Information	Useful information for the project: document template, cost statement forms, project logo, etc.
Reporting information	Periodic reporting forms

A snapshots of the **SmartH2O** Wiki is shown below:


Home
SmartH2O Web
View
Edit
Account
TWiki
Jump
Search
Edit
Attach
Tags: create new tag , view all tags
Welcome to the SmartH2O wiki
the smartH20 project
A European project on water sustainability
Overview
General information.
SmartH2O contact list
Contractual Documents
Contract
Consortium agreement
Description of Work
Meetings
Kick off meeting
SmartH2O Visual Identity
Document templates
Slide templates
Project Logo
Website styles
Images
Deliverables
List of Deliverables
SmartH2O Web Utilities
Web search & advanced search
Web topic list - all topics
Web notify - subscribe to e-mail alerts
RSS & ATOM feeds of topic changes
Web statistics
Web preferences - preferences of this web
WebTopMenu - top menu definition

4.3 Communication Tools

4.3.1 TWiki

As mentioned above, the WIKI is a shared area for the project partners.

4.3.2 Electronic Mail

Electronic Mail will be one of the major means used in the **SmartH2O** project to exchange information, while the main exchange of documents in electronic form over the Internet will be accomplished using the WIKI.

SmartH2O-specific mailing lists will be setup to advise the partners of the availability of new information, circulate agendas of meetings and events relative to the project. Usage of mailing lists is strongly recommended, and, as a self-discipline, the usage of person-to-person private emailing should be limited, so as to privilege visibility within the project to all people working in the project.

It is not recommended to send e-mails with attached documents to large mailing lists. It is more effective to post them on the WIKI and allow each participant to download them.

4.3.3 Skype

It is recommended that each participant use the Skype service for voice communications. This will allow the other project participants to “see” when a colleague is on-line and a quick check can be made to determine whether he/she is available for discussions, document exchange etc. The Skype client can be downloaded from www.skype.com. Skype allows to talk free over the Internet, and if a Webcam is available, to also do a free videoconference. Multi-conference audio calls can also easily be made.

4.3.4 Phone Conference Calls

Telephone conference calls are a powerful tool for organising short meetings. They can be set up with short notice, participants only need a plain telephone set to participate and do not need to spend time travelling.

The following principles should be respected for a successful teleconference meeting:

- The meeting should not exceed 6 to 8 participants,
- In the same way as for a physical meeting, the date, time, expected duration, agenda and name of participants should be communicated in advance, together with all required documents,
- All participants must make sure that they will not be disturbed during the teleconference meeting and that they join the meeting (i.e. dial the phone number) on time,
- Participants should start a spoken contribution by telling their name, the other participants cannot see the others and could have a doubt about who is speaking.

As with all other meetings, minutes must be produced by the meeting chairperson, and circulated to the other participants.

5. Quality Control Procedures for Deliverables

5.1 Foreword

Most deliverables in a collaborative project are written with contributions from several partners. In order to minimise the effort for handling such documents, it is important for all participants to follow agreed standards for formats and tools to be used in document editing and exchange.

This chapter specifically deals with the procedures for the release of official documents.

5.2 Deliverable Types: Reports

5.2.1 Standards

Tool :	**Name :**	**Editor :**	**Reference :**
Word Processing	MS WORD	Microsoft	Office 2007 or newer
Spreadsheet	MS EXCEL	Microsoft	Office 2007 or newer
Overhead slides	MS PowerPoint	Microsoft	Office 2007 or newer
Web publication	Acrobat	Adobe	Acrobat pdf V9.0
File compression	Winzip	Nico Mak	Winzip 12.0 or newer
Documents for the Wiki	Files can be uploaded to the WiKi whatever their format, however formally released deliverables and contractual information will always be zipped.		
WiKi pages	HTML or WiKi default language can be used in alternative		

5.2.2 Document codes

All document codes are assigned and maintained by the Quality Manager. Each document will be filed with a unique code, as follows:

sh2o_Tnm_AAA_WPx_Vz.k_(short_title)

where:

T	Type of document (D=Deliverable; I=Internal document; P=Presentation; M=Minutes);
nm	Sequential number (for Deliverables, the official deliverable code from the DoW, which is n=WP, m=deliverable sequence number)
AAA	Author (issuing company/entity), please use the abbreviations in the contract.
WPn	The Workpackage associated with the document;
Vz.k	The version number + sub-number (e.g. 1.0, 1.1, 3.0); draft versions of public documents will be 0.x versions

For example, the code sh2o_D1.1_SUPSI_WP1_V1.0_(mgmt_processes) indicates:

Deliverable D1.1, version 1.0, issued by partner SUPSI in relation to the Workpackage 1.

The Quality Manager will keep an up-to-date list of the documents produced.

The aim of these codes is to give clear access to the project documentation, both for internal purposes but also for external references.

5.2.3 Document versions

When a document is issued for the first time, it should be defined as a draft (version 0.x). Usually, the approval process requires that a document be circulated for comments among the interested partners. Upon receiving the comments by the specified deadline, the author will make the proper modifications, therefore changing the version sub-number, without affecting the main number.

Normally, the first official release of a document will be called V1.0 and this number will be assigned by the Quality Manager when he/she has approved the document. The main version number (the first figure before the ".") is increased by one unit only if a different version of the document is delivered to the Commission, or if major modifications have significantly altered the contents of the document. The editor must not forget to update the version number in all its occurrences in the document (File Properties and cover pages). Clearly, every care should be taken to avoid distributing different documents with the same version number.

Every time that modifications are made to a document, the new version must contain a clear indication of what has been added, modified or removed.

5.2.4 Assigning Document Codes

Deliverables

For deliverables, this is fairly straightforward. For example, this document is D11, prepared by SUPSI in workpackage 1, and it is a draft version. Its code is thus: sh2o.D11.SUPSI.WP1.V0.1

Minutes

For minutes of meetings, please request a code from the Quality Manager. The standard adopted will be to increase the "M number" by one, irrespective of the workpackage involved. Thus the minutes will be sh2o.M1.xxx.WP2, sh2o.M2.yyy.WP3, sh2o.M3.zzz.WP4 etc.

5.3 Editing Guidelines

5.3.1 Logo

The logo of the **SmartH2O** project is shown on the header of this page, and is available for downloading from the Web Site, under "Useful Information"., and is also included in all document templates (also available under "Useful Information").

5.3.2 Page formats

The following rules should be followed in the production of all official **SmartH2O** documents (Deliverables, Reports, etc.), and have also been used in the present document:

Document size and orientation	A4, portrait
Margins	Top: 4 Bottom: 2.5 Left: 3.2 Right: 3.2 Header 1.27: Footer: 1.5
Normal Font (for text)	Arial 10 pts (but titles use larger characters, as shown in this document)

5.3.3 Templates

Basic models for the production of official project documentation are available on the web site. They are Microsoft Word 2000 Templates:

SmartH2O.dot All **SmartH2O** deliverables must use this standard template. This will ensure that the "look and feel" of all deliverables follows the **SmartH2O** model. To create a new document, use right mouse and select "new", then "save as" "name.doc"

SmartH2O.3mr.dot For Three Monthly Management Reports

SmartH2O.minutes.dot For short minutes of meetings.

When using “SmartH2O.dot”, first select “File” “Properties” and compile the following information:

Title	Name of document (e.g. “Quality Plan”)
Subject	Tnnn Version z.k (e.g. D11 version 0.1)
Author	Name of author
Company	Name of organisation

The “Title” information will be included on the left hand side at the bottom of every page of the document, while the “Subject” will be shown on the right hand side at the bottom.

This same information should also be copied into the appropriate places on the First and Second pages of the document (see this Quality Plan by way of example).

5.3.4 Styles

A few basic styles have been defined in the editing of the present document. The different versions of Word in the different languages should automatically translate the basic styles (such as Normal, Heading 1 ..., etc.). Extra styles include styles for use in figure captions, table text and table titles, bullet lists and a few others. The styles for the Table of Contents are assigned automatically during the creation of the Table (command: Insert / Table of Contents). Specific styles are used in the cover sheet. In order to keep consistency across documents, the number of newly defined styles should be minimised.

Every time that part of a document is pasted into a second one, all the styles defined in the first document are automatically transferred into the second one. To avoid this (which results in an exponential growth of styles) this kind of operation should be carried out with great care. In particular:

1) Create new documents using the “SmartH2O.dot” template rather than modifying an existing document;
2) When possible, use the command *Edit-Paste Special* to paste text from an another file as non-formatted text;
3) Do not modify styles in a document.

The titles have been defined as they appear in this document. When using Word, chapter and paragraph titles should use the Heading styles, following the hierarchical structure, so that all the functions for automatic titling and numbering and for the creation of the table of contents can be easily applied.

5.3.5 PowerPoint presentations

A template for overhead transparencies has been defined in **SmartH2O.presentation.template.pot**

As a very general rule, presentations should not be long, each page should contain only a few items (avoiding verbose descriptions that can be made by the speaker). The fonts used in both text and graphics should be large enough for the audience to read, cryptic abbreviations should be avoided, the use of colour can improve readability.

5.4 Deliverables

5.4.1 Overview

Each deliverable has to be submitted to the EC, and preliminary approval obtained from the Project Officer. Final acceptance of deliverables can only happen in a review. If deliverables are not accepted, then payment of Financial Statements could be delayed. It is thus in the interests of all concerned that deliverables be produced to a high quality and in the required format.

The **SmartH2O** Deliverables are strictly tied to the breakdown into Work Packages that constitutes the structure of the project. Deliverables are generally technical documents and have an essential importance for the Commission's appraisal of how the project is evolving, since they are written reports in which results produced during the project are collected and analysed.

5.4.2 Deliverable production

Each deliverable tackles a specific subject, and must have a "Deliverable Manager" who will coordinate the production of the document, interacting as necessary with the other partners involved. Unless agreed otherwise among the partners involved, the Deliverable Manager is normally a person working for the consortium partner that is responsible for the deliverable according to the DoW.

Before starting on its production, the Deliverable Manager will define the document structure and the contributions expected from each partner in a preliminary document named DDP (Deliverable Development Plan) and will propose the calendar for the meetings he/she may consider necessary for the development of the deliverable. The contents of the DDP must be agreed with the Quality Manager and finalised at least 45 days before the contractual date of the deliverable.

Then the deliverable will be produced. The Deliverable Manager will merge all contributions into a single document following as much as possible the structure defined in the DDP. This first draft will then be circulated and asked for comments. Each partner will check its consistency with the plans and give their feedback and approval.

This iterative procedure will be repeated as necessary, until all involved partners give approval. The Deliverable Manager will then prepare a final draft, which will be sent to the Quality Manager at least 15 days before the contractual date. The Quality Manager will not normally enter into the technical merits of the deliverable, but will essentially ensure that it is of sufficient quality to be sent to the Commission. He/she will also format it correctly and make sure all the naming conventions have been followed. Further iterations could take place, then the deliverable will be provided to the Governing Board for final approval. The Coordinator will finally send the requested number of copies to the Commission.

The diagram in the next page summarises the procedure to be followed for the preparation of deliverables.

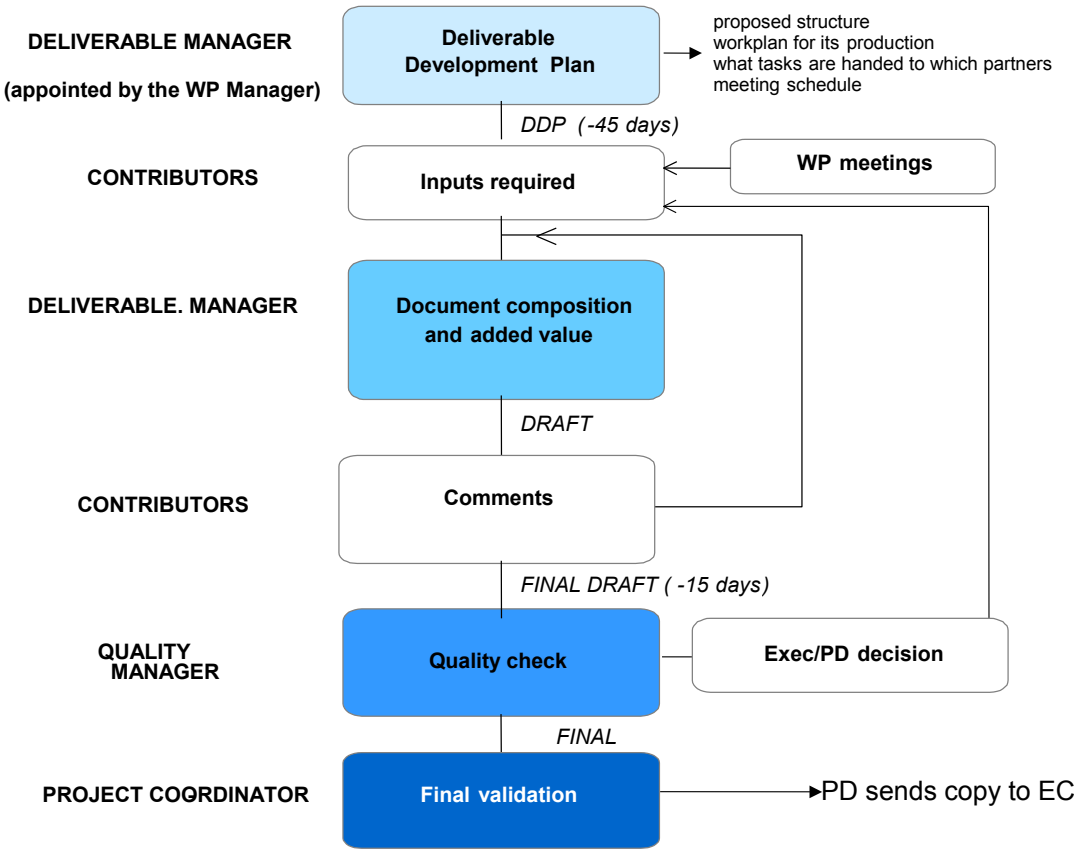


Figure 5-1: SmartH2O Deliverable production process

5.4.3 Deliverable Development Plan (DDP)

The DDP is issued by the Deliverable Manager in order to clarify the main objectives of the Deliverable and to assign the different contributors with specific tasks in the report. It should be agreed with the Quality Manager at least 45 days before the due contractual date of the deliverable. The DDP must sketch the structure of the future Deliverable, and therefore contain a clear indication of:

- Person responsible for the deliverable (Deliverable Manager)
- Table of Contents
- Persons in charge of each chapter/section
- A timetable for the deliverable development, setting deadlines at least for:
    1. Submission of contributions
    2. Production of the first draft (version 0.1)
    3. Internal review (partners' comments)
    4. Production of further versions of the draft (versions 0.x)
    5. Delivery to the Quality Manager.

6. Quality Control procedures for Reporting

All reports (scientific and financial) have to be submitted via the Participant Portal: http://ec.europa.eu/research/participants/portal/.

6.1 Contractual Obligations - Management Reports

SmartH2O is ruled by 3 **Reporting Periods**:

Reporting Period 1	From M1 to M12
Reporting Period 2	From M13 to M24
Reporting Period 3	From M25 to M36

Contractual obligations imply that within 45 days of the end of each reporting period (including the last reporting period) a **periodic report** should be submitted to the Commission, organised by sections as follows:

- An **overview,** including a publishable summary of the progress of work towards the objectives of the project, including achievements and attainment of any milestones and deliverables identified in Annex I. This report should include the differences between work expected to be carried out in accordance with Annex I and that actually carried out,
- An explanation of the **use of the resources**
- A **Financial Statement** (Form C – Annex VI to the Grant Agreement) from each beneficiary and each third party, if applicable, together with a summary financial report consolidating the claimed Community contribution of all the beneficiaries (and third parties) in an aggregate form, based on the information provided in Form C by each beneficiary.
- Financial statements should be accompanied by **certificates**, when this is appropriate (see Article II.4.4 of the Grant Agreement).

The financial reports will be submitted via the Participant Portal but paper versions signed by the authorised person have still to be sent by regular mail.

6.2 Internal Quality procedure

To support the efficiency and quality of this Periodic reporting process, an internal reporting procedure is set up in SmartH2O to occur **quarterly** at the project level, and monthly at the workpackage level**.**

This procedure foresees:

- **Monthly Status Reports and Plans** to be issued by WP Leaders. Each WP should also keep the Wiki up to date with the latest work done
- **Quarterly Progress Reports** to be compiled by each partner

Prerequisites for this process are:

- All participants to keep timesheet records of who is involved in the **SmartH2O** project. These can follow the normal practice of the partner concerned, but must track, month for month, who worked on what part of the project. The information stored should be at workpackage level for every person concerned.
- For travel costs, again the normal practices of the organisation concerned can be used. Thus if itemised travel costs are normally kept, then the total cost of the travel for

each person involved should be reported in the management reports. If, on the other hand, a default daily reimbursement is used (irrespective of the real costs involved), then these default values can be reported again for every person involved. Please note that all travel costs must be specified per partner for every person who travelled. Please do not group travel costs together – they must be specific costs per person. Also, receipts must be kept, as the EC may want to see them.

6.2.1 Monthly Status Reports

Each Workpackage Chairperson should keep the management updated with regular short **monthly reports**, concerning the status of his/her workpackage. This will typically not be more than half a page, and briefly describe the progress that has been made, and any problems that have arisen. The report should also outline the major items in the workplan that the workpackage will be working on during the coming month.

Following reception of the reports, the Project Director will send within one week a Status report to the Executive Board, which will thus be continuously informed concerning the progress of the project and any arising problems.

6.2.2 Quarterly Progress and Resource Reports

Every four months, a progress report and an update of spent resource must be prepared and each partner must provide the necessary information.

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Guidelines to fill in the progress reports

Every four months the WP leaders collect inputs from partners collaborating in the WP they lead by means of the template titled:

`Smarth2o_progress_report_yearX_quarterY.doc`

Which is available on the wiki under the “Reporting” section

The document is structured as follows:

TASK X.Y

1.1 OVERALL STATUS OF THE TASK

1.2 ACTIVITIES OF <PARTNER NAME>

1.2.1 Work performed and achievements

1.2.2 Deviations from plan

1.2.3 Meetings

For each task in the workpackage, the WP leader prepares a summary of the task status and progress and outlines the main activities for the next quarter (section 1.1). Then the reports of each partner are added. Each partner must report on the work done, on possible deviations from plan, and on the meetings they have attended. The reported activities must be linked to the deliverables.

Guidelines to fill in the resource reports

Resource reports will be entered every four months by each partner using the spreadsheet titled :

`Smarth2o_resource_report_yearX.xls`

which is available on the wiki under the “Reporting” section.

The spreadsheet is organised in the following areas:

- Workpackage resource use table (table 6-1)

- Budget summary table (table 6-2)
- Yearly expenditure summary (table 6-3)
- Yearly resource summary (table 6-4)

Table 6-1 Workpackage resource use table

WP2	Deliverable	m1-m4	m5-m8	m9-m12	Allocated (total)	Remaining
D2.1	Requirements early version (m8)				0.00	0.00
D2.2	Requirements final (m12)				1.00	1.00
D2.3	Functional specifications (m18)				1.00	1.00

Table 6-2 Workpackage budget summary

Budget summary	
Man months	29.00
Personnel	101500
Travel	9000
Equipment	5000
Consumables	0
Other direct costs	0

Table 6-3 Workpackage yearly expenditure summary, aggregated per type

	Year 1 Expenditures				
	m1-m4	m5-m8	m9-m12	Allocated (total)	Remaining
Personnel				35875	35875
Travel				3181	3181
Equipment				1767	1767
Consumables				0	0
Other direct costs				0	0
Total				40823	40823

Table 6-4 Workpackage yearly resource usage summary, aggregated per workpackage

	Year 1 Resource summary				
	m1-m4	m5-m8	m9-m12	Allocated (total)	Remaining
WP1	0	0	0	**0.25**	0.25
WP2	0	0	0	**1.00**	1.00

WP3	0	0	0	**0.00**	0.00
WP4	0	0	0	**4.00**	4.00
WP5	0	0	0	**0.00**	0.00
WP6	0	0	0	**2.00**	2.00
WP7	0	0	0	**0.00**	0.00
WP8	0	0	0	**1.50**	1.50
WP9	0	0	0	**1.50**	1.50
Total year 1	**0**	**0**	**0**	**10.25**	**10.25**

6.3 Annual Technical Report

At the end of every reporting period, SUPSI will prepare the project Annual Technical Report, based on the progress reports described in Section 6.2.2 above. It will contain the following summary information:

- Major achievements during the reporting period;
- Major problems identified;
- Deviations from the project plan;
- Resources used during the period.

SUPSI will be in charge of preparing this and will ask each partner for any additional contributions. This report will summarise the major achievements to date, any critical issues, the expected organisation for the remaining months of the project. It will include also a critical self-evaluation.

6.4 Annual Financial Report

At the end of every reporting period, SUPSI will prepare a consolidated overview of the budgetary situation of the project, on the basis of the cost statements he has received from the partners. This report will be submitted to the Commission. The payments that have been made will also be reported. The budgetary situation will be compared with the original annual budget plan.

6.5 Problem Management

6.5.1 Introduction

The guidelines provided in Section 3 – Quality Control Procedures for Meetings describe the procedures to be followed during meetings, and the decision-making mechanisms.

Most decisions will be taken to help move the project forward and will correspond to specific tasks in the Description of Work. Other actions will need to be taken, typically those by the Governing Board, to ensure that the partners respect their contractual agreements. If for any reason, a partner is not performing at the expected level, this will need to be managed.

6.5.2 Problems identified by a partner

At any time during the execution of the project, a partner may perceive a problem and raise it to a higher authority so that appropriate action can be identified and implemented.

If the problem is technical and relative to a particular workpackage, the procedure to be adopted should first be to flag the problem to the workpackage Leader. Depending on the seriousness of the situation, the workpackage leader may also decide to involve the appropriate Executive Board chairperson, who could as necessary raise the matter at an

General Assembly meeting.

The General Assembly has the ultimate authority to solve the problem.

6.5.3 Problems concerning the performance of a partner

A more serious issue concerns when a partner is not performing its technical tasks satisfactorily. This will most likely first be raised by the workpackage Leader involved, and reported to the Executive Board chairperson who may raise the issue with the General Assembly.

The first actions to be taken will be direct discussions with the partner concerned to correct the inadequacies. If these do not lead to a satisfactory conclusion, the General Assembly will meet to decide on action. Possible sanctions concern:

- To suspend the next payment from the Commission, be it part of a previous advance that had been partially paid, or the next phase advance payment
- To decide to move part of the outstanding work from the partner concerned to another partner in the same workpackage, with a subsequent transfer of budget
- To request the partner to leave the consortium.

Similar actions could also result if the reporting provided by the partner is considered to be unsatisfactory. A short time to correct the reporting will be allowed, before more severe sanctions are considered by the General Assembly.

6.5.4 Problems concerning the financial stability of a partner

The consortium has joint technical and financial liability concerning the project. If serious concerns regarding the financial soundness of a partner exist, or a partner is increasingly going into debt, or if the financial situation of the partner changes in a substantially negative way, there is an obligation on the partner to report this to the Project Director.

The Project Director will liaise with SUPSI to prepare an assessment of the risk to the project, which will then be discussed with the full General Assembly. First, a complete assessment of the work satisfactorily completed by the partner will be carried out, and, based on the progress reports to date and the advance payments received by the partner, a calculation will be made of the credit or debit of the partner to the EC. Then a direct discussion with the partner concerned will determine the capacity of the partner to carry out the contractual work in the next period.

This will allow the General Assembly to evaluate the risk to the project, both financial and technical. Concerning the financial risk, an evaluation will be made of the risk of providing the next advance payment to the partner. In any case, at this stage an audit certificate for the work done to the date will most likely be requested of the partner.

In moderately serious cases, the next advance payment will be suspended until the next six months work is completed. Then the partner will be requested to provide an audit certificate for the period involved, and the General Assembly will decide whether to pay the costs sustained by the partner. This is again a risk assessment activity, as the General Assembly will be assessing whether the EC will accept the partner's declared costs in the next Cost Statement.

6.5.5 Change Management

Any modifications that may be required in the workplan must be promptly reported to the Project Management. Requests for modification could come from a particular workpackage: in this case the Workpackage Leader should report the situation to the Project Director Director, who will discuss the issue with the General Assembly.

Other instances of change could occur based on general project assessments, carried out as part of the normal management. If the workplan needs to be changed, the Project Director will need to discuss this with the EC. If a Review is imminent, it may be more practical to present the revised situation to the Reviewers, who can then recommend the change as an outcome of the Review.

6.6 Financial Management

6.6.1 Coordinator Responsibility

Overall financial management of the project is under the responsibility of the Coordinator, whose responsibilities are to:

- Receive the entire financial contribution from the Commission, and allocate it to the Contractors pursuant to the Workplan and the decisions taken by the General Assembly;
- Prepare annual accounts to keep track of the distribution of funds among the Contractors;
- Provide overall administrative and financial management of the coordination;
- Keep track of budgets.

6.6.2 Management of funding contribution from the Commission

In accordance with the Consortium Agreement, the Coordinator SUPSI has opened a separate bank account to manage the "Community Financial Contribution". The advance payment from the Commission will be distributed to the partners based on decisions taken by the General Assembly and on the progress of the project. Providing that the work is carried out satisfactorily, these advance payments will allow each partner to cover its costs in advance.

Following the submission of the Financial Statements at the end of the first Reporting Period, the Commission will provide a second advance payment, up to 80% of the total project funding. The final 20% will only be available after the project successfully concludes and the final Financial Statements have been approved.

6.6.3 Partner Responsibility

Each partner in **SmartH2O** is responsible for ensuring that it has all the necessary financial and technical resources to carry out the activities it has contracted to do.

As explained above in section 6.6.2, at the start of the project, each partner will receive an advance payment from the Commission, and further payments will be made periodically.

The 4-monthly progress reports mentioned earlier in section 6.2.2, together with partner timesheets and expense reports, form the basis for compiling the Financial Statement. Any data reported in previous 4-monthly reports that needs to be corrected must be done so in a period up to and including the period specified by the Financial Statement. That is, the sum of the data in 4-monthly reports for the 12-month period must be exactly the same as that reported in the Financial Statement. Any differences, however small, will lead to the Commission refusing the Financial Statement.

6.6.4 Audit Certificates

In line with the Consortium Agreement and the Contract, an audit certificate may be required with the Financial Statement. This will be discussed at the appropriate time. In certain circumstances, the Governing Board can also require a partner to provide an intermediate audit certificate before the next stage of advance payment will be provided. Guidelines for preparing audits will be included on the **SmartH2O** Wiki, under "Useful Information".